

**THE CLASSIFIED ENCYCLOPEDIA
OF CHESS VARIANTS**

I once read a story about the discovery of a strange tribe somewhere in the Amazon basin. An eminent anthropologist recalls that there was some evidence that a space ship from Mars had landed in the area a millenium or two earlier. 'Good heavens,' exclaims the narrator, are you suggesting that this tribe are the descendants of Martians?' 'Certainly not,' snaps the learned man, 'they are the original Earth-people — it is we who are the Martians.'

Reflect that chess is but an imperfect variant of a game that was itself a variant of a germinal game whose origins lie somewhere in the darkness of time.

**The Classified
Encyclopedia of
Chess Variants**

D. B. Pritchard

The second edition of
The Encyclopedia of Chess Variants
completed and edited by John Beasley

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Introduction to the second edition

David Pritchard died in December 2005 leaving the intended second edition of this book unfinished, and almost the first act of his widow Elaine was to ask me to complete it. It would have been the culmination of a major part of his life's work, and I was very happy to accept the commission.

Let me stress that my role has merely been to complete an existing text and prepare it for the press. I have not been a co-author, let alone an independent reviser. The choice of games to be included is almost entirely David's; he had sent me a list in June 2004 of the games he intended to add to the first edition, and apart from a few related games which I have mentioned in passing, a game not on that list is included only if there is clear subsequent evidence that he had intended to add it. The research was David's, and the text is David's except where I have indicated otherwise. However, in order to make room for the new material, David had intended to omit some 200 apparently little-played games which were in the first edition, and it seemed to me that most of these should be retained if only to demonstrate priority should they be reinvented. I have therefore reinstated them, except where they were clearly unplayable (a few of the 'variants' described in the first edition were merely conditions invented to govern or restrict play in problems) or where there was some other specific reason for their removal.

So, what did David regard as a chess variant? The chief feature which divides chess from other games is that the objective is to capture or destroy the opponent's king, as opposed to wiping out all his men, or otherwise leaving him without a move, or occupying his home territory, or beating him in a race, or scoring more points according to some scale, or whatever. However, to restrict ourselves to games with this objective would exclude Losing Chess, which is one of the most widely played chess variants of all, and David preferred to define a chess variant as any game that was related to, derived from, or inspired by chess. This resulted in the inclusion of one or two games which strike me as not being chess in even the remotest sense (I suspect that David included them because he thought they were good games which deserved the publicity), but most of the games fall into one of three classes: (a) true 'chess' games in the classic sense, where the capture of the enemy king is indeed the sole or primary objective of play, (b) other games played with ordinary chessmen, and (c) a few further games having the word 'chess' in their titles, which must be mentioned if only to point out that their claim to the term may not be justified.

And not every game which is technically a chess variant even within the strictest sense of the term can properly claim a place here. David's basic criterion in 1994, a few light-hearted entries apart, was that a game must have been published in some form, or at least have been played by a significant number of people outside the inventor's circle of family and friends. The advent of the Internet has meant that 'publication' can now be achieved by making a few strokes on a computer keyboard and posting the result on a web site, so the first condition is no longer a constraint, and for this edition David felt obliged to be rather more selective. Anyone can invent a chess variant, and vast numbers of people have done so: 'the board looks like such-and-such, the men move like so-and-so and so-and-so and so-and-so, the object is to capture the king'. The result is too often original only in its eccentricity, and adds nothing of value to what already exists. In the new edition, therefore, David added or intended to add a game only if there was evidence that significant numbers of people were playing it, or if it appeared to offer something genuinely new rather than mere complication or superficial novelty.

A particular difficulty is presented by problems. Chess has generated a substantial and highly specialized problem literature, and this has come to embody a vast number of variant ideas and conditions; the 1992 edition of Kurt Smulders's book *Sprookjesschach* listed over 1100, and an equivalent book produced today would contain many more. But not many of these have been tried as games, and most would be pointless or unplayable. David included a few of the latter in

the first edition, but in his selection for the new edition he restricted himself to variants which appeared to have a role as complete games.

Wherever possible, games have been described in such detail as will allow them to be played (making the necessary equipment is normally not difficult), but there are inevitable exceptions. Some games (particularly games conceived as sets or families) are too complicated for brief exposition, and the only option is to give an outline and cite a reference where full detail can be found. Some information, in particular that relating to proprietary games, is subject to copyright or other restriction, and David was not always given permission to reprint it in full. There are also a few games which demand inclusion for historical reasons but whose details have been largely or completely lost. But in general, if a game appears here, you can sit down with a friend, knock up a set from some conveniently available material, and play it; and I hope you will enjoy doing so.

So much for the content of the book. Let me now say a little about the editing.

The main change from the first edition is in the ordering of material. David brought together a few types of game into single combined entries (hexagonal games, spherical games, three-dimensional games, three-handed and four-handed games), but in general he listed the games in alphabetical order based on the name or names by which he knew them, with cross-references to related games at the end of each entry. In the second edition, he had intended to add a simple classification by type, but the basic alphabetical order of the first edition would have been retained. However, my first action on receiving the text was to chop up a copy and divide it into piles each containing games of a similar nature, and it soon became clear that it would be quicker to present the games so grouped and provide an alphabetical index than to spend time checking and updating lists of cross-references. For example, there turned out to be over 30 games based on the simple idea of adding knight power to one or more of queen, rook, and bishop. These now appear in chronological order as ‘Pieces with added knight movement’ within a chapter ‘Combination pieces’, and an incidental consequence is that the extent to which this simple idea has been invented and reinvented over four hundred years has become obvious. Not every case is as clear-cut as this and no doubt reviewers will be quick to say that they would have put such-and-such a game into such-and-such a section and not where I have put it myself, but I hope readers will find the grouping generally helpful. A few important entries (for example, David’s observations on variant design) fell outside this classification, and these have been placed in an appendix.

The artwork used for the first edition could not be found. To have redrawn everything would have prevented me from achieving anything near to David’s intended publication date, and scanning a copy of the first edition would not have produced new masters of adequate quality. I therefore reconsidered all the illustrations, excluded those that seemed merely decorative or related to games of relatively little interest, and prepared the rest in a simple and straightforward style (an incidental benefit has been to give the ancient ‘firzan’ and ‘fil’ their own symbols, instead of the modern queen and bishop symbols which are so often substituted.) The decision to do this was made easier by the realisation that what would have been the most complicated diagrams to recreate tended to belong to the least satisfactory games; complexity and playability do not usually go hand in hand.

I also reconsidered the examples of play. I made the assumption that most purchasers of this new edition would already possess the first and would not want to receive the same examples again, so an example from the first edition has been retained only if it appeared unusually piquant or instructive. In choosing new and replacement examples, I decided normally to restrict myself to one simple example per variant (a few particularly popular variants have more), and I tried to pick something which would illustrate its nature as pointedly as possible. The exploitation of a plausible blunder in the opening may be both instructive and entertaining, whereas a full-length master game in an unfamiliar variant, even where one exists, is all too likely to result only in glazed incomprehension.

Most of David's entries had references to his sources within the text and where they didn't I have added one, so the authority on which every entry relies is now clear. I assume that even general readers will find this of interest - specialists wanting to carry on from where David left off certainly will - and if a particular source should be found unreliable the integrity of the rest of the book will not be compromised. I should perhaps stress that I have merely taken these references from the notes in David's files, and have not necessarily examined the source material myself. Books are normally identified by author and title, periodicals by title only, but authors whose work is referred to frequently are cited only by name (Cazaux, Faidutti, Falkener, Forbes, Gizycki, Gollon, Murray, Stone, van der Linde, Verney) and the titles of the relevant books will be found in the section 'Notes on principal sources'. An author cited more frequently than any other is Joseph Boyer, but he wrote two books and a pamphlet (*Les Jeux d'Echecs Non-orthodoxes*, *Nouveaux Jeux d'Echecs Non-orthodoxes*, *Nouveaux Jeux d'Echecs Intéressants*) and these are normally cited individually by title.

My last editorial change caused me the greatest heart-searching. David was a deeply courteous man to whom acknowledgement of title and qualification was instinctive and automatic, and he carefully put 'Dr' or 'Professor' before every name where he knew the entitlement to exist. But not every player and inventor of variant chess games wishes to advertise the fact that he is a professor of higher mathematics in his spare time, and it is invidious when Professor X is given his title every time his name appears and Professor Y is never given it at all. I have retained David's style in his acknowledgements, but in the body of the book I have taken it on myself to apply the style of the scientific research literature, where names appear without academic prefixes however honorific and well-deserved these might be. Logically, I should have done the same with non-academic titles, but a few are so much a part of the name - Dunsany and Rutland are examples - that to have done so would have created confusion. So the non-academic titles have been kept, though with regret; the man who really deserves a title never needs to use it, because his name carries sufficient lustre on its own.

All this routine editing has been done silently. The changes of substance are a different matter. Normally, when a friend or admirer finishes an author's work he tries to do so in such a way that the change of hand is imperceptible, but David's knowledge of the field was far wider than mine will ever be, and I think it important that the reader can see at a glance which parts of the book rest on his authority and which rest merely on mine. I have therefore adopted the convention that anything in square brackets [...] is mine, and where I have written an entry or made a significant change to its content there is a note saying so. David left some 25-30 entries unwritten and perhaps twice as many again were only in embryonic form and needed to be filled out, and there were a handful of cases where I knew something about a game from personal experience that apparently had not come to his notice. I also found a few places where he had apparently been misled by errors in his sources, and I have identified these and have made such comment and alteration as seemed appropriate. But these alterations have been openly declared, and if future generations should decide that the error in fact lay with myself then so be it.

David stood head and shoulders above anyone else in this field, and the second edition of this encyclopedia has been eagerly awaited. I hope I have done it justice.

Author's acknowledgments

Space will not permit proper credit of all those whose help, often generous, I received in putting this book together. It would be invidious to declare a master class but a greater sin would be not to acknowledge the constant help and support, beyond reasonable expectation, of Peter Blommers, Michel Boutin, Alessandro Castelli, Philip Cohen, Dan Glimne, Michael Keller, Eduard Riekstins and Edward Winter. This is not in anyway to diminish the valued assistance received from a host of people, several now sadly no longer with us, who kindly took time and trouble to provide me with information. I here express my appreciation to: Manual Aaron, Robert Abbott, Steve Addison, Viktor Afanasyev, Porter Arbogast, John Ball, Warren Ball, Richard Ballam, Leonard Barden, Erich Bartel, John Beasley, R. C. Bell, Dr Vladimir Belov, Donald Benge, Pierre Berloquin, Martin Blaine, Steve Boniface, John Bosley, Richard Bozulich, Tom Braunlich, Tom Brown, Josef Cacek, Grev Corbett, Jochen Corts, Wanda Dakin, George Dekle Sr, Patrick Donovan, Prof Thomas Drucker, Alex Dunne, Marco Fabbri, Bruno Faidutti, Richard Fireman, Mike Fox, Christiaan Freeling, Friends of St Albans Abbey, Fred Galvin, Vaclav Gamer, Martin Gardner, Tony Gardner, E. Y. Gik, Jerzy Gizycki, Wladislaw Glinski, Julian Grafa, Piero Grandese, Dr William Groman, K. G. P. Gunnell, Prof Vladimir Gurvich, Bill Hartston, George Hodges, Phil Holland, Malcolm Horne, David Howe, Robert Hübner, Fiona Idda, Randolph Jackson, Stephen Jackson, Michael Jameson, George Jelliss, Prince Joli Kansil, Neil Karl, Ray Keene, U. Khin, Ronald Kirkpatrick, Imre König, C. K. Lai, Paul Lamford, Max Lawrence, Mario Leoncini, C. G. Lewin, Fabrice Liardet, Isaak Linder, Dr Cedric Lytton, Roberto Magari, Pierre Marechal, Koichi Maskawa, John McCallion, Patrick McGuckin, M. Meirovitz, Egbert Meissenburg, Clifford North Merry, M. Miodonski, Manfred Mittlebach, David Moeser, Jonathan Moody, Steve Nichols, Paul Novak, Kiyoshi Ohnogi, Dale Oldfield, V. D. Pandit, Dr Richard Pankhurst, Alan Parr, Peter Parton, Werner Pohl, Sonny Polasit, Dr Vladimir Pribylinec, Alex Randolph, R. Ravi-Sekhar, Ian Richardson, Francis Roads, Timothy Rogalski, John Roycroft, Sid Sackson, Lothar Schmid, R. Wayne Schmittberger, Col. G. L. Sickerman, Sam Sloan, Peter Smith, Adam Sobey, Dr Eric Solomon, M. Sosnovsky, Stephen Stockman, Jed Stone, R. Teschner, Edgar Thermer, Prof Mitchell Thomashow, Anneke Treep, Dr Chris Tylor, Paul Valois, R. G. Wade, W. G. Wade, C. W. Warburton, Prof L. Weisinger, Bengt Wennerberg, Tom Werneck, Ken Whyld, Ulrike Wolz, David Woo, B. H. Wood, Iain Wood, David Wurman, Arthur Yasper, Paul Yearout, Sergei Zubkov and all those inventors who me with supplied information and answered questions about their games.

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And to Sue for assistance in just about every way possible, with a great deal of moral support thrown in.

WARNING

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Part 1

Games using an ordinary board and men

[In this first part, the games use an 8x8 board and an ordinary set of chessmen. We shall allow ourselves occasional liberties and extensions, but in general the men will retain their usual powers and nature throughout the game. A knowledge of the ordinary game of chess is assumed (David called it 'ortho chess' when he needed to be specific), and its rules are always to be assumed unless the contrary is stated.]

Chapter 1

Two or more moves at a time

[In a normal game of chess, White and Black move alternately. In the games in this chapter, this principle is abandoned, and a player can or must make more than one move at a turn. Games of this kind have proved extremely popular. Marseillais Chess, Double-Move Chess, Triplets, and Progressive Chess have all been played in high-level tournaments as well as casually among friends, and the last is among the most widely practised of all chess variants.]

1.1 Two moves at a turn, intermediate check observed

[There are two distinct kinds of two-moves-at-a-turn games: those in which intermediate checks are observed (a player must get out of check on the first move of his turn, and if he himself gives check on his first move he forfeits his second), and those in which intermediate checks are ignored and play ends with the physical capture of the opposing king (so a player can attack his opponent's king with his first move and capture it with his second, and he may be able to use his own king to capture an apparently guarded man, making the capture on his first move and retreating to safety on his second). Both kinds are frequently referred to as 'Double-Move Chess', which is unfortunate since their natures are very different. The present section covers games of the first kind; games of the second kind are considered in the next.]

Marseillais Chess (sometimes spelt incorrectly with a final 'e'). Origins clouded. Commonly ascribed to Albert Fortis, a sometime resident of Marseilles, in collaboration with another expatriate in the same city, the Norwegian I. Rossow, c. 1922, the rules were first published in *Le Soleil*, a local newspaper, in 1925. A better claim for invention would appear to lie with Franzose Jehan de Queylar who is said to have formulated the rules sometime during World War I (*Funkschach* 1926) but the credit for popularizing the variant undoubtedly belongs to Fortis. Each player in turn makes two consecutive moves either with the same man or with different men. If check is given on the first move, this ends the turn. A player must get out of check on the first move of a turn. A king cannot move into check and out again. En passant is legal if the opponent moved a pawn two squares on either of his moves but the capture must be made at once. However, if the opponent made two two-square pawn moves, both pawns can be taken e.p. This last rule is credited to Alekhine by F. Palatz in an article on the subject (*L'Echiquier*, September 1928). Stalemate can occur if a player can only make one move but not a second. The game was sometimes played with alternative

rules: a check on the first move was illegal and a player could not capture e.p. if the pawn had been moved in the first part of his opponent's turn.

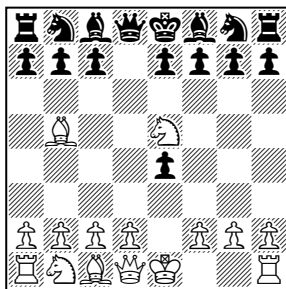
Marseillais Chess soon became fashionable. The first tournament took place in Paris in 1926 with another strong event in Hamburg the following year. The roll of well-known players associated with the game at the time is a long one, and includes Alekhine, Réti, Znosko-Borovsky and Chéron. Madame Léon-Martin was an enthusiast who, at a gathering in Mme Alekhine's salon, humiliated Réti and only lost by a hair to Alekhine himself (regrettably, neither game has been preserved). Interest then dissolved and was not revived until the 1950s. This revival was spearheaded by Boyer, Klüver and others, and E. T. O. Slater ran a number of correspondence tourneys. AISE took up the game in the late 1970s and ran regular tournaments. The Italian analysts, and particularly Alessandro Castelli, made big advances in the theory of the game, including an extensive study of the openings. Marseillais Chess was the choice of the Italy I team in the 1st Heterochess Olympiad.

Marseillais Chess as originally formulated turned out to be a markedly unequal game, and Castelli believed that both 1 e4/Nf3 and 1 d4/

Nf3 led to theoretical wins for White. In the 1950s, Robert Bruce made a major contribution with a minor modification to produce **Balanced Marseillais Chess** (*Nouveaux Jeux d'Échecs Intéressants*). In this version, the first player starts with a single move, thereby neutralizing White's advantage. This form was quickly adopted by NOST and was taken up by AISE in 1990, and has now completely replaced the original game among expert players. In Castelli's 1996 book *Scacchi Marsigliesi*, the lengthy section on opening play relates solely to Balanced Marseillais, and the original form is effectively relegated to the status of a historical footnote.

Marseillais Chess has been among the more deeply analysed of chess variants, and *Scacchi Marsigliesi* contains extensive sections on middlegame and endgame play in addition to that on openings. The following examples illustrate some of the game's tactics.

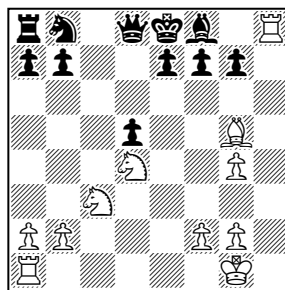
Classical Marseillais, given by Castelli. 1 Nf3/e4 (Castelli believed that this led to a forced win) d5/dxe4?? (and this certainly loses) 2 Ne5/Bb5+ :



A typical double attack against an unobservant opponent. Black is faced with both a check and a two-move threat to take the queen, and he is in deep trouble. His only hope is 2...c6/Qc7 (if instead 2...Bd7/Qc8 then 3 Nxd7/Nb6+ wins material), but 3 Qf3/Qxf7+ adds to the pressure, and if he tries 3...Kd8/Qxe5 to rid himself of one tormentor White has 4 d4/Qxf8+ winning the queen another way.

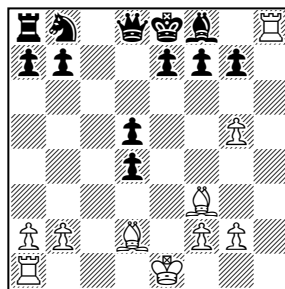
Balanced Marseillais, two queen-sacrifice wins by Michele de Giglio reported in *Eteroscaccco* 86-88. Both started 1 d4 Nf6/d5 2 Nc3/Nf3 (sensible and standard opening moves for both sides) Bf5/Ng4 (threatening to win the queen) 3 h3/hxg4 (playing to get R+N in return) Bxc2/Bxd1 4 Rxh7/Rxh8, and the

first game continued 4...Bxe2/Bxf1 5 Kxf1/Kg1! (getting the king out of the way and so giving Black less scope - if he plays say Be3 instead of Kg1, Black can bring his queen into play by 5...Qd6/Qa6+ since the need to get out of check will prevent White from playing Rh6/Rxa6) c5/cxd4?? (this merely makes d4 available to a White knight) 6 Nxd4/Bg5 :



White still has his R+N for the Q, and his pieces are buzzing around like angry hornets. Black now blundered, playing Qd7/f6 to save the queen and overlooking that this let in a mate by Ne6/Rxf8, but he was lost anyway.

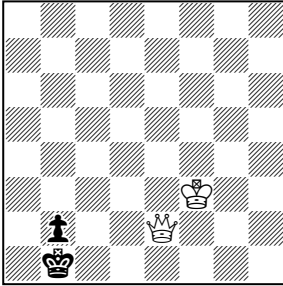
In the second game, Black tried 4...Bxe2/Bxf3 taking off one of White's knights, and after 5 Be2/Bxf3 the simplifying manoeuvre 5...Nc6/Nxd4 6 Ne2/Nxd4 c5/cxd4 took off the other as well. However, it was to no avail; White continued 7 Bd2/g5, after which his bishops dominated the board just as lethally as the knights had done :



Play continued 7...Qd7/Qe6+ 8 Kf1/Rh4 Qd7/e6 9 Bxd5/Bf3 Bd6/Qe7 and Black had just preserved his queen, but 10 Bxb7/Bxa8 took off the rook instead.

The result of an elementary ending can usually be worked out fairly quickly (note that a player is stalemated if he is unable to play either of his moves, unless his first gives

check and ends his turn). K+Q, K+R, K+2B, and K+B+N all win against a bare king, but K+2N do not. K draws against K+P if it can occupy any square in front of the pawn. K+Q v K+P7 offers interesting and sometimes amusing play. Castelli credits the following example to Agostino Braca.



White to play wins by 1 Qd2/Ke2 Ka1/b1(Q) (delaying the promotion doesn't help) 2 Qd3/Qa3+ (forcing Black to give check and so forfeit his second move) Qa2+ 3 Kd3/Qc1+ (and a second time) Qb1+ 4 Kd2/Qa3+ (and a third) Qa2+ 5 Kc1/ Qc3+ (and a fourth!) Qb2+ 6 Qxb2 mate. If the White king starts on f4 instead of f3, Black can draw.

The game was reinvented as **Super-Charged Chess** (*Chess*, July 1939), and has doubtless been reinvented on other occasions as well. [Text revised. There is a brief endgame summary in English in special number 8 of *British Endgame Study News*.]

Boyer's variations on Marseillais Chess.

The Centre d'Etudes des Jeux de Combinaison in Paris, spearheaded by Berthoumeau, Loiseau, and above all Boyer, looked at ways of differentiating the two moves of a turn so that one move of each type could be made mandatory. They arrived at four procedures: (1) division of the board into two zones; (2) classification of the pieces into two kinds; (3) classification of moves into two kinds; (4) the stipulation that the first move of a turn should imitate the last move of the opponent. The Centre developed and 'successfully experimented with' eight different games, which were reported in an article by Boyer in the *British Chess Magazine* in March 1955 and are summarized below.

Bilateral Marseillais Chess. The board is notionally divided into the queen's side (files

a-d) and the king's side (files e-h). A player's turn consists of two moves, one on each side of the board. A piece that crosses from one side to the other may move twice in a turn. If there is no legal move on one side then that move is lost.

Central Marseillais Chess. The board is considered to be divided into two areas, the centre (4x4) and the periphery (48 squares). A player's turn consists of moving a man in both areas (moves can be to anywhere on the board). A piece may be moved twice if on its first move it crosses from one area to the other. Castling counts as a single (peripheral) move.

Black and White Marseillais Chess (credited to V. R. Parton). A player's turn consists of two moves. The player first moves a man standing on a white square, then a man on a black square; if either is impossible, that move is lost. The moves can be made with the same man if the conditions are met. As an exception to the basic rule, castling may be played indifferently as a first or second move. Check given at the first move deprives the player of the second. Check must be defended on the first move of a turn, and if this involves a move from a black square, this counts as a second move and the first move is lost.

King's Men, Queen's Men Marseillais Chess. The original K-side and Q-side men are differentiated in some way, and a player makes a move with a man of each kind (in either order). Short castling counts as one move, long castling as two.

Piece and Pawn Marseillais Chess. Self-explanatory. The two moves may be made in either order. Castling may be used as a piece move. Capture e.p. is possible only on the first move. A pawn promoted on the first move can move as a piece on the second.

Maximummer Marseillais Chess. A player must play one of his longest legal moves as his first move, but if there are several candidates of equal length he may choose between them. A one-square orthogonal move counts as 1 unit, a one-square diagonal move as 1.41 units, a knight's move as 2.24; 0-0 counts as 4, 0-0-0 as 5. The player's second move is free, except that the man which makes the first move may not be played again. 'The game is extremely heterodox and very lively; it is dangerous to

allow open lines to pieces moving rectilinearly!

Equivalent Marseillais Chess. The first move of a turn must if possible be with the same type of piece as the second move just made by the opponent. The first move is free if the condition cannot be met. Castling is a legitimate imitation of either a king's or rook's move. The second move may be made with any man except the one just moved.

Equidistant Marseillais Chess. The first move of a turn must if possible be of equal geometrical length to that of the preceding second move of the opponent. This obligation is waived if the king is in check and cannot escape by an equidistant move. The second move must be made with a different man.

Other games similar to Marseillais Chess. Several other two-move games having the same general nature as Marseillais Chess have been tried. They are listed below in no particular order.

Balanced Equidistant Marseillais Chess (origins unclear) would appear to be the same as Equidistant Chess above but without the constraint on the second move. (*Nost-algia* 150) [I haven't seen the source, but a note on David's index sheet for the game suggests that what happens if the king is in check is not specified.]

Different Men Marseillais Chess (origin unknown). The two moves must be made with different men. (Stone)

Citizen Chess (Tony Paletta, 1980). The players have the option of making two moves a turn provided that the second, and only the second, is a pawn move. A capture or check if made on the first move ends a player's turn. An attack on the king must be parried on the first move of a player's turn; hence a pawn move cannot stop a check. A player not in check and without a piece move is stalemated since a turn cannot begin with a pawn move. (*Chess Spectrum Newsletter*)

Doublet Chess (Kevin Lawless, 1994). OrthoChess except that a player who moves a R, B or N can also move its twin on the same turn. Doublet moves are announced, and a K is not in check until both moves are made. (Inventor's rules leaflet)

Power Pawn Chess (Kevin Lawless, 1994). After every orthodox move, the player makes a move or capture with a pawn. The same pawn cannot be moved twice in a turn. (Inventor's rules leaflet)

Alternating Marseillais Chess (origins unknown). A cross between Marseillais Chess and orthoChess. White and Black play one move each, then two moves each, then one move each, and so on. (Manuscript note citing *Eteroscacco* but not giving a specific issue number)

The principle behind Marseillais Chess can be applied to almost any variant, and in particular it has been successfully combined with Losing Chess (*Eteroscacco* 9).

1.2 Two moves at a turn, intermediate check ignored

Double-Move Chess [Galvin] (Fred Galvin, 1957). An offspring of Marseillais Chess, a simple rule change creating a variant in which strategy, and particularly tactics, are remote from those practised in the parent game. White opens with one move; thereafter each player on turn makes two consecutive moves either with the same man or with different men. There is no check, and the object is to capture the opponent's king. The implication is that a king can capture a guarded piece and can even capture his rival. A draw occurs if a player cannot move or can make only one move, or can only make two moves that do not result in a change in the position (illegal). A pawn that is moved two squares in one move, whether in

the first or second part of a turn, may be captured e.p. only on the opponent's first move; but if a player's move consists of two two-step pawn advances, both pawns may be taken e.p. If a pawn is moved twice in a turn it cannot be captured e.p., nor if, after a two-step pawn move, the player moves a piece to the intervening square. Play is much more critical than in Marseillais Chess because a two-move threat to take the king, which can arise from Black's first move and can recur many times in a game, must be countered. Time is generally more important than material.

J. Boyer and T. Coifa were early propagandists for the game and a series of correspondence tournaments followed. One of

the first was organized by E. T. O. Slater (1958/59) and was won by D. J. McNasobey, a composite pseudonym of McCue, Naysmith and Sobey working in concert. This was followed by sponsored tournaments in successive years: *Die Welt* (1959) with 46 competitors, *Europe Echecs* (1961) with 45 players from 11 countries, *Le Courier des Echecs* (1962) and a tournament for twelve selected players organized by C. Murkisch (1962/3).

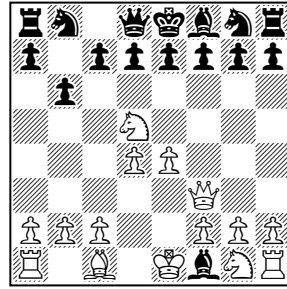
In Double-Move Chess, the centre plays a less important role than in orthochess. The knights have enhanced powers as they cannot be blocked; pawns too can be dangerous in attack. The weak piece, apart from the king, is the bishop on the opposite-coloured square to the opponent's king, which is the main reason White rarely opens with the d-pawn. Hans Klüver's 1963 monograph *Doppelzugschach* includes a useful survey of the openings. The variant lends itself to problems.

An instructive win by Ottavio Vargiu, reported in *Eteroscacco* 83. 1 Nc3 b6/Bb7 (a poor opening) 2 e4/d4 Ba6/Bxf1? (a fatal waste of time) 3 Nd5/Qf3! (see diagram at top of next column - White spurns the recapture and goes for the jugular) Qc8/Kd8 4 Nb4/Bg5 (keeping up the pressure on the Black king) Qb7/Kc8 5 Nd5/Qc3 and this third double attack on the king cannot usefully be parried. The actual continuation 5...Qxd5/Qc6 conceded the queen, and Black soon resigned.

1.3 Two moves against one

[Again, there are various flavours depending on whether checks after the first move are observed or ignored.]

The King and Pawns Game, also known as **Double-Move Chess [King and Pawns]**. A very old game which is known in several forms, the common feature of which is that White has two moves to Black's one. Murray quotes a medieval problem where White has K and 8 pawns and Black the full complement of men set up in the standard array (kings on the d-file) with the legend 'White to play and win'. The Q and Bs are the old pieces with limited movement and White should certainly win though proof might be lengthy. The same array is used in the common version, played since the 16th century, with modern Qs and Bs



Brick Chess (Michael Howe, 1994). The player on turn may consider two adjacent squares to be a brick. As an alternative to a natural move, he may make one of three kinds of double move: a division move (two men from the same brick go their separate ways), a fusion move (two men move to the same brick), or a united move (two men, kings excepted, move together using the power of one of them). In the last case, the men may remain together for the entire move, or the one whose power is not being used may be dropped off before the end of the move. Either or both the men taking part in a double move may capture (including a man dropped off during a united move). A pawn may be promoted by a division or fusion move, but not by a united move. Castling is allowed, but no part of the move may be a double move; e.p. is abolished. A king may be left in check by the first part of a double move. (Author's rules document) [Text editorial]

and kings on the e-file. W. S. Branch states that the game had been popular with many famous players of the past (*Chess Amateur*, September-November 1910, January 1911).

White's moves may be made with the same man or different men. The king may move into check on the first move (for example, to capture a guarded piece), and even adjacent to the Black King, provided it moves out on the second. White can forfeit the second move if desired (occasionally an advantage in the end game). If checked by Black, one version requires White to get out of check immediately, another allows the king to escape

on the second move. The WK cannot check the BK. If White is able to promote a pawn, the double move of the White piece is almost always conclusive. C. E. Ranken, according to Branch 'the most expert player we ever heard of', declared that Black should always win, the reverse of the general view held a century earlier. Dawson claimed that Black's best opening move is 1 ...e6 and that Black should try and get Q or R behind the White position (quoted in *Nouveaux Jeux d'Echecs Non-orthodoxes*). It is difficult for Black to mate without a formidable force - Q+R+R was quoted by Twiss (1787).

In a major variant, credited to Verney (1884), Black has no pawns and so has an immediate threat on White's a and h pawns. In this game White can only check the BK on the second move. If in check, the WK must move out on the first move of his turn. A rule that White may not move a promoted piece twice has been tried. In yet another version, the WK checks the BK if it is two squares away. Gik gives an amusing oddity with this rule, the WKel against the whole Black array: 1 Ke3 e5 2 Kxe5 Qe7+ 3 Kxc7 mate (*Schach und Mathematik*).

[David has described several different games here, but not having seen all the source material myself I cannot usefully disentangle them. However, the fact that Monster Chess and Imperatore (see below) appear to be playable games suggests that if the White king is allowed to check and mate the Black from two squares away, as in the Gik frolic, then the number of White pawns must be considerably less than eight if the chances are to be at all equal. The citing of Q+R+R rather than Q+Q as a mating force for Black suggests that mate cannot be forced with Q+Q, yet in fact there is

a simple and systematic winning procedure (see *Variant Chess* 53) and I find it difficult to believe that this was overlooked by the experts of the past. I wondered whether Twiss might have assumed the 'single box of men' rule (promotion allowed only to replace a captured man), which had considerable currency until late in the 19th century, but David Levy, having examined a copy of his book for me, tells me that there is no evidence for this.]

Monster Chess (origins unclear). A derivation of the game above. White has a full complement of pieces, Black just the king and the four central pawns. The weaker side makes two moves a turn. The king may stay in or move into check on the first move. According to Alex Bell in *The Machine Plays Chess?*, an early mainframe computer, MASTER, was an expert with the Black men. The same game but with colours reversed has been played in AISE where it is known as **Imperatore**. The WK, who is the Imperatore (Emperor), can mate the BK. A correspondence tournament of an almost identical game called **One-Two** was organized by NOST in 1963. White pawns may not promote and - something of an aberration? - the WK may pass over a square occupied by a WP. (*Eteroscacco* 9, *Nost-algia* 33)

Double Trouble Chess (origins unknown). Black has standard array; White has Ke1, Bf1 and eight pawns (2nd rank) but moves twice to Black's once. White may not give check on the first of his two moves and if placed in check must escape immediately. A fascinating game with equal chances for both players according to Russell Chauvenet. (*Chess*, January 1944)

1.4 Three to ten moves at a turn

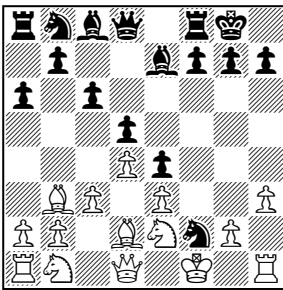
Triplets (Adam Sobey, 1980s). Each side starts with a pawn move. At his second turn, he makes a piece and a pawn move consecutively, in either order. At the third and all subsequent turns, he must move a pawn, a piece (other than the king), and the king, in any order. A player who is unable to move a pawn, piece or the king on his turn of play, or who is checkmated, loses. The game was invented for a Christmas meet of the

Haslemere Chess Club, where it proved very popular (*Variant Chess* 20). Competitions have since been held in the U.S., in the U.K., and in Italy, and it was one of the variants chosen for the 2nd Heterodox Olympiad.

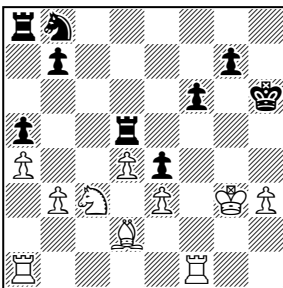
The three moves count as one; thus a player whose king is in check is obliged to get out of check only on completion of his turn; similarly an e.p. capture can be made at any stage during a turn. Castling is a king move. A pawn

may promote and move as a piece on the same turn. Five-fold check is possible, queen's side castling is not. Some very entertaining play can occur. The game commonly ends with one player running out of pawn moves, and much tactical manoeuvring takes place towards this end. Lack of a king move is a rare ending and there is no recorded game where the lack of a piece move has proved conclusive.

A win by Alessandro Castelli (*Eteroscacco* 56, with notes adapted from *Variant Chess* 46). 1 d3 e5 2 e3/Bd2 Nf6/e4 3 d4/Bc4/Ke2 d5/Be7/0-0 (White appears to be conceding space to no purpose, but Black has difficulty defending d5 later on) 4 Bb3/c3/Ke1 Ng4/c6/Kh8 5 h3/Kf1/Ne2 Nxf2/a6/Kg8 (Black's piece sacrifice gives him more pawn moves than White, but at a cost in development) :



6 Kxf2/Nf4/c4 Bh4+/a5/Kh8 7 Rf1/Kg1/cxd5 (White can wait until the second move of his turn to get out of check) cxd5/Be6/Kg8 8 Qh5/Kh2/a3 Qg5/h6/Kh8 9 Qxg5/g3/Kg2 hxg5/Rd8/Kg8 10 Nxd5/gxh4/Kg3 gxh4+/Bxd5/Kh7 11 Kxh4/Bxd5/b3 Rxd5/f6/Kh6 12 Nc3/a4/Kg3 (White finally clears Black from d5, gaining some potential pawn tempi) :



12...Rg5+/f5/Kh5 (Black will use his king to block the h-pawn) 13 Kf4/Nb5/d5?? (a curious oversight) Kh4/Nd7/b6 and White suddenly

and unusually found that he could not create a king move.

The fact that almost all games end with a player unable to make a pawn move is arguably a weakness. Tony Gardner has suggested that if part of a move is not playable, it should be ignored.

Threesum Chess (Tony Paletta, 1980). A player may move up to three men per turn provided that the sum of the squares moved does not exceed three and the king is at no time left in check. A move by a knight counts as two spaces, castling as one space. (*Chess Spectrum Newsletter*)

Quest-Chess (Donald Benge, 1975). Developed from the inventor's well-known boardgame *Conquest* which has a similar movement factor. Benge has organized a number of Quest-Chess events including two international problem solving tournaments, the second of which (1985) offered \$4,500 or equivalent in prizes. The game has a small cult following in the U.S.

Movement. Each player can make up to 10 moves a turn except at the start of a game when White is restricted to five moves. A player may pass his turn at any time after the first move. No man may be moved more than once in a turn except if a capture is declined, after giving check, or to get out of check. Castling is a king's move, hence the rook may be moved again in that turn. A promoted pawn may move again as a piece in the same turn.

Captures. If a capture is made, the second player may recapture at once, or decline to do so. The turn is then continued. If a capture is made on the last move of a turn, a recapture counts as the first move of the second player's turn. The capturing man, if not recaptured, may move again at any time in that turn. If a player advances a pawn so that an en passant capture is possible, the second player may opt to capture, when the first player's turn continues.

Checks. If a check is given, the second player must immediately get out of check in the usual way (capture/interpose/move K). In a discovered check, it is the man moved that earns the privilege. If the check is the last move of a player's turn, the second player must get out of check on the first move of his

turn. If the turn-player's king is put in check as a result of the second player getting out of check, or recapturing or making an en passant

capture, the turn player must immediately get out of check, the move counting as part of his turn. (*Nost-algia* 183 and later)

1.5 One more move each time

[These games use what David called the 'Progressive Principle': White plays one move, Black two, White three, and so on. Games commonly end by move seven or eight, which makes these variants ideal for correspondence play. The same principle has been applied to many variants.]

Progressive Chess, also known as **Scottish** or **Scotch Chess**, and once known as **Blitz Chess** though the use of this name today would surely cause confusion. Although it is relatively modern, its inventor is unknown. The first recorded reference is by Znosko-Borovsky in his column in the short-lived French periodical *Lectures pour Vous* (3/1947) where however he makes no mention of its origins though Boyer (*Les Jeux d'Échecs Non-orthodoxes*) claimed that the master first saw it played in Scotland (no date given: from the available evidence Ken Whyld suggested this might have been in Dundee in 1939). An appeal for information on the game in *Scottish Chess* (January 1990) brought a response from Hugh Courtney who recalled it being played in England in 1944 and that Gerald Abrahams and Max Ellinger ('a very strong player of the game') had been engaged in a long series of games which began around the start of World War II. The most likely country of origin would appear to be England, perhaps in the late 1930s, and the term Scottish Chess may therefore be a misnomer.

Rules:

(1) White starts with one move; Black plays two consecutive moves, either with the same man or two different men; White then plays three moves; and so on, the number of moves increasing by one each time the turn changes.

(2) A player's turn ends if he gives check, regardless of how many moves he may have made.

(3) A player may not expose his own king to check at any time during his turn.

(4) A player whose king is in check must get out of check with the first move of his turn.

(5) A player who has no legal move or who runs out of legal moves during his turn is stalemated and the game is drawn.

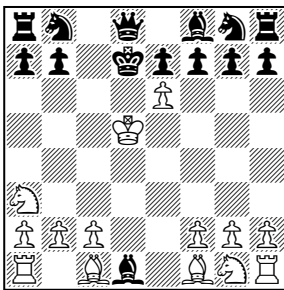
(6) An e.p. capture is admissible on the first

move of a turn only. Any pawn that made a two-step move during the previous turn sequence is liable to e.p. capture unless it has been moved again or the square moved over has been occupied.

Scores and probably hundreds of Progressive Chess tournaments have been held during the past fifty years. Masters have disagreed on whether White or Black has the advantage but practice would indicate that White has a definite edge. Openings have been researched, though nowhere near to the extent of those in Italian Progressive Chess (see below); however, the great majority of lines are valid for both versions. The commonest opening moves, as in orthochess, are 1 e4 and 1 d4, with half-a-dozen other moves considered to be perfectly playable. From the outset, Black must defend the square f7 and this largely dictates the choice of defences. A problem that constantly presents itself is whether to recover material lost or to assume an aggressive stance, that is to accept short-term loss for potential long-term gain. For example, after 1 d4 2 d5, Nc6 3 Bf4, Bxc7, Bxd8 Black can regain the Q with 4 Bf5, Bxc2, Bxd1, Kxd8 or opt for development with 4 Kxd8, e5, a5, Bb4+. However, queens can create carnage and are rarely left long on the board. Bishops are better than knights in the early stages. An early advance of one or both wing pawns, threatening the opponent's b/g pawns, is also favoured.

Post-opening strategy for both players can be summarized thus. Firstly, look for a mate; if none can be found, ensure that the opponent cannot mate next turn. Secondly, aim to destroy the opponent's most dangerous men whilst maximizing the survival chances of your own by dispersal. Giving check on the last move of a turn is sound strategy since it effectively reduces the opponent's sequence of moves by one. From White's third turn

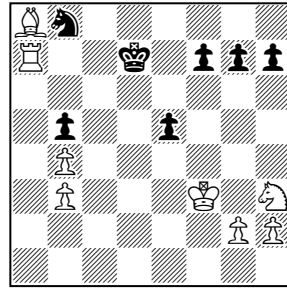
onwards, there is the ever-present risk of an unmoved pawn promoting. The king should be given air - a king on the back rank is often at risk. Double checks can be especially dangerous. Under-promotion, taking a bishop or rook because a queen would give check, is not uncommon. In the ending, knights are much better than bishops because of their ability to reach any square. Inconvenient opposing moves such as captures and pawn advances can often be prevented or defused by placing the king so that they will give premature check - an isolated king in front of three connected passed pawns stops all of them. However, putting the king in front of a friendly line piece, or a line piece behind the king, may be disastrous; the opponent may be able to put his own king further down the same line, and then give a check forcing an immediate discovered check in reply. Two games in a 1996 e-mail tournament reported in *Variant Chess 45* started 1 d4 2 c5, cxd4 3 e4, e5, Na3 4 d5, Bg4, Bxd1, Kd7?? (Black had to prevent mate by e6 and Bxf7, but this wasn't the way to do it) 5 Kd2, Kd3, Kxd4, Kxd5, e6+ and Black resigned :



Each of his possible replies would give check and terminate his turn, and in every case White would then have a mate in seven (indeed, in less).

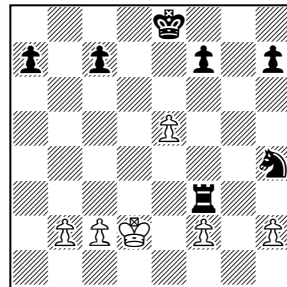
Two instructive wins by Fred Galvin from the same tournament, showing how an expert plays to force victory even when his opponent does not help him by leaving a mate. With White, 1 d4 2 c5, cxd4 3 e4, e5, f4 4 e6, d3, dxc2, cxd1(Q)+ 5 Kxd1, f5, fxe6, e7, exd8(Q)+ (no mates being available, both sides play for material) 6 Kxd8, d6, dxe5, b5, Kc7, Bg4+ 7 Be2, Bxg4, Bf3, Bxa8, Ke2, Nc3, Nd5+ 8 Kd7, Nf6, Bb4, Rc8, Rxc1, Rxa1, Nxd5, Nf4+ 9 Kf3, a3, axb4, b3, Ne2,

Nxf4, Nh3, Rxa1, Rxa7+ :



White's king stops the advance of the e/f/g pawns, and Black's knight is too far away to clear a path for the b or h pawn. Black could find nothing better than 10 Ke6, Kf5, Nc6, Nxa7, Nc8, Nb6, Nxa8, Nb6, h6, e4+, and 11 Ke3, Nf2, Nxe4, Nc3, Na4, Nxb6, Na4, Nc3, Ne2, Kf3, h3 left him helpless.

With Black, 1 d4 2 d5, e5 3 Bg5, Bxd8, Bh4 4 g5, gxh4, Nc6, Bb4+ 5 Qd2, Qxb4, dxe5, Qxh4, Kd2 6 Nh6, Nf5, Nxh4, Bh3, Bxg2, Bxh1, 7 e4, exd5, dxc6, cxb7, bxa8(B), Bxh1, Na3 (promotion to Q would have given check and ended White's turn) 8 Rg8, Rxg1, Rxh1, Rxf1, Rxa1, Rxa2, Rxa3, Rf3 :



White's pawns are now defused. Promotion to Q or R will give check and terminate his turn, and neither B nor N will be able to do much damage. He actually played 9 b4, b5, b6, bxc7, c8(N), Nxa7, Nc6, Nd4, Nxf3, but 10 f6, fxe5, e4, exf3, Kd7, Kd6, Kd5, Nf5, h5, h4 left Black's pawns safe from attack (it will take ten of White's eleven moves just to play Kxf5), and after 11 Kc3, Kb4, Ka5, Kb6, Kc7, Kd8, Ke8, Kf7, Kg6, Kxf5, Kf4 12 Kc4, Kc3, Kxc2, Kd2, Ke2, Kxf2, Kg2, Kxh2, Kg2, h3, h2, f2 White resigned.

Endings are expertly covered in Alessandro Castelli's monograph *Scacchi Progressivi* /

Finali di Partita (1997). This formally relates to Italian Progressive Chess as described below, but the differences are easily accommodated. K+Q v K is a win, but K+R v K is only a draw unless the defending king is already on the edge; K+B+N v K and K+2N v K are wins for Black but not for White! For example, if Black has K+2N against Ke7, he can play to Kc7/Nd8/Nd7 and restrict his opponent to the two squares e7 and e8, White's odd-length oscillation will leave him on e8, and Black will be able to mate him next move. If White tries to do the same, he finds that Black's even-length oscillation brings him back to e7, and he can never make progress.

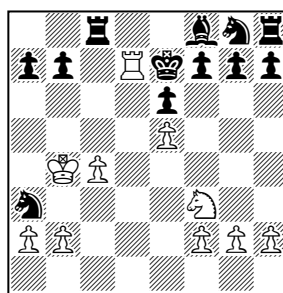
[Endgame paragraph revised. There is an endgame summary in English in special number 13 of *British Endgame Study News*.]

Derivatives of Progressive Chess. There have been many derivatives of Progressive Chess, the first being the most important.

Italian Progressive Chess (Roberto Salvadori, 1971). The version adopted by AISE, in which a player giving check before the last move of his turn forfeits the game. There is an additional rule, rarely invoked: the game is a draw if during five turns by each player there is neither a capture nor a pawn move, unless a win can be demonstrated. The importance of this version lies not in the number of its adherents but in the extent to which it has been researched and the impressive database of games ('PRBASE') that has been assembled. In consequence, Italian domination of Progressive Chess was for many years comparable to that of Soviet domination of orthochess in times past. The first national championship was organized by Armando Silli in 1974, since when annual championships attracted the top Italian players like Braca, Dipilato, Leoncini, Magari, and others. Apart from PRBASE there have been several excellent publications on the game: *Manuale di Scacchi Eterodossi* by Mario Leoncini and Roberto Magari (1980), which is largely devoted to Progressive Chess in all its aspects, *Fondamenti di Scacchi Progressivi* by Giuseppe Dipilato and Mario Leoncini (1987), primarily a compendium on the openings, *Scacchi Progressivi / La Partita di Donna / Parte I* by Dipilato, *Scacchi Progressivi / Matti Eccellenti* by Alessandro Castelli, and

Scacchi Progressivi / Finali di Partita by Castelli as mentioned above. Thousands of first-class games were recorded by AISE, which in 1991 listed over 400 active tournament players. A count of some 7,000 games showed White winning 53%, Black 46% with 1% drawn.

A win by Steve Boniface from a postal tournament played to Italian rules. 1 d4 2 c5, cxd4 3 e4, e5, Na3 4 e6, Qg5, Qxc1, Qxd1+ 5 Rxd1, Rxd4, Bb5, Rc4, Rxc8+ 6 Ke7, Nc6, Rxc8, Nd4, Nxb5, Nxa3 7 c4, Kd2, Kc3, Kb4, Nf3, Rd1, Rxd7 :



Under Italian rules, this is mate, because Black's apparent escape moves ...Kxd7 and ...Ke8 give check and so are forbidden.

[The so-called 'Italian mate' exemplified here has always been controversial, but David was one of several strong players who found Italian rules congenial, perhaps because they allowed the production of spectacular force-him-to-check finishes without the need to verify the mopping-up lines that have to follow under traditional rules. That said, only a minority of 'Italian Progressive' games appear to have ended in a mate of this kind, and only occasionally might the eventual result have been different under traditional rules; each of the five examples in the first edition would have allowed the winner an ordinary mate next turn had play continued, as would 15 of 17 further examples that appeared in issues 1-51 of *Variant Chess* (the above was one of the two exceptions). Whether Italian rules will long survive the demise of AISE remains to be seen. For present purposes, I have put into the main 'Progressive Chess' entry everything which applies both to the traditional and to the Italian game, and have restricted the 'Italian Progressive' entry to that which is peculiar to it.]

English Progressive Chess (John McCallion, before 1980). Adopted and codified by NOST. No man may be moved twice in a turn until every mobile man has been moved once; similarly every man must move twice before any man moves three times, and so on. Check ends a player's turn. Castling counts as one move but both pieces are credited as having moved; and a pawn that is promoted cannot then be classed as a piece and moved again within the same series. The game is drawn if a player is unable to complete his turn and it is permissible to block one's own men in order to do so, or to earn extra turns for other men. Random captures of pawns are almost always inadvisable since the fewer men a player possesses, the more multi-moves he will dispose, and a piece that can move again in the same turn is doubly dangerous. A weakness of this version is that in the later stages of a game both players may be obliged to make pointless moves in order to satisfy the rules; against this, the game is closer to orthochess than traditional Progressive Chess, and arguably more complex. (*Nost-algia* 282 and later, *Eteroscalco* 49 and later)

Scottish Modern Chess (Bruce Trone, c. 1970). As Progressive Chess, but a sequence is terminated prematurely if (1) check is given or (2) a man is moved to a square attacked by an enemy man. It is (2) which gives the game its distinctive form. A piece can cross guarded squares and a move which exposes a man to attack from an enemy piece does not end the turn. There are a few ancillary rules: a king must escape check on the first move of a turn and the player cannot expose his own king to check at any time; also no e.p. (*Nost-algia* 151 and later, *Eteroscalco* 49 and later)

Bank of Scotland (Bruce Trone, 1976). Every check a player gives earns an extra move for that player on all subsequent turns. A check ends a turn and must be parried at once. The first player to check usually gets an overwhelming advantage regardless of material sacrificed to achieve it. Another version of the game, Modern Branch (the above is Main Branch), is less violent; it requires that the player ends his turn on moving to a square attacked by an opposing man as well as on a check. (*Nost-algia* 192)

Very Scottish Chess (Ralph Betza, 1977). As Progressive Chess except that each player is accorded one move more than the opponent made on his previous move (instead of one more than he was entitled to). The game affords a defensive strategy of stopping short of one's entitlement in order to keep down the number of moves permitted to the opponent. Deserving of analysis. (*Nost-algia* 205)

Fibonacci Chess (David Bradley and others, 1980s). As Progressive Chess except that the number of moves each player has on a turn is determined by the Fibonacci sequence (1, 1, 2, 3, 5, 8, 13, ...). Against sound play it appears that Black's chances are negligible. (Pickover, *Mazes for the Mind*)

Switchback Chess (Alessandro Castelli, 1992). As Italian Progressive Chess except that a check reduces the number of defender's moves to one less than that of the checking player. The first player to check would seem to have a big advantage. (*Eteroscalco* 58)

Slow Progressive Chess. As Italian Progressive except that moves increase by 1 every fourth turn. (*Eteroscalco* 58/66)

Capturing Progressive Chess (Michael Keller, 1992). Play starts as orthochess. When a capture is made, the opponent has two consecutive moves. If either or both of these is a capture, the first player has three moves, and so on. If neither is a capture, the game reverts to orthochess. (Personal correspondence)

Logical Progressive Chess (Paul Byway, 1995). As Progressive Chess, but no pawn-two or castling. The inventor argues that these rules were intended to speed up orthochess and are superfluous in the fast-moving Progressive Chess. (*Variant Chess* 25)

Progressive Forwards Chess (Hans Bodlaender, date unclear). As Italian Progressive except that pieces may not move backwards. Sideways movement (K, Q, R) only to capture or if immediately followed by a forward move. Self-stalemate is a win. (Chess Variant Pages)

A number of other Progressive Chess variants have been tried but none has been widely practised. In one, each side has one move, then each side has two moves, and so on, a variant that greatly favours White. In another, a player is not considered to be checkmated until the last move of his turn (i.e., he can get out of check at any time

during his turn), which considerably prolongs the average game (Silverman, *Your Move*). Vladimir Pribylinec recommends that no man may move more than twice in a series, which effectively removes the threat of a massacre and in particular of instant pawn promotion.

1.6 Every man can move

Battle Chess [Ratushny]. Origins unknown; quoted in a letter by Russell Chauvenet (*Chess*, January 1944). Each player can, but is not obliged to, move every pawn and piece once in a turn. Multiple checks are possible. Tense play, with White holding a considerable advantage. (Gik, *Schach und Mathematik*)

Omni-Chess [Fireman and Gorga] (Richard Fireman and Bob Gorga, 1979). Each player can move any number of his men once each on a turn. Castling counts as both K and R moves. Multiple checks are possible. A player need only escape check at the end of a turn. A rule that a player must escape check on the first move of a turn was later introduced. The variant has been played by a number of masters. (Personal communication)

1.7 Other kinds of multiple movement

Sputnik Chess (J. Berthoumeau and R. Loiseau, 1950s). A rook, bishop or knight within the opponent's half of the board is a sputnik. King, queen and pawns are not affected. A player on turn may move any, all or none of his sputniks in their usual manner before making a normal move, the latter being compulsory. A lively game according to Boyer, with emphasis on attack. (*Nouveaux Jeux d'Echecs Intéressants*)

Realm Chess (Edward Jackman, 1995, based on the strategy board game of the same name). The board is divided into sixteen 2x2 realms. Player on turn may opt for concentration, dispersal (both with normal chess moves), rearrangement, or a standard chess move. Concentration allows the move of up to four friendly men into same realm. Dispersal may move up to four friendly men out of a single realm. Rearrangement allows the player to reposition any or all the friendly men within a single realm, without regard to normal chess

Roberto Cassano has suggested that move cycles are limited to n moves, where n is an agreed even number. Thus White makes one move, Black 2 moves, White 3 moves ... Black n moves, when the cycle is restarted. He calls the game **Progressive Cyclical Chess**.

Swarm Chess (Ralph Betza, 1980). On a player's turn, every man that can move is obliged to do so (there is no penalty if a man cannot move). Moves can be played in any order. The opposing king can be captured as well as checkmated. A player, whose king may be subject to a number of checks, must get out of check on the first move of a turn. Castling is a king move. (*Nost-algia* 248)

Hurricane Chess (Harold Bohn, 1994). Every man may be moved once on a turn. A check ends the turn and a player in check must get out of check with the first move of turn. Castling is K+R move. (*Variant Chess* 15)

All these games would seem to give White a substantial advantage, which could be offset by limiting his moves on his first turn.

moves. Moves in any of these are considered simultaneous so a king can be checked by more than one piece. A man can only be captured with a normal move. Aim is checkmate. **Power Realm Chess** is the same except that Concentration, Dispersal and Rearrangement may be combined provided that a single realm is involved. **Free Realm Chess** is as Realm Chess except that a realm is any 2x2 square (so there are 49 overlapping realms instead of the 16 distinct realms of the parent game). (*Nost-algia* 351)

Kazan Chess (origins unclear). When a man moves, a friendly man that can move to the vacated square does so, and so on. If more than one man can be moved to a square the priority is in the sequence PNBQRK with the player choosing between equals. No man may move more than once in a turn. Problem theme; a better game would be to make the sequence and piece selection optional. (*Variant Chess* 49)

Chapter 2

Games with concealed information

[In a normal game of chess, a player knows his opponent's position at all times. This chapter considers games where a player must move in partial or complete ignorance of what he is facing. There are two general classes: a player can see only his own men and he relies on an umpire to give him limited information about his opponent's (for example, to tell him whether a particular move is legal), or he can see the positions of his opponent's men but does not know their identities. The generic game of the first kind is 'Kriegspiel', though this term is also used for a class of table-top war games which we shall discuss briefly in the Appendix. Games in which the players set up their men secretly but then bring them together for normal open play are considered in the chapter on games with unorthodox initial arrays.]

2.1 Games with an umpire, both sides blind

Kriegspiel, also known as **Screen Chess**, **War-Chess [Kriegspiel]**, and **Commando Chess** (Michael Henry Temple, 1899). Amongst the best-known and most popular of all variants. At the outset of the Boer War, members of the Knight Lights Club (who were also interested in acrostics, hence the name) at the Cock Tavern in Fleet Street, proposed playing a war game, whereon Temple suggested that this could be done with the chessmen, and Kriegspiel was born (*Chess Amateur* 1906). (The watering-hole was a favourite haunt of the Press: '...the Cock I used to know, where all good fellows were my friends a little while ago.') The first battles of the Boer War did not take place until October 1899; claims that the game was invented earlier have not been substantiated. What is certain is that its popularity was immediate. Kriegspiel was played at the Anniversary meeting of the Ladies' Chess Club (1902) and the following year the *BCM* reported the game being played blindfold. A booklet, *Kriegspiel, or War Chess* by H. Cayley, was published (1905) and when the *Chess Amateur* was launched (1906) early issues contained a regular Kriegspiel column. In 1907, a Kriegspiel tournament at Maidstone was won by A. C. Waterman (who incidentally first introduced Snakes & Ladders into the U.K. and was involved in a legal battle over the rights to a strategy game, Reversi, popular to this day as Othello). During World War I the game was briefly renamed War-Chess

(sometimes Screen Chess) in reaction to its Teutonic title. A War-Chess club opened in Fleet Street. *The Yearbook of Chess* (1913 and 1915/6) published major articles and the *Schweizerische Schachzeitung* devoted the whole of its December 1914 issue to the game. In 1915 the *Daily Mail* reported that 'the game has ... captured the chess clubs, humbled the pride of some of the cleverest chess players, and has started upon a devastating career in the suburbs'. Many famous players dabbled in the game. Lasker and Marshall suffered at the hands of the experts amongst whom was Kashdan. A regular Kriegspiel circle formed at the Gambit Chess Rooms, London, never to disband until the café closed its doors in the 1950s. The habitués developed a language of their own, akin to that of the Bingo halls; thus 'He's in your angle near the door' meant a capture on a8. Regular championships were held at the Gambit, that of 1925 attracting many leading players. It was won by A. Felber who had also won the previous year. Big matches were held at the National Chess Centre before it was destroyed in 1940. The decline in popularity of the game in later years can be attributed largely to the great rise in competitive chess but also, in the view of Eric Croker, to the demise of folding chessboards, which commonly served as the necessary screens.

The original rules of the game at the Knight Lights Club, framed largely by W. Ward, have been republished, differing only in details,

uncounted times and in many languages. A sound exposition, which includes other aspects of the game, is in *Games and Puzzles* 50. Kriegspiel requires two players, an umpire and three sets. The boards are normally placed in a line, pieces of one colour on the same side, with two screens to divide the boards. The players sit at the outside boards, one with the white pieces, the other with the black, with the umpire, usually on the white side, at the middle board. The players only see their own boards; the umpire monitors all three. The principle of the game is that each player moves normally but is not told the opponent's moves which he attempts to discover through judicious play. Each player may do as he pleases with the opponent's men on his own board. The umpire approves the players' moves, provides information as required by the rules, and maintains the actual game on his own board. It is often the umpire and spectators, appreciating the absurdities of position and play, who derive most pleasure from the game.

White starts and makes a move. The umpire repeats the move on his board and announces 'White has played', often abbreviated to 'Played'. (All the umpire's announcements must be audible to both players.) The same procedure is repeated for Black. White may now ask 'Any pawn captures?', abbreviated to 'Any?' and the umpire must reply 'No', or 'Try' (short for 'You may try'), implying that there is a pawn capture. In the latter event, White must make at least one attempt at a pawn capture but may also go on trying until a capture is effected. If either side attempts an illegal move the umpire announces 'No'. A legal move, once made, is binding. (The player does not normally let go of the piece until the umpire announces that he has moved.) For example, after 1 e4 d5 White might ask 'Any?' In response to 'Try' he might attempt exf5. The answer is 'No' so White knows that Black opened 1 ...d5. White would be wise to make this move on his own board to try to keep control of the position. Suppose White decides to move and not to capture. Black now asks 'Any?'. If the reply is 'No' he will know that White has a pawn on either c5 or e5 so he may try c5. The umpire announces 'Played' and Black then knows there is a white pawn at e5. Castling and pawn

promotion are treated like ordinary moves but in the case of promotion the player must indicate to the umpire which piece the pawn is being promoted to. Captures are announced by indicating the square on which a capture is made but not the identity of either man; thus 'White has played and captured on f7'. Black must remove the man he has on this square. Checks are announced according to the direction(s) of attack but not the square(s) occupied by the attacking piece(s). Directions are indicated as on the rank, on the file, on the short diagonal, on the long diagonal, or by a knight. The diagonal is determined by the position of the king: in the initial array, White's long diagonal is e1-a5 and the short diagonal e1-h4. An optional rule requires the umpire to say 'Impossible' or 'Nonsense' if a player deliberately attempts to deceive his opponent (for example, by asking 'Any?' when he has no pawns left). Another optional rule requires an e.p. capture to be announced as such.

It was the practice under the original rules to denote the man captured (in one version, only a queen capture was identified). Also, a player eliciting 'Try' in response to 'Any?' was obliged to make the pawn capture. Another version required that 'Any?' was a compulsory precedent to a pawn capture other than an immediate recapture. An American version (*Chess*, March 1953) had three changes: the umpire said whether a capture was of a piece or a pawn; the square on which a pawn capture could be made was indicated; and, most importantly, a player could at any time ask the umpire to reveal the number of pawns and the number of pieces the opponent had remaining. Many players considered these rules debased the game by giving too much away. At the other extreme, in *Discreet Kriegspiel* (Jacques Rotenberg, *Feenschach* 1981), no information on pawn captures is given, nor does the umpire announce check, the game being won by capturing the opponent's king.

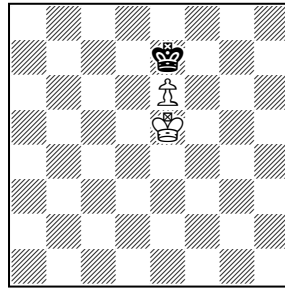
First impressions might suggest that both players are moving blindly with chance dictating events. This is often the case with beginners, but in fact the game is highly skilful and it is possible to minimise the effects of surprise by taking simple precautions. The chance factor is reduced by

collecting information on the opponent's position. This is done by attempting moves that are likely to be disallowed; for example, Ra1 attempts Ra8 ('No'), Ra7 ('No') and back to Ra3 ('No') establishing the existence of a hostile man on a2. Although it is usually impossible to interpret a middle-game position with any degree of accuracy, experienced players have an uncanny knack of arriving at the approximate if not precise position in the ending. It is essential to maintain a proper count of the opponent's forces: pawns have a nasty habit of slipping by to promotion. The cardinal rule is to remove an enemy man - any man - from one's board every time a capture is made. Here, and earlier in the game, the king can prove a useful decoy since a check gives information about the enemy. For example, a king can prevent the undetected advance of a pawn over three adjacent files, whilst a king on h1 and a rook, say on a1, can be used to snare a central pawn whose position is unknown. If the pawn promotes to queen or rook, announcing check on the rank, it will fall to the waiting rook. For this reason, underpromotion is not uncommon.

Bizarre opening play is the rule in Kriegspiel. Pawns are used to guard squares against incursions so that on a hostile advance the question 'Any?' will elicit a gratifying 'Try'. It is legitimate to attempt pawn captures without asking 'Any?', the object being to deceive the opponent into believing, in the event of a capture, that it was made by a piece. A player in check may attempt any plausible capture. Example: WKa1, Bg2. White is checked on the file. First try Kxa2, and if that fails, Bxa8. A sensible precaution is to move the queen early. An open line can be dangerous: 1 e4 d6 2 d4 Bg4 and a hasty move here will lose the queen. More subtle is 1 e4 d5 2 exd5 g5. White observes that Black does not recapture and suspects Bg4, so counters with 3 Qg4 but is disappointed when the umpire does not announce a capture. Now Black tries g4 and when the umpire says 'No' plays Bxg4. If the bishop is not recaptured, he will know he caught White's queen and not the g-pawn. This idea of enticing the opponent to make an imaginary capture and then striking is a common device. Another example: White is told 'No' by the umpire,

move after move, and Black suspects a fianchettoed bishop hopefully trying for Bxh8. So Black moves the rook and advances the g-pawn. If the umpire now says 'Played' instead of 'No' to White's move, Black can chance Rh8 hoping to catch the bishop.

Kriegspiel endings have received attention and are much more difficult than those in orthodox chess. Even basic king and pawn endings can lead into deep water. Suppose White has Ke5+Pe6 against a bare K :



He tries say Kd6, and on receiving 'No' he tempos with Kd5 ready to try again. Black routinely tries Ke6, Kd7, and Kf7, and on getting 'No' every time realises that he must retreat. Suppose first that he plays the normally drawing move Ke8. White plays Kd6 as intended; Black must guess between Kd8 and Kf8, with an even chance of getting it wrong; White tries Kd7, and if 'No' he can go back and try again. But will he do any better next time? Suppose Black plays the normally bad move Kd8 or Kf8 instead of Ke8. White still plays Kd6, but now Black can play Ke8 and White's probing Kd7 will always get 'No'; he can indeed go back and try again, but the same thing will happen again, and the normally bad defence seems suddenly to have become a good one. To make progress against this defence, White must sooner or later play Pe7 instead of retreating and trying again, and if Black has chosen this moment to revert to the normally drawing retreat Ke8 White finds that he has thrown away the win. White can make the probability of failure as small as he likes, but he can never reduce it to zero, and under the realistic practical rule that a game still unfinished after a given number of repetitions is abandoned as drawn Black can play to have a perceptible chance of survival (*Variant Chess* 53).

Once the pawn has promoted, K+Q v K is straightforward. K+R v K is not, but the win had been recognised by 1914 and a complete analysis by H. A. Adamson was published in the *Chess Amateur* in 1923. K+2B v K is normally won and has been claimed as always won, but Thomas Ferguson has pointed out that if all White's men are within the central 16 squares his first move outside this region must risk dropping a bishop or giving stalemate; as with K+P v K, the attacker cannot guarantee to win though he can play so as to make the probability of failure as small as he likes (*Variant Chess* 49). K+B+N v K was claimed as a win by a Los Angeles team in 1926 (*Chess Amateur*), but their analysis appears never to have been published and its validity has been questioned; a re-examination in 2005 of what appeared to be the key positions concluded that the claim was in fact justified (*Variant Chess* 49). Problems offer a rich and largely unexploited field.

[Treatment of endings revised. The rules of Kriegspiel, more than those of any other form of chess, seem to have spawned local and regional differences, and at meetings of problemists in France I have always played to a rule whereby the umpire automatically announces after each move whether a pawn capture is possible. David had apparently not encountered this, but the wording of the 'Scotch Kriegspiel' pamphlet referred to in the next paragraph suggests that Fred Galvin and his friends in Minneapolis and St Paul had adopted something similar in the 1960s.

Thomas Ferguson has told me that West Coast Kriegspiel circles in America have abandoned the '50-move' rule, any situation in which a player can guarantee to win with a probability exceeding any given p less than 1 being declared a win for him. On the face of it, this would appear to be practicable only among sophisticated mathematicians capable of doing or at least of understanding the analysis, but perhaps some trusted person has drawn up a list. Apparently the Japanese Go Association has adopted a similar approach, declaring what the values of certain positions are so that the endgame does not need to be played out.]

There are a number of Kriegspiel variants of which perhaps the most rewarding

is **Progressive Kriegspiel**, also known as **Scotch Kriegspiel** (Fred Galvin, Don Neff, and Jim Seifert, 1962). This is Kriegspiel played to Progressive Chess rules. After each successful move (not just at the end of the turn), the umpire announces checks, captures, and the possibility of a capture by a pawn, and a check ends the turn. Faster than the parent game, and arguably more interesting. (*Nostalgia* 232, *Variant Chess* 47) [Text revised to take account of a document 'Scotch Kriegspiel' in the library of the British Chess Variants Society]

Partnership Kriegspiel is regular Kriegspiel but each player has an advisor who can see all three boards. A player whose turn it is to move can ask for 'any instructions'. The advisor can only answer 'Caution', 'Go on', or 'No instructions', but tone of voice and inflexion can convey plenty. Twice during the game an advisor may, after due warning, make a move on the player's board though not to give checkmate. Apparently much played at Liverpool C. C. in the 1950s. (Personal communication)

Nommenspiel. Kriegspiel variant in which the umpire announces the square to which a player moves but not the man moved. Captures and checks are not announced: the game is won by taking the king. A player whose man is on a square occupied by the opponent must remove it from the board. The opponent will not be aware of the capture. Played in Canada 1969-70. (*Nostalgia* 232)

Take-Back Kriegspiel (Ed Pegg, 1988). Orthodox Kriegspiel in which a player may take back a move that leaves a piece subject to a pawn capture. 'In Take-Back', claims the inventor, 'pawn captures are not rude surprises'. The theory is that development of pieces is consequently more aggressive. (*Nostalgia* 312)

Modern Kriegspiel (Bruce R. Trone, 1986). Normal Kriegspiel except that, on every turn, a player names seven squares the occupants of which the umpire must detail. (*World Game Review* 10)

Spy Chess [Kriegspiel] (originator unrecorded). A Kriegspiel variant in which the umpire tells a player who moves a knight the identities, but not the locations, of enemy men adjacent to it. The information may prove of greater value to the opponent. Alternatively,

the information can be passed in writing. (Supplement to *World Game Review*)

Darkness Chess (Torben Osted and Jens Nielsen, 1990). Kriegspiel with a touch of realism. After each move the occupants of all squares that the player's men can 'see' (attack, and, in the case of a P, move to) are passed by the umpire. For example, after 1 Nh3 d6 Black is told of the Nh3 as the B can 'see' it. No pawn-two or e.p. but castling permitted. Checks are not announced; win by capturing K. (*Eteroscacco* 60) [Games requiring information as detailed as this are perhaps most conveniently played with a computer as umpire, and a similar variant, **Dark Chess** (Filip Rachunek, 2002), has proved very popular on the Internet.]

Tripod Chess (Jed Stone, 2000). A version of Kriegspiel designed for postal play. A player moves three men at each turn, and sends them to the umpire. The umpire then informs his opponent which moves of his own previous turn were successful, which kinds of men his opponent has just moved, whether there have been any checks or captures by either side, and which if any squares directly or diagonally in front of his pawns or orthogonally or diagonally adjacent to his knights are occupied. Special rules: a pawn may not capture a knight; a pawn may 'field promote' to a knight at any time, this promotion replacing a normal move; no player may have more than three knights at a time. (Originator's rules pamphlet) [Text editorial]

There are also Kriegspiel variants in which even the opponent's initial configuration is unknown. This would seem to be a natural development from ordinary Kriegspiel, but in fact only four games of this kind appear to have been developed and all had the same originator. We may note the spelling with a double 's'.

Welbeck Kriegsspiel (Hubert Phillips, 1917). Invented under canvas at Welbeck Park in 1917 and described as a 'universal favourite'. Philips claimed to have played or umpired hundreds of games over a period of 40 years. As in Kriegspiel, three boards and sets are required, one for each player and one for the umpire. Each player deploys his forces on the first four ranks of a board unseen by the opponent. There is only one rule: the bishops

must be on opposite-coloured squares. Pawns may be entered on the first rank. When both sides are ready the umpire sets up the position on his board and announces the squares on which the kings stand (if either king is in check it must be repositioned). Hereafter normal Kriegspiel rules apply. Pawns advance one square at a time only. (*Indoor Games for Two*)

Assassin Kriegsspiel (Hubert Phillips, 1930s?) The umpire must be armed with slips of paper marked with a 3x3 grid. Preliminaries and play as for Welbeck Kriegsspiel with two exceptions: (1) only the queen, known as the assassin, can mate the opposing king, and (2) knights are spies which cannot capture or give check. A player who delivers mate other than with an assassin loses the game. If both assassins are captured, the game is declared a draw, which suggests that pawns cannot promote to assassins (there is nothing in the rules about pawn promotion). When a spy moves to a vacant square, the umpire passes to the player a 3x3 grid indicating the position and identity of all enemy men on adjacent squares. The umpire must do this discreetly so that the player's opponent is not aware that a spy has moved. Kings can adopt adventurous roles, hoping to trigger an accidental mate; conversely, assassins must be protected until the enemy king has been cornered. Spies can be captured like other pieces so need to tread warily. (*Indoor Games for Two*)

Mafeking Kriegsspiel (Hubert Phillips, 1961). Again as Welbeck Kriegsspiel except that knights are Scouts. Scouts behave as ordinary knights but gather information each turn whether they move or not. The umpire requires a supply of 5x5 grids for this purpose. He fills in a grid and passes it to the player revealing which enemy men are within range and their locations relative to the scout. (This is time-consuming: it is suggested that an unmoved scout has no access to intelligence even though the umpire, in preparing and passing the grid, would betray the fact that a scout had moved.) (*Indoor Games for Two*)

Quantum Kriegsspiel (Hubert Phillips, c.1920). Each player has a king whose position is known to the adversary at the outset but who otherwise selects his forces and deploys them secretly in his own half of the

board. Pieces are valued, and each player disposes of 40 points. The point values are Q=9, R=5, N=4, B=3, P=1 (notice that a knight is prized above a bishop). The only restriction is that a player may not have more than 12 pawns. Two published games show

widely divergent forces: in one game, 7 knights and 12 pawns lost to a queen, 2 rooks, 3 knights and 9 pawns, and in the other 3 queens, 2 knights and 5 pawns crushed 3 rooks, 5 bishops (all on white squares) and 10 pawns. (*Indoor Games for Two*)

2.2 Games with an umpire, one side only blind

One-Eye and Pickle Pot (attributed to E. N. Frankenstein, 1903). One player plays Kriegspiel; the other plays normally but cedes the queen (One-Eye) or both rooks (Pickle Pot) together with both knights and one bishop (he must state which). (*British Chess Magazine*, September 1903) [The source says only 'Mr' Frankenstein; identification with the problemist E. N. Frankenstein is editorial.]

Semi-Kriegspiel (David Silverman, 1971). White pieces are set up normally: Black has

only king and queen which he may place on any legal squares. White, moving first, plays blind while Black shares the master board with the umpire who advises White whenever he makes an illegal move or when check is given or a capture made by either side. Direction of checks and potential pawn captures are not announced. Clearly White is impregnable if he elects to move a knight back and forth. His main danger is giving stalemate which counts as a moral victory for Black. (*Your Move*)

2.3 Games without an umpire

Declaration Chess (Stasch Mlotkowski, 1917). White opens normally. Black conceals (writes down) his reply. White now either conceals his second move or looks at Black's move. If he conceals, White then looks at Black's move and plays it on the board. If White's concealed move gives check he must now play it openly when Black replies openly. If it is illegal, he must declare it and openly move the same man but not to capture or give check (but can discover check). If the man cannot move legally, White must move his king but again not to capture. If the K cannot move, the opponent chooses the man to be moved without further restriction. Play continues in this fashion. If a player exercises the privilege to see the opponent's last move he must reply openly and either capture or give check or, failing either, move his king. If he can do none of these the opponent chooses the man to be moved. When 16 or fewer men remain, either player, immediately on concealing a move, may declare an open game. The non-declarer conceals a move in reply or exercises his option to see opponent's move subject to the restriction above. Thereafter all moves are made openly. (*British Chess Magazine*, October 1917)

Liar Chess [Cleaton-Solomon] (Terry Cleaton, 1970, developed by Eric Solomon). In addition to the normal chessmen, 32 covers are needed, each capable of concealing the largest of the men. The covers have ordinary chess symbols on the front (the side facing the opponent), and have openings to the rear so that a player can see his own men. At the start of the game, each player sets up his covers so that the symbols conform to the normal chess array, and then secretly puts his men under them without regard to the symbols thereon.

A covered man, together with its cover, may be moved in the manner of any chessman. The move may correspond with the symbol shown on the cover, or the man beneath it, or both, or neither. Subsequently the man may be moved like a different chessman. The object is to capture the opponent's king. Checks are not announced, and there is no castling.

After any move by a covered man, the opponent may issue a Challenge. The man moved is now uncovered. If the challenge is vindicated (the move just made was illegal for the hidden man), the man is put back on the square it came from, still without its cover, and the turn passes to the challenger. If the challenge fails (the move just made was legal), the move stands, the challenger loses his turn,

and the player who has just moved moves again. In either case, the man uncovered henceforward moves normally. A challenge can only relate to the move just made; any previous illegal moves which passed unchallenged are ignored.

A player intending a capture by a covered man must announce his intention and allow his opponent to challenge. If there is no challenge, or the challenge fails, the player makes the capture. A player who captures a covered man may examine what he has captured.

An uncovered pawn promotes in the normal way. A covered man that reaches the back rank may be announced as a pawn. If there is no challenge, the player removes the man without revealing it and replaces it with a piece of paper, still under cover, on which the name of the promoted piece is written. If the challenge fails, the same procedure is followed. A king may not promote.

The only function of the symbols on the covers is as a prop to memory, to keep track of what is moved where. The game is largely one of bluff but several fundamental chess tenets (control of centre, pieces guarded) are valid. Over-protecting the king may only serve to reveal its whereabouts. Advancing a pawn as a rook to the seventh rank as a prelude to promotion is one of several tactical ploys.

The game was first played using toilet roll cores as covers, and was originally named accordingly. (Personal communication) [Text partly editorial]

Ghostrider Chess (Ralph Betza, 1978). Knights are invisible and are called Ghostriders. When a G is moved this is announced, also a check, but not the square moved to unless a capture is made. Pieces of either side may pass over squares occupied by Gs, even to castle. A G is captured in the same way as other men and the owner must concede the capture. The location of a G may be revealed at any time, the purpose being to stop the opponent moving through that square. Gs do not capture each other unless one player announces the square that they both occupy. A player in check from a G may attempt to capture it but a failed attempt loses the game. (*Nost-algia* 216)

Special Move Chess (quoted by Stephen Addison, 1983). Players write secretly the name of one of their pieces on a piece of paper. They then agree on a 'special move'. At any time during play a player may on turn reveal the name of his piece and make the special move with it. (*100 Other Games to Play on a Chessboard*)

Chapter 3

Unorthodox ways of capturing

[In normal chess, capture is by displacement (a piece captures by moving to its victim's square, and any man can capture any other regardless of rank). This chapter considers various other ways of capturing or immobilizing men. Some further ways of removing men from the board will be found in the chapter on transporting and in the miscellaneous chapter, while the reintroduction of captured men is considered in the chapter on introducing men during play.]

3.1 Capture by attacking

Rifle Chess, also known as **Shoot Chess** and **Shooting Chess** (W. B. Seabrook, 1921, though the *Oxford Companion to Chess* reports that similar capturing methods had been tried early in the 19th century in an Italian version of Kriegsspiel). Seabrook observed that when chess was invented in imitation of warfare, hand-to-hand fighting was the norm. With the introduction of firearms, warfare underwent a radical change: the opponent was now hit from a distance, the striker remaining stationary. Rifle Chess reflects this change. Displacement capture is dispensed with. Instead, where such a capture is legal, the attacker 'shoots' the victim but does not itself move (the king can be said to be assassinated rather than mated). The game is usually played with the additional rule that captures are obligatory with the player free to choose between alternatives. The reason for this rule is that the line pieces (and particularly the queen) are too powerful without it. F. J. Marshall found Rifle Chess problems 'remarkable' (*Fairy Chess Review*, August 1947). The variant was a favourite of another master, C. H. O'D. Alexander, who gave the following example of opening play: 1 e4 e5 2 b3 Nf6 3 Bb5 xe4 (compulsory) 4 xd7+ Ke7 5 Ba3+ Ke6 6 xf8 xd2 7 xd8 and White's position is overwhelming. An instant disaster for White would be 1 d4 e5! 2 xe5 Bb4+ and now White must give up the Q to let the K escape to d1. Traditionalists may find comfort in the fact that Seabrook wrote a book based on his personal experiences called *Asylum*.

There have been several extensions of Rifle Chess. In **Missile Chess** (R. Wayne

Schmittberger, date unclear) a man can only fire once. A counter or draughtsman is placed under each man to represent a missile, and instead of moving the man can fire its missile to a square to which it could otherwise move. Once a missile has been fired the counter is forfeited and that man cannot fire again. Men may also move and capture normally whether or not they have used their missiles, thus one tactic is to exchange men without missiles for those with missiles. The inventor proposes a number of variations: vary the number of missiles by type of piece; allow each player to allocate missiles as he sees fit (there would have to be restrictions on the queen); and give pieces both missiles and shields. A shield negates a missile attack but is destroyed by it (personal communication including a cutting from an unidentified source). In **Machine-Gun Chess** (J. E. H. Creed, 1941), every man attacked on both sides is removed simultaneously; thus pieces under mutual attack are both removed. The king is taken like any other piece. Screened pieces are not affected. Once a clearance has been made, further attacks may be revealed when these too are resolved, and so on. The object is to annihilate the opposition. Created as a problem theme (*Fairy Chess Review*, December 1941) but play is possible. John Bosley fostered a progressive version of the game. In **Autofire Chess** (Ralph Betza after Bill Rawlings, 1977) there is no obligation to capture, but if a capture is made all possible captures must be made with that piece (*Nostalgia* 211). The player can decide in which direction to shoot first, but must then continue to shoot along that line as

long as there are targets before changing direction of fire. Both pieces are removed in the event of a mutual attack. K, N, P have additional powers: they may continue to shoot along the same line provided there is no gap in it. In order not to give immediate advantage to White, there is an initial rule that the first capture of a game must be orthodox. In **Rapid-Fire Chess** (Tony Paletta, 1980) captures are not mandatory, but if a capture is made it is compulsory to capture all men attacked by the capturing piece. Only the first man in a line is captured, any behind it are considered screened. Kings have no royal powers: aim is to annihilate the opponent's men (*Chess Spectrum Newsletter*).

Archimedes Chess (Philip Cohen after Scott Marley, 1979). No displacement capture. Instead a man that is attacked by two or more enemy men is removed from the board (captured) if it is the attacker's move. The removal may expose further men to attack and removal in the same turn. The object is to

3.2 Squares with known or hidden dangers

Minefield Chess, also known as **Sea-Warfare Chess** (originator unknown, time of World War II). Each player secretly records on paper two squares in his own half of the board. These are 'mined', and if during the course of the game an enemy piece lands on one of them, the mine may be 'detonated' and the piece (which can include the king, which loses

3.3 Destruction of men on nearby squares

Capricorn Chess (V. R. Parton, 1970). The rooks are Capricorns, which move as rooks but instead of capturing normally they butt their victims off the board by landing on an adjacent square. Suppose White Ce1, Black men d5, d6, e7, f5; if White plays Ce6, he eliminates all four Black men. A king is in check if a hostile capricorn can move adjacent to it. Other pieces (knights, bishops, queens) can be designated butters instead of the rooks, though Parton suggests that queens and bishops are perhaps less suitable than rooks and knights, and in **Butters** (Parton, 1970) all men capture by butting (according to Parton, irregular initial formations are likely to give

capture (remove) the K. No check or e.p. capture. (*Nost-algia* 227)

All-Mate Chess, also known as **Generalized Chess [Tylor]** (Chris Tylor, 1979). Displacement capture is replaced by mate: a pawn or piece is captured when it is attacked and the player can neither capture the attacking piece, interpose a man, nor move the attacked man to a safe square. A move that escapes the mate is called a nullifying move: it prevents the capture but is not actually played. Check is abolished but the aim of the game remains the capture (checkmate) of the opponent's king. More than one man may be mated by a single move. In this event, the mating player can decide in which order the mated men are removed from the board. Removal may result in further mates, all of which are executed. Notice that a move may result in one or more of the player's own men getting mated. If a player overlooks a mate, the opponent has the option of leaving or removing the man. (*Eterosacco* 54)

at once) removed from play. A player may elect to wait until a more valuable piece arrives on the square before setting off the mine. The idea of the game, allegedly played on occasion by 'first-class masters', was to entice the enemy king forward in the end-game in support of an advancing pawn. (*Chess*, June 1942 and July 1943)

more interesting games). **Poloschach** (Hans Klüver, 1986), at which tournaments have been played, specifies explicitly that castling is illegal over threatened squares (Parton does not mention this) but otherwise would appear to be identical in everything except terminology. (*Chesshire Cat Playeth Looking Glass Chessys*, also Murkisch, *Hans Klüver: ein Schachporträt*)

Plague Chess (Ralph Betza after S. Walker, 1977). All men that move are carriers of the plague. On completion of a move, all squares adjacent to the arrival square of the man moved are infected and all men of either

colour on them ‘die’ before the same side moves again. However, capturing the plague-carrier prevents infection and a man attacked by the plague escapes infection if it moves away immediately. Dead men are removed from play. Infection persists for one move of each side. If a man moves to an infected square it dies at once but simultaneously infects adjacent squares. Check and checkmate take precedence over the plague and kings are immune from infection from men of their own colour. There are two offshoots of Plague Chess: in **Biological Warfare Chess**, the plague only attacks the opponent’s men; in **Immunity [Betza]**, a man that survives the plague is henceforth immune. (*Nost-algia* 213)

Atomic Chess (at least the second game to have carried this title, originator of this

version unclear). When a capture is made, the capturer, victim and all pieces (not pawns) on adjacent squares are removed. Kings cannot capture. Checkmate or destroy enemy K to win. Considerable opening research was done in 1996/7 on the first few moves of each side by Jonas Hoffmann and Peter Schaefer and later by Michael Uhl. Their findings pointed to 1 Nf3 and 1 Nh3 as the best opening moves for White, with 1 d4 and 1 e4 quite playable. Opening moves condemned for White are b3, e3, f3, g3, c4. Black’s replies get two exclamation marks for 1...f6 against 1 Nf3 (White follows with 2 Nd4!) and one for 1...Nf6 against 1 Nh3 and 1...d5 against 1 e4. It is perhaps axiomatic to observe that this is an explosive game, frequently brief and violent. (Personal communication forwarding material from the Internet)

3.4 Capture by moving as the target man

Moss Chess, also known as **Odious Chess**, **Tag Chess**, and **Zen Chess** (Moe Moss, 1970). Movement is normal but men capture with the action of the man being captured. A pawn can capture anything when moving forwards, and anything other than a pawn when moving backwards, even to the first rank. A pawn can be captured by anything but only by a single-square forward diagonal move. Pawns promote normally. The pawns are exceptionally strong. Suppose 1 a3. If Black naïvely replies 1...e5? then 2 axf8(N) and one bishop has gone, and if 2...dxf8 then 3 h3 forces Black to block the line by 3...f5 or 3...Nd7 (or even 3...Kd7) if the other bishop is not to go as well. If instead 2...hxf8? then 3 hxf8(Q) takes the rook, though after 3...Nxh8 or 3...gxh8 it is White’s turn to block the line (4 Nh3) if he is not to lose his own rook. The rules were first described in the

Montreal Star (16 January 1971). [Text partly editorial]

Spite Chess, also known as **Tag Chess** (David Silverman, 1973). Movement is normal but there is no displacement capture. Instead, a man that moves to a vacant square captures any of the opponent’s men that attack the square at the time of the move. This includes e.p. captures. For example, suppose White Pb2, Black Qf8, Be7, Pa4; now 1 b4 (xa4, xBe7) Qc5 (xb4). There is no check or mate; the object is to capture the king. Any hostile man played adjacent to the king wins outright, so it is necessary to cocoon the king. Games are short and favour White but it is often difficult to tell who is winning. Knights are preferred to rooks. (*Nost-algia* 181) [The repetition of ‘Tag Chess’ is not an error; both Moss Chess and Spite Chess are so known.]

3.5 Other forms of capture

Scaci Partonici (V. R. Parton, 1950s and later). A sequence of variants in which displacement capture is replaced by the custodian capture, common in ancient games, and its antithesis. The aim is to take more men than the opponent. Kings have no special powers. There are two forms of capture:

(1) A man moves so as to trap one or more opposing men between it and another friendly man in a line, orthogonally or diagonally, there being no vacant squares between any of the men involved.

(2) The reverse of the above, where a man moves so as to create a line in which one or

more friendly men are flanked by opposing men. Both flanking men are captured.

For example, suppose White Kd4, Ra1, Bd8, Na7, Black Qb6, Pc7. White to play can capture the Q with Kc5 or both black men with Ra5; Black to play can capture K and N with c5. Multiple captures, involving one or both of these forms, are possible.

Parton was clear on the method of capture but less clear on the form the game should take. Initially he proposed the 8x8 board on which the men are arranged in the usual order except that the pawns are on the back rank with the pieces in front of them. All pieces move forward only (no sideways movement). A pawn or piece reaching the end rank is immobilized. Later he allowed pieces reaching the end rank to regain their usual powers, with pawns promoting normally. He then introduced the game on the 10x10 board with 14 men a side, later modifying this to 20 men a side: four pawns plus all the pieces doubled in number. Array, 2nd/3rd and 8th/9th ranks, PRNBQKBNRP, with the further option of placing six more pawns in the middle of the back ranks. All men move forward only. The aim is again to capture more men than the opponent. The game is stopped when the pieces are so reduced that likelihood of further captures is negligible. A tilt towards orthodoxy is seen in **Royal Scaci Partonici**, which is identical except the object is to capture the opposing king. (*Chess - Curiouser and Curiouser, Chesshyre Cat Playeth Looking Glass Chessys, 100 Squares for Chess and Diamante*)

Bingo Chess [Gutzwiller] (James Gutzwiller, 1970). If a player's move completes a fully occupied rank, file, or diagonal (presumably of any length), he calls 'Bingo!' and removes all his opponent's men in the line. A king may be mated or bingomated. Presumably no displacement captures? (*Nost-algia 278/9*)

Cassandra Chess [Betza] (Ralph Betza, 1974). After every n moves, where n is a number agreed by the players, each player predicts where an opposing man of specific rank will be in n moves time. This is announced. Thus Black could predict that there will be a white rook on a1. If the prediction proves correct, the piece is removed

from the board. The game is won either by checkmate or by removing the opposing king by prediction. (*Nost-algia 168*)

Blood-Brother Chess (Philip Cohen and R. Wayne Schmittberger, 1980). Pieces (not pawns) guard identical pieces, including any promoted pieces, at all times. Kings guard queens. If a piece is captured, a blood-brother recapture must be immediate (passion cools quickly) but not if the piece is defended normally. Favours attacking players. (*Nost-algia 247/350*)

Crushed Chess (quoted by C. Pickover, 1992). After every ten moves, the perimeter squares and all men on them are removed from play. A game cannot therefore last longer than 30 moves. The winner is the player whose king survives the longest. (*Mazes for the Mind*)

En Passant Chess, otherwise known as **All-In En Passant** (origins unknown). All pieces are subject to e.p. capture if crossing a square attacked by an enemy piece. The knight is considered to cross the square orthogonally adjacent to it. Less radically, Ekstrom, the Swedish master, and several others, would allow a piece to take a pawn en passant, other captures remaining as usual. (*Nost-algia 217*) [I haven't traced a specific reference for the Ekstrom statement, but I am sure that the idea has been suggested many times.]

Kidnapping Chess (H. Clifford Garner, c. 1950). After Black's 6th move, White kidnaps (removes) a black knight, then black kidnaps a white knight. After move 12, bishops are similarly removed, rooks after the 18th and queens after the 24th. Thereafter play is normal. A piece may not be removed that exposes a king to check. A side that does not have the appropriate piece for kidnapping suffers no penalty, putting a premium on sacrificial play. These removals do not count as a move; thus if Black delivers check just prior to a kidnapping, White must get out of check immediately after the pieces are taken off. **Removal Blitz Chess** (E. H. Ratcliffe, 1952) is Lightning Chess with the same rule. (*Nouveaux Jeux d'Echecs Non-orthodoxes, also Chess, May 1952*)

Kamikaze Chess [Laws], also known as **Hara-Kiri Chess** (from an idea originally by B. G. Laws, 1928). A piece making a capture is removed from the board together with the captured man. It follows that a king cannot defend himself by capturing an attacker. Captures are not compulsory. The game lends itself to progressive play. Here is a stark example: 1 e3 2 f6, g6?? 3 Bd3, Bxg6, Qh5. Another version of the game allows no checks, the object being to get a pawn to the 8th rank. The kamikaze piece was originally a problem theme, and was not named until 1965. (*Oxford Companion to Chess*, also *Eteroscacco* 51)

[This provides an example of how a small modification to an apparently artificial problemistic idea can yield a playable game. It was tried in its original form at a meeting of problemists in France, and found quite unplayable. Yet Progressive Kamikaze appears to be entirely practicable.]

Arithmetical Chess (C. G. Lewin, 1973). Based on Rhythmomachia but using a standard board and men, Arithmetical Chess differs from orthochess only in the method of capture. An orthodox capture can only be made between like men; for example, NxN. The alternative method of capture is based on the numerical values of the pieces which are: Pawn-1, Knight-2, Bishop-3, Rook-4, Queen-6, King-8. Each man is deemed to have lines of fire radiating orthogonally and diagonally from the square on which it stands (coinciding exactly with the move of a queen). A man may be captured if its numerical value is equal to the number obtained by adding, multiplying, subtracting or dividing the values of two or more opposing men in whose unimpeded line of fire it stands. Signs may not be mixed in an equation; thus three pawns and a bishop

3.6 Immobilization

Madrasi Chess (Abdul Karwatkar, 1979). Like men of opposite colours observing one another are paralysed and can neither move nor give check. A paralysed man however retains the power to paralyse: thus after 1 e4 d5 2 c4, all three pawns are inert. A pinned man can paralyse. Kings are unaffected. The status of two pawns in an e.p. situation has been debated: it can be argued that both are

could capture a queen ($1+1+1+3=6$) but a rook, bishop and pawn could not ($4+3-1=6$). The captured man is replaced by any one of the men making the capture, at the capturer's choice. Two or more pawns may not capture an opposing pawn by multiplication or division but otherwise pawns may capture and be captured in the same way as other men. Capturing is not compulsory. A pawn may be promoted in the normal way or at the end of any subsequent move. A pawn which is not promoted immediately cannot move. The aim of the game is to capture the enemy king which may be taken by any man if in check, or by an arithmetical capture.

A fast-moving game, with pawn promotion common since an arithmetical capture may allow a pawn to move immediately to replace a captured man on the 7th or 8th ranks. The king is surprisingly vulnerable, making for short games. (*Games and Puzzles* 16)

Goliath Chess (Gianluca Vecchi, 1994). Orthochess except that after making a capture a piece may make a second capture without moving (as in Rifle Chess). Shooting at the K is forbidden. Here is a brevity won by Aldo Kustrin against the inventor: 1 d4 e6 2 Nf3 Qf6 3 Nbd2 Nc6 4 Nb3 Qg6 5 Qd3 Qxg2xf1 6 Qxh7xh8 Qxh1xf3+ 7 Resigns (White, two pieces down, now loses his Q!). (*Eteroscacco* 74)

Divide and Conquer (Ian Richardson, 2000). Each side has K, Q, 8xP (10 men only); White Ke1, Qd1, Ps 3rd rank, Black Kd8, Qe8, Ps 6th rank. A turn consists of moving K, Q, P in any order. Capture is by moving between two enemy men (both captured), blank squares not counting. (Manuscript notes presumably derived from personal communication)

inert or only the pawn able to capture e.p. is inert. Madrasi Chess is a popular problem theme. Played as a game it introduces some interesting strategies. A brief example: after 1 e4 e5 2 Nf3 Nc6 3 Bc4 Bc5, White could try 4 Nxe5? d6 5 d4 (if 5 Bxf7+, Kxf7 is legal; or 5 Qh5 Be6 is playable) Bxd4 6 Qxd4? dxe5 and the WQ is lost. (*Eteroscacco* 7, *Nost-algia* 288)

[Two related games which have been played at meetings of problemists in France are **Kriegspiel Madrasi**, which is hilarious, and **Isardam**, in which a move which would cause a Madrasi paralysis is illegal. Fool's Mate in Isardam is 1 e3 f6 2 Bd3 h6 3 Bg6; not the normal 1 f3 e5 2 g4 Qh4, because 3...QxK would leave the queens paralysing each other and so would not be permitted. This might seem an artificial problemistic notion with no relevance to real life, but it was tried in a nine-player all-play-all tournament and was found surprisingly practicable.]

Koopa Chess (inventor unknown, 1990). Variant based on the Mario Brothers series of video games. Men are either active (normal) or stunned. When an active piece is 'captured' it is stunned for two moves (known as the Duration). A stunned piece does not move. The capturing piece bounces on to the next square in the same direction. If this square is off the board, the capturing piece is out of the game. If the square is unoccupied, the move ends there. If it is occupied by an active man of either colour, this also is stunned and the capturing piece moves on. If it is occupied by

3.7 Capture of own men

Reform Chess [Tabi], also known as **Free-Capture Chess** (L. Tabi, 1971). Either side may capture its own men as well as the opponent's. A problem theme but perfectly playable. In **Suicide Chess [piece removal]**

3.8 Checking of own king

Bicolour Chess (Gabriel Authier, 1958). Kings are subject to check and checkmate by own as well as opponent's pieces. The Q and QN are interchanged in the array; castling illegal. Games are short and oversights come easily, as witness this example from actual play: 1 e4 c5 2 Ne3 Qe5 (centralizing the Q is usually a good idea) 3 f3 e6 4 Kf2 (unpinning the back-rank pieces) d5? (typical bicolour blindness) 5 Nxd5 and the recapture by 5...exd5 would leave Black in check from his own Q.

a stunned piece of either colour, this can be kicked; the kicker occupies the square, and the kicked piece moves off the board (and out of the game) in the same direction, carrying with it all men in its path. Stunning the enemy king does not win; it must be kicked off the board (a threat to do so is check). No e.p.; a pawn bouncing to the 8th rank promotes. It is permitted to stun one's own pieces (but not until one piece of the opposite colour has been stunned) and to kick them. Many variations have been tried. (Unprovenanced rules pamphlet)

Shock Chess (Alessandro Castelli, 1992) When a player attacks an opponent's man (or men) that man 'suffers shock' and may not move on the next turn. A man cannot be shocked by the same piece twice in succession. Kings are not affected. (*Eterosacco* 58)

Fossil Chess (quoted by C. Pickover, 1992). After its first move a pawn becomes a fossil and cannot move again. A piece capturing it is also fossilized. A recipe for gridlock? (*Mazes for the Mind*)

(origins unknown, and not to be confused with Losing Chess), a player may remove one of his own men from the board instead of moving. (*Feenschach*, May 1971, also Berloquin, *100 Jeux de Table*)

Chris Tylor has suggested the orthocheck array with a rule that self-check does not apply until the king or the potentially offending piece has moved, and Mark Ridley modifies this to permit castling. **Bicapture Chess** (Roméo Bédoni, 1958) restores the original rules and array but a player may capture his own men, a privilege which mitigates some of the parent's excesses. Boyer organized an international correspondence tournament in 1961. (*Nost-algia* 169, *Eterosacco* 54, *Nouveaux Jeux d'Echecs Intéressants*)

Chapter 4

Compulsions and restrictions

[This chapter considers games in which the normal movement of the men is subject to constraints of various kinds. Some of the ideas originated as problem themes and appear to be unplayable as games, but David obviously thought they should be included; they are on record, they have novel features, and even if they are unplayable in their present form it may be that quite a small change would make all the difference.]

4.1 Compulsions and restrictions relating to check

Checkless Chess, also known as **Prohibition Chess** (origins unknown, see below). Neither player may check except to give checkmate. The game gives the kings a more active role, the prohibition permitting some fanciful strategy and tactics. To effect mate, a markedly superior force is usually necessary. Several authorities, possibly quoting one another, have suggested that checks should be permitted if on a direct path to mate, i.e. a series of checks that ends in mate. A variant, **Absolute Checkless Chess** (R. Powell, 1975), forbids a piece to cross a square where, if it stopped, it would give check. Checkless Chess is a popular problem theme. [David conjectured 'early 1800s?' for the variant's origin and several writers have said more or less the same, but the earliest definite reference I have seen is a quotation from Max Lange's 1857 book *Sammlung neuer Schachpartien* in *Nouveaux Jeux d'Echecs Non-orthodoxes*.]

Pin Chess, also known as **Stevens' Principle** (pre-1872). Pinned men do not check. Essentially a problem theme, though *Variant Chess* 4 reported correspondence in the *Westminster Papers* (1872-5) which included an example from actual play. [Text revised]

Mummy Chess (Frank Maus, 1923). Inspired

by Carter's discovery of Tutankhamen's tomb the previous year. King are mummies which can only move when excavated (checked), though a check may be parried by interposition or capture if this is possible and preferred. Once during the game the mummy (king) can change its tomb (castle), though not to get out of check. Object is to get opponent's mummy safely into a museum (mate it). The idea of a king unable to move unless checked was to be reinvented without the archaeological gloss, and **Idle Kings Chess** (V. R. Parton, 1950s) offers an additional twist: the kings are absent from the initial array, and after Black's 12th move White places his king on any vacant square (but not in check) and Black does likewise. (*British Chess Magazine*, December 1923, *Nouveaux Jeux d'Echecs Non-orthodoxes*)

Check Force (Bruce R. Trone, 1976). The checking player dictates how check is to be parried. (*Nost-algia* 202)

Patzer Chess (Tony Paletta, 1980). A player must check if it is possible to do so but may choose if more than one check is available. A player may win by 'decimation' - 10 consecutive checks. Hence perpetual check is a win for the player giving it. (*Chess Spectrum Newsletter*)

4.2 Compulsions and restrictions relating to capture

Must-Capture Chess, also known as **Compulsion Chess**, **The Forced Game**, **The Ladies' Game**, **The Maiden's Game**. Mentioned in the Alfonso manuscript (1283)

where it is improbably ascribed to the ladies of Morocco. A player is obliged to make a capture if able to do so legally, but may choose between alternatives. A lively

offspring is **Madcap Chess** or **Series Must-Capture Chess** (Mannis Charosh, 1950s) in which the player making a capture is obliged to make a further capture if one is available, and so on, as part of a single turn of play. (*Oxford Companion to Chess*)

Levantine Chess. It was sometimes customary in the Levant (early 19th century) to play with a 'trusted piece' which could not be taken except when it attacked an opponent's man. [David's files cite two sources: 'Marinelli 1826' and 'Triple Chess / 1040 d 26(2)' (which I take to be a British Library shelfmark). I take this to be an English translation or edition of Marinelli's *Il Giuoco degli Scacchi fra Tre* of 1722, in which case 'early 19th century' should possibly read 'early 18th', but it would be necessary to consult an original edition to find out.]

Guard Chess (origins unknown). A variant common in Iceland up to present century. A guarded man could not be captured, although some players allowed the taking of a piece defended only by the king (Murray). According to Boyer (*Les Jeux d'Echecs Non-orthodoxes*) the game can be lively: for one reason, a piece, if defended, can give mate no matter how many times it is attacked. Guard Chess may have a common ancestry with Joara-Joari (see 'Indian Chess' later). [I have to say that I find this last statement hard to credit. I can see no evidence for it either in Murray or in Boyer, and there is no other reference in David's files. But he may have had some other source of which I am unaware.]

Immunity Chess [like pieces] (origins unknown). Pieces may not be captured by the same type of pieces as those which guard them. The K has no immunity. **Allergy Chess**

4.3 Restrictions on the men able to move

Maximummer Chess (based on a concept of T. R. Dawson, 1913). Players must make their geometrically longest legal move. Unit is one square orthogonally. One square diagonally = 1.41; knight move = 2.24. Problem theme, where the restriction is normally applied only to Black; unsatisfactory as a game. Both sides

is the reverse: pieces may only be captured by the same type of pieces as those which guard them (check and checkmate normal). A problem theme but (just) playable. (Correspondence between John Gollon and Philip Cohen)

Blockade Chess (Students of Oslo University, 1971). Only pieces of the same kind may capture each other. Kings may not capture. (*Feenschach*, March 1972)

Recaptureless Chess (Tony Paletta, 1980). Immediate recapture is not allowed unless the capture gave check. In the Danish Gambit 1 e4 e5 2 d4 exd4 3 c3 dxc3 4 Bc4, 4...cxb2 wins a piece. Some interesting play. (*Chess Spectrum Newsletter*)

Barrier Chess [Stone] (Jed Stone, 1982). No piece may move through a square on which, if it were to stop, it could be captured, but it may move onto a threatened square. Thus two opposing rooks facing each other on an open file could move freely along the rank but only one square forwards or backwards. A king facing a hostile rook down an open file is not in check because the rook, to give check, would have to pass through the square immediately in front of the king which is defended by the king. However, if this square was guarded by an opposing man, then the king would be in check. (Stone)

Cripple Chess (D. B. Pritchard, 1991). Kings move only to capture. With kings confined to the middle files, development of the rooks poses problems and endgames are rare.

Shaft Chess (James Coleman, 1997). Men only capture backwards (hence pawns cannot capture). (Manuscript notes presumably deriving from personal communication)

must make knight moves until a man is captured. (*Chess Amateur*, December 1913)

Proximity Chess, also known as **Nearest-Man Mover**, **Short-Distance Chess** (origin unclear, see below). After White opens, each player must thereafter move the man

geometrically nearest to the arrival square of the last man moved by the opponent, subject to the move being legal. A player can choose between alternatives. [David gives 'W. H. Rawlings' with no date, but the earliest reference I have found is to a problem by J. J. Vermet quoted in *Fairy Chess Review* in December 1950. All the references cited in David's files appear to be later than this.]

Monkey Chess. Black copies White's moves. A problem theme rather than a valid game, Monkey Chess offers a challenge to composers for the shortest games in which each of the chessmen delivers mate in the fewest moves. Loyd gave a mate in 4 with the queen; Gik gives mates in 6 with a knight, 7 with a pawn, 8 with a bishop or rook, and 9 with the king. (*Schach und Mathematik*)

One-Shot Chess (Ralph Betza, 1980). No man may repeat a move in the same direction and over the same distance. Moves and captures are treated as distinct. Promotion is on the 7th rank (since a pawn can't reach the 8th) and stalemate wins. Described by a well-known player as 'the most useless chessic idea to cross the mind of man'. (*Nostalgia* 248)

4.4 Walls, obstacles, and missing squares

Capapranka (H. C. Garner, 1952). After both sides have made an opening move either player, on turn, may place a cap over a man of either colour, other than a king, or on an empty square. This counts as a move. The effect is to remove the square and its occupant, if any, from play. No move may be made across the 'hole' thus created. Once on the board, the cap cannot be removed from play but may at any time be transferred to another square instead of a normal move, except that a check or checkmate cannot be parried by moving the cap. If the cap is pinned between an attacking piece and the king, the defender may cap the attacking piece or move the cap to another square on the attacking line. The reply to a cap move must be a chess move and no player may move the cap on two consecutive turns. Described as 'very amusing' at 15 seconds a move. (*Chess*, May 1952)

Null Chess (Philip Cohen, 1960s). If one or

Musical Chess (Bruce Trone, 1986). Every man must move once before any can move twice, and so on. Opportunities for a late attack by the player who starts the next cycle first. (Manuscript note presumably deriving from personal communication)

Alternating Chess [Poniachik] (Jaime Poniachik, 1994). If White opens with a pawn move Black must do likewise, similarly if White opens with a piece move. Thereafter pawn and piece moves must alternate, so if White opened with a pawn, his second move, and Black's second move, must be with a piece. Win by capturing (not mating) the king. (Personal communication)

Hierarchical Chess (origin unclear). On each turn you move a man in the order PNBROK. If you have men of the kind due but cannot move any, you lose the game; if you do not have any, you move the piece ranked next. Check must be countered by the correct piece; castling is a rook move. White appears to have a big advantage as a Q move must be answered by a Q move, so White could, for example, place an unguarded Q next to the opponent's K. (*Variant Chess* 45)

more captures takes place on a square, that square becomes a null as soon as it is vacated. A null square is a block; it may not be occupied or crossed. There is no e.p. (*Eteroscacco* 55)

Cheshire Cat Chess (V. R. Parton, 1971). Every time a square is vacated it disappears although pieces may subsequently pass over it to move, capture or check. Vanished squares can be marked with counters. The K may move like a Q on its first move only (to avoid it being penned in by the disappearance of surrounding squares); castling impossible. (*Chesshyre Cat Playeth Looking Glass Chessys*)

Centreless Chess (Tony Paletta, 1980). The squares d4, d4, d5, e5 may not be occupied at any time, nor crossed except by knight moves. There are no d and e pawns. (*Chess Spectrum Newsletter*)

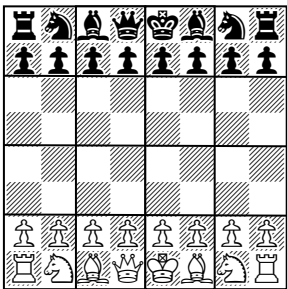
Relativistic Chess (Lee Corbin and Kevin Whyte, 1980s). Squares attacked by the opponent do not exist for the player. If WBa1 attacks BPg7, Black can play gxal (promotes). Kings behave normally. (Pickover, *Mazes for the Mind*)

Obstacle Chess (William Groman, 1987). The squares c3, f3, c6, and f6 are obstacle squares. Line pieces may not occupy or cross an obstacle square. Kings, knights and pawns are unaffected. (Manuscript notes presumably deriving from personal communication)

Horatio Chess (Frank Tapson, 1989). Inspired by Macaulay's poem. The players create barriers between agreed squares, thereby forming bridges through which pieces must pass. The inventor suggests granting pawns a sideways step so that they will not be immobilized at a barrier. Rather slow-moving and favouring defence. (Note apparently emanating from the inventor)

4.5 Lines to be crossed

Grid Chess (Walter Stead, 1953). A popular problem theme, adapted to game play. The board is divided by three horizontal and three vertical lines into sixteen 2x2 squares :



There is only one rule: a man, when moving, must cross at least one grid line. This means that opposing men sharing the same 2x2 square have no effect on each other (so the kings can be adjacent). There are strictures on practical play. A wing pawn can never move beyond the 5th rank and other pawns can only do so by capturing; kings cannot reach corner squares. Knights alone are unaffected by grid lines. In endings, K+Q (but not K+R) can

No-Entry Chess (D. B. Pritchard, 1989). After the opening move, White places a token on any empty square. On the next move only, the opponent may not occupy that square (another version also forbids a man to cross the square). Thereafter, a player may, after moving, transfer the token to any empty square. A player may not bar the same square three times in succession. (Apparently original to the first edition)

Maze Chess (Stephen Taverner, 1991). An agreed number of 'walls' is raised between adjacent squares before play begins. Walls cannot be crossed except by knights. George Jelliss proposes movable walls in which a piece or pawn can cause a wall to be displaced at the expense of a move. (*Variant Chess* 6)

Black Hole Chess (quoted by C. Pickover, 1992). Black holes at d5 and f5. A piece alighting on or traversing a black hole is removed from play. (*Mazes for the Mind*)

mate K. (*Fairy Chess Review*, August 1953)

Displaced Grid Chess (Doug Grant, 1974, also known as **DG Chess** after its inventor). A form of Grid Chess in which the grid lines are displaced by one rank and one file (so producing four 1x1 cells in the corners, twelve 1x2 cells along the edges, and nine 2x2 cells in the centre). The effect is to increase mobility and eliminate 'dead spots'. For example, kings can reach corner squares, impossible in Grid Chess. (*Nost-algia* 168)

Berolina Grid Chess, also known as **Gridolina** (originator not noted). A combination of Berolina and Grid Chess. Better than Grid Chess since Berolina pawns cross grid lines more easily. Described in *World Game Review* 10 as the most popular of the NOST combination games. (*Nost-algia* 150, also *Nost-algia* 112 'not seen')

Plaid Chess (Bill Rawlings, 1974). A happy hybrid of Progressive Chess and Grid Chess. A postal horror story: 1 e4 2 d5, Na6 3 Bxa6, Bxb7, Bc6 mate. (*Nost-algia* 168)

4.6 Other compulsions and restrictions

Feldschach (Karl Kaiser, 1924). An attempt to balance the advantage of White in orthochess. Suggested adjustments are to White's play; Black unaffected. Pawns move only one square until reaching the 4th rank when two-square move permitted. Castling allowed if rook anywhere on first rank but Kf1/Re1 illegal. Pawns promote only to file piece and only if original piece captured; pawn on e-file promotes to Feldkönig (moves like K). 'With these simple adjustments,' remarks the inventor, 'harmony is restored.' (*Arbeiter Schachzeitung*, October 1924)

Imitator Chess, also known as **Coin Chess** and **Mimic Chess** (T. C. L. Kok writing as 'Gerrit Jansen', 1939). The imitator was originally invented as a fairy piece for problem composition (*Fairy Chess Review*, April 1939). It is initially placed on a central square, and then exactly copies every move played. It can only move to an empty square and cannot pass over occupied squares, and a move is illegal if the corresponding move of the man and of the imitator are considered as simultaneous; thus with Qd1 and Id2 the move Qd7/Id8 is legal.

There have been several variants. One has queens as imitators. In this game the queens can also move independently. They cannot capture or give check and cannot be captured (*Chess Spectrum Newsletter*). Another version allows the imitator to leap men provided that the square actually moved to is vacant (*Eteroscacco* 48). In yet another, due to Ed Pegg, 1990, the imitator starts on e3, it can be pushed on to but not beyond an occupied square, and if it is pushed on to an occupied square the occupant, whatever its colour, is captured. Castling does not move the mimic, and a stalemated player loses (*Nost-algia* 327).

Unambiguous Three-Symbol Chess, also known as **U-Chess** (Mannis Charosh after Irving Chernev, 1953, though C. E. Swanson recalls playing a similar game under the name **Telegraph Chess** and thinks the origins may go back as far as World War I). The game is based on the Anglo-American descriptive notation. A move may only be made if it can

be expressed in that notation by three symbols or less. A dash (hyphen) does not count as a symbol, but 'x' (captures) does. The win is achieved by taking the king. As examples of ambiguity, if white bishops can go to both QB4 (c4) and KB4 (f4) and one of these moves is check, the move is considered ambiguous even though it might be transcribed as B-B4+. As an extension of this idea, the move would still be ruled ambiguous even if one of the bishops was pinned and unable to move. In the position WKb2 BRs a3,c1, neither rook can be taken but White can safely play Ka1 or Kc3. Pawn promotion is only by a non-capture move but PxK on the 8th ends the game for the promotion is then superfluous, and PxP will mean PxP e.p. as this is the only legal capture possible. Castles is always playable. Despite its artificial foundation, games have been described as 'extremely playable ... full of surprises'. U-chess is an established problem theme.

In the initial position, only the d- and e-pawns can move and it is possible for both players to suffer paralysis after only four moves. The usual endings work also in U-Chess; thus K+R v K and K+B+B v K are wins. (*Fairy Chess Review*, October 1953, also *Nost-algia* 223) [I cannot trace the Swanson reference, and presume it derives from personal communication.]

No-Retreat Chess (V. R. Parton and J. Boyer, 1954). All men move, capture and check forwards or sideways only. If the king can pass the major pieces it is usually safe. (*Nouveaux Jeux d'Echecs Non-orthodoxes*)

Simpleton Chess, also known as **Simpletonry** (V. R. Parton, 1961). A none-too-serious suggestion for simplifying the game for beginners who, lacking all judgment in the daybreak of their experience, have otherwise to choose between a plethora of moves. (1) A player must check if he can, but may choose between alternatives; (2) failing a check, a player must capture if he can, but may choose between alternatives; (3) if neither capture nor check is available, a pawn must be moved (presumably if no pawn move is available, the player has a free choice). The above

conditions are waived for a player whose king is in check. (*Chess - Curiouser and Curiouser*)

One-Way Chess [Jensch] (G. W. Jensch, 1969). A piece cannot exit a square from the direction it entered it. (Manuscript note presumably deriving from personal communication)

Checkers Chess [Multhopp] (Hans Multhopp, 1974). Men move forward only (no sideways movement) until they reach the eighth rank, when they revert to their normal moves; pawns unaffected. (*Neue Chess* 9)

Brickchucking (Alan Holloway and Gary Smith, 1975). Pieces move only forwards or sideways (K, Q, R) but check and checkmate are also effective backwards. A promoted piece can only move backwards or sideways, but can check in both directions. (Letter to *Pergamon Chess*, February 1990)

Monochromatic Chess, also known as **Mono-Chess** (origins unknown). Pieces can only move to squares of the same colour. Knights have a double leap. Pawns cannot move beyond fourth rank except by captures. Only the bishops are unaffected. There is an elegant Fool's mate: 1 f4 e5 2 fxe5 Qh4. Cedric Lytton suggests replacing the knights with 3-1 leapers. (Stone, also Krystufek, *100 mal Kniffel Schach*) [This is very much a problemists' notion and surely unplayable as a game, and I am surprised it was not one of the entries that David decided to drop. It has generated some fine 'how did we get here' problems, but in a true game White can use his white-square NQBR to attack f7 and Black can only bring up N and B to defend it; his queen runs on black squares, and his white-square rook only has access to ranks 2/4/6/8.]

Threat Chess (Alessandro Castelli, 1991). Except when giving check, a player accompanies each move with a threat, and the opponent's reply (and accompanying threat) must be such that this threat remains legally playable. Castelli gives the following example. Black, who can make a threat before White's first move, chooses to threaten 'd7-d5', and so White cannot open 1 d2-d4 'd4-d5' because it

would make Black's d7-d5 unthreatenable. White therefore plays 1 e2-e4 'e4-e5' and this prevents Black from replying e7-e5. Black replies 1...Ng8-f6 (there is no need actually to play what he threatened last time), and threatens 'Nf6-e4'. White continues with 2 e4-e5 'e5-e6' (he cannot threaten 'e5xf6' because Black's threatened Nf6-e4 will have taken the knight out of range), and after 2...Nf6-g4 'Ng4-e5' 3 e5-e6 'e6xf7' we see one of the salient features of the game: Black can neither capture on e6 nor advance his threatened pawn, since either will make White's threat unplayable. However, he can play 3...Ng4xf2 'Nf2-d1', and White cannot capture on f2 for the same reason. 4 Bf1-c4 'e6xf7' (the threat will now give mate) d7-d5 'd5xc4' 5 Qd1-f3 'Qf3-f7' (again the threat will give mate, but now Black can take on e6 since the threat is not with this pawn) f7xe6 'd5xc4' and there is a trap: if White plays 6 Qh5+ (check, so no accompanying threat), Black will reply 6...g7-g6 'g6xh5' and White will lose his queen. Instead, 6 Qf3xf2 'Nb1-c3' d5xc4 'e6-e5' and so on. (*Eteroscacco* 57) [Text editorial]

Banana-Skin Chess (Jaime Poniachik, 1995). All men except Ks and Ns move to the limit possible, thus White's first move of a pawn would be to the 6th rank. (*Variant Chess* 18)

Unambiguous Chess (Fabrice Liardet, 2004). It is illegal to move to a square that could be occupied by more than one of your pieces. For example, after 1 e4 e5, 2 Bc4 is illegal since 2 c4 would also be possible. This applies also to captures of the king, so kings can occupy adjacent squares. (*Quadrature* 56) [This is unplayable as a game because White has a forced win, as was demonstrated by the inventor, but it led to Ambiguous Chess, where a player pointed to the destination square of his move and his opponent chose which of the available men should go there. This is now usually played in the form 'Substitution Chess', where a player makes a provisional move and his opponent can substitute a different move to the same square if one is available, and it will be found in the chapter on games where a player can move his opponent's men.]

Chapter 5

Introduction of new or captured men during play

[In ordinary chess, all the men are on the board at the start, and a captured man takes no further part in the play. This chapter considers games where extra men may be added during play, and where a captured man may be put back on the board. Games where men are added only during a preliminary phase are considered in the chapter on games with unorthodox initial arrays.]

5.1 Men are held or placed in reserve, and may be introduced during play

Pocket Knight Chess, also known as **Tombola Chess**. Origins unknown (late 19th-early 20th century). Before play starts both players take a knight 'in the pocket'. The piece may be the QN, the KN, or, more usually today, an extra knight. At any time during the game a player can drop the pocket knight on any empty square instead of making a normal move. Thereafter the knight behaves normally. Known as Tombola Chess in its earlier days and long a popular club game, there was a tournament in Amsterdam (1909) (QN removed) and another in Berlin (1910) (KN removed), the latter with 150 players and a further half-hundred spectators. The game has flourished in both the Netherlands and Germany (where two knights in the pocket is sometimes played; in this variant a knight cannot be dropped to give check), and the British Correspondence Chess Society has run Pocket Knight events with two restrictions: the knight cannot enter with check nor to cover a square that would prevent the opponent castling. V. N. Belov records that Boris Stechkin, who headed (1939) the gulag special laboratory designing diesel engines for Soviet aircraft, introduced Pocket Knight Chess to the other prisoners with whom it soon became a firm favourite - the game had 'a good influence on the prisoners' psychology and diverted them from sad thoughts' although players 'frequently forgot they had knights in their pockets'. Stechkin was later released and was awarded the Stalin Prize (1946), admitted to the Academy of Science (1953) and received the title of Hero of Socialist Labour (1961), though none of these distinctions, so far as is known, were rewards for his evangelical chess work. Hans Klüver has

suggested a tournament version in which players have a knight of each colour in reserve. In a suggested variation (Gring, 1947), each player is allowed to bring on an extra knight on a vacated corner square, Black first to compensate for moving second. In **Kleptomaniac Chess** a piece other than a knight is pocketed. (*British Chess Magazine*, February 1911, and numerous later references)

Bennie Chess (Bennie Prince, 1970s?) Instead of moving, a player may remove one of his men (not the king) from the board. Later it can be played to any vacant square (pawn on 1st or 8th rank excluded) instead of a move. Because it is advantageous for both players to remove most pieces from the board at the start of a game, two controls seem necessary. Two suggest themselves: a removed man must be replaced before another is removed, and an attacked man cannot be removed. (Manuscript notes presumably deriving from personal communication)

Recycle Chess, also known as **Robertschach** (R. Huber, 1999). A player may capture his own men (not the K) and later drop them back on the board. The variant has two advantages over games such as Chessgi and Hostage Chess as described below: forces are constantly reduced, and the K can capture men blocking his escape squares. (*Quadrature* 53)

Sabbatical Chess (Adrian Millward, 1998). Chessmen have usual point values: Queen 9, Rook 5, Bishop/Knight 3, Pawn 1. Captured men are placed off the board in front of the player. After moving, the turn player can claim 'sabbatical' for any one of his pieces on

the board other than a pawn, the king, or a piece just moved provided it is of the same or lesser value than the captured man or men in front of the player. For example, a player has captured a bishop and two pawns (total 5 points). After moving, he could now remove a rook, knight or bishop on sabbatical. If a rook, the captured pieces are henceforth out of play;

if a bishop or knight, the two captured pawns are retained. A piece on sabbatical can be dropped back on the board on an empty square at any time after a normal move, the two counting as a single move. A piece cannot return from sabbatical on the same turn that a piece is withdrawn on sabbatical. (*Variant Chess* 35)

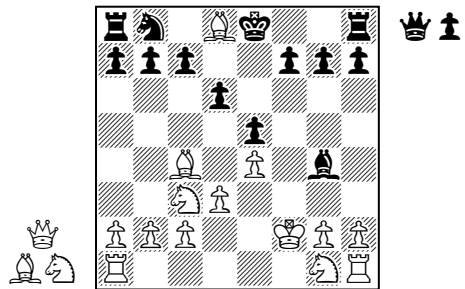
5.2 A captured man changes sides, and may be reintroduced by its captor

The Double Chess Game (*Archive der Spiele III*, Berlin 1821). Orthochess, except that a captured man may change colour and reenter the game. The rule is that it must be immediately placed on a vacant square corresponding to its rank in the initial array of the captor. If no such square is available, it is removed from play (the player may opt for this in any case). A queen may be placed on either the queen's or king's square, a bishop on its square colour if both bishops' squares are vacant, and if not, then on the vacant square regardless of colour, and a pawn on any vacant square on the 2nd rank. A very slow game according to Verney who suggested that a player who had five or more pawns should not be allowed to reenter a pawn.

Reinforcement Chess (Joseph Boyer, 1951). A captured man changes sides and is immediately replaced by the player making the capture on any empty square subject to two restrictions: a bishop must be placed on a square of the same colour as that on which it was captured, and a pawn cannot be placed on the opponent's first rank. Two sets of men are useful. (*Jeux d'Échecs Non-orthodoxes*)

Chessgi, also known as **Crazy House**, **Drop Chess**, and **Mad Mate**. Inventor unknown. Ralph Betza, who coined the name adopted by NOST and AISE, reported playing it in 1964 but its origins are surely earlier. As Reinforcement Chess, but there is no need to re-enter a captured man at once; instead, the captor may hold it in hand, and subsequently drop it on any vacant square instead of making a normal move. There is only one restriction: pawns may not be dropped on the 8th rank. A promoted piece retains its rank. The game is characterised by sharp sacrificial attacks, and endings, in the conventional sense, are

unknown. The initiative is of great importance and a player may, for example, sacrifice a queen for a knight in order to be able to reenter the knight at once. Knights and pawns tend to be a good deal stronger relative to the other pieces than in orthochess. A sustained attack against the king involving a series of sacrifices is common and often succeeds, but the defender thereby accumulates material and the tables can be turned dramatically. The danger to the defender is all too often the presence of vacant squares next to the king. An instructive win by Giovambattista Rizzo, reported in *Eteroscacco* 81: 1 e4 e5 2 Bc4 Nf6 3 Nc3 Bc5 4 d3 d6 5 Bg5? (sound enough at orthochess, but at Chessgi it appears to lose a pawn) Bxf2+! 6 Kxf2 Ng4+ 7 Qxg4 (moving the king would escape for a pawn down, but White thinks he can hold on to his extra piece) Bxg4 8 Bxd8 :



A simple recapture on d8 would indeed leave White a piece ahead, but Black's pawn and queen in hand give him something better. He drops the pawn at e3, giving check, and White is helpless; 9 Kxe3 is met by a mating drop of the queen at f4, 9 Ke1/Kf1 by a mating drop at f2, and 9 Kg3 by another drop at f4 with mate in two more moves.

George Dekle felt that in Chessgi the pieces were too powerful in attack and too weak in

defence, and proposed in 1986 that (1) pawns promote only to non-royal K, (2) promoted pieces when captured revert to pawns, and (3) a B has the additional power of moving and capturing one square orthogonally (*Nostalgia* 294). The changes found no support. In other versions, also not recommended, a man may not be dropped to give mate and a bishop must be dropped on a square of the same colour on which it was captured.

Neo-Chess [Randolph] (Proprietary game, 3M; Alex Randolph, 1972). A proprietary version, using the same rules of play. The pieces are small cylinders, not unlike cotton reels, of various heights. Each cylinder has a piece symbol stamped on one end and the same symbol on the other end in a contrasting colour (silver and gold). The men are placed initially in the normal chess array, one player with silver (white) men showing, the other gold (black). When a man is captured, it is turned over. Neo-Chess was endorsed by the USCF and was a great favourite of Edmondson. It was practised by a number of grandmasters including Larsen, Spassky and Petrosian. (Copy of manufacturer's publicity

leaflet, with manuscript notes apparently deriving from personal communication)

Token Chess (D. B. Pritchard, 1989). Two sets of chessmen (one used as a pool) and a bank of counters are required, the counters ideally in denominations 1 and 5. When a man is captured it is returned to the pool, and the player draws tokens of appropriate value from the bank: Q=18, R=10, N=8, B=6, P=2. At the start of a player's turn he may buy one man which must then be dropped on any empty square (no P on 8th rank, but P on 1st rank allowed and thereafter moves forward one square at a time). Men not available in the pool may not be bought. A less violent game forbids the dropping of a man on the turn in which it is bought. In this version, men in hand may be accumulated. (Author's manuscript)

Armageddon Chess (Harold Bohn, 1994). A combination of Chessgi with Hurricane Chess (see Chapter 1). A player can drop all the pieces captured on a turn on his next turn. (*Variant Chess* 15)

5.3 A captured man may be recovered by its owner

Bankhouse Chess (David Moeser, 1971). Each player starts with 25 1-point tokens (Q=9, R=5, B,N=3, P=1). During play each player retains captured men. At the start of a turn, a player may 'bribe' a captured man to change sides which he then places on a corresponding vacant square in his own starting array (e.g. captured B on c1 or f1; captured P on any second rank square). The bribe, equating to the man's value in tokens, is paid to the opponent. Alternatively, the player may bribe the opponent to surrender one of his own men held captive at twice its value, paying the opponent and entering the man in play similarly. Only one man may be reentered at a time, and that constitutes the player's move. The game may be won in the normal way or by bankrupting the opponent. (*Neue Chess* 3)

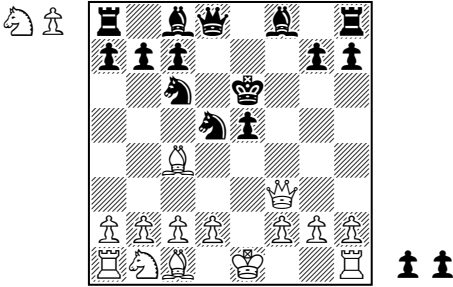
Shazzan! (Bruce Trone, 1970s). When a man is captured, all the men it captured are returned to their array squares if vacant. (*World Game Review*, issue not specified)

Hostage Chess (John Leslie, 1997). Each player has a prison and an airfield. A captured man is a hostage and is placed in the prison. On turn, instead of making a normal move, a player may elect to claim a hostage held by the opponent in exchange for a hostage of equal or greater value ($Q > R > B = N > P$). The man reclaimed must be immediately dropped on an empty square (a pawn not on the 1st or 8th ranks). The hostage released in exchange is transferred to the opponent's airfield. A man on an airfield can be dropped at any time, again instead of a normal move.

A pawn cannot promote unless there is a piece in the opponent's prison for which it can be exchanged. It follows that a pawn on the seventh rank does not check the opposing king unless it can promote. A pawn on promotion is transferred to the opponent's prison.

The game tends to favour the attacker. A game won by Peter Coast in a postal tournament started with the 'Fegatello' or 'Fried Liver' attack 1 e4 e5 2 Nf3 Nc6 3 Bc4 Nf6 4 Ng5 d5 5 exd5 Nxd5 6 Nxf7 Kxf7

7 Qf3+ Ke6 :



This line may or may not be playable for Black at orthochess, but at Hostage Chess it loses at once. The exchange 8 Bxd5+ Qxd5 gives White a knight to use as a bargaining counter, and he can exchange this knight for his imprisoned bishop and drop the ransomed bishop at f7, giving check and picking up Black's queen. Black could have tried a counterattack on the White queen at move 6, but it appears that White has a win in all lines. (*Nost-algia* 375, *Eteroscacco* 86-88, *Variant Chess* 32 and later)

5.4 A captured man is replaced at once

Replacement Chess, also known as **Bhagavathi Chess**, **Canadian Chess**, **Madhouse Chess**, **Repeating Chess**, and at one time as **Bughouse Chess** though this last name is now used for a partnership game (J. E. H. Creed, 1930s, or perhaps much older). A captured man is at once replaced by the capturing player on any vacant square, subject only to the restrictions that a pawn cannot be placed on an end rank and a bishop must be placed on a square of its original colour. **Put-Back Chess** is Replacement Chess without these restrictions. Pawns replaced on starting rank regain their two-square option. One source states no castling. Since forces remain equal throughout, Replacement Chess is a game of position. The idea is to bury captured pieces and attempt to denude the enemy king of his defences. Positional constipation is a natural hazard, one reason why AISE, whose colourful name for the game was *Mangia-e-Sputa* (Eat and spit out), preferred to play it in Progressive form. Although in this form it is somewhat stereotyped and with a bias in favour of White, games have the merit of brevity. [The game has been described in numerous sources, but none appears to be contemporary with its presumed origin. I have put this back to '1930s' on the strength of a remark once made to me by David Hooper, who told me he remembered playing it with Jack Creed at that time.]

King Chess [Miller] (Donald Miller, 1950). A captured man (piece or pawn) is at once replaced on its start square. If this is occupied, the man goes to the start square of the

capturing man, and if this is also occupied, to the start square of the occupying man, and so on. A captured pawn replaced on the 8th rank is immediately promoted by its owner. A promoted pawn which is subsequently captured remains promoted unless promoted to its array square as a pawn. The object is to capture (not checkmate) the opponent's king. If the same sequence of moves is repeated twice, the player who initiated the sequence must vary.

There have been variations. In one, play continues after the capture of a king but hereon captured men are removed from the board, the object being to annihilate the opponent's forces. Unlike in King Chess, draws occur quite frequently. In another variant, after a king has been removed the capturer is granted an agreed number of 'free captures' (2-5 are usual) during which time the opponent is obliged to replace captured men as usual unless he succeeds also in capturing the king. (Inventor's rule sheet)

Circe Chess [Montréal] (Pierre Montréal, 1967). Named after the enchantress of Greek mythology. A popular problem theme, later played as a game. A captured man is at once replaced on its notional square of origin, unless that square is occupied in which case the man is removed from play. Kings cannot be captured; a Q is replaced on d1/d8; a R, B, or N on the array square of the same colour as that on which the piece is captured; a pawn on the second rank of the file on which it stands. Promoted pieces are treated as pieces, not pawns. A replaced pawn regains the two-step option; castling with a replaced R is permitted

if other conditions are met. A capture cannot be made if the replacement puts the player's K in check. Philip Cohen has suggested that a player should not be allowed a move that simply reverses the opponent's last move (for example, Qd1xBg4 putting B back on c8, Bxg4 putting Q back on d1). The game is rather slow but tactics can be entertaining. (*Oxford Companion to Chess, Nostalgia* 262)

Circe Progressive Chess (Roberto Gravina, 1979). A combination game that has acquired a separate identity as a result of many tournaments. A long-time favourite of AISE. Rules are those of Circe Chess and Italian Progressive Chess, with the difference that a captured man is replaced on its original array square and not on the square of the same colour or file as that on which it is captured. A promoted piece that is subsequently captured reverts to a pawn and is replaced on the pawn's starting square, where it regains its option to move two squares initially. Games are mostly short. The openings, which have been researched by T. Sala and others, tend to

be rather stereotyped. (*Eterosacco* 8 and later)

Circe Vulcanici. As played by AISE. A development of Progressive Circe. If a rebirth square is occupied, the captured man waits until it is vacant to be replaced. Another rule restores the original Circe requirement that a pawn is returned to the array square on the file on which it is captured, not necessarily its original square. This has permitted Cassano to win several games with a Fool's Mate: 1 e4 2 d5, dxe4(Pe2)? 3 d3, dxe4, Qxd8 mate. (*Eterosacco* 11 and later)

Circe's problem children have been many and various, but as a game it remains popular only in Progressive form.

Transfer Chess (Bruce Trone, 1991). A form of Replacement Chess in which a player making a capture moves the captured man in the manner of the capturer, choosing between alternatives, if any, as part of that move. Thus 1 e4 d5 2 exd5(Pd4). (Unprovenanced note presumably deriving from personal communication)

5.5 A captured man lies low, and re-emerges when the capturing man has moved on

Ghost Chess [Dawson] or Phantom Chess (Joseph Boyer and others, 1952-3, based on an idea of T. R. Dawson). A captured man is resurrected as a ghost on the square of its demise when the capturer moves away. The ghost assumes the same colour and rank as the piece captured but is itself immune from capture. It can capture an ordinary man but equally creates a ghost when moving away. First seen in two problems by Dawson published posthumously in *Fairy Chess Review* (December 1952), and developed as a game with an additional rule: where a series of captures is effected on a square, ghosts appear in reverse order of capture. Thus suppose 1 NxPf5 Bxf5 2 Rxf5. When the rook next moves, a black bishop reappears; when this bishop moves, a white knight; and when the knight moves, a black pawn. Games can be exciting. (*Nouveaux Jeux d'Echecs Non-orthodoxes*) [Text revised]

Zombie Chess (Philip Cohen, 1964). When a man which has made a capture moves again, a Zombie is created on the vacated square. This is of the same rank as the captured man

but is controlled by the capturing player. No man may alight on or cross a square occupied by a zombie, nor may a zombie capture or cross a man. A zombie thus operates as a mobile block, but may capture (by displacement) a zombie of the opposite colour. A zombie pawn promotes to a zombie piece. If a succession of captures takes place on a square, only the last-captured piece returns from the dead. When a zombie captures a zombie and the capturing zombie moves away, a Double Zombie appears on the vacated square. A double zombie acts as a block both to zombies and ordinary men (the double zombie can later become a triple zombie etc. without change of role). Since the number of men on the board can only be reduced by multiple captures on the same square, and the tendency is for pieces to grind into immobility, the game was later modified to Reincarnation Chess (see below). In another version, **Dying Zombie Chess**, ZxZ resulted in both ghosts disappearing.

Reincarnation Chess (Philip Cohen, 1960s). A development of Zombie Chess. If a

capture, or series of captures, takes place on a square, a Zombie is created when the capturing man vacates the square. The zombie is of the same rank as the (last) piece captured and belongs to the capturer. Zombies cannot capture nor move across normal men and vice versa, the two species acting as blocks to each other. Zombies can however capture enemy zombies. When this happens, after a single capture or series of captures, a normal man is

created on the square when it is vacated, adopting the rank of the (last) captured zombie and the colour of the capturing zombie. Zombie pawns promote to zombie pieces which retain their rank if captured or reincarnated; no e.p. at any time. Men reborn on their original squares regain usual privileges (pawn-two, castling). Best played with two sets of contrasting chessmen. (*Nostalgia* 156 and later, *Eterosacco* 44)

5.6 Other reintroductions of captured men

Clockwork Orange Chess (Fergus Duniho, 1999). Two sets of distinguishable men. When a man is captured it is replaced by a non-capturing counterpart of the same colour, and is returned to its owner who can later drop it back on the board instead of making a normal move. Similarly a non-capturing man when captured reverts to an orthodox chessman (so there is a strong incentive not to capture non-

capturing men). Pawns promote normally; non-capturing pawns to non-capturing pieces; no pawn may be dropped on the eighth rank and non-capturing pawns do not have the pawn-2 option. Inspired by the book and film of the title, where a young hooligan is released from jail after being conditioned to feel ill and nauseous at the thought of committing violence. (Chess Variant Pages) [Text revised]

Chapter 6

Unorthodox pawn properties and powers

[The pawn is the most idiosyncratic of the chessmen, and what is surprising is not that there have been several variant forms of it but that there have not been more.]

6.1 Historical rules regarding promotion

The present rules regarding pawn promotion have been standard since late in the 19th century, but many other rules have been in force at various times. One such was **Promotion Only to Queen**, mirroring the ‘promotion only to fers’ of the ancient shatranj. The **Single Box of Men** rule allowed promotion only to replace a captured piece (if none was available, the pawn had to remain immobile until something was taken), and the **Dummy Pawn** rule allowed a pawn to remain unpromoted and immobile on the 8th rank for ever. Many sets of rules failed to prohibit promotion to a piece of the opposite colour, and a few trick problems duly took advantage.

[Text editorial. This is strictly the province of chapter 26, but a brief summary appears appropriate here. Rook-and-pawn endings such as White Kd8/Pc5 against Black Kf4/Rh1 are now drawn by 1 c6 Ke5 2 c7 Kd6 3 c8(N)+, but in the days of ‘promotion only to queen’ they were wins for the rook. The ‘single box of men’ rule knocks out all wins which require promotion to a second queen. Only the ‘dummy pawn’ rule has no practical effect, though positions can be constructed where such a promotion is the only move to save or win the game; T. R. Dawson found a position where White had to do it three times running (*Caissa’s Fairy Tales*, 1947).]

6.2 Other changes affecting promotion

Mecklenbeck Chess [**Eickenscheidt and Schwarzkopf**] (Bernd Eickenscheidt and Bernd Schwarzkopf, 1973). Pawns may promote on 6th and 7th ranks as well as on 8th (where promotion is compulsory). Introduced as a problem theme but also played as a lively game (*Feenschach*, October 1973). In **Fast-Track Chess** (Philip Cohen, 1986) pawns promote optionally (but on moving only) on any rank from 5th to 8th. On the 5th rank a pawn promotes to knight, on 6th to knight or bishop, on 7th to knight, bishop or rook, and on 8th (obligatory) to any piece (*Nost-algia* 299). [There is also game in which pawns promote on the 7th rank, Tom Russell’s **Glasgow Chess**, but this appears to have been

seen only in problems and it was not on David’s list.]

Promotion-Demotion Chess (Matthew Montchalin, 1994). A friendly pawn adjacent to the K can be promoted, and a friendly piece demoted (to a P), in each case instead of moving. (Manuscript notes presumably deriving from personal communication)

Ur Chess (Philip Cohen, 1997). Usual set-up except pawns on 3rd and 6th ranks. Ps may promote anywhere within the opponent’s first three ranks to a piece previously captured. No pawn-two, castling, or repeat position. (*Nost-algia* 363)

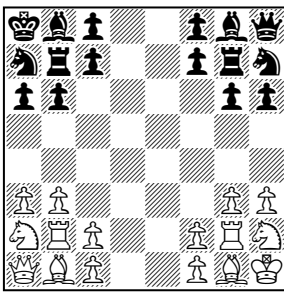
6.3 Move diagonally, capture straight

Berolina Chess, also known as **Berlin Chess** (Edmund Hebermann, 1926). Pawns move one square diagonally forward (or two on their first move) and capture one square straight

forward. Promotion normal, e.p. possible. The game is highly original and draws are rare. Pawns have greater mobility and can concentrate in the centre, a common opening

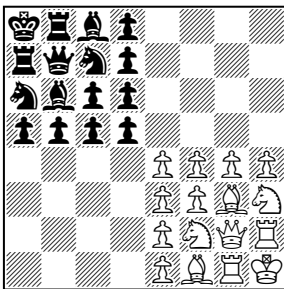
strategy. Against this, their capturing power is reduced, and since a pawn can defend only one man, a defence chain is impossible, with the result that open files are commonplace. In the end game, pawns are dangerous as the path to promotion is easier. Tournaments have been held, combination games have been tried, and ‘Berolina pawns’ have long been popular with problemists. (*Funkschack*, August 1926)

Corner Chess [Paletta] (Tony Paletta, 1980). A modern two-player version of the Game of the Four Seasons (see chapter 38). Array :



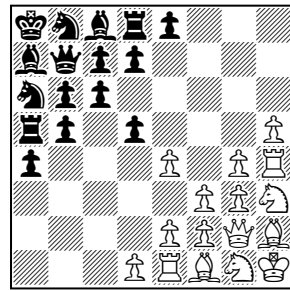
Pawns move diagonally forward and capture vertically, one square at a time; promotion normal. (*Chess Spectrum Newsletter*)

There are also games where the players sit cornerwise. **Diamond Chess [Rynd]** (J. A. Porterfield Rynd, 1886) has array

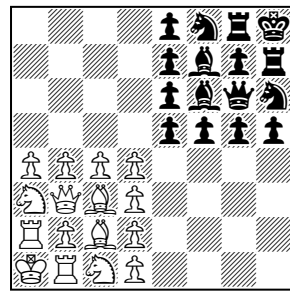


and the board is placed diagonally between the players so that White’s ‘forwards’ direction is along the diagonal h1-a8. White’s pawns advance in this direction one step at a time, capture by a one-step orthogonal move at 45 degrees, and promote anywhere along the edge a1-a8-h8; Black’s conversely.

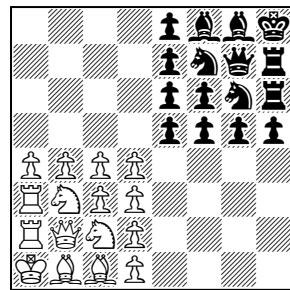
There have been many successors. **Legan’s Game** (L. Legan, 1913) has array



and White can promote only on the squares a5-a8-d8. **Diagonal Chess** (J. A. Lewis, 1943) is the same except that the array is



and White again has the full length of both edges on which to promote, and **Salvadori’s Game** (Roberto Salvadori, 1989) has array



(*British Chess Magazine*, March 1886, *Chess Amateur*, March 1922, *Les Jeux d’Echecs Non-orthodoxes*, Eteroscacco 46)

[The Addenda to the first edition included a “Corner Chess” quoted by Anatoly Burdin, but this has several curious features and appears to be a puzzle rather than a genuine game.]

6.4 Other changes affecting forward movement

Pawn-Two Captures (James Mason, 1893). Mason suggested that since a pawn is allowed to move two squares on its first move, it should be allowed to capture at a like distance on the same occasion. (*Chess Monthly*)

Soldier Chess (quoted by Tony Paletta, 1980). Pawns behave like soldiers in xiangqi (see

chapter 27); no double-step option, capture straight forward. (*Chess Spectrum Newsletter*)

O.K. Chess, also known as **Zip Chess** (Clifford Merry, 1988). After White's first move, pawns may be advanced any distance down a vacant file, e.p. capture sanctioned on any square passed. (Personal communication)

6.5 Sideways and backwards movement

Reform Chess [Voss], also known as **Superpawns Chess** (Norbert Voss, late 1920s). Voss was inspired by the tactical importance of the d- and e-pawns to promote them to 'Oberbauern' (lit: 'high pawns'). They move one step at a time straight forward, diagonally forward, or sideways, capturing in the same manner. A master tournament was held in Berlin in 1930. The power of the oberbauer can be considerable in an end game. (Photocopy of booklet *Reformschach*, also *Nouveaux Jeux d'Echecs Intéressants*)

Wren's Game (Peter Wren, 1957). Backward pawn moves to be permitted. Considered as a 'concession to the oldsters' in Hyde Park (Sydney?) who would not be reconciled to the introduction the previous year (!) of the rule allowing a pawn to move two squares initially. 'The game of the maddened pawn' was the scornful sobriquet of the conservatives. A prize was offered for the best entry illustrating the game's flavour. (*Chess World*, May 1964)

Taxi Chess (Karl Fabel, 1961). Pawns are taxis: they move up to three squares initially (e.p. possible) and also back one square, but not to first rank. Promotion is optional. Pawns moved back to starting position move only one square forward. (*Chess Spectrum Newsletter*)

Fish Chess (David Moeser, 1971). The fish is an enhanced pawn, having the extra power of moving one square straight backwards. A fish on first or second rank may advance 2 squares whether or not it has previously exercised the privilege. En passant allowed on second rank. The fish strengthens the defence since advances are not committal. (*Nost-algia* 280)

Barasi Chess (Paul Barasi, 1970s). Pawns move one square diagonally forward or backward, capture one square straight forward. If between the 2nd and 4th rank, a pawn can move two squares, and it can do this on an unlimited number of occasions. A pawn may move to, or capture on, the first rank. No e.p. but promotion as normal. Pieces, by contrast, cannot move backwards; they can only move forwards, or (Q, R, K) sideways. The game was popular at British Chess Federation congresses in the 1970s. Jonathan Speelman was regarded as unbeatable. (Author's rules pamphlet and exposition)

Chazz (David Moeser, early 1990s). Kings and pawns only in usual starting positions. Pawns may move, but not capture, one square straight back, even to the first rank. Promotion to R, B, N only. Played with clocks set to five minutes, the game is said to have swept America in 1991-2. Two versions have since been under investigation: (1) the players agree on up to three different pieces, with some limitations on strength and movement, which are placed alternately on the back ranks of the players before play starts; (2) the players are allocated points (16 are suggested) and each may add any number of pieces provided that the point total (Q=9, R=5, B=3.5, N=3) is not exceeded. The allocation could include agreed unorthodox pieces. (*The Parkway Post / The Tri-County Parkway Chess Club Bulletin*, May 1992, also personal communication)

Mutant Pawns Chess (Kevin Lawless, 1994). On each turn a player moves pawn, then piece. A pawn can move one square sideways. (Photocopy of inventor's rules leaflet)

Chapter 7

Moving the opponent's men

[A curious twist is given to chess by allowing a player to move his opponent's men. There are three broad flavours: moving an opponent's man instead of one's own, choosing or altering the opponent's last move, and moving a man of each side.]

7.1 Moving an opponent's man instead of one's own

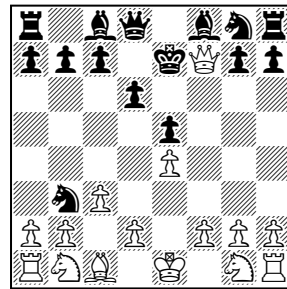
All-In Chess (Chris Tylor, 1976). The name is taken from all-in wrestling which the game distantly suggests. Each side, on its turn to move, may make a normal move with a man of either colour, the main restriction being that a player cannot move so as to repeat the position reached prior to the previous player's move (i.e., you can't take back a move just made by the opponent). Other limitations are common sense: a capture can only be made of

a man of the opposite colour; pawns must move in their natural directions; a player cannot put his own king in check. A pinned piece may be moved to expose the enemy king, and a player may sometimes profit from using an opponent's man to capture one of his own men. **Free-For-All Chess** (Jed Stone, 1982) is similar, except that piece moves may be retracted by the second player. (*Chessics* 1, Stone)

7.2 Rejecting, choosing, or altering the opponent's last move

Refusal Chess, also known as **Outlaw Chess** and **Rejection Chess** (Fred Galvin, 1958). A player can reject the opponent's move, but must then accept any alternative move by the same or a different piece. Promotion to different pieces count as different moves. Refusal Chess is the over-the-board version of **Compromise Chess** (see below) but there is a significant difference between the two games. In Refusal, the player who rejects a move gives the opponent a free hand, often at peril. For example, after 1 e4 e5 2 Nf3 Nc6 3 Bb5, Black might decide he does not wish to face the Ruy Lopez, so he rejects White's move only to be faced with Nxe5 - and White will reject the recapture.

In **Compromise Chess**, if a player can only make one legal move, the opponent must accept it. Not so in Refusal Chess, which makes possible games like this, quoted in the Romanian magazine *Cartea Jocurilor*: 1 'd4?' (no) e4 'e6?' (no) e5 2 'Bc4?' (yes) 'Bc5?' (no) Nc6 3 'Bxf7+?' (yes) 'Kxf7?' (no) Ke7 4 'Bxg8?' (no) Bb3 'Nf6?' (no) d6 5 'Qf3?' (yes) 'Nf6?' (no) Nd4 6 'Qf7#?' (no) c3 'Nxf3+?' (no) Nxb3 and if Black refuses 7 axb3 White will substitute Qf7 :



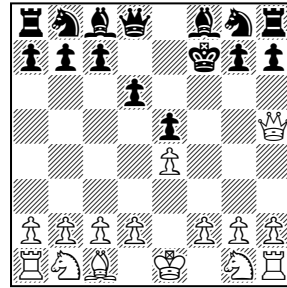
White will now refuse ...Kxf7 and Black has no other legal move, so it's mate. (*Nostalgia* 157 and later, also *Nostalgia* 96 'not seen')

Compromise Chess (Fred Galvin, 1958). A close relative of Refusal Chess, best suited to correspondence play. The turn player must offer the opponent a choice of two legal moves (even if in check or giving it), the opponent then deciding which move the player makes. If a player can make only one legal move, the opponent must accept. Promotions of the same pawn to different pieces are considered as different moves. The option to refuse a capture or recapture makes for interesting play. **Choice Chess** (Bruce Trone,

1986) is the same except that each player must propose five moves per turn. (*Nost-algia* 157 and later, also *Nost-algia* 96 'not seen')

Substitution Chess (Fabrice Liardet, 2005, originally as **Ambiguous Chess**). As originally conceived, a player pointed to the destination square of his intended move, and if more than one man could be moved there the opponent chose which was played. As subsequently modified for clock play, a player makes a normal move and hits his clock, and if his opponent wishes to substitute a move by some other man to the same square he makes the substitution (in his own clock time) before playing his own move. This simplification has now been adopted even for play without clocks, and the game has been renamed accordingly. The win is by capturing the opponent's king, and the special flavour of the game rests in the fact that a move which leaves the king open to capture can be substituted for one that doesn't. An example

given by the inventor: 1 e4 (no substitution possible) e5 (ditto) 2 Bc4 (Black could substitute c2-c4, but this would allow White's knight to play to c3 without allowing the substitution of c2-c3 whereas now Black can keep it at home) d6?? (but this is fatal) 3 Bxf7+! Kxf7 4 Qh5 and Black is helpless :



He cannot play say 4...Ke6 because White will substitute Be6, and he cannot play 4...g6 because White will substitute Kg6. (*Variant Chess* 49/52) [Text revised]

7.3 Making a move for each side

Michelson's Game (1950s). White opens, Black replies and then makes a move for White; thereafter each player in turn makes first a black then a white move. Curious end-play according to Boyer (*Jeux d'Échecs Non-orthodoxes*). A similar game is referred to in the *Illustrated Dictionary of Chess* (Brace) as **Double-Move Chess [Black then White]**, the winner being the first player to mate either king.

March Hare Chess (V. R. Parton, 1961). At each turn, a player moves one of his own pieces, and then 'meddles' with his opponent's men. If he has just moved a pawn, he can now move any hostile man including the king; if K, he can play any hostile piece apart from the king; if Q, R, B, or N, he can only move a hostile pawn. When a player's king is in check, he must nullify the check with a normal move. In Parton's later **Meddlers' Chess** (1970) Q-side pieces and pawns are distinguished from those on the K-side, and a player moves one of his own K-side men and then one of his opponent's Q-side men. This latter move may expose the enemy king to check, take one of the player's own men, or

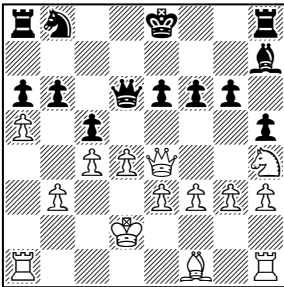
promote (but only to queen). A Q-side man cannot be used to assist in checkmate nor to escape check or checkmate. A king must get out of check on the first move of a turn. Another version of the game allows a player to meddle with the opponent's pawns but not his pieces. If an enemy pawn move is not possible, the enemy king may be moved instead. (*Chess - Curiouser and Curiouser, Chessery for Duffer and Master*)

Avalanche Chess (Ralph Betza, 1977). So named because the pawns of both sides advance inexorably. A favourite with NOST; Avalanche was the chosen variant of the U.S. team in the 1st Heterochess Olympiad. One basic rule: after each normal move the turn player must pull an opponent's pawn one square forward (i.e., towards the player). If the opponent has no pawns, or they are blocked, or can capture but cannot otherwise move, there is no action; but if a pawn move subsequently becomes available, it is again mandatory. A pawn is promoted to a piece of its owner's choice. A player obliged to pull an opponent's pawn so as to put his own king in check loses at once even if he mates in the

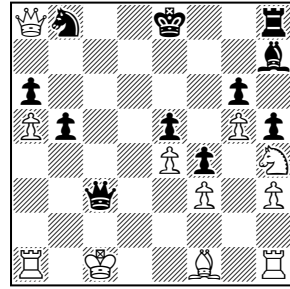
same turn. The effect of the rule is that whilst a blocked pawn protects a square, a mobile pawn does not: a piece on it can be taken and the pawn then moved on. Similarly, pawns in front of a king can be moved to expose it. A player in check is not obliged to get out of check until the end of his turn. Most dangerous in the later stages of a game is a single, unblocked pawn which is being moved by both players towards promotion. In the early stages of a game, avalanche pawn moves are used to weaken the opponent both positionally and tactically or to hamper his development. Fool's Mate is one move deep: 1 g4/e6 Qh5/f3.

OrthoChess theory falls down in the ending. K + defended P (except RP) always wins against K. Example: White Kb2, Pb3 (2), Black Kb4 (1). Black can only retreat on the file, say Kb5/b4, and White defends the pawn. When the pawn reaches b7 White plays to a6 or c6, and Black loses at once.

White's undoubted initial advantage in Avalanche is negated in **Balanced Avalanche Chess**, where White has no push on the first move. Here is a game won by Alessandro Castelli in 1991. 1 Nf3 (preventing 1...e5/f3 by Black) Nf6/ a3 (Black in turn prevents 2 e4/f6) 2 Nc3/c6 d5/h3 3 d4/a6 Ne4/a4 (threatening 4...Nxc3/b3 winning a piece) 4 Qd3/h6 Bf5/a5 5 Nh4/f6 Bh7/g3 6 Nxe4/g6 dxe4/c3 7 Qxe4/e6 Bb4/c4+ 8 Bd2/b6 Bxd2+/f3 9 Kxd2/h5 Qd6/b3 10 e3/c5 :



10...cxd4/b4 (it would seem that Black is not sufficiently well developed for a sacrifice like this, but the Avalanche rule gives the attacker an extra edge) 11 Qxa8/d3 Qxb4+/g4 12 Kxd3/f5 Qb5/c5+ 13 Kc2/e5 (a fatal blunder) Qxc5+/e4 14 Kb2/f4 Qb4+/g5 15 Kc1/b5 Qc3+/- and White resigned (see diagram at top of next column) :

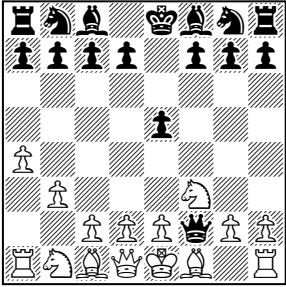


At ordinary chess, White would have little to fear, but at Avalanche every White king move pulls the Black b-pawn down a rank and this quickly proves fatal. (*Nost-algia* 214 and later, *Eteroscacco* 8 and later, *Variant Chess* 48)

007 Chess (Edward Jackman, 1995). Players make three moves a turn: own man, opponent's man, own man in that order. In **Balanced 007**, Black starts by moving a white man; White then moves a black man followed by a white man. Thereafter players make three moves a turn as above. Every move must be legal; e.g., a king cannot be exposed to check. If you check on the first move of a turn, you must get the opponent's king out of check on the second. Similarly a check on the second move must be countered on the third. The owner of a pawn decides its promotion status. In the **Detente** variation it is forbidden to capture on the third move of a man moved on the second, nor can the same man be moved twice in a turn. Passing is forbidden and it is stalemate if a player cannot legally complete his turn. The game was allegedly inspired by Meddler's Chess above.

In **Progressive 007**, White starts with a single white move; at turn 2, Black plays a black move followed by a white move; at turn 3, White plays a black move, followed by a white move, followed by a black move; and so on. The men of each colour are moved alternately, and the number of moves increases by one at each turn. The game was reinvented by João Neto and Bill Taylor as **Progressive Orthodox Chess**, and an eight-man tournament conducted on the Internet during 1997 and 1998 was won jointly by Fred Galvin and Norbert Geissler (interestingly, neither of the reinventors reached the final pool). A trap along the following lines caught several. White played say a2-a4, Black

unwisely replied with e7-e5 for himself and say b3-b2 for White, and White played Qd8-h4 for Black, Ng1-f3 for himself, and Qh4xf2+ for Black :



Black, forced to start turn 4 with a white move, could only play Ke1xf2 taking his own queen, and he soon succumbed.

It was the considered opinion of Norbert Geissler after the tournament that the 'best play' result was a win for Black (which makes

a change), and Fred Galvin suggested that if another tournament were to be held Black should play first with a white move (probably f2-f3). It is not known whether this has been put to the test. (*Variant Chess* 19, *Nost-algia* 361, *Eteroscacco* 77, tournament reports on the Internet) [Text revised. It may seem odd to use the word 'orthodox' for a variant in which a player moves his opponent's men, but apparently the reason was that the resulting game score was that of a legal if not necessarily very sensible orthodox game.]

Reciprocal Chess (Philip Cohen, 1990s) Standard array. A turn consists of two parts; a normal move then a move or of the man of either colour (if any) on the reciprocal starting square. A move is illegal if the man on the reciprocal square cannot move. Thus, after 1 e4/d6 Nd7/Nh3 any move of the white Q or B is illegal as the pieces on the reciprocal squares cannot move. (*Nost-algia* 371)

Chapter 8

Transporting and teleporting

[In these games, men are moved in a way that may be foreign to them. They resume their normal powers subsequently, but during the forced movement they are mere dummies which go here and there at the behest of others.]

8.1 Selective transport of individual pieces

Teleport Chess [Paletta] (Tony Paletta, 1980). Any man except a king may, instead of making a normal move, teleport to the corresponding square on the other side of the board (files a-h, b-g, c-f, d-e) provided that the player is not in check and the square moved to is vacant. (*Chess Spectrum Newsletter*)

Teleport Chess [Schmittberger] (R. Wayne Schmittberger, 1984). Once in a game each piece (not king or pawns) may teleport to any vacant square. Right to teleport can be indicated by a counter under each piece at the start of the game which is removed when the piece teleports. (Originator's rules note)

Teleport Chess [Green] (D. K. Green, 1986). Inspired by Chakra (see Part 2). Rooks have the power to teleport but only friendly pieces, not pawns or each other. A piece that can move to a square occupied by a friendly rook is instantly transported to any empty square adjacent, including diagonally adjacent, to the other rook. The only strictures are that a bishop must reappear on the square of its initial colour and a knight must appear on a square of the opposite colour to which it stood at the start of its move. If a rook is lost, the player may nominate a pawn for the role of teleporter. If both rooks are lost all teleporting powers are lost with them, but power may be restored by a pawn promoting to rook. Bishops and knights can be used to teleport instead of rooks. Regularly played by small groups in Essex; two tournaments held. (Manuscript notes deriving from personal communication)

Highcastle Chess (Ed Pegg Jr, 1988). In place of a regular move, a player may castle. He

moves any man two squares towards another man of either colour either orthogonally or diagonally, and brings the second man to the square over which the first passed. The king may castle or be castled through or out of check, the enemy king may be castled into it. (*Nost-algia* 307 and later)

Start-Again Chess (D. B. Pritchard, 1990). Instead of an orthochess move a player may put a man back to its starting square provided it is vacant. Rooks and knights may go to either start square. A more aggressive version also allows a player to move a piece (but not a pawn) to the opponent's corresponding array square. Put-backs only apply to own men.

Transporter Chess (Torben Osted, 1993). Each player has a counter or coin, known as the Transporter, placed beneath the kings in the array. The transporter moves like a king, either independently or carrying a man with it (thus bishops can change square colour). A T cannot capture or be captured though a man on it can. A piece on a T, moving normally, can carry the T with it or leave it behind. The T can move beneath an enemy man but cannot move it. Moving a T, occupied or not, counts as a move. A pawn returned to the second rank regains the two-square option. The piece affords considerable scope for original play. (*Eterosacco* 65/67)

Follower Chess (Michael Howe, 1993). Usual array. White starts with an orthodox move. Thereafter the player on turn makes an orthodox move followed by an unorthodox move. The latter consists of moving any friendly piece (not the K) to a square on the path of the piece just moved. The path is the

square vacated plus any squares passed over. The path of a N is considered to include every vacant square in the 3x2 rectangle. A follower (unorthodox move) may give check. The K may not be a follower and must escape check by an orthodox move. No castling or e.p. (*Eteroscacco* 66)

Follow-The-Mover Chess, also known as **FTM Chess** (Gianluca Vecchi, 1994). Orthochess except that after making a move the player may transfer any friendly man, except the K or the man just moved, to the vacated square. Bs can occupy the same colour. The K must escape check with an orthodox move and a P cannot be transported to the 8th rank. Here is a postal game won by the inventor: 1 Nf3 Nf6 2 Ng5 (Qf3) Ng8 (Raf6) 3 Qxf6 (Raf3)?! gxf6 (hg7) 4 Nxf7 (Nbg5) fxg5 (af6)?? 5 Nxh8 (Bcf7) mate.

8.2 Pushing and pulling

Push Chess (Fred Galvin, 1967). All men can move normally but may also push a friendly or hostile man ahead of them. The king pushes an adjacent man one square, the line pieces (Q, R, B) push a man any distance provided squares passed over are vacant. A knight moves to an occupied square, pushing the occupant a knight's move away in the same direction. Pawns push friendly men as they move, one or two squares, but hostile men diagonally forward one square. Only one man may be pushed at a time. No displacement captures; pieces are captured by being pushed over the edge of the board. Suicide is permissible. A king is checkmated when it cannot avoid being pushed off the board; in check when so threatened. A pawn can be promoted by a push. There appear to be two versions: when pushed by a hostile piece, the promoted piece is selected by the player (one version) or by the owner of the pawn (the other version). A pawn pushed to its first rank has a one-step move only, but recovers its normal two-step power on regaining the second rank. A push move that restores the position to that existing before the push is illegal. Castling normal, no e.p., stalemate possible. A Fool's Mate: 1 Bf1-c4 (pushes Pe2 to b5) d7-d6 2 Qd1-b3 (Pc2-a4) f7-f6 3 Qb3-e6 (Bc4-f7).

Push Chess has been described as

(Inventor's rules note)

Carrier Chess (Michael Howe, 1994). Standard array. White starts with one move; thereafter a player on turn makes one orthodox move and one optional carrier move. A carrier move involves taking a friendly man adjacent to the man moved (termed a 'parcel') and placed on a vacant square adjacent to the square on which the move is completed. A king may not be a parcel and Ps cannot be carried to the 8th rank. (Inventor's note giving the rules)

Super Queen Chess (Kevin Lawless, 1994). Usual board and array. The Qs have the additional power of moving to any empty square three times in a game. A Q cannot capture her rival unless she has exhausted her super powers. (Originator's rules leaflet)

'Extraordinarily rich and unpredictable, full of surprises'. Even so, it is now little played, having been superseded by *Dynamo Chess* below. (*Nost-algia* 232/242)

Dynamo Chess (Hans Klüver and Peter Kahl, 1968, inspired by Push Chess). *Dynamo Chess* is essentially Push Chess with two additional rules: a man may pull instead of pushing, and it may remain stationary and just push or perhaps pull. A line piece (Q, R, B) may, on moving normally or without moving, push a man of either colour to any square straight ahead of it or pull a man of either colour to any square towards it provided that the men do not move in opposite directions, squares moved through are vacant, and only one piece is pushed or pulled on a turn. A knight moves to an occupied square (or elects to remain stationary), pushing the occupant a knight's move away in the same direction; in pulling, the pulled piece occupies the square vacated by the knight, both pieces again moving along the same path. A king pushes or pulls an adjacent man one square in his direction of movement or pushes a man one square without moving. A pawn pushes a friendly man directly in front of it one square ahead or up to two squares if the pawn is in its initial position. A pawn pushed or pulled back to its

original position regains the right to move two squares. A pawn pushes an enemy man one square diagonally forward. Like the pieces, a pawn may push without moving, this counting as a move. A pawn promotes on the eighth rank to a piece of the player's choice (i.e., if Black pushes a WP to the eighth, it is Black who declares the promotion). A pawn cannot pull since it cannot move backwards (but it can be pushed/pulled backwards, even to the first rank). A man pushed or pulled off the board is captured and removed from play. Suicide is permissible for all men except the king (suicide is the only way to pull a man off the board). A king is checkmated when it cannot avoid being pushed/pulled off the board, in check when such a move is threatened. Push/pull is always optional but is forbidden into, through or out of check or to make a push/pull move that has the effect of cancelling the previous move. Castling cannot be combined with a dynamo move. The e.p. capture, if adopted, can only apply to edge pawns. A fool's mate given by the inventors: 1 Ng1-e2 (Pe2-c3) Qd8-b6 (Pc7-a5) 2 f2-f3 Qb6-f2 (Pa7-e3). Without the pawns on c3 and e3, White could escape by Ke1-d2 (Pd2-c3) or Ke1-e2 (Pe2-e3).

The rules appear complicated but are quite logical and are easily assimilated. The theme has appealed to problemists. (*Dynamo-Schach*)

Balanced Doppelzug-Dynamo, also known as **DZD**, a combination of Double-move Chess and Dynamo, achieved popularity in Germany where correspondence tournaments were held in 1969. The rules differ from Dynamo in that there is no check or checkmate; the game is won by pushing/pulling the enemy king off the board. No e.p., and stalemate is a draw. White starts

with one move (hence 'balanced'); thereafter players make two consecutive moves each turn (illegal for the first move to cancel the second). Opening play has received little attention. The popular 1 Qd4 (Pd2-d6) in Dynamo fails in DZD on account of, for example, Rh4 (Ph7-h3) followed by pushing the queen off. (*Dynamo-Schach*)

Crossings Chess (Philip Cohen, 1973). Robert Abbott's game Crossings adapted to chess. Every man can move like a king but only to an unoccupied square: this is called a Crossings move (c-move). Two or more men of the same colour adjacent to one another in a straight line (orthogonal or diagonal) can also make a c-move. The men move as a line up to the number of squares equal to the number of men in the line. Alternatively, one or more men may detach from the line, again their maximum move being determined by the number of men moving. If a moving line meets an enemy man, that man is captured by displacement by the lead piece of the line and the move ends. If a line meets an opponent's line with fewer men in it head-on, the lead man in that line is similarly captured. A threat to capture the king by a c-move has the same status as a check. A king cannot cross an attacked square as part of a c-move. A pawn can be promoted by a c-move. A pawn pushed to the first rank retains the initial two-square option. All men can also move and capture normally. A Fool's mate: 1 e1/f2-g3/h4 d8/e7-f6/g5 and 2...f8/7/6-f5/4/3. This cannot be done on White's second move, with colours reversed and 1 d1/e2-f3/g4 etc, because Black's king would have to pass through check. **Surge Chess** (Cohen, 1973) is the same game without crossings captures. (*Nostalgia* 167/183, also correspondence between John Gollon and Philip Cohen)

8.3 Gravitational and magnetic effects

Gravitational Chess (Carlos Nafarrate, 1984). After a piece (not a king or a pawn) has finished its move, it is pulled one rank back towards its baseline. The square to which it first moves, and the square to which it is pulled back, must be either empty or occupied by an enemy man (which is captured in either case, so two captures if both squares are

occupied). Problem theme but perfectly playable as a game. Fools' mate runs to three moves, for example 1 e4 h6 2 Qg4/g3 f5 3 Qxg7/g6. (*Feenschach*, December 1984)

Magnetic Chess (João Neto and Claude Chaunier, 1996). Standard array and moves except that the scientific principle of

magnetism that like poles repel whilst unlike poles attract is applied to the chessmen. On completion of a move, any hostile piece on the same rank or file in line of sight with the piece played is moved along the file or rank to the square next to it. Similarly any piece of the same colour is moved to the farthest vacant square in line of sight on the same rank or file as the piece played. Kings however behave normally. Castling magnetises the rook, there is no *en passant* and a pawn moved to the first rank retains the two-square move option. A neat Fool's Mate due to Ian Richardson:

8.4 Other displacements within the board

Actuated Revolving Centre, often abbreviated to **ARC** (A. E. Farebrother and W. H. Rawlings, 1937). The four central squares, together with their occupants if any, make a quarter-turn clockwise whenever a man enters, moves within, or leaves the centre. Rotation takes place on completion of the normal move. A piece passing over the centre does not actuate it (*Fairy Chess Review*, February 1937 and August 1938).

ARC is a problem theme of little interest as a vehicle for play, but the idea has been developed and reinvented many times. **Actuated Revolving Quarterboard** (originator unknown) applies the same idea to the central 16 squares, **Lazy Susan Chess** (Bruce R. Trone, date not recorded) is an automatic version in which the central 16 squares rotate a quarter-turn clockwise after every move, and in **Double Lazy Susan Chess** the inner four squares rotate similarly counter-clockwise (manuscript notes presumably deriving from personal communication). In **Pinwheel Chess** (Ralph Betza, 1973), the board is assumed divided into 16 2x2 cells which rotate 90 degrees in alternate directions like so many small pinwheels (a1/a2/b1/b2 anti-clockwise). If a pawn rotates to the 8th rank, the player whose move it is decides on the promotion piece; a king is not in check if next move its attacker will be rotated out of range. A fascinating game according to its inventor, who suggests a computer print-out after each move (*Nostalgia* 168), but 'unplayable' (*World Game Review* 10) may be a sounder judgement. In **Orbital Chess [Betza]** (Betza, 1974) the

1 d3 (attracting Bp d7-d4) Bg4 (repelling Bp d4-a4 and also attracting Wp g2-g3) 2 e3 (repelling Wp d3-a3 and Wp g3-h3, attracting Bp e7-e4) Qxd1! (*Nostalgia* 367, Variant Chess 44/45)

Fruit Bowl Chess (John McCallion, 1997). The board is divided into a 7x7 central area and perimeter squares which slope upwards. A man may move along but not to a perimeter square without the support of an orthogonally adjacent man of either colour. (*Nostalgia* 365)

board is considered to have four orbital paths; the first consists of the 28 perimeter squares, then, progressively towards the centre, 20, 12 and 4. After each player moves the four central squares rotate, together with any occupants, a quarter-turn clockwise. Progressively outwards the other paths rotate one square anti-clockwise (1st and 3rd orbits) or clockwise (2nd orbit), thereby maintaining the chequered pattern. A move within a path, even if it crosses other paths, is illegal. Capture the king to win. 'Probably unplayable' according to Keller (*World Game Review* 10), but Betza offered a specimen game in *Nostalgia* 168. In **Rotation Chess [Cohen]** or **Gumption Chess** (Philip Cohen, 1969) the rotation occurs instead of a normal move rather than as a sequel to it, and there are several flavours. In the basic game, a player may rotate any 2x2 area which contains at least one of his men and none of his opponent's, and the rotation may be either clockwise or anti-clockwise. A pawn on the first or second rank, regardless of how it got there, may subsequently move to the third or fourth. No e.p. capture allowed. In **Free Rotation Chess** the area rotated may also contain enemy men; a pawn rotated to its 8th rank promotes at the choice of its owner, and if one player rotates an area the opponent cannot immediately rotate it back. In **Restricted Rotation Chess** the direction of rotation, or a sequence of directions, is specified either for each player or for the game as a whole, and in **Free Megarotation Chess** the rotation is of 3x3 squares instead of 2x2 (notes by the inventor, also *Nostalgia* 111).

In **Twist Chess** (D. Trouillon, not later than 1975) the 16 central squares, with their occupants, can be rotated 90, 180, 270, or 360 degrees (the last being a static move) by either player instead of moving, but at least one regular move must be made between rotations and the right to rotate alternates between the players (correspondence between John Gollon and Philip Cohen).

[It was through ARC that I first met David. At the time, the British Library's holding of *Fairy Chess Review* was still incomplete (as often happens with magazines that are sent only to a small circle of enthusiasts, the provisions regarding legal deposit had not been observed), and he had heard that I had the complete run; could I help him, please? Yes, I said, with pleasure, come down and have a look. He duly arrived and introduced himself, and I sat him in front of the fire with a complete pile of *FCR* and a supply of coffee and left him to it. After his visit, I contacted the British Library and supplied it with photocopies of the issues it lacked, with the result that the next time David visited it to consult *FCR* he could not see anything at all because the whole series was away being rebound.]

Pivot Chess (James A. Gutzwiller and David Moeser, 1969). Before moving, a player may pivot any file 90 degrees about any square on it. A file must be pivoted so that squares on it overlap with empty squares on the rest of the board. Pivoted files temporarily become ranks and pawns on them move in their normal directions. (*World Game Review* 10)

Reflection Chess [Fixed Mirror] (origins unknown). A notional mirror is positioned between the 4th and 5th files. Instead of moving normally, a piece (but not a pawn) may reflect to the mirror-image square, provided it is empty, on the other side of the

board. The K can reflect out of check. (Correspondence between John Gollon and Philip Cohen)

Mirror Chess [Howe] (Michael Howe, 1994). After each move, the player may place a mirror horizontally or vertically between any two squares and reflect everything in a field defined by the nearer boundary and the square the same distance away on the other side (thus after 1 f4 White can put a mirror between f5 and f6 and reflect everything from f8 to f3, which moves the pawn to f7 and puts Black in check). Restrictions: a reflecting field may not include the king; it may not include a square that was in a field created by the opponent at his last turn; the king must get out of check by an orthodox move; a pawn may not promote by reflection (no apparent prohibition on reflection to the first rank). No e.p. or castling. Fool's mate is one move only: 1 f2-f4 plus mirror between d5 and d6 (reflecting Pd7 to d4 and Q to d3) Qd3-g3 plus mirror between h2 and h3 (reflecting Ph2 to h3 and R to h4). [Text summarized from *Etereoscacco* 66, fool's mate added. Experience suggests that it is easy to overlook the rule that a field may not include any part of the field created by the opponent at his last turn, and it is only the immediate and total cancellation of the opponent's latest reflection that seems worth prohibiting. Perhaps the game might be tried with this rule altered accordingly.]

Belt Chess or Full Belt Chess (Michael Howe, 1994). Each file and rank is a conveyor belt. After moving, a player must rotate one rank or file (except one containing a king) any number of squares in either direction, the men on it moving with it. The game can be played using either the standard array or one with a diametrically symmetrical piece arrangement BBNRRQK (kings on h1/a8), which has advantages. (*Etereoscacco* 66/69)

8.5 Physical displacement of part of the board

Jagged Chess (James A. Gutzwiller, 1969). Before moving, a player may 'jag' a file up or down, but it must always remain connected to neighbouring files by at least one square. Moves must be wholly on the board but a knight can leap empty space. (Manuscript note

deriving from personal communication)

Rotofile Chess (James A. Gutzwiller, 1970). After each player has made a move, the a-file is transferred, together with any men that are on it, to form the new h-file. Another version

has this transfer after every move. The idea was expanded into a number of variants, probably little played: Alice Rotofile, Mirror Rotofile, Straights Rotofile, Time-Warp Rotofile. (*Neue Chess* 8)

8.6 Unorthodoxy relating to castling

Madchess (Thomas Varghese, 1972). Castling Q-side is permitted with a man on b1 or d1 (K and R go to c1/d1 or b1/c1 as appropriate), Black similarly. (Personal communication)

In the other direction, Emanuel Lasker proposed the **abolition of castling**. [I haven't tracked down the source for this, but see no reason to disbelieve it.]

[I was a little surprised that David did not include **All-In Castling**, where castling is

8.7 Other forced movements

Slippery Centre Chess (Philip Cohen, c.1970). The four central squares (d4, d5, e4, e5) are 'slippery' and cannot be occupied. A man finishing on one continues in the same direction to the first square immediately beyond. A king may pass 'through check' on the central squares since no piece can land on one. Line pieces (Q, R, B) may go further if desired; no e.p. A variant untried as at 1978 is **Very Slippery Centre Chess** in which a man landing on a central square slides off at right angles. (*Nost-algia* 215)

Brownian Motion Chess (Ralph Betza, 1974). After each move, all men advance according to a pre-arranged knight's tour. Impossibly cumbersome at best. What happens if the player who is not to move finds his king in check? (*Nost-algia* 168)

Earthquake Chess [Betza] (Ralph Betza, 1996). The board is divided in two either vertically or horizontally, and the two halves are displaced. (*Eteroscacco* 75) [Text editorial]

permitted whenever K and R are in line with two or more squares between them and the king is moving neither out of nor through check. Perhaps it is found only in jokes and problems. A trick which has been exploited more than once specifies that White has an unmoved Ke1/Ra1 and is required to do something soon seen to be impossible even with the aid of 0-0-0, but of course he also has a pawn on e7, and he succeeds by playing e8(R), claiming that this new rook is still unmoved, and following up with 0-0-0-0-0-0.]

Iceberg Chess (Ed Pegg Jr, 1990). Each player constructs a seven-square iceberg within a 4x4 square. Only the tip of the berg is visible, the location of the remaining squares being known to the player but not to his opponent (the tip must be one of the four central squares, and it would appear from the examples in the source letter that the squares forming the berg must be orthogonally connected). The berg can be moved like a king every other move, and an enemy piece that attempts to move on to or through a berg is destroyed. A player may place pieces on his berg and they presumably move with it, but if attacked they are captured. A player may make up to five guesses as to the shape of his opponent's berg, and if any guess is correct he wins instantly. (Personal communication) [Text editorial]

Chapter 9

Games using unorthodox initial arrays

[The games in this chapter are orthodox in everything except the starting array. A large number of variants satisfy this description, frequently differing from one another only in minor detail. Alexandre, the author of the *Encyclopédie des Echecs*, experimented with the form in the first half of the 19th century, and was stated by Kraitchik in *Les Mathématiques des Jeux* to have well understood the theory - something of an accomplishment, if true. A game of dubious authenticity was recorded in Brighton around 1903 between Father Christmas and St. Nicholas, and was widely published.

Because of their closeness to the normal game, these variants often appeal to players who find more radical variations uninteresting, but by the same token their interest from our point of view is limited; once the opening is over, the players are playing ordinary chess. There are three general kinds: (a) the opposing arrays mirror each other either vertically or diametrically; (b) the opposing arrays do not mirror each other, and may not even be composed of the same men; (c) the initial position is wholly or partly free, and players enter the rest of their men as they please. The chapter also includes games at odds, and games from the normal array where one or more moves are specified in advance.]

9.1 The opposing arrays mirror each other vertically

In the present section, opposing men of the same kind face each other on the file. We start with games where the normal pawn line is retained but the piece order is changed. Variants of this kind date back at least to the middle of the 19th century, and probably considerably further. A game played at Baden-Baden in 1851 between E. van der Hoeven and T. von Heydebrand und der Lasa used the curious baseline BRKRBNNQ with the opposing bishops out of touch with each other (*Dizionario Enciclopedico degli Scacchi*, quoted in *Chess Notes*). It is not certain whether the disposition was determined by choice or chance. The examples that follow observe the constraint that each side should have a bishop on a square of each colour.

Knights and Bishops (suggested by 'R' in a letter to the *Illustrated London News*, 11 April 1857). Baseline RBNQKNBR. Used in a game between Blackburne and Potter in 1875 (*City of London Chess Magazine* 1876) and in a tournament in 1879 (*Chess Monthly*, September 1879). Editorial comment in the latter (Zukertort's?) was hostile: 'We cannot approve of any kind of displacement. The beaten tracks of known openings are, of course, thereby avoided, but this small

advantage is purchased at the price of destroying the spirit of the game. However, this particular displacement is vicious in principle ... the first player has such a great advantage that it simply upsets the basis of a fair game'. Regrettably, this great advantage was not revealed. The arrangement was subsequently used in a six-game match between Showalter and Leman, at least one game of which was reproduced in *La Stratégie* in 1890.

Rooks and Bishops (suggested by D. Forbes in reply to the above, *Illustrated London News*, 9 May 1857). Baseline BNRQKRNB. The idea was subsequently revived by Capablanca, allegedly reacting to the large number of draws in his World Championship match with Lasker. [The first edition then quoted a 'righteous' reaction from Réti that 'Every true chess lover must be averse to Capablanca's casual suggestion', but while the quotation itself is accurate enough - the passage will be found on page 176 of the English edition of *Modern Ideas in Chess* - I think the word 'righteous' is belied by the context. What Réti dislikes is the fact that the change doesn't go to the heart of the matter, and will merely produce a temporary

reduction in the number of draws due to the exploitation of ignorant play in the openings. He isn't objecting to change in itself, but to a change which is only superficial. The same objection could be made and has been made to all games of this type.]

Mongredien's Game (A. Mongredien, 1868). Baseline RBBQKNNR with the bishops on the queen's side and the knights on the kings. Used in a tournament in 1868-9 (*Chess Player's Quarterly Chronicle* 1868, also *British Chess Magazine*, July 1945), and also in a correspondence match between Halle and Magdeburg in 1876.

Van der Linde's Games [1] (A. van der Linde, 1876). Several deviant arrays are quoted by van der Linde (*Geschichte und Literatur des Schachspiels*). One has the K and KR change places, a second offers the new baseline KQRNBBRN. Others are considered later in the chapter.

Neuschach [Lengfellner] (Dr Lengfellner, 1911). Baseline NBQRNBK. Frank Marshall tested the game successfully in Vienna against an unknown master, whilst Erich Cohn of Berlin, shortly after killed in World War I, won a Neuschach masters tournament. (*Wiener Schachzeitung*, November-December 1911)

Parton's Game (V. R. Parton, 1952). Baseline NBRRKQBN. Suggested to overcome the problem of developing the rooks and also to strengthen the king's side. (*Chess*, May 1952)

Four-Knights Chess (NOST, date unclear). Baseline RNNQKNNR with no bishops. The same idea was put forward by Anthony Paletta as **Double Knight Chess [Paletta]** in *Chess Spectrum Newsletter*. It is not clear who had the priority.

Knight Supreme (NOST, date unclear). Baseline NNNQKNNN with neither bishops nor rooks.

Guardian Chess (George Jelliss, 1982). Baseline NQRBBRKN. This gives the only array with a normal complement of pieces in which all 16 men are guarded at least once. (Winter, *Chess Notes*)

The normal set of men allows 24 different baseline arrays if the king's side is required to reflect the queen's, and 2,880 if it is merely demanded that the bishops be on squares of

different colour. A selection from among these can be made by lot, thus providing a random choice from 24 or 2,880 different starting positions according to taste. In **Fischerandom Chess** (Robert Fischer, 1995), also known as **Shuffle Chess** and **Chess 960**, the bishops are required to be on squares of different colour and the king is required to stand somewhere between the rooks, which reduces the number of possibilities to 960. Castling is permitted, with the castled position on either side of the board normally corresponding to the orthochess arrangement although there are other options. The first progressive tournament of Fischerandom on the Internet (1996-7) attracted players from 11 countries, and was won by Alfred Pfeiffer. The game has been praised by some prominent players, possibly out of respect for its inventor, but Karpov commented that Fischerandom 'did not produce the harmonious positions of normal chess' and added that the game was 'negative', with which most variant players would probably agree.

Hopscotch Chess (Alan Parr, 1980s), intended for postal play, allows a random choice from the full set of 2,880 baselines with bishops on different colours, after which Marseillais Chess is played. Games tend to be short. (Author's rule sheet)

All the games considered so far have a full row of pieces on the first rank and a full row of pawns on the second. There have been variants in which these constraints are not observed.

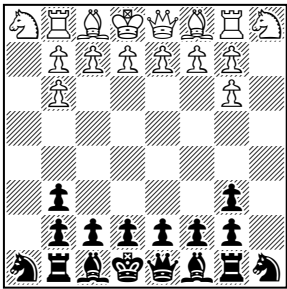
The Pawns Game [Endgame], also known as **Endgame Chess**. Origins unknown; at least one, and perhaps many centuries old. King and pawns v king and pawns in initial array. Played by Russian schoolboys as a practice game. (Fox and James, *The Complete Chess Addict*)

Van der Linde's Games [2]. One of van der Linde's arrays omits the b, c, f and g pawns, another has only 8 men a side: K, R (a-file), N (g-file), Ps a, d, e, f, g files. There are also three arrays with advanced pawns: (a) baseline NNBQKBRR, Ps c4/5 and g3/6, other Ps on usual array squares; (b) baseline RBNQKNBR, Ps b3/6 and c3/6, other Ps on usual array squares; (c) baseline RQBNKBNR, Ps a2/7, b2/7, c23/67, e2/7,

g23/67, h3/7 (sic). The asymmetry of the h-pawns may be a mistake. (Verney)

Bolshevistic Chess (F. J. Wallis, 1918). Humorous (?) proposal that the ranks of pieces and pawns in the initial position be reversed in order to bring justice to a game in which the people 'are mishandled and murdered at the behest of your Queens, your Kings and your Aristocrats'. No captures and no piece checks until a pawn has checked a king; however, a pawn can capture a pawn if this gives check. Once a pawn has checked a king, play reverts to normal. A suspect game was published in the *British Chess Magazine* in 1919.

Patt-Schach (Erich Bartel, c. 1960). White NRBKQBRN on rank 8 (!), Ps b7-g7, b6, g6, Black mirroring as usual :



Both sides are stalemated (White is playing up the board as usual), so each side puts one man on a different square (captures and checks barred). Thereafter play is normal except that promotion is only to a piece previously lost; if there is none, a pawn move to an end rank is illegal. Games are an orgy of premature deaths

9.2 The opposing arrays mirror each other diametrically

An alternative to vertical mirroring is provided by diametral mirroring, where like men are at opposite ends of an imaginary line through the centre of the board. An example is given by **White King and Queen Interchanged**, which has been suggested many times (e.g. in the *Chess Amateur*, December 1916). A correspondence tournament started in 1935 was won by E. Ancsin of Budapest (+10 –1 =0) with P. Keres and H. Muller as joint runners-up (+9 –1 =1) (*Fernschach* 12/1937, quoted in *Chess Notes*). Lord Brabazon

and pawn-promotions. (*Variant Chess* 5)

Melf's Game (Frank Melf, 1978). Kings on usual squares; eight queens replace pawns; no other pieces. Described as a quick chess variation, the game is flawed: 1 Qaxf7+ leads to mate at move 4. (*Games and Puzzles* 72) [A delightful picture in the first edition showed some distinctly quarrelsome queens brandishing rolling pins, frying pans etc.]

Advance Chess (Tony Paletta, 1980). As normal chess except that pawns start on the 3rd and 6th ranks. There is no double pawn move. (*Chess Spectrum Newsletter*)

Corridor Chess (Tony Paletta, 1980). White baseline (b1-g1 only occupied) NRQKRN, bishops on c2/f2, pawns (six only) on b3-g3, Black mirroring as usual. No castling or two-square pawn move. Early play is often a fight for control of a- and h-files. (*Chess Spectrum Newsletter*)

Pawn-Snatcher's Delight (originator unknown). All pawns start on the 4th/5th ranks. A variant suggested (1982) by Philip Cohen is to move all men one rank nearer the opponent in the initial array, leaving the 1st/8th ranks empty. No two-step pawn moves or castling. (*Nost-algia* 263)

Crowded Chess (quoted by C. Pickover, 1992). Each player has two rows of pawns (2nd/3rd & 6th/7th ranks) and the usual pieces. (*Mazes for the Mind*)

Hecatomb (Kevin Maroney, 1994). Each player has a king in its normal position, plus 31 queens filling the rest of his half of the board. (*Nost-algia* 347, also *Eteroscacco* 67/68) [Text editorial]

subsequently suggested that it be officially adopted for a trial period (*Chess*, April 1944), but readers' letters (17 published) were predictably conservative.

Little Chess was the name attached by Gollon to a classic pawn puzzle (Kd1, Pabc2 against Ke8, Pfgh7, White to play and win). This dates back at least to Carrera in 1617 and was definitively solved in 1836 by Szén, who made quite a bit of money out of it (*The Oxford Companion to Chess*, entry 'Three pawns problem'). [Text revised]

9.3 The opposing arrays do not mirror each other

Van der Linde once offered (a1-h1/h8-a8; i.e. facing kings) KQRNBBRN and RNBQRBNK. How he arrived at these baselines is not known, but many techniques exist for placing men in a line at random. **Fully Randomized Chess**, in which the White and Black baselines are randomized independently and without restriction of any kind, seems to have been played only occasionally, but **Symmetric Fully Randomized Chess** (George Jelliss, 1998) has been used as the vehicle for at least one tournament. The four pairs of men (KQ, RR, BB, NN) are arranged symmetrically on the back rank even though the White and Black baselines may differ, thus ensuring that the bishops are on squares of opposite colour and that one side does not have all its heavy pieces concentrated on one wing. There are special rules for castling. But it was felt that some starting positions were either very favourable or very unfavourable, and appeared to give one side a significant advantage from the word go; a probable flaw in this variant with a contradictory title (*Variant Chess* 33). [Text largely editorial]

Transcendental Chess, also known as **TC** (Maxwell J. Lawrence, 1978) allows players to make a limited adjustment to the baselines they are given. Starting positions (different for each side) are generated by computer. Bishops on different colours; no castling. Games are arranged in couplets (two games against the same opponent, one as W and one as B with the same array) with an important additional rule: both players have the option, on the first turn only and instead of moving, of transposing any two pieces in their array. A thriving TC club in the U.S., run for many years by the inventor, offered a range of correspondence tournaments and a regular publication, *Transcendental Chess*. In one tournament alone over 2,000 games were played.

Auction TC is a variant of Transcendental Chess employed when a single game, as against the usual couplet, is desired. The system is valid for any game where the initial array is not mirrored and is outside the control of the players. The array is made available to both players who then bid in turn. The procedure is formalised: W or B - the bidder is

opting for white or black, W or B 1,2,3 ... - the bidder is opting for a side and is prepared to cede 1,2,3 ... tempi for the privilege. A tempo is translated in practice into the right to transpose two pieces, or to make a pawn (not piece) move, at the player's choice; thus a player receiving two tempi could make two pawn moves or transpose two pieces and make one pawn move. As in TC, a player may only transpose on the first move of a game. It is usual for the bidding to advance in stages, until one player passes. Good bidding calls for skill in evaluating the array.

In **Dutchess** (Al Helzner, 1982) each player secretly selects a number in the range 0-3. These numbers are added, and that number of pieces (not king or pawns) is removed from the array of each side. The players in turn nominate a piece which each then removes from his opponent's forces, selecting if there is a choice (*Nostalgia* 264). Other suggestions have included the **shedding of a rook's pawn** by each side (Menard, 1890s). [I haven't traced the source for the Menard suggestion.]

Since the late 19th century, draughts (checkers) has optionally been played with a two-move or three-move restriction rule: a list of two-move or three-move openings is made available, and the players select one by lot and take each side once. **Restricted Chess** (Stasch Mlotowski, 1917) applied the same idea to chess (*BCM*, September 1917). Mlotowski advocated allotting an opening to each of the 52 cards in a standard pack. Two games would be played with the opening drawn, reversing colours. His selection of openings was startling, even for the period: two cards (red aces) placed no restriction on the players; one card (ace of clubs) required White to open with other than d4 or e4; three cards (!) required White to open d4; two cards (!!) allowed Black to respond to 1 e4 with other than e5, and the remaining 44 cards carried a mandatory 1 e4 e5 with divergences at the second and subsequent moves. 'It will be noted,' commented the author, 'that I have a leaning to the more interesting debuts'. *The Gambit* commented (December 1927) that 'The limited number of debuts offered was probably the reason his idea did not receive

wider recognition at the time'. In the interim, Mlotowski drew up a list of 200 opening variations, including all those then recognized as giving a playable game. The opening to be played was decided by drawing numbered cards, prompting the name **Ballot Chess**.

Games At Material Odds. The giving of odds was common until relatively recent times. The practice, which however never gained popularity in Germany, peaked early in the 19th century according to Golombek (*Penguin Encyclopedia of Chess*). The leading players of the 18th and 19th century, from Philidor to Steinitz, often gave odds against weaker players; indeed, most of Philidor's games were played at odds. There is no definitive listing, but odds commonly given were, in ascending order, (1) The move (stronger player takes Black); (2) Two moves (White opens with two consecutive moves); (3) Pawn and move (Black removes his f-pawn); (4) Pawn and two moves (f-pawn removed); (5) Minor piece (usually QN); (6) Rook (usually QR); (7) Q. Several other material imbalances were occasionally practised. Against rank beginners, 'crutch odds' were sometimes employed, the stronger player being without minor pieces and the four central pawns.

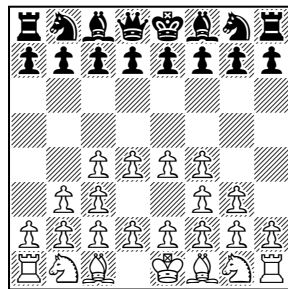
The odds of pawn-and-move provide many interesting examples of expert play because the difference in playing strength is small and orthodox opening knowledge is of little use. Black is immediately handicapped in not being able to reply to 1 e4 with either e5 or Nf6 and in consequence has a difficult defence; on the other hand, if he is able to consolidate his position he has the advantage of the half-open f-file. Opening play at odds of pawn-and-move suggests that White's best move to retain the advantage is 1 e4 with possible replies for Black: d6, e6, Nc6, Nh6, c5, g6, b6. Not all these responses may stand up to modern analysis and theoretically of course White's advantage is huge.

Completely unbalanced games have been practised at least since the 18th century, and many versions have been recorded.

The Pawns Game [Legal], also known as **Legal's Game**. Attributed to M. de Legal, Sire de Kermur, according to *Le Palamède* (1837).

A game which tests the theory that a queen is worth nine pawns, in practice reduced to eight to compensate for their advanced position in the array. No WQ, but eight extra pawns on the 3rd/4th ranks. Only pawns on the second rank can move two squares. The game is finely poised and enjoyed considerable popularity in the Régence where Labourdonnais and Deschappelles are alleged to have played hundreds of games. White's aim was to advance in a phalanx, depriving Black of space; Black's aim was to neutralize the pawn chain, usually with sacrifices, opening a path for the queen to penetrate the position.

Five initial positions, each with their own strategies, were common. Position I (additional pawns on a3-h3) is weak; White has difficulty in developing. Position II (pawns on a4-h4) is also weak for White as the front row of pawns is open to attack. The asymmetrical Position III (pawns on cefg4, bcfg3), known as the Boar's Head, was considered inferior, offering Black good attacking chances. Position IV (pawns on bcfg3/4) is advantageous for White unless Black strikes quickly. Position V (pawns on cdef4 and bcfg3, see below), known as the Trapeze, was considered best for White: the bishops were normally developed at d3/e3 and the knights at d2/e2, and Black had to play cautiously.



Sometimes a pawn more or less was agreed by way of handicap. (*Schachzeitung* 1849-50)

An extreme form of the game was tried out by Walter Browne and Ralph Betza at the Manhattan Chess Club in the 1960s. White had a king and seven queens on the first rank, Black a king and 47 pawns, the rank between the two sides being empty. Black won each time. (*Nost-algia* 162)

[In spelling 'Legal' with no accent, David is

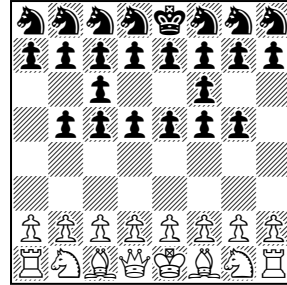
at one with *Le Guide des Echecs* (Giffard and Biénabe, 1993, page 37), though the name is given there as ‘Kermur de Legal’. The *Oxford Companion* has ‘Legall de Kermeur’ with a double ‘l’. *Le Palamède* has ‘Légal’ with an accent and this has understandably been copied by other writers, but apparently it is quite wrong. Ken Whyld once told me that Harry Golombek was most distressed when an editor ‘corrected’ his text by inserting an accent after he had signed off the proofs: ‘My French friends will think I am ignorant!’]

Van der Linde’s Games [3]. Two unbalanced arrays using normal men are given: (a) White has Ke1, Bc1 and the four central pawns against Black Ke8 and the six central pawns, (b) White has Ke1, Nb1, Ps b2, d2, e2, f2 against the same. Van der Linde also gave a position with sixteen white pawns against a Black K with powers of all men combined, which will appear in a later chapter.

Peasants’ Revolt [Frey] (R. L. Frey, 1947). White has K + 8 x P (the peasants) on original squares; Black has four knights (the nobles) on b/c/f/g8, Ke8, Pe7. Object is mate. Black has better chances but must avoid being left with

two knights. (Koch, *Spiele für einem Allein*)

Weak! (Ralph Betza, 1973). Inspired by Week (see chapter 19) and the Pawns Game. White has his normal array, Black Ke8, seven knights on a8-d8/f8-h8, 16 pawns on a7-h7, c6/f6, b5-g5 :



The two sides are said to be roughly equal in strength but the array suggests that Black is appreciably stronger. White’s tactics are to break through by sacrifices, Black’s to advance en masse, the knights forming chains to cover vital squares. Best played at speed, Weak! has been endorsed by dozens of tournament players. (*Nost-algia* 162)

9.4 The initial position is partly or wholly free

In these games, there is no initial array as such, and the players place their men largely or wholly as they wish. Many such games exist and new ones are continually being invented, sometimes with more hype than originality. There are two general approaches: the players start with a line of pawns, or with a completely empty board, and each places one man at a time in full view of his opponent, or they set up their positions completely independently and bring the two together. Games with the normal pawn array are listed first, then empty board games, then games in which the players set up their positions independently.

Free Chess [Brunner], also known as **Permutation Chess [Brunner]** (Erich Brunner, 1921). Pawns in normal array. White places a piece on any square of 1st rank; Black places equivalent piece on 8th rank either on same file or on corresponding file (e.g., WRc1; BRc8 or f8). Now Black chooses a piece and the same procedure is followed until

all pieces are placed when play is as in ortho chess (*Das Brunnerbuch*, also *Nouveaux Jeux d’Echecs Non-orthodoxes*). Tournaments held in Switzerland and England. Karl Kaiser (*Funkschach*, September 1926) proposed to introduce some order into the process by requiring the pieces to be placed in sequence (W followed by B): K, Q, R, R, B, B, N, N.

Free Chess [Felisch], also known as **Paul-Felisch-Schach** (Paul Felisch, 1926). The pawns and kings are placed as normal and both players set two pieces anywhere on their respective back ranks. White and Black make one move; thereafter a player can elect on his turn to place one or two pieces at will on his back rank and then move normally. Players must enter pieces at least every other move so that by the 10th move at the latest, all are placed. Bishops on different colours; no castling (*Funkschach*, July 1926). Nimzowitsch remarked that ‘the idea of Herr Paul Felisch is not without wit’ but then went on to decry it (*Kagans Neueste Schachnachrichten*, July 1927).

Real Chess (E. I. Csaszar, 1934). Pawns arrayed as usual; players take it in turns to place a piece on any empty square on their back ranks; no restrictions on bishops. Castling permitted, subject to orthochess rules, over any distance; thus WKb1, WRa1, h1; castle Kb1/Rac1 (sic) or Kg1/Rhf1. (*Nouveaux Jeux d'Echecs Non-orthodoxes*)

Chess With Reserves (E. Slater, 1950s). Pawns and kings are set in their usual array; pieces are kept in reserve. On each turn a player may move in the normal way or enter one piece from his reserve on any vacant square of his first rank. (*Nouveaux Jeux d'Echecs Intéressants*)

Free Chess [Slater] (E. Slater, 1950s). Players in turn place a piece on an empty square on their respective back ranks. No castling; bishops can be on same-coloured squares. (*Nouveaux Jeux d'Echecs Intéressants*)

Placement Chess [Koskela] (Ron Koskela, 1976). Each player in turn locates an opponent's piece; the process being repeated four times. (*Chess Life*, September 1976)

Pre-Chess (1978, advocated by Pal Benkő who credits David Bronstein with the idea). Pawns are set up as usual, then each player in turn, White starting, puts a piece on a vacant square on his first rank until all are in place; bishops must be on opposite-coloured squares, and castling is permitted only if K and R are both in their orthochess positions. Endorsed initially by Euwe as 'an interesting new idea' and 'worth trying' (*Chess Life*, August 1978). A four-game match (1978) between Benkő and Arthur Bisguier was won convincingly, if with a slice or two of luck, by the latter.

The *Chess Life* articles sparked an interest in the game across America. Tournaments were held (one, in 1979, won by Joel Benjamin). *Schema*, a games magazine, ran a feature article, re-naming the game **Meta-Chess [Schema]** and describing the initial deployment as a Meta-phase. Philip Cohen had suggested a 'Super' version in 1977 in which both sides had advanced pawns in the initial position, as in the Burmese game (White f3, g3, h3; Black a6, b6, c6) (*Nostalgia* 240). Meanwhile Burt Hochberg, former *Chess Life* editor, in an interview that received wide publicity, declared the articles had generated an enthusiastic response ('readers

loved it') but that no letters or follow-up articles appeared in *Chess Life* apparently because the USCF had disapproved of space being allocated to chess variants.

Placement Chess [Jelliss] (George Jelliss, 1980s?). Jelliss observed that once a player knew where his opponent's king was he could place his men so as to focus on it. He favoured placing the men in the sequence N, N, B, B, R, R, Q, K, the second player each time matching the placement on the same file. (Winter, *Chess Notes*)

The Game of Calculation (originator unknown, 1806 or earlier). Forces are selected independently by the players based on a points system and an agreed allocation, men to be set up according to a fixed procedure. It was suggested (*Easy Introduction to Chess*) that Q=10, R=5, B=3.5, N=3, P=1, and an example is given of a selection based on an allocation of 20 points. An article in *Recreational Computing*, a century and three-quarters later, proposes an almost identical game with point values Q=25 (sic), R=7, B=5, N=3, P=1 with an initial allocation of 60 points per side.

Jubilee Chess (H. F. L. Meyer, 1885). Each player in turn places a man on any empty square on his first three ranks, bishops on opposite colours. In this stage, a check must be covered immediately; if impossible, the player has lost. Pawn starting on back rank moves 1-3 squares and may be taken e.p.; no castling. Promotion to captured piece only; if none, pawn is permanently immobilized. Meyer was a well-known editor of the time. [Manuscript note 'Picture (magazine page, mounted)', but no copy in David's Encyclopedia files]

Reform Chess [Békey] (Emerich Békey, 1908). Players place men alternately on vacant squares, White anywhere on ranks 1/2/3, Black ditto 6/7/8. Pawns (which have no two-step right) can be placed on back rank; both bishops on same colour. A player is not obliged to use all his men (but K must be on board). Békey offers other 'improvements'; for example, he renames certain men: Vizier (Q), Hussar (N) and Bastion (R) as being more in accord with the spirit of the game. (*Reform-Schach*)

Crown Chess [Ritzen] (Anton Ritzen, 1914). White deploys on ranks 1,2,3 and

Black on ranks 6,7,8. White starts with the K, Black follows ditto, then Q, Rs, Bs, Ns, Ps in order. No pawns on ranks 1/8; pawns on 2/7 have two-square option; no restriction on bishops. If one player, in placing a piece, gives check, the second player must cover it. Stated to have had a big following in Cologne in the early days of World War I. (*Das unsterbliche Schachbuch*)

Game of Pawn Placing (anonymous inventor in Belfast, 1922). Each player has a king and three pawns. White places his K anywhere on his first rank; Black does likewise. The players then alternate, placing a pawn anywhere on their respective 2nd, 3rd and 4th ranks. A normal game ensues with considerable advantage to Black as having placed the last pawn. Parton suggested that each player should also have a B and N. (*Chess Amateur*, July 1922, also *Nouveaux Jeux d'Echecs Non-orthodoxes*)

Freak Chess (D. S. Ellis, 1933). The names of the squares apart from c1/f1/c8/f8 are written on 60 slips of paper and shuffled. Each man apart from the bishops and kings is taken in turn, and a slip drawn for each. When all 26 men have been placed, any pawns on their 7th and 8th ranks are removed, and the bishops are placed on their normal home squares. White now places his king where he likes, Black does the same, and play proceeds. Black can lose his queen at move 1, but according to the inventor disasters are rare. (*Australian Chess Review*)

Neo-Schaak, also known as **Placement Chess [van Dien]** (E. van Dien, 1941). In a speech in September 1941 introducing his game to the Vereenigd Amsterdamsch Schaakgenootschap the inventor claimed that the most difficult problem in chess, the best initial array, is assumed to have been solved already whereas it has known weaknesses (the c- and f-pawns, castling, rooks out of play). He also pointed up the parallel of war where the opponent's deployment is not disclosed before the battle. Hence Neo-Schaak, in which the board is empty at the start of a game. The first move for both players is to place the king on any square of their first two ranks. Thereafter a player may move a piece on the board or introduce a new man on an empty space on his first or second rank. Pawns may be introduced on the first rank and bishops on

same-coloured squares. There is no double pawn move or castling. (Pamphlet *Neo-Schaak* by the originator, also *Nouveaux Jeux d'Echecs Non-orthodoxes*)

Blackout Chess (W. J. Joret, 1942). The board is empty to start. Each player takes K, Q, B, N, R, 4xP and places them freely on the board, one man at a time alternately in the order given, until all 18 are located and the game can start. B. H. Wood suggested some additional rules: (1) No man may be placed to check the opposing K; (2) No man may be placed so as to put an opponent's piece (not pawn) en prise; (3) Pawns may not be entered beyond the fourth rank; (4) Black to move first. (*Chess*, June 1942)

Identific (V. R. Parton, 1970). Each player starts with 12 counters or tokens and places them on any 12 squares in his own half of the board. These represent the usual eight pieces plus four pawns, as yet unallocated, which he keeps in hand. White starts by moving a counter like a chessman and then replacing it with that man; Black does likewise. Thereafter a player may move a counter and replace it with an unallocated piece, or move a chessman on the board in the normal way. Unidentified counters, even if known by the fact that only one type of man remains to the player, cannot recapture or check, but they are subject to capture by chessmen in play. Before the start, players agree on a turn (the 4th and 6th have been suggested) by which the kings will be disclosed. Without such early revelation much of the interest of the game is lost. (*Chesshire Cat Playeth Looking-Glass Chessys*)

Paratroop Chess (C. G. Lewin, 1970). Empty board at start. Players first place king anywhere in own half. Thereafter a turn consists of moving a man on the board or placing a man not in play on an empty square in own half of board. No man may be dropped to give check; bishops on opposite colours; no pawns on the first rank. (Manuscript notes presumably deriving from personal communication)

Placement Chess [Lewin] (C. G. Lewin, 1970, 'after Boyer'). Empty board at start. Players decide on colours then at each turn place any man of either colour on the board; white in one half, black in the other. No pawns on end ranks and bishops must be on opposite-

coloured squares. A player may not place an opponent's king nor put either king in check. Play begins when all men are placed. (Manuscript notes presumably deriving from personal communication)

Deployment Chess. This game (inventor unrecorded) won first prize in a competition for new chess variants (*The Gamer* 5). The board, otherwise empty, is dressed with 24 white and 24 black counters, covering respectively all squares of the first three ranks on either side. These are known as creation points. Both players start by replacing an own-colour marker with one of their men (no pawn on first rank). On each subsequent move a player may either enter a man to replace one of his own markers or make a move on the board. There are a few restrictions: (1) Both kings must be entered by the 5th move. (2) A pawn cannot be entered on a file on which a pawn of that colour already stands; a pawn entered on the second rank has the right to the two-square move. (3) Bishops must be on opposite coloured squares. (4) A moving man destroys the creation point (of either colour) that it lands on and also any of its own colour that it crosses. (5) No castling. Captured men are eliminated from the game. Both creation and movement call for subtlety, the play apart. (*The Gamer*, also Addison, *100 Other Games to Play on a Chessboard*)

Creative Chess (Marco Meirovitz, 1980s). Players introduce their men alternately in their own halves of the board. Kings are placed last. No restrictions on B, P placements. Introduced as part of the inventor's books-and-software programme for developing thinking skills, *The Gym of the Mind*.

Chaos [Koch] (Karl Koch, 1986). The players start with an empty board and each in turn places a man on an empty square in his own half of the board. The king is placed first (another version has the king placed last), the other men in any order. There are no restrictions except that a player whose king is in check after all men have been placed loses the game. When all men are on the board White starts and orthochess rules apply. In another variant, the men may be placed anywhere on the board (but no pawns on end ranks). (*Spiele für Zwei*)

Bosley Chess (John Bosley, 1987). Empty board to start; White places 7 men, Black 7,

White 5, Black 5, White 3, Black 3, and then the kings. Men apart from kings may be placed in any order and on any empty square with the following limitations: pawns only on ranks 2-4, queen must be placed during the first turn, bishops must be on opposite colours. Play then continues under Progressive Chess starting at turn 3 (so White plays 3 moves, Black 4, White 5, and so on). (*Eteroscacco* 53)

Unachess (Jeff Miller and Edward Jackman, 1994). Empty board to start; player on turn may place a man on an empty square or move man on the board. The K must be placed before any capture is made. There were three versions. In **Unachess I** (Miller), pawns could be entered on 2nd, 3rd or 4th ranks only, with P-2 subsequently possible if on 2nd rank. In **Unachess II** (Jackman), pawns could be entered on ranks 1-4, but no P-2 or castling. **Unachess III**, also known as **Parachute Chess** (Jackman), had the additional rule that no man could be entered so as to attack an enemy man. By April 1995 there was a consensus that White should always win with reasonable play. (*Variant Chess* 17, also personal communications)

Free Programme Chess (Gela Guraspasvili, 1995). Board starts empty; players then place usual men alternately starting with White in own half of board; Ks are placed first. Pawn-two allowed only if P on second rank. White may not capture on first move. Tournament involving two grandmasters and ten other masters held in Tbilisi in 1995. (Booklet *Free Programme of Chess*, also *Variant Chess* 26/28)

Games in which the players set up their positions without knowledge of what their opponent is doing are known generically as **Screen** or **Barrier Chess**. A screen or barrier, real or imaginary, is placed across the middle of the board, and each player deploys his forces in secret according to the rules of the version being played. The screen is then lifted (or the position assembled on a single board) and orthochess is played. **Crazy Screen Chess** allows the players a completely free hand; other versions impose some discipline. Screen Chess may be played to decide only the baselines, the pawn array being normal. Deployment may be confined to the first two ranks, the first three ranks (usual) or the entire

half-board. Some variants require orthodox positions (pawns on each file, none on first rank, bishops on opposite coloured squares). A popular condition is that the kings be placed first and their positions revealed before secret deployment begins. Another system is to start with a standard array and then, with the screen erected, for each player to make a number of moves (Boyer suggests 10) in his own half of the board. The screen is lifted and the game proper begins. Some further games are detailed below. Since development can be considered completed before the start of play, with open lines probable and a balanced position improbable, games tend to be vigorous and tactical.

Viennese Kriegspiel, also known as **Schach-Kriegspiel** and **German Chess Kriegspiel** (Ritter von Korwin-Dzbanki, 1908). Before the game, the position of the kings on one of the first two ranks of each player is decided by lot. The players are then granted 20 minutes to deploy their men as they wish in their own halves of the board; bishops on opposite colours, no pawns on back rank. When both players are ready, the forces are revealed. The player to move first is then chosen by lot. (*Wiener Schachzeitung* 1909, *Nouveaux Jeux d'Echecs Non-orthodoxes*)

Surprise Chess (E. E. Slosson, 1916). The players secretly deploy their men as they please on the first three ranks of their own sides of the board before play starts (*British Chess Magazine*, January 1917). According to Felix Snider, who reissued the game (1930s) under the name **Blitz-Chess [Snider]**, no reference to it is to be found in the inventor's science fiction books. Snider reasonably suggested certain disciplines: (1) Pawns permitted on first rank and can then move three squares initially (e.p. allowed on move of two or three squares); (2) Castling only under regular game conditions; (3) Bishops on opposite-coloured squares.

Welbeck Chess (Hubert Phillips, c.1917). Each player has a board screened from his opponent. Each player places his king anywhere within his own half of his board and

writes down its position on a piece of paper. The papers are then exchanged. Now the players set up their own men anywhere within their two halves of the board with the one proviso that bishops must be on different-coloured squares. Pawns can be placed on the first rank if desired. The boards are then brought together and one player's pieces are transferred to the opponent's board, and the game begins. (*Indoor Games for Two*)

Prepared Chess (Jed Stone, 1982). The players arrange their pieces privately on the first three ranks in any order or position (three pawns may stand on a file, both bishops on same colour). The positions are then combined, and play starts. No castling or privileged moves. (Stone)

Instant Chess (Bruce R. Trone, 1986). An attempt to speed up postal play. On an agreed day, players send each other a diagram showing the positions they would like their men to occupy. No pawns on end ranks; bishops on opposite colours. Where both players have occupied the same square the higher-ranking piece achieves an instant capture (rank order K, Q, R, B, N, P). If men are of the same value, or kings occupy adjacent squares, new positions are sent, and repeated as necessary. When all men are placed and captured pieces removed, play starts. [Personal communication assumed; source material missing from David's files. A quick calculation suggests that if each side places his men at random, the odds are not far short of four to one that there will be a clash between a pair of pawns somewhere, quite apart from the possibility of a piece or king clash; but of course players will tend to put their pawns in advanced positions and their pieces on ranks 2 and 3 hoping to knock out an opponent who is doing the same, and in that case clashes will be rare. What happens if Black's king is left in check? A possible variation might be to require the checking man to be removed, thus giving Black something to set against the probably substantial advantage of first move.]

Chapter 10

Different objectives of play

[The normal objective of a game of chess is to give checkmate. Some of the games which can be played with chessmen have quite different objectives, and two of them, Extinction Chess and Losing Chess, have proved to be among the most popular of all chess variants.]

10.1 Capturing or baring the king

Capturing the king. *The Chess Monthly* hosted a lively debate (1893-4) on the suggestion of a Mr Wordsworth Donisthorpe, whose very name seems to carry authority, that check and checkmate, and hence stalemate, should be abolished, the game ending with the capture of the king. The purpose of this proposed reform was to reduce the number of draws then (as now) prevalent in master play. Donisthorpe claimed that both Blackburne and the American master James Mason were in favour of the change, adding 'I have little doubt the reform would obtain the support of both Universities' which says something about the standing of Oxford and Cambridge at that time. Mason confirmed his support, observing, quaintly, that 'the divinity that doth hedge a King in stalemate is of a particularly low order'. An apoplectic Mr Blunt took the traditionalist side, ably supported by the German master Teichmann. It was pointed out that White Kh8, Ph7 (2), Black Kf8 (1) was a loss for White - a pawn up - whoever had the move. The editor came up with White Kg7, Ph7 (2), Black Ke7, Ra8 (2), a clear draw in orthochess, but a win for Black under the new rule with 1...Rh8!

[In truth, I suspect that the remark about 'the support of both Universities' said less about the standing of Oxford and Cambridge

than about the snobbery of Mr Donisthorpe!]

Baring the king. The rules of the old chess allowed a (lesser) win by 'bare king' and stalemate, and Réti and Bronstein have favoured its reintroduction. [I haven't traced the Bronstein reference, but Réti's will be found on page 178 of the English edition of *Modern Ideas in Chess*. It is in fact explicit only in respect of stalemate, though the words 'the original rules' within it can be read as supporting bare king as well, and perhaps I ought to quote it in full. After expounding the ancient rules, he continues: 'Those were romantic times for chess. Today, when chess technique is in such a condition of refinement, what is there more natural than that we should revert to the original rules. Lasker has made such a proposal with which I associate myself in full conviction. In order to prevent the decay of chess by the frequent occurrence of drawn games finer nuances of execution must show themselves in the result, and stalemate should be considered and counted in the estimation of scores for tournament purposes, wins by them to count less than enforced mates. It would be a matter for congratulation if the managers of tournaments just for once decided as an experiment to promote a tournament on these lines.']

10.2 Changed or multiple kings

Knightmate (Bruce Zimov, 1972). The royal piece at e1/e8 is a knight and there are two non-royal kings where the knights normally stand. The object is to checkmate the knight. Castling between knight and rook is legal subject to the usual restrictions. The knights are vulnerable to checks on adjacent squares.

K or Q alone can mate a N. The first Knightmate Open (Ohio, October 1991) was won by David Moeser. The game is said to have been popular at Sheffield University during the early 1970s under the name of **Mate The Knight**, perhaps as a result of independent invention. (*J'Adoube* 34, *Nost-*

algia 328 and later, *Eteroscacco* 56, manuscript note presumably deriving from personal communication)

Three Kings Chess (Adam Sobey, 1988). Normal set-up except that the rooks are replaced by additional kings. Object is to capture any one of the opponent's kings (there are no checks). The inventor observes that the game is similar to a balancing act: all goes well until a latent instability sets in and total collapse follows. Difficult to make moves that uniformly defend all three kings. Invented for the Christmas entertainment of the Haslemere Chess Club ('Voted good'). The inventor resisted the temptation to call it Magi Chess. (Notes presumably deriving from personal communication)

Kinglet Chess, also known as **Imperial Fiddlesticks** (V. R. Parton, 1953). Standard array but random set-up if preferred. Check and checkmate abolished, the king being treated like any other piece. The object of the game is to capture all the opponent's pawns

10.3 Other objectives based on mate, check, or stalemate

Pion Coiffé (capped pawn). A handicap system whereby one side contracts to deliver mate with a nominated man, a common practice between players of disparate strength until towards the end of the 19th century. The origins of the capped pawn can be traced back to at least the 16th century (Murray). The receiver of the handicap could not lose if he succeeded in capturing the pawn which was usually obliged to deliver mate without promoting. The handicap was often equated with giving the odds of a queen (*Oxford Companion to Chess*). The g-pawn was most commonly nominated (*Schachzeitung* 1856). A piece might be chosen instead of a pawn.

Multi-Mate Chess. A variant played in 17th century Iceland allowed a player giving mate to deliver further mates provided the situation changed at each move, apparently by moving a different man, although a pawn could move twice if it promoted on its second move. The first three such mates were known as 'low' mates, all thereafter 'high' mates. Murray gives an end-position in which seven

(kinglets). Pawns promote to kings, thus a player forced to promote his last pawn loses. Stalemate is a draw. There is a Marseillais version of the game in which two moves are made on each turn, one at least of which must be a pawn move. A Progressive version has also been played. (*Chess - Curiouser and Curiouser*, also *Nost-algia* 132 and later)

Co-Regal Chess (V. R. Parton, 1970). An early blow struck on behalf of sexual equality. Queens as well as kings are subject to check and checkmate and the fall of either monarch wins the game. (The Q retains an additional privilege: she can cross attacked squares.) The rules (incomplete) have been amplified by NOST: (1) promoted queens are royal; (2) queens can check kings from a distance but may not check queens; (3) both kings and queens may castle long or short. A sensible amendment is that queens may not cross attacked squares except to capture an attacker. Double check assumes a new meaning. (*Chesshire Cat Playeth Looking Glass Chessys*, also *Nost-algia* 156 and later)

consecutive mates are given and quotes Eggert Olafsson (1772) as stating that nine is the maximum possible. This number is also quoted by Boyer (*Jeux d'Echecs Non-orthodoxes*) but a legal position can be constructed in which 15 consecutive mates can be given without promoted pieces.

Check Chess, also known as **Presto Chess** (Frank Hopkins, 1916). As originally devised, the first player to give check won, but Marshall showed that White could win by 1 Nc3 followed by an attack by the other knight (*British Chess Magazine*, July 1916, p 201, quoting the *Brooklyn Eagle*). To balance the chances, it was suggested that the pawns started on the 3rd/6th ranks, but 'we are inclined to think that White still has a considerable advantage' (*BCM*). The most popular adjustment however was to require the check to be given by an uncapturable piece. A further refinement required the queen's move to be limited to two squares (*Chess Spectrum Newsletter*) but in all cases it seems that White retains an advantage. Much subtler

is **Three-Check Chess**, which is probably of Soviet origin. The first player to deliver three checks wins. Said to be very skilful: two checks can be achieved fairly easily at the expense of piece sacrifices after which the prospects of a third check with severely weakened forces are close to zero. Karpov is said to have been invincible at the game in his youth (manuscript note presumably deriving from personal communication).

Dunce's Chess (V. R. Parton, 1961). Three versions. (1) Players have a king, two bishops and two knights in their normal starting positions. Pieces can only advance. The win is by mate or stalemate. If a king gets through the opponent's forces it is invulnerable. Version (2) is as (1) except that pawns are added (no promotion) whilst (3) has the usual

10.4 Wiping out the opponent's men

Chess-Draughts [Charosh] (Mannis Charosh, 1946). Problem theme converted to a game. Normal chess except that the king is treated like any other piece and a capture, if available, is compulsory. If, after a capture, a further capture is possible by the same piece, this must also be made, and so on. The player has a choice between alternative captures. Win by taking all opponent's men or by leaving him without a move. (*Fairy Chess Review*, August 1946)

Scacia (V. R. Parton, 1961) King has no royal powers; object is to take off all enemy men. Capture is compulsory but a player may choose if more than one possible. Parton recommends pawns on 3rd/6th ranks and pieces repeated on 2nd/7th ranks, thus 24 men a side. In a later version, **Mock Chess [Parton]** (1969), the normal array is used but a pawn must move two squares initially unless capturing. (*Chess - Curiouser and Curiouser*, also *Chesshire Cat Playeth Looking Glass Chessys*)

Take-All (origins unknown) is the same game as Mock Chess but without the compulsory pawn-two and without compulsory capturing. The king has no royal powers and there is no castling. Because the game is rather slow and tends to be stereotyped, it is now usually played in

array without sideways or backward movement, and again pawns do not promote. (*Chess - Curiouser and Curiouser*)

Truce Chess (Nathaniel S. Hellerstein, 1970s). As orthochess but with an additional climax: a truce (both kings mated). A mutual check (tryst) is also possible. The standard form is called **Dilemma Chess** in which a truce ranks between a draw and a win. In a variant, **Chicken Chess**, a draw rates zero and a truce scores between a loss and a win. The situations arise through legalising adjacent kings. Example: WKa1, Bc3; BKa3 Bb3; 1 Bb2+ Ka2 truce. In Dilemma Chess, both players would cooperate for a truce rather than agree a draw. Hellerstein made a study of endings in which this can be achieved. (Originator's pamphlet)

Progressive form as **Progressive Take-All** (Giuseppe Dipilato, 1979). Popular in Italy, where AISE ran national championships, Progressive Take-All was the chosen game of the Canadian team in the 1st Heterochess Olympiad. Games tend to develop capturing patterns involving queens and bishops in particular. Promotion is commonplace. Rooks and knights are less effective in the early stages but devastating in endings in which bishops are weak. Draws are not uncommon under the same circumstances as orthochess - blocked pawns with bishops of opposite colours. (*Eteroscacco* 12 and later)

Blot-Straight Chess (V. R. Parton, 1970). A chess-merels hybrid with a graceless name. Board starts empty; each player has the normal eight pieces (no pawns). The players in turn set a piece on the board. No piece may stand next to another piece of either colour; no check or checkmate. When all pieces are placed the players move in turn (normal chess moves but no capturing) with the object of forming a line of three of their own men orthogonally or diagonally. The three must stand adjacent to one another. On completion of a line, the player removes (captures) the last man moved by the opponent. If two or more lines are formed simultaneously, only one piece is removed. A line may be broken and

reformed. Object is annihilation of the opposition. In another version the first player to assemble a line of five wins. (*Challenge and Delight of Chessical and Decimal*)

Flick Chess (origins unknown). Object is to flick your pieces so as to knock over your opponent's, using finger and thumb only. Any

10.5 Wiping out all the men of a kind

Extinction Chess (Paddy Smith, 1985). Originally called **Survival of the Species**, this variant was popular with NOST members. Standard set-up; the king can be taken like any other piece, hence no check or checkmate. The object is to eliminate any one of the opponent's species (types of piece), thus capture any of K, Q, 2xR, 2xB, 2xN, 8xP to win. Pawn promotion (including to K) can prolong the life of an endangered species. Games tend to be brief and often go critical in the early stages with the minor pieces most at risk. Orthochess openings are playable but with caution. 'Paddy Smith' was a pseudonym of R. Wayne Schmittberger, editor of *Games* magazine, where the suggestion appeared. An instructive game won by Fabrice Liardet: 1 e4 d5 2 exd5 Qxd5 3 Nc3 Qa5 4 a3 e5 5 b4 Bxb4 6 axb4 Qxa1 7 Bc4 Nf6 8 Ba2 0-0 9 Nge2 Rd8 10 Bc4 Nc6 11 b5 Nd4 12 0-0 Nxe2 13 Nxe2 Rd4 and White resigned

10.6 Playing for material gain

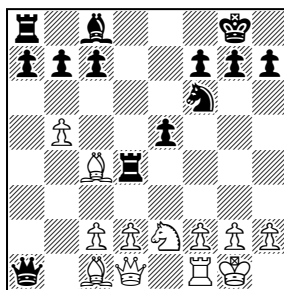
Quantity Chess (origins unknown). A game is played to an agreed number of moves (commonly 25, 30, 35). If neither player has been checkmated, the game is stopped and the player with more men is the winner; thus a

10.7 Reaching a fixed goal

Lincolnshire Pawn Chess (Bob Wade and Ted Nottingham, 1989). Instructional game. Pawns only in initial array; first player to get one to 8th rank wins. A slightly more challenging variant adds the two kings, WBf1 and BNg8 with the same objective. A player unable to move loses in both games. **Philidor** (origin unclear) has just the kings and pawns with the same objective. An improvement is **Fast Philidor** (George Jelliss, 2004), where

man that does not have the whole of its base on a square is removed from play. After an attack, any man may be 'adjusted' on its square so as to offer a smaller target. Object is to annihilate the opposition. Men should ideally be weighted. Tournament at Imperial College, London, 1971-2. (Notes presumably deriving from personal communication)

because both bishops will go :



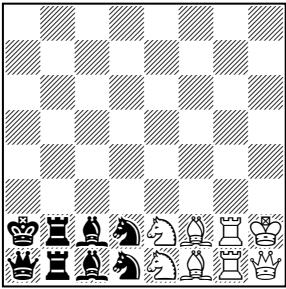
'Winning the exchange' is usually bad in this variant, hence White's willingness to concede rook for bishop, but Black judged that this particular opening would favour him. White underestimated the effect of the pin on the first rank, and also the rapid arrival of the Black rook on the d-file. (*Nost-algia* 298 and later, *Eteroscacco* 38 and later, *Variant Chess* 31)

player with two pawns for the queen wins if the forces are otherwise equal in number. If the numbers balance, another five moves are played, and so on. (Correspondence between John Gollon and Philip Cohen)

pawns can move two squares at any time (en passant permitted). (*Check Out Chess, Variant Chess* 45)

Bishop Chess (origin unknown). Bishops neither capture nor can be captured; no promotion to bishop. Kings have no royal powers. The first to move a bishop to the end rank wins. (Manuscript note presumably deriving from personal communication)

Racing Kings (V. R. Parton, 1961, initially as 'Dodo Chess'). Array :



The object is to be the first to get one's king to the eighth rank. Neither side may check nor expose the king to check. To compensate for the first move, if Black succeeds in getting his king to the eighth rank immediately after White has done so, the game is a draw.

10.8 Playing to exhaust the available resources

Static Chess, also known as **Fill-Up Chess** and **No-Threats Chess** (origin unknown but pre-1970). Start with empty board. Each player in turn places any man of his own colour on a vacant square to meet three requirements: pawns may not be placed on end ranks; bishops must be on opposite-coloured squares; no man may be placed which either attacks or is attacked by an enemy man. The position need not be legal. Men once placed are not moved. The winner is the last player to put a man on the board but the game is drawn in the event that all 32 men are placed. Another version counts one point for each man placed. If one player is unable to move, the other can optionally go on adding men. The first player re-enters the game if a legal move becomes available. Pieces should be posted to command maximum number of squares. A knight on one of the four central squares appears to be the best opening move. It is unclear which player has the advantage.

10.9 Playing to lose

'Losing' is a perverse objective, frequently trivial but sometimes highly sophisticated. The logical 'losing' chess game would seem to be **Self-Mate Chess**, but a player can force his opponent to mate him only if in possession of

An extended version of the game requires the kings, after reaching the eighth rank, to return to the first. The name **Dodo Chess** was subsequently transferred to a 1970 simplification by the same inventor with kings on a1/h1, rooks on a2/h1, bishops on b1/b2/g1/g2, knights on c1/c2/f1/f2. (*Chess - Curiouser and Curiouser*, also *Chesshire Cat Playeth Looking Glass Chessys*)

Outpost Chess (origin unknown). Each player nominates a square in his own half of the board as his outpost. Object is to occupy the opponent's outpost for one move. Kings have no royal powers. A variant, **Double Outpost Chess**, is the same except that both players nominate two outpost squares only one of which need be occupied to win the game. (Correspondence between John Gollon and Philip Cohen)

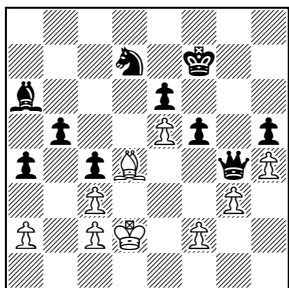
There is a four-player version. (Berloquin, *100 Jeux de Table*)

The Game Of Circuits (J. Boyer, 1958) The game starts with the board empty. Each player has two knights and 30 pawns or tokens. The players place the four knights in turn; thereafter players move one of their knights putting a pawn on the square vacated. This square may not be visited again. The first player unable to move loses. Variations are possible using any combination of pieces. (*Nouveaux Jeux d'Échecs Intéressants*)

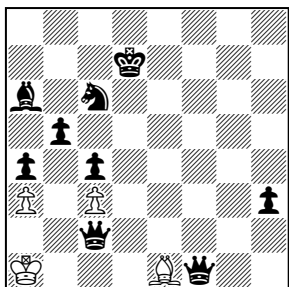
Contact (quoted by David Silverman, 1971). White puts a knight on any square of an empty chessboard. Black moves the knight and places a marker on the square vacated. Play alternates. The knight may only be moved to vacant squares. The object is to make the last move. The game can also be played with any of the other pieces. (*Your Move*)

a massive material superiority and the idea is normally seen only in problems. There was however a correspondence game between Paris and Marseilles in 1878 in which White started without the Q and Black successfully

undertook to force him to give mate. 1 d4 d5 2 Nc3 c6 3 Nf3 g6 4 e4 e6 5 e5 Bb4 6 Bd2 Bxc3 7 Bxc3 b5 8 h4 h5 9 0-0-0 a6 10 Ng5 f5 11 g3 Nh6 12 Bd3 Nf7 13 Bxf5 (apart from the pawns, the bishops are potentially White's greatest liabilities) gxf5 14 Nxf7 Kxf7 15 Bd2 Nd7 16 Rhe1 c5 17 dxc5 Nxc5 18 Bg5 Qg8 19 Re3 Bb7 20 Rc3 Rc8 21 Be3 Nd7 22 Bd4 Rxc3 23 bxc3 a5 24 Kd2 a4 25 Rb1 Ba6 26 Rg1 Qg4 27 Rb1 Rc8 28 Rb4 Rc4 29 Rxc4 dxc4 :



White is now reduced to a bad bishop and some largely immobile pawns. 30 a3 f4 31 Kc1 fxc3 32 fxc3 Qxc3 (for 'largely immobile' read 'totally immobile') 33 Kb2 Qxh4 34 Kc1 Qe1+ 35 Kb2 Qd1 36 Ba7 Nxe5 37 Bc5 h4 38 Bd4 Nc6 39 Be3 e5 40 Bf2 h3 41 Bg3 e4 42 Bf4 Ke6 43 Bg3 e3 44 Bf4 e2 45 Bg3 Kd7 46 Bh2 e1(Q) 47 Bf4 Qee2 48 Bg3 Qdxc2+ 49 Ka1 Qf1+ 50 Be1 :



Now the bishop is immobile as well, and White's remaining moves will be forced. 50...Qd2 51 Kb1 h2 52 Ka1 h1(Q) 53 Kb1 Qf8 54 Ka1 Qxa3+ 55 Kb1 Qad6 56 Ka1 Qf6 57 Kb1 Kc7 58 Ka1 b4 59 Kb1 b3 60 Ka1 Kb6 61 Kb1 Ka5 62 Ka1 Ne7 63 Kb1 Nc8 64 Ka1 Bb5 65 Kb1 Qa6 66 Ka1 Nb6 67 Kb1 Qh7+ 68 Ka1 Qxc3+ 69 Bxc3 mate (*Brentano's Chess Monthly*, January 1882).

More practical is **Reflex Chess**, which was developed by William Geary and B. G. Laws in the 1880s (*Oxford Companion to Chess*). The aim of each player is still to be checkmated by the opponent, but it is mandatory to give mate on the move if able to do so. This too is primarily a problem theme, but it is playable as a game. A common strategy for both sides is to advance the kings to try and penetrate enemy territory.

Two further flavours are given by the **Game of Codrus**, which is mentioned in Brede's *Almanach* of 1844, and by two of the varieties of **Les Echecs Battu-Battant** listed by Boyer in *Jeux d'Echecs Non-orthodoxes* (1951). In the game of Codrus, there are no checks, and the winner is the player who obliges the opponent to take his king; capturing is compulsory but a player may choose between alternatives. The game is named after the Athenian king who sacrificed himself to save his people. 'Les Echecs Battu-Battant' is basically Losing Chess as described below and again capturing is normally compulsory, but in two versions the king retains royal powers and escaping check has priority over a capture. The aim is either (1) to give checkmate or to be left with bare king, or (2) the same but the checkmated player wins.

All these games retain the royal properties of the king. In **Losing Chess**, also known as **Giveaway Chess** (a more logical name), **Killer Chess**, the **Losing Game**, and **Suicide Chess**, the king has no royal powers, and can be taken just like any other man. The origins of the game are uncertain, but it is believed to be older - perhaps much older - than a closely-related game, **Take Me** (Walter Campbell, 1876). In **Take Me**, a player can require his opponent to take the man just moved by saying 'Take me', and can also nominate the man that is to make the capture. The object is to give away all one's men, including the king, which has no royal powers. A player can only compel the capture of the man moved. A pawn is promoted to any piece lost, including the king, at the choice of the owner. (Verney)

Losing Chess has become one of the most popular of all variants, and rules have inevitably proliferated. In the basic game, (1) capturing is compulsory but the capturing player chooses when more than one capture is

possible, (2) there is no check or checkmate and the K can be captured like any other man, (3) a pawn can promote to K, and (4) the object is to lose all one's men or to be left without a move (stalemate). Major variations involve the treatment of stalemate (some play it as a draw or as a win for the player who is left with the smaller number of men) and promotion (some prohibit promotion to K, some allow promotion only to Q). Some players prohibit castling, but this is rarely of importance. What follows relates to the basic game (all promotions allowed, stalemate is a win for the player stalemated), but most of it carries over to other versions. In particular, the treatment of stalemate as a win for the player with the smaller number of men seems to make little difference, since it is unusual for a small group of men to stalemate a larger.

Play is critical from the outset. Bishops are the main danger, and the 16-man giveaway after 1 e3 d6?? has been rediscovered many times (simplest is 2 Qg4 Bxg4 3 Kd1 Bxd1 4 a3 Bxc2 5 Ra2 etc). 1 e4, 1 d4, and 1 d3 were found to be losing even in pre-computer times, and a report in *Variant Chess* 41 (January 2003 but quoting material published some eighteen months earlier) listed 1 Nc3, 1 Nf3, and 1 h4 as losing also. Known losing replies to 1 e3 (apart from 1...d6) include 1...Na6, 1...Nf6, 1...a5/a6, 1...e5, 1...f5/f6, 1...g6, and 1...f5/f6. The favourite opening among the leaders at a 'First Unofficial Losing Chess World Championship' held in 2001 was the classical 1 e3, but 1 g3 and 1 c4 were both played. With Black, the most common reply to 1 e3 was 1...b6, but 1...b5 was played twice and there were also instances of 1...e6 and 1...c5. The line 1 e3 b5 2 Bxb5 c6, played in the frequently quoted correspondence games Klüver-Dawson 1924 and Slater-Klüver 1955, has now been proved by computer to be lost for Black (the analysis goes to move 34), but 2...e6 still appears to be thought playable.

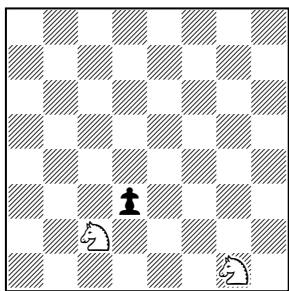
Given that the ultimate objective is to have no men at all, the instincts of inexperienced players are to get rid of material as quickly as possible, but this is poor strategy; until you can see your way right through to the final capture, it is usually better to have *more* material on the board than your opponent. As in most games, he who has more moves available tends to have the advantage, so the

more men you have, and the more space they control, the better your position is likely to be. In particular, it is nearly always bad to come down to a single pawn and hope for the best. Your moves up to promotion will be completely predictable, and all too often your opponent will be able to marshal his forces so as to meet any promotion by a mass giveaway. Instead of throwing men away, you should aim to take control of space, pushing ahead as far as you safely can and hoping that your judgement as to what can be risked is better than your opponent's. It is also usually correct to remove your opponent's king if a safe opportunity arises, and to take all reasonable steps to preserve your own. The king is a strong piece in Losing Chess, and good players try to keep it until it can be given away as part of a decisive combination.

The endgame is the most appealing stage of the game, a garden of surprises. Even one-against-one endings are not always straightforward. Excluding 'trivial' endings where the player on move must make an immediate capture or can make an immediate giveaway, the general results without pawns are as follows: N v K/B/R/Q loses, N v N is won by whoever is to move when the knights are on squares of the same colour; K v K/B is drawn, K v R/Q loses. There are however exceptions, which can be divided into two classes: the 'losses by domination' Ka1 v Nd4, Bd1 v Nd6, Ka1 v Ba4, Kc1 v Bc4, and Kd1 v Bd4, where the first-named piece, if on play, must put itself within range of a giveaway, and 'must move away' losses typified by K/Bc1 v Na2 and Rc2 v Na1, where the K/B/R has no immediate giveaway and the knight will win by moving to the square it has just left. Endings with B/R/Q v B/R/Q are normally trivial, but there are 'must move away' losses typified by Bd1 v Q/Rd6 and Rc3 v Ba1. The last case can arise by promotion, a promotion to bishop having been Black's only winning move.

The result of any two-man ending with pawns can be worked out from these pawnless results. The most interesting case is N v P. Suppose that the pawn has just moved. If the men are now on squares of different colour, the knight may be able to give itself away while the pawn is still unpromoted; if it cannot do this, the pawn will win by promoting to

knight. If the men are on squares of the same colour, the knight cannot give itself to an unpromoted pawn, and an a-pawn or b-pawn will win by promoting to bishop; against a c-pawn or d-pawn, the knight may be able to meet this by playing to one of the exceptional winning positions (Na2 v Bc1, Nd6 v Bd1). In the following study (Gyorgy Evseev, *Rex Multiplex* 1992, version by John Beasley), White makes use of both.

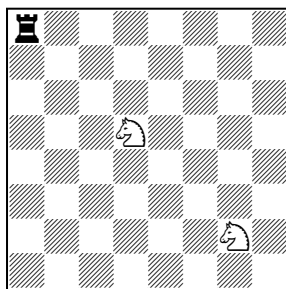


White starts 1 Ne2 (other moves can be shown to lose), and if 1...dxc2 then 2 Nc3 c1(B) (other promotions lose at once) 3 Na2 with the first exceptional position. If instead 1...dxe2 then 2 Nd4 e1(B) 3 Ne6 with the second.

If two-man endings are less than straightforward, a complete resolution of three-man endings had to wait for the computer. The endings most important in practice were however evaluated early. Not only is R v K normally a win, but so is 2R v K, and so also is R+B v K though a little care may be needed to ensure that the bishop is given away first. Promotions to rook and perhaps to bishop therefore provide a standard way of winning with distant pawns against a king, a situation which is not uncommon. When promoting a pawn, it is usually best to choose a rook unless this is provably bad or something else is provably good; if a rook is bad, a king is often the next best choice, though for each promotion a position can be constructed where it is the only way to win or save the game. Pawns far from promotion are usually a liability, and those that cannot be given away should be rushed forward as quickly as possible.

Endings with up to five men had been definitively analysed by 2003. Explaining the resulting mass of data was a different matter, but a pamphlet *Three-man pawnless endings*

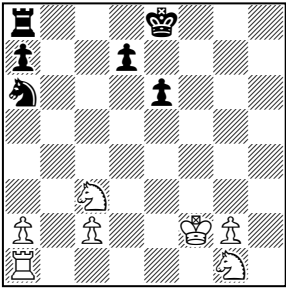
in *Losing Chess* (Beasley, 1999) attempted to expound this particular set of results in a comprehensible way. Here is one of the many remarkable positions that the computer brought to light.



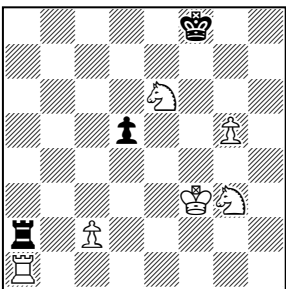
Black to play would have to allow two immediate giveaways. White to play starts 1 Ngf4 (or 1 Nge3 by symmetry) Ra1 2 Ng6 Ra2 3 Ne5, and there are three lines. If 3...Rh2 then 4 Nb6 Rh1 5 Nbc4 Rh8 6 Nb2, and we have a reflection of the diagram but with Black to play. If 3...Ra1 then 4 Nf6 Ra2 (say) 5 Nfd7 Ra1 (if 5...Rh2 then 6 Nb6 transposes into the first line) 6 Ng4 and we have another position where Black to play must allow two immediate giveaways. This leaves 3...Ra8, which is met by 4 Ng4 Ra1 5 Ngf6 Ra2 6 Ng8 Ra1 7 Nge7 Ra2 (if 7...Rh1 then 8 Nb4 and we have a reflection of the position after 6 Ng4 in the preceding line) 8 Ng6 Ra1 9 Ngf4 Ra8 10 Ng2 and we are back at the diagram but with Black to play. Moving only a knight, White has contrived to transfer the move to his opponent.

The game was one of those nominated by Italy for the 1st Heterochess Olympiad. More recently, most top-class play has taken place through the Internet, but there was an international weekend meeting in Geneva in 1998, and the 'First Unofficial Losing Chess World Championship' held in Utrecht in 2001 brought together the leading European players for a seven-round tournament under championship conditions (air-conditioned accommodation, two hours per player per game). The winner was Tim Remell, who beat Fabrice Liardet in a play-off. Here is the main tournament game between them (Remell had White), with annotations condensed from those that subsequently appeared in *Variant Chess* 47. The opening was fiercely

complicated, 1 e3 e6 2 b4 Bxb4 3 Qg4 Bxd2 4 Qxg7 Bxe3 5 Bxe3 c5 6 Bxc5 b6 7 Bxb6 Qxb6 8 Qxh7 Rxh7 9 Nc3 Qxf2 10 Kxf2 Rxh2 11 Rxh2 Nh6 12 Rxh6 Ba6 13 Bxa6 Nxa6 14 Rxe6 fxe6, and after the smoke has cleared we see that White may have a slight plus due to his extra knight :



However, Black's pawns will give him more space in the centre, and any advantage is marginal. Play continued 15 Na4 Kf7 16 Nb2 Kf6 17 g4 Nc7 18 Ne2 a5 19 Kf3 d5 20 Ng3 Ke7 21 g5 Na6 22 Nh5 Kf8 23 Ng3 and 23...Ke7 would have offered a draw, but Black went for the win with 23...a4. There followed 24 Nxa4 Nc5 25 Nxc5 Rxa2 26 Nxe6 :



26...Rxa1 (26...Rxc2 also can be shown to lose) 27 Nxf8 Rh1 (27...Rf1 28 Nxf1 d4 29 c3 dxc3 30 Ne6 c2 31 Nd2 c1(K) 32 Nd4 Kxd2 33 Ke3 Kxe3 34 g6 Kxd4 35 g7 and White will win with R v K) 28 Nxh1 d4 29 c3 dxc3 30 g6 c2 31 Nd7 c1(K) (the only chance) 32 Kg4 Kd2 33 g7 Ke3 (Black will draw if he can get down to K v 2N, K v K+N, K v K+R, or K v N+R) 34 Nf2 Kxf2 35 Kf5 Kg2 36 Kg6

Kf3 37 g8(R), after which White had K+R+N v K and ground out the win (he gradually gained space, and eventually Black had no safe move). So it would seem that Black's attempt to win at move 23 was mistaken.

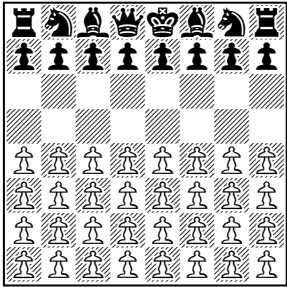
There has been no book dedicated to the game as a whole, but Ralf Binnewirtz's *Schlagabtausch im Räuberschach* (2000) is a delightful collection of problems and endgame compositions, and a pamphlet *A first survey of Losing Chess endgame material published up to the end of 1999* (Beasley, 2000) adds references to theoretical endgame material. It claims to be reasonably complete as regards what has been published in England, though it is 'less complete' in respect of foreign material and its coverage of Russia and Eastern Europe is 'almost nil'. The production of a full-length book covering all aspects of the game is long overdue.

[Losing Chess is one of the few games which I know better than David did, and I have taken it on myself to revise his intended entry. The opinion that Losing Chess is believed to be older and perhaps much older than Take Me is David's (see *Variant Chess* 35, page 39), as is the description of the endgame as 'the most appealing stage of the game, a garden of surprises', but I will take responsibility for everything else.]

Progressive Losing Chess. Losing Chess was successfully combined with Progressive Chess by AISE which ran a number of correspondence championships for which the hybrid is eminently suitable. With AISE's usual thoroughness, the game was diligently researched (by Dipilato, Kustrin, Manzini and Sala amongst others) and the Italians long stood supreme in this, as in many other variants. It is odd that 1 e3, the most popular start move in Losing Chess, is fatal in Progressive Losing, as was first demonstrated by Kustrin. In **Reversed Progressive Losing Chess**, an idea of Agostino Braca and Roberto Cassano, a player loses if he cannot complete a turn, a reversal of the usual rule. (*Eterosacco* 8 and later)

10.10 Games in which the two sides have different objectives

Dunsany's Game (Lord Dunsany, 1942). 32 White pawns on rows 1-4 face a normal Black array :



The pawns move one square at a time and promote normally. Black starts and wins if the pawns are eliminated; White wins by checkmating Black. **Horde Chess** (Filip Rachunek, 2002) is the same except that Black has the pawns and Ps d8/e8 are on d4/e4. Ps on second rank have two-move option. (*Fairy Chess Review*, August 1942, also Chess Variant Pages)

Unirexal Chess (V. R. Parton, 1961). Only one king is present. Parton gives the usual array but with a second black queen replacing the king. (The black king disappeared, explains Parton, because he was fed up with always being mated in problems.) If Black does not mate White within an agreed number of moves, White wins. Another version has White with the usual array and Black with 20 knights (the extra array squares are a6, b6, g6, h6). Black must mate within 50 moves or he loses. (*Chess - Curiouser and Curiouser*)

High-Low Chess (Ralph Betza, 1968). Each player secretly records before the start of a game which result will give him 1 point, which .5 and which 0. (Example: Win = .5, Draw = 0, Loss = 1.) There are a few rules: (1) resignation is an offer which can be declined; (2) a player who is able to checkmate,

stalemate or give perpetual check on the move can be required to do so; (3) the 50-move rule is reduced to 15 moves. Based on high-low poker. (*Nostalgia* 211) [David had intended to omit this from the new edition, and perhaps I am wrong to reinstate it. It's an amusing idea between two, but in tournaments would surely be open to collusion whereby one player agreed to claim the full point for a win and the other to claim it for a loss: 'grandmaster draw' replaced by 'grandmaster fool's mate'!]

Defensive Chess (originator unknown, 1975). White's array is normal; Black sets up his men without restriction in his own half of the board. The white K has no royal powers and can be taken like any other piece; the black K is normal. Black (the defender) can never move a man beyond his fourth rank except the K, and then only to avoid checkmate. White must mate within 50 moves otherwise he loses. (Correspondence between John Gollon and Philip Cohen)

Maharishi (Karl Koch, 1987). Black has usual array, White has Nd3 only. Black starts and moves so that White can (and must) capture. Thereafter Black moves so that White captures; where White has a choice of captures, Black chooses. White wins if all Black's men are taken; Black wins if he is unable to offer a man for capture. Adjudged 'a very deep game' (*Spiele für einen Allein*). [In fact Black would seem to have a simple win by giving away 15 men and leave himself with Ke8 against a distant knight, and giving White choice of capture doesn't help because Black can leave only one capture available at a time. Something must be wrong somewhere.]

Kamikaze Chess [Tapson] (Frank Tapson, 1989). White array normal, Black has only Qh8. White wins if the Q is captured, Black wins if he delivers check. (Notes presumably deriving from personal communication)

10.11 Solo games

Chess Patience, also known as **Automatic Chess** (Chris Tylor, 1970s). A system for solo play rather than a specific game. It involves

playing a game for both sides, using some prepared rule to determine the rules. The game can be inflexible (moves are determined

unambiguously) or flexible (the player has an element of choice). For example, the rule might specify that the man moved is always to be that closest to the antipodean square of the last arrival (the 'antipodean' square is the square four files and ranks away, which always exists and is uniquely determined), and a subsidiary rule might specify which man is

to be moved if two or more are equally close; alternatively, this subsidiary choice might be left to the player. The player 'wins' if he can achieve some preset objective such as a mate for one side or the other, 'loses' if he cannot. If he wins, he may try again, seeking to win in as few moves as possible. (Author's expository document) [Text revised]

10.12 Other games

No-Capture Chess, also known as **Drive Chess** (origins unknown, reinvented in Germany in the 1960s as **Treib Chess**). Standard game except that first player to make a capture loses. Jed Stone gives as an exception a capture that is the only move to avoid mate. Boyer also legalizes a capture that delivers mate and prohibits perpetual check (too easy to achieve). C. H. O'D. Alexander remarked that even with these concessions a draw was all too frequent, and that further rule relaxations were needed. He suggested allowing a capture that led to mate in 2, but more radical measures seem necessary. A variant ripe for development. (*Nouveaux Jeux d'Échecs Non-orthodoxes*, Stone, *Variant Chess* 9)

Knight Chase (Alex Randolph, 1960s). Place a black knight on a8, a white knight on h1, and 30 markers beside the chessboard. Each player, Black starting, moves his knight to a vacant square and places two markers, one on the square vacated and another on any empty square, except that a marker may not be placed so as to deprive either player of his only move. A knight may not be moved to a square occupied by a marker. When all 30 markers have been placed a turn consists of moving the knight. White wins by capturing the black knight, Black wins if he survives for 10 moves after the last marker has been placed or if either player cannot move (self-smother was permitted in the original game, making it easy for Black). Sid Sackson (*A Gamut of Games*) gives a 'Fool's Mate': 1 Nb6/a8,g3 Nf2/h1,c8 2 Na4/b6,d3 Ne4/f2,b2 and the only squares Black can move to are commanded. (*Nostalgie* 186)

Widely played in Germany, **Pferdeäppel** (Proprietary game, Bütchorn Spiele; Alex Randolph, 1981) is a development of Knight

Chase. Two horses (knights), one light, one dark, occupy opposite corners of a vacant chessboard. Forty pellets (28 brown, 12 gold) are placed beside the board. The horses move like knights, White starting. A play consists of moving a horse to a vacant square and then dropping a pellet through it. (There is a vertical hole through each piece: English-language rules translate the title freely as 'Plop!'). The player may, but is not obliged to, then place a second pellet on any vacant square. Players must use the brown pellets while they last, then the gold pellets. The aim of the dark horse is to capture the light horse. Dark wins if this is achieved before all the brown pellets are used. His score is the total of brown pellets remaining. Light wins as soon as a gold pellet is dropped, his score being the number of gold pellets dropped. If Light can still move after all gold pellets have been dropped, or Dark is unable to move, Light wins by 24 points. If the light horse is captured after all brown pellets have been used but no gold, the game is drawn. (Notes presumably made from a set in David's game collection)

Knight Factor Chase (Curt Gibson, 1975). Board 8x8 with squares numbered from 11(a8) to 88(h1). Place a black knight on 11, a white knight on 88. Black starts and moves his knight (to 23 or 32) and play now alternates. Players may elect to move once or twice per turn. When a player lands on a square whose number has a given prime factor (there are 21) the player may claim it if it has not already been claimed. No player may claim more than two factors per turn (a NOST rule states that a player who claims two factors on his first move forfeits the second). Squares 11 and 88 are not used. The first player to claim 11 factors wins the factor game. No square may

be occupied more than once, so ties are possible. The first player unable to move loses the chase game (the opponent may continue to move in an effort to win the factor game). Each game contributes two points, so the result can be 2-2, 3-1 or 4-0. A second version of the game (Creede Lambard 1975) allows a player to claim any number of factors in a move or turn except that a player who claims two or more factors on his first move forfeits his second move. Other variations suggested have been the use of a 10x10 board, prefixing square numbers with a '1' or a '2' (giving respectively 33 and 41 factors), and even a space game. (*Nost-algia* 186/7)

Gay Chess (A. S. M. Dickins, 1982). Kings, bishops, knights and pawns are males, queens are females and rooks are hermaphrodites. Pieces may only capture or be captured by pieces of their own sex or hermaphrodites except that only a king can capture a king (known as Gaymate) and then only if it is unguarded. The object is gaymate; there is no check and checkmate is a draw. A few problems have been published. (*Feenschach*, August 1984, quoting *Eteroscalco*)

People's Chess (Andrew Squire, 1986). Conceived as a political statement. Published by Leeds Postcards (1987) 'How the pawns of each nation sacrificed their entire ruling class and lived happily ever after'. The inventor has tried to evolve rules 'to enable it to be played as a meaningful game'. He states: 'the two principles of the game are, first, that the hierarchical symbols be overthrown as quickly as possible, and second, that the pawns from both sides form a coherent and harmonious pattern'. Array (a1-h1/a8-h8) P P P P P P P P, (a2-h2/a7-h7) R N B K Q B N R; play as in chess with the exception that the pawns can move one square in any direction. 'Each player engineers the downfall of his own hierarchical pieces by exposing them to those of the opponent, who

must take the pieces then exposed'. When all hierarchical pieces have been eliminated (presumably there is no check or checkmate, and an element of collaboration) the pawns move to the finishing pattern (staggered alternately on the 4th and 5th ranks). If a winner is required, it is the player who is first to achieve their half of the pattern. As the inventor says, 'in terms of refinement and subtlety, the game has some scope for development'.

Jim Winslow (1989) suggested less class-conscious rules for play: No captures or checks in the first X moves, X being a number agreed by the players beforehand. No castling. (Specimen card and accompanying correspondence)

Pacifist Chess (Hilario Long, 1996). A player may neither capture nor threaten an opponent's man. The game ends when a player has no legal move. The winner is the player whose king is farthest from its initial position measured in orthogonal moves. (*Variant Chess* 23)

Chego (Alfred Pfeiffer, 1997). A chess-go hybrid. Usual board and men but the object is to control most vacant squares. Empty board to start. Players place a man of their own colour in turn on a vacant square. The move must attack at least one neutral square (defined as a square not under attack by either side) and the man played must not attack a hostile man nor defend a friendly man. Kings are non-royal (no checks); pawns are allowed on first rank; bishops can be on same colour. If a play leaves a hostile man without control of any square, that man is captured. Either player may pass a turn; when both pass on the same turn, the game ends. Count one point for each empty square controlled (attacked by more of your own men than of the enemy's) and one for each enemy man captured; the player with the more points is the winner. (Cazaux)

Chapter 11

Multiple boards

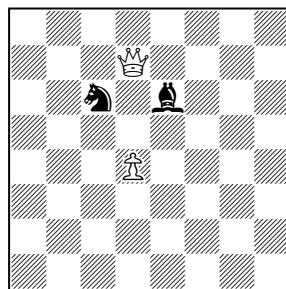
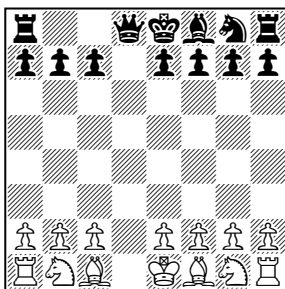
[In this chapter, we consider games where the play extends over several boards. Such games can also be considered as examples of three-dimensional chess, and in choosing how to classify them we take a pragmatic view: if the boards are normally set side by side it is a multiple-board game and is considered here, if they are stacked one above another it is a three-dimensional game and is treated elsewhere. We have also treated Kriegspiel elsewhere, because the logic of the game is completely different and play really takes place on a single board even though three boards are needed to realise it.]

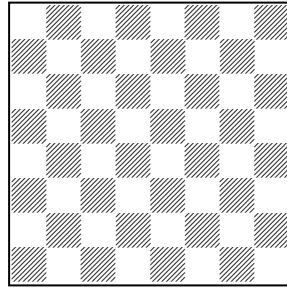
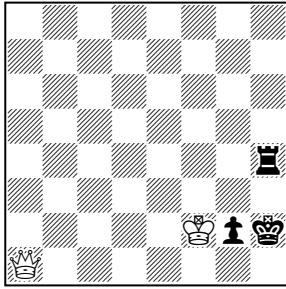
11.1 Two boards

Alice or Alician Chess (V. R. Parton, 1953, named after Lewis Carroll's eponymous heroine). Two boards A and B are set side-by-side. Normal array on A; B empty. A piece on completing its move passes 'through the looking-glass' to the corresponding square on the other board. After the first turn, when moves are necessarily made from A to B, a player may move on either board. The rules are simple: (1) a move must be legal on the board where it is played; (2) a man can only move or capture if the corresponding square on the other board is vacant; (3) on completion of its move, a man is at once transferred to the corresponding square on the other board.

Certain truths follow from these rules. A pair of corresponding squares can never be occupied simultaneously, nor can a piece on one board capture a piece on the other. A direct check can only result from a piece moving on the opposite board to that on which the king stands; a discovered check is only possible on the board occupied by the king. Men must be defended on the other board, as the capturer will be obliged to transfer to it.

Despite its simple rules, Alice Chess is confusing, and certainly for the beginner, since a mental fusion of the two boards is called for. The king is especially vulnerable: it can neither stay in check nor move into check on the board where the attack is delivered, and it can neither move into check nor capture an undefended piece on the looking-glass board. Little serious research has been done on the openings but 1 d4>B is generally considered best for White; it also lends itself to a simple illustration of some of the game's tactics. White has an immediate threat of 2 Qxd7>B and 3 Qb5>A, which is mate (!) because the king's only move ...Kd7 is illegal on A and an attempted interposition such as ...c6 merely transfers the man to B. The reply 1...d6>B loses the queen to 2 Qxd8>B, and if 1...Nf6>B to guard d7 on B then 2 Bg5>B threatens 3 BxN with a reinstatement of the original threat. However, Black can safely play 1...Nc6>B, as after 2 Qxd7>B the reply 2...Be6>B wins White's queen; each of his 14 possible destination squares is either occupied on A or guarded there.





The miniature problem above, by Ronald Turnbull and Peter Coast (*Variant Chess* 2004), illustrates much of the beauty of the game. Board A is as shown, Board B is empty, and White is to play and mate in 2.

To mate an unmoved Black king in 2, White must play his queen to B at move 1 and back to A at move 2, and Black will spoil this if he can play his king to B at his own move 1. So White's first move must stop Black's king from moving, and the only possibilities are 1 Qh8>f1>B (guarding h3/h1 on B) and 1 Qh1>B (guarding h3 and occupying h1).

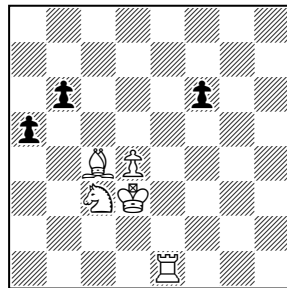
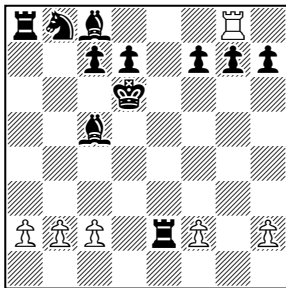
Let's try 1 Qh8>B. A Black move upwards (1...Rh5/.../h7>B) allows mate by 2 QxR>A and any other rook move (1...Rg4/.../a4>B, Rh3>B) allows 2 Qh4>A, the queen moving to the square the rook has just quitted and leaving it curiously helpless. However, Black also has 1...g1>B (the promotion doesn't matter), and there is no mate.

All right, try 1 Qf1>B. Now 1...g1>B can be met by 2 Qg2>A, but there is no mate after

most of the rook moves.

So it must be 1 Qh1>B, when 1...g1>B 2 Qg2>A still works and 1...Rg4/.../a4>B 2 Qh4>A comes back again. The mates 1...Rh5/.../h7>B 2 QxR>A also still work (though not the clever 2 Qh4>A because Black can reply 2...Rh3>A, bypassing on B the square occupied by the checking queen on A and then transferring to the other board to block the check), but what about 1...Rh3>B, after which 2 Qh4 is no longer possible? Ah, 2 Qg1>A, making use of the fact that the rook on h3 is blocking its own king's flight square.

And a game from a postal tournament played in 1997-98. 1 d4>B Nf6>B 2 Bg5>B Rg8>B 3 Bxf6>A exf6>B 4 e4>B Rg6>A 5 Qf3>B Qe7>B 6 Ne2>B Qxe4>A+ 7 Kd2>B a5>B 8 Nbc3>B Bb4>B 9 Bc4>B Rxc2>B 10 Qe3>A Qxe3>B 11 Kxe3>A b6>B 12 Rhg1>B Bc5>A+ 13 Kd3>B Rxe2>A 14 Rg8>A+ Ke7>B 15 Re1>B+ Kd6>A. The boards are now as shown below



and White announced a mate in 8 by 16 Nb5>A+ Kc6>B 17 Rxc8>B+ Kb7>A 18 Bd5>A+ Ka6>B 19 Nxc7>B+ Ka7>A 20 Nb5>A+ Ka6>B 21 Bb7>B+ Kxb7>A 22 Rc7>A+ Ka6>B 23 Ra7>B.

[The first of Parton's own booklets dates from 1961, and the earliest printed reference is

in Boyer's *Nouveaux Jeux d'Echecs Non-orthodoxes*. This was nominally published in 1954, though the copy in the library of the British Chess Problem Society carries a manuscript greeting to Dennison Nixon dated December 1953. The examples of play after 1 d4>B are from Nixon's review in the March

1954 *British Chess Magazine*; the later examples are from issues 45 and 29 of *Variante Chess*, the mate in 8, whose appearance here is very definitely my responsibility, having been announced by David himself. Boyer's exposition differentiates between 'mat orthodoxe' (the king would be mated even in ordinary chess) and 'mat alicien' (he would have one or more flight squares in ordinary chess, but the corresponding squares on the other board are commanded or occupied). According to the *Oxford Companion to Chess*, a specifically 'Alice' mate may be demanded by problemists, but players, if they ever made such a demand, have long since abandoned it.]

Derivatives of Alice Chess. In his 1961 booklet *Chess - Curiouser and Curiouser*, Parton observed that Alice Chess could be played on three boards of identical size (he did not elaborate) giving the players a choice of two corresponding squares for a move. No one so far seems to have embraced this monster. In more conciliatory vein, Parton also introduced a modified version played on the normal board divided into two 4x8 play areas (three-row array RQKR, NBBN, PPPP, with only four pawns on each side). The game lacks the zest of the parent (there are no quick mates) but problem composers have shown some affection for the reduced field. In **Ms Alice Chess** (John Ishkan, 1973) all men have the added power of a Zero, a piece which moves by staying still. This facility allows a man to move to its corresponding square on the looking-glass board, provided the square is vacant. A king cannot escape check with a zero move and castling is disallowed if either R or K have made a zero move (*Nostalgia* 165). **O'Donohue Chess** (Michael O'Donohue, 2003) offers an alternative extension: a piece may move to a square that is occupied on the twin board, the move being completed as usual but the transfer being omitted (personal communication). In **Duo Chess** (Jed Stone, 1981) the white array is set up on one board and the black on the opposite

side of the other. Rules of play: (1) A piece or pawn moved legally on one board may, but is not obliged to, transfer to the corresponding square on the other board providing it is vacant. (2) A piece, but not a pawn, may transfer to the corresponding square on the other board. This counts as a move. If the square is occupied by an enemy man, this is captured. (3) A king can be checked on the board it stands on or by an opposing piece moving to the corresponding square on which the king stands on the other board. (4) Pawns promote on the eighth rank of either board. The king is mated in the normal way but in addition the corresponding square on the other board must be occupied by a man of the same colour as the king, or be under attack (Stone).

Looking-Glass Chess (V. R. Parton, 1971) is quite different. Two boards and sets are used. A player on turn may move on either board but must then also make the 'looking-glass' move on the other board. Thus, opening Nf3 on board 1, Nc3 must be played on board 2. A move of the king or queen must be mirrored in that of the other. This means that if the queen is moved on one board, the king must reflect the move on the other board even though it may mean moving a number of squares. Castling likewise: if White castles K-side, 'castling' must also take place on the Q-side (Qb1 and Rc1). A move may not be made if the reflection would result in the player's king being placed in check. (*Chesshyre Cat Playeth Looking Glass Chessys*)

Two-Level Chess [Curo] (Forrest Curo, 1975). Two boards; two sets of men except that one set has the kings replaced by additional queens. Instead of moving on the board, a piece can transfer to the corresponding square on the other board, and capture or check in so doing. Pawns have the same privilege but can also change boards and capture one square diagonally forward in the same move. (*Ye Faerie Chesseman*)

11.2 Three boards

Tritabula Chess (John Bosley, 1980s). A form of Progressive Chess. The game is played on three boards simultaneously, each

board with the normal array. White starts by moving a man on any one of the three boards. Black now has two consecutive moves which

may both be made on one board or separately on two boards. White replies with three moves which he may distribute between the boards as he wishes, and so on. At any time during a move-series a player may transfer one of his own men (but not a king) from one board to a corresponding square (which must be vacant) on another board, the transfer counting as one move of a turn. When a checkmate occurs, that board is dead and no transfers may be

made to or from it. It is possible to checkmate more than one king in a move-series; however, a check (as distinct from checkmate) may only be delivered on the last move of a series. Check must be escaped on the first move of a series. It is possible, through a transfer, for two kings to be in check after the last move of a series. In this case, the responding player must concede one game. (Unprovenanced rules leaflet)

11.3 More than three boards

Megachess [Lange] (Fred Lange, 1994). Six boards in two rows of three, six sets of men on the four back ranks of each player's three boards. White plays three moves, then each side plays six moves alternately. Normal rules plus various additions (long pawns, all-in castling, pieces moving as pairs). If you lose a king, you lose a move at your next turn (and presumably at all subsequent turns); objective is to capture the opponent's last king. Apparently tried out with success at summer schools in Milwaukee. (Originator's

expository leaflet) [Text editorial]

Eternity's Children (Bruce Trone, 1991). An indeterminate number of boards (A, B, C, ...) and sets are required. When a man is moved, an identical man is created on the start square of the move on the next board. Thus if White opens 1 e4, a WP is placed at e2 on B. A man cannot move if its corresponding square on the next board is occupied. A turn consists of one move on any board. Checkmate of any K wins the game. (Personal communication)

Chapter 12

Miscellanea

[A final chapter on the 8x8 board containing games which do not fit readily into any other class but are too few to merit chapters to themselves. Included are games where the actual rules of play on the board are wholly orthodox, but there is something in the presentation or context which takes the game out of the ordinary.]

12.1 Multiple square occupancy

Bi-Place Chess (B. de Beler, 1958). A piece can move to a square occupied by a friendly piece (where they can be captured simultaneously). The pieces do not combine but remain independent of each other. Not more than two pieces can occupy a square. The line pieces (Q, R, B) can at all times leap friendly men (and hence check in this manner). An unmoved pawn can leap a friendly man immediately in front of it. (*Nouveaux Jeux d'Echecs Intéressants*)

Duperchess (Jon Spencer, 1972). Any number of men of either colour or both colours may occupy a square. A player moving to a square occupied by two or more of the opponent's men may only capture one but can choose which, or may elect to move to the square without capturing. (*Neue Chess 2*)

Double Chess [Hill] (Terrell Hill, 1974). A square may be occupied by two men simultaneously, either of the same colour (double square) or of opposite colour (mixed square). If a double square is entered by a man of the opposite colour, one of the two occupants, at the capturing player's choice, is

removed, thus forming a mixed square. Men on a mixed square are immune to each other. Either man on a mixed square may be captured by a man of the opposite colour, thus forming a double square again. Either man on a double or mixed square may vacate the square at any time. A king can be an occupant of a double or mixed square. All moves are as orthodox. The inventor was inspired by the Ising problem in theoretical physics. (Personal communication)

Stacking Chess (origins unclear, cited by Jed Stone in 1982). Any number of men of the same colour may occupy a square, hence squares between K and R do not have to be vacant in order to castle. A capture takes all the men on a square. (Stone, also *World Game Review 10*)

Gregarious Chess (Bruce Trone, 1986). Any number of men of either colour may occupy a square. A man entering a square occupied by two or more enemy men may choose which to capture. A man may not move if in a square occupied by more enemy than friendly men. (*World Game Review 10*)

12.2 Merging of squares into regions

Merger Chess (Philip Cohen, 1975). Squares can be merged into orthogonally connected regions called realms. A realm may contain at most five squares. Only one man may occupy a realm. If a man other than a pawn is moved to any square within a realm occupied by an enemy man, that man is captured (a pawn can capture only by moving to the square actually occupied). When a capture is made, the square

or realm in which it occurs must be merged with an adjacent empty square or realm unless every potential merger would cause self-check or create a realm of more than five squares. The second area must be adjacent to at least one square of the first, but need not be adjacent to the capture square. Two realms may not be merged if a realm-square merger is possible. A piece may secede from a realm at

any time, taking its square with it and perhaps dividing the rest of the previous realm into two or more separate parts. Normally,

secession counts as a move; exceptionally, a king may secede and then move in the same turn. (Inventor's rules pamphlet)

12.3 Men changing sides other than by capture

Rotation Chess [Turnabout], also known as **Alternating, Turnabout,** or **Turnaround Chess** (origins unknown but played by C. D. Locock and T. R. Dawson in 1913). After every 10th move of Black the board is turned round, and the previous 'Black' makes the next move and continues with the White men (*Fairy Chess Review*, August 1948). Another version of the game has the board turned round after every 15 moves. Described as 'highly diverting' and said to have had many devotees in the north of England (*Chess*, July 1943). A modern variant requires Black to roll a die after each of his moves. If a 6 turns up, the board is turned round.

Traitor Chess (Roberto Salvadori, 1984). On the 10th move of a game, or any time thereafter, each player has the right to exchange a piece or pawn (but not the king) of his own colour with an opponent's man of the same rank. The men change places. This is known as the 'unmasking', and the man swapped is a 'traitor' who cannot subsequently change sides again. The traitor is exposed after the opponent has played and before moving. Unmasking, which must not give check to one's own king but may give check to the opponent's, does not count as a move. Each player has the right to only one unmasking in a game. (*Eteroscacco* 27)

12.4 Men automatically added or removed during play

Twinkle Chess (Ralph Betza, 1977). A pawn is added to or taken from the board after each move, at the discretion of the player. The pawn may be of either colour. Pawns can only be entered on vacant squares and then not on the 1st and 8th ranks. No more than eight pawns of the same colour on the board at any one time (i.e., only the normal set is used). Check must be met immediately. A violent game. In **Blizzard Chess** (Betza, 1977) only addition is allowed, and it is compulsory. In **Buzzard Chess** (Betza, 1977) only subtraction is allowed, and again it is compulsory; if there is only one pawn left and its removal will expose the turn player to check, that player loses. (*Nost-algia* 214/6/8)

(i.e., incest is not tolerated). The power of the piece is unchanged, but when it moves away it gives birth to the man whose home square it is. Birth control is not practised and the population is limited only by lebensraum. Problem theme probably untested as a game. (Extract from *Fairy Chess Correspondence Circle circular*)

Too Many Bishops (quoted by C. Pickover, 1992). Before each move a player acquires an extra bishop which is placed by the opponent on any vacant square. The game ends with checkmate, when a player is unable to add a bishop, or when a player cannot move (because of a convocation of bishops). (*Mazes for the Mind*)

Pregnant Chess, also known as **Promethean Chess** (Chris Tylor, 1980). A man moving to the home square of another man (meaning a piece or pawn, not, understandably, a male) of either colour becomes pregnant. The exceptions are a king or a man of its own kind

Trapdoor Chess [Betza] (Ralph Betza, 1996). A man that stays on a square for five turns falls through a trapdoor and is lost (if the K, the game is lost). Does not apply to unmoved men. (*Eteroscacco* 75)

12.5 Passing or retracting a move

Zugzwang-Free Chess (origins unknown). No obligation to move on turn unless in check. (Gik, *Schach und Mathematik*)

Liars' Chess [Betza] (Betza, 1978). At any time when you make a move, you may claim that a previous move was a 'lie' and that you actually played so-and-so. However, you may change only one move per turn, and all subsequent moves must remain legal. Two further restrictions are offered as options: false moves are restricted to a given percentage of the total, and you cannot claim a false move until a certain number of subsequent moves have been played. (*Nost-algia* 217, *Eterosacco* 49) [This was developed from a sarcastic joke game called Watergate Chess, which was inspired by events that are now over thirty years old and which David had decided to drop from the new edition. I think he was right to do so.]

The Royal Game of Amber (Mark Bassett, 1981). The inventor claims that nobody wants to change the rules of chess - except one: that you cannot take back a move. Knights are

Princes and have the power of retracting their last move (or moves, if in unbroken sequence) and requiring the opponent to do likewise. (Inventor's rules pamphlet)

Parallel Timestream Chess (Chris Tylor, 1981). An adaptation of the science fiction concept of a parallel universe. Before every move, the player must switch the position to a parallel time-stream by changing an earlier move of the game. Any later move which then becomes illegal or impossible is replaced by a parallel move in which the man geometrically closest to the starting square of the original man is moved to the square geometrically closest to its finishing square (castling being a king move, promotion being to the type of piece last moved). If two or more men or squares are equidistant, the parallel move is (a) from the rank furthest back to the rank furthest forward, and (b) from the file nearest the edge to the file nearest the centre. Best played by correspondence. In one recorded game, White blundered on move 7 allowing Black to mate on move 6! (*The Games and Puzzles Journal* 3)

12.6 Simultaneous movement

Synchronistic Chess (V. R. Parton, 1971). A variant designed, part tongue-in-cheek, to achieve absolute equality. On each turn, both players write down their moves and then declare them to each other, the board position being adjusted accordingly. There are three anomalous situations to be resolved:

(1) Both moves are to the same square. White captures Black if the disputed square is in Black's half of the board, and vice versa.

(2) Reciprocal capture. Both pieces are removed from the board.

(3) Illusory capture (a capture is recorded but the square is now vacant because the piece has moved away). If the capturing piece is superior in rank to the piece that moved away (K>Q>R>B>N>P), the latter is captured on the square from which it moved. If the capturing piece is equal to or inferior in rank, there is no capture and both moves stand.

Since both kings can be mated simultaneously, Synchronistic Chess can claim

to be more equal than others. (*Chesshyre Cat Playeth Looking Glass Chessys*)

Diplochess (Edi Birsan, 1973). An attempt to link the popular proprietary game Diplomacy with chess (for other attempts, see Scacchomacy below and the four-player game Diplomatic Chess). Players write down their orders for each move, revealing them simultaneously when moves and captures are resolved. Orders are for all men, and as in Diplomacy can be to move, to hold, or to support. Points are assigned to men according to the relative values normally assigned to them (Q=9, R=5, B=N=3, P=1), the king being assigned 0. An interesting feature is that the move of a high value piece cuts off the moves of lower value men which try to cross its path. The object is to dislodge the opponent's K and leave it without a retreat (in effect, checkmate). (*Bushwacker*, November 1974, quoting *Arena*, 'about July 1973')

Scacchomacy, also known as **Fish's Delight** (Dave Kadlecck, 1974). Another attempt to combine chess with the concept of simultaneous movement found in Diplomacy. Orthochess moves, but the basic rules of movement and annihilation (capture) are those of the 1971 Diplomacy rule book. Supply centres are those occupied by the 16 pieces initially together with neutral centres at d4/d5/e4/e5. (*Spectrum* 7)

Synchronous Chess (Vitaly Korolev, 1991). Players move simultaneously, writing their own moves on their respective score sheets, revealing them to each other and then writing in the opponent's moves with amendments to one or both moves as necessary. A king must move to escape check but because of simultaneous movement can remain in check for several moves. Checkmate or capture of the king ends the game. A number of ambiguities can arise:

(1) Both men are moved to the same vacant square. Both are captured, even if both are pawns, but if a P and a K meet the P is captured but not the K.

(2) A 'capture' is made but the intended victim has removed. The move stands, even if it is a pawn capture or promotion.

(3) Mutual capture. The men change places, even if one or both are pawns.

(4) A Q or R on a file 'captures' a facing pawn which simultaneously advances. This is treated as case (2), neither being captured.

A capture on a square occupied by a friendly man, anticipating its capture, is allowed. If the attacker moves otherwise the self-capture stands. The game received a winner's diploma in the 'Games for Peace' convention, Leningrad 1991. (Originator's pamphlet)

Turbo Chess (Rob Cullender, 1988). Turns are simultaneous, each player writing a

'movement order'. More than one man may be moved in a turn (hence turbo, speeding up the game) but no man may make more than one move a turn. Each man is credited with a nominal value (n.v.): K(15), Q(8), R(5), B(3), N(3), P(1). However, if a second pawn is moved in a turn its n.v. is 4, a third 9, a fourth 16, and so on. If a pawn or a piece is moved more than one square, its n.v. is multiplied accordingly. A knight's move is prescribed as 3 squares hence the n.v. allocation for a knight move is 9 points. Castling either side costs 40 points. Both players have an allocation of 50 points per turn of which 30 must be used; the balance can be 'banked' but the current balance must never exceed 100 points. To complicate matters, players must allocate to each man moved an actual value (a.v.) that cannot be less than the n.v. This a.v. is multiplied by the number of squares moved to give a points expenditure. The moves made by both players in a turn are executed in a.v. order, the highest first (ties in a.v. are broken in order of n.v.). The points allocated to a move that is reduced or negated as a result of an opponent's move taking precedence are lost. For example, if rival knights attack each other and both players elect to capture, the player who has allocated the higher a.v. will succeed since his move will be executed first. There is one further rule: if a pawn that has been programmed to move has an available capture then the capture is made automatically (if the pawn has two possible captures, the man with the higher n.v. is taken) unless the player has indicated otherwise on the movement order. There is no checking and the aim of the game is to capture the opponent's king. The game has been played successfully by correspondence. (Article 'Turbo Chess' comprising pages 10-11 of an unidentified magazine, together with a manuscript game score annotated in some detail)

12.7 Exploitation of coordinate squares

Coordinate Chess (Co-Chess) (Ralph Betza, 1973) The paterfamilias of a numerous clan, Co-Chess, inspired by the Co-ordinator piece in Abbott's game 'Ultima', is not itself a game but a system. According to one highly unreliable source, there are potentially at least 300,000 Co-Chess variants, as yet fortunately

confined to a well-tested handful. The principle is that like-pieces of the same colour form a co-pair, of which initially each player has four, as Q and K are assumed to be a co-pair. Pawns do not form co-pairs. When one piece of a co-pair moves to a square that is not on the same rank or file as the other, two co-

squares are created which together form a rectangle with the squares on which the co-pair stand (so if a player has a rook at a1 and moves his second rook to h2, co-squares are created at a2 and h1). Men on co-squares are subject to co-effects which are defined by the game being played. Co-effects are usually permanent, but co-squares are only effective on the move that created them. If one piece of a co-pair is captured, the remaining piece loses any power to create co-squares unless a pawn is promoted to a like piece. Promotion is a pawn move and does not cause co-effects. Castling is both a king and rook move, so both K and R can form co-squares with Q and R respectively. Since co-effects are mandatory, a move cannot be made in which these would result in an illegal position. Conversely, a move that would normally be illegal is legal if the co-effects of the move remove the illegal element. For example, castling through check would be legal if the co-effects neutralized the enemy piece commanding the square over which the king moved. (*Nost-algia* 229)

Biflux Chess (Ralph Betza, 1974). When a piece creates co-squares, each piece of the co-pair acquires the powers of an enemy pawn or piece, including a king, on the co-squares. A player when moving a combined piece must declare its role if a co-pair is possible. Combined pieces that include a king have royal powers; if a player has more than one king, he loses if any of them is mated. A combined piece that includes a pawn promotes only if it moves from the penultimate rank as a pawn. Some interesting end-games arise with unusual piece combinations. (*Nost-algia* 177)

Co-Capture Chess, also known as **Eradication Chess** (originator unclear). Enemy men on co-squares are captured. A king caught on a co-square is mated. Philip Cohen has suggested that orthochess captures are banned with the exception of pawn captures, otherwise a player could hide behind a phalanx of pawns. (*Nost-algia* 189/263)

Co-Relay Chess (Ralph Betza, 1973). The co-effect of co-squares is to convey the power of the co-pair to friendly men occupying them. (*Nost-algia* 169)

Conversion Chess (Ralph Betza, 1973). The co-effect of co-squares is to convert enemy men to friendly men of the same rank.

Friendly men on co-squares are unaffected. A threat to convert the king is check; an inescapable threat to convert the king is checkmate. Normal check and checkmate are not precluded (Cohen later proposed orthochess captures, and hence checks also, limited to pawns). It is possible, through conversion or promotion, to have several pieces of the same rank, in which case the move of one of them may simultaneously create a number of co-squares. In Betza's opinion, two tempi ahead are usually sufficient to ensure the win, other things being equal. In **Double Conversion Chess** (Betza, 1973) the occupants of the co-squares change sides; in **Reversion Conversion Chess** (Betza, 1973) any two unpaired pieces of the same colour are joined to form a new co-pair, the player choosing which two to join if there are three. (*Nost-algia* 161 and later)

Heterocoalescence Chess (Philip Cohen from an idea by Ralph Betza, 1973). Two pieces of different colours on a pair of co-squares coalesce, forming a 'meld'. No check or mate. Object is to take opponent's king or any meld containing it. (Personal communication)

Inverter Chess, also known as **Switch Chess** (Ralph Betza, 1973). If a move creates a set of co-squares, occupants of front and rear squares are interchanged. If a move creates more than one set of co-squares, the player may choose the order in which men are transposed. (*Nost-algia* 231)

Nuisance Chess (Philip Cohen, 1979). Every time co-squares are formed, Nuisances are placed on any that are vacant. A nuisance is a neutral, immobile man that acts as a block to pawns and line pieces. Kings and knights are unaffected except that a nuisance can prevent castling. Nuisances can be captured by either side. (*Nost-algia* 232)

Overloader/Restorer (O/R) Chess (Ralph Betza, 1974). When a piece creates co-squares, any enemy man on either or both co-squares is overloaded, whilst a friendly man on a co-square, if overloaded, is restored to full power. An enemy man that is already overloaded or a friendly man that is not overloaded are unaffected. An overloaded man retains its basic move but loses all additional powers. Thus it cannot capture, check, castle, act as a co-pair, or, if a pawn, promote or

move two squares. It stays overloaded unless and until restored. A pawn restored on the 8th rank promotes immediately. Castling into a check that is cancelled by the co-effect is legal. Once most co-pairs have gone, overloaded pieces will have little chance of restoration and will become virtually powerless. (*Etereoscacco* 50)

Suction Chess (Ralph Betza, 1979). Every time co-squares are formed, the player can move a man (but not a king and presumably not the co-pair) of either colour from anywhere on the board to either of the co-squares. A pawn sucked to the 8th rank is at once promoted to a piece of the owner's choice. Cohen prefers what he calls **Autosuction Chess** which limits the co-effect to one's own men. (*Nost-algia* 238)

Transportation Chess (Transchess) (Ralph Betza, 1973). The darling of the family. The co-effect of co-squares is to require the player to move the occupant(s) to any vacant square(s). Removal is compulsory, but a pair of men on co-squares can be interchanged. There are two restrictions: the king cannot be transported and pawns cannot be placed on the 8th rank. Pawns can be moved to the 1st rank, and a man that is transported back to its original square without moving regains its privileges (R can castle, pawn-2). A pawn moving from the 1st to 2nd

rank acquires the P-2 option. An 'illegal' move is allowed (e.g. exposing the king to check) if the subsequent transportation removes the illegality. Transportations do not trigger further transportations because they are not moves: co-squares are only formed by the move of one of a co-pair. Games tend to be both short and violent. The essence of Transchess is to keep co-pairs as long as possible since broken marriages spell disaster. Ideal for correspondence play, the game offers an exciting but as yet little-explored problem theme. (*Etereoscacco* 50)

Transportation Chess has developed variants of its own (variants of a variant of a variant). In **Polyactive Transportation** (1979), new co-squares are created as a result of transportation, and the process is continued until no co-squares remain. 'Ridiculous' in the view of Philip Cohen (*Nost-algia* 233). In **Put-Back Transchess** (Betza, 1974), it is played with Put-Back rules (a captured man is immediately replaced somewhere on the board, no restriction on the replacement squares of pawns and bishops) (*Nost-algia* 170). [David's index sheet gives Philip Cohen as the originator of Polyactive Transportation, which rests oddly with his authorship of the subsequent quotation, but people do occasionally refer to their brainchildren in this way. I haven't seen the source.]

12.8 Changes to the rules during play

Metamorphosis (Ralph Betza, 1973). The rules in force change according to a predetermined pattern. (*Nost-algia* 209)

List Chess (Ralph Betza, 1977). A list is prepared of variants whose rules are known to both players. White chooses and announces the variant for his first move, Black ditto. These variants are crossed off the list, and cannot be used again until all variants have been used once. White now plays his first

move and chooses and announces the variant for his second, and so on. (*Nost-algia* 168/209)

Crazy Lightning Chess (originator unknown). At irregular intervals the umpire breaks into play by announcing a change of rules such as 'all bishops now move as knights'. Reported to have been a perennial favourite at British Championships. (*British Chess Magazine*, February 1990)

12.9 Other external influences on the play

Alcoholic Chess, also known as **Spirited Chess** (origins lost in the mists of time). Alcohol has at times been introduced to add a new dimension to chess. Pieces have been replaced by glasses or bottles of intoxicants,

the usual rule being that a player must promptly drink the contents of any man he captures. In one game in Budapest in the early 1890s, a chessboard was marked out on a billiard table, the kings being replaced by

bottles of champagne, the queens by claret, the bishops by burgundy, the rooks by port, the knights by madeira and the pawns by wine. The players had to drink the contents of any man they moved. The game was drawn by mutual confusion. A few years later (1898) a game was played on the same(?) table in which the kings were bottles of champagne, the queens liebfraumilch, the other pieces tokay and the pawns red wine. Both players finished under the table in an interesting position. Lasker is said to have won a game of Alcoholic Chess by wisely sacrificing his queen (which contained a quarter-litre of cognac) in the early stages. During the Star Chess finals in London (1979), two young ladies played a demonstration game in which the pieces of each side were represented respectively by goblets of white and red wine. A draw was agreed when both sides were reduced to two pawns, the players walking away with poise whereas several kibitzers were either unstable, incoherent, or both. A Scottish firm once marketed hollow chessmen for whisky, whilst in the U.S. Old Crow ceramic chessmen were filled with bourbon. (Gizycki page 90, *The Complete Chess Addict* pages 209-10, *Games and Puzzles* 75, *Nostalgia* 332)

[An extra dimension was added in an experiment performed by Alex Kraaijeveld, in which he had not only to drink the contents of the men captured but to identify them (all were single malt whiskies secretly chosen from his own shelves, one brand being put in the pawns, one in the knights, and so on). His opponent was a computer, which was handicapped by having its playing level reduced from the keyboard every time it made a capture (nobody wanted to waste good whisky on a computer). He duly won the game and identified four of the six whiskies including that in the mated king, which wasn't bad if not quite of the level which Dorothy Sayers would have claimed for Peter Wimsey (*Variant Chess* 48, reporting an item in issue 44 of *Whisky Magazine*).]

Athletic Chess (Alan Turing, c.1948). Turing, the computer pioneer and codebreaker, played chess with his friend the economist David

Champernowne, in which the turn player had to move before the other had run round a large garden. They found that fast running, aimed at reducing the opponent's thinking time, was counter-productive since it impaired clear thought tended to prevent good thinking, so the problem was to choose the right balance. An indoor version was to run round the house after moving; if you got back before your opponent had moved, you moved again. The two devised one of the first chess-playing programmes in 1948 (it won only one game, against Champernowne's wife, who was a beginner). (Champernowne obituary in *The Times*, 25 August 2000)

[The 'programme' will of course have been merely a set of written instructions to be followed by a human robot. No computer available in 1948 was capable of playing even a remotely sensible game of chess within a reasonable time.]

Earthquake Chess [Gutzwiller] (James A. Gutzwiller, 1970). Before each player moves, the opponent violently kicks the table. Pieces off the board are out of the game, others are adjusted to nearest squares. **Bowling Chess** (Gutzwiller and David Moeser, 1970) is much the same except that the board is put at the end of a bowling alley and the players have one bowl (with a baseball) in turn, bowling being repeated after every five moves. Incredibly, the game was once popular at the University of Cincinnati, where a 45-move game ending in a draw was published. (*Nostalgia* 280/281, *Neue Chess* 7)

[In the book from which I learned chess when young, one of the ways of losing a game was given as 'wilfully upsetting the board and men'. This always seemed to me to be a most excellent rule, and I was deeply disappointed when I found that it was not in fact part of the official Laws of Chess.]

Dartboard Chess (Mick Dickman and David Moeser, 1975). A paper chessboard is attached to a dartboard. Each player in turn throws a dart and must move a man if possible to the square pierced. If impossible for any reason, he continues to throw until a legal move can be played. (*Neue Chess* 9)

12.10 Puzzles centred around chess games

Crossword Chess [Lepper] (Philip Lepper, 1930s). Tournament in which clues given to the players in advance determine destination of prizes. Played at the Bedford club ('a great success'). 1st prize clue: A Welsh author seems to indicate this. Answer: Night must fall (so the first player to shed a knight won first prize). 3rd prize: Something frequently done by medieval war-lords. Answer: Check king with castle. (Unprovenanced note presumably deriving from personal communication)

Guess Chess (S. R. Hossell, 1950). An entertainment for a club night. An unfamiliar master game is chosen, and the names of the players are revealed. Participants compete in pairs. One of the pair receives the score of the first ten moves and his opponent attempts to guess them, receiving points for correct guesses; they then change roles. (Letter to *Chess*, September 1950) [Given the technology now available, the idea might be revived along the lines of the knock-out solving competitions that have become a popular feature at meetings of problemists. Participants compete in pairs, with buzzers. A position from a game is put up on a screen, with the event and the players' names, and the competitors have to say what the next move was. First to buzz gives his answer, one point

if correct, one point to the opponent if wrong, first to three points (or whatever) goes through to the next round. 'Resigns' is of course a valid answer, particularly in positions where a mate in one was overlooked.]

Crossword Chess [Papp] (A. Papp, 1967). The 'player' is given a game score from which certain moves have been removed and placed in random order at the end, and he has to reconstruct the game. (*Le Courier des Echecs*, January 1967)

[I have never seen this, and I was surprised that David did not include two ideas which seem to be much more widely practised: the **Proof Game**, where the position after White or Black's move n is given and the game has to be reconstructed, and the more general **Retrograde Analysis**, where a position is given and some question about the preceding play has to be answered (for example, where a certain missing man was captured). Typically, a square such as g1 is empty and the victim spends a lot of time trying to work out where that knight could have been taken, and of course it wasn't like that at all; it was the other knight that was captured, and the knight from g1 is now standing innocently at b1. Such challenges often appeal to players who take no interest in more conventional problems.]

12.11 Unorthodoxy in context or presentation

[The first edition counted as 'variants' blindfold chess, lightning chess, living chess, quickplay, and simultaneous displays, but it seems to me that these are really rather too 'orthodox' for inclusion here; certain forms of quickplay are indeed now regulated by the FIDE Laws of Chess. The changes that follow are rather more radical.]

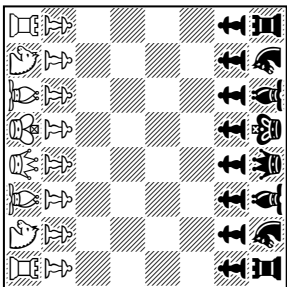
Handicap Chess has a long history. We saw the giving of material odds in chapter 9, but some odds are imposed in other ways: by a time handicap (the stronger player has less time on the clock), mating conditions (mate must be given by a specified man or on a specified square), 'odds of the draw' (a draw is a loss for the stronger player), and so on. Bland, in his *Persian Chess*, refers to the exacting system employed by the Arabs and Persians. Amongst more recent ideas that failed to arouse enthusiasm were that the

stronger player should play the first 10, 15 or 20 moves blindfold which 'would avoid artificial positions, develop the powers of the stronger player, and encourage the weaker player to explore the more novel openings' (W. W. Tatum, *Chess*, October 1949) and permitting the weaker player to retract two sequences of three moves in the course of the game (J. A. Negus, *Chess*, March 1950). In recent years, a wide variety of systems have been employed, mostly for use in tournaments and often based on players' gradings.

Le Jeu des Camps, or La Petite Guerre (L. B. Guyton-Morveau, 1793 - 'the second year of the French Republic, one and indivisible'). An attempt, in the wake of the revolution, to republicanize chess. The king is renamed the Flag (check is 'the flag!' and checkmate 'victoire!'), the queen the Adjutant, rooks are Cannons, the bishops Dragoons, whilst the knights are demoted to Horsemen. The pawns are Fusiliers who, happily, do not change their sex on promotion. The name 'chess' was not acceptable because of its royalist connotations. (Photocopies of *Les Camps, ou La Petite Guerre* and of *Histoire de la Convention Nationale*, pp 282 and 435-8)

Phantom Chess [Montreal], also known as **Ghost Chess** (origins unknown). The board is empty board, the array is imagined, the men are placed on the board only when they are first moved. Played in a consultation game in Montreal in 1894 (Gossip and Fleming against Babson and Pollock), and a match to be played at the Norfolk and Norwich C.C. was advertised in 1903. (Mrs F. F. Rowland, *Pollock Memories*, 1899, also *Morning Post*, 9 November 1903)

Bystander Chess (Frank Maus, 1927). Since it is well known that onlookers see more of the game than the players, Maus suggested a rearrangement of the initial position so that the players should no longer be disadvantaged :



The pawns now advance along the ranks and castling is on the files, but otherwise little is changed. Because the players occupy the superior points of observation midway between the two armies, the bystanders are forced to the inferior positions formerly occupied by the players. (*Chess Amateur*, September 1927)

Bughouse Chess [Hulf] (L. A. Hulf, 1943). Men are taken from the box at random and are arrayed on the 1st/2nd/7th/8th ranks irrespective of colour. They then assume the roles of the squares they stand on (so if e1 receives a black pawn, both players have to remember that this particular pawn in fact represents the white king). A test both of memory and of sobriety. (Letter to *Chess*, July 1943)

Vanishing Chess (Russell Chauvenet, 1944). When a man is moved it is taken off the board. Thereafter both players try to remember the identity of the 'ghost' which, for play purposes, is still on the board. Ghosts move or capture like ordinary men (the player lifts air from one square and moves it to another). (Letter to *Chess*, January 1944)

Beach Chess (Karl O. Hill and Rudy V. Saul, 1952). A large chessboard is marked out on the sand, and seaweed is used to colour the dark squares. The men are flags in contrasting colours mounted on poles, each carrying a piece symbol. The game is orthochess, the inventors remarking that it gives the players 'healthy exercise and fresh air'. They omit to mention the problems that could arise if the wind drops. (Personal communication forwarded by Ken Whyld)

Rainbow Chess (Pal Suvada, 1960s). Orthochess but with the pieces distinguished by colour (kings red, queens purple, and so on) on the theory that the eye detects colour more quickly than shape and hence that more time is made available for creative thinking. Patented in the US 'some thirty years ago' and used in five well supported events in Hungary 'during the past year' (article in *Variant Chess* 23, 1997). [Text editorial]

Semi-Circle Chess (Proprietary game, James-Games Inc, 1973). Board distorted to form a semi-circle, rules otherwise normal. Philip Cohen's comment is 'Highly unrecommended ... adds nothing to the game but confusion'. (*Nostalgia* 164/7/8)

The Game of Asha. Asha (the 'universal law of the Zoroastrians') is chess in philosophical garb. The white forces are those of Ahura

Mazda (life and light) and the black those of Ahriman (death and darkness). The pieces and pawns represent natural forces, good and bad, and each is denoted by a mystical symbol. Thus the white pieces (a1-h1) are respectively Power, Love, Wisdom, Preserver, Creator, Eternal Life, Work, Peace; pawns (a2-h2) Sun, Water, Air, Food Man, Earth, Health, Joy. Black pieces (h8-a8) Violence, Idleness, Death, Destroyer, Spoiler, Ignorance, Hatred, Weakness; pawns (h7-a7) Sadness, Disease, Barrenness, Inferior Man, Impure Food, Impure Air, Impure Water, Darkness. In *The Essene Book of Asha* (1976), from which the above is derived, the author, E. B. Szekely, gives the game Count Tolstoy v. Fritz Kuhler (a win for the forces of Light) in Asha notation.

Casino Chess (V. D. Pandit, 1978). Players toss a coin four times, the winner of each toss choosing in turn: (1) orientation of board; (2) colour (W or B); (3) placement of K/Q on d1/e1 (loser places K/Q on same files); (4) who starts. First expounded in the bulletin of the Correspondence Chess Association of India.

Chess II [Ungame] (Proprietary game, The Ungame Co, 1978). Orthochess made a little more difficult by distorting the board design. The 'squares' are termed Battle Stations and the game is described as flowing rather than static. (Proprietor's publicity material)

Romulan Chess (Wilde Lake High School Chess Club, early 1980s). A game for two players and a referee, who needs his own board. At the start, the players' board is empty, and each player's men are 'cloaked' and held in an 'in play' area to his left. They are however notionally present in their normal starting positions on the board. To move, White chooses a move (say e2-e4), takes a pawn from his 'in play' area, 'de-cloaks' it, and puts it down on e4. Black does likewise, and so on. However, instead of a normal move, a player may decide to 'cloak' a man on the board and return it to his 'in play' area (this doesn't alter its position on the board, so a player cannot use this artifice to escape from check). A cloaked man can be captured, the player claiming the man from his opponent's

'in play' area and putting it in a 'captured men' area of his own. The referee copies everything on his own board and advises the players when they are doing something illegal (such as leaving his king in check, failing to realise that he has captured something, or taking the wrong piece from his opponent's 'in play' area, but he is not allowed to elaborate or to comment further. The inspiration was apparently 'being too lazy to set up the board for a practice match'. (Chess Variant Pages) [Text editorial]

Fuss-Schach (origins unknown). Board and clock on the floor, players seated, play with feet. [Description annotated 'Collected at Nurnberg 1989 - game common in Germany but perhaps regional?']

Mainframe (Proprietary game, M&D Design Studio; T. Drury, 1989). Superficially three-dimensional chessboard formed by blocks of varying heights locked into a frame (flat option offered). Rules of play unchanged. (Manufacturer's publicity material)

Rhinoceros Beetle Chess (Thomas Harris, 1991). A variant only in the sense of time control is described by Thomas Harris in his modern classic, *The Silence of the Lambs*: 'Two men sat at a laboratory table playing chess. If they noticed the enormous rhinoceros beetle slowly making its way across the board, weaving among the chessmen, they gave no sign ... Then the beetle crossed the edge of the board. "Time, Roden," the lean one said instantly. The pudgy one moved his bishop and immediately turned the beetle around and started it trudging back the other way. "If the beetle just cuts across the corner, is time up then?" Starling asked. "Of course time's up then," the pudgy one said loudly without looking up. "Of course it's up then. How do you play? Do you make him cross the whole board? Who do you play against, a sloth?"'

Siege Chess [Hair] (Thomas Hair, 1999). The inventor has proposed new, coloured boards (details available from the U.K. Patent Office) on the argument that men and moves have been modified over the centuries but the board has remained unchanged. (*Variant Chess* 35)

Old Man's Chess (origins unknown, 1970s, possibly Czech). The players are deemed to be shaky geriatrics. Either the player picks up the wrong man from an adjacent square or he puts the man down on a square adjacent to that intended (but not both). Thus White might open for example Ne3 or Bf3. Games are short and White has a large advantage (at least a score of mating threats are possible with White's first move), which has led to the suggestion that the system comes into operation only after the first capture. (Personal communication, Peter Rice to Philip Cohen)

[If we are going to allow ourselves nonsenses like these, perhaps I may be permitted to

mention **Loose-Headed Knight Chess**, where a player is allowed to exploit a piece which used to be readily available in all properly conducted chess clubs. This piece allows its owner to ignore a pin, because he can move the head as normal and leave the base behind to block the pin line. Later, if neither half has been captured, he may jump the head back to the base (or to the base of his other knight, if that also has been left alone) and reunite them. For a joke problem in which promotion to such a piece is used to win an apparently lost game, see Burt Hochberg's book *Chess Braintwisters*, subsequently reissued as *Outrageous Chess Problems*, or my own little vanity-book *More Flights of Chess Fancy*.]

Part 2

Other games using square lattice boards

[We now start to consider unorthodox men and boards, but for the moment we continue to use boards based on a square lattice: whatever the overall shape of the board, its individual cells are squares, and every cell away from the edge has four orthogonal neighbours with which it shares an edge and four diagonal neighbours with which it shares only a corner. All these games can be played with ordinary chess equipment, perhaps with a little improvisation to create the additional pieces and to produce boards of the required size and shape.]

Chapter 13

Larger and smaller boards

[In these games, the normal men are used but the size and perhaps the shape of the board are altered. The side-effects can sometimes be surprising. For example, the winning procedure with queen against rook in ordinary chess is somewhat unsystematic, and computer analysis by Marc Bourzutschky in 2004 showed that the defenders could hold out indefinitely on a 16x16 board; the same is presumably true of all larger boards though only one or two cases were explicitly verified. Conversely, the use of a very small board cramps the queen, and on 4x4 and 3x3 boards there are positions where the queen can win only if the rook has the move. It would therefore seem that this particular ‘won ending’ is in fact won only on boards from 5x5 to 15x15 inclusive (*Variant Chess* 44, also *British Endgame Study News*, June and September 2004). With boards of other than square shape, almost anything can happen, and one board that appears below was inspired by Troitsky’s observation that king and two knights could force a win against a bare king if additional squares at d9/e9 were available.

Most modified-board games involve the use of additional pieces, and where one or more of these is unorthodox they normally appear in the chapters on new pieces. However, there are cases where this aspect is secondary (for example, the altered knight move in Betza’s ‘Narrow Chess’ and the extended pawn move in Legan’s ‘Game of Fortresses’), and the game seems more naturally placed here. Only the baselines of the game arrays are normally given, and a full second row of pawns on each side is always to be assumed unless something else is explicitly stated.]

13.1 Larger square boards

For large-board variants of **Indian Chess** see chapter 29.

Decimal Chess is a term sometimes used to describe those chess variants played on a 10x10 board. Not to all tastes: for example, E. M. Vicars (*Chess Amateur*, January 1929):

We don’t want a chessboard of ten!
Or mythical monsters for men:
If Masters can’t help being ‘drawn’ -
Then limit front rows to one pawn!
No need for a ‘Champion’s Two’,
Evolved in some mythical zoo -
Two mongrel and meddlesome things
Upsetting our Queens and our Kings.
Leave classical octaves alone,
We cling to the Kings we have known.
Don’t add to life’s worry and stress
By talking of decimal chess!

Ministers, also known as **Grandchess [Corinthios]** (proprietary game, Corinthian Games; Michael Corinthios, 1975). Board

9x9; black square a1. Each player has an additional queen and corresponding pawn. The queens, called Ministers, stand on either side of the king. All four bishops are on black squares (‘White squares,’ explains the inventor, ‘are squares of peace and refuge’.) The king moves three squares in either direction when castling. When first marketed (1986) the *Montreal Gazette* reported that ‘... a historical flaw of structure (in orthochess) - which produced a weaker King, a weak Queen-side castle, an unbalance of powers, a truncated battlefield and an absence of symmetry - is at last corrected’. Awarded a Seal of Excellence (1990) by the Quebec Consumers Association. (Inventor’s rules leaflet and envelope of cuttings)

Century Chess (Proprietary game, Martin & Co, 1915). Board 10x10; two extra knights plus pawns per side. Baseline (a1-j1/a10-j10) RNNBKQNNR. The two central pawns are royal and have extra powers. Advertised in the *Chess Amateur*. (*Variant Chess* 35)

Howell's Chess (C. S. Howell, 1951 or earlier). Board 10x10, a1 white. Usual set-up on eight central files, a- and j-files vacant (*Les Jeux d'Echecs Non-orthodoxes*). Pawns slow to engage but early play for rooks.

Buckzo's Game (H. A. Buckzo, 1984) Board 10x10, a1 black. Usual array with two extra knights (plus pawns) placed beside existing knights. Pawns move initially 1,2 or 3 squares; e.p. permissible. A pawn can promote on 8th rank to a knight, on 9th rank to a bishop, or on 10th to any piece. (Inventor's rules leaflet)

13.2 Smaller square boards

Microchess-49 (Tony Paletta, 1980). Board 7x7; baseline (a1-a7/g1-g7) RBNKBNR; the pawn has only its single-step move and may promote to 'any piece other than a K'; castling permitted; a stalemated player loses. (*Chess Spectrum Newsletter*).

Bird Chess [Freeling] (Christiaan Freeling, 1984). Board 7x7; baseline (a1-a7/g1-g7) RBBKNNR; pawns have only the single-step move and promote to array pieces only; castling normal. (Manuscript note presumably deriving from personal communication)

Diana, also known as **Ladies' Chess** (Hopwood, 1870). This game, published in the recreation supplement to *The Gentleman's Journal* (August 1870), is 'chess rendered easier, especially adapted for our fair friends and also for draughts (checkers) players who may not have time to cultivate the more ancient game ... a game which could be played in half an hour and which may, at the same time, be superior to draughts as regards difficulty and ingenuity'. Hopwood's contention was that the queen and the knights ('in the management of which ... Morphy stands pre-eminent') were too difficult to handle for ladies and draughts players. Board 6x6; baseline (a1-a6/f1-f6) RBNKBR; pawns move one square only, promote to any array piece; kings castle under usual restrictions by changing places with rooks.

In order to assist ladies and draughts players to remember the names of the pieces, Hopwood renamed them in alphabetical order (a1-f1) Admiral, Bishop, Captain, Don,

Charters's Game (W. J. Charters, 1940). Board 12x12; extra pieces are two knights and two bishops with corresponding pawns; baseline (a1-11/a12-112) RNNBBQKBBNNR. (*British Chess Magazine*, March 1940)

Hibernation (Bruce Trone, 1991). Board 12x12 with usual array on central 8x8. Pieces can move off and back to the central 8x8 board, but not to capture. Pieces on the outer board can capture each other. Boards 16x16 and 20x20 have also been tried. (Personal communication)

Esquire, Fortress. The game is so-called as Diana is Goddess of the Chase, a pun that clearly pleased the inventor who pointed out that the bitch-goddess Caissa surfaced a couple of millennia after the Greek pantheon had submerged.

[This particular *Gentleman's Journal* was a weekly paper for boys, which ran from 1869 to 1872 and carried a monthly 'recreation supplement' devoted to pastimes and puzzles. Much of its material was excellent, and the patronizing tone of the present example was fortunately atypical. No prizes are offered for guessing the delights that a magazine calling itself *The Gentleman's Journal Recreation Supplement* would be expected to offer today!]

Los Alamos Chess (J. Kister, P. Stein, S. Ulam, W. Walden, M. Wells, 1956). An abbreviated form of the game developed at the Los Alamos Scientific Laboratory in connection with computer research. The computer (Maniac I) played three recorded games: the first against itself, the second against a strong player who conceded the odds of queen, and the third against a beginner with one week's experience who had been taught the game expressly for the purpose. The third was the first chess variant game (not chess, as is sometimes claimed) to be won by a computer against a human opponent; it was not to be the last. Board 6x6; baseline (a1-f1/a6-f6) RNQKNR (no bishops); no pawn-two or castling. (*Chess Review*, January 1957)

L'Hermitte's Game (Serge L'Hermitte, 1969). As Diana except that the Black K and

N are reversed (kings on d1/c6); knights are immobile for first three moves; king can move to knight's square (c1/d6) without losing castling rights. The inventor believed that chess games were too long for children and his idea was to whet their appetites for the game by starting them with this abbreviated version. (L'Hermitte, in his book *Jeux d'Echecs Non Orthodoxes*)

Simpler Chess [Wardley] (A. Wardley, 1977). The inventor proposes a game on a 6x6 board in which a pair of pieces, together with their pawns, are eliminated (*Games and Puzzles* 66). The pieces are arrayed in regular fashion; thus removing rooks prompts the lineup (a1-f1/a6-f6) NBQKBN. Removing the bishops results in Los Alamos Chess.

Minichess [Gardner] was quoted by Martin Gardner in *The Unexpected Hanging* (1969, but largely repeating material which had already appeared in *Scientific American*) as the smallest chess game in which all legal moves were still possible (including pawn-two, e.p., castling). Board 5x5 (a1 white); baseline (a1-e1/a5-e5) KQBNR. The game was adopted by AISE in 1978 without pawn-two and castling and with a1 black; it was extensively played in Italy, and the openings analysed. A statistical analysis showed W win 40%; B win 28%; Draw 32%. Gardner later put forward **Baby Chess**, in which the white men are reversed (kings on e1/a5), and suggested that it might be open to resolution by computer. As at October 1989, it hadn't

been (*Scientific American*). In 1983, Paul Jacobs and Marco Meirovitz proposed yet another version, again with the kings on a long diagonal: (a1-e1/e5-a5) KQRNB (*Brain Muscle Builders*). They also advocate several games on a 5x5 board with pieces facing a line of pawns, the object of the piece player being to capture or block all the pawns and of the pawn player to get a pawn to the end rank. These include (1) two knights (b1,d1); (2) two bishops (b1,c1); (3) Qc1.

Minichess [Silverman] (quoted by David Silverman, 1981). Board 4x4; baseline (a1-d1/a4-d4) RQKR, plus the usual pawn rows. The first player has an easy win but Silverman poses this problem: To compensate for not having the move, the second player may stipulate which of the four pawns the first player must move (but not the direction of capture in the case of the b- and c-pawns) - how does the second player win? Trivial; but Silverman suggests inserting an empty row of squares between the forces (4x5), permitting a two-square pawn move if the file is clear, and asks: what is White's best strategy? (*Your Move*)

Knight Court Chess (originator not recorded). Board 3x3; each side has 1 x N,B,R (no pawns). Baseline (a1-c1/a3-c3) NBR. Aim: checkmate opponent's knight. Usual piece moves but a captured piece is returned to its original owner who may drop it on a vacant square on any subsequent turn. (*Variant Chess* 43, quoting *Chess*, February 2003)

13.3 Rectangular boards

[A board with F files and R ranks will be described here and later as 'Board FxR'. If F is odd and R even, a symmetric array will leave one side's bishops on white squares and the other's on black, hence the normal choice of an asymmetric array in these cases.]

Narrow Chess (R. Betza, 1996). Board 2x20(!); baseline (a1-b1/a20-b20) QK, RR on ranks 2/19, DD (see below) on ranks 3/18, PP on ranks 4/17 and 6/15, ranks 5/16 empty; Dragons D are combined N and P (1 or 2-square move); Ks may move, but not capture, like N if not in check. (*Chess Variant Pages*)

(kings on d1/a5), pawns on d2/a4 only; castling permitted. (Manuscript note presumably deriving from personal communication)

Microchess [Glimne] (Dan Glimne, 1997). Board 4x5; baseline (a1-d1/d5-a5) RBNK

Demi-Chess [Groeneman] (John Groeneman, 1960s). Board 4x8; array (a1-d1/a8-d8) RQKR, (a2-d2/a7-d7) NBBN, no pawns. The inventor comments 'If chess is wine then Demi-chess is brandy'. (Manuscript note

presumably deriving from personal communication)

Demi-Chess [Krystufek] (Peter Krystufek, 1986). Board 4x8; baseline (a1-d1/a8-d8) KBNR; pawns can promote to queen. Created as a starter game for beginners. (*100 mal Kniffel Schach*)

Petty Chess (B. Walker Watson, 1930). Board 5x6; baseline (a1-e1/a6-e6) QKBNR; no mention of any restrictions (pawn move/castling). The endings can be 'quite beautiful' according to the inventor. (*British Chess Magazine*, September 1930)

QuickChess (Proprietary game, Amerigames International; Joe Miccio, 1991). Board 5x6; baseline (a1-e1/a6-e6) RBQKN; no pawn-two or castling; promotion only to captured piece. Popular as learning game in U.S. schools; endorsed by *Chess Life*. (Publicity material)

Minichess [Sirotkin], also known as **Elena** (Sergei Sirotkin, 1999). Board 5x6; baseline (a1-e1/e6-a6) NQKBR (queens on b1/d6); no pawn-2 or castling. (*Chess Variant Pages*)

Eric (Eric Richardson, 1999). Board 5x8; baseline (a1-e1/e8-a8) KRBBN (kings on a1/e8). In addition, each player has Q,R,N in hand. A piece in hand may be dropped on an empty square of the player's first rank instead of moving. (*Chess Variant Pages*)

Courtyard (Bryan Lambert, 1999). Board 5x8; array (a1-e1/a8-e8) RNKNR, (a2-e2/a7-e7) PBQBP, (a3-e3/a6-e6) -PPP-. Wing pawns only have two-square move option. Move K one square left or right to castle, bringing R to central square. Both sides stronger on the squares of opposite colour. (*Chess Variant Pages*)

Simplified Chess [Fielder] (Lavington Fielder, 1931). Board 6x8; baseline (a1-f1/a8-f8) RBQKBR. Absence of knights ensured neglect. (*Nouveaux Jeux d'Échecs Non-orthodoxes*)

Microchess-48 (Tony Paletta, 1980). Board 6x8; baseline (a1-f1/a8-f8) RNQKNR, bishops

on b2/e2 and b7/e7, 6xP on ranks 3 and 6. (*Chess Spectrum Newsletter*)

Chi Chi's Chess (Chi Chi Hackenberg, 1968). The exposure this variant received in *Eye* (November 1968) had much to do with the charming inventor (photo by John Ford, dress by Eloise Curtis) and little to do with the charmless game. Board 8x4; normal baseline, pawns on a/c/d/e/h files only, pawns can move (straight) and capture (diagonally) backwards, and White cannot move a pawn on the first turn. Even so, he has a forced win.

Haigh's Game (H. Haigh, 1980s). Board 8x12; array (a1-h1/a12-h12 and inwards) RNBQKBNR, RNBQPBNR, 8xP. Pawns move 1, 2, or 3 squares on their first move. (*Chess*, April 1992)

Ultra Chess (reported and perhaps originated by D. Trouillon, early 1970s). Board 9x8 (a1 black); baseline (a1-i1/a8-i8) RNBQKQBNR. The array places both white bishops on black squares, both BBs on white squares. Trouillon's favoured solution was that a player, once in a game, could transpose adjacent B and N ('mini-castling') provided neither had been moved; an alternative, preferred by John Gollon, was to change the baseline to RBNQKQBNR. (Correspondence between John Gollon and Philip Cohen)

Active Chess (G. Kuzmichov, 1989). Board 9x8; baseline (a1-i1/a8-i8) RNBQKBNRQ. This is effectively the orthochess array with an extra queen and pawn on the i-file; an alternative places the extra Q at g1/g8. The idea for the game came to the inventor on reading *The Ninth File* by A. Karpov and A. Roshal. Kuzmichov was the editor of the Riga magazine *Sahs* and an official youth trainer. His pupils rigorously play-tested the game to establish the optimum array. (Manuscript note presumably derived from personal communication)

Double Chess [Short] (David Short, 1996). Board 16x8; baseline (a1-p1/a8-p8) RNBQRNBQKBNRQBNR; kings may castle under usual rule with any of the four rooks. (*Chess Variant Pages*)

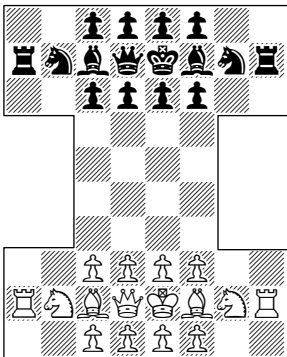
13.4 Other square lattice boards

Hourglass Chess (Bryan Lambert, 1999). 40-square board obtained by removing d1 and d6 from a 7x6 rectangular board. Array (a1-c1~e1-g1/a6-c6~e6-g6) RNQ~KBR, (a2-g2/a5-g5) 7xP; no pawn-2 or castling. (Chess Variant Pages)

Ladder Chess (Sergey Sirotkin, 2000). 40-square board obtained by taking a 5x8 board and stepping each file up one square from the left (thus a1-a8, b2-b9, and so on to e5-e12). Array (a1-e5/e12-a8) KQBNR (kings on a1/e12), (a2-e6/e11-a7) 5xP; no castling. (Chess Variant Pages)

Chess Too (Proprietary game, c.1987). 52-square board obtained by removing the six corner squares from the SW and NE corners of a normal 8x8 board; array in NW and SE corners. Advertised in *Chess Life*, December 1987. (*World Game Review* 10)

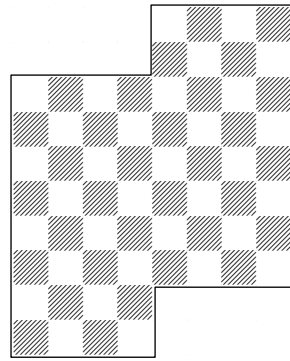
The Game Of Fortresses (L. Legan, 1913). 64-square I-shaped board made by taking an 8x10 board and removing two 2x4 pieces from the sides, thus a1-h3, c4-f7, a8-h10; normal pieces on ranks 2/9, 4xP centred on ranks 1/3 and 8/10 :



All play is normal with the exception of the pawn move. In addition to its usual powers, the pawn may leap a man of either colour blocking its movement to the square immediately beyond, provided this is vacant. For example, after a pawn on the third rank moves in the initial position, the corresponding first rank pawn may take its

place next move. Given the shape of the board, this is a necessary adjustment to prevent paralysis of the central files. Played regularly in Paris over a number of years. (*Chess Amateur*, January 1922)

Romanchenko's Chess (V. Romanchenko, date unknown). 64-square board made by taking a normal 8x8 board and displacing the four files e-h forward two squares, thus a1-d8 and e3-h10 :



Used by the inventor, a Soviet youth trainer, to encourage his pupils to think rather than imitate. Because of (or perhaps in spite of) this, his pupils have consistently triumphed in inter-regional orthochess events.

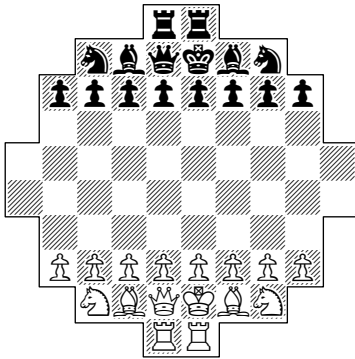
[The diagram in the first edition has the displacement in the other direction, but that in the source, a letter preserved in David's files, has the files and ranks explicitly lettered a-h and 1-10.]

Cross Chess [Miller] (Proprietary game, Cross Chess International Pty; Leigh Miller, 1985). 64-square board in the shape of a cross, 4x4 central area d4-g7 (d4 white) plus four 4x3 extensions; array (j4-j7/a7-a4) KBNR (kings on j4/a7), (i4-i7/b7-b4) 4xP, (g1-d1/d10-g10) QBNR (queens on g1/d10), (g2-d2/d9-g9) 4xP; usual men but pawns on K-side are bigger than those on Q-side to aid recognition. K-side pawns move to left and right, Q-side pawns up and down, with promotion on end rank facing; pawns that capture away from centre can reach a dead end. Castling allowed K-side. Note that all

bishops are on black squares. Chess on two fronts, on average a much shorter game than orthochess. Popular in schools in Australia but sold world-wide. (Publicity material)

Hyperchess [CRH] (Proprietary game, CRH Enterprises, 1992). 64-square board on eight levels, 1, 4, 11, 16, 16, 11, 4, 1. Men as in orthochess. (*Nost-algia* 331)

Troitsky Chess (Paul Byway, 1997). 68-square board obtained by adding two squares abutting each side of a normal 8x8 board and removing the four corner squares, thus a5-6, b3-8, c2-d9, e1-f10, g2-h9, i3-8, j5-6. Array (e1-f1/e10-f10) RR, (c2-h2/c9-h9) NBQKBN, (b3-i3/b8-i8) 8xP :



Pawns promote on end square of file they stand on. K castles by changing places with a R. (*Variant Chess* 25)

Balbo's Game (M. G. Balbo, 1974). 70-square board, 3-square rank at either end, increasing two squares at a time to central (5th/6th) ranks = 11 squares, thus e1-g1, d2-h2, c3-i3, b4-j4, a5-k5, a6-k6, b7-j7, and so on to e10-g10. Array (e1-g1/e10-g10) KBQ, (d2-h2/d9-h9) RNBNR, c3-i3/c8-i8 7xP; no castling. Usual pawn promotion on 10th rank or last square of d/h files; promotion to minor piece last square c/i files. Bishops are as powerful as rooks. Against stupid play either player has Nxf3/8 mate on the third move. (*Le Courier des Echecs*, September 1974)

Scacchetto (Proprietary game, S. C., Paris, c.1860). 71-square board in hourglass shape, 11-square rank at either end, reducing two

squares at a time to centre (6th) rank = 1 square, thus a1-k1, b2-j2, c3-i3, d4-h4, e5-g5, f6, e7-g7, and so on to a11-k11. Each side has 11 men: 1 K; 2 x R; 4 x B,N (no pawns); array (a1-k1/a11-k11) RNBKBNBR. White starts; orthochess but no castling. A curious game with a single pivot square (f6) giving access to the opponent's half of board, and all 8 bishops on the same colour. (Photocopy of board and rules leaflet)

Mouterde's Games (Anatole Mouterde, 1951). 72-square and 76-square boards obtained by adding a half-file of four squares to each side of the normal 8x8 board (giving a3-a6, b1-i8, j3-j6, ten files), and perhaps a further two squares on each side again (giving a4-a5, b3-b6, c1-j8, k3-k6, l4-l5, twelve files in all). Usual array in the central 8x8 area. (*Les Jeux d'Echecs Non-orthodoxes*)

Morley's Chess (F. V. Morley, 1947). A 76-square chessboard espoused in *My One Contribution to Chess*. A corridor six squares long is added to each side of the normal 8x8 board, giving a2-a7, b1-i8, j2-j7; usual array in the central 8x8 area. A novelty whose fame owes most to the author's standing. Sniping at the ants (i.e., the 'workers' who cling to the books) he quotes Montaigne: 'What appearance there be soever in novelty, I do not easily change, for feare I should lose by the bargaine...' The wing pawns are, according to Morley, unfairly treated in that they can only capture in one direction. He has, he says, 'a fine rage at this mistreatment'. Morley lines up with the demi-gods who have proposed changes in the game ('By an opposite route I arrive at the same restlessness'). The book is a civilised wander through the garden of chess and other things. At the end, Morley comes up with a proposal for an 88-square double-corridor board, adding a further six squares above and below (thus a3-a8, b2-b9, c1-j10, k2-k9, l3-l8), commenting that 'The weakness of presenting alternative proposals is that it looks as if the fellow who presents them hasn't made up his mind'. The new game attracted the attention of Lasker's friend Harold M. Philips who wrote to Morley (then embarking on the *Queen Mary*) '..You had better let me know every day where you are in Europe so that I can telephone you long

distance if a new thought occurs to me – not about business or even politics or matters of international policy or even a possible discovery of a manuscript in the handwriting of Shakespeare, but about the corridor’.

Racetrack Chess (David Moeser, 1970). 100-square board in the form of an 8x8 central area with three 6-square files on each side, thus a2-c7, d1-k8, l2-n7. Usual array plus extra pawns

13.5 Unbounded boards

Arthur Bliss’s Chess (1937). Bliss’s ballet Checkmate was arguably a chess variant as the board was of indefinite size and the cast lacked bishops and a black king. [David’s files give no source, but Gizycki has photographs of a 1947 production.]

Open Plane Chess (George Jelliss, 1997). Normal initial array but no board edges, and

on c2/l2 and c7/l7. Pawns that reach end of shortened files can move laterally until on main board; capture e.g. c7xd8 (promotes) admissible. The extra files make racetracks combining the a/n files with the 2nd/7th ranks (a2-a7-n7-n2-a2), similarly the b/m files and the 3rd/6th ranks (b3-b6-m6-m3-b3) and the c/l files and the 4th/5th ranks (c4-c5-l5-l4-c4). The racetracks can only be used by rooks and queens. (*Neue Chess* 8).

play proceeds subject to the rule that no group of n men may have more than root- n squares between it and the nearest other man, the square root being taken to the nearest whole number. A move which would produce a position violating this rule is illegal. A pawn promotes by reaching a cell from which further forward movement is prohibited. (*Variant Chess* 25) [Text editorial]

13.6 Creating or modifying the board during play

Stranders’s Game (Proprietary game, H. Stranders, 1891). Stranders’s patent 7840 of 1891 had players starting with squares as well as pieces, the board being formed as play proceeded, a player having the option of placing a square next to a square already played together with a man, or putting a man on a square already played. The idea anticipated several proprietary games of more recent vintage.

Shrink Chess (J. Boyer, 1954). An edge file or rank disappears if unoccupied. This has the effect of reducing the size of the board as a game progresses. (*Nouveaux Jeux d’Echecs Non-orthodoxes*)

Stochastic Chess (origins unknown). Played in university circles, California, 1970. Each player has the usual pieces and 32 separate squares, 16 white and 16 black. White begins and places a square on the table. Thereafter a turn consists of (1) Putting down a square, or (2) Putting down a piece on a square already placed, or (3) Moving a piece within the existing board, or (4) Moving an empty square to another position. However, a player must not put out all 16 men before playing out his

last square, and an empty square cannot be moved until he has done this. In cases (1) and (4), a square must be placed contiguous along one side to at least one other square of the opposite colour so as to form a chequered pattern. It is permissible to leave gaps and to increase ranks or files beyond eight in number. The king must be played not later than the player’s 25th turn. A piece may be placed so as to give check but not checkmate (i.e., checkmate can only arise from a move on the board). No double pawn move, no promotion, no castling, only knights can leap gaps. The forerunner of several games with similar themes. (Photocopy of rules leaflet)

Chess Cards (Proprietary game, David Smith Associates; David Smith, 1978). Pack of 32 square cards, each card depicting one of the chessmen in a normal set. There is no board as such. Each player takes 16 cards (white men or black), shuffles them well and lays them face down in front of him. White lays the top card face up in the centre of the table. Black does likewise but must attach his card to White’s, either along one side or diagonally adjacent. All cards are placed so that symbols point towards the opponent. Hereon a player

on turn may either disclose a new card and place it adjacent to at least one card already laid, or move one of his own men on the table. There is one simple rule that is the crux of the game: a man may not be moved if in so doing it isolates one or more pieces. At all times all pieces in play must form one continuous linkage. This rule introduces a new dimension into the standard game since any threat, including an attack on the king, can be met by effectively 'pinning' the attacking piece - playing so as to make the execution of the threat illegal. During play the board is 'imagined'. It can never exceed the normal dimensions (8x8) so a move which creates, for example, a 9th file is illegal. A pawn reaching the 8th rank is promoted to any piece already lost. If there are none, the pawn remains convertible until such time as a piece becomes available. Chess Cards has been widely acclaimed. The game was later revamped as **Chex [Smith]** (same owners and originator, 1994) with two rule changes: no limitations on board dimensions, and no pawn promotion. (Information presumably taken from sets in David's games collection; no source material in his Encyclopedia files)

Schach Plus, formerly **Divis** (Proprietary game, Hexagames; Roland Siegers, 1984). The idea came to Siegers when he was playing chess in a Belgian club late one night after an exhausting day. A pawn down in an ending which he was desperately trying to save, the board 'broke up' before his eyes.

Standard set and 64 separate squares. Each side takes a set of men and 32 squares, 16 of each colour. The game is in two stages: (a) assembly of chessboard and position, (b) play with usual object of mating opponent's king.

White starts and places a square on the table. He may place one of his men on it if he wishes. Thereafter the players in turn put down a square such that it abuts at least one square already on the table, or touches one diagonally at a corner, maintaining the usual chequering. There are certain restrictions:

(1) No piece may be put down until all pawns have been placed.

(2) No two pawns of the same colour may be placed on the same file.

(3) Bishops must be placed on opposite-coloured squares.

(4) A king may not be put in check.

(5) All men must be on the board when the last square is placed.

(6) No man may be moved in this stage of the game, nor may a man be placed on a vacant square already played.

The board may be of any configuration but will be at least eight files wide because of the restriction on placing pawns. It may contain holes (blank areas surrounded by squares) and the perimeter is likely to be irregular. Play now begins. The usual rules of chess apply but there is no double pawn move, e.p. or castling. Pieces may only move across squares, never over holes. A pawn reaching an end rank is promoted to any captured piece. A pawn on an end rank in the initial position is 'dead' until it can be replaced by a captured piece. There is one important additional rule: instead of moving, a player has the option of taking any empty square from the board perimeter and placing it elsewhere on the board perimeter provided it maintains the chequer pattern and does not result in any part of the board becoming isolated.

Kings are normally entered late in the assembly stage when a secure area been formed. (Information presumably taken from a set in David's games collection; no source material in his Encyclopedia files)

Choiss (Proprietary game, Choiss Game Corporation; Peter A. Victor, 1985). Living at the time in a well-secured house in Kenya where a steel door sealed off the bedrooms, Victor dreamt he was playing chess on a board on which extra squares provided a safe haven for the kings. Awake, he translated this into a game in which the construction of the board formed part of the game itself. The board consists of 64 individual squares which slot together. In basic Choiss, four squares are connected 2 x 2 (alternating colours) to form a starting grid. Each player in turn adds a square (one player links the light ones, the other the dark) to the existing grid maintaining alternation of colours until all squares are connected. The completed board is likely to be of irregular shape with gaps. A barrier is placed across the centre of the board and each player enters their pawns, then their pieces, one at a time and in turn, on their own half of the board. Play is then normal (only knights

can cross gaps) except pawns move only one square and there is no castling; promotion possible. Since the essence of the game is the square linkage, Choiss lends itself well to variants of which a dozen are suggested including a four-handed version. Described by a reviewer as 'one of the best commercial chess variants I've seen in years' (*Games*, June/July 1989). (Copies of reviews and publicity material)

Section Chess (Proprietary game, Janos Tury, 1995). Usual set-up except that board has a rank of blank squares across the middle (so 8x9 board). No man except a N may cross a blank square. A man wishing to cross a blank square moves to the square immediately behind it. Next time it moves it advances into the blank square with the square it stands on, leaving a blank square behind, and it may now move off as part of its move. (*Variant Chess* 22)

Amoeba (Jim Aikin, 1997). Board of 38 movable squares within a 7x7 area. Initially squares a12, a67, g12, g67, and cde4 do not exist. Ten men a side, array (b1-f1/b7-f7 and inwards) RNKNR, 5xP. No pawn-2. After moving, a player may slide a single

unoccupied square to an adjacent orthogonal void location. Variations: a player may slide an occupied square; a pawn may promote to bishop; a square may be slid outside the original 7x7 area, though not in such a way as to divide the board into two or more isolated sections (such division is permitted in the original formulation). (Chess Variant Pages)

Voidrider Chess (Fergus Duniho, 2002). Board of 43 movable squares within a 7x9 area, initially consisting of the inner 5x7 region b2-f8 and extensions at a2/b1 etc. 14 men a side, 1 x K, 2 x R, B, N, Voidrider, 5xP; array (b1~f1) V~V, (a2-g2) RNBKBNR, (b3-f3) 5xP, Black similarly. K, R, B, N, P essentially as normal and each has the additional power of moving its square and itself to an orthogonally adjacent off-board location, but the square must have at least one orthogonal neighbour in its new position (so movement outside the original 7x9 area is never possible) and pawns may not move backwards. The V moves like a rook and can cross voids, but it must either land on a square on the far side or take its own square with it. Castling allowed provided that the squares between the king and rook actually exist. (Chess Variant Pages) [Text largely editorial]

Chapter 14

New pieces (1) : Combination pieces

[The most usual way of ‘developing’ chess is to introduce one or more new pieces, possibly with an alteration in the board size. The result has been a vast amount of duplication and reinvention, and even when a piece embodies some new point of detail the amount it adds to the game is all too often negligible. It is therefore not claimed that every eccentricity or minor variation which inventors have dreamed up will be found in this book. The present chapter covers pieces which can move like either of two ordinary men, for example as a knight as well as a rook or bishop. Other new pieces appear in the next two chapters. In particular, pieces making two knight moves in succession appear in the next chapter, and pieces making an unlimited sequence of knight moves, or a king move followed by a rook or bishop move, appear in Chapter 16.]

As before, only the baselines of game arrays are normally given, and a full second row of pawns on each side is always to be assumed unless something else is explicitly stated. Only games apparently derived from modern orthochess are given in these three chapters; games from other traditions appear in the chapters on historical and regional games.]

14.1 Pieces with added knight movement

[One or two games in this section also involve new men of other kinds, but these appear to play only a minor role and the games appear best classified here.]

Amazon Chess (originator unknown, 16th century). According to *The Oxford Companion to Chess*, the Amazon (Q+N) was first described in ‘a 16th-century manuscript now in Perugia’, and it was sometimes used in the next three centuries as a substitute for the orthodox queen. Carrera mentions it (‘la Donnacavallo’) at the start of the 17th century. It was known in 18th century Turkey and was widely adopted in Russia (as the Absolute Q or Empress), it was still used in Georgia in 1874 (Murray), and it is found in several games on larger boards. Its use was to be suggested yet again in ‘Empress Chess’ (*British Chess Magazine*, February 1891). Capablanca experimented with it when formulating his new game, but rejected it as likely to lead to draws. An earlier commentator had observed ‘the harmony of the men is destroyed and the game is clumsy’. Philidor also condemned it. [Text revised]

Carrera’s Chess (Pietro Carrera, 1617). Describing the result in his *Il Gioco degli Scacchi* (1617) as a ‘new game’, Carrera created two pieces in the Champion (R+N) and the Centaur (B+N), both much favoured

by later variant inventors. Board 10x8; baseline (a1-j1/a8-j8) RCeNBQKBNChR. Carrera’s game, according to a contemporary, ‘appeared to have died with its inventor’, and Ercole del Rio observed unkindly that Carrera ‘was more versed in Sicilian antiquities than in chess’.

Indian Chess. Several Indian games using composite pieces are described in chapter 29.

Das Kaiserspiel (Peguilhen, c.1815). Board 10x10, a1 black; two additional pieces: General (Q+N) with a round hat, and Adjutant (B+N) with a pointed hat. Baseline (a1-j1/a10-j10) RNBQKGABNR. Pawns could move up to three squares initially and the kings moved three squares to the left or right when castling. One authority thought that the board should be enlarged to 11x11 with an additional piece, the Admiral (R+N), on the grounds that the original game gave short-change to orthogonal-moving pieces. This appears to have happened. (*Archiv der Spiele*, 1821)

Silberschmidt’s Game (1827) includes a Royal Guard (Q+N), but it relates more

naturally to M.M.'s 'Le Jeu de la Guerre' and appears in the next chapter.

Gustav III Chess (credited to the Swedish monarch, c. 1838). 68-square board consisting of a normal 8x8 region b1-i8 (b1 black) plus squares at a1/j1/a8/j8; each side has two adjutant-generals (Q+N) as well as the normal men; baseline (a1-j1/a8-j8) ARNBQKBNRA. (*Handbibliothek för Sällskapsnöjen*) [David's text said 'doubtfully credited' and I share his distrust of attributions to prominent persons, but the source is quite explicit.]

The Emperor's Game (L. Tressau, 1840) appears to differ from the 10x10 version of Das Kaiserspiel (above) only in having baseline (a1-j1/a10-j10) RNBGKQABNR.

The Sultan's Game (Tressau, 1840) may be similarly related to the 11x11 version. Extra pieces are General (Q+N), Adjutant (B+N), and Marshal (R+N, the Kaiserspiel Admiral); baseline (a1-k1/a11-k11) RBNMGKQABNR; king moves next to rook when castling; pawns presumably can move three (four?) squares initially. (Verney) [References to 'Das Kaiserspiel' added editorially]

Bird's Chess (H. E. Bird, 1874). First published in the *City of London Chess Magazine* and subsequently modified. Initially, Bird suggested that the board be expanded to 10x8 with two extra pawns a side which would, without affecting the principle of the game, add greatly to the number of eligible openings. Bird left blank squares in the array either side of K and Q, commenting that 'as to the name, form and powers of the two pieces to be placed thereon, some diversity of opinion may reasonably be expected'. He proposed that a Guard (R+N) be placed next the Q, an Equerry (B+N) next the K, offering as an alternative a board 9x8 with one extra piece a side, combining, curiously, rook and pawn, 'In case it should be found in practice that the two new pieces on each side form too great an addition to the power of the forces'. Writing later of the guard and equerry, Bird remarked that, following tests, '...it immediately became apparent that the force of each of them was so great as to affect the game to an extent not to be desired...' Interestingly, he noted that 'scarcely two

leading players' could agree on the relative values of Q, G, and E.

Bird later proposed a 9x8 board with an extra piece, the Queen's Guard, placed between R and QN. He was flexible here, too: '... the combatants can place the new piece on the centre square, between King and Queen, or on any other square they please' adding that he thought his choice the best. The QG moves like a knight but 3-1 instead of 2-1 (QGb1 can leap to a4, c4, e2). The inventor concluded: 'In short, my object is to place the game on such a footing that originality of conception, and calculation, should exercise greater, and book-knowledge a lesser, influence than at present'.

A contemporary report, undoubtedly referring to Bird's Chess but perhaps reflecting an earlier idea, noted that 'a celebrated English player has patented a new equipage (chessboard 10x8) and the great novelty in the men is to be a new piece, uniting the powers of a rook and pawn, to be called the Chancellor. The first notion was to endow this novel warrior with the qualities of a queen and knight, but that idea is now definitely abandoned. Had this tremendous piece been called into existence, it would probably have been called the Octopus. As to the utility of any reform in the game we entertain strong doubts...' (*Illustrated London News*, 9 May 1874).

Van der Linde's Q+N Game (A. van der Linde, 1876). White has sixteen pawns on 2nd/3rd ranks against a Black Ke5 with powers of all men combined (Q+N) on e5 (White should win). An earlier variation on the same theme, **The Maharajah and the Sepoys**, appears in the chapter on Indian chess. (*Geschichte und Literatur des Schachspiels*)

Chancellor Chess [Foster] (Benjamin R. Foster, 1887). 9x9 board (a1 black); extra piece is the Chancellor (R+N); baseline (a1-i1/a9-i9) RNBQKCNBR (notice that the positions of B and N are reversed on the king's sides in order that bishop pairs are on opposite coloured squares). First publicised in the *St Louis Globe-Democrat* (12 February 1887), the game is described by its inventor as having 'created a furore in the chess world heretofore unknown'. A booklet on the game

by Foster, *Chancellor Chess*, was published in 1889 ‘dedicated to all liberal-minded chess players throughout the world’.

Angel Chess (Louis P. D’Autremont, 1918). Board 9x8, a1 white; extra piece is an Angel (Q+N); baseline (a1-i1/i8-a8) RNBQKABNR (angels on f1/d8); notice that opposing bishops cannot meet. Pawn promotion to A on e-file only. In castling Q, K goes to N’s square; in castling K, to B’s square. There is an important extra rule: an angel may not be taken if the player’s angel will be captured on the following move (thus banning an exchange of A’s). There is also a ‘supplementary (optional?)’ rule: an A cannot check from a square threatened by any of the opponent’s men except the K. (Photocopy of leaflet ‘Angel Chess’, also *British Chess Magazine*, May 1934)

Capablanca’s Chess (J. R. Capablanca, 1920s). Following his World Championship victory over Lasker (1921), Capablanca expressed concern that chess could be played out within a short time - the ‘draw death’ foreseen by Lasker a few years earlier. A malaise in the international game had prompted a number of leading masters to voice a need for reform: Lasker (abolish castling), Réti (grade draws), Marshall (ballot openings). In a series of talks, interviews, articles and letters to the Press, Capablanca outlined his proposal: a new, enlarged game that did not change the existing rules. Board 10x10; two extra pieces, the Marshall (R+N) and the Chancellor (B+N); baseline (a1-j1/a10-j10) RNBMQKCBNR; pawns could move up to three squares initially. Soon afterwards ‘marshall’ was amended to ‘marshal’, and later, confusingly, the pieces were renamed Chancellor (R+N) and Archbishop (B+N) with the board reduced to 10x8. The change to the smaller board, which has the effect of speeding up the game and earned Capablanca’s approval, was the result of experimentation between Capablanca and Edward Lasker in which different boards and arrays were considered. At one stage, for example, the new pieces were set between Bs and Ns. (Edward Lasker, *The Adventure of Chess*, also correspondence between John Gollon and Philip Cohen)

Neo-Chess [Legler] (Hugo Legler, 1923). Nb1/b8 replaced by Archbishop (B+N), Ra1/a8 by Chancellor (R+N). Leander Turney subsequently suggested putting the Archbishop on the King’s side to give a more even distribution of the heavy pieces across the board. (*American Chess Bulletin*, April 1923)

Universal Chess (Bruno Violet, 1928). Board 10x10; new pieces are an Admiral (R+N, flag symbol) and a Pilot (B+N, aircraft). There are two arrays, one curiously asymmetrical, either of which is admissible; as the inventor observes, ‘this gives variety to the game’. Baselines (a1-j1/a10-j10): RANBQKBPNR, RBNAQKPNBR (kings on own colour). According to Gizycki, another very similar game, this time with a Tank (R+N) and Aircraft (B+N) on either side of the Q and K, was invented by an Austrian shortly before World War II, the only difference being that K/Q positions were reversed. (Photocopy of booklet *Das Grosskampschach oder Universalschach*)

Green Idol Chess (Lord Dunsany, 1948). ‘Black has been playing with a Green Idol, now on a8. White discovered in the course of a difficult game that it moved as R+N...’ (*Fairy Chess Review*, August 1948, notation converted). White solves the problem by promoting to GI, of course, doing it on two different squares in two different variations. [Text editorial. David’s files also contain a reference to a Dunsany short story *The Small Green Idol* which I haven’t seen. The adjacent diagram in *FCR*, also by Dunsany, is of a problem which appears hopelessly unsolvable until you notice that it is illegal as a chess position; treat it as English draughts (checkers), and all becomes clear. This inspired my 1992 April Fool problem in the *British Chess Magazine*.]

Power Chess (Proprietary game, D. Trouillon, 1953). The manufacturer claims that Power Chess has no one inventor but is ‘the culmination of the efforts and researches of famous chess grandmasters, experts, and mathematical scientists’. Board 10x10; extra man is Commander (Q+N); baseline (a1-j1/a10-j10) RNBQKCQBNR (two queens each

side). Pawns can advance up to three squares on first move (e.p. possible on move of 2 or 3), king moves three squares either way when castling. Two international tournaments were held in Times Square, N.Y., in 1953 and 1954 with several chess masters competing. (Photocopy of manufacturer's publicity leaflet, also correspondence between John Gollon and Philip Cohen)

Modern Chess [Maura] (Gabriel Maura, 1968). Board 9x9; extra piece is a Prime Minister (M) which moves as B+N; baseline (a1-i1/i9-a9) RNBKMQBNR (ministers on d1/f9). Note that bishops operate on one colour only. Later, the inventor, responding perhaps to criticism, suggested that if both players agree, one bishop may, during play, change places with one of the pieces adjacent to it provided neither have moved, such exchange counting as a move. The suggestion was not well received. In castling, the K moves two squares towards the R. Promotion to M permitted. Maura, in his booklets on the game (first edition in English 1968, second edition 1974; also editions in Spanish and French), stresses the mathematical basis, which in his view is the justification of Modern Chess. The optimum mobility of each man, expressed in terms of squares (e.g., King 8) is added together. Each side sums to 162 (pawns being allocated the doubtful value of 2), exactly twice the number of board squares.

The game initially attracted a fair following, especially in the inventor's native Puerto Rico, where a club for the game was opened, but also in Spain and in Central and South America. Sets were manufactured and numerous events were organized. In 1972 the first international match (between Puerto Rico and the U.S. Virgin Islands) was played, and a controlling body, the Federación Mundial de Ajedrez Moderno (FENDAM), was formed with delegates representing 16 countries. Also in 1972 the first national championship of Puerto Rico was held and was won by Fernando Martinez (he won his country's orthochess championship the same year). The first World Championship was held in Puerto Rico in 1974. In the years that followed, a number of tournaments took place in Spain, Puerto Rico and Mexico but organized events ceased in 1983 and FENDAM was dissolved

following Maura's serious illness in that year. The World Correspondence Championship of Modern Chess was held in the years 1976-1983. Champions were: Emillio Garcia (Spain) 1976-80; James Bowen (USA) February-November 1980; Fernando Martinez 1980-1983. Martinez gave his name to the first opening recognized by FENDAM (1 e4 followed by 2 Mg4).

Maura, in his booklet on the game, concludes modestly, 'We invite you to give the new system your backing and push ... (but) if you have reached the conclusion that such a change (from orthochess to Modern Chess) is not feasible, acceptable or necessary we beg your help in driving us from our error'. (Booklet *Mathematical Thesis of Modern Chess*, also correspondence and miscellaneous papers)

Amazon Queen (originator unknown, perhaps 1960s-70s). Rooks and bishops are replaced by knights in the array, and in addition the queens have knights' powers. (Manuscript note presumably deriving from personal communication)

Knights Chess (C. G. Lewin, 1970). Standard game except that all pieces (not pawns) have additional move of knight. (Manuscript note presumably deriving from personal communication)

Wyvern Chess (V. R. Parton, 1970). Board 10x10; additional pieces are Wyverns (Q+N); baseline (a1-j1/a10-j10) RNWBQKBWNR. (*Challenge and Delight of Chessical and Decimal*)

Sava's Game (Stephen Sava, 1972). Board 10x10; extra pieces are Chancellor (R+N) and Commander (Q+N), and the knight has a 3-1 leap as well as its ordinary 2-1 leap; baseline (a1-j1/j10-a10) RNBChCKQBNR (kings on f1/e10). (Correspondence between John Gollon and Philip Cohen)

Supercapablanca Chess (Savio Cagliostro, 1973). Board 12x8; the extra pieces are two Archbishops (B+N), a Chancellor (R+N) and a General (Q+N); baseline (a1-l1/a8-l8) RNBACQKGABNR. The king can move like a knight once in game, even out of check, or

he can castle, but not both. In castling the king can move 2, 3 or 4 squares towards the rook. (*Nost-algia* 178)

Almost Chess (Ralph Betza, 1977). Orthochess except that the Q is a Chancellor (R+N). (*Nost-algia* 205 and later)

Tutti-Frutti Chess (Ralph Betza and Philip Cohen, 1978). Orthochess except that Ra1/a8, Qd1/d8 and Bg1/g8 all have the additional powers of a knight. Has been played with black king d8. (Manuscript note presumably deriving from personal communication)

Janus Chess (Proprietary game, Werner Schöndorf; Rudolf Lauterbach, 1978). Board 10x8; extra pieces are Januses (B+N); baseline (a1-j1/a8-j8) RJNBKQBNJR. In castling, K moves to b/i file, rook c/h file. The game has proved popular with regular tournaments attracting many strong players including grandmasters. Korchnoi is quoted as saying 'I like playing Janus Chess because one can show more creativity than in normal chess.' The game was originally marketed as **Super-Chess**. (Booklet *Janus Schach*, also photocopy of original manufacturer's publicity material)

Mixture Chess (Philip Cohen, 1979). Board, king and pawns normal; pieces include all possible couplings. Baseline (a1-h1/a8-h8) R+N, N, B, Q+N, K, Q, B+N, R. Short and long castling legal, promotion to any piece. (Manuscript notes presumably deriving from personal communication)

Grand Chess [Freeling] (Christiaan Freeling, 1984). Board 10x10; extra pieces are Marshall (R+N) and Cardinal (B+N); rooks on a1/j1 and a10/j10, NBQKMCBN centred on ranks 2/9 (kings on e2/e9), 10xP on ranks 3/8. Pawns promote optionally on moving to 8th or 9th ranks, compulsorily on moving to 10th, but only to a piece already lost (if none lost, the move is illegal). No castling, e.p. allowed. The game was featured in *Games* magazine (January 1987). The array allows the rooks free movement from the outset and the promotion rule compensates in part for the

weakness of the pawns in the face of the major pieces. A tournament in Yerevan (1996) attracted 21 chess masters, and Grand Chess is also fertile ground for problemists and endgame composers. (*Nost-algia* 299 and later, also personal communications)

Lilliptian Chess (George Dekle Sr, 1986). Board 6x6; new pieces are Archbishops (B+N); baseline (a1-f1/a6-f6) RAQKAR. Castling either side; Ps move one square only; promotion to A or any orthochess piece. (*World Game Review* 10)

Chancellor Chess [Horne] (Malcolm Horne, 1992). As Chancellor Chess [Foster], but on a 9x8 board with baseline (a1-i1/i8-a8) RNBQKBCNR (chancellors on g1/c8). A progressive version has been tried, as witness the following brevity won by Ian Richardson: 1 d4 2 b5, c5 (setting a trap) 3 dxc5, c6, cxd7+ (falling into it) 4 Nxd7, Cc3, Ba5, Cd3 mate. (*Variant Chess* 11/19)

Super Chess [Scorpion] (Mike Calkovics and Jeff Knight, 1993). Board 16x8; extra piece is Superqueen (Q+N); baseline (a1-p1/a8-p8) RNBRNBQSKQBNRBNR (2 x Q, 4 x R, B, N). King moves two squares when castling and can castle with any of the four rooks subject to the usual restrictions. Promotion to superqueen allowed. (Manuscript notes presumably deriving from a set in David's game collection)

Deca Chess (Michael Howe, 1994). Board 10x10; extra pieces are Archbishop (B+N), Chancellor (Q+N), Marshall (R+N); baseline (a1-j1/a10-j10) MBAMCKQABR, NN on d2/g2 and d9/g9, 10xP on ranks 3/8. In castling, K moves any number of squares towards rook, R hops over as usual. Ps have two-square initial option; e.p. possible. (Cutting 'Deca Chess')

Gothic Chess (Ed Trice, 1998). Board 10x8; extra pieces are Archbishop (B+N) and Chancellor (R+N); baseline (a1-j1/a8-j8) RNABQKBCNR. A Gothic Chess Association is based in Philadelphia. (*Nost-algia* 379)

14.2 Rook and bishop combinations

Spanish Chess (originator unknown, 1739). Board 10x8; extra pieces are two Archers, which move forwards like rooks and backwards like bishops; baseline (a1-j1/a8-j8) RNBAQKABNR Said to be 'currently practised in Spain' (*Palamedes Redivivus*) though this is considered unlikely by Faidutti. It was recorded in Germany 'at the coffee and chocolate house of Herr Lehmann' in Leipzig.

Falcon-Hunter Chess, also known as **Schulz's Chess**, **One-Way Chess [Schulz]**, and **Meso Chess** (Karl Schulz, 1943). The game has two extra pieces, the Hunter, which moves like a rook forwards and a bishop backwards, and the Falcon, which moves like a bishop forwards and a rook backwards. Neither piece has lateral movement. Falcon-Hunter chess has three forms:

(1) Board 66-squares (8x8 board a2-h9 plus extra squares e1/e10). The kings occupy the extra squares which can at no time be entered by other pieces. Hd2/d9, Fe2/e9; no queen but pawns can promote to any piece including H, F, and Q.

(2) Standard array; H and F not on the board. When a piece (Q,R,B,N) is lost, H or F can be placed on any subsequent turn on an empty square on first rank, this counting as a move (placement can give check). When a second piece is lost, the remaining H or F can be similarly introduced.

(3) OrthoChess but promotion only to H or F.

According to Boyer, many thousands of games of Falcon-Hunter Chess had been played up to the early 1950s.

The F and H rarely enter play in the opening. It has been argued that in Falcon-Hunter there are two games in progress at once, one visible, the other invisible. The invisible game is the engineering of open lines in preparation for the introduction of the F and H, hence the name Meso Chess.

The F and H can reach any square from any position on an empty board in three moves. Both pieces can de-activate themselves; example: WFa1, Ph7; play 1 Fh8 and both F and P are immobile. K+H v K is a forced win. Schulz proposed without, one imagines, much

hope of support, that when playing orthoChess draws could be dramatically reduced if, in a position agreed drawn by the players, it was mandatory for each to introduce a F or H (as previously agreed).

The game was later renamed **Hunter Chess** with an additional rule: the queen as well as the king can castle with a hunter. The rule is designed to facilitate development of the hunters. (*Les Jeux d'Echecs Non-orthodoxes, Nouveaux Jeux d'Echecs Non-orthodoxes, Nouveaux Jeux d'Echecs Intéressants*)

Decimal Falcon-Hunter Chess, also known as **Great One-Way Chess** (Karl Schulz, 1950s) is an enlarged version. Board 10x10; baseline (a1-j1/a10-j10) RNBHQKFBNR. The knights initially have the option of a 4-2 leap as well as the normal 2-1 leap, thus Nb1 has additional choice of d5 or f3 even if c3/d2 are occupied. The king moves three squares in either direction when castling; pawns can move 1,2 or 3 squares initially, no e.p. (*Nouveaux Jeux d'Echecs Non-orthodoxes*)

Lateral Chess (Tony Paletta (1980). Kings and pawns have usual powers, other pieces change theirs according to direction moved. Rook: right like a bishop, otherwise normally. Bishop: right like a rook, otherwise normally. Queen: left or vertically like a queen but limited to two squares, right like a knight. Knight: right like a (limited) queen, otherwise normally. Castling 0-0 permitted for White, 0-0-0 for Black. (*Chess Spectrum Newsletter*)

Quadrant Chess (Tony Paletta, 1980). The 8x8 board is considered to be divided into quadrants of 4x4 squares. Pieces have usual powers within quadrants, except queens, which cannot move more than two squares. When crossing to another quadrant, whether to move or capture, the powers of the pieces change: thus rooks move like bishops, bishops like rooks, (limited) queens like knights and knights like (limited) queens. Kings and pawns are unaffected. Castling is normal. Example: Rd4 moves to a4, b4, c4, d1, d2, d3, a7, b6, c5, e3, f2, g1, e5, f6, g7, h8. (*Chess Spectrum Newsletter*)

14.3 Other combinations

Duke of Rutland's Chess (3rd Duke of Rutland, 1747). Board 14x10; new pieces are a Concubine, sometimes euphemistically referred to as a Princess (R+N), and a Crowned Rook (R+K). Baseline (a1-n1/a10-n10) RCrNNBBQKCBBNCrR. Unmoved pawns can advance up to three squares. A leading protagonist of the game was Sir Abraham Janssen ('who delighted much in it'). He introduced it to Philidor on the latter's visit to England (1747). In less than a month Philidor could give the odds of a knight to Stamma and other leading players. After the death of Janssen (1763) the game fell into disuse. As a correspondent (*British Chess Magazine*, April 1940) observed, 'it is not surprising that even the recommendation of the Duke of Rutland failed to popularise a game which could give rise to so questionable a move as Bishop takes Concubine'. (*Easy Introduction to Chess*, 1806)

Burtsev's Game, also known as **Russian Symmetrical Chess** (F. I. Burtsev, 1957). Board 9x9, a1 white; extra Q and P on each side, baseline RNBQKQBNR. The central

14.4 Move as one piece, capture as another

Enlarged and Improved Chess (originator unknown, 1696). Board 10x10; extra pieces are Guards, which move like rooks but capture and check like bishops, and Ensigns, which move like bishops but capture and check like rooks; array (a1-j1/j10-a10 and inwards, centred) RNBGKQGBRN, PPPPEPPPP, PP (kings on e1/f10). The game is allegedly given in a Dutch edition of Greco (*Palamedes Redivivus*) which Faidutti has been unable to trace. It is interesting that so sophisticated a variant should be recorded at such an early date.

New Zealand Chess (originator unknown, 1903). Rooks capture as knights, knights as rooks. Rook and pawn endings described as 'bewildering'. (*British Chess Magazine*, September 1903)

Thinktank Chess (Frank Maus, 1927). Q-side pieces are respectively (l to r) Rookni, Kniroo,

(5th) rank is neutral. A pawn passing into opposition territory can move one square straight forward (as usual) but also one square diagonally forward or one square sideways. Capturing normal. Once in a game one bishop can move to an adjacent square of the opposite colour. The two queens and the enhanced pawn strength favour the attack. (Photocopy of official certificate 112692 acknowledging the inventor's rights)

Microchess [Dekle] (George Dekle Sr, 1987). Board 7x7; standard array with queens omitted. Bishops (on the same-coloured squares to start) may also move one square orthogonally. Pawns have no two-square move but may promote to queens. Short castling permitted either side. (*World Game Review* 10)

Superchess [Zaitsev] (Igor Zaitsev, 1991). R, B, N can also move as K, but not to capture; Ps move one square forwards, diagonally forwards, or sideways, but again capturing must be orthodox; no castling. A grandmaster tournament in 1991 was won by the inventor.

Biskni and K-side pieces Bishroo, Knibis and Roobis. Pieces move as the first part of their name, capture and check as the second part. Maus recommends tying a ribbon round K-side pieces to differentiate them. K,Q,P are unaffected. **Although Chess** (Maus, 1927) is the same except that pawns are Berolina pawns (move diagonally, capture straight). (Author's leaflet 'Thinktank Chess')

Semi-Queen Chess, also known as **Half-Queen's Chess** (V.R.Parton, 1970). Board 10x10. Two half-sisters of the queen are introduced, the ugly-named Biok and Roshop. The Biok moves like a bishop but attacks as a rook, the Roshop moves like a rook and attacks as a bishop. Baseline (a1-j1/a10-j10) RNBROQKBiBNR. An extension of the game (1974) gives two of each piece to a side, but no extra pawns; array (a1-j1/a10-j10 and inwards) RBiRoBQKBRoBiR, PPPPNPPPP. (*Chessery for Duffer and Master*)

Loonybird Chess, also known as **Dragon Chess [Freeling]** (Christiaan Freeling, 1983). Board 7x7; baseline (a1-g1/a7-g7) RbNrBnKRnBrNb, where pieces move like the first letter but capture like the second (thus a1 moves like a rook but captures like a bishop). Pieces are flat and those other than the king and pawns have the same pieces on the reverse side but with colour changed. Captured pieces are retained by the capturer, and can be turned over and re-entered on any empty square instead of moving. Pawns move one square at a time only and when captured

are removed from play. The king can castle only with his corner rook, moving two squares towards it and moving the rook either two or three squares towards the centre (0-0 or 0-0-0). Draws are rare. (*Nost-algia* 354, *Eteroscalco* 78)

Asymmetric Chess (Michael Howe, 1993). Queens move as kings but capture as Qs or Ns, other three pieces move normally but capture like either of the other two. Kings, pawns and other rules orthodox. (*Eteroscalco* 66)

Chapter 15

New pieces (2) : Pieces with limited range

[This chapter covers pieces whose range of movement is limited, in the same way that the moves of the king and knight are limited in ortho chess.]

15.1 Pieces which can move only one square

[The only such piece in ortho chess is the king, but the ‘wazir’ (one square orthogonally in any direction), ‘fers’ or ‘firzan’ (one square diagonally in any direction), ‘gold general’ (as wazir and also one square diagonally forward), and ‘silver general’ (as fers and also one square orthogonally forward), have been widely used and will be found in many of the games in the chapters devoted to historical and regional versions of chess. Some other flavours will be found below. In general, games which involve both a one-square mover and ‘something more powerful’ will be found in the section devoted to ‘something more powerful’, but the two later developments of ‘Le Jeu de la Guerre’ are included in this first section for convenience.]

One-square movers are slow and may seem to be weak, but even the lowly fers can be a potent attacking weapon. ‘Knight for two pawns’ is rarely a good swap, but ‘fers for two pawns’ is a different matter, and a sound tactic, when unobservant defence permits it, is to use the piece with a fers move to smash a hole in the enemy pawn structure so that other men can pour through. In xiangqi (Chinese chess) this piece is confined to a defensive role by the rules of the game, but to restrict it to such a role in other forms of chess may well be a losing strategy.]

Le Jeu de la Guerre [M.M.] (‘M.M.’, perhaps J. Mehler, 1770). Described as a ‘refinement of the game of chess’ and first published (in French and German) in Prague. It is important as perhaps the first game, with a slightly enlarged board and pieces expressed in military terms, to move away from chess and towards what were to become the kriegsspiels of the 19th century. Declared the author: ‘the ridiculous denominations hitherto used for the pieces, and many other imperfections in the game of chess, appear to justify my risking their correction’. To-day the corrections themselves are open to ridicule. He added, wistfully, that the game ‘will probably always be considered an idle and superfluous invention’. It appears however to have been fairly widely played in Europe, and particularly in Germany, for the better part of a century. Board 11x11, 25 men a side: 1 x King, 2 x King’s Guard (moves as Q), 5 x Cannon (as R), 2 x Dragoon, Hussar (both as B), 2 x Cuirassier (as N), 11 x Fusilier (move one square orthogonally in any direction, capture one square diagonally in any directions). No castling. CaKCa centred on

ranks 1/11, CaHDCuGCaGCuDHCa on ranks 2/10, 11xF on ranks 3/9. Other arrangements may have been practised (*Easy Introduction to Chess* has pieces e1-g1 and e2-g2 transposed). (Photocopy of *Le Jeu de la Guerre*) [In my opinion, the first of the two games described as ‘Kriegsfeld Chess’ in the first edition is a German version of this. The extract from the secondary source preserved in David’s files merely gives name, country of origin, board size, and additional pieces with their moves, and the board size and additional pieces tally exactly.]

Prussian National Chess (General Baron C. E. B. Freyherr von Hoverbeck, 1806). A junker up-date of M.M.’s. ‘Le Jeu de la Guerre’, dedicated to Friedrich Wilhelm of Prussia. Board 11x11 (a1 black), 25 men a side: 1 x King, 2 x Body Guard (moves as Q), 2 x Light Cannon (as R), 2 x Dragoon, Cuirassier (both as B), 3 x Hussar (as N), 2 x Battery (see below); 11 x Fusilier (as in *Le Jeu de la Guerre*). Note that the cuirassiers and hussars have changed roles. The battery moves as a rook up to three squares in any direction.

It captures similarly but need not move to do so; it cannot give check itself, but only with another piece. No castling; if a check is unannounced, the attacker is huffed. BaKBa centred on ranks 1/11, CaHDCuGHGCuDHCa on ranks 2/10, 11xF on ranks 3/9. (Photocopy of *Das preussische National-Schach* up to page 31, plus diagram showing the board)

Silberschmidt's Game (H. Silberschmidt, 1827). Described as 'New, Improved Kriegspiel', this is another development of M.M.'s 'Le Jeu de la Guerre'. Board 11x11, 27 men a side: 1 x King, 2 x Royal Guard (moves as Q+N), 2 x Guard (as Q), 4 x Hussar (as B), 2 Cuirassiers (as N), 5 x Cannon (as R), 11 x Soldier (move one square forward or sideways, capture one square diagonally forward). RKR e1-g1/e11-g11, CaCa on a1/k1 and a11/k11, CaHHCuGCaGCuHHCa on ranks 2/10, 11xS on ranks 3/9. The preponderance of heavy pieces unbalances the play. (Photocopy of chapter 6 of *Das Schachspiel unter Zweien*)

Schachdame, also known as **Chess-Draughts [Richter]** (Heinrich Richter, 1883). A blend of chess and draughts, described as 'a new family game'. Board 8x8; a1 black. Each side has a Dame, a Ritter (literally: knight) and 6 pawns. Play is on the black squares only. The dame moves one square diagonally in any direction,

the ritter like a bishop. Pawns move one square diagonally forward, and promote to ritter. Capture is by displacement. The object is to capture the opponent's dame. Array (a1-g1/h8-b8 and inwards, black squares only) PRDP, 4xP. The rule book cost 3d in English, in German or Slovene (!) 4d. (Photocopy of booklet *Schachdame*, also notes apparently derived from a copy of the English edition in the British Library)

Nemesis Chess (Philip Cohen, 1973). Usual set-up but pawns on a, b, g, h files replaced by nemeses. A nemesis moves and captures like a king but only towards the opposing king. Marking time is not allowed. (Example: BKf4; WNeg2. Ne can move to f2, f3, g3, but not h3.) A nemesis can only be captured by Q, R, B, or N (knight). (Manuscript notes presumably deriving from personal communication)

New Chess [Bajon] (Michael Bajon, 1991). Board 9x9; extra piece is the King's Pawn (Pion du Roi) that moves like a king but never backwards. It has no royal powers except that the opposing K cannot occupy a square adjacent to it. Baseline (others have been tried) (a1-i1/i9-a9) RNBQKKpBNR (queens on d1/f9). (Manuscript notes in Elaine's handwriting, apparently a translation from an unspecified source)

15.2 Pieces which can move up to two squares

[The only such piece in orthochess is the knight, but several other such pieces will be found in the chapters devoted to historical and regional versions of chess. Particularly prominent have been the 'horse' (moves as knight but one step orthogonally and then one vertically, and the intermediate square must be empty), the 'fil' or 'alfil' (leaps two squares diagonally), and the 'elephant' (moves two squares diagonally and the intervening square must be empty). Some more flavours follow.]

Arch Chess [Piacenza], also known as **Piacenza's Chess** (Francesco Piacenza, 1683). Arch was a term given, according to the author of *Chess* (1784), 'to improvements and corruptions of chess'. Board 10x10 a1 black; extra pieces are a Centurion (leaps as N or two squares as R or B) and a Decurion (moves one square diagonally); baseline (a1-j1/a10-j10) RNBCQDBNR. Many authorities are unreliable. (*I Campaggiamenti degli Scacchi*)

[The D is of course the ancient fers; the C

may have originated with Piacenza, but it will reappear many times.]

Siege d'Anvers (J. A. Bordier-Marcet, 1833). Inspired by the capture of Antwerp by the French and intended to represent more accurately the military nature of the game. Board 10x10; 20 pieces a side, 1 x King, 1 x Marshal (moves as queen), 2 x Lunette (bastion, as R), 2 x Ensign (as B), 2 x Brigadier (as N), 2 x Bomb (two squares

orthogonally, can leap over any man but not over the king, 'out of respect', except to parry a check), 2 x Sappers (one or two squares diagonally in any direction, but captures like P) 2 x Grenadier (as P, but always has option of moving one or two squares), 6 x Fusilier (as P). Fusiliers and grenadiers promote to any piece lost, sappers do not promote. Array (a1-j1/j10-a10 and inwards) LBrBoEMKEBoBrL (kings on f1/e10), SGFFFFFGS. (Faidutti)

Decimal Chess [Obert] (Carl Obert, 1880). Board 10x10; extra pieces are Guardians, which move one square diagonally and capture one square orthogonally. In the starting position, the guardian can leap two squares forward (and may do so again if returning to the start square). On reaching the end rank, a guardian promotes to an Orderly which moves like a Q but captures like a R. Pawns move 1 or 2 squares initially (if 1, can then move 2 subsequently). In castling, K moves 3 squares to right or left. Baseline (a1-j1/a10-j10) RGNBQKBNGR. (*Brentano's Chess Magazine*)

Moody's Game (Francis Moody, 1895). Board 10x10; extra pieces are Squires (leap as N or two squares as R or B); baseline (a1-j1/a10-j10) RSNBQKBNSR. Pawns can move up to three squares initially. (Photocopy of patent application)

Neunerschach (H. Ranneforth, 1901). Board 9x9; extra piece is Marshall (moves as Q); the queen is a 'Hausfrau', which moves as Q but only two squares. Baseline (a1-i1/i9-a9) RNNMKHBBR (marshalls on d1/f9). (*Deutsches Wochensach*)

Spy Chess [O'Flynn] (Proprietary game, George S. O'Flynn, 1907). Board 10x8; extra pieces are Spies, which leap two squares as R or B; baseline (a1-j1/a8-j8) RNBQSSKBNR. 'To thus ruthlessly separate the royal pair may be in questionable taste' (*American Chess Bulletin*, 1907).

Pinsard's Chess (J. Pinsard, 1919). Board 10x10; extra pieces are Piacenza's Centurions (leaping as N or two squares as R or B); baseline not recorded. (*Les Jeux d'Échecs Non-orthodoxes*)

Gérans World Chess (Proprietary game, Gérans Skaakbureau; G. Menssink, 1937). 84-square board made up of an inner 8x8 board b2-i9 plus four groups of five squares in an L (c1-a1-a3, a8-a10-c10, etc); two extra men a side known as Gerams. These additions, supposes the inventor, should satisfy those grandmasters (he mentions Capablanca and Lasker) who are striving to avoid draws. Usual array on inner 8x8 board, with the Gerams in the four outside corner squares. Once a G moves, its initial square disappears. The G moves two squares orthogonally, thus always staying on its original colour. However, when entering the inner board a single diagonal move is made. Thus Ga1-a3 and then either b2 or b4; or Ga1-c1 and then b2 or d2; Ga1-b2 is illegal. All pieces can enter the extra squares and pawns can promote there (example: b8xa9 promotes) but Gs are immune from capture except on the inner board. (Photocopies of author's rules booklets)

Arrow Pawn Chess (R. Persson, 1938). Usual array but all pawns are Arrow pawns. An arrow pawn moves one or two squares orthogonally in any direction and captures one square diagonally, also in any direction, but does not promote. En passant capture may occur on any two-step move. An AP of either colour on b2, for example, has a choice of six moves and can capture on any of the black squares around it. (*Fairy Chess Review*, February 1938)

Tank Chess [Drobnic] (Franjo Drobnic, 1935). Board 10x10; extra pieces are Tanks, which leap to second square as R; baseline (a1-j1/a10-j10) RNBQTKTBNR. Played in clubs and schools in Vienna at the time. (Photocopy of letter from the inventor addressed to the City of London Chess Club)

Greater Chess (W. Day, 1942). Board 10x10 (a1 white); extra pieces are Dukes, which move one or two squares in any direction; baseline (a1-j1/a10-j10) RNBDQKDBNR. Pawns can move up to three squares initially and can be taken e.p. on either the third or fourth ranks; K moves two squares in castling. William Winter, the British master, advocated the game pointing out that the weakness of Capablanca's Chess was that the heavy pieces

dominated the board, the light pieces being merely cannon-fodder, whereas the dukes' powers are sufficiently restricted to enable them to combine effectively with the minor pieces. A duke ranks between a B and a R but is stronger in the endgame. (*Chess*, November 1942)

Pacific Chess (Hawaiian game, 1960s). Board 10x10, 26 men a side; extra pieces are Castle (leaps as N or two squares as R or B), Fortress (moves one square diagonally or leaps to second square as R), Guard (moves as K but not subject to check), Nobleman (as orthochess Q), Q (as orthochess Q+N). Array (a1-j1/a10-j10 and inwards) C-F-GG-F-C, RNNbBQKBNoNR, 10xP. (Correspondence between John Gollon and Philip Cohen)

Modern Courier Chess (Paul Byway, 1971 with later amendments). An attempt to reform the medieval Courier Chess by emulating the development of modern chess. Board 12x8; extra pieces are Fers (moves one square diagonally) and Courier (leaps two squares orthogonally or diagonally); baseline (a1-l1/a8-l8) RNCBFQKFBCNR. An unmoved fers has the option of a double move but not to capture (a later modification of the original rule, which allowed it a courier leap), and an unmoved K can do the same provided that it is not in check and does not pass through check. There is no castling. The weak points in the array are c2/7, j2/7; in consequence, the inventor believes the key central squares are e4/5 and h4/5. Openings and endings are being researched and a databank of games has been started. (*Variant Chess* 46)

[When playing this game, I find its most interesting features are the strategic implications of the wide board and the possibility of sacrificing fers for two pawns to smash a hole in the enemy position. The inventor has since suggested that a game closer to the spirit of the original would be obtained by reverting to the ancient 'man' (moves as king but is not subject to check) instead of the modern queen.]

Courier-Spiel (John Gollon, 1972 or earlier). Board 12 x 8; orthochess bishop renamed as Courier; extra pieces are 'Bishop' (one or two squares diagonally, may jump), Fool (as K but

not subject to check), Councillor (as N+K); baseline (a1-l1/l8-a8) RNBCrCnKQFCrBNR (kings on f1/g8). In castling, the king moves to the c or j file, and neither king nor rook may castle away from or over an attacked square. (*Chess Variant Pages*, based on a description in a Gollon manuscript; *Variant Chess* 37) [Text editorial]

Zgome (Proprietary game, Smurfet Group; J. B. McCarthy, 1975). Board 11x7, each player has 8 pieces: 1 x 'Z' (moves as king), 2 x '+' (as R), 2 x 'X' (as B), 2 x '0' (one space vertically or diagonally forward), 1 x '†' (as 0 but one or two spaces). The Z piece is placed in the centre of the first rank; the other pieces, whose identities are screened from the opponent, are placed at choice on designated spaces on the first two ranks. The aim is to capture the opponent's Z piece. Capture is by displacement. Concealed pieces move as 0s, but instead of moving a player can elect to expose a concealed piece which thereafter moves according to its power. A concealed piece reaching the end rank is immediately exposed. (Manufacturer's publicity leaflet)

Bear Chess, also known as **10x10 Chess [Sosnovsky]** (Mikhail Sosnovsky, 1985). Board 10x10; extra pieces are Bears, which leap as N or two squares as R or B; baseline (a1-j1/a10-j10) RNBBeQKBeBNR. Pawns can move up to three squares initially (e.p. permitted). In castling, K moves to c/h files. There are at least three sub-variations of the game, in all of which only the pawn moves and array are altered. Bear Chess received much publicity in newspapers and magazines in the U.S.S.R., and considerable interest in the game amongst the young was reported at the time, particularly in Central Russia. (Personal communication)

Balaklava Chess (Gianluca Vecchi, 1994). Mammoths (leap two squares as R or B) replace knights in the array, and all men except kings (but including pawns) may make non-capturing moves like orthochess knights in addition to their normal powers. (*Nost-algia* 364)

Kings Court (S. LeVasseur, 1997). Board 12x8; extra pieces are Chancellor (covers all

the squares of a 5x5 grid of which it is at the centre but cannot leap except to make a knight move) and Jester (moves one or two squares diagonally and can change its direction after the first); baseline (a1-l1/a8-l8) RCJNBQKBNJCR. K in check from C can move two squares. In castling, K moves up to 4 squares, R leaping it to adjacent square. (*Variant Chess* 37)

15.3 Pieces which can move up to three squares

[Here and elsewhere, a move described as an 'x-y leap' is like a knight's move but x squares in one direction and y squares in the other. The knight could therefore be described as a '2-1 leaper'.]

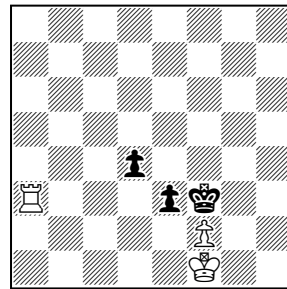
Paulovits's Game (István Paulovits, c.1890). Board 10x10; extra pieces are a General (moves as king or with a 3-1 leap) and a Pasha (as Queen but 1 or 2 squares only; may leap intervening square); baseline (a1-j1/a10-j10) RNBPaGQKBNR. Pawns move up to three squares initially. In the ending, K+Pasha wins against K+B or N, draws against K+Q; K+G only draws against K+B or N. A number of games were published. (Photocopy of pages 24-35 of a book *Dames de Paulovits*, noted by David as 'van der Linde #4809')

Arch Chess [Moody] (Frank Moody, 1898). Board 10x10, a1 white; extra pieces are Squires (move one square orthogonally and then a knight's move, or 'the second ring of its own base colour in any direction'); baseline (a1-j1/a10-j10) RSNBQKBNRSR. Pawns have option of 1,2,3 squares initially (with e.p. on 2 or 3). In castling, K moves 3 squares (short) or 4 squares (long), rook on inside. (*British Chess Magazine*, July 1898)

Cavalry Chess (Frank Maus, 1921). All men have the additional power of a normal knight but pawns, as knights, can only move forward. In addition, the king can move two squares in any direction but only if the intermediate square is unoccupied; thus if a piece is flanked by the two kings, it is pinned. The knight is a powerful piece, moving as a knight or with a 3-1 or 3-2 leap; thus from the centre of a 7x7 board it would command all squares not commanded by a queen occupying the same square. Castling, e.p., promotion (to cavalry piece) normal. The game was played in the

Cannons and Crabs (David Short, 2001). Board 7x6; extra pieces are Cannon (moves as Q up to 2 squares, may leap but not to capture K) and Crab (pawn with option of moving one square diagonally forward); array (a1-g1/a6-g6 and inwards) RNCaKCaNr, PPCrCrCrPP. Promotion (crabs and pawns) to Marshall (R+N) or Cardinal (B+N). (*Chess Variant Pages*)

U.S. for several years in tournaments, matches etc. Fianchetto openings were commonly practised in early games. Later, the Gruer Attack (1 dd4, 2 Qe2), named after the Californian chess champion, and the Denton opening (pawns to d3/e3, knights to d2/e2), found favour. The principal endings were analysed with the outcome the same as in ortho-chess, K+R v K being one of the hardest.



An ending from actual play. White, in check and with his pawn pinned, was persuaded by a spectator to resign, only for his opponent to point out that he could have won: 1 Rxe3+ dxe3+ 2 Kd3! after which it is Black's pawn which is pinned while White's is guarded. The resulting K+P v K ending is book.

A later development, **Magic Chess** (Maus, 1925) differs only in the pawn move. The pawn advances one rank at a time, either on its own file or as a knight; it captures diagonally forward as usual, but also as a knight although only to an adjacent file. This slight change makes for an entirely different game according to the inventor, who comments, in an odd blend of deprecation and conceit, that Magic

Chess is ‘deadly dull, lacking all the vivacity of Cavalry Chess’. (Author’s pamphlet, also *Chess Amateur*, February and April 1925)

Jetan (variant made famous by Edgar Rice Burroughs in his novel *The Chessmen of Mars*, 1922). Board 10x10, chequered black and orange. Forces represent the Black Race of the south and the Yellow race of the north. 20 pieces a side comprising 1 x Chief, Princess, 2 x Thoat, Odwar, Dwar, Padwar, Warrior, 8 x Panthan; array (a1-j1/a10-j10 and inwards) WPaDOCPRODPaW, TPPPPPPPT. The pieces move as follows.

Chief: three squares straight or diagonally.

Princess: as chief, but may leap any number of occupied squares - known as ‘the escape’ - once in a game. The princess does not capture.

Thoat: as knight but one step orthogonally followed by one diagonally, and the intervening square must be empty.

Dwar: three squares orthogonally.

Odwar: three squares diagonally, may leap.

Warrior: two squares orthogonally.

Padwar: two squares diagonally.

Panthan: one square straight or diagonally forward or sideways.

Pieces may change direction during a move, but they must move the specified number of squares and may not cross or alight on a square more than once during the move. Capture by displacement. Win by capturing the princess, or the chief by the chief; the game is drawn if the chief is captured by any other man (a fairly common result). The game is also drawn when each side is reduced to three pieces or less of the same value (?) and neither player can force a win within five moves. There is no advice as to what happens when a panthan reaches the 10th rank; it has been severally suggested that it be allowed to move laterally or backwards. The game was much played at one time by a national fantasy club in the U.S. Gollon describes it as ‘very playable and entertaining’. [Text revised]

Dreadnought Chess (Max Rieck, 1929). Board 10x10; extra pieces are Dreadnoughts (3-1 leapers); initial position unclear. Promotion only to previously captured piece. ‘Some interest in Cape Town chess circles’ according to the inventor. (*British Chess Magazine*, December 1929)

Mefisto or **Mephisto** (Proprietary game, Stanislaw Hofmokl-Ostrowski, 1955). Board 10x10; extra pieces are Devils (3-1 leapers); baseline (a1-j1/a10-j10) RNBDQKDBNR. (Photograph of board and inventor’s description, in Polish with an accompanying French translation, also Gizycki)

Cuban Chaturang (Germán A. Mentz, 1960). Developed over many years, the game reflects the ancient Indocuban civilization. Board 10x10; most pieces move as in chess: Cacique Nerey (N, as king), Dama Cacica (C, as queen), Semi (S, as rook), Behique (B, as bishop), Dog (D, as knight). In addition, there is a formidable piece, the Bat or Vampire (V), which moves as king or knight or with a 3-2 leap (e.g., Va1 can move to c4 or d3 as well as to a2, b1, b2, b3, c2). The Taino (T, pawn) has the option of moving 1, 2 or 3 squares on its first move and can be captured e.p. when moving more than one square. Promotion to any piece except nerey. Array (a1-j1/a10-j10 and inwards) SDBVNCVBDS, 10xT. Object is to checkmate opponent’s nerey. Piece design is symbolic; for example, the semi is the protector idol and is represented as an asexual nude with arms crossed on the chest. Some opening research has been done. Played in Havana. (Personal communications, also *Nost-algia* 376)

Mexican Chess (Prince Joli Kansil, 1965). Board 10x10, a1 white; extra pieces are Conquistadors (3-1 leapers); baseline (a1-j1/a10-j10) RNCBQKBCNR. In keeping with their historical image, the pieces are mounted and carry long swords. Pawns move up to three squares initially; e.p. possible. Reviewed in *Chess Life*. (Personal communication, also leaflet ‘Mexican Chess’)

Chess II [Trone] (Bruce Trone, 1976). Board 12x12; extra pieces are Super queen, Super rook, Super bishop (Q+N, R+N, B+N), Super knight (as N or a 3-2 leap), Super pawn (can capture up to two squares diagonally forward); baseline RSrSbBQSQKQBSbSrR (kings on g1/g12), NNNNSnSnSnSnNNNN on ranks 2/11, PPPPSpSpSpSpPPPP on ranks 3/10. All pawns move initially up to 3 squares; up to 2 squares on second move if only 1 on first. No castling with Super rooks. Coherent strategy

about as manageable as in the great shogis. (*Nost-algia* 194)

Kaissa (Proprietary game, Port Kar Industries; Jeffrey Shaffer, 1979). The game originated from one described in a fantasy novel *The Players of Gor* by John Norman. Pieces (21 a side) and board (10x10) are red and yellow. Most pieces have moves corresponding to orthochess pieces, one exception being the Tarnsman (3-2 leaper). The Spearmen are pawns which can move up to three squares initially but apparently do not promote. The array fills the first two ranks of each side. A curious feature is that one piece, the Home Stone, is only entered on the 8th, 9th or 10th turn. (*World Game Review* 3)

Threespace Chess (quoted by Tony Paletta, 1980). The moves of the line pieces (Q, R, B) are limited to a maximum of three squares. (*Chess Spectrum Newsletter*)

Falconry (Boris Troschichev, Vasily Varkentin, Yuri Ribakov, Oleg Skaletsky, 1982). Board 10x10, a1 white; extra pieces are Dolphin (as rook but up to three squares only, may leap intervening men, Falcon (as bishop or 3-1 leaper), Prince (moves one square ahead either straight or diagonally, captures like an orthodox pawn, may promote to any piece, two-square option initially, e.p. permitted); array (a1-j1/a10-j10 and inwards, centred) DRNBQKBNRD, PPPFPrPrFPPP, PPPP. The new pieces are distinctly coloured, blue on the White side, red on the Black. This is to assist recognition, and, more obscurely, because together with white they are the colours of the Three Muses and also the national flag. No mention of castling. Notice that none of the new pieces challenges the power of the queen. The powers of the line pieces (Q,R,B) are increased and those of the N and P are diminished. Fool's mate is just two moves: 1 Fe5 f7 2 Fg7.

A little fantasy appears to have crept into the decision-taking. The Dolphin is described as a symbol of virtue and intelligence and we are reminded that the dolphin was a favourite of Athena, Goddess of Wisdom. The Princes, as children of the monarchs, rightly stand directly in front of them, whilst the Falcon is seen to have many virtues. Sokol, the Russian

word for falcon, is controversially described as 'the most beautiful word in the Russian language'.

Falconry has quite a pedigree. In 1982 it was demonstrated to the Tchigorin club in Leningrad by the co-inventors. Russian design patents 42591 (1995) and 54537 (2004) were approved for the game. Tournaments have been running for the past 15 years and in 2002 the Falconry Chess Club was founded in St. Petersburg. In 2004 the authors were honoured with laureates by the Russian and European Academies of Natural Sciences and were awarded the Pyotr L. Kapitsa and Albert Schweitzer medals. In 1987-1990 thousands of sets of Falconry were manufactured and reportedly exported to the U.K., Netherlands and other countries, but these have apparently disappeared without trace. (Personal communications)

Braithwaite's Game (D. A. Braithwaite, 1976). Board 10x8; extra pieces are Dames (3-1 leapers); baseline RNDBQKBDNR, kings on f1/f8. (Copy of U.K. patent application)

Cardinal Super Chess (Proprietary game, Cardinal Super Chess and Super Checkers, 1986). Board 10x10; extra pieces are Cardinals (move one square diagonally and then two squares diagonally at right angles or vice versa); baseline (a1-j1/a10-j10) RNBCQKCBNR. (Proprietor's rules leaflet)

Wildebeest Chess (R. Wayne Schmittberger, 1987). Board 11x10; extra pieces are Camels (3-1 leaper) and Wildebeest (N+C); baseline (a1-k1/k10-a10) RNBBQKWCCNR (queens on e1/g10). Pawns on either 2nd or 3rd rank may advance as far as 5th: e.p. possible if move is of more than one square. Promotion to Q or W. Castling under usual restrictions but with greater latitude: K may move up to four squares in either direction, R is brought over adjacent to it. Stalemate wins for the player giving it. Schmittberger, a former editor of *Games* magazine, wrote a paper describing his approach to chess variant design using Wildebeest Chess as a model. His method can be summarized: begin with an idea, then seek a chess context for it (the idea in Wildebeest Chess was to balance number and types of riders, such as R and B and Q, and leapers,

such as N, Chess and W). Start if necessary with a complicated game, then simplify it. Strive for symmetry and balance. (The extra ranks were to give more freedom to the camels, avoiding the 11x9 board which would place too much emphasis on the central square.) In the array, defend all pawns, avoid set-ups that lead to early piece exchanges, seek a set-up in which a variety of openings are likely to be equally good. Some research has been done on the openings, particularly those starting 1 f5. (*Nost-algia* 303 and later)

Omega Chess (Proprietary game, Somic Inc; Daniel Macdonald, 1988). Board 10x10 with four extra squares, one diagonally adjacent to each corner square, thus a1/a12, b2-k11,

l1/l12; extra pieces are Champion (moves one square orthogonally or leaps two squares like R or B) and wizard (moves one square diagonally or with a 3-1 leap); array (a1~l1/a12~l12, b2-k2/b11-k11 and inwards) W~W, CRNBQKBNRC, 10xP. Pawns can move up to three squares initially. (Cazaux)

Dukes Chess (Proprietary game, Northern Games; L. and N. Kucher, S. Geutsche, date unclear). Board 9x9; extra piece is a Duke (moves up to 3 squares in any direction, can leap 1st and 2nd and capture on 2nd or 3rd); baseline (a1-i1) RNBQKDNBR. (Photocopy of part of manufacturer's publicity leaflet with manuscript notes in an unidentified handwriting; only White's baseline given)

15.4 Pieces which can move four or more squares

The Game Of Mighty Men (Frank Maus, 1925). Usual board, array, rules, but the powers of pieces and pawns are exaggerated. Thus Mighty Ka1 commands 15 squares (bounded by d1-d4-a4), MQa1 27 squares (as Ka1 and the usual file/rank/diagonal extensions), MRa1 20 squares (rank/file and b3, b4, c2, c4, d2, d3), MBa1 13 squares (diagonal and b3, b4, c2, c4, d2, d3), MNa1 12 squares (b3, b4, b5, c2, c4, c5, d2, d3, d5, e2, e3, e4). Mighty pawns on their initial move have the additional power of a MQ, thereafter of a MN. A mini-game with monstrous men. (*Chess Amateur*, May 1925)

Victrix (A. N. Petrov, 1928). Militarised chess planned as a series of games. Published in Irkutsk and subsequently (1929) in Leningrad. Three games were definitely published: 'Draughts-Chess' (a 10x10 game with 58 pieces designed to familiarise beginners with infantry and machine-guns, other pieces being introduced gradually), 'Victrix' (the basic game as described below), and 'Civil War' (a four-handed version). Three further games, 'Multi-topographical' (map board with terrain and other features), 'Street Combat' (to include armoured cars, miners, engineers), and 'Strategy' ('main battle') were announced as 'in preparation', but so far as can be ascertained they were never published.

The basic game. Board 10x10; 30 men a side comprising 1 x Commander-in-Chief (K),

Chief of HQ (Q), Tank Division, Aeroplane, 2 x Artillery (R), Sapper (B), Cavalry (N), Machine-gun, 18 x Infantry (P). A machine-gun moves one or two squares in any direction except along the rank. It can only capture on diagonal movement. On reaching the end rank it is promoted to a piece previously lost or, if agreed beforehand, to a Chief of HQ (Q). The tank division moves as a K. If it reaches the end rank it does not promote but the player may place two additional infantrymen on any vacant squares in own half of board. If a tank is surrounded on three sides by hostile infantry, it can be huffed (removed from board) although this counts as a move. The aeroplane is a combined 3-1 and 4-2 leaper, passing over men of either colour. Infantrymen can move two squares if on 2nd or 3rd rank (even if previously moved from 2nd to 3rd). Promotion and castling (between Commander-in-Chief and Artillery, K and R) normal. Array (a1-j1/a10-j10 and inwards) TRNBQKBNRAe, MPPPPPPPPM, 10xP.

The four-handed game uses a 10x10 board with four 10x3 extensions accommodating an array identical to that of the basic game. General rules of play are unchanged. Partners face each other and, unwontedly, move consecutively. Aim is to mate both opponents. The pieces of a mated player are frozen; however they retain their power to check, and therefore to constrain opponents' kings. A

player whose king is released from mate resumes play. (Personal communication)

Helios (Proprietary game, The Polygon Corporation; Bert J. Bratt, 1938). 360-square board (20x22 with 8x10 centre removed). A blend of chess, astronomy, and Greek mythology. Aim is the 'total eclipse' (checkmate) of the sun-god Helios, who moves like a king or with a star move as described below. Other pieces are Mercury (leaps two squares in any direction), Venus (3 squares in any direction, no leaping), Earth (4 squares ditto), Mars (5 squares in a combination of 4+1, any directions), Jupiter (6 squares as 2+2+2 zigzag, any directions, or as Q), Saturn (as Q but limited to 7 squares), Uranus (as R but limited to 8 squares), Neptune (9 squares as 3+3+3 zigzag, any directions), Pluto (10 squares in any direction, or as K), the Moon (as R), and 2 Nodes (as K). Only Mercury may leap. In addition, squares a1/e9/f6/i5 and the corresponding squares in other quadrants are starred; Helios may jump from one baseline star to the other, and Mercury between any two stars. In the starting array, HeMeVEMaJSUNeP occupy alternate baseline squares from a1 and t22, with the moon at j3/k20 and the nodes at a3/t20 and s3/b20. Capture is by displacement, object checkmate. (Photocopy of chief part of rule book) [Text partly editorial]

Wehr-Schach (Rudolf Kuch, 1938). A war-simulation game which coincided with the rise of German militarism under Hitler and enjoyed considerable popularity in its early years. Sets were widely available; Dawson referred to 'Nazi chessmen', but failed to identify the game (*Fairy Chess Review*, December 1945). Booklets, including one on tactics by R. O. Schmeisser, ran to several editions. Board 11x11 chequered; a1 black; squares b5 and j7 rippled (lakes); diagonal a1-k11 is a highway, diagonal k1-a11 a river. Each side (Red & Blue) has 18 figurine pieces composed of a leader (hauptfigur), air forces (2 x fighter, 2 x bomber) and land forces (4 x artillery, 3 x panzer, 6 x infantry); Lf1, Fa1/k1, Be1/g1, Ab2/d2 and h2/j2, Pc1/f3/i1, Ia3/c3/.../k3, Black similarly.

All pieces can move in all directions. Infantry 1 square but up to 4 on highway;

leader up to 2 squares but confined to first three ranks; panzer up to 3 but up to 4 on highway; artillery up to 4; air forces up to 5. Air forces can fly over other pieces except enemy artillery and air forces. Lakes cannot be occupied and can be crossed only by air forces. Any piece can occupy or cross a river square, but only the air forces can move along the river. Capture by displacement but orthogonally only and only if a piece is twice attacked. The game is over if a leader is captured, or any of the five squares within a player's base area (first three ranks) are occupied by opposing land forces, or either player is reduced to five land-based pieces, or either player loses all six infantry. (Photocopy of booklet *Wehr-Schach*)

Chessers [Phillips] (Proprietary game, Phillips Publishers Inc, 1960). Board 8x8; 10 men a side composed of 1 x King; 2 x Circle; 3 x Triangle; 4 x Square; White array Ka1, Ca2/b1, Ta3/b2/c1, Sa4/b3/c2/d1, Black similarly in opposite corner. King moves as in orthochess, Circle one or two squares as Q, Triangle up to 3 squares as B, Square up to four squares as R. Capture by displacement, but a man may capture or check only at its maximum range (thus a square at d3 can capture only at h3 or d7); when capturing, though not when moving ordinarily, a man may pass over any intervening men. Win either by checkmate or by occupying array square of opposing K with own K. (Photocopy of publisher's rules leaflet)

Rangers Chess (V. R. Parton, 1973). Board 10x10; each side has 20 pieces of which one, 'ranger one', is the king and moves exactly like a king. All the other pieces move like queens but over a fixed number of squares, neither more nor less (no leaping), and are accordingly called ranger two, three, four. Array (a1-j1/a10/j10) 2233443322, (a2-j2/a9-j9) 2233413322 or 2233143322. (*Enduring Spirit of Dasapada*)

Superknights (Adam Sobey, 1988). The knights are allowed to make two consecutive moves instead of one, with two restrictions: the first move cannot be a check, and no double move is allowed if any knight is unmoved. Superknights are powerful pieces.

Created for a Christmas chess club meet where the game was applauded. (Note apparently reporting personal communication, also *Variant Chess* 16) [David's files also record a **Double Knight Chess [Sobey]**, invented by Adam Sobey for a Christmas club tournament, which differs in minor detail, but the index sheets do not include the cross-references which David normally inserted in the case of similar or related games and I suspect that the same game has crept in under two different names. If the games are distinct, it would appear from *Variant Chess* 16 that the rules given here represent the preferred form.]

Twiknight (Jens Nielsen, 1993). Once in a game, and not before move 3, a player may make a double move with a knight. The first part of the move may expose the player's king to check provided that the second part cancels it. In a variation due to Ian Richardson, a knight always attacks the enemy king with a double move even if the player's double move has already been used. Several further variations of detail have been suggested. (*Variant Chess* 16) [Text editorial]

Dodeca Chess (Michael Howe, 1994). Board 12x12; extra pieces are Archbishop (B+N), Marshall (R+N), Cavalier (4-3 leaper), Viscount (N+C), General (B+C), Duke (R+C); array (a1-l1/a12-l12 and in, centred) VGDV, RCNBAQKMBNCR, 12xP. (Author's rules document)

Big Battle (Proprietary game, Big Battle Games; Keith Morrison with input from New Zealand chess champion Sarapu, 1990s). Board 10x10; extra pieces are Princes (move as Q or N or can leap adjacent man to square immediately beyond, capturing if applicable); baseline (a1-j1/a10-j10) RNBPrQKPrBNR. King moves as N or can move up to two

squares in any direction, leaping if desired; queen moves normally but can also leap adjacent square, as Prince; a knight, on its first move, can make two orthodox moves, changing direction if desired but first square of leap must be vacant; rooks and bishops normal. A pawn, called a sol, can move straight forward 1, 2 or 3 squares at any stage, e.p. permitted. In castling, the king can move any number of squares towards the rook and the rook can move to any square beyond the king, and castling out of or through check is permitted. Prashant Mistry, *Guinness Book of World Records* chess endurance record holder, enthuses 'Big Battle is undoubtedly superior to chess in all respects'. (*Variant Chess* 24)

Toe-to-Toe Chess (Peter Aronson, 2002). Board 8x8 uncoloured; each side has 1 x king, general, 2 x chariot, elephant, horse, and 8 x pawn. King orthodox; general one or two squares as Q; chariot as R but maximum four squares; elephant one square diagonally in any direction or one square straight forward; horse as orthodox N; pawns one square at a time but if blocked by man of either colour may leap it (no capture) to square immediately beyond if vacant. Promotion on end rank to any piece previously captured, but the act of promotion counts as a move; hence the pawn moves to the 8th rank at one turn, and promotes at a later turn. Initially White's pawns are placed on squares a3-d3/e4-h4, Black's on squares a5-d5/e6-h6, and the players then take turns to put their pieces on the board behind their pawn lines: Black two pieces, White four, Black four, White four, and finally Black two. Each player, White starting, may now interchange any two of his men (including pawns if desired), and this is repeated three times (a player may interchange two like men). Loosely based on Burmese Chess (Sittuyin). (Chess Variant Pages)

Chapter 16

New pieces (3) : Pieces with unlimited range

[This chapter introduces pieces which can keep moving until they hit the edge of the board or some other obstacle, as can the rook, bishop, and queen in orthochess. We restrict ourselves here to pieces which capture by ‘displacement’ (occupation of the square of the target man); pieces which capture otherwise, for example by leaping over the target man, will be considered in a later chapter.]

16.1 Pieces with orthogonal or diagonal movement, obstructions respected

[This section considers pieces which are variations and developments of the orthochess rook, bishop, and queen.]

Ciccolini’s Game (Giuseppe Ciccolini, 1820). Board 10x10 (a1 black); extra pieces are General (moves as Q but when moving orthogonally can only stop on alternate squares, thus always staying on one colour) and Elephant (3-2 leaper, see last chapter); baseline (a1-j1/a10-j10) RNGEKQEGNR, the bishops being discarded. Pawns move up to three squares initially and a pawn that moves one square may subsequently move two. Castling is ‘free’, allowing alternative squares to the K and R, as practised in Italy at that time. Ciccolini was a strong player and in consequence his game attracted a measure of support. (Photocopy of *Un Nuovo Giuoco di Scacchi*)

Emperor Chess [Lambert] (H. R. Lambert, 1954). Board 12x12; extra pieces are Emperor (as Ciccolini’s General above) and Commander (Q+N); baseline (a1-l1/a12-l12) RNBEQCKQEBNR. Gollon suggests pawns have option of moving up to three squares initially. The game is something of a misnomer since the emperor has less power than a queen or commander. (Correspondence between John Gollon and Philip Cohen)

Mideast Chess (originator unknown, 1960s?). Board 10x10, 16 pieces plus 10 pawns per side; extra pieces are Cavalier (moves any number of squares orthogonally followed by one diagonally or one diagonally followed by any number orthogonally, no leaping), Castle (leaps as N or two squares as R or B),

Chevalier (3-1 leaper), Courtier (4-3 leaper); array (a1-j1/a10-j10 and inwards) Cr-Ch-CasCas-Ch-Cr, RNBCavQKCavBNR, 10xP. Originated in Santa Cruz county, California, also played in Hawaii. (Correspondence between John Gollon and Philip Cohen)

Edgehog Chess [Driver] (John Driver, 1966). Usual set-up but queens must always begin or end a move on the edge of the board; hence if on a perimeter square a queen can move normally. (*British Chess Magazine*, February 1966) [According to Anthony Dickins in *A Guide to Fairy Chess*, the piece was invented to fit the name.]

Gutzwiller’s Chess (James Gutzwiller, 1969). Developed by Cincinnati Chess League when Gutzwiller mated in a league match after inadvertently transferring a bishop move to an adjacent diagonal. Bishops move only on diagonals through adjacent orthogonal squares, and hence change square colour at every move. (Manuscript note presumably deriving from personal communication)

Hobblers Chess (Tony Paletta, 1980). Queens, rooks and bishops are ‘hobbled’ - they cannot move one square, only two or more. Hobbled pieces cannot vault nor capture adjacent men. (*Chess Spectrum Newsletter*)

Archer Chess (Tony Paletta, 1980). Board 7x7; rooks are hobbled (see above); bishops are replaced by Archers (move one square

orthogonally or two squares diagonally, leaping intervening square); baseline (a1-g1/a7-g7) RNAKANR. An archer is about equivalent to a knight; two archers can checkmate. (*Chess Spectrum Newsletter*)

Warrior Chess [Paletta] (Tony Paletta, 1980). Board 7x7; no bishops, but each side has a Warrior which moves one square orthogonally (where it may not stop) and then diagonally as a bishop (no leaping), thus always changing square colour. Baseline (a1-g1/a7-g7) RNQKWNR. (*Chess Spectrum Newsletter*)

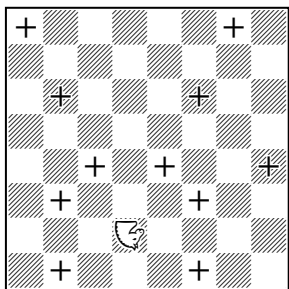
Rennissance Chess [Greenwood], also known as **Rennchess** (Eric Greenwood, 1980). Name deliberately misspelt. Board 12x10; extra pieces are Guard (as K but not subject to check), Fox (one square orthogonally), Page (K+N), Squire (one or two squares in any direction, may leap), Castle (as N or exactly two squares in any direction, may leap), General (3-1 leaper), Archbishop (B+N), Nobleman (R+N), Prince (Q+N), Cavalier (R then one square as B, or one square as B then as R), Duke (B then one square as R, or one square as R then as B); array (a1-11/110-a10 and inwards, centred) Ge-Pr-DSPaCav-Q-Ge, RNCasBAGuKNBCasNR, 12xP, FF (kings on g2/f9). P can promote to F on 9th rank,

promotes to piece lost on 10th; F can promote to Gu on 10th rank. No castling. Variations: (a) 12x12 board (suggested by LeLand Lankford); (b) 12x12 board but pieces set up on ranks 2/11 inwards; (c) 12x14 board, pieces on ranks 2/13 inwards. Inspired by Timur's Great Chess (see chapter 29), the incorporation of whose pawns is not included as official due to possible set construction problems but is 'strongly recommended'. (*Chess Variant Pages*) [Text revised. Not only is the name deliberately misspelt, but the date of invention is given as 'April 1, 1980'; I cannot help feeling suspicious...]

Modern American Chess (Proprietary game, Modern American Chess Inc, 1984). Board 10x10; extra men are Archbishop (moves as bishop but may also move to an adjacent empty square of the opposite colour and can continue from that square, on the same move, as a bishop 'in order to capture an opponent's piece') and Power Pawn (as ordinary pawn but promotes to 'any two Chessmen that the player desires, except the King'); array (a1-j1/a10-j10 and inwards) ARNBQKBNRA, PwPPPPPPPPw. The 60 squares between the two forces are described as being 'reminiscent of a tournament battlefield of the ancient Knights'. (Photocopy of manufacturer's rules leaflet)

16.2 Pieces with oblique movement, obstructions respected

The 'nightrider', traditionally represented by an inverted knight, moves in straight lines through squares a knight's move apart :



It was invented by T. R. Dawson for use in problems (*Die Schwalbe*, February 1925), but there have been two forms of **Nightrider Chess**. In the simpler, knights are replaced by

nightriders in the array, and pawns may promote to nightriders but not to knights (*Nost-algia* 150). In the version developed by V. R. Parton in the 1950s, the knights are omitted altogether (hence only 14 men a side), the queens are replaced by nightriders, promotion is only to nightrider, and the pawns start on the third rank to prevent immediate forays by the nightriders. Boyer described the resulting game as 'very attractive' (*Nouveaux Jeux d'Echecs Intéressants*).

[It was the nightrider which seems to have prompted David's first appearance in the chess literature, as the composer of a simple but neat problem which appeared in *Fairy Chess Review* in April 1941. David would not have thanked me for reproducing this problem here, but it was typical of the early work of somebody who was going to become good.]

We have called the knight a ‘2-1 leaper’, and the nightrider might be called a ‘2-1 rider’. From it, Dawson developed **Five-Rider Promotion** (British Chess Federation problem tourney 21, 1936) in which promotion is possible to any of the five basic riders which can take a two-step or longer ride on the 8x8 board (rook, bishop, nightrider, 3-1 rider, 3-2 rider) but not to the orthochess queen or knight. [In the first edition, David gave this under the name ‘Five-Rider Chess’, but no initial array was specified and I am not aware that anyone has ever tried to play it as a game. Some of the problems are remarkable: for example, after White’s first move, Black can promote a pawn, and whichever of the five riders he chooses White’s counter is to promote a pawn of his own to exactly the same rider. But to Dawson, this sort of thing was merely a technical exercise.]

In addition, we can imagine a ‘2-0 rider’ which skips along files and ranks in twos ignoring anything on the intervening squares, a ‘3-0 rider’ which skips along in threes, and a ‘2-2 rider’ and ‘3-3 rider’ which skip along the diagonals similarly. Putting all these together gives **Ninerider Chess** (originator unclear, 1979). Kings and pawns are unchanged, but other pieces are replaced by riders: knights by nightriders, rooks by composite 1-0/2-0 riders (pieces which can move either as 1-0 riders or as 2-0 riders), bishops by composite 1-1/2-2 riders, and queens by composite 3-0/3-1/3-2/3-3 riders (Philip Cohen recommended moving the 3-0 rider and 3-3 rider powers to the rook and bishop respectively). Thus in the normal starting position White could play h1xh7 (moving as a 2-0 rider and hence skipping over the pawn at h2) and threaten to play h7xh8 as a 1-0 rider, and if Black himself captured by h7xh8 White could mate by d1xh7 (moving as a 3-2 rider and giving mate as a 3-1 rider). Wayne Schmittberger suggested reversing the black K and Q (*Nost-algia* 234).

16.3 Reflecting pieces

Billiards Chess, also known as **Reflection Chess [Billiards]** and **Snooker Chess** (origins unknown). The edges of the board serve as ‘cushions’ off which pieces rebound in the manner of billiard balls, the rebound being part of the move and the angle of reflection

Wolf Chess (Arno von Wilpert, 1943). Board 8x10; extra pieces are Wolf (R+N), Fox (B+N), Nightrider as above, Sergeant (see below); KNrBBRFWQ on a1-h1/h10-a10 (kings on a1/h10), PSSPPSSP on ranks 2/9, further pawns on b3/c3/f3/g3 and b8/c8/f8/g8. A sergeant moves and captures one square diagonally or straight forward. An unmoved P or S can advance two squares. Unlike a P, an S cannot capture e.p. P and S promote to any array piece; a P can promote in addition to an Elephant (Q+N). No castling. A number of correspondence matches and tournaments have been played, and what were claimed to be the first international over-the-board matches in a chess variant were played in September 1960 between Paris and Augsburg. The German side won both.

Wolf Chess appears to suffer from two drawbacks. Firstly, the thicket of pawns hampers quick development; and secondly, with the kings in opposite corners and the major pieces facing them in the array, strategy tends to be stereotyped with the players perforce attacking on opposite wings. (Photocopy of booklet *Wolf-Schach*)

Twenty-First Century Chess [Trone] (Bruce Trone, 1991) Q has added power of N, Bs move like Qs, Ns are Nightriders (see above), pawns can move one square sideways or backwards. (Unprovenanced note presumably deriving from personal communication)

Cavalier Chess (Fergus Duniho, 1998). Board 8x8; K moves as K+N; extra pieces are Marshall (R+N), Paladin (B+N), Nightrider (as above), Cavalier (as N but one square orthogonally followed by one diagonally, and the intervening square must be empty); no pawns, but cavaliers promote to file piece on reaching the 8th rank (any piece in the case of the e-file); array (a1-h1/a8-h8 and inwards) MNrPQKPNrM, 8xC. (Chess Variant Pages)

equalling the angle of incidence. In its virgin form, only bishops and queens reflected. In the early 1950s, Jacques Berthoumeau developed a widely played version in which all men can reflect (*Nouveaux Jeux d'Echecs Non-orthodoxes*). The king rebounds by single

squares (Kg3-h2-g1-f2), a pawn can only do so in capturing (bxa6-b7), a knight reflects either at an acute or obtuse angle (Nc2-a3-c4, Nb2-a4-b6) but cannot rebound from a corner. A capture on an edge square does not terminate a move, a capture other than on an edge square does, and a move that ends on the square it started is always illegal unless a capture is made in the process. The maximum number of captures possible in a single move is five (for Q or B), four on the edge and one in the centre. Rooks are the lame pieces of the game but can sometimes reflect to advantage in making an edge-capture. Subsequently Berthoumeau amended his game (*Nouveaux Jeux d'Echecs Intéressants*). The principal changes required that only one capture could be made on a move (though if on an edge square it could be followed by rebounds), a man did not command squares beyond an edge piece which it could capture, the king could not rebound through check, and the knight's power was enhanced to allow it to bounce out of a corner (Nc2-a1-b3) and also to have a double rebound (Nb4-a6-b8-c6) including a single capture on any of these squares.

Billiards Chess has been played in AISE in conjunction with Progressive and Losing Chess (*Eteroscacco* 8, 9, and later). Philip Cohen offered an 8x7 variant with pawns restricted to a single-step move (*Nost-algia* 193). The feature of this board is that the bishops can command every square. **Bouncy Chess** (Patrick Donovan and Paul Novak, 1980s) allows knights to reflect at any angle (*Variant Chess* 3). **Lambeth Conference** (Adam Sobey, 1980s) is an attenuated version in which only bishops reflect (the Lambeth Conference is a decennial convocation of Anglican bishops). It was played at Haslemere Chess Club Christmas gatherings, and 'acclaimed' (note in David's files).

[David described this as 'originally a problem theme, later played as a game', but when publishing some original problems in *The Problemist Fairy Supplement* in 1932 Dawson wrote that the 'reflecting bishop' had been suggested previously but that so far as he knew it had not hitherto been used in problems. So it would seem that the players were there first.]

Pocket Chess, also known as **Dutch Billiards**

(J. B. Verdonk, 1949). A form of Billiards Chess in which rebounds are limited to Q and B. A piece played into a corner square (pocketed) is at once re-spotted (replaced on its original square of the same colour). Any piece of either colour occupying the original square is removed from play. (*Fairy Chess Review*, November 1949, also Stone)

Ricochet Chess (Philip Cohen, 1968, subsequently modified). A form of Billiards Chess in which men rebound off other men as well as off the board edges. A number of sub-variants were later developed to tame the wild play generated by the original rules: stop on a capture, or rebound only from enemy men or board edges, or only from friendly men or board edges, or only from pieces and not from board edges, or make not more than a given number of rebounds in a move. (Author's rules sheet)

Bates's Game (Jim Bates and Paul Schooling, 1961). Board 12x12; pieces are 1 x K, Empress (Q+N), 2 x Archbishop (reflecting bishop), Deacon (B+N), Q, Squire (composite 3-2/3-0/2-1 leaper), Vizier (R+N), 4 x R, B, N, 12 x P; array (a1-l1/l12-a12 and inwards) VSADQKEQDASV, RNBRNBBNRBNR, 12xP. P as in orthochess except that initially it can move up to three squares forward or one back. K moves twice as orthochess K and can only cross check to take the checking piece. If K is in check with only one escape square, it is mate. Castling and e.p. possible. Persistently played within a small group; there was some research, and the array underwent changes. (Manuscript notes presumably deriving from personal communication)

Knightrider Bouncy (Stuart Conquest, 1983). Knightriders (spelt with an initial K but having the same move as the nightrider we have already met) replace knights in the starting position. The name of the piece was taken from a Batman-like character in a comic, and its movement conceived in ignorance of the use of such a piece by problemists for over half a century. In Knightrider Bouncy, knightriders can bounce off board edges, changing direction as desired as many times as they like during a move provided squares visited are vacant. If Black tries to pin White

Krd2 against White Ke1 by playing Qc3, White can escape by Krxc3 (via b1) provided that b1 is empty. Queens and bishops are also reflected. The game developed a small cult following and a 'World Championship'. The question was raised at a Hastings Chess Club meeting whether this 'non-chess' activity should be permitted.

A knight rider is probably stronger than a queen (K+Kr mate a bare king) but a weakness of the game is that the knight riders are inclined to be exchanged. Conquest suggests this could be overcome by making them immune to capture by each other. There is no forced win for White; for instance, 1 Krb1-a3-c4 is not mate on account of 1...d6. (Manuscript note presumably deriving from personal communication)

Camelot Chess (Walter Hagemann, date unclear). Board 8x12 (a1 black) with invisible bumper bar surrounding the board off which Q, B, N rebound. Array as orthochess advanced one rank, K and Q reversed (so first rank clear, Q on own colour). Pawns may move up to three squares initially. The bumper bar is at a half-square's distance from the board. Thus Bc1 moves via a3 to a5 etc. Similarly, Na1 via a2 to a4 or via b1 to d1. Variations: **Horsey Camelot Chess** (kings and queens, and their pawns, have their normal

starting squares, and queens have added knight powers); **Maad Camelot Chess** (as Horsey Camelot Chess, and rooks also, though not their pawns, have their normal starting squares, and have added knight powers). (Author's rule sheet, undated but typographical style suggests late 1970s or 1980s) [Text revised. The spelling 'Maad' in the source, possibly in error, possibly to imitate the neighing of a horse. David thought it should be corrected to 'Mad'; I am not so sure.]

Rollerball (J.-L. Cazaux, 1998). Board 7x7 less central nine squares; PBR on c1-e1, PKR on c2-e2, Black mirrored about the centre. R one square only backwards but as normal forwards or sideways, and in addition a rook on the edge can bounce once off a corner square and come off at right angles, thus a rook on b1 covers the whole a and b files (the board edges have little 45-degree insets across the corners to make this clear). B one square only backwards but as normal forwards, one bounce allowed off a side wall (external or internal). P moves and captures one square straight or diagonally forward, promotes to R or B on an opposing pawn's start square. Win by checkmate or getting K clockwise (only) to opposing K square. (Chess Variant Pages) [Text revised]

16.4 Other pieces which change direction in mid-move

Haffner's Chess (Don Haffner, 1969). Board 10x8; extra pieces are Archbishops, which move like bishops but must make a right-angle turn to move or capture; baseline (a1-j1/a8-j8) RNBAQKABNR. (*Nost-algia* 112)

Zonal Chess (Proprietary game, Check Mate Games Corp, 1970). 104-square board made up from a normal 8x8 board (now e1-l8) and two 20-square triangular zones d1-a4-a5-d8 and m1-p4-p5-m8; usual array on files e-l plus additional pawns on d2/7 and m2/7. The four squares d1/8 and m1/8 are neutral. Usual rules except that Q, R or B can make any number of moves within a zone (but not when moving into it), a move terminating on (1) a capture; (2) exit from the zone (even if the piece moves directly across into the other zone); or (3) occupation of a neutral square. The other men

are not affected except that pawns promote on end squares of any of the 16 files. A king is not in check from a zonal piece unless the two are in a straight line (knights excepted). (Photocopy of rules booklet)

Right-Angle Chess (David Moeser, 1971). The ranks and files of the 8x8 board are considered to be joined so as to form new lines (Flanks) for orthogonal-moving line-pieces (Qs and Rs). There are 14 flanks hinged on the a1-h8 diagonal, a8-a1-h1, b8-b2-h2, etc, and a8-h8-h1, a7-g7-g1, etc, but only two corners (a8 and h1). **All-Angle Chess** (David Moeser and James Gutzwiller, 1971) is the same with a further 14 flanks hinged on the a8-h1 diagonal. (*Neue Chess* 6/7) [Right-Angle Chess was the mature form of the game which appeared in the first edition as Truncated

Pseudosphere or TPS Chess. It was apparently found simpler to play on an ordinary board and allow certain moves at right angles than to draw a two-dimensional representation of a truncated pseudosphere and then try to work out where the lines went.]

Elbow Chess (G. Balbo, 1975). Pieces apart from the king are obliged to make a right-angle turn midway through a move or capture. Thus a rook moves only to squares of its own colour (e.g. Ra1-a5 via c3). A bishop must move first along a rank, then a file, or vice versa (e.g. Bc1-f4 via f1 or c4). A knight's move is a compromise: one square on the rank then two on the file, or vice versa. The pawn moves two squares at a time (e.g. e2-e4 via d3 or f3, e.p. allowed on the elbow square). Pawn captures are normal. Note that a pawn which makes an odd number of captures cannot promote. Squares traversed must be vacant, so Ra1-a3 is possible only if b2 is vacant; whether or not a2 is occupied is immaterial. Castling allowed as under normal game conditions except that the rook on a1 moves one square further via the third rank. (*Le Courrier des Echecs*, April 1976)

Circuit Chess, also known as “**Round Chess**” [Schwind] (Rudolf Schwind, 1977). Co-existent with the 8x8 board there are four circuits, respectively of 28 (perimeter

squares), 20, 12 and 4 (centre squares). Orthochess, but in addition a Q or R can travel any distance round a circuit provided the move is over vacant squares. Castling is perilous. (*Rochade* 157) [Schwind called the game “Round Chess” in inverted commas because it arose by taking an idea from a chess game on a round board, but I think this name will cause confusion with the genuine round-board games to appear later and I have taken the liberty of suggesting an alternative.]

Chess on Four Boards (Ralph Betza, 1996). Board 16x16; extra pieces are Archbishop (B+N), Chancellor (R+N), Elephant (one or two steps diagonally, may leap, or one step orthogonally), Superknight (as knight but also 3-1 and 3-2), Unicorn (one step diagonally or two orthogonally, may leap), and Rose as described below; baseline (a1-p1/a16-p16) RNUEBRoCQKMSBEUNR. The Rose makes a sequence of knight moves as long as the road is clear, veering consistently to left or right after each. On a sufficiently large and otherwise empty board, a rose on g7 can move to e8 and then on to c7, b5, c3, e2, g3, h5, and back to g7, or on to d10, e12, g13, i12, j10, i8, and again back to g7, and similarly after each of its other initial jumps; a drawing of the resulting pattern makes the name obvious. It was invented by Robert Meignant in 1968 for use in problems. (Cazaux) [Text editorial]

16.5 Pieces which ignore obstacles

Aviation (L. Legan, 1913). Usual array except that b- and g-pawns on both sides are replaced by Aviators. Aviators behave as bishops but can also fly over any number of men of either colour on the diagonal either to move or capture. An aviator on its start square can only be captured by a pawn (getting over the awkward fact that the aviators attack one another in the starting position). All four rooks are en prise initially, but a rook would be a poor exchange for an aviator. Played in Paris during World War I. (*Chess Amateur*, February 1922)

X-Ray Chess (origins unclear, see below). Line-moving pieces, including a pawn making its two-step move, may pass through one intervening man. [X-Ray Chess was claimed

by Graham Taylor in the March 1990 *British Chess Magazine* as having been invented by himself in 1958, but George Jelliss pointed out that T. R. Dawson had composed a problem to this or a similar rule in 1913: White Ka7, Rc7, Bd7, Pb7/a2 (5), Black Ka5, Pa3 (2), mate in 2 by 1 b8(N) Kb4 2 Nc6. There have been other reinventions subsequently. According to Taylor, inexperienced players often start 1 Qh5+ intending 1...g6 2 Qe5 ‘mate’, but there are two objections: Black can block the check from e5 by playing 2...Be6, and in any case he can meet 1 Qh5+ by 1...Rhx5.]

Dabbabante Chess (V. R. Parton, 1971). Board 10x10; extra pieces are Dabbabantes, which move like a rook but to every second square, so staying on squares of one colour,

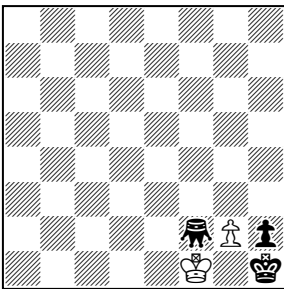
and can pass over occupied squares even of the colour on which they travel; array (a2-j2/j9-a9 and inwards, end ranks empty) RNDBQKBDNR, 10xP. (*100 Squares for Chess and Damante*)

Lighthouse Chess (Hans Muthopp, 1976). Queens may leap pawns but not pieces. This time 1 Qh5 does work, being indeed mate, and the array needs adjustment. (*Neue Chess 10*)

Vault Chess (Tony Paletta, 1980). In addition to their usual powers, queens, rooks and bishops have the option when moving (not capturing) of vaulting over a single man of their own colour and landing any number of vacant squares beyond. The powers of the other chessmen are not affected. (*Chess Spectrum Newsletter*)

16.6 Pieces which exploit obstacles

Grasshopper Chess. The Grasshopper moves on queen lines, leaping the first man of either colour it encounters and landing on the square immediately beyond (a G on an empty board cannot move). It was invented by T. R. Dawson in 1913 for use in problems, but two games using it have evolved. In the simpler, the queens in the normal array are replaced by grasshoppers. In the version developed by J. Boyer in the 1950s, the back ranks are standard, there are 8xG on ranks 2/7, and 8xP on ranks 3/6 (no two-step move). (*Nouveaux Jeux d'Echecs Intéressants*)



A problem by V. Onitui, *Die Schwalbe* 1929. The inverted queen on f2 denotes a grasshopper. White mates in 6 by 1 g3 (giving Black a move, and forcing him to play it since he has no other) Gh4 2 g4 Gf4 3 g5 Gh6 4 g6 Gf6 5 g7 Gh8 6 gxh8(G)!

Screen Chess [Paletta] (Tony Paletta, 1980). In addition to their usual powers, knights act as screens for friendly line pieces (Q, R, B). Suppose White Ba1/Ne5, Black Bh8: Ba1 attacks Bh8 but not *vice versa*. Conditions for castling must take account of screened pieces. (*Chess Spectrum Newsletter*)

Separate Realms Chess (Mike Nelson and Peter Aronson, 2002). Board 8x8; standard array. Movement and capturing vary. K moves one square diagonally, captures one square orthogonally. R moves in two-square orthogonal leaps, B in two-square diagonal leaps, Q as R+B; all three pieces capture as in orthochess. N moves or captures like a N forward or backwards (four squares) but can only capture sideways (4 squares). Pawns are orthodox. (*Chess Variant Pages*)

Columbia Cannon Chess (CCC) (cooperative creation, 1965). Usual board and men; kings and pawns behave normally. Line pieces (Q, R, B) move by leaping over a man of either colour to any square beyond provided the way is clear, and if the first man beyond is hostile it can be captured or checked. ‘Knights’ are knights only in name; they move, capture and check as rooks but one or two squares only, and when moving two squares they may leap the first. The game tends to violence in the opening stages, but as the forces are diminished so also is the power of the remaining line pieces, and the knights, the most powerful pieces on the board, take over. Promotion to knight is usual. Subsequent opening analysis found that 1 Qb3, attacking both knights, gave White too big an advantage, and this was overcome (1975) by reversing the black K and Q in the array. In the ending, K+N can mate a K. (*Nost-algia* 168, 179, and later)

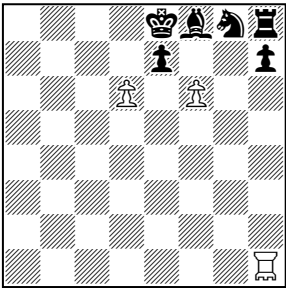
Twenty-First Century Chess [Jelliss] (George Jelliss, 1991, revised 1998). Board 10x9; 30 men a side, the basic idea being ‘to employ all the R, B, and N-line riders and hoppers’. We have already met the Grasshopper, which acts along Q-lines, and an equivalent piece can be defined along any straight line (so if there is a Nightriderhopper

on a1, nothing on b3, and a man of either colour on c5, the Nrh can ride up to c5, jump over it, and land on d7, capturing any enemy man that may be there). Additionally, the game uses an Equihopper, which uses a man at any distance as a pivot and lands the same distance away on the far side of it.

Baseline (a1-j1/a10-j10) R, Nr, B, R+Nr, Q, K, B+Nr, B, Nr, R, all being riders apart from the K; corresponding hoppers on next rank in, with an E in front of the K; third rank 10xP.

16.7 Pieces which move normally but must jump to capture

Xiangqi (Chinese Chess) will appear in chapter 27, but its Pao or Cannon has inspired the invention of similar pieces in games otherwise derived from Western chess and it is conveniently described here. It moves as a rook, but can capture only if there is exactly one man between it and its target.



In the diagram, the upturned rook at h1 represents a cannon. It can move to e1, and this is check; the pawn on e7 can nullify the check by capturing and moving off the file, but it cannot do so by moving along it. The cannon cannot take the pawn on h7, but it can take the rook on h8, and by doing so it will pin both the knight and the bishop.

Akenhead's Chess (named for J. Akenhead, 1947, but partly anticipated by Z. Mach in 1939). Usual array but only K behaves normally. Q, R, B move as normal except to capture, but to capture they must leap over a man (not more) of either colour to any square beyond on the same line. N moves as normal but without leaping, moving first one square orthogonally, then one diagonally. The pawns are Berolina pawns, moving diagonally and capturing straight ahead. Akenhead and

Pawns can move two squares at any time (e.p. permitted) and promote on either of the last two ranks; promotion to the piece which occupied that square initially (promotion on K-square to Q+Nr). Castling permitted, randomized start if preferred. In the original formulation, the K had the added power of an E and the man in front of it was a Lion (as G but can ride on to any square beyond the man hopped), but this was changed in the later version. (*Variant Chess* 6/28) [Text revised]

Dawson composed a large number of game tasks (both sides conspire to achieve the result). The family is popular with problem composers. (*Fairy Chess Review*, November 1939 and April 1947) [The R is the cannon (Pao) of xiangqi, which we have just met. The Q and B have no parallels in xiangqi, but Mach introduced the B with the name 'Vao' and 'Leo' was subsequently coined for the Q.]

Lion Chess (J. Boyer, 1950s). Usual array; K, N, P orthodox, Q, R, B respectively as Leo, Pao, Vao in Akenhead's Chess above. Pawns promote to orthodox pieces only. (*Nouveaux Jeux d'Echecs Intéressants*)

Cohen's Error Chess (Philip Cohen, 1977). In his *Olla Podrida* column in *Nostalgia* 210, Philip Cohen published the rules of Columbia Cannon Chess (see previous section) but confused them with Lion Chess, thereby giving birth to a not unattractive hybrid in which the line pieces move as in Lion Chess (and Akenhead's Chess) and everything else is as in CCC.

Decimal Oriental Chess (V. R. Parton, 1971). Board 10x10; extra pieces are Minister (moves one square diagonally), Elephant (leaps two squares diagonally), Camel (3-1 leaper), Cannon (as Pao above); K is known as Commander, R as Chariot; array (a1-j1/j10-a10 and inwards) ChCnCmEMCoECmCnCh, PPNPPPNPP. (*100 Squares for Chess and Damante*) [David described this game in the first edition as 'Pseudo-Xiangqi', but in truth the differences seem more significant than the similarities.]

Shako, also known as **Unified Chess** (J.-L. Cazaux, 1990). Board 10x10; extra pieces are Elephant (moves one or two squares diagonally, may leap intervening square) and Cannon (as above); CC on a1/j1 and a10/j10, ERNBQKBNRE on ranks 2/9, 10xP on ranks 3/8. The name means chess in Esperanto. (Cazaux)

Toulousain Chess (Jean-Louis Cazaux, 2003). Board 12x12 (a1 black); extra men are Gryphon (moves one square as B, then optionally any number of squares as R), Lion (as K, or as N, or two squares orthogonally, jumping permitted), Cannon (as above), Elephant (one or two squares diagonally, jumping permitted), Camel (3-1 leaper), Corporal (see below); array (a1-11/a12-112 and inwards) CnCmCoCo...CoCoCmCn (8xCo), ERNBGKQLBNRE, 12xP. Pawn as in orthochess but with two-step move allowed at any time; Corporal as pawn but may also

advance one square diagonally without capturing. Pawn and Corporal promote on the last row to Q, Lion, or Gryphon, and may take each other en passant. Board coloured red and black in honour of Toulouse rugby club. (Chess Variant Pages) [Text editorial]

[David's files also include a description by George Dekle Sr of a 'Kriegsfeld Chess' on an 11x11 board with 2 x alfil (leaps two squares diagonally), 2 x cannon as above, no pawn-two, promotion to B only, baseline RNACBKBCANR, and he reported this in the first edition as one of two games called 'Kriegsfeld Chess'. However, I have to say that I find it completely unbelievable, and I have taken it upon myself to omit the game. The name is curiously bilingual, and the rules are so eccentric as to suggest mistranscription or misunderstanding somewhere along the line. If the game had genuinely existed, there would be a reference to it somewhere else.]

Chapter 17

Unorthodoxy relating to capture

[We have already met some unorthodox forms of capture in Chapter 3, but in that chapter the moves of the men were orthodox and the same altered capturing ability normally applied to all of them. The present chapter is much more general. The moves of some of the men may be unorthodox, the alteration in capturing power may be peculiar to the individual piece, and pieces with different powers may coexist in the same game. The chapter also covers some other unorthodox features relating to capture.]

17.1 Capture by leaping over the target piece

Leapfrog Chess (Bruce Zimov, 1976). A combination of chess and draughts (checkers) in which men move by leaping any distance in any Q-direction and capture by leaping to the square immediately beyond the screen. The king is vulnerable to a leap capture as well as to an orthochess attack, even though the latter cannot be executed since it doesn't involve a leap. (*World Game Review* 10)

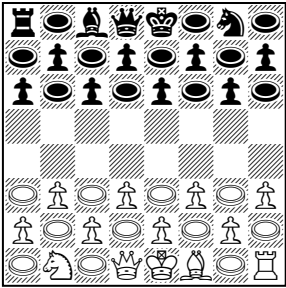
Airplane Chess (R. Wayne Schmittberger, 1981). Board 10x10; extra pieces are a Cardinal (B+N), a Minister (R+N), and two Airplanes which move like queens regardless of the number or colour of men on the line of movement. An airplane captures by moving to a vacant square immediately beyond its victim. Array (a1-j1/a10-j10 and inwards, centred) RACBQKBMAR, PPPNNPPPP, PP. Pawns may advance directly to the fifth rank and can be captured en passant on any square they pass over. The king moves three squares towards either rook to castle. (*Nostalgia* 256)

Congo (Demian Freeling, 1982). Board 7x7, central rank is a river; men are 1 x Lion (royal piece), Giraffe, Ape, Crocodile, Zebra, 2 x Elephant, 7 x Pawn; baseline (a1-g1/a7-g7) GAELECZ. Lion moves as K and is confined to the middle three files on its own side of the river, but if it 'sees' the enemy lion either diagonally across the river or down a file with no intervening piece of either colour it may capture it. Ape moves as K, captures by moving two squares orthogonally or diagonally (may leap). Giraffe moves as K,

captures as an omnidirectional draughtsman with the right to multiple captures (captured pieces are not removed before the move is completed but no man may be jumped twice). Elephant moves one or two squares orthogonally, may leap. Zebra moves as knight. Crocodile moves and captures as K, and also as R towards or within the river. Pawn moves one or two squares straight or diagonally ahead and captures similarly, when across the river may move but not capture one or two squares straight back, promotes on the end rank to Superpawn, which has the additional power of moving and capturing sideways and can also retreat two squares backwards either diagonally or vertically. A piece other than a crocodile which ends its move in the river 'drowns' (is removed from play) if it does not leave the river on the following turn. Object is to capture the lion. (Personal communication)

Edgehog Chess [Stone] (Jed Stone, 1982). Normal array, but rooks are Edgehogs, knights are Nightriders, bishops are Reflecting Bishops and queens are Locusts. Kings and pawns are normal. An Edgehog in this game moves like a queen but if on a perimeter square must move to a non-perimeter square and vice versa (thus it cannot give a back-rank check). Nightriders move as a succession of knight moves but not over occupied squares; reflecting bishops can bounce off edge squares (RBc1-a3-f8-h6-c1); locusts move on queen lines but only to capture, and do so by leaping a hostile man to a vacant square immediately beyond. (Stone)

Byelorussian Cheskers (N. N. Grushevsky and P. A. Shkludov, 1984). A combination of chess and Russian draughts. Board 8x8, array

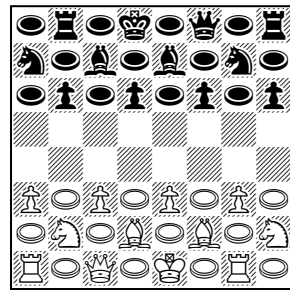


(eleven draughtsmen). Chess pieces behave normally; draughtsmen move and capture as Russian draughtsmen (move one square diagonally forward, capture by jumping forward or backward over a diagonally adjacent man to an empty square immediately beyond), promoting to Damka on end rank. A damka moves like a bishop and captures by leaping its victim to any empty square beyond. Capturing by a draughtsman or damka is compulsory but a player can choose between alternatives. A draughts capture takes precedence over a check. If a draughtsman, after making a capture, has another subsequent capture available, it must continue capturing. If a draughtsman promotes with a capture, it must continue to capture as a damka if able to do so. Chess pieces can capture draughtsmen and vice versa. In certain circumstances, kings can even mate kings. The object remains checkmate. (Personal communication)

Chivalry Chess (George Dekle Sr, 1986). Combination of halma and chess. In addition to their normal powers of movement, all pieces may make a leap or series of leaps over friendly men. Similarly, all pieces may capture by leaping over one or more enemy men. A compound leap (a leap or series of leaps followed by a capture or series of captures) can only be made by a king or knight. Knights leap like a king or queen: orthogonally or diagonally. Other pieces leap as they move; pawns diagonally forward only. Kings may not be leaped. Win by checkmate, occupying opponent's king square (e1/e8) or baring king. (Inventor's rule sheet)

Jesskers (Jesse Del Quadro, 1988). A marriage of chess and draughts (checkers). Set draughtsmen in starting arrangement on 8x8 board, then chessmen ditto. Half the chessmen will be on top of draughtsmen. All men move as in their respective games. A chessman and a draughtsman may occupy the same square if of the same colour, but both are captured if leapt by opponent's draughtsman or displaced by chessman. Object is to mate opponent's (chess) king. (*Chess Life*, January 1989)

Shashmaty (lit. Draughts-chess), also known as **Moscovitch's Game** (Alexander and Dimitri Moscovitch, 1989). A game that combines chess and draughts with a minimum of modification. Board 8x8; each side has 12 chessmen (four pawns) and 12 draughtsmen :



Draughtsmen move, capture and promote as in draughts (move one square diagonally forward; capture by leaping one or more men forward only; promote to draughts king that moves/captures as draughtsman but in any direction). Chessmen move and capture (including draughtsmen) normally, but only capture chessmen on black squares; however a king can be checked on either colour. Draughtsmen can capture both chess and draughtsmen and also give check. Capture between draughtsmen is compulsory, but a draughtsman is not obliged to capture a chessman. Pawns move one square only. A compulsory draughts capture that leaves one's own king in check loses. Strategy would appear to be limited on account of the inherent black-square weaknesses of both sides. (Inventor's rules sheets)

Jumping Chess (Peter Aronson, 2000). Board 10x10, but normal set of men and normal array on central 8x8 and perimeter squares

empty. Men capture by leaping as in draughts/checkers. Knights capture on either of the two squares crossed (orthogonal or diagonal, but not both) during a normal move. Bishops capture as a queen in international checkers (i.e., anywhere on the diagonal beyond the victim subject to the squares being empty). Rooks capture as a king in dama (like the bishop, but orthogonally) whilst the queen captures like either piece. The king and pawn can only capture an adjacent man. The perimeter squares may not be occupied except as the result of a capture. A piece on a perimeter square must capture if able to do so, even if his king is exposed to attack. Capture opposing king to win. (Chess Variant Pages)

Takeover Chess (Tony Quintanilla, 2001). 41-square board a3-a5, b1-f7, g3-g5; pieces move as in orthochess except that knights move one square orthogonally followed by one square diagonally and there are also Mirror-Knights which move one square diagonally then one orthogonally; RBKQB on b1-f1 and f7-b7, PMPNP on b2-f2 and b6-f6, further pawns on c3/e3 and c5/e5 (so opposing bishops and queens are at opposite ends of lines through the centre while opposing knights and mirror-knights are on the same file). As well as displacement capture, capture can be by leaping as in draughts/checkers (kings excepted) but only if the victim is undefended. A knight or mirror-knight,

exceptionally, may capture two men in one move, the first on the square over which it passes and the second on the square on which it alights. (Chess Variant Pages)

Quangtrung Chess (Vu Q. Vo, 1993 and subsequently). This game was developed through 12 editions, each a major revision of the previous one, and was finalized in 2003. Board 9x8 with inner 5x6 marked off; each side has 1 x General, 2 x Boat, Cannon, Elephant, 3 x Horse, 5 x Infantry. Sides Red (starts) and Blue, two moves per turn (Red's first turn one move only) but with different men (or both with the general) and only the second may capture. General one step diagonally on its first move (may not capture), one step orthogonally on its second, may not leave the inner 5x6 region. Boat as R but captures by leaping over the target piece and landing on the square beyond, which must be empty. Cannon 'slides orthogonally in odd number of paces while jumping over even number of paces'. Elephant leaps two squares diagonally or three orthogonally. Horse one step diagonally and then one orthogonally, may not jump. Infantry one pace diagonally forward provided that the position in front of it is not occupied, or one pace backward. Array (a1-i1/a8-i8 and inwards) C-E-H-E-C, B-H-G-H-B, I-I-I-I. To win, capture the enemy general or give stalemate. (Copy of author's rules sheet) [Text largely editorial]

17.2 Capture by attacking

Chess-Battle (A. S. Yurglevitch, 1933). Board 12x12 with 2x2 corners removed (128 squares). Men are military-oriented with logical movement and capture restrictions: HQ (flagpole symbol, moves as orthochess K), Aircraft (bomber symbol, moves along Q-lines and can leap one friendly man), Tank (tank symbol, moves one or two squares along Q-lines), Machine Gun (cartridge symbol, moves as K but captures by firing up to three squares along Q-lines, cannot fire over own men), Cavalry (knight symbol, moves two steps as R or B then one as R or B in a different direction, or one step as R or B then two as R, the second part always at an obtuse or right angle to the first, can leap own men but not enemy), Heavy Gun (projectile symbol, moves

as K and captures by firing up to five squares forwards, diagonally forwards, or sideways, can fire over own men), and Warrior (Red Army helmet symbol, moves as K with the additional option of two squares diagonally when on a white square, cannot capture when retreating either directly or diagonally or when making its two-step move). M/C/W cannot capture T, T/C cannot capture A. Array (c1-j1/c10-j10 and inwards) HCAKMH, WWWWTWWW, 8xW (ranks 3/8 centred). There is no promotion; instead, a W reaching the rank ('infantry breakthrough') is removed from the board and its owner is allowed to remove any enemy man except the K. Object is checkmate of HQ. Although the opening is slow and the infantry feeble, this is one of the

better kriegsspiels combining war and chess. (Letter giving an extract from *Voennoshakhmatnaya Igra*)

Novo-Schaakspel (L. J. Weijden, 1937). A kriegsspiel rather than a chess variant; board 12x8; 24 men a side, pieces are military units ranging from the General down through tanks, aeroplanes, submarines, spies and even the Red Cross. (Author's booklet *Handleiding voor het "Novo-Schaakspel"*) [This booklet runs to 32 pages and the translation which was being done for David was interrupted, but there is a reference to men being 'eliminated at a distance' and I have assumed that the game belongs in this section.]

Star Chess (Proprietary game, Videomaster; Peter Gebler, 1979). One of the first true computer variants, if not the very first. Usual set-up but the men are renamed: Commander (king), Destroyer (queen), Supercruiser (rook), Starcruiser (bishop), Superfighter (knight), Starfighter (pawn). Commander stands on square of its own colour in the array. The squares occupied by the Commander and Destroyer are known as the Star Base and may not be occupied by the opponent. The object of the game is to eliminate the opponent's commander. Pieces move as in chess except the starfighter which moves one square orthogonally. All men are armed with shields and a corresponding number of missiles: commander and destroyer 7; starfighter 2; other pieces 4. No promotion, castling or check. Capture is by displacement but missiles provide an additional, random factor. Instead of moving, a player may use a man to fire a missile, the probable hit factor depending on the distance between man and target. Results vary from a miss (launcher is damaged) to a hit with one or more shields damaged. When a piece loses all its shields it is eliminated and disappears from the screen. Pieces may rearm by staying a few turns in star base, but may not acquire extra shields. Pieces may also move into superspace when they disappear from the screen and return at random with an audible signal a few moves later. A piece returning from superspace can arrive on any square, and if occupied destroys its occupant, whether friend or foe. A championship, staged in London in 1979 with much publicity and

won by Peter Bond, was umpired by Harry Golombek. The game vanished shortly afterwards. (*Games and Puzzles* 75, also David's book *Brain Games*)

Warrior Chess [Stone], also known as **Assassin Chess** (Jed Stone, 1982). Pieces move normally but capture as in Rifle Chess (Chapter 3). Capturing is compulsory but player has choice between alternatives. Pawns move one square orthogonally in any direction but do not capture. Only kings and knights can capture pawns. King has no royal powers. Object is to capture all the opponent's pieces (pawns disregarded). (Stone)

Lazer Chess [DeFluiter and Ryan] (Proprietary game, Think Tank Games; Steve DeFluiter and Roger Ryan, 1986). Ordinary chess set but pieces are named after space ships with initial strengths ranging from 7 for the Deth Star (sic) to 1 for Starfighters. Pieces attack as in Rifle Chess. An attacked piece has its strength reduced according to the strength of its attacker and the distance between them. Pieces reduced to zero are eliminated. The object is to capture the enemy command vessel, value 0, but it can be protected by transferring power from friendly pieces. A game of attrition. (*World Game Review* 7)

Laser Chess [Duppong] (Proprietary game, *Compute!'s Gazette*; Mike Duppong, 1988). Software program that won first prize of \$5,000 in a *Compute!'s* programming contest. Board 9x9; each side has 18 pieces made up of 1 x King, Laser, Hypercube, Beam Splitter; 2 x Straight Mirror, Diagonal Mirror; 4 x Block; 6 x Triangular Mirror. Capture by displacement, but also if hit by laser beam on non-reflective surface. Two moves per turn (options are rotate piece, move piece one or two squares, fire laser). Moving the hypercube to an occupied square causes the man there to reappear at a random location; moving a man to the central square does the same. Elimination of king, which moves as in orthochess and has no reflective surfaces, wins the game. (Article in *Compute!'s Gazette* special 1988 issue)

Randomized Rifle Chess (George Jelliss, 1991). Untested variant inspired by scenes in

Western films where gangs shoot it out from behind improvised barricades. Players, whose men are confined to their own half of the board, move simultaneously behind a central screen. Rooks, bishops, and queens move by single steps only. Pawns, which represent the barricades, do not move independently but are pushed or pulled by pieces that move, for example Nb1-d2 pushes Pd2 to f3.

When the screen is raised, the shooting starts. Any piece in the sights of a gunman is assumed to be shot, and is removed from the board at the end of the turn. Rooks, bishops, queens shoot along their normal lines, knights along N-lines, kings along 3-1 and 3-2 lines. Pawns normally block shots, but a 'backed-up' piece (e.g. R in front of Q) can shoot through a single barrier P. The king is immune to a single shot, but is 'mated' (killed) by a double; pawns are invulnerable to single or double shots, but are knocked out by a triple. Like-shooting men, for example bishops facing each other along the same diagonal, successfully shoot each other, and both are removed at the end of the turn. If both kings are still alive, the players put back the screen and have another go. (*Variant Chess* 6) [Text largely editorial]

Outback Chess (Timothy R. Newton, 2002). 84-square board consisting of a 6x6 square with four 6x2 extensions, thus a3-b8, c1-h10,

17.3 Capture by moving as the target piece

Imitante Queen Chess, also known as **Mimotaur Chess** (V. R. Parton, 1971). Board 10x10; extra pieces are Imitante Queens or Mimotaurs; baseline (a1-j1/a10-j10) RNMBQKBMR. A mimotaur moves like a

17.4 Destruction of men on nearby squares

Atomic Chess [Benjamin] (H. D. Benjamin, 1949). Benjamin adapted the atomic bomb for problem purposes to the 8x8 board, giving it a destruction range of root-8 from the square centre. Michael Solomon extended the idea in **Radiation Chess** (1970), in which radiation lingers for a while on the square of the explosion and less strongly in the surrounding region, and any piece alighting or remaining there is killed or subjected to various

i3-j8; men are Echidna (royal piece), Kangaroo, Platypus, Spearsman, Ranger, Bushman; PSKESP on c1-h1/h10-c10 (echidnas on f1/e10), RBBBBR on ranks 2/9, BBBB centred on ranks 3/8. Echidna moves as K, captures two steps away orthogonally and the intervening square must be empty. Kangaroo leaps as N or two squares diagonally. Platypus moves orthogonally, up to three squares forward or two to the side. Spearsman moves one square orthogonally in any direction; to capture, it moves one or two steps forward, no leaping, and then attacks and kills an adjacent diagonal man without further movement (so S at d4 can move to d5/c4/e4/d3, or move to d5 and kill a man at e6 or e6, or move to d6 and kill at c7 or e7). Ranger moves one or two squares as a bishop, no leaping, or leaps as a restricted knight: one square forwards and two to the side, or two backwards and one to the side. Bushman moves one square orthogonally forward or to the side, captures one square diagonally forward; initial two-step move permitted, no e.p. P and B promote on last two ranks; P becomes orthochess R, B gains all-round movement but still moves one square orthogonally and captures one square diagonally. It is only the Spearsman which has the unorthodox method of capture; all other men capture by displacement. (*Chess Variant Pages*) [Text editorial]

queen but captures in the manner of the piece it is taking. MxM is not possible, and a mimotaur must stand next to a king to give check. (*100 Squares for Chess and Damante, Enduring Spirit of Dasapada*)

debilitating effects. (*Fairy Chess Review*, August 1949, *Neue Chess* 11)

Bomb Chess (Duncan Suttles, 1973). Standard set-up but QRs (a1/a8) inverted to represent bombs. Bombs move like kings, one square in any direction. Instead of making a move, a player may detonate the bomb, which causes all men on surrounding squares, as well as the bomb, to be removed from play. The

best strategy is to escort the bomb forward to achieve maximum damage with what Suttles calls 'the bomb's rush'. (*Chess to Enjoy*)

Stratomic (Proprietary game, Robert Montay-Marsais, 1974, relaunched 1998). Board 10x10; extra pieces are Missiles which move and capture like kings but also have the power to launch to any square whether occupied or not. Any man on the square, and any on the immediately surrounding squares, are eliminated together with the missile, with the exception of kings who are immune. This counts as a move. A missile cannot however be launched until a piece (not a pawn) of either colour has been captured. A missile under attack from a hostile man is 'pinned' and cannot be launched. Array (a2-j2/a9-j9 and inwards, ranks 1/10 empty) MRNBQKBNRM, 10xP. (Proprietor's booklet)

Military Chess [Grachev] (V. P. Grachev, 1958) was a 12x12 game including ships and armoured cars. There are pictures of Soviet schoolchildren playing, and the game was possibly an update of Yurjevitch's Chess-Battle (see section 17.2). It appears to have developed into **Military Chess [Mironov]** (V. A. Gracheva, V. Y. Grachev, V. A. Mironov, 1988), described as for 'older schoolchildren', which was publicized in newspapers and magazines throughout the U.S.S.R. and was displayed at the Soviet Exhibition of Economic Achievements (VDNKh). With a touch of irony, it was awarded a prize in its section of the 1989 Games for Peace competition. Board 12x12, central 8x8 area in contrasting colour; 24 pieces a side of 10 types. Six men have exact chess counterparts: HQ Staff (K), General (Q), Tank (R), Aeroplane (B), Horseman (N), Infantryman (P) (promotes to general). Shell moves like B but may jump, captures similarly but only at a distance of two squares; Armoured Vehicle like R similarly, captures at a distance of three squares; Rocket as Armoured Vehicle and Shell combined. Mine moves like K and destroys an enemy man on adjacent square. Array (a1-l1/a12-l12 and inwards) SAvTAeRGHqRAeTAvS, HoMIIIIIMHo. Object of game is to capture (mate)

opponent's HQ Staff (K). There is a merit scoring system which awards 1, 2 or 3 points for a win (based on material advantage when time is reached, mating the king on an edge square, or mating the king in the centre).

Conversion (V. A. Mironov and S. B. Smirnov, 1989) was a pacific metamorphosis with the slogan 'It is better to fight on a board than on a battlefield'. The dark squares of the 12x12 board shade from dark blue (central 8x8) to light blue (perimeter squares). The pieces are abstract in design but the game itself, including the names of the men engaged, moves, rules of play and the array, are for practical purposes those of Military Chess [Mironov] above, and the system of awarding 1, 2 or 3 points for a win is also similar. Amongst minor changes, the Horseman has become a Paratrooper and, in harmony with the game's concept, the Infantrymen (pawns) promote to Farmers (who still move like Generals). The game had favourable coverage in the Soviet Press. (Personal communications, photographs, cuttings, carbon copies, and photocopies) [Text revised. No details appear to be to hand for Grachev's 1958 game beyond a photograph of a tournament in progress and a close-up photograph showing one set of men. These appear to be Shell, Mast (?), Ship, Armoured Vehicle, Horseman, General, HQ, Aeroplane, Tank, and Infantryman, SIMSpAvHoGHqHoAvSpMSI fronted by AeTIIIIIIIT Ae. The source material for the later games is voluminous and somewhat confusing, and I will take responsibility for the moves of Shell, Armoured Vehicle, and Rocket, and for the array.]

Beirut Chess (Jim Winslow, 1992). Both players secretly attach a red dot to the bottom of any one of their pieces except the king. This piece is a bomb carrier. On any turn, instead of moving, a player may say 'Boom!' and turn over his bomb carrier. All men of both colours on squares adjacent to the carrier, and the carrier itself, are removed from the board. A player wins when the opposing king is checkmated or blown up. (Leaflet 'Beirut Chess' apparently emanating from the inventor)

17.5 Subversion and treachery

Fools' Chess (Proprietary game, Ida Games, 1994). Usual board and more or less usual men, but a player secretly nominates one of his opponent's four minor pieces to be a

traitor. At any time after the third move, he can claim this piece and take it over. Three of the pawns are also subject to special rules. (Proprietor's rules pamphlet) [Text editorial]

17.6 Other forms of capture

Chessenat (originator unclear, 1960s). An amalgam of chess and the ancient Egyptian game of *senat* (believed to be a race game, the rules of which are unknown anyway). Usual setup but each player has a line of *kelbs* on the 3rd/6th ranks. *Kelbs* move one square orthogonally and adopt the custodian capture (*kelp* either side of enemy piece). Slow moving, but apparently popular at Columbia University at the time. (*Nostalgia* 164)

Best Decimal Butter (V. R. Parton, 1970). Board 10x10; baseline (a1-j1/a10-j10) RRNBQKBNRR. All men move as in orthochess but capture is by butting, not displacement. A man butts another man when it moves to a square adjacent to it, either orthogonally or diagonally. The object is to annihilate the opposition. Kings are commoners and are treated like any other piece. (*Challenge and Delight of Chessical and Decimal*)

Tank Chess [Suttles] (Duncan Suttles, 1973). Standard set-up but QRs (a1/a8) inverted to represent tanks. A Tank moves as a king but does not capture. Instead, it pushes an adjacent man of either colour one square in the direction of movement. If further men are on the same uninterrupted line (no vacant squares) then they too are pushed one square; thus if White chooses to meet the Caro-Kann Defence 1 e4 c6 with the Two Knights variation 2 Nc3 d5 3 Nf3, 3...Ta8-b7 pushes his Rh1 off the board. (*Chess to Enjoy*)

Tank Chess [Paletta] (Tony Paletta, 1980). Standard set-up but Tanks replace knights in the array. A tank moves and captures as a king, but pushes a friendly man, and any other men of either colour in the same uninterrupted line, one square in the direction of movement,

the last man possibly being pushed off the board. Pawns may be pushed back to their starting rank (where they regain their two-move option) but not beyond. Promotion to tank possible. (*Chess Spectrum Newsletter*)

Custodian Chess (George Dekle Sr, 1986). In addition to orthodox displacement, men can be taken by custodian capture, orthogonal or diagonal. This ancient form of capture occurs when a man is flanked on either side by men of the opposite colour. It only applies after a move by the capturing side; on his own move, a man may move safely between two opposing men. Apart from checkmate, the king can be mated by custodian capture but only if all four orthogonally adjacent squares are occupied by opposing men, an unlikely death. (*World Game Review* 10)

Coordinator Chess (George Dekle Sr, 1986). Board 10x10; extra pieces are Coordinators which move as queens but capture in cooperation with the king; baseline (a1-j1/j10-a10) RNCBQKBCNR (kings on f1/e10). After a C move, any opposing man that stands on the same rank as the K and file as the C, or vice versa, is captured. (*World Game Review* 10)

Withdrawer Chess (George Dekle Sr, 1986). Board 10x10; extra pieces are Withdrawers which move like queens but capture adjacent men by moving away from them on the same line (Wb2 can capture a hostile man on a1 by moving to any square from c3 to h8); baseline (a1-j1/a10-j10) RNWBQKBWNR. A withdrawer on a corner square cannot capture. The piece derives immediately from *Ultima* (see later in the chapter), but its origins are in the Madagascan game *Fanorona*. (*World Game Review* 10)

17.7 Immobilization

Valentine's Chess (Ken Valentine, 1969). Board 10x10; 20 pieces and 10 pawns a side; Q renamed as Earl; new pieces are Cardinal (moves one square as R then as B, or as B then one square as R), Duke (R+N), Grand Chancellor (Q+N), Monk (to squares in a zig-zag, forward only, thus a1-b2-a3), Squire (non-retreating knight), Templar (B+N), Viscount (two squares orthogonally, may leap), Wizard (see below); array (a1-j1/j10-a10) and inwards RVDEGKGCTR, WNBSMMSBNW, 10xP. Wizard moves to any square in 5x5 sector around it; does not capture; immobilizes man on square it lands on, if enemy man, then both are immune from capture; if W and piece of same colour on square and are captured, W is removed and piece transported to array square of the attacker. Promotions on back rank: P to D, N, R, V only; S to E, G, T only; M to B, C, T only. A strangely-assorted company. (*World Game Review* 10, personal communication)

Gorgona Chess (V. R. Parton, 1970). Board 10x10; extra pieces are Gorgonas, which move like queens but do not capture. Instead, any enemy man coming under the G's gaze (i.e., along queen lines) is 'petrified' and has no

17.8 Interchange of pieces

Decimal Champion Chess (Proprietary game, T. A. Poppé, probably late 1920s). Board 10x10, a1 black; extra pieces are Champions, which move as kings or as 3-1 leapers and when leaping can capture a friendly man, except the K or Q, and can change places with a friendly pawn. Baseline (a1-j1/a10-j10) RCNBQKBNCR. Pawns can move up to three squares initially, e.p. permitted. A pawn on the first rank (as a result of an exchange with a champion) can only move one square, but then regains the 1-2-3 move option. Pawns promote on the 10th rank but a pawn moved there as a result of a champion exchange is frozen (and subject to capture) until released by another exchange. (Inventor's rule leaflet) [This leaflet is undated but includes a hope that the game 'will hopefully serve to enliven and update the classic chess as advocated by the great Capablanca'.]

power to move, capture or check, but only so long as the gaze persists. Gorgonas can therefore only be captured by knights. A petrified king cannot move to escape check. Hostile Gs petrify each other but continue to exert their influence over other men. Baseline (a1-j1/a10-j10) RNGBQKBGNR. (*Challenge and Delight of Chessical and Decimal*)

Demigorgon Chess (V. R. Parton, 1971) is an 8x8 version. Pawns are on the 3rd rank, the K and Q on the two central squares of the 2nd rank, and the gorgonas, renamed to demigorgons, in place of the K and Q on the 1st rank. (*Chesshyre-Cat-Playeth-Looking-Glass Chessys*)

Gorgon Chess (V. R. Parton, 1973) is the same as Gorgona Chess except that the extra pieces are Gorgons. These have the power of gorgonas, but can also capture and check like queens. (*Enduring Spirit of Dasapada*)

Immobilizer Chess (George R. Dekle Sr, 1986). Board 10x10; extra pieces are Immobilizers which move as queens but do not capture (hence do not check); instead, they paralyse adjacent enemy men. Baseline (a1-j1/a10-j10) RNIBQKBINR. (*World Game Review* 10)

Permutation Chess [Berthoumeau-Loiseau] (J. Berthoumeau and R. Loiseau, 1950s). The king may change places with a friendly piece up to four times in the course of a game following the strict sequence N-B-R-Q. The interchange counts as a move and may be made when in check. If a type of piece is no longer on the board, then that piece is skipped in the sequence and the number of possible interchanges is reduced. (*Nouveaux Jeux d'Echecs Intéressants*)

Chimaera Chess (V. R. Parton, 1969). Board 10x10; extra pieces are Chimaeras which move like queens but cannot capture or be captured; instead, a C can change places with an enemy man that it attacks. The tactics are curious, since a C will frequently elect to move away from a target piece in order to lure it afar, a traumatic experience if the piece

happens to be the king. Baseline (a1-j1/a10-j10) RNCBQKBCNR. Philip Cohen has suggested an 8x8 arrangement, deploying the men on three ranks: RCBQKBCR on rank 1, NN on c2/f2, 8xP on rank 3 (no two-step pawn move). The impact of the chimaeras tends to overshadow the actions of the other pieces, and as an alternative Parton proposed **Chimaerine Chess**, identical with Chimaera Chess except that chimaerines can be captured. (*Challenge and Delight of Chessical and Decimal*, also *Nost-algia* 182)

Exchanger Chess (Tony Paletta, 1980). Exchangers replace knights in the starting position. An exchanger moves and captures as a knight but may additionally change places with any friendly piece a knight's move away. The only exception is that a pawn may not be

17.9 Multiple forms of capture

Baroque (Robert Abbott, 1961). The name originally given by the inventor to Ultima (see below). In Baroque, the Longleaper can capture only one man in a turn, otherwise rules are those of Ultima. The dubious name change is credited to the original publisher. (Manuscript note presumably derived from personal communication)

Ultima (Robert Abbott, 1961, later revised). This complex and highly original game has long been appreciated by connoisseurs. Its origins lie in an observation of Abbott's that in strategy games pieces tend to have different moves but capture in the same way. Ultima reverses this: the pieces have similar moves but capture in different ways. The object remains checkmate. The normal board and men can be used, but it is necessary to distinguish between the rooks.

There are two versions of the game. In both versions, the kings move as chess kings, pawns move like rooks (in any direction), and all other pieces move like queens. In the earlier version ('old rules'), men can move as far as they like provided that the way is clear. In the later version ('new rules'), the number of squares moved by a man depends on the rank on which it stands. If on the first rank, it can move only one square; if on the second, one or two squares, and so on up to the

moved to the first rank. (*Chess Spectrum Newsletter*)

Compact Chess (M. Dean-Smith, 1988). Board 6x6; RNKQNR on a1-f1 and a6-f6, BPPPPB on ranks 2/5, PP on a3/b3/e3/f3 and a4/b4/e4/f4. There are two main rule changes. (1) A pawn may not capture if the square in front of it is blocked but instead may change places with the man attacked, called a 'shuffle'. Suppose White Pd3, Black Nd4/Pe4; White can shuffle (pawns change places), but Black cannot. (2) A piece (not P, nor K to get out of check) may replace an adjacent (including diagonally adjacent) pawn of the same colour, called an 'own shuffle' - in effect, an own-pawn capture. Curious tactics spell short games. Played in South Africa. (Inventor's rules pamphlet)

seventh and eighth ranks where a man has maximum mobility (up to seven squares).

It is the method of capture which differentiates the pieces, and this is the same under both the old and the new rules.

The King has its normal displacement capture.

The Pawn has the custodian capture common in strategy games of the ancient world: if a friendly man of any rank has an enemy man next to it orthogonally, and the square on the other side of the enemy man is vacant, then a pawn captures by moving to it such that the enemy man is sandwiched between them. It is possible for a pawn to capture up to three men simultaneously. It is axiomatic that a capture is made by the man that moves, so it is safe to move between two enemy men even if one is a pawn.

The Withdrawer captures by moving away from a piece to which it is adjacent (see Withdrawer Chess above).

The Longleaper leaps over its quarry to a vacant square beyond. If there are two or more successive vacant squares, it can move to any one, and it can capture more than one man at a time provided that they are on the same line and there is at least one vacant square between each. A longleaper cannot jump friendly men.

The Immobilizer paralyses all hostile men it stands next to. A player on turn may, instead

of moving, elect suicide for a man (other than the king) that has been immobilized, the usual object being to disclose an attack on the immobilizer. Immobilized men recover their full powers if the immobilizer moves away or is captured. Adjacent immobilizers immobilize each other as well as any enemy man with which they are in contact. A king can mate an immobilized king.

The Coordinator captures in cooperation with its king (see Coordinator Chess above). After a C move, any opposing man that stands on the same rank as the K and file as the C, or vice versa, is captured. The coordinator inspired Coordinate Chess (see Chapter 12) and its countless offspring.

The Chameleon captures in the manner of the man it is capturing. A chameleon moving adjacent to an immobilizer paralyzes it and itself. The immobilizer continues to paralyze any hostile pieces adjacent to it but the chameleon has no such power. Chameleons cannot capture one another.

In the starting position the immobilizer (normally represented as an inverted rook) is on the left of the king under the old rules, on either side at the player's choice under the new rules. The complete baseline (a1-h1/h8-a8) is ILChKWChLCo (old rules) or CoLChKWChLI if preferred (new rules). Notice that the kings are on d1/e8. There is no promotion or castling, and a stalemate is a win for the player giving it. Some work has been done on the endgame but Ultima remains largely virgin territory for researchers. Draw by exhaustion is possible.

The inventor has contended that the game is flawed on two counts: defence is generally easier than offence (partly corrected by the new rules), and the game lacks clarity which inhibits planning in depth (*World Game Review* 8). (*Abbott's New Card Games*, plus numerous references in *Eterosacco*, *Nost-algia*, *World Game Review*, and elsewhere)

Ultima has generated several variants. In **Ulti-Matem** (Bruce Trone, 1967), the pieces retain their standard move, that of the queen, but there are five different types of pawn move (as if Ultima wasn't complicated enough). The pawns move like the chess pieces they stand in front of; e.g., pawns a/h files move as rooks. The exception is the king's pawn (d2/e7 in

Ultima), which is known as the Double Knight pawn, and which makes two knight moves in succession in any pattern as one move. Pawns retain their special moves when changing files, so must be severally distinguished. Capturing and other rules as Ultima. (*Nost-algia* 91)

Unorthodox Ultima (John S. Thayer, 1967) introduces two new pieces: the Neutralizer and the Repeller. The neutralizer is similar to the immobilizer but instead of paralyzing a man it moves next to, it deprives it of its power to capture. A neutralized man can therefore move away but not to capture. When no longer under the influence of the neutralizer, the piece regains its full powers. Following the Ultima principle that it is the moving piece that captures, a neutralizer moving next to an immobilizer deprives it of its power to paralyse but not to move, whereas an immobilizer paralyzes a neutralizer it moves next to. A repeller, in occupying a square orthogonally adjacent to an enemy piece, repels it along the line of movement as far as it will travel. If the piece cannot move, either because of the board edge or because the square immediately beyond it is occupied, it is captured and removed from play (note that this capture is identical to the pawn capture in Ultima). All other Ultima rules apply. The neutralizer replaces the longleaper g1/b8 and the repeller the chameleon c1/f8 in the array. (*Nost-algia* 86)

Renaissance [Monchalin], also known as **Baroque Renaissance Chess** (Matthew Monchalin, 1975) uses a 9x9 board with extra pieces Bomb, Resurrector, Pusher, Puller, and some renaming of the standard Ultima pieces; baseline (a1-i1/i9-a9) ILChWKBRPsCo, and players may have extra pieces by agreement in a queue awaiting entry. Captured pieces change sides and can be dropped back into play, and the four new pieces are transformed when captured; a Ps becomes a Pl, a R becomes a B, and vice versa. The game's origins are in Baroque and the moves and methods of capture of the other pieces are as in that game (in effect, as in Ultima to the old rules except that the L can only capture one man a turn). The four new pieces move, when not capturing, like a queen, and their actions when capturing are as follows.

The Pusher can push an adjacent hostile man one square provided the square it is

pushed to is vacant. A pusher cannot capture.

The Resurrector can change places with any adjacent man. When a resurrector moves to an adjacent empty square, the player may introduce any man in hand (i.e., previously captured) on the square vacated.

A Bomb can be exploded instead of moving, destroying all men on adjacent squares as well as itself. Men destroyed by a bomb cannot reenter play.

A Puller cannot capture, but can pull an adjacent hostile man with it when moving. If it pulls a hostile puller, this in turn pulls an adjacent man if on the same line, and so on.

A player must move if able to do so, but can pass if unable to move - a not uncommon situation due to the effect of the immobilizers. Some remarkable situations can occur. At the start of a game White may interchange the corner pieces (C and I), when Black has the same option, as in Ultima. (Manuscript notes presumably derived from personal communication, also photocopy of rules booklet as codified in 1994)

Bogart's Chess (K. Bogart, 1985) is a variant in which a Longleaper and a Chameleon are replaced by an Absorber, which acquires the added power of a captured piece, and a Golem, which moves two squares at a turn, captures by replacement, but must itself be captured twice to remove it from the game. Baseline (a1-h1/h8-a8) ILAKWChGCo, but IAGKWChLCo is suggested as an alternative. (Photocopy of personal communication)

Rococo (Peter Aronson and David Howe, 2002) is a modification originally designed to favour attack over defence. Board 10x10, new pieces are Advancer and Swapper, and the pawn move is altered; perimeter squares initially empty, array (b2-i2/b9-i9 and inwards) IWLKChLAS, 8xP. The Advancer captures by approach (hostile piece next to it on line of movement). A Swapper may change places with any man in its unobstructed path. Pawns move as a K, or leap adjacent man of either colour to square immediately beyond; if this square is occupied by a hostile piece, it is captured. Perimeter squares may not be occupied except as the result of a capture. Take the opponent's king to win. (Chess Variant Pages)

Maxima (Roberto Lavieri, 2003). 76-square

board, 8x9 rectangle a2-h10 plus goal squares d1/e1 and d11/e11; extra men are Mage and Guard, and K and P moves are altered. K moves and captures like orthochess N but can also move as if board is cylindrical (e.g., b to h file or vice versa). Mage moves one square diagonally and may continue moving orthogonally away from the starting square; it captures by displacement, and cannot be immobilized. Guard moves and captures as orthochess K. The Pawn moves as orthochess R, and takes by custodian capture. Array (a2-h2/h10-a10 and inwards, centred) M-KW-M, ChLCoILCh, GPPPPPPG (only six pawns). Win three ways: by checkmate, occupying both opponent's goal squares, or reducing opponent to bare king. (Chess Variant Pages)

Fugue (Mike Nelson, 2004). Extra pieces are Archer (captures by shooting but must have a friendly 'spotter' if the target is more than two squares away), Pushme-Pullyu (combines the powers of the Advancer in Rococo and the Withdrawer), Shield (does not capture but secures immunity for all friendly pieces adjacent to it); pawns move and capture as in Rococo; baseline (a1-h1/h8-a8) IPASHKQLSw. The K and Q are as in orthochess. (Chess Variant Pages)

2000 A.D. (V. R. Parton, 1972). Described by Parton as 'the game for Future Players in the Next Millennium' and by Wayne Schmittberger, a former editor of *Games* magazine, as 'very good'. Board 10x10; 20 pieces a side (can be increased to 22). The feature of the game, possibly inspired by Ultima, is that all the major pieces move as a queen but each has its own method of capture. One piece behaves exactly like a Q: the Empress. The object of the game is to capture the opponent's Empress (there is no checking). The Gorgon moves and captures as a Q but also petrifies any enemy man, including an empress, it observes (attacks). The petrified man loses all power of movement so long as it is observed (an intervening piece for example would release it). Gorgons can petrify each other but even then do not lose their power to petrify. The Ximaera (Chimaera), Dragon, Capricorn and Mimotaur all move as a Q. The ximaera (a nonce-spelling, convenient for notation) can change position with any man it attacks. (If it switches with another ximaera,

the opponent cannot reverse the move on the next turn.) The dragon captures by leaping to a vacant square beyond the victim and can continue to capture (but not a gorgon, which freezes it) on the same line. The capricorn takes by moving to a vacant square adjacent to its victim(s). The mimotaur (presumably a minotaur that mimics) captures in the manner of its victim and similarly counter-petrifies a gorgon. The minor actors are puny by comparison. The Attendant has the king's move but without royal powers and serves as a screen for the empress. The Unicorn is a knight. The pawn moves a square at a time and can promote on crossing into the opponent's half of the board to any piece previously lost. The gorgon is the most formidable of the pieces since it can first petrify and then capture, and is itself only vulnerable to a capricorn or unicorn. Parton was relaxed about the array, proposing several of which one was (a1-j1/j10-a10 and inwards) DXGCEACGXD, MPPPUUPPPM. He also offered, as an optimum extra, two pawns on the centre files of the 3rd/8th ranks. Not content with this monstrous zoo, Parton proposed an alternative piece, the Fury, 'the supreme glory of my idea'. The fury combines the powers of all the pieces and replaces a gorgon in the array. (*My Game for 2000 AD and After*)

Royal Fury (V. R. Parton, 1974). Described by Parton as 'a futuristic game for 2000 A.D. and beyond'. Board 10x10; 24 pieces a side, made up of 2 x Capricorn, Dragon, Fury, Gorgon, Harpy, Jumper, Mimotaur, Ximera; 8 x Advancer. All pieces except A and J move (but do not capture) as queen. A moves one square forward (including

17.10 Immunity from capture

Kristensen's Game (Ejnar Kristensen, 1948). A conscious attempt to restructure chess in order to give the game symmetry and balance. Board 9x9; extra queen, rooks have additional powers of knights; bishops can move, but not capture, one square forwards or backwards; pawns can move backwards. The e-pawn is known as the Barrier pawn as it serves as a block. It moves like a king but can only capture men of its own colour. It is itself immune from capture except by its own king

diagonally), capturing similarly; promotes to J on entering opponent's half of board. C captures by moving to a square adjacent to victim. D captures by leaping victim to vacant square beyond, may continue to capture on same turn provided no change of direction. F has additional move of J, captures as C, D, G, H, J, can interchange as X. G immobilizes all men it attacks; G can petrify G but both retain their immobilizing powers. H captures by displacement, but only by first leaping a man of either colour. J moves and captures as an orthocheess knight. M mimics the capturing power of the victim. X does not capture, but instead can change places with any man it attacks. Furies are royal pieces. Array (b1-i1/b10-i10 and inwards, files a/j empty) GHCFFCHG, MXDJDXM, AAAAAAAA. Object is to capture both furies; if each side captures one, the game is drawn. It may be no surprise that Parton loosely based his ideas for this game on the mad tea party in *Alice in Wonderland*. (*Chessery for Duffer and Master*)

Snowplow Chess, also known as **Multi-Capture Chess** (David L. Silverman, 1971) The linear pieces (Q, R, B) may capture any number of men on a line in a single move, occupying the square of the last piece taken. A multi-capture move is terminated by any friendly man, the opponent's king, the board edge or at the player's option (*Your Move*). Another version allows the N to capture like a nightrider (makes successive knight moves along a straight line as long as the road is clear) and gives the king no royal powers, the object being to eliminate the opposition (*Chess Spectrum Newsletter*).

and the opposing barrier pawn. Baseline (a1-i1/a9-i9) RNBQKQBNR, c/e/f/g pawns advanced one rank; every pawn is protected by a piece, and every piece can move. Only the wing pawns (a/b/h/i) can move two squares. No castling or e.p. More radically, it is forbidden to resign (how, one wonders, is this enforced?) and to be stalemated or give perpetual check is a worse defeat than being mated (the victor collects an extra half-point). (*Les Jeux d'Echecs Non-orthodoxes*)

Star Wars (Marco Fabbri, 1987). Queen is Jedi; moves as Q and is immune from capture if within three squares orthogonally, a knight's move, or one square diagonally, of its own king. Suppose Ke1; jedi immunity zone

extends throughout the triangle b1-e4-h1. All pieces except K can move into hyperspace (parallel universe) but only one piece of each type allowed in hyperspace at a time. Return only to unoccupied square. (*Eterosacco* 40)

17.11 Captured men change sides and can be re-entered

[Games which have 'shogi' as part of their name have been placed in chapter 28.]

Dragonfly, also known as **Shuttle Chess** (Christiaan Freeling, 1982). Board 7x7; baseline (a1-g1/a7-g7) RNBKBNR, later altered to RBBKNNR. Captured pawns are removed from play, but a captured piece changes sides and can be entered on any

empty square in place of a normal move. Pawns have no two-square move and promote to any piece the opponent has in hand. Promotion is not permitted if the opponent has no piece in hand. Castling is allowed. (*Variant Chess* 14)

17.12 Captured men can be recovered by their owners

Priséchec (Proprietary game, Ateliers de la Balme). Board chequered 10x8 but a1/2/7/8 and j1/2/7/8 in different colours. These are prisons. Usual baselines b1-i1/b8-i8 with pawns in front, and both sides have two extra pawns placed a3,j3/a6,j6. Orthochess except that a captured piece (not a pawn) is placed in the captor's prison (square of correct colour in case of bishop). If this is impossible (no room, or square wrong colour) the piece is out of the game. A player occupying two or more of the central squares (ef4/5) can move a prisoner back into play. A piece captured on a central square is removed from play. Prisons cannot be entered by active pieces. (Manufacturer's catalogue, undated)

and are replaced on starting squares. Victory by capture of enemy Company or bankrupting the opponent. (Photocopy of rules pamphlet) [The array above is as given in the rules pamphlet, and differs from that pictured in the first edition.]

Strategie 2000 (Proprietary game, Peri-Spiele; Forster and Muller, 1984). Curious adaptation of chess to the oil industry. Board 8x8 (unchequered); each side has 16 pieces: 1 Company (king), 1 Manager (queen), 3 Platforms (rooks), 3 Drill Rigs (bishops), 2 Pipelines (two squares in any direction), 2 Supertankers (ditto), 4 Storage Tanks (as K) and, in addition, 600,000,000,000 dollars (noughts are a necessary ingredient of oil). Array (a1-h1/h8-a8 and inwards) DDDQKPIPIPI, StSuStStStPiPiSt. Two moves a turn but must be with different pieces. Each square moved costs a hundred million dollars, so a three-square move costs 300 million. Capture by displacement; captured men, other than Company, can be bought back

Chromopolis Simplified (Alexandre Muniz, 1999, editorial version produced for present purposes). Chromopolis is a variant in which captured men are not removed from the game, but are bound to the square on which they are captured and can be recovered later on (kings expected). The idea is that a man does not capture but 'applies force', and at the end of a turn any enemy piece subject to force from two or more of a player's men is captured (bound) and is out of play until subsequently unbound. Bound men remain inert on the square of capture and other men can occupy the same square (so flat discs will work better than figurines), but if at the end of some future turn a bound man is subject to force from two or more men from its own side, and is not subject to force from any enemy man, it is 'unbound' and comes back into play. If there are two or more bound men on the same square, the owner chooses which to unbind. The order of play within a turn is 'move, capture if possible, unbind if possible', and force from men just unbound does not count towards the unbinding of further men in the same turn. The game was designed to be played on a 7-file cylindrical board and it will

be found in its original form in chapter 24, but the basic idea seems just as applicable to conventional boards.

For a flat-board version, therefore, try a 6x6 board with King, Knight, Pawn (all of which move normally and apply force with their normal capturing move), Advocate (moves and applies force one square away orthogonally or two diagonally, leaping the intermediate square when moving), and

Prelate (moves one square diagonally, applies force one square away orthogonally and to squares a knight's move away), baseline (a1-f1/a6-f6) PANKAP. No pawn-two, and notice that since a pawn merely 'applies force' and does not physically move to capture it remains on its original file throughout the game. If this appeals, try the original cylindrical version as described later. (Chess Variant Pages) [Name and text editorial]

Chapter 18

Mutation games

[In a normal game of chess, men other than pawns retain their original nature and powers throughout the play. This chapter describes games where their nature may change. Shogi is considered later under regional and historical games, and games which seem best regarded as shogi variants appear there also.]

18.1 Taking the power of a captured piece

Absorption Chess, also known as **Cannibal Chess** (origins unknown). 'Of great antiquity' according to one source (*Chess*, September 1952), this game has been independently invented several times. There is basically only one rule: a capturing piece or pawn absorbs the powers of the man captured. Two rules extend from this: a K cannot cross attacked squares (but may give check over them), and a pieces+pawn combination can only promote with a P move. It is quite possible to gain a Q+R+B+N+P, which effectively reduces to Q+N+P (the P gives the option of an e.p. capture). The game has an inherent weakness: it is unwise to make a capture if the opponent can recapture unless it is the start of a series of captures in which the first player makes the last capture. However, **Progressive Absorption Chess** works well, particularly for postal play, as it produces short, exciting games - it is rare for a game to go past move 7. White starts with a large initial plus, but does not always win. (*Nouveaux Jeux d'Echecs Non-orthodoxes*)

In Absorption Chess, capturing can never weaken a man. The **Protean King** (Albert Kniest and John Niemann, 1948) was a problem theme in which the king took on the powers of any man it captured in place of its own (*Fairy Chess Review*, August 1948), and this has quite a different flavour. It was developed into **Frankfurt** or **Chameleon Chess**, in which any capturing man, including the king, assumes the powers of its victim (*Feenschach*, January 1959). A king may not cross an attacked square, but king can check and even mate king if their current powers are different. A pawn that captures when

promoting must take the powers of the captured piece. An example of naïve opening play: 1 e4 b6 2 Bc4 Bb7?? 3 Bxf7(P)+ (becomes P, and checks as P) Kxf7(P) (forced, but having taken a P the Black king now has to move as a P) 4 Nf3 (threat 5 Ne5+ Kf6 6 Ng4 mate, and if 4...Bxe4(P) then 5 Ne5+ Kf6 6 Ng4+ Kf5 7 Ne3+ Kf4 8 g3 is still mate) d6 (stopping Ne5, but it isn't enough) 5 Ng5+ Kf6 6 Qf3+ Kxg5(N) (the Black king now moves as a knight instead of a pawn, but any rejoicing is premature) 7 Qf5 and the king-knight is neatly mated.

Mutation Chess (John Bosley, 1987) differs in two respects: king captures are orthodox, and a queen may not give check or checkmate. Bosley explains that this second rule is necessary because it would otherwise be too easy to capture an unmoved pawn and promote next move. The queen's power to pin or control flight squares is unaffected. Mutation Chess was created for the New Zealand team in the 1st Heterochess Olympiad, in which each side was required to nominate a variant of its choice. It has been played by correspondence as **Progressive Mutation Chess** but is equally amenable to normal play, and certainly in its progressive form is rarely dull. (*Eteroscacco*, special Olympiad number and subsequently)

Escalation (George Jelliss, 1973, revised 1992). Usual board, but the men initially on the board are wazir (moves one square orthogonally), fers (one square diagonally), dabbaba (leaps two squares orthogonally), alfil (ditto diagonally), and knight. Composition of forces is based on the requirement for each

type of piece to be able to reach every square on the board, thus 1 x N, W (since they can reach every square), 2 x F, 4 x D, 8 x A; recommended array (a1-h1/a8-h8 and inwards) ADANWADA, AAFDDFAA. The W is the royal piece and its capture ends the game; stalemate is a draw.

The pieces as set up initially consist of an opaque white or black base to indicate ownership with a detachable transparent overlay to indicate power. On making a capture, the power of the capturing piece is increased by the power of the piece captured, and it takes over the victim's overlays to indicate this (any duplicates being set aside for use as described below). A piece initially has

'one-step power' only, but on reaching the 7th or 8th rank it assumes 'riding power' (the ability to take two or more consecutive steps in a straight line as long as the way is clear) in all its permitted directions, and its overlays are turned over to indicate this. Subsequent captures may result in 'hybrid pieces' which have riding powers in some directions and only one-step powers in others, and such pieces cannot be promoted further. Additionally, and instead of a normal move, a player may place one or more duplicate overlays captured as above on top of one or more of his existing pieces, the giving of check being permitted. (*Variant Chess* 8) [Text largely editorial]

18.2 Promotion and demotion

Change-Over Chess (Russell Chauvenet, 1943). A man other than a king changes after moving in the sequence P-Q-R-B-N-P. **Complicacious Chess [Single King]** (V. R. Parton, 1961) makes the changes the other way round. Chauvenet comments that several sets of men may be needed, and Parton suggests imposing a restriction, if desired, that a player have not more than 4xN, 4xB, or 4xR on the board at any time. (Letter to *Chess*, January 1944; *Chess - Curiouser and Curiouser*)

Joyful Chess (Karl Schulz, 1945). Two squares on the 4th or 5th ranks, chosen by lot, are designated Paradise and Hell and are marked accordingly. Pieces that occupy these squares have their powers increased and diminished respectively; kings and pawns are unaffected. A piece occupying Paradise augments one step in value on the scale N<B<R<Q (the Q is unaffected); a piece occupying Hell drops one step on the same scale (the N is unaffected). The line pieces may not traverse Hell. (*Nouveaux Jeux d'Echecs Non-orthodoxes*)

Degraded Chess (V. R. Parton, 1958). A type of Replacement Chess in which a captured man is at once put back on any vacant square but its rank is degraded in the sequence Q>R>B>N>P (no P on 1st or 8th rank; B must be on same colour). Pawns are not replaced. The advantage of this form of game is that it

usually leads to a conclusion whereas Replacement Chess between well-matched players is often a non-event. (*Nouveaux Jeux d'Echecs Intéressants*)

Schooling Chess (Paul Schooling, 1960s). Usual array but Ks, Bs, Ps only. On capturing, a man promotes one step on the scale N-B-R-Q. A Q making a capture creates a friendly P on the square vacated; a K making a capture creates on the vacated square a friendly man of the same rank as the man captured. Pawn promotion to B only. (Manuscript notes presumably deriving from personal communication)

Ambition Chess (Ralph Betza, 1977). After each move a player may promote or demote a man of either colour one step up or down the precedence order P<N<B<R<Q. A player may not immediately reverse a change effected by the opponent nor convert an opponent's piece to evade a check. A recommended option is to limit the number of pieces on the board of the same type. Fool's mates abound: 1 e4 (g7N) f5 (g7B) 2 Qh5. (*Nost-algia* 214)

Cubic Chess [Pribylinec] (Proprietary games, Vladimir Pribylinec, 1977 and later). A succession of games based on cubes which show chessmen on four sides, the remaining two being blank. In the version originally marketed, also known as **Echos**, the board was 7x7 and each player had 10 cubes, 1 x KKKK

and 9 x PNBR; initial array White Kd1, Pb1/f1 and a2-g2, Black similarly. K, R, B, N moved normally, but P could both move and capture straight or diagonally forward (no pawn-two); additionally, a player could rotate a cube instead of moving, subject to his men not exceeding a total of 8 on the scale P=0, N=B=1, R=2, men continuing to count even after being captured (*Variant Chess 2*). In a later version, **Virtual Chess**, the pawn reverted to its normal move and the scale of values was abandoned; instead, alternate faces of the king cubes were marked to show 'up' and 'down', and the array became Kd1, Rb1/f1, Nc2/d2/e2, Pa1/b2/f2/g1, the kings initially showing 'down'. If a player's king showed 'down' he could only rotate a cube in the 'down' direction (R>B>N>P), but he simultaneously rotated his king, which then showed 'up', and the effect was to produce 'down' and 'up' rotations in turn (*Variant Chess 24*). The number of PNBR cubes per side was later increased to 13, the board was increased to 7x8, the array became Kd1, Rb1/g1, Ba1/e1, Nc1/f1, Pa3/g3 and b2-f2, Black reflecting across the centre, and an extra rule was added whereby a player could win by getting his king to one of his opponent's corner squares without immediately being captured (*Variant Chess 29*). A further change altered the game much more radically. The board size became 8x8, the number of PNBR cubes per side became 14, a standard queen was added, and the rules governing rotation effectively converted the game into a version of Chessgi (*Variant Chess 48*). [Text largely editorial]

Vicente Aguado's Chess (Proprietary game, J. M. de Vicente Aguado, 1980). The chessmen are replaced by cubes on the sides of which are the six chess symbols. With the cubes correctly orientated a normal game can be played, but rules for other games involving chance are given. (*Ludi-Math 4*) [David's Encyclopedia files do not contain a detailed statement of the rules, so the classification of this as a mutation game is conjectural, but the assumption seems reasonable.]

Progression Chess (Tony Paletta, 1980). The power of a pawn augments as it advances. On the 5th rank it moves like a knight, on the 6th

like a bishop, on the 7th like a rook and on the 8th like a queen. No promotion or e.p. (*Chess Spectrum Newsletter*)

Einstein Chess (Adam and Barthommier, 1981). A piece is demoted each time it moves without capturing (Q>R>B>N>P, P stays as P), promoted each time it captures (Q stays as Q). Kings do not change. Castling demotes R to B. No conventional 8th-rank promotion; pawns act as blocks on 8th rank. They can move up to three squares if on 1st rank, e.p. permissible. Problem theme but probably playable. (*Feenschach*, December 1981)

Tactical Chess (David Coutts, 1981). A pot-pourri of rule changes. B, N forward only, R forward or sideways. However, if moving to or from a position next to its own K, the piece behaves normally, reflecting 'the king's qualities of leadership'. The same pieces may also move one square as K but not to capture. Pawns on a, b, g, h files move diagonally and capture straight. A pawn reaching the end rank does not promote but signals a charge: all that player's pawns henceforth have the option of moving two squares. If a pair of pieces (R, B, N) is lost, the player removes one of his pawns who has 'suffered from demoralisation'. Apart from checkmate, if at any time the defending pieces are outnumbered on the back row, the player has one move in which to rectify this or lose the game. (Author's rules pamphlet)

Applied Chess (V. N. Afanasyev, 1986). Usual array. Aim is to capture opponent's K. Once a Q moves, both Rs and Bs of that side move as Q's but capture normally. A K can only make one move in a game and if forced to do so, the player's Q, if still on the board, is removed. A threat to capture the K can be countered with a similar threat. If as a result both Ks are captured, both players have lost. If a player's Q is unmoved, pawn captures are mandatory. Published in *Svetlana* (Leningrad). (Personal communication)

Retrogression Chess (Bruce Trone, 1991). Every time a piece, other than a K, makes a capture its rank is reduced in the sequence Q>R>B>N>P. (Unprovenanced note presumably deriving from personal communication)

Flip Chess (John W. Brown, 1997). All men except may be flipped instead of or after moving. 45-square board, 7x7 less the corners; men include Fers (moves one square diagonally); array (b1-f1/b7-f7 and inwards, centred) BFKFB, PFFFF; B flips to R, F to N, P to Berolina Pawn (moves diagonally, captures straight). Pawns promote on last rank to Princes (move as K, but are not subject to check); bare K loses. **Flip Shogi** has the additional rule that captured pieces may be dropped either side up but only to attack an opposing man; pawn drops are limited to first two ranks. (Chess Variant Pages)

Patricia Chess (Rob Nierse, 1997). Board 5x5; BKB on b1-d1, PP on b2/d2, Black similarly. When a king moves it becomes a queen, next move back to king, and so on; similarly bishop transposes into rook and back again. Capture of King or Queen ends the game. A pawn promotes to knight on either of the opponent's first two ranks (knights do not transmute). Captured pieces change sides and can be dropped in the form they were captured on any subsequent turn (but instant pawn promotion disallowed). (Chess Variant Pages)

Cannon Chess (Peter Michaelsen, 1999). Board 9x9; men other than K can optionally promote when making a move that begins or ends in the last three ranks, or in capturing. Captured men change sides, and may be reintroduced on any empty square (in place of a normal move) in either their normal or their promoted forms. Men are Iron General, which moves as orthochess K or two squares by leaping an adjacent piece, captures a man two squares away by leaping an adjacent piece, promotes to Iron General which moves and captures as orthochess K; Copper Cannon, which moves as B or can leap one man, captures only if there is one man between it and its target, and promotes to B; Silver Cannon and Gold Cannon, which do the same on R and Q lines and promote to R and Q; Copper General, which moves and captures as IC+IG and promotes to N; Silver General, which moves and captures as GC+IG and promotes to Gold General, which moves and captures as IC+Q; and King, the royal piece, which moves and promotes as GC+Q. (*Eterosacco* 86-88) [Text editorial]

Ambassador Chess (James Wittman, 2002). Board 3x2(1), each player has two pieces; an Archbishop (B+N), the royal piece, and a Changeling. The C begins as a Thorny Rose (move as K, capture as B), then after each move changes in sequence to R, B, Q, and back to a TR. When captured, its original owner may, on any subsequent turn, drop it back on an empty square in the form it was captured; it thereafter resumes its move sequence as above. Checkmate the A to win. Array: Aa1/a3; Cb1/b3. (*Variant Chess* 44)

Pocket Mutation Chess (Michael Nelson, 2003). Orthochess array; at any stage a player may remove a piece (not a K) from the board and keep it in hand to be dropped, except on the 8th rank, on a subsequent turn instead of moving. No castling, e.p. normal; P on second rank has two-square move option however it got there (P dropped on first rank does not). Pieces are placed in classes: (1) P; (2) N, B; (3) R, Nightrider (as in chapter 16), SuperBishop (as B or one square orthogonally); (4) Cardinal (B+N), SuperRook (as R or one square diagonally); (5) Q, Chancellor (R+N), CardinalRider (B+Nr), SuperCardinal (as B or N, or one square orthogonally); (6) ChancellorRider (R+Nr), SuperChancellor (as R or N, or one square diagonally), SuperCardinalRider (as B or Nr, or one square orthogonally); (7) Amazon (Q+N), SuperChancellorRider (as R or Nr, or one square diagonally); (8) AmazonRider (Q+Nr). If the piece was removed from 1st-7th rank, it may be changed into any other piece in its class before being put into the pocket; if from the 8th rank and not already in the highest class, it is promoted to any piece in next higher class, again before being put into the pocket. There is no normal promotion; a pawn moved to the 8th rank stays there as a pawn until pocketed. (Chess Variant Pages)

Abstract Chess (João Neto, 2003). Board 8x8; pieces are stones in stacks of 1 to 6. 1 moves like P, 2 like N, 3 like B, 4 or 5 like R, 6 like Q. Aim is to capture royal stone (moves like K). On turn, player may move friendly stack, transfer a stone to an adjacent friendly stack, or capture an enemy stack by replacement. Array (a1-h1/a8-h8 and inwards) 4236K324, 8x1. (Chess Variant Pages)

18.3 Combination and separation

Combination Chess, also known as **Check** (W. S. Campling, 1898). Described as ‘Being the Game of Chess slightly modified, to admit the introduction of a new principle calculated to enhance both its variety and interest’ (*British Chess Magazine*, July 1898). Normal board and set-up, but the queen has only the move of the king. Pieces, other than the king and pawns, can combine in pairs and threes (couplets and triplets), pooling their powers. This is achieved by moving one piece onto the square occupied by a different friendly piece or pieces. This allows six different couplets and four triplets. Combinations move, capture and are captured as a unit. Combinations can also split, but not to check or capture. Castling is not permitted if the rook is part of a combination. Pieces combining share the same square. A large chessboard (or a small set) is recommended. [Campling is referred to as ‘E. S. Campling’ in an editorial note to Maus’s article in the May 1925 *Chess Amateur* (see below), but on what authority I know not.]

Coronation Chess (Frank Maus, 1924). Beneath this umbrella title Maus recommended a change to the game which he believed was ‘the long-sought answer to the question ‘What will be the next permanent change in chess?’’ (*Chess Amateur*, May 1925). He argued that there are two special moves in chess; castles (associated with the opening) and promotion (associated with the endgame) and proposed that a third move be introduced, essentially linked to the middle game, that of coronation. Coronation consists in moving one of the three pieces R, B, N, to a square occupied by one of the others of the same colour and fusing their powers.

In Coronation Chess proper, only the union of rook and bishop is permitted and that only when the queen has been lost, but there are no restrictions on promotion. In **Empress Chess [Maus]**, a player who has lost his queen may crown either a new one or an Empress (R+N) or Princess (B+N), but he may not have more than one crowned piece on the board at a time. In **Union Chess**, this restriction is removed, and he may have as many crowned pieces as the supply of rooks, bishops, and knights may allow, and in **Confederate Chess** a crowned

piece may be separated back into its component parts. Maus eventually settled on **Empire Chess**, where a player is normally allowed only one combination piece on the board at any one time; additional combination pieces can be obtained by pawn promotion (pawns can promote to empresses and princesses), but a player can in no circumstances have two identical combination pieces on the board together. Empire Chess was dedicated to T. R. Dawson, who described it as ‘the ultimate and perfect method of bringing the Empress and Princess into a great game’ (*Chess Amateur*, June 1925). However, the inventor admitted that the majority of games turned out to be standard chess from start to finish, and in an exhibition game arranged for the *Chess Amateur* between Maroczy (on a U.S.A. chess tour) and E. W. Gruer (a former California State Champion) the first seven moves were agreed beforehand in order to guarantee a queen exchange. The name came to Maus when standing on the bluffs of San Francisco as the British battleship *Hood* came in through the Golden Gate. [A problem in the June article was dedicated to Maus ‘on his birthday, 29/12/24’, hence the assumed date ‘1924’.]

Chessers [Maus] (Frank Maus, 1925). Normal board and set-up except that pawns are draughtsmen whilst conserving their usual chess moves. A piece (including a king) may at any time be played, according to its normal movement, to a square occupied by a friendly pawn, forming a chesser, but not vice versa. Thereafter the chesser may move as the piece or pawn, but only forward. The piece may at any time leave the pawn with a normal move but the pawn cannot separate from the piece. If the unit reaches the end rank, the pawn is lost and is removed from play. A pawn on its own promotes normally. Chessers may take, but may not be taken, e.p. The game offers interesting features. By forming chessers, bishops can change colour, line pieces can transport pawns to the 7th rank before leaving them, and kings can escape back-rank mates. Because promotion prospects are greatly enhanced, games tend to be shorter than in orthochess. (*Chess Amateur*, May 1925)

Augsburg Chess (Erich Bartel, 1965). Major pieces can divide or be formed by combination. $Q=R+B$. The idea has been extended to include the king (**Kombischach**) and unorthodox pieces. Problem theme but playable. (*Variant Chess* 16)

Nuclear Chess (Garry Crum, 1967, modified by Bruce Trone). Two or more men of the same colour can occupy the same square. When this happens, either fusion or fission occurs, at the player's choice, but fusion cannot take place on the player's first two ranks. Fusion combines the powers of the pieces occupying the square (in theory, all 16 men of a side could fuse into one piece); fission causes the fused piece to split up, the separate pieces breaking away by their own moves, the catalyst (the piece that moved to unite with the fused piece) remaining on the square. A fused piece subject to fission may explode in any way desired. A queen is considered as $R+B$. Men that 'explode' (move) as a result of fission may capture or check but no two men may explode in the same direction. Men that explode may cause chain-reaction by fusing or causing further fission. All the elements of a fused piece are lost if it is captured. A pawn on the first rank can move 1, 2 or 3 squares; on the second rank pawn-2 is always possible; no e.p. A fused piece moving to the end rank results in all pawn elements promoting; promotion is to orthodox pieces only. A king may move into check if this results in fission that removes the threat. The nuclear reactions can be bewildering. (*Nost-algia* 173)

Thurrow Chess (David Moeser, 1971). Each player may have one Thurrow in a game. Instead of moving, the player creates a T which 'detaches' itself from one of the player's pieces (not the king or a pawn) and moves to any square the piece could move to. The T acquires the powers, including those of capture but without the right to check, of the parent piece. It may be captured like any other piece. The game is named after Thur Row, publisher of *Chess Ultimates*. (*Neue Chess* 1)

Crescendo Chess (Proprietary game, Strato-Variou Products; Walter Dykoski, 1973). Standard board and set-up. Pieces, which are

adapted for the purpose, can stack one on top of another. First two moves of each side are normal. During the next four moves, players can stack no more than two pieces; thereafter up to three pieces can be stacked. This remains the limit for the rest of the game. Stacking is achieved by moving one piece to a square occupied by a friendly piece. Subsequently, the combined piece moves first as the lower or lowest piece, which can then be shed, next as the upper (or middle piece), and so on, this process counting as a single move. Captured men can be removed at once or 'pinned down' for removal later. (Photocopy of proprietor's rule booklet)

Parton Chess (Philip Cohen, 1974). There are basic pieces called Partons, into which regular pieces can decay: Wazir (moves one square orthogonally) Fers (one square diagonally), and others not required in the basic game. Instead of moving, a piece (not K or P) may decay into its component partons: a bishop into four fers, each adjacent diagonally to it and capturing any enemy man in the process, a rook to four wazirs, a queen to four of each, a knight to one of each. Decay cannot take place if any of the adjacent squares is off the board or occupied by a friendly man. A variation allows pieces to decay even if squares are not available to accommodate all partons; another variant permits a parton to move to a square occupied by a piece, thus 'exciting' it with further complications. A theoretical game of doubtful playability, named in honour of V. R. Parton. (*Nost-algia* 171)

Ferry Chess (inventor not recorded, 1979). Game submitted in variant competition (*Games* 5). Pieces are ranked in descending order Q, R, B, N, P, K. A piece may move to a square occupied by a piece of the same colour provided the moving piece is ranked higher. Up to six pieces may be so stacked (numbered tokens can be used to avoid overcrowding). Subsequently the combined piece moves in the manner of the highest-ranking piece (called a ferry move) when the next highest-ranking piece has the option of moving on; thus $(B+N+K) a1-g7$ can be followed by $(N+K) g7-e8$. Only one disembarkation is allowed a turn. A capture is legal only if there is no split. In the example, a capture on g7 would be legal

provided the knight did not then move. Combined pieces are captured as a unit. Some novel play. (Photocopy of letter submitting entry, author's name not included)

Dominator (Proprietary game, Capri, date not recorded). Space battle in which pieces can combine and separate. Capturing according to precedence; combined pieces have greater combat power but lower mobility. (Proprietor's rule sheet)

Troja-Schach (Proprietary game, M+A Spiele; Martin Arnold and Armin Müller, 1994). A piece or pawn, other than a king, may move to a square occupied by a friendly man and create a Trojan piece. A trojan piece moves in the manner of the top man of the stack. At any time a trojan piece may add further men and/or move and leave the bottom piece(s) on the square vacated. Troja sets, which enable pieces to stack, are available from the proprietors. (Proprietor's literature)

Superchess [Montagna] (John Montagna, 1995). A man other than a king may move to a square occupied by a rook of either colour, creating a superpiece which thereafter may move as either element. The occupying man may also move away if desired, and an occupier can be captured thus changing an occupation from 'friendly' to 'hostile' or vice versa. A pawn must leave a superpiece to promote. (*Eteroscalco* 76) [This is a summary of a three-page article in *Eteroscalco*, and even that is described as consisting of 'excerpts from' a book *Superchess Basics*.]

Spirits of the Knight, also known as **S-Spirits** (Peter Fayers, 1997). Four special rules. (1) When a knight is captured, its spirit

lives on, joining the captor and endowing it with the power to move as a knight in addition to its normal movement. (2) Spirits are flighty, and will immediately leap to another unit if its host moves to a square a knight's move away from that unit. (3) Where there are two or more units a knight-leap away from where the spirit ends its move, it doesn't transfer but remains with its current host. (4) A spirit will also leap to any unit that ends its move a knight's move away. Spirits are totally impartial, and under rules 2 and 4 they transfer their allegiance to friendly and enemy unit alike without fear or favour. Problem theme but playable. (*Variant Chess* 23)

Thunder Chess (Fergus Duniho, 2001). Usual board and men plus plenty of spares, and the men should be small enough to allow two of them to occupy the same square. Usual array, but replace the queens by R+B. A simple piece (K, N, B, R) may combine with a non-royal simple piece of either side by moving on to its square. The new piece belongs to the player who made the move. Like pieces may not combine. A non-royal piece may not move to combine with a K. Compound pieces may not combine further. When a simple non-royal piece (N, B, R) is attacked, it may promote by moving to an empty square. N promotes to R+B, B to B+N, R to R+N. When a non-royal compound piece captures a piece, it demotes to the piece whose move it has just used. When a royal compound piece captures a piece, it demotes to a K. The player may split a compound piece into its components by moving one away and leaving the other behind. No castling, promotion only to N, B, or R. Object is to checkmate the opponent's royal piece, whatever its current moving power. (Chess Variant Pages) [Text editorial]

18.4 Movement dependent on square occupied

Free Chess [Capellen], also known as **Baroque Chess** (G. Capellen, 1915). Normal board and men, but the file on which each piece stands is determined by lot (if White has both bishops on black squares, the black bishops will be on white squares). Pieces not on their usual squares add the power of the piece whose normal square they stand on; thus Na1/a8 = N+R. A piece moving on the back

rank changes its role; N/Ra1 moving to c1 becomes N/B. Demanding on the memory. Capellen published the game in a booklet (dedicated to Hindenburg) *Zwei Neue Kriegsspiele* (the other was a card game) declaring that Free Chess 'should outlast chess'.

Transition Chess (A. N. Percival, 1947). The board is divided into four rings, each ring

designated by a piece. The innermost ring (d4-d5-e5-e4-d4) is the Q's ring; c3-c6-f6-f3-c3 the R's; b2-b7-g7-g2-b2 the B's; a1-a8-h8-h1-a1 the N's. Array (a1-h1/h8-a8) PKPPPPPP (8 men only, kings on b1/g8). On the first move a man (P or K) may advance one or two squares; thereafter a man moves according to the ring it is on. (*Fairy Chess Review*, August 1949)

Smess, also known as **The Ninny's Game** and **Take The Brain** (Proprietary game, Parker Bros; Perry Grant, 1970). Board 7x8, each square of which is marked with arrows which control the direction of movement of pieces stationed on it. 12 men a side comprising 1 x Brain, 4 x Numskulls, 7 x Ninnys. Brains and ninnys move one square, numskulls as queens in any direction indicated. Ninnys promote to numskulls on the array squares of the opponent's numskulls. Capture by displacement. Aim is to take opponent's brain. **All The King's Men** (Proprietary game, Parker Bros; Reuben Klamer, 1979) is a successor. The setting is medieval (the pieces are now Kings, Knights and Archers), the board has been rationalized and altered in detail, and the object is checkmate. No piece may jump over any other piece. The most radical change however is that ninnys no longer promote, which transforms the end-game. Considered a less pleasing production than the original. (Photocopies of rules and boards)

Migliore's Game (Proprietary game, Fred Migliore, 1971). U.S. patent 3,761,093 of 1971, filed by Migliore, has indicia on the squares, each indicium representing a conventional chessman. All pieces are of the same design, their moves governed by the squares they stand on.

Lumberjack Chess (Bruce Zimov, 1973). All pieces (including kings but not pawns) behave according to the files they stand on. They move and capture in the manner of the piece that occupied the file in the initial position; thus a piece on the e-file moves as a king but otherwise has no royal powers. Kings retain royal powers wherever they move. The combination of Lumberjack Chess and Giveaway (Losing) Chess produced **Fishaway Chess** (Mike Rice as 'Ekim Ecir', 1975), a

felicitous marriage. (*Neue Chess* 7, manuscript note presumably deriving from personal communication)

Frontier Chess (Tony Paletta, 1980). Board (8x8) is notionally divided between 4th and 5th ranks. Kings and pawns have usual powers, other pieces can change. When starting a move in opponent's half of board, a rook moves as a bishop and a bishop as a rook. R, B, N move normally if starting move in own half of board. The queen has limited powers, moving up to 2 squares in any direction in its own half and as a knight in opponent's half. The knight moves as a (limited) queen if in opponent's half. (*Chess Spectrum Newsletter*)

Cataclysmo (Bruce Trone, 1991). Mobility is determined by the square a man occupies. Men on even-numbered ranks move as pawns, on odd-numbered ranks a piece moves as the array piece on the file on which it stands. (Personal communication)

Arlequin (Proprietary game, Mango Games Storming; Gilles Monnet, 1985). Board 8x8; squares in three colours: yellow, blue, red. Each side has 16 square pieces, of which 15 are transparent (3 yellow, 12 blue) and 1 is opaque. On each transparent piece there is a symbol combining two primary colours and one secondary (yellow pieces), one primary and two secondary (blue). The combination of piece and square gives a new colour; for example, a yellow piece on a red square yields orange. The two remaining piece colours (here green and yellow) reveal the contour of a rook. The usual chess pieces are displayed and the game is orthochess (opaque pieces are kings) except that each time a man moves it is most likely to assume a new rank. (*Jeux et Stratégie*, December 1985, also *Die Pöppel-Revue*, May 1988)

Bauern-Schach (Proprietary game, Scholten Partner; Willi Scholten, 1986). Board 8x8; squares in four colours (16 of each) randomly arranged. Colours correspond to movement factors 1-4. Each side has a king (e1/d8) and seven pawns on the first rank. A king or pawn moves orthogonally the number of squares indicated by its station; but a right-angled turn

may be made if the move is of two squares or more. Men may not move over occupied squares and capture is by displacement. Object is to mate the opponent's king. Check is countered normally. [Information presumably taken from a specimen in David's game collection; nothing in his 'Encyclopedia' files]

Square Chess (Veli Toukomes, 1986). Certain squares carry movement indicators: N/S, E/W, NE/SW, NW/SE, all four orthogonal directions, all four diagonal directions, and all eight. Pieces or pawns alighting on these squares subsequently move or capture any number of squares in a straight line in one of the directions shown. A pawn thus moving to the end rank is promoted. A man alighting on a movement square may in the process deliver check. All men not on movement squares behave normally.

The game can be played in several ways. (1) The indicators are placed on the board initially as determined by lot or by agreement between the players. They are not subsequently moved. (2) The indicators are entered during play. A player on turn either moves a man or enters an unallocated indicator on a vacant square. (3) As game (1) or (2) except that instead of a normal move a player may transfer an indicator from one vacant square to another. (Unprovenanced note presumably deriving from personal communication)

Tula Chess (inventor unknown; from region of Tula, Russia, 1990 or earlier). Pieces move

18.5 Relay games

Relay Chess (Mannis Charosh, 1957). Developed by its inventor as a problem theme, later as a game ('Kafkaesque' is Paul Yearout's description), and now largely played in the modified form of Knight Relay Chess below. Rules: (1) Any piece other than the king may, in addition to its own powers, move and capture in the manner of any friendly piece guarding it, excepting the king; (2) A pawn may not move to the first rank nor promote except by a normal pawn move; (3) A piece, advancing one square or capturing as a pawn, does not promote on the 8th rank. (*Fairy Chess Review*, April 1957)

according to the files on which they stand. Q moves as Q on files d/e, as B on files c/f, as N on files b/g, as R on files a/h. R, B, N move normally on own files and files d/e, otherwise as file piece. Pawns move as usual but promote to Q only on files d/e, otherwise to file piece. Kings are unaffected. (Personal communication)

Chess Mutation (Proprietary game, Moebius Evolution; J.-P. Mercier, 1993). Board 8x8, coloured squares; each side has 1 x K, 15 x P. Array: Ks e1/e8 ; Ps ranks 1/2, 7/8. Pawns move according to the colour of the square they stand on. White: as P; Yellow: as N; Blue: as B; Red: as R; Black: as Q. (Photocopy of leaflet 'Chessmutation', also cuttings from *Libération*, 6 May and 13 July 1994)

Ren'e-Zans' (Proprietary game, Bi-Triad; Linda Blömer, Howard Brittain, Stephen Schweim, 1993). Board 9x9; each side has 1 x K, Q, Vicar (moves as N or as 3-1 leaper), 2 x R, N, 3 x B, 8 x P; array (a1-i1/a9-i9 and inwards) RNBQKVBNR, PPPPBPPPP. Occupation of the central square e5 temporarily empowers a man to move as any piece (so with bare kings, Ke5 mates Ke7). A tactical point is that the power of the bishops is enhanced at the expense of the knights, with the twist that the bishop on the e-file may be exchanged for a knight with advantage since it cannot reach e5 whereas the knight can. The name is derived from Webster's phonetic spelling of Renaissance.

Knight Relay Chess (Mannis Charosh, 1972). Developed from Relay Chess above, Knight Relay is popular with serious variant players. The basic rule is that any piece a knight's move away from a friendly knight has the additional temporary power of a knight. The game has been subject to much experimentation. Philip Cohen's codified rules (*Nost-algia* 268/9), now generally accepted, are:

(1) Knights are blocks. They can move but cannot capture, be captured or check. This applies also to promoted knights.

(2) Any man except a king, if a knight's

move away from a friendly knight, is 'knighted' and has the power of a knight in addition to its own power (knights defending each other are unaffected).

(3) A knighted man cannot relay its powers and loses them when no longer 'guarded' by a friendly knight.

(4) A knighted pawn cannot move as a knight to the 1st or 8th ranks.

(5) A knighted pawn that returns to the 2nd rank regains the right to the initial two-step move.

(6) There is no e.p. capture.

At least five variations of the game have been tried, of which two are deserving of record: (a) knights can capture, check or be captured like other pieces (the original version); (b) knights relay their powers to men of either colour.

The concepts behind Knight Relay, and the extent to which they change the ordinary game, are easily grasped by a brief look at familiar openings. (R) indicates a relay move. 1 e4 e5 2 Nf3 (the knight is not attacking the pawn since it may not capture) Nc6 (nor is this knight defending it; in fact, by removing knighted powers from the d-pawn, Black has abandoned its defence). Now the usual 3 Bb5 or Bc4 are both unplayable as the bishop would be en prise respectively to the black a-pawn and e-pawn. Another example: 1 e4 Nf6 and now 2 e5 is not playable on account of dxe5(R). After 1 e4 d5 2 exd5 Qxd5, 3 c3 attacks the queen but 3 Nc3 does not. Even the legendary Fool's mate is transformed: 1 f3 e5 2 g4 Qh4+?? 3 fxh4(R). Pawns gain most from being knighted whilst bishops convert easily from one colour-complex to the other. Knights are useful blockaders, particularly in the endgame. Here is an attractive cameo from play: White Rd7, Nb6/c5 (K unimportant), Black Kb8, Ba5, Nc7, Pb7, White plays 1 Rd8+ Ka7 2 Na6!! and 3 Rc8(R) is unstoppable. It is good strategy to occupy the centre with knighted pawns, often leaving the knights at home in the early stages of a game.

The leaders in the first international correspondence championship of Knight Relay were: John McCallion (10/10), Paul Yearout (8.5/10), Phil Cohen (8/10), Alessandro Castelli (7.5/10). National championships have also been held.

The rules of **Bishop Relay Chess** (Mannis Charosh, 1975) are essentially identical except

that bishops replace knights. Appropriately, pieces are ordained rather than knighted. There is one restriction: in the initial position the b- and g-pawns on both sides are not ordained since otherwise each side gains a second queen after two moves. However, b-pawns and g-pawns that move and subsequently return to their starting positions may be ordained. (*Nostalgia* 183)

Strange Relay Chess (Ralph Betza, 1970s). Men have no intrinsic power to move or capture but have relay powers. The movement power of a man is derived from any friendly man guarding it, the capturing power from any enemy man attacking it. Another version only allows a man to capture the piece that is relaying its power. Suppose White Pb3, Black Ka5/Nd4; in the first version, the king is in check, in the second version it is not; in both versions the knight is attacked by the pawn. In the initial position, the d- and e-pawns have maximum movement power (Q+N) and the rooks none. (*Nostalgia* 263, *Eterosacco* 50)

Rampage Chess (Bruce R. Trone, 1976). Men do not move or capture normally; instead, a man may move or capture directly to any square controlled by its own side. 'Controlled' is defined as being attacked by more of its own men than those of the opponent; if the numbers are equal, the special power cannot be used. Bishops can change square colour. A king in check can only move as in orthochess. (*Nostalgia* 194 and later)

An-nan Chess (M. Hanazawa, 1978). A man moves and captures in the manner of a friendly man stationed on the square immediately behind it, otherwise play is orthochess. The name and the game are derived from An-nan Shogi which has a similar rule. An-nan is a word without meaning. (*Chessics* 4)

Wizard Chess (Tony Paletta, 1980). Queens may move a maximum of two squares in any direction. Kings are wizards which affect the movement of pieces of either colour adjacent to them. A rook next to a wizard moves like a bishop, a bishop like a rook, a queen like a knight and a knight like a (limited) queen. Pawns are not influenced. A piece adjacent to

both wizards behaves normally. (*Chess Spectrum Newsletter*)

Maya Chess (R. Ravi Sekhar and others, 1987). The name is from the Sanskrit: 'illusion'. Pieces (but not kings and pawns) adopt the power of a supporting man (including a king or a pawn) provided that the supporter has made at least one move. If a man has two or more supporting pieces he assumes the powers of all of them, in both cases surrendering his own powers; thus a rook defended by a bishop can only move as a bishop. An unsupported piece moves and captures normally. Castling is only permitted under normal conditions and if the rook is undefended or defended only by the Q. For example a fianchettoed B turns the R into a B, so castling with this R is illegal. A piece on the 8th rank supported by a pawn on the 7th (and hence with the power of a pawn) must promote at once although it can of course promote to itself! K+B or K+N force a win against bare king; K+2B, K+B+N, and K+2N win against K+B and K+N, and also against K+R. K+Q however cannot win against K+B or K+N.

A Maya Chess Federation of India was founded by R. Ravi Sekhar, K. Muragan (both members of the Indian orthochess team at the Dubai Olympiad), and others. The Federation has included a number of masters as well as internationally known problemists. Championships are held and a regular bulletin is published. (*Maya Chess Informant*, January 1993, also personal communication)

Synchronism (Bruce Trone, 1991). A piece, but not a pawn, can move or capture in the same manner as any man protecting it in addition to its normal powers. (Unprovenanced note presumably deriving from personal communication)

Necromancer (Proprietary game, Kevin Cullen, early 1990s). Board 11x7, a1 white, with squares in three colours: grey (ordinary black squares b1 etc, 38 squares), white (ordinary white squares ac...l3., 24 squares), and black (the remaining 15 squares bdfhj246). The grey and black squares together form the 'Demon Grid' which is divided into five zones: centre zone (efg files,

13 grey and black squares), two inner zones (cd and hi files, 10 grey and black squares each), and two outer zones (ab and jk files, again 10 squares each). Each side has 11 pieces, 1 x Necromancer (moves as K); 2 x Wizard (as B), Crusader (as R); 6 x Thrall (as N but forward only; promotes on last rank to W on a grey square and to C on a white). In addition, there are five neutral Demons, which start on the black squares bdfhj4.

A demon cannot be captured, but can capture a hostile piece when invoked by a magic piece (N or W). The invoking magic piece must move into or within the zone of the demon, and the total number of magic pieces within the zone must satisfy certain conditions: one only (the invoker itself) in an outer zone, two (not more) in an inner zone, and all three in the centre zone. The invoked demon is moved within its zone to any vacant square or to capture an enemy piece. A player may also elect to pass (i.e. not invoke the demon). The object is to checkmate the Necromancer. (*Variant Chess* 21)

Dynamic Chess (inventor unknown; perfected by Hugh Denoncourt, 1995). Usual board and set-up. The power of a man is derived from the nearest man of either colour on the same rank towards the a-file. The board is considered as a cylinder (a-file adjacent to h-file). Thus in the starting position the only piece to keep its original rank is the QR since it stands adjacent to the KR. If a man stands on an empty rank, it moves as normal. No P-2 or castling. A main tactic is to force out opposing K next to a P where it is an easy target. Another is the move of Q or B to the 2nd rank when Ps can be shot off like missiles. P promotion is commonly to N. (Personal communication)

Induction Chess [Kommerell] (Hartmut Kommerell, 2000). A man can move, but not capture, in the manner of a friendly or hostile man on an adjacent square. (Manuscript notes apparently resulting from personal communication)

Interdependent Chess (Fergus Duniho, 2001). Board 6x7; men are King, Universalist, Knight, Spider, Conservative, Steward, Guardian; array (a1-f1/a7-f7 and inwards)

SpNUKNSp, CGStStGC. Men move normally (well, more or less) but capture by moving directly away from another piece ‘which is toroidally adjacent’ (i.e. is orthogonally or diagonally adjacent, or would so be if the a and f files were contiguous and likewise ranks 1 and 7). K and N move normally. Sp leaps two squares orthogonally or diagonally. C moves like a rook, but horizontally only. All these pieces have a ‘capturing power’ which is the same as their ordinary move. St moves one square orthogonally and its capturing power is one square diagonally, and G is the other way round. U moves away from a toroidally adjacent piece using the latter’s moving power (an isolated U cannot move). One U moves away from another as a bishop on a torus (all other moves are limited by the board edge). Pieces capture by withdrawal, using the capturing power of the victim. Captured pieces change sides and are held in hand, and can be dropped in any empty space on a later turn in place of a normal move. (Chess Variant Pages) [Text editorial]

Life, the Universe and Everything (João Neto, 2002). Board 6x7; kings (as orthochess) are Arthur Dent (White) and Zaphod Beeblebrox (Black); other men are

Wowbagger (moves one step orthogonally), Ford Prefect (one step diagonally), Marvin (as P but no 2-step option), Life, Universe, and Everything (see below); array (a1-f1/a7-f7 and inwards) WEUKLF, 6xM. Life on its own cannot move or capture, but it may transmit movement and capturing powers from any adjacent piece (diagonally or orthogonally) of either colour to itself or to any adjacent friendly piece. The Universe doesn’t capture, but moves like a K or by changing places with a non-royal piece of either colour (swaps cannot repeat the last board position). If a swap moves a Marvin to its last rank, the M promotes to a piece chosen by the player making the swap. Everything can move with the ‘iterated power’ of any adjacent piece of either colour (an iterated F is an orthochess B, iterated W is R, iterated K is Q, iterated U is non-capturing Q, iterated M can move forward like a non-capturing R, or capture an unbroken chain of enemy men in a diagonally forward direction). L and E have no effect on each other. M may promote to any non-royal piece. White starts with one move, after which the players make two moves per turn but with different men. To win, capture the opponent’s K or leave him with no legal move. (Chess Variant Pages) [Text editorial]

18.6 Other mutations

Von Ranson’s Game (J. von Ranson, 1820). 68-square board consisting of an 8x8 board a2-h9 plus additional squares at d1, e1, d10, e10; kings on e1/d10, pawns on ranks 2-9 (no other men initially present). Each player has in addition a reserve piece that can be entered on an empty square during the game and moved four times only as a Q or N, but can only check or mate moving as a knight. Kings as usual; pawns move like kings, and promote on ranks 2/9 to the orthochess file piece. Promotion on the king’s file is to rook. If a king moves to the square initially occupied by the enemy king, a queen materialises on the square beside him provided the square is empty. According to Faidutti, ‘without a doubt the only German game of this period that does not resort to military terminology’. (Photocopy of title page and pages 51-62 of *Anweisung zum Schachspiel* by ‘J. v. R.’, pages 54-5 currently missing)

Genius Chess (T.V.R., 1827). 68-square board consisting of an 8x8 board a2-h9 plus additional squares at d1, e1, d10, e10; kings on e1/e10 (a difference from von Ranson’s game), pawns again on ranks 2-9. Each player has in addition a Genius in reserve. Kings as usual; pawns move like kings, and promote on ranks 2/9 to the orthochess file piece. Promotion on the two central files is to rook, but a player cannot have more than two rooks on the board at the same time. If a king moves to the square initially occupied by the enemy king, a queen materialises on the square beside him. The genius, which can represent any orthochess piece, may be used only four times during a game. The player puts the genius on a vacant square not attacked by the enemy, at the same time announcing its role. This counts as a move. There is one restriction: the genius cannot be entered as a knight to give check if the opponent’s king is guarded by one of its

own pieces. Thereafter the genius moves and captures as the piece nominated. However, it can only make a total of four moves in a game. After moving the genius the player can opt to remove it from the board. It can later be re-entered as the same or another piece always subject to the four-move restriction. If a genius is captured it is still permitted to re-enter play if it has not exhausted its quota of moves. A player cannot have a queen and a genius on the board at the same time. A player who is stalemated loses. (Verney)

[These clearly refer to the same game, particularly as the 'J' in Gothic script could easily have been misread as 'T'. However, von Ranson admits that his game is only an idea, and Verney's differences of detail may represent the fruit of experience or deeper contemplation. The identification of 'v. R.' with 'von Ranson' must rest on evidence which I have not seen.]

Chakra (Christiaan Freeling, 1980). Board 8x8; men are Emperor (K), Empress (Q), Samurai (R+K), Monk (B+K), Ape (N), Sword (P), Courtesan, Chakra. The object is to checkmate the emperor. Swords have usual pawn powers but only promote to pieces previously captured. The courtesan moves as a king but whenever she faces her own emperor along an open file, rank or diagonal, she commands the length of that line in both directions: up to the emperor in one direction and to the end of the line or up to and including the first occupied square in the other. Suppose White emperor e1, courtesan e3, sword e7; the courtesan defends the sword. (Co-operation between emperor and courtesan is not without historical precedent.)

Chakras are flat pieces with a circle on one side and a square on the other. In the starting position they are placed circle-side up. Array (a1-h1/a8-h8 and inwards) ACoMQKSaCoA, ChSSSSSSCh.

Chakras may be occupied by men of either colour and they may also move, but only if unoccupied and to a vacant square; a chakra cannot move on to another chakra. Circle-side up, a chakra moves as a king, square-side up as a knight. A vacant chakra may be reversed after moving in order to change its power, or it may be reversed without moving, but this counts as a move.

The two chakras together form a Transmitter. Whenever a piece can move to a vacant chakra of its own colour, it may move simultaneously to the other chakra of the same colour provided that this is unoccupied or occupied by a hostile man, which it captures. Suppose White chakras (either side up) b4/f8, swords b2/b3; White can play b3-b4 (transfer to f8 and promotes), and the sword at b2 defends the promoted piece.

Capture is by displacement but chakras do not capture and only an emperor can capture a chakra, which must be vacant. In doing so, the second chakra is automatically captured (but not the occupant, if any) i.e. the transmitter is lost. However, if an emperor occupies one of his own chakras, the opposing emperor may not occupy the other. An emperor, like any other piece, may capture on a chakra, but in so doing he does not capture the transmitter although when he vacates the chakra he will threaten to do so.

A friendly chakra, if vacant, is no impediment to mobility, but a hostile chakra, whether vacant or occupied, acts as a block and may not be crossed. A chakra of either colour does not affect the eye-contact of emperor and courtesan, but a hostile chakra interposed between them cannot be crossed by the courtesan.

A piece occupying one chakra (for example, after making a capture on it) cannot move or capture on the other unless its normal movement allows it to do so, for example if an ape occupied one of a pair of chakras separated by a knight's move.

The chakra is a difficult piece to focus but its powers make for some remarkable play. In the ending, for example, two apes can often mate an emperor if they can use a transmitter.

A feature article on the game (*The Gamer* 3) attracted widespread interest and sold many sets. Dakini Chakra (see below) is a variant.

Dominance (Proprietary game, Jansen, 1984). Board 9x9; 18 cubic men a side of which one is the king (e1/e9) and eight have framed card suit symbols on their faces (first rank); nine with unframed symbols (2nd rank). King moves as orthochess, moves and capturing ability of other pieces determined by rotation of cubes and hence symbols displayed. (Photocopy of rules leaflet)

Dakini Chakra (Gianluca Vecchi, 1996) is a Chakra variant with some renaming of pieces (ignored here) and the following differences: A leaps as N or two squares in any direction; Courtesans replaced by Gauris as described below; Black K and Q reversed in the array, and chakras start with square side up.

If a gauri is on the same rank, file, or diagonal as a friendly chakra, with no intervening unit of either colour, it may move

any number of squares along that line in either direction; in doing this, it may pass over the chakra which is giving the power. If the other chakra is vacant, it may be transported to it and continue its progress, in the same sense (orthogonal or diagonal) but not necessarily in the same direction. It also has the same options as other units in combination with the chakras. (Originator's rule sheet) [Text editorial]

Chapter 19

Changed or multiple kings

[In normal chess, the king moves one square at a time except when castling, a player only has one king at a time, and the same piece retains the kingship throughout the game. In this chapter, all these will be changed.]

19.1 Kings with unorthodox powers of movement

La Victoire, also known as **Le Jeu Français** (J. B. Loysel, 1822). Board 10x10; pieces have military names but the disguise is flimsy. Each player has 1 x king (K), general (Q); 2 x artillery colonel (R), infantry colonel (B), cavalry colonel (N), engineer colonel (also N); 10 x captain (P). No castling, but a king has two formidable privileges: provided it has not moved, it can capture, without moving, any opposing man attacking it that is unguarded, and it can also make one move in the manner of any piece (effectively Q+N). Once moved, the king reverts to its normal status. Captains (pawns) have the initial two-square option. Promotion to General (Q) provided that piece has been taken, otherwise to aide-de-camp with facility to move like B and capture like R. Baseline (a1-j1/a10-j10) RNNBQKBNNR, with 10xP on 3rd/8th ranks. The game was modified for 8x8 and 6x6 boards. There were several subsequent editions. The inventor apparently got carried away with his creation, for in the edition of 1838 he proposed no less than 18 different versions of the game. (Faidutti)

King Chess [Letzen], also known as **Letzen Chess** (originator unknown, 1940s). Problem theme, possibly playable. Kings move as queens but may not pass over attacked squares except to capture the attacker or if the attacker is pinned. (*Nost-algia* 191)

Centaur Royal (V. R. Parton, 1970 and later). Board 10x10, 21 men a side. A Centaur Royal is a king that moves like a knight. Object of game is to capture (not mate) opponent's CR. Parton changed the starting array every year or so: 1st rank CR f1/e10 only, 2nd rank RRBBQQBBRR, 3rd rank 10xP (*Challenge*

and Delight of Chessical and Decimal, 1970), 1st rank pieces, 2nd rank CR a2/j9, 3rd rank pawns (*100 Squares for Chess and Damante*, 1972), 1st rank pieces, 2nd rank pawns, 3rd rank CR e3/f8 (*Enduring Spirit of Dasapada*, 1973). We met the same idea in Part 1 under the names Knightmate and Mate the Knight.

Liberation Chess (Michael Juhasz and David Moeser, 1971). The king is an ordinary piece; it is the queen that must be checkmated. Pawns promote to K, N, B, R, or Fischer, which can leap to any square within a four-square radius. Unless a pawn promotes to F, a draw is likely. **Gardez** (Peter Krystufek, 1986) is the same game without the F, and **Role-Reversal Chess**, also known as **Feminist Chess** (Ralph Betza, 1992) is similarly without the F but has the additional rule that bare Q loses. (*Neue Chess 1, 100 mal Kniffel Schach*, personal communication)

Rettah Chess (V. R. Parton, 1974). Parton's first major variant (1952) introduced the Rettah, a piece with a name derived from Carroll's Mad Hatter. The idea was developed from a theory that the king should be the strongest piece on the board, not the weakest. The rettah moves and captures as all other pieces combined, effectively as Q+N, and the aim of the game is to capture the opponent's rettah (there is no checkmate). This would be near-impossible if it were not for the rule that if a rettah is attacked ('check'), the attacker must be captured (always possible, if only by the rettah). The defender may choose between alternatives. The early versions of the game had two rettahs a side, but Parton eventually produced a single-rettah version using a normal board and men with a king for the

rettah. The array is ugly: (a1-e1) KQBRN, (a2-e2) PPBRN, (a3-f3) PPPPPP, BK_h8 etc. Pawns move one square only. Other flavours of the game are **Absolute Rettah Chess** (only a rettah can take a rettah) and **Giveaway Rettah** (rules as Losing Chess). (*Nouveaux Jeux d'Échecs Non-orthodoxes, Chessery for Duffer and Master*)

Emperor Chess [Schmittberger], also known as **Emperor King Chess** (R. Wayne Schmittberger, 1983). Orthochess except that kings are Emperors and have the right to move anywhere on the board including to an enemy-occupied square. The object is to capture the opponent's emperor. An emperor cannot capture a defended emperor. Not as wild as it sounds since if an emperor moves to a square where it is not defended it is subject to immediate capture by the opposing emperor. The piece is borrowed from Tai Shogi. (*World Game Review* 10)

Sting, also known as **Scorpion Chess** (origins unclear, see below). Orthochess except that K has the additional power of a Grasshopper (moves along Q-lines until it meets another man, when it hops over that man and alights on the square immediately following). Play 1 f4 Nc6 2 f5 Nf6 3 Kc3 Nd5+ 4 Kxh8 and the White king has mated the Black (4...Kg8 would be met by 5 Kxg8 moving as an ordinary king). (*Chessics* 1/9/30, *Variante Chess* 31-33) [I have only traced the Scorpion back to a 1976 problem by George Jelliss (see *Chessics* 1, the name appearing in the index which appeared as part of *Chessics* 16), but the idea is simple enough and I suspect it is older. The first edition gave the K as having only the power of a grasshopper, not as having

19.2 Substitute kings

Royal Chess (Fred Herschler, 1972). Board 10x10; extra pieces are Queen's Champion (3-2 leaper) and Prime Minister (moves as Q but limited to four squares), with one of the pawns nominated as Jester (moves as a K but can only capture pawns, can exchange places with K if latter is checked); array (a1-j1/a10-j10) and inwards RNBCQKPB_NR, PPPPPJPPPP. Submitted unsuccessfully to 3M, the American games company, with the advice

the additional power of a grasshopper, but I think this was due to an error in the secondary source that David used. I have not seen this definition anywhere else, and if a king has only the power of a grasshopper there is no need to give it a special name; it is simply a royal grasshopper.]

Rolling Kings (Peter Aronson, 2000). Normal array set forward one rank (White on ranks 2-3, Black on ranks 6-7) but Mock Kings (not royal) on e2/e7; true kings on h1/h8. On each turn, after moving, the true king is rolled one square along the rank. Kings advance snakes-and-ladders fashion (thus white Kh1-a1-a2-h2-h3 etc.) No double pawn move, promote as usual or to Mock K. The MK moves as an orthochess K or slides as true K over any number of vacant squares (thus MKd3 could slide to c3,b3,a3,a4 etc.) Win by capturing opposing true K. The game is limited to 32 turns when the game is drawn as the kings will meet on h4/h5. (*Chess Variant Pages*)

British Chess (Fergus Duniho, 2003). Board 10x10; 22 pieces a side: 1 x Queen, Prince Consort; 2 x R, B, Dragon, Lion, Unicorn; 10 x P. Q is royal and subject to check etc, otherwise orthodox. PC moves as R or B but captures as K. B and R orthodox except that B can also move one square orthogonally. D moves as Q but in 2-step leaps. L moves as R or B but must leap a man to capture. U moves as B or Nightrider (straight lines of knight moves as long as the way is clear: Ua1 to b3, c5, etc) Array (a1-j1/a10-j10) DRUBQPcBUND, (b2,i2/b9,i9) L, 10xP 3rd/8th ranks. Ps move as in orthochess but promote to a captured piece or a Knight (not in set-up). (*Chess Variant Pages*)

that the 'subtle yet interesting changes' could be covered by copyright. (Personal communication)

Power-Schach 2000 (Proprietary game, Kreuz+Quer-verlag; Johannes Volkmann, 1991). Board 9x9 (centre square marked); each side has 1 x Boss (moves as K), Lady (Q), 2 x Agent (B+N), Manager (R), 3 x Robot (moves as K but captures diagonally only).

Object is to checkmate boss or to occupy centre square with boss. Boss in check (but not checkmate) can change position with either manager. The nine men occupy the centre three files of the first three ranks on either side in the array, thus (back rank first) MBM, ALA, RRR. (Manufacturer's publicity leaflet)

19.3 Concealed kings

Incognito Chess (Ralph Betza, 1978). Each player secretly chooses a 'royal' piece in addition to the king, and also a royal pawn (which may not promote). These have the same attributes as the king. For example, if any royal is in check, the player must at once move out of check without if possible revealing that he has been in check. Mate of any royal ends the game. (*Nostalgia* 216)

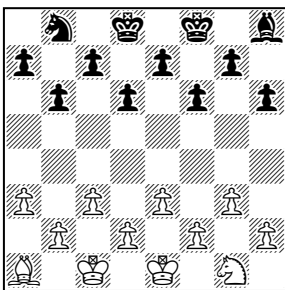
Robber-Baron (Seth McGinnis, 1998). 39-square board obtained by taking a 7x7 board and removing squares bdf2, aceg4, bdf6. Pieces are robbers. Every time after moving, a piece changes role (R to B, B to R); initial array (a1-g1/a7-g7, no pawns) RBRBRBR.

19.4 Kings of other kinds

Puzzo (H. M. Read, 1946) Board 11x9; each side has 1 king (moves as rook), 3 queens and 10 pawns (2 squares diagonally in any direction or combination of directions). Pages

19.5 Kings created in play

Cheskers (Solomon W. Golomb, 1948). Probably the best-known of all games combining chess and draughts. Played on the black squares only, 12 pieces a side: Bishop, Cook (knight in the diagram), 2 x King, 8 x Pawn.



Heir Apparent Chess (Stephen Lewis, 1995). Board 9x8; extra piece is an Heir Apparent; baseline (a1-i1/i8-a8) RNBQKHNR. H moves as Q but up to three squares; if the K is mated, H assumes the role of K and now moves as a K. Checkmate or capture K and H to win. (*Variant Chess* 19)

Before play, the players write down secretly which of their pieces is the robber-baron. His capture ends the game. (*Chess Variant Pages*)

Crown [Kisliuk] (Lev Kisliuk, 1999). Standard set-up. The queen moves like a king and is also a royal piece. Both can castle under the usual rules. Before play, each player writes down secretly which of his two royal pieces is crowned. Check is abolished, and the loss of the crowned piece ends the game. A pawn may promote to a chess queen, known as a Generalissimo, or to any other piece including an uncrowned royal piece. Several variants are suggested by the inventor. (Document 'New chess game Crown')

promote to queens but do not capture. Kings occupy four squares, queens occupy two; object is to move king to squares occupied by enemy king. (Provisional patent 914 of 1946)

The bishop is an orthochess bishop, the cook a 3-1 leaper, and both capture by displacement as in chess. The pawn moves and captures like a draughtsman (moves one square diagonally forward, takes by leaping diagonally forward over adjacent man to vacant square immediately beyond), and promotes to B, C, or K. The king moves and captures as a draughts king, i.e., as a pawn but also backwards. Draughts captures, including multiple captures, are compulsory, chess captures optional; if both exist, the player can choose. Promoting with a capture completes move even if further captures are available. Black starts; object is to capture all opponent's kings; a player unable to move loses. (Gardner, *Mathematical Magic Show*)

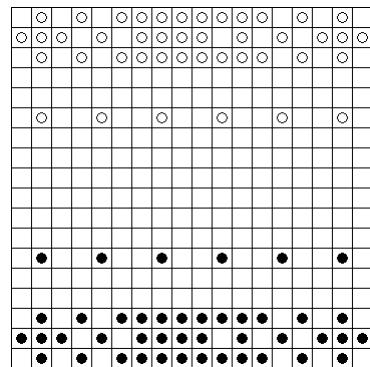
Complicacious Chess [Multiple Kings], also known as **Gryphon Chess** (V. R. Parton, 1961) Usual set-up but kings omitted. After its move, a piece changes rank in the sequence P-N-B-R-Q-K. Once a king, a piece does not change, so a player may have several kings on the board at the same time. The object is to mate one of the opponent's kings. Strategy is to force an opponent to promote a queen whilst avoiding doing so oneself. To maintain balance, no more than four each of R, B, N are allowed in play at any one time. A simplified form of the game is played with king and 8 pawns a side. **Circean Chess [Parton]** (Parton, 1971) is a 10x10 version. Each player has 20 pawns initially, placed on 1st/3rd (8th/10th) ranks, and the number of pieces on the board at the same time is restricted to 4xN, 3xB, 3xR, and 2xQ. **Brecht Schach** (Stefan Eisert, 1980) makes the changes according to the circuit K-Q-R-B-N-P-K-N-P etc, no pawns on 1st/8th ranks. (*Chess - Curiouser and Curiouser, 100 Squares for Chess and Damante, Die Schwalbe*, December 1980)

Simpler Chess [Kings] (A. Wardley, 1977). One version of Wardley's 6x6 game allows the K and Q to be removed, giving the baseline RNBBNR. This results in a droll, if not absurd, game in which pawns can be promoted to kings. 'It is a matter of honour,' declares Wardley, 'to do all you can to achieve this.' (*Games and Puzzles* 66)

Way of the Knight, also known as **WOTN** (Ralph Betza, 1992). Usual board and array, but pieces gain in 'experience level' (effectively, power of movement) as they advance across the board and also by judicious capture. Additionally, they must choose from three 'alignments' (effectively, promotion paths), one ending in a chancellor (R+N), one in a queen (R+B), and one in an additional king. Kings other than the last may be captured normally; mate the last king to win. (*Eteroscacco* 69-70) [Text largely editorial]

Gess (Puzzles and Games Ring of the Archimedean, 1994). Chess with constantly mutating pieces, played with go stones on the squares of a go board (the name is pronounced 'guess'). The stones occupying any 3x3 square can be regarded as a 'piece' and moved as a

whole. The permitted directions of movement of this piece are determined by the occupancy of its eight outside cells; for example, it may move directly forward if and only if its top cell is occupied, and it may move diagonally NE if and only if its top right cell is occupied. If its central cell is occupied, it may move as far as it likes as long as the way is clear; if not, the length of its move is limited to three cells. In either case, it advances one cell at a time, and may continue only as long as the successive 3x3 squares on which it lands are fully empty; if any cell within the square on which it has just landed is occupied, all the stones already there (whatever their colour) are removed, the piece is deposited in their place, and the move terminates. Stones on the edge can be treated as forming part of a 3x3 square whose centre is off the board. There is no natural analogue of the chess knight, but the board is initially set up with recognizable representations of RBQKBR along the first three rows (the 'rook' has the centre and the four orthogonal cells occupied, the 'bishop' the centre and the four diagonal cells, the 'queen' all nine cells occupied, the 'king' all eight outside cells but not the centre) and PPPPPP (only the 'forward' cell occupied) along the next three :



However, the players can use these stones as they like. An example game (which is unfortunately disfigured by an illegal move, suggesting that even the game's originators found it difficult) starts with a single step forward by the stone at e6 (actually the 3x3 group centred at e5) followed up by a three-step move bringing d3/c2/e2/d1 forward to d6/c5/e5/d4, creating a long-range diagonal

piece e7/d6/c5/e5 bearing across the centre (how to create your own fianchettoed bishop).

The objective is to leave the opponent with no configuration representing a K. If a move leaves neither player with such a

19.6 Multiple kings present from the outset

Double Chess [Howard] (J. T. Howard, 1885). 160-square board consisting of an 8x8 central area with four 8x3 extensions; four distinguishable sets of normal men (the use of wood and ivory or bone is recommended as a discriminant), two forming the 'light' side and two the 'dark'. Each army is set up on the last two ranks of one of the extensions, the light armies side by side and similarly the dark, and in each case the queen is placed to the right of the king (arrays otherwise normal). The object is to mate both kings of the opponent. Pawns promote on end rank. A curiosity is that a queen's knight is allowed to make two consecutive moves on its first turn provided the intervening square is vacant. First player starts by making one move; the second player then moves a man from each side of his two armies in either order. Thereafter each player in turn makes two moves, one with each army. The forces of a mated king are paralysed but still subject to capture. Both sides may now only make one move each, the allies with either army, unless and until the mated king is released from mate. If one king is stalemated the game is drawn. (Photocopy of booklet *Guide to Double Chess*)

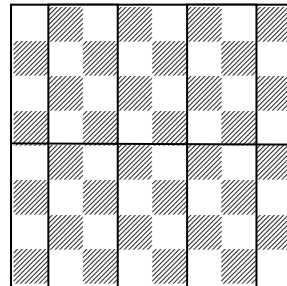
Double Chess [Hayward] (Julian Hayward, 1916). The rules were originally published in pamphlet form under the pseudonym Craigelachie and subsequently in the *British Chess Magazine* (January 1929) and elsewhere. Board 16x12; black square a1. Two sets of chessmen arranged side-by-side, repeating the array (i.e., WK e1/m1 BK e12/m12). Pawns can move up to four squares initially with e.p. possible. Kings can only castle within their own half-board; pawn promotion on end rank. Object is to mate either one of the opponent's kings. Hayward drew Capablanca's attention to the game. The Cuban found it 'remarkably interesting' and a match was between him and the Hungarian master Geza Maroczy took place at the Royal

configuration, it is the player who has just moved who loses. (*Eureka* 53, also *Scientific American*, November 1994) [Text editorial. 'The Archimedeans' is a student mathematical society at Cambridge University, England.]

Automobile Club, Pall Mall, 22nd-26th April 1929. Capablanca won two and two were drawn (*Evening Standard*, London, 29 April 1929).

The inventor's son, J. G. Hayward, in correspondence with the author, conceded that he was 'never much of a chess player' but confessed to finding the ordinary game 'positively dull' compared with the double variant, an opinion, he added, 'shared by many besides myself'. These apparently included several well-known players but the game nevertheless seems to have died with the match.

Sic 'Em Europe (Frank Maus, 1927). Standard board divided by grid lines between files a/b, c/d, e/f, g/h and ranks 4/5 into ten 'countries', of which six are combatant and four (those comprising files a and h) neutral.



Two players, 12 men a side: one each of Emperor, Empress, King, Queen, Prince, Princess, plus six pawns. Empress moves like R-N, emperor similarly but restricted to one-square rook move; princess like B-N, prince similarly but restricted to one-square bishop move. Male royalty is randomly allocated to ceg1/8, accompanying spouses occupying bdf1/8. Pawns are placed b2-g2/b7-g7. No castling; pawns promote to empress, queen or princess.

The boundary lines between the combatant nations disappear at the start of play, being

used only for setting up, but the distinction between combatant and neutral territory remains. During play any piece (not a pawn) can move into a neutral country but cannot capture in doing so. A piece in a neutral country has no powers of check/capture but can move out again at will. Thus adjacent kings are legal, either one in a neutral country and one in the combatant zone, or both in a neutral country or countries. All male royalty is subject to check, and the game is over when one is mated. If two or three monarchs are in check simultaneously and the checking piece cannot be captured, or if two or monarchs are threatened in line and no capture or interposition is possible, the attacker says 'scoot'. The defender may then (if he can) move all but one of the threatened monarchs into neutral sanctuary and escape check with the other one. (Scooting is a forced action that does not constitute a move.) A player loses if he cannot escape check or if all of his monarchs are forced into neutral territory. A game full of ideas in the view of George Jelliss. The bilious title comes from the verb 'sic', meaning attack, set upon. (Copy of letter from the inventor to T. R. Dawson) [Text slightly revised]

Le Bartasso (Proprietary game, Marcel Bartassot, 1950). Board 10x9, a1 white. Each side has 15 pieces: 1 x Diplomat, Knight, 3 x Crowned Pawn, 10 x Pawn. Play on black squares only; pieces arranged on first three ranks (principal squares marked); capture by displacement. Knight moves as 3-1 leaper. Pawns move and capture as men in continental draughts; they do not promote but can capture backwards. Crown pawns differ from pawns in that they can promote to kings (continental draughts). Diplomat moves one square forward, cannot capture or be captured, on reaching opponent's diplomat square earns choice of privileges. Object is to capture all kings and crowned pawns or deprive them of moves. Also for 3 or 4 players. (Proprietor's rules booklet) [No, 'Bartassot' isn't an error; there is an explicit 'sic' beside the name on David's index sheet for the game.]

Twin Orthodox Chess, also known as **Tweedle Chess** and **Double-King Chess** [Parton] (V. R. Parton, 1952). Designed to

give symmetry to orthochess. Board 10x10; each side has 20 men, the extra pieces being a second king and queen; baseline RNBKQQKBNR. The object is to checkmate either king. Kings are referred to by Parton as Tweedledum and Tweedledee, hence the name *Tweedle Chess* (*Challenge and Delight of Chessical and Decimal*). Pawns move one or two squares at any stage; short castling only. Boyer comments that the variant gives 'magnificent games' because there are two directions of attack and two points to defend (*Nouveaux Jeux d'Echecs Non-orthodoxes*). **Twin Chess** [Parton] (Parton, 1961) puts the same men on an 8x8 board, with baseline NKBQQBKR, RR on a2/h2 and a7/h7, PP on d2/e2 and d7/e7, 8xP on ranks 3/6, and no two-step pawn move (*Chess - Curiouser and Curiouser*). **Twin Chess** [Trouillon] (D. Trouillon and others, 1960s?) reverts to the 10x10 board, with baseline RNBQKKQBNR. This game was established in and around New York, where there was divided opinion as to whether the mating of one K ended the game or whether it was necessary to mate both opponent's kings, the first K being removed from the board when mated (correspondence between John Gollon and Philip Cohen).

Double Rettah Chess (V. R. Parton, 1952). Similar to Rettah Chess above but with two rettahs (kings) and queens a side. Boyer gives (a1-h1) RNKQQKNR, bishops c2 and f2, pawns on third rank; Parton himself later suggested (a1-f1) KQPBNR, (a2-f2) KQPBNR, (a3-f3) P P P P P, (a4-b4) PP, with Black Kh8/h7 etc. Pawns move one square only. Unlike in Rettah Chess, check and checkmate apply (no special capturing rule) and the object is to mate one of the opponent's rettahs. Parton also suggested a version without pawns (4 x R, B, N, 2 x K, Q) and an hexagonal game. (*Nouveaux Jeux d'Echecs Non-orthodoxes, Chessery for Duffer and Master*)

Decimal Rettah Chess (V. R. Parton, 1952). Double Rettah Chess on a larger board; possibly the earlier version, and arguably the better. Board 10x10; 20 men a side including two rettahs and two queens. The baseline (a1-j1/a10-j10) depends on which source you follow: RNBQKKQBNR (*Fairy Chess*)

Review, December 1952), NBKQRRQKBN (*Nouveaux Jeux d'Echecs Non-orthodoxes*), RNKBQQBKNR and NBKQRRQKBN (*Feenschach*); the inventor ducks the responsibility. Pawns move up to 3 squares initially, and also one square diagonally (in order to open files) if previously agreed. No e.p. or castling. Pawn promotion to rettah but only if one has been previously captured. The aim is to take both the opponent's rettachs. A game of assault and sacrifice, highly praised by Boyer.

Double-King Chess [Moesser] (David Moeser, 1970, later revised). Board 10x8; extra pieces are a second king and a Squirk; baseline (a1-j1/a8-j8) RNBKQSKNR. The squirk moves like a R-N but also has the power to leap to a square two spaces away, orthogonally or diagonally. There is no check or checkmate until the first king of a side is captured; thereafter normal rules apply, thus the aim is to capture a king and then mate the remaining king. Pawns can promote to squirk but not to king. Short castling is normal but in long castling the king moves four squares towards the rook. (*Chess Spectrum Newsletter*, *Nost-algia* 244)

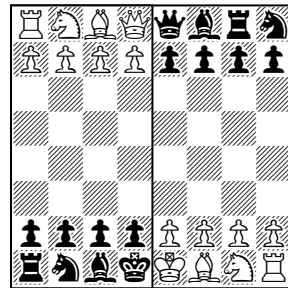
Ambi-Chess, also known as **L and R Chess** (V. R. Parton, 1970) Board 10x10; each side has an extra K and Q and two extra Ps. Baseline RNKQBBQKNR (*Challenge and Delight of Chessical and Decimal*), later modified to RNKBQQBKNR with the pawns on the 3rd and 8th ranks (*100 Squares for Chess and Damante*). In each case, the men must be distinguished as to whether they start on the player's left-hand side (L) or right-hand side (R), and two moves are made per turn, of an L man followed by an R man. The object is to mate either king. [David adds a rule 'A king is not obliged to get out of check until the second move of a turn', but while this is clearly reasonable I cannot see it in either source; perhaps it was added as a result of practical experience.]

Apocalypse (C. S. Elliott, 1976). Board 5x5; each side has 2 x Horsemen (N) and 5 x Footmen (P). Footmen (no double move) promote to horsemen on end rank. Aim is to capture all opponent's footmen. The players

write down their moves and declare them simultaneously. If players move to same square, H captures F, otherwise both pieces are removed. If an F-capture is made and the opponent's piece is simultaneously moved, the diagonal move stands. Illegal moves incur penalty points, two such points losing the game. White Ha1/e1, Fa2/e2 and b1-d1, Black similarly. (*Games and Puzzles* 53)

Alliance Chess [Paletta] (quoted by Tony Paletta, 1980). A form of two-move chess in which the player moves one man on the queen's side (files a-d) and one on the king's side (files e-h) in either order. The queens are replaced in the initial position by second kings. All pieces except the kings may move from one side to the other provided no capture or check is made in the process. (It is not stated whether a piece that crosses the centre line may move again on the same turn.) A player unable to move on one side of the board simply loses that move. Usual conditions for checkmate, stalemate etc. The object is to mate either of the opponent's kings. Notice that all four kings are effectively in corners in the starting position. (*Chess Spectrum Newsletter*)

Tandem Chess [Paletta] (Tony Paletta, 1980). The board is considered to be divided down the middle. Each player (designated K and Q) controls half the white and half the black forces, the first player having two kings and the second player two queens (for convenience: they are in effect kings).



Bishops move as queens but not more than two squares; other men normal. Play starts with K making a white move, then Q moving both white and black in either order. Thereafter a player's turn consists of a move

on each half-board. Captured men become the property of the capturing player and may be re-entered at any time, after the opponent has played, on an empty square of the other half-board. The square must be in the player's half (first four ranks) and a pawn may not be dropped on the first rank. A drop counts as a move. Pawns dropped on the 2nd rank have the two-square option. Promotion to R, N, or B (modified Q). The object is to mate either opposing king. (*Chess Spectrum Newsletter*)

Vincere Mori (Matthew Pritchard, 1987). Board 8x8; men are 1 x Beast Master (moves as Q), Priestess (up to three squares in any direction), 2 x Monarch (royal piece, moves as K), Duke (as N), Marquis (as Q but exactly two squares), Reaper (one square forwards or sideways); White Beast Master c1, Priestess e1, Monarch a1/g1, Duke d2/f2, Marquis b2/h2, Reaper c3/e3, Black reflected about the centre (all men on black squares). Reaper may only be taken by Beast Master; Beast Master only by Monarch, Beast Master, or Reaper; Monarch cannot help to checkmate an opposing Monarch. Object is to mate both monarchs. (Author's rules pamphlet)

Abdication (Proprietary game, Bryn; Brian Hughes, 1990). An attempt to rationalize chess. Board 9x9; extra piece is Duke (moves as Q). Three (out of 9) pawns are designated Royal Princes; they can promote to K if K is captured. King and queen reverse roles (Q can castle) and are classed as monarchs; other pieces (Rs, Bs, Ns, a, e & i Pawns) are the court. Win by eliminating either monarchs or the court (when remaining monarchs must abdicate). Game can also be played as a series of battles with an accounting system. (Proprietor's instruction booklet)

Hero Chess (Michael Howe, 1994). Board 10x10; men are Grand Duke (D, moves as K), Rook (R, orthodox), Bishop (B, orthodox or one step orthogonally), Knight (N, leaps 3-2 or 4-3 but not 2-1), Cavalier (leaps 4-2 or 5-2), Hero (moves as R or B or N or C, B and N as above), Lion (may make one or two consecutive one-step moves in any direction or combination of directions, passing over units of either colour if desired and capturing on either or both parts of the move), and pawn

(no 2-step or e.p., promotion to any piece except Duke). Array (a1-j1 and inwards, centred) DLRCHHCRLD, PPPBNNBPPP, PPPPPP, but experimentation encouraged. Capture both opposing Grand Dukes to win (stalemating the second is good enough). (Author's rules leaflet) [Text largely editorial]

Wildlife Great Chess (Gianluca Vecchi, 1995). Board 12x12, 30 pieces a side. Pieces (not pawns) normally move twice per turn, their moves being built up from K and Q moves (orthodox), Zebra move (3-2 leap), and Mammoth move (leap of two squares orthogonally or diagonally). Royal pieces are Lioness and Tigress, which move respectively as K then K and as Z then Z, capturing on the first move if desired (so being able to make a double capture) and omitting the second move if desired (but making two cancelling moves without capture is forbidden). Non-royal pieces are Jackal (K then Z), Panther (Z then K), Deer (Q then Z), Elk (Q then M), Stork (Z then Q), Heron (M then Q), Kangaroo (Z then M), and Ostrich (M then Z). The second move may be omitted if desired, and only the second may be a capture. The pawn is a frog, which moves one square forward orthogonally or diagonally and captures in the same direction as it moves, but jumping over an adjacent enemy unit and landing on the square immediately beyond (which must be vacant); promotion to any array piece optional on rank 10 or 11, compulsory on rank 12. ESDHPTLPHDSE on a1-i1/a12-i12, KK on b2/k2 and b11/k11, OO on d2/i2 and d11/i11, JJ on f2/g2 and f11/g11, 12xF on ranks 3/10. Capture a royal piece to win. Repetition of position forbidden; if a player cannot move other than to repeat a previous position he loses. (*Eterosacco* 74) [Text largely editorial]

Prince Chess (John W. Brown, 1997). Board 9x9; each side has 1 x Q, 2 x Prince, R, B, N, 9xP; baseline RNBPrQPrBNR. Prince moves like K with an initial option of a three-square leap forward (including diagonally forward) if not under attack. One B can move one vacant square orthogonally initially provided both Bs on the board. Pawn-two allowed, promotion only to a piece previously captured. If one Prince is captured, the other reverts to a king when the object is checkmate. (*Meta-Chess*)

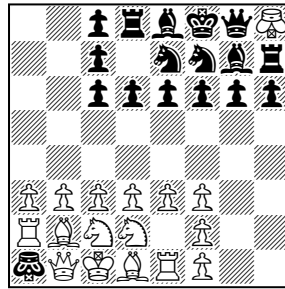
19.7 Anti-kings

Contramatic Chess (V. R. Parton, 1961). Three rules: (1) It is forbidden to make any move or capture that would put the opponent's king in check; (2) When the opponent's king is in check, the player is obliged to make a move or capture to release the check; (3) If a player elects to put his own king in check, he must not at the same time put his opponent's king in check. If a player is forced to place the enemy king in check, this loses the game. Kings cannot occupy adjacent squares. Parton suggests using a 9x9 or 11x11 board, no pawns, and a force made up of 1 x K, N, 2 x Q, R, 4 x B. White places his king on any square of his near rank and his pieces anywhere within his own half of the board. Black then does likewise. White starts. Each player attempts to get his own king in check. To win it is necessary to get into a position where the king is attacked by two or more enemy men at the same time. The peculiar features of the game are that the king tends to move more than any other piece and captures are rare (if you capture, you reduce the chances of getting your king mated). In **Complete Contramatic Chess** each side has two kings, one orthodox and the other contramatic, and there are two ways to win: either checkmate orthodox king or get own contramatic king checkmated. Start with an empty board (9x9 or 11x11 recommended) and an agreed number of pieces (no pawns), placing these in turn in their own halves of the board; the orthodox kings should be placed last. (*Chess - Curiouser and Curiouser*)

Week (Steve Tarin, 1970). Each side has eight pawns and a king in the usual starting array. In place of the pieces are seven Days, which are the opposite of knights, moving to any square a knight can't reach. No day may occupy a square a knight's move away from another day of the same colour. Both kings start in check. The winner is the player whose king is not in check when it is his turn to move. 'Sounds so

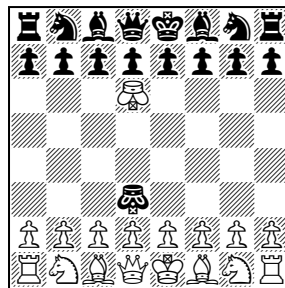
stupid that no one ever seems to have tried it', was the remark of a commentator who was thereby inspired to invent a game with a stupid title - see *Weak!* in chapter 9. (*Nostalgia* 162)

Anti-King Chess (Peter Aronson, 2002). Board 8x8; usual men plus Anti-Kings (white and black, inverted in diagrams).



Pawns are Berolina pawns (move diagonally, capture straight). An A is in check when it is *not* under attack. Ks do not attack As; a K or A can move as a N initially. You lose by checkmate or if your A is not attacked when it is your opponent's move.

Another version of the game has the orthodox array with the white and black Anti-Kings on d6 and d3 respectively. In this version the Ks and Ps are orthodox.



Anti-Kings may capture friendly men in both versions. (*Chess Variant Pages*)

Chapter 20

Games presented as families

[We have seen several informal families of games in this book, often reflecting second and later thoughts by the inventor. Some games have been more formally presented in the form of families, originality usually lying in the assemblage rather than in the individual components. There are two broad flavours: a set of games is presented and the players choose one either by lot or by agreement, or each player makes his own choice and the two are then put together.]

20.1 The players choose jointly

De Saagh's Games (Albert Saaghy de Saagh, 1898). In *Le Jeu des Echecs Agrandi et Perfectionné*, the author argues for a number of board sizes (9x9 up to 13x13) with added pieces: Lions (placed between rooks and knights, move like knights but 3-1 instead of 2-1) and/or an extra queen for the larger boards. His reason for introducing an extra queen has the merit of novelty: he remarks 'it has always appeared to me astonishing that the white king has his spouse on the left side'. A morganatic marriage in other words: bigamy is clearly preferable. De Saagh also advocates open lines and lines of retreat to avoid the constricted openings of the 8x8 board. He offers several alternatives for the 10x10 board:

(1) The 32 men are placed in the usual order but on the 2nd/3rd and 8th/9th ranks with the outside files empty.

(2) As (1), but with the rooks and knights and their respective pawns on the 1st/2nd and 9th/10th ranks.

(3) As (1), but with the c and h files empty.

(4) A combination of (2) and (3).

Superchess [Letmanji Stevan] (Letmanji Stevan, 1954). Prompted by the 12:12 draw in that year's World Championship match, the author proposed various forms of 'Superchess' on 6x6, 8x8, and 10x10 boards with modifications including playing to take all the opponent's men instead of just the king, setting up the initial array by lot, and using additional pieces (*Reforma u Sahu*). [Text revised. Unfortunately the photocopy of *Reforma u Sahu* in David's files is now defective, and it would appear that the key pages were removed for translation and have

not been replaced. The material that remains includes a picture of an aeroplane and a reference to a 10x10 game 'sa 2 raketna aviona, sa miniranim poljama e5, f5, e6, f6', but it is not possible to be more precise.]

Jet Chess (Proprietary game, Interplay Inc, 1972). Board 3x3 on one side, 4x4 on the other. Pieces are flat discs representing chessmen, any number of which may be stacked on a square. 3x3 game starts with WKb1, WP on top, and BK/BPb3. At each turn a player has two choices: (1) move an uncovered man to an empty square, or on top of a friendly man, or to the square of an enemy man thereby capturing it; (2) introduce a new piece to the board, putting it on an empty square or on top of a friendly man (not an enemy). Only the top piece of a stack can capture or be captured (so if you capture with your K and thereby leave it immediately on top of the enemy K, you effectively forfeit all chance of mating). P on first rank has two-step option; P on 3rd rank is temporarily a Q, but reverts to P on departure. In the 4x4 version, start with kings b1/b4, queens c1/c4, friendly P on top of each. (Rules as reported by Philip Cohen, personal communication; original game apparently not seen)

Chezz (D. Trouillon, 1975). Without defining board dimensions, composition of forces or array, the choice of which was left to the players, the inventor expanded the powers of the various chessmen. Any originality would appear to have been confined to minor detail. (Correspondence between John Gollon and Philip Cohen) [Final sentence editorial]

Flexichess and **Varichess** (Roy Keene, 1980s onwards). Board 9x8 or 9x9, six basic arrays on both boards. Extra pieces can include Archbishop (B+N), Chancellor (R+N), and Empress (Q+N). (Author's rules pamphlets)

Babylon, The Game of Empire, Mad, Moslon (Thomas Varghese, 1986-7). Games forming a complicated family featuring enlarged boards, combined pieces, multiple square occupancy, piece transformation, reintroduction of captured men, etc. It is not clear whether they have ever been published. (Author's rules pamphlets) [Text editorial]

Quantum Chess (Proprietary game, Quantum Development Corp, 1993). Compendium of five games: (1) ordinary chess; (2) board 10x10, 20 pieces a side; (3) as (2) but 30 pieces a side; (4) as (3) but board 12x12; (5) as (4) but 36 pieces a side. Additional pieces familiar apart from the Bowman, which makes a knight move to an unoccupied square and then, without further movement, captures or checks any enemy man a further knight's move away along the same line of movement. Pawns retain the two-step move at all times (e.p. permitted), promote to any previously captured piece and themselves return to any vacant second-rank square, and in addition are 'knighted' (replaced by a knight) on promotion if a previously captured knight is available. Men are identified by movement symbols. (Manufacturer's publicity leaflet, also *Variant Chess* 17) [Text editorial]

Superchess [van Haeringen] (H. van Haeringen, 1993). Not a game but a system that offers a range of boards and some 50 new pieces to choose from. These include the Amazon (Q+N), the Empress (R+N), the Princess (B+N) and the Veteran (K+N). The aim is to negate opening knowledge and in the long term to establish an ideal combination of board and pieces since, as van Haeringen observes, chess is an imperfect game. Players agree a set-up before play. A 10x10 and 10x8 version was called **Monarch [van Haeringen]**. A handsome book *Schaak en Superschaak* describes the system in detail. There is also a briefer book in English, *Superchess*. Chess, declares the inventor modestly, is just a variant of Superchess.

Augmented Knights (Ralph Betza, 1995). Knights have additional powers selected by lot. A first number 0-9 specifies the power to be added (none, move of one square orthogonally, ditto diagonally, leap of two squares orthogonally, ditto diagonally, leap of three squares orthogonally, ditto diagonally, 3-1 leap, 3-2 leap, ability to proceed in straight lines of knight moves as long as the road is clear), and a second number 0-2 says whether the added power can be used both for movement and for capture, or only for capture, or only for movement. Additionally, cases 1-5 are very close in value, which opens up the possibility that the players may restrict themselves to these five and choose independently as in *Equal Armies* below. (*Eteroscacco* 74) [Text editorial]

Heraldic Chess Games (Módest Solans, c.1996). Proprietary games system featuring chessmen, playing cards, and dice, including scope for the players to make their own rules. (*Variant Chess* 22) [Text editorial]

Meta-Chess [Brown] (John W. Brown, 1997). Meta-Chess is really many games - many different boards, many different men, many different rules. It is inspired by Herman Hesse's 'game of games' in *The Glass Bead Game* and draws on the rich fabric of chess before it was shaped in its present form sometime in the 15th century. A studiously researched book by the inventor, *Meta-Chess*, runs to over 300 pages.

Chessquito (Proprietary game, SentoSphère, 1999). Board 4x4; each player has 1 x Q, R, B, N (no pawns). Three games are offered; in all of them, the pieces are placed alternately on empty squares. First player to place also moves first. (1) Capture all opponent's pieces to win; (2) Q moves forwards or backwards one square, captures one square diagonally in any direction; (3) Q is K, win by checkmating. If no capture in five successive moves, a game is decided by pieces remaining. Charming painted wooden men, ideal for the very young. The games are far more skilful than they might appear. (Photocopy of review in *Fairplay* 58, possibly supplemented by information from a set in David's games collection)

20.2 The players choose independently

Equal Armies (Ralph Betza, 1979). A game in which the players have different but balanced forces. Betza's concept was to form armies equal in strength, though not in composition, to the orthochess army. An army could then play any other army, including the orthochess army, on level terms, creating a wide range of different, but well-matched games. The task was approached by devising a computer-generated system for calculating the value of a great variety of pieces, giving each piece a points value based on a common datum. The system analysed a number of factors including interaction, strength ratio at different stages of a game, and so on. Certain conclusions were reached as a result of which a total of ten armies, called Simple Armies, were assembled and researched; two were subsequently abandoned, and two revised. The orthochess array can be used in all cases, the regular pieces substituting for the new pieces. Pawns are identical on both sides but need not be those of orthochess; players can agree to use Berolina pawns, shogi pawns, etc.

Many of the new pieces are based on the elementary Fers (moves one square diagonally), Wazir (ditto orthogonally), King, Alfil (leaps two squares diagonally), Dabbaba (ditto orthogonally), Knight, and Horse (as N but one step orthogonally and then one diagonally, and the intermediate square must be empty). A rider is the corresponding piece that continues to move in the same direction as long as the road is clear. Thus a rook is a wazir-rider, a nightrider a1 moves to b3, c5, e7, c2, e3, or g4, and a dabbaba-rider a1 moves to a3, a5, a7, c1, e1, or g1. In the lists that follow, the royal piece is given first, then his consort, and then the other three pieces.

Simple Army 1. Royal piece e1 moves as D or W, captures as K. Consort d1 moves as A or D or N or K, captures as B or N. Piece c1/f1 has a two-part move: as A, then optionally one square straight back (the two parts making a knight's move). The second step is forbidden if the first is a capture. Piece b1/g1 moves and captures as N but can also capture forwards and move backwards as B. Piece a1/h1 moves as R but can capture only if there is one man between it and its target (as Cannon in xiangqi).

Simple Army 2. Royal piece e1 moves as K, captures as D or W. Consort d1 moves and captures as B or D or N. Piece c1/f1 moves and captures as D or F. Piece b1/g1 moves as H, captures as A or D but only if there is a man on the intervening square. Piece a1/h1 moves and captures as D or N, castling allowed.

Simple Army 3. Royal piece e1 moves as N, captures as A or D or W. Consort d1 moves and captures as A or K or N. Piece c1/f1 moves as A or D or F, captures as D or F. Piece b1/g1 moves and captures as H, or as A but only if leaping a man, or as D ditto, or one square straight forward (as P). Piece a1/h1 moves as A or D or N, captures as D or N.

Simple Army 4. Royal piece e1 moves as W or D, captures as K. Consort d1 moves and captures as A or D or K or N. Piece c1/f1 moves and captures as D or F. Piece b1/g1 moves and captures as H, also as A or D if leaping a man. Piece a1/h1 moves and captures as A or K.

Simple Army 5. Royal piece e1 orthodox. Consort d1 combines piece a1/h1 and piece c1/f1. Piece c1/f1 moves and captures either as A or as Horse whose first move is diagonal. Piece b1/g1 moves as N, captures by leaping one or two squares diagonally. Piece a1/h1 moves as rook but takes as F, not W, on adjacent square.

Simple Army 6. Royal piece e1 moves as W or A-rider, captures as K. Consort d1 combines piece a1/h1 and piece c1/f1. Piece c1/f1 moves and captures as F or A-rider. Piece b1/g1 moves and captures as A-rider or D-rider. Piece a1/h1 moves and captures as W or D-rider.

Simple Army 7. Royal piece e1 moves as K, captures as W or A-rider. Consort d1 moves and captures as K or Nightrider (Nr). Piece c1/f1 moves and captures as F or A-rider. Piece b1/g1 moves and captures as D-rider or one square straight forward. Piece a1/h1 moves and captures as Nr or one square straight forward.

Simple Army 8. Royal piece e1 moves as K, captures as N or A. Consort d1 moves and captures as K or Nr. Piece c1/f1 moves and captures as Camel (3-1 leaper) or A. Piece b1/g1 moves and captures as Gold General (as

W or one step diagonally forward). Piece a1/h1 moves and captures as N or A-rider.

More armies were added later (2003) with the improvement that kings and pawns remained orthodox. The association of the regular pieces with the various Simple Army pieces poses a problem for players. (*Nostalgia* 247 and later, Chess Variant Pages)

Free Choice Chess (Bruce Gilson, 1984). Board 10x16, of which the first three ranks at either end are deployment zones with a 10x10 playing area between them. The concept, not altogether new, is to offer a variety of pieces, both orthodox and unorthodox, individually valued in points according to their powers, from which the players select their own forces. Each player is limited to 20 pieces totalling not more than 200 points, and must include at least one single-step mover, denominated the K piece, whose loss decides the game.

Gilson gives a total of 17 different pieces from which to choose, divided into three groups (moves and piece values in brackets).

Group 1 (single-step pieces): Fers (one step diagonally, 5), Wazir (one step orthogonally, 7), Silver General (as F or one step straight forward, 8), Gold General (as W or one step diagonally forward, 10), King (as orthochess, 13).

Group 2 (medium-range pieces): Alfil (leaps two squares diagonally, 4), Dabbaba (ditto orthogonally, 5), Giraffe (as orthochess N but 4-1 instead of 2-1, 8), Camel (ditto but 3-1, 9), Zebra (ditto but 3-2, 9), Knight (as orthochess, 11), Squirrel (as A+D+N, 23).

Group 3 (long-range pieces): Bishop (as orthochess, 14), Rook (as orthochess, 22), Princess (as B+N, 28), Empress (as R+N, 33), Queen (as orthochess, 38).

Each player sets up his army in his own deployment zone. Pieces are placed in turn, except that if one player uses up his 200 points the other player can continue to place pieces until his allocation is exhausted. A piece in the playing area may not be moved if the player still has a piece in the deployment zone, except to capture, avoid capture, or check. The royal piece must not be the last piece to enter the playing area. No piece may leave the playing area once entered. A long-range piece must enter the playing area on the first

(nearest) rank. No castling.

This is the basic version of the game. In the advanced version, a captured piece can be re-entered on the side of its captor at any time anywhere in that player's deployment zone. The game was experimental. It was foreseen that up to a couple of hundred different pieces might be approved, their values constantly updated by computer. Commentators observed that the absence of pawns was a serious drawback. One solution suggested was to dispense with the deployment zones and insert a line of pawns initially along the 3rd/8th ranks. (*World Game Review* 6/7)

Generalised Chess [Schmittberger] (R. Wayne Schmittberger, 1980s). A theory on the form that chess might assume in the future. The idea is that each player has a number of points with which to buy pieces from a common pool, the men then being set up with the players alternately placing their pieces on the starting ranks. Some consideration has been given to the pieces, but not so far to the board sizes which would influence their powers. There would only be one of each piece (which would represent a power that could be transferred to a familiar chessman) so that a piece once purchased would be denied to the opponent. If Generalized Chess were universally adopted, the value of each piece, initially assessed by detailed analysis on which the inventor has done much work, would be constantly under review, based on supply and demand in major events. A 'starter' idea is that the 8x8 board with normal array is employed, kings and pawns unchanged, the players 'buying' new powers for the pieces. In the final form of the game, different kinds of kings and pawns might be available; for example, an immobile king which would earn negative points. Schmittberger imagines grandmasters of the future not exploring new opening variations (a pointless exercise) but instead attempting to evaluate different piece combinations and thereby assessing those pieces that are under- or over-valued; an interesting concept. A practical weakness in the idea would seem to be the difficulty players would have in identifying and mentally controlling a range of unfamiliar pieces. (Personal communication)

Chapter 21

Miscellanea

[As in Part 1, there are games which do not fit easily into any other chapter but are too few in number to merit chapters to themselves.]

21.1 One-dimensional boards

Linear Chess (V. R. Parton, 1961). Linear board of 21 squares. Each side has seven pieces; 1 x King, Jumper, Runner; 2 x Hopper, Stepper. Steppers move a square at a time; hoppers move two squares leaping the intervening square whether occupied or not; runners move over any number of vacant squares; jumpers move by leaping over a man of either colour into the square immediately beyond. Pieces can only advance; capture by displacement. Array (1-7/21-15) KJRHHSS. Parton also suggests a 25-square or 27-square board with additional jumper and runner on each side, which he suggests seems to be the 'natural form' of Linear Chess, 'but the game may, of course, be played on larger (longer) boards and with more pieces than those which have been mentioned so far'. (*Chess - Curiouser and Curiouser*)

One-Dimensional Chess [Glimne] (Dan Glimne, 1977). Linear board of 18 squares, square 1 black; array (1-7/18-12) KQRBBNP. Pawns move one square forward only but may move two initially. Knights move either two or three squares, leaping any intervening men. Bishops move on own colours ignoring men on opposite-coloured squares. Rooks move normally. Queens move as bishops or rooks. Kings move one or two squares. Castling (K and R exchange places) under orthochess restrictions. All men capture by displacement as they move. The inventor has a suspicion that White has a forced win. (Inventor's rule sheet)

One-Dimensional Chess [Gardner] (Martin Gardner, 1980). Described in the July 1980

issue of *Scientific American*. Linear board of 8 squares, array (1-3/8-6) KRN. K and R move as normal; N moves exactly two spaces and may jump. Clearly the first player can draw at once by RxR, but who wins? Another version adds a square between the forces so that the knights can threaten each other. **One-Dimensional Chess [Sackson]** (Sid Sackson, 1990) is an expanded version: 12-square board, array (1-5/12-8) RNKNR. To bring the back rook into the game, the K is allowed a modified castling move: the two pieces exchange places. This can be done at any time (i.e., after either or both have moved) and is never forced (castling is not obligatory to escape stalemate). Again there is a variation with an additional square between the forces so that the knights can threaten each other. (Personal communication)

[All this seems to pale into insignificance compared with what T. R. Dawson and others did in the problem field between 1925 and 1945 (see *Fairy Chess Review*, February 1939, December 1943, April, June, August, October, December 1944, and February 1945). The key to their fecundity was the use of what might be called '*n*-skippers', which skip along in hops of *n* squares ignoring anything on the squares skipped over (so Glimne's bishop is a 2-skipper). Some of the boards used to exploit these skippers would have been too large for practical play and there is a case for letting a skipper follow its skips with a one-step move so that it can change the set of squares on which it travels, but if one-dimensional boards are tried again this would seem to be the way to go.]

21.2 Games with hidden information

Chess In Disguise (origins unknown). Kings and pawns as normal array; other pieces are draughtsmen or numbered pieces of cardboard with their ranks on the underside. Players arrange their own pieces as they wish (but bishops on opposite-coloured squares) without revealing their identities. Play is normal except that check must be announced and a captured piece revealed. Castling permitted if rook in corner and usual conditions apply. Players deduce opposing pieces by the way they move. Agreed unorthodox pieces may be used instead of conventional ones. (Stone)

[A natural choice is to replace one knight and one rook by B+N and R+N, when the identity of the pieces can be kept hidden for a little longer. George Jelliss called this variation **Knighted Chess** in *Variant Chess* 1. I had used it in *Chessics* 4 as a vehicle for a trick problem, but I am not sure if anyone has ever tried to play it as a game.]

Mimikri (Proprietary game, 3M; Alex Randolph, 1970s). Board 8x8; each player has 16 cubes representing the usual chessmen. The piece symbol is on one side of the cube only, the reverse side depicting an arrow (with the exception of the king, whose symbol is on both faces), the remaining four sides of each cube being blank. All the men, with the

exception of the two kings, are shuffled, arrows uppermost. Each player counts out eight pieces of the opponent's colour and passes them over. Both players now put their pieces, symbols face-down and unseen, along the second rank, and then place the kings, symbol uppermost, on any square of their first ranks. There are two distinct games, the Decoy game and the No game. In both games the aim is to mate the opponent's king.

In the Decoy game, each player arranges his men so that the arrows point towards him, then tilts them a quarter-turn away from him so that the symbols face him and the arrows face the opponent; thus each player knows his own pieces but not his opponent's (except the king). Pieces move normally but are only disclosed to the opponent when captured. Check must be announced. Bluff plays an important part.

In the No game, the pieces are arranged so that the arrows point towards the opponent and are then tilted a quarter turn towards the player so that the player sees his opponent's men but not his own. Each move is vetted by the opponent. A call of 'No' means an illegal move, and the player loses his turn. Captured pieces are not disclosed and check is not announced. Each move, a player discovers something about his own strengths and weaknesses. (Notes based on an actual set)

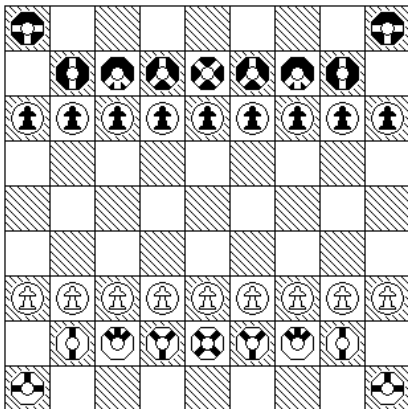
21.3 Directional pieces

Super Chess [Ginsberg] (Proprietary game, Super Chess Inc; Ed Ginsberg, 1984). Among *Games* magazine's top-ten strategy games of 1987; NOST correspondence tournament 1990 (US \$1,000 prize fund!). Board 10x10; extra men are a Cyclops, an Archer and two Super Pawns. Baseline (a1-j1/a10-j10): RNBCQABNR; White places his two SPs anywhere on his second rank; Black does likewise, and the remaining pawns are filled in on the empty squares of these ranks. The cyclops, having one eye, can move 1,2 or 3 squares only in the direction he is facing or in the opposite direction. Moving forward, it runs down enemy men in its path and can leap friendly men to do so; running backwards ('blind retreat') all men in its path are

captured, including friendly men. At the end of its move the cyclops can rotate to face any direction, orthogonal or diagonal; it can also rotate on its square without moving but this counts as a turn. The archer has the knight's move and can also shoot (capture) an enemy man four squares away orthogonally; thus Aa1 moves/captures on b3/c2 and can also capture (without moving) on a5/e1. Super pawns can move two squares initially even if intervening square is occupied, and they can capture one or two squares diagonally ahead, leaping the intervening square if occupied. The e.p. rule is adjusted logically for SPs. Promotion (Ps and SPs) to any piece except king. In castling, king to c1/h1, rook d1/g1. Several thousand match games have been played. (*Nost-algia* 298/335)

Ploy (Proprietary game, 3M; Frank Thibault, 1973). Board 9x9; pieces carry directional indicators which govern the directions in which they can move and which also correspond to the number of spaces they move, the exception being the Commander (K) who can move in any of four directions but only one space at a time. Each side has 15 men: 1 x Commander, 3 x Shield, 5 x Probe, 6 x Lance. Shields can move and then rotate to change direction; all other pieces rotate at the expense of a move. Capture by displacement; object is to win opponent's commander. [Information presumably deriving from a set in David's game collection]

Rotary (Christiaan Freeling, 1981). An attempt to improve on Ploy. Board 9x9; pieces are octagonal in shape and carry directional indicators: King (four directions initially oriented diagonally), Rook (three directions, initially left, right, and straight forward), Axe (three, initially straight and diagonally forward), Trident (three, initially diagonally forward and straight back), Scythe (two, initially straight forward and straight back). Rooks initially on a/i1 and a9/i9, SATKTAS centred on ranks 2/8, 9xP on ranks 3/7:



Pieces can only move in a direction in which they are pointing. King moves one square and can then rotate if desired; scythe moves any distance and can then rotate; other pieces move one square with optional rotation afterwards, or more than one square without

rotation. A piece may rotate without moving provided that at least one of its directions changes. Pawns move as in orthochess but no pawn-two, promote to queen (four directions) optionally on 7th or 8th rank, compulsorily on 9th. When a pawn promotes, the resulting queen may be rotated as the player wishes.

The object is checkmate. King can mate king; stalemate is impossible since if the king is not in check it can always rotate. [Information presumably deriving either from personal communication or from a set in David's game collection]

Tines and Barbs (Tony Berard, 1990). Board 8x8; usual array but pieces are octagonal, have new names and carry directional indicators. Each turn has an allocation of 5 points. Points are required to capture (5), move (3), promote (2) and rotate (1), so for example a player cannot capture and rotate in the same turn. Unused points do not carry forward. (Personal communication)

Centennial Chess (John W. Brown, 1999). Board 10x10; extra pieces are Camels, Rotating Spearmen, Stewards, and Murray Lions. The Camel leaps as an extended N, 3-1 instead of 2-1. The Rotating Spearman points straight forward (its initial orientation) or 45 degrees to either side, and moves forwards or backwards on this line like a R or B; after on instead of moving, it may rotate 45 degrees to face in a new direction, but it cannot rotate before moving. It can capture on the advance but not on the retreat. The Steward is an all-round P, moving in any of the four orthogonal directions and capturing in any of the four diagonal. P and St may advance two squares forward on first move (St not sideways), but no e.p. The Murray Lion moves by leaping two squares orthogonally or diagonally, and captures as a K. Until he has made his first capture, a player moves two pieces each turn; a capture must be made on the first move of the turn. Array (a1-j1/a10-j10 and inwards) RCBLKQLBCR, -SpN-StSt-NSp-, 10xP; castling by moving K to bishop's square, R to lion's. (Chess Variant Pages) [Text largely editorial.]

21.4 Other unorthodox pieces

Megasaur Chess (V. R. Parton, 1973). Outline game only. Board 10x10; pieces have names of prehistoric animals, Dinosaur (Q), Brontosaur (B), Hipposaur (N), Megasaur (Q+N), and move only to capture, as does the king; pawns are normal. No initial array specified. Capture opponent's king to win. (*Enduring Spirit of Dasapada*) [According to Anthony Dickins in *A Guide to Fairy Chess*, all apart from the Megasaur date back to J. de A. Almay (*Fairy Chess Review*, April 1940), and the identity of names suggests that either *GFC* or *FCR* must have been Parton's source.]

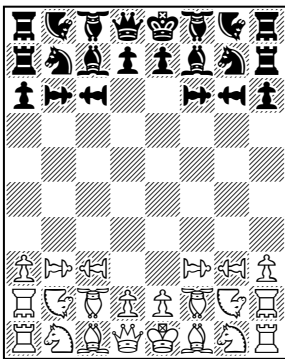
Exotic Chess (R. Wayne Schmittberger, 1986). Usual array, but a counter or draughtsman is placed under each man. Counters represent special powers, varying with the rank of the piece, which can be used once in a game. When a right is exercised, the

counter is removed. Players agree powers beforehand. (*World Game Review* 10)

Mirrors [Nielsen] (Jens Nielsen, 1990). Both players start with two 'mirrors' each two squares long, placed vertically between the c/d and e/f files and across the 2nd and 3rd ranks. Mirrors block kings and pawns, alter the paths of the line pieces (diagonal pieces reflect at right angles, impacting orthogonal pieces are deflected at right angles to either side), but do not affect knights. Mirrors meeting at a corner prevent passage along the diagonal. A mirror may slide one or two units lengthwise, or may rotate about its centre, or move bodily one unit, provided that the cells are vacant. Mirrors are captured by placing two enemy pieces of the same kind next to them. A mirror may not capture another mirror, but may block its moves. (*Variant Chess* 6) [Text revised]

21.5 Twinned pieces

Gemini [Groman] (William Groman, 1981). A unique game that introduced the concept of twinned pieces. Board 8x10; each side has 1 x K, Q, 2 x twinned R, B, N, P, 4 x single P :



The six pairs of pieces on each side are twinned vertically (e.g. Ra1+Ra2), and the pawns on the b/c and f/g files are twinned horizontally. Single pawns a/h and twins can move 1 or 2 squares initially; pawns d/e 1, 2 or 3 squares. A single pawn promotes normally on 10th rank, a twin pawn to twinned R, B or N. No castling, but K has the right to move two or three squares, on the rank only, once in a game (subject to the usual castling

restrictions). Twins move as a unit like their single-piece counterparts. No part of a twin may cross an occupied square. Capture by displacement. If a twinned pawn captures, the other moves diagonally with it. If one part of a twin is captured, the other becomes a single. Twinned R, B and N can also make orientation moves but not to capture. One rook can pivot 90 degrees round the other rook so that they are horizontally linked. Bishops can be linked horizontally and diagonally as well as vertically. This is achieved in a single move by pivoting one of the pair diagonally or orthogonally. Knights can change orientation similarly, one of the pair remaining unmoved, the other moving like a knight; for example, Nc3/c4 (vertical) can change to b2/c3, d2/c3, b5/c4 or d5/c4 (all diagonal) and from diagonal to horizontal or vertical. Knights cannot change from vertical to horizontal (or vice versa) in one move. (Author's rules pamphlet)

Invisible Chess (Bruce Trone, 1986). Each man ('mother unit') has an invisible counterpart ('invisible man'). The IM advances from the MU and must return before it can be deployed to another square. The

advance and the recall each require one turn. An IM can only be captured by another IM. All invisible men (including the IK) can check and mate even though they don't have the power to follow through. A mother unit with IM deployed has no power of movement nor can it give check, but it regains these powers when the IM returns or is captured. Capturing the MU also captures the IM whether deployed or not. A visible man (carrying its IM within) can pass through a square occupied by a deployed IM. (Inventor's rule sheet) [Text revised]

21.6 Men created during play

Creation Chess (Bruce Trone, 1991). If two pieces other than a K stand on the opponent's back rank with an odd number of empty squares between them, a new piece combining

Forest Chess (Michael Schmahl, 1995). Board 8x8; extra pieces are Grand Druid (royal piece, moves as K), Bear (as Q), Ranger (as nightrider, chapter 16), Druid (as B+K), and Trees, which move together in parallel along Q-lines but need not move the same distance and cannot both capture in the same turn. No pawn-two, castling replaced by 'Pass-tree': if the G is adjacent to either tree, he may move to any unoccupied square orthogonally or diagonally adjacent to the other tree. Baseline (a1-h1/a8-h8) DRaTBeGTRaD. (Author's rules leaflet) [Text largely editorial]

21.7 Men belonging to both sides

Neutral Men (T. R. Dawson, 1912). On his turn, a player can regard a neutral man as his own and move it, or he can regard it as his opponent's and take it. Neutral pawns promote to neutral pieces. Invented for use in problems and of limited use in normal play, but suggested as a way of dealing with a mated player's men in a three-player game (see 'Hexanova' in chapter 37). A problem by Kurt Smulders, *Europe Echecs* 1970, has White Kh2, Rh7, Bc8, Nc7/b6, Pc5/a3 (7), Black Ka7, Ra5, Nb5, Pa4 (4), Neutral Pb7 (1), White to play and mate in 2. The solution is 1 Na6 waiting, after which 1...Rxa6 is met by capturing the neutral pawn and every other Black move by promoting it to a uniquely determined piece: 1...Kxa6 2 b8(N) (not R because Black could play 2...Rxc8/Rb7 and nullify the check, and not B/Q because this would put White's own king in check), 1...Nc7 2 b8(B) (not Q because Black could play 2...Qxc8), 1...Nd6 2 b8(Q) (not B because 2...Bc7 would remove both checks), and 1...Nd4/Nc3/Nxa3 2 b8(R) (not N because 2...Nd7 would stop the check). [Text editorial]

Neutral King Chess [Parton] (V. R. Parton, 1953). There are no queens, the king is shared, and each side has only six pawns; array (a1-d1/a8-d8 and inwards) RBNP, RBNP, 4xP

their powers is created halfway between them. Neither parent can then contribute to another offspring for three moves. (Personal communication)

with the king initially on h5 and the rest of the right-hand side empty. Both players can move the king, which is neutral. It may be moved freely to capture or to escape check; otherwise, it can only be moved along the rank or up the board by White, rank-wise or down the board by Black. A player may move it to capture a piece of either colour, but it is illegal to move it to a square attacked by either side. The K cannot be exposed to check from an opponent's piece, but a player may expose it to check by moving one of his own. In this event, the opponent, on moving, must get out of check. The object is to checkmate. The pawns move normally one square at a time, and promote only to R, B, N. (*Nouveaux Jeux d'Echecs Non-orthodoxes*) [Text revised. The 'neutral king' as used by problemists behaves quite differently; see for example Kurt Smulders's book *Sprookjesschaak*.]

Neuter Queen Chess (origins unknown). An extra queen (the 'blue queen') is placed at the start of the game on one of the four central squares (by agreement). The piece, which moves like a Q but has no powers and may not be captured and hence acts as a block, may be played by either player instead of a normal move. (Correspondence between John Gollon and Philip Cohen)

Knightmare Chess [Parton] (V. R. Parton, 1961). Certain pieces of disparate powers (for example, Q/N, R/B) have dual identities, one white, one black. Thus a piece might be used by White as a bishop and by Black as a knight, a nightmare for both players. A concept never formalised into a game though Parton did suggest what he described as a diluted Soup à la Nightmare: each player can move the opponent's king as a knight and may also capture with it or place it in check; however, it

21.8 Walls and obstacles

Centigrade Chess (Proprietary game, Zodiac Games, late 19th century). Board 10x10, four central squares are forts. Usual set plus 2 Centurions and 2 pawns a side. Centurions command two squares in any direction. Piece occupying fort cannot be captured. No piece can cross over fort, even if unoccupied. Line pieces (Q, R, B) must first move into fort, then out again. Object: checkmate. (Note referring to Zodiac Games by 'Mercury in Virgo', published by Britten of Dudley)

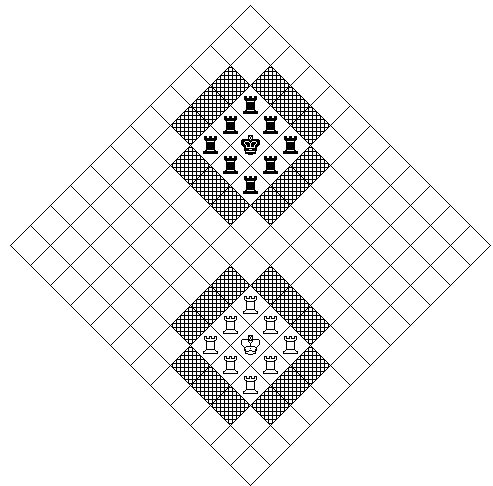
Simmons' Game (Proprietary game, Samuel Simmons, 1899). Board 10x10; four central squares designated a sanctuary with forts d4, d7, g4, g7. Additional pieces are two generals (rooks) at e1/f1 and e10/f10 plus pawns. Win by checkmate or when sanctuary is occupied by king and three pieces of same colour and all forts are cleared of enemy. Pawns ignore sanctuary and do not check king when in it. (Note referring to 'Patent 24210 of 1899')

Merlin et Mat (Proprietary game, R.-P. Ragosa and P. Fauvet, 1995). Board 12x12 with eight squares (b7, c6, c7, d6, h7, i6, i7, j6) coloured red. Each player has the usual chessmen plus a Merlin and eight extra pawns. The M moves three squares in any direction or as a N. Pieces are orthodox, but pawns move one square straight forward or one square diagonally back. They capture and promote normally. Red squares may not be occupied or crossed. To start, a barrier is placed across the centre of the board and the players assemble their men in their own half except that no man may be entered on a rank that contains a red square and the M must be placed adjacent to the K. (Photocopy of rule booklet)

cannot be moved on the first two turns nor in successive moves. (*Chess - Curiouser and Curiouser*)

Carnivore Chess (quoted by C. Pickover, 1992). Standard set-up; an additional piece, the Carnivore, which captures but cannot be captured, is placed somewhere near the middle of the board. Before each move the player whose turn it is moves it one square in any direction. (*Mazes for the Mind*)

Chad (Christiaan Freeling, 1979). Board 12x12, with brick walls at b3-b5, c6-e6, f5-f3, e2-c2, and k10-k8 etc similarly. These walls create two 3x3 'castles'. The players sit cornerwise, each with a king and eight rooks which initially occupy his castle :



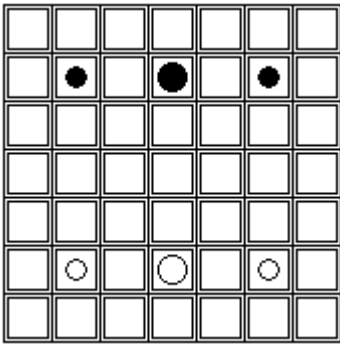
The aim of the inventor was to create a game of tactical and strategical depth that was both simple and elegant to express the concept of 'mate' - the 'pure' chess game.

The king moves as a king or knight but may not leave the castle. The rooks move normally and are unhindered by castles or walls. A rook that completes its move on a square in the opponent's castle promotes to queen. Capture is by displacement but may only be made if the capturing piece is on the opponent's wall and its victim within his castle or vice versa, otherwise the pieces act as blocks. It follows that a queen within the opponent's castle can

only be captured by the king. A king in the corner of a castle does not control the squares in the other three corners, and if at the side of a castle, does not control the square directly opposite. It is these weaknesses that are best

21.9 Square-swallowing

Sjakti (Christiaan Freeling, 1982). Board 7x7; tiles (counters will do) are placed on all 49 squares. Each player has a king and two men, initially set at d2/6 (kings) and b2/6, f2/6 (men) :



The aim is checkmate. A man may move to the first tile he encounters in any direction (i.e., like a queen) provided it is vacant. If the next tile beyond it is also vacant, the man may move there instead, removing the first tile. The king moves in the same manner with two exceptions: it can only move to the first vacant tile encountered and, if in check, can only move to an adjacent empty tile. No moves may be made to empty squares. A king can capture a man provided that it is both adjacent and undefended. The two kings cannot stand on the same line if there are no tiles between them. Notice that if a king and an opposing man stand on the same line with a vacant tile between them the king is not in check since the tile he occupies does not fulfill the vacancy condition. Sacrifices are common both in a mating attack and to achieve stalemate (when almost invariably both men are sacrificed). (Manuscript notes presumably deriving from personal communication)

Caissa (Christiaan Freeling, 1982) has many similarities with Sjakti. The game uses a 7x7 board, a queen (Caissa), rook, bishop and

exploited by sacrificial attacks aimed at forcing the king out of the centre.

Chad was played for many years at the Fanaat games club in the Netherlands. It was the subject of a feature article (*The Gamer* 6).

knight on each side and 49 counters, one on each square. Caissa has also been played on other boards.

The first player arranges the initial position (in which neither queen must be in check) and the second player chooses sides or elects to play first. The pieces move as in chess but with a number of modifications. It is an inviolate rule that no piece may make a move if, on completion of its move, any counter or group of counters is isolated from the remainder. The object of the game is to checkmate the queen, who moves and captures undefended pieces normally but can only move one square when in check (hence pieces checking from a distance need not be guarded). Queens cannot face each other directly however many squares there are between them. When a queen moves, the counter on the square she was occupying is removed from the board. Empty squares can be passed over but never occupied, hence the playing area is gradually diminished.

The other pieces move normally but do not capture one another. They have two additional powers: a piece can move with its counter to an empty square (thereby of course leaving empty the square it occupied) and a piece can change places with a piece of either colour provided it can legally move to the square occupied by that piece (in this way bishops are able to change their colour-complex provided the move is initiated by a rook or knight). Some beautiful combinations are possible and no draw has so far been recorded. (Manuscript notes presumably deriving from personal communication)

Magician Chess (Jonathon Whittle, 1999). Board 7x7 with holes initially at a3/4/5, g3/4/5, and d2/4/6; men are KRNP and Magician; array (a1-g1/a7-g7 and inwards) RNMKMNR, PPP~PPP. Magician moves one square orthogonally or leaps two squares diagonally, and can cast a spell on a hole at a

distance one square diagonally or two orthogonally; this spell causes a square orthogonally adjacent to the hole to slide across and cover it, leaving a new hole in its place. The magician chooses which square is to slide, and whether any occupant (of either colour) is to slide with the square or to be left behind to fall into the new hole (a magician cannot capture normally). Suppose 1 Mbd3 Ncd5 2 Mc3; White's magician is now

threatening to cast a spell on d4 and to cause the square d5 to slide from under the knight to fill it, leaving Black a knight down.

Rooks and pawns may not move across holes. Pawn-two allowed from first or second rank even if the pawn has moved previously, e.p. permitted. Pawns promote to composite pieces, R+N or R+M or N+M. Castling permitted. (Chess Variant Pages) [Text editorial]

21.10 Use of the intersection points

Simo Pieces (David Moeser, 1971) move on the intersections rather than on the squares of the chessboard. They have their usual names preceded by 'S', thus Sking etc. **Simo chess** is played with nothing but simopieces (and hence is simply a 9x9 game with ordinary men); the interest comes from combining using the two on the same board. Pieces moving on the ranks and files are unaffected except that they can be pinned by simo as well as by diagonal-moving pieces. Diagonal movers (K, Q, B, P when capturing) can elect to move normally or to an intersection where they are invulnerable from Rs and Ns, thereby becoming simopieces. The diagonals of Qs and Bs can be blocked by simopieces. Regular diagonal movers can capture simopieces and convert to simopieces and simopieces can similarly capture ortho chess diagonal movers and convert to regular pieces. In **Schess** (Moeser, 1973), the ordinary K, Q, B, and P when capturing are allowed simodiagonal movement. **Simoco** (Moeser, 1973) is a further development in which the midpoints of the square edges can be used as well. Pieces using these points have the prefix 'Co', thus Coking etc. (*Neue Chess* 6)

Chesquerque (George R. Dekle Sr, 1986). Board 9x9 points. Movement along marked lines between points. All points are joined orthogonally but alternate points only are

linked diagonally (a1, c1, ... b2, d2 ... etc). Usual pieces plus Archbishop (B+N); baseline (a1-i1/a1-i9) RNBQABNR. Rooks can also move one point diagonally and bishops one point orthogonally. Pawns move and capture one point diagonally forward or straight forward and have initial two-point option (e.p. allowed). King moves three points when castling. (*World Game Review* 10)

Echecs + (Proprietary game, TLM création; Yvon Picard, 1991). Board 12x10 with the 20 intersection points between files b/c, d/e, f/g, h/i, j/k and ranks 2/3, 4/5, 6/7, 8/9 marked with small circles. Each side has two Jacks, which leap two squares in any direction, plus two extra bishops; baseline (a1-l1/a10-l10) RBJNBQKBNJBR. In addition, each side has two Bishop Blocks, which start the game on the two intersections in front of the K and Q and subsequently move only from circle to circle. A BB blocks the path of an adverse bishop along the two diagonals through the intersection on which it stands; it cannot capture nor be captured, and it has no effect on men other than the Bs (not the Q). The game won a bronze medal at the 1991 Salon International de l'Invention de Paris. [There is a photocopy of the award certificate in David's 'Encyclopedia' files; the remaining information presumably comes from a set in his games collection]

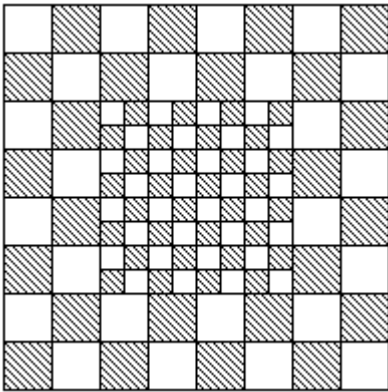
21.11 Games on two or more boards

Duel Chess (Erez Schatz, 2003). Two boards, 5x7 missing central square and 3x3; extra piece is Dabbabah which leaps two squares orthogonally. All men start on the larger (main) board, baseline (a1-e1/a7-e7) DNKBR;

smaller (reserve) board initially empty. Pawns do not promote; a lone king on the main board loses. When a man is captured, it is placed on the reserve board by the player who made the capture. When both players have at least one

man on the small board, a player can elect to move on it instead of the main board. A piece captured there is removed from play and the capturing piece is returned to the main board, but may not be dropped to give check. If a capture is made on the main board when the small board is full, the captured piece replaces one of the same colour on the reserve board. The main board may be enlarged and additional men used, but the reserve board should always be 3x3. (Chess Variant Pages)

Sub-Chess (Alexander Chebotaryov, 1988). There are two branches of the game, Chess-112 and Chess-M-48, each based on the same simple and original concept of an 8x8 board within which the 16 central squares are each subdivided into four small squares. This has the effect of creating two 8x8 boards, the large one (L) subsuming the small (S) :



We denote the squares on L by La1-Lh8 and subsquares on S by Sa1-Sh8; the subsquares Sa1, Sa2, Sb1, and Sb2 all form part of Lc3.

Chess-112. The normal array is set up on L, S being initially empty. When a move is made from L to S, the player must nominate the subsquare (which must be vacant) on which the man is to be placed. Suppose White opens Nc3; he must nominate one of the subsquares Sa1, Sa2, Sb1, and Sb2 to receive the knight. Let us suppose that he chooses Sb2.

The knight now stands simultaneously on L and S. On its next move, it can move on L to e2, d1, b1, a2, a4, or b5, and also to d5 or e4 though in these last two cases he must again choose a specific destination subsquare on S (so moves such as Sb2-d6 or even Sa1-d6,

being played as c3-d5 on L, are valid knight moves on S). Alternatively, it can move on S to Sa4, Sc4, Sd3, or Sd1. Notice that in each of these three cases the knight has effectively moved to an adjacent square on L. And as a third option, it can move to another vacant subsquare without changing its L square, so from Sb2 it can move to Sa1, Sa2, or Sb1 (if these subsquares are free). These same rules hold for all pieces (including K) and pawns. Moves on L outside S, and moves from S to L, are normal. A man moving on L to a subdivided square captures all enemy men on its destination; thus our move Nb1-c3 (Sb2 chosen), if played later in the game, would capture any enemy men standing on Sa1, Sa2, or Sb1. A diagonal move from L across a square forming part of S is treated as going along a white diagonal in S if moving NW/SE and a black diagonal if moving NE/SW. Suppose 1 Nb1-c3 (Sb2) e7-e5 (Se5) 2 d2-d4 (Sd3) Bf8-b4. This is check, since the knight at Sb2 is off the line of movement of the bishop, and if White wants to play c2-c3 to block the check he must choose Sa2 or Sb1; Sa1 would not do. An orthogonal move from L across a square forming part of S is treated as a move along the central line dividing the subsquares; it ignores single men on adjacent subsquares, but is blocked by two men standing side by side. Suppose 1 e2-e4 (Se4) e7-e5 (Sf6) 2 Se4-e5 Qd8-e7; this is check, but if Black's first move had chosen Sf5 instead of Sf6 it would not be.

Chess-M-48. The array on L (a1-h1/a8-h8 and inwards) is RNBQKBNR, PPNNBBPP, with 8xP on the 1st and 8th ranks of S. The rules differ from Chess-112 in that men do not have the option of changing sub-squares within an L square, and that pawns when within S cannot elect to move as if in L. The effect of this is that men of opposite colour can occupy the same L square. Pawns can move one or two squares if starting their move in their own half of the board. (Personal communication) [Text revised]

Orbichess (Proprietary game, D. E. de Vries, 1975). Board 8x8, each square subdivided into four coloured 'fundamental squares'. Light squares are composed of light colours (including a white 'basic square'), dark squares of dark colours (basic square red).

Each dark square has its corresponding light square, thus in effect four chessboards are interlocked. The normal game is played on the basic squares on which the men stand in the initial array. The other squares are called orbital squares and may be occupied by any

piece except kings and pawns. Pieces on orbital squares can neither take nor be taken. By entering an orbital square a piece has a number of paths open to it. This enables it to enter play via a basic square at a propitious moment. (Proprietor's rules leaflet)

21.12 Other games

Philidor and Stamma's 140-square Game. According to Anthony Dickins in *A Short History of Fairy Chess*, Philidor and Stamma played matches "which Philidor always won, even when they played on a 14x10 board with a number of 'new' pieces (probably Muslim in origin)". [Name editorial]

Flammhorst's Game (N. N. Flammhorst, 1833). A war game elaborately argued but much closer to chess than to kriegsspiel (the author concludes that chess is a good representation of classic warfare). Board 9x9, 22 men each side: '1 Roi, 2 Connétables, 1 Sénéchal, 2 Maréchaux, 2 Grands-Maîtres, 2 Partisans, 2 Châtelains, 2 Chevaliers, 2 Gonfaloniers, 2 Bannerets, 2 Trompetoniers et 2 Piconiciers' (*Le Palamède*, September 1846, citing Flammhorst's book of 1833). Involved rules permitting mobilisation, securing the king in a fortress etc. (Faidutti)

Gérard Chess, also known as **Jeu de Batailles** (E. Gérard, 1860). An attempt to create a simple game in harmony with then-current military realism. The close relationship with chess was emphasized. The game ran to several editions and one Ladislas Maczuzki offered lessons. Board irregular octagon, 256 squares; each side had 28 chessmen in 12 tasteful designs. King as orthochess; Great Cavalry (Q); Cavalry (N); Riflemen (B); Escorts (R); Reserves move as K, capture as N; Infantry move as K, capture one square diagonally. In addition there were Artillery, Ordnance, Engineers, Defences and Victuals. Array predetermined on first three ranks. The players then positioned squares representing terrain features, which in turn affected movement, in their respective halves of the board. Each player nominated an HQ square on the 6th rank which, if occupied by an opposing man, allowed a captured piece to be reborn. Main aim was to checkmate opposing

king but players could agree lesser victories (e.g., capture all artillery). (*Règles des Echecs-Gérard*)

Neuschach [Ernst] (Proprietary game, C. Abel-Klinger; Hugo Ernst, 1901). 144-square board, 25 men a side including 1 kaiser, 2 kings, 2 queens, and some new men with new moves. Ernst, of Buenos Aires, wanted the game to replace chess, an ambition not unknown amongst variant inventors. (*Deutsche Schachzeitung*, October 1901) [The source gives no further information, and David appears not to have possessed a set.]

Super Chess [Fort] (Charles Fort, 1930). Game of seemingly daunting complexity by the famous collector of the mystical and strange in science and nature. A photograph of the period shows the author 'relaxing' at a board of many thousand squares dotted with scores of chessmen. (Mitchell and Richard, *Living Wonders, Mysteries and Curiosities of the Animal World*, 1982)

MAD's Modern Chess (*MAD* magazine; c 1963 by E.C. Publications Inc.) (Quote) 'Note terrified, neurotic pawns on brink of cracking up. Note one thing hasn't changed: pawns are still in front rows and have to take most of the beating. *MAD's* pieces are not limited to special moves. In fact, each move is completely unpredictable. Cunning, trickery, accident, sneakiness, surprise, anxiety, fear ... any of these could play a vital part in the game. Strategy is limited to each player waiting for the other to make the first move. End of game is followed by deathly silence. Unlike old-fashioned chess, there is no winner' (unquote). A diagram shows a board with baseline Fallout Shelter, Air Raid Siren, Anti-Missile Missile, A-Bomb, H-Bomb, ICBM Missile (*sic*), Radar, Fallout Shelter, plus 8xP as usual. (*Chess*, 22 August 1966)

Warp Chess (quoted by Don Miller in 1974). The third and fourth ranks of the board exist simultaneously with the corresponding ranks as viewed by the opponent; thus a man on b3 is simultaneously on g6 (and d4 on e5 etc) and can be captured on either square. (*Kittle Pitchering Hubble de Shuff* 10)

Fantasy Chess (Proprietary game, Little Soldier Games, 1975). Board 8x8; usual array but men are redesignated (chessmen in brackets): 1 x King (K), Wizard (Q); 2 x Archer (R); 4 x Rider (B/N); 8 x Spearman (P). The two sides are Good (W) v. Evil. [Information presumably taken from a set in David's game collection. His index sheet has a note 'Different movements' and so I have put the game into this part of the book, but he was sometimes given permission to describe proprietary games only in very general terms and no further details are to hand.]

Shogun (Proprietary game, Ravensburger, 1979). Board 8x8 uncoloured; each side has a Shogun (king) and seven identical pieces. Shogun moves one or two squares, all other pieces between one and four squares depending on the action of a magnetic dial which indicates number of squares to be moved. The magnets only affect the man played. Capture by displacement; 'Shogun' (check) must be announced. Win by capturing shogun or reducing opponent to shogun and one piece. (*Pergio* 3)

Chaos [Kensek] (Ron Kensek, 1980s). A game devised chiefly to mystify spectators (especially effective with a 5-minute time limit). A king (Monarch) moves as a K but can also leap an adjacent man to capture. A pawn (Butterfly) moves as N but forward only. It may move to a square occupied by a butterfly of the same colour, which must then make a knight's move backwards. If this move lands on another butterfly of the same colour, this in turn must move forward as N, and so on. A butterfly on reaching the 8th rank promotes to a Monarch Butterfly, equivalent to a monarch. A rook (Row-runner) makes one or two R moves at player's option; one or both may capture. A knight (Triangle) makes three consecutive K moves, not necessarily in the same direction. The first two may be to

occupied squares, but not to capture. A queen (Juggernaut) makes a series of one-square orthogonal moves in two perpendicular directions (e.g. up and right), capturing as it goes. It need not stop until it meets a friendly man or the board edge. A bishop (Switcher) moves as a B or K, or by a series of B moves over vacant squares. A player castles by exchanging the positions of a monarch and a row-runner with which it has not previously castled provided both are on the same rank or file with the squares between them vacant. A player can uncastle on the following move by restoring the pieces to their original squares and then moving one of them. A triangle within range of a friendly monarch can change places with it ('geometrize'). No move is legal that leaves the position unchanged. The game is won by an unstoppable threat to capture the opponent's (remaining) monarch. A player who is stalemated also wins. A book on strategy is awaited. [Source material missing from David's Encyclopedia files]

Conversion [Mazas] (Proprietary game, Mazas Editions, 1986). Large chequered board of irregular shape but regular design. Each side has 18 pieces, God, High Priest, Priests, Prophets, Monks, Missionaries, and Devotees, with various moves. Two men are moved each turn. Object is to 'convert' (capture) opponent's God. (*Jeux et Stratégie* 38)

Stealth (Proprietary game, Falcon Games; Michael Gilano, 1986). Board 9x8 with corner squares removed. Men are starship (king), guardians and drones; first two move as queens, drones have various powers and can be stacked. Win by capturing or immobilizing starship or capturing all drones. (Photocopy of rules pamphlet)

Pole Chess (Piers Anthony, 1988). An account of a game, Pole Chess, in which board and pieces are made of ice, is given by Piers Anthony in his *Robot Adept*. The usual pieces are transformed into Goblins (Ps), Dragons (Rs), Trolls (Bs), Griffins (Ns), Ogress (Q), and Demon (K). 'But this was Pole Chess, so there was one additional set of pieces: the poles. When all the other pieces were set up, the white and black poles stood to either side, just off the board, centred.' A pole could move

directly to any empty square; it could not be captured and served only as a block. 'Some players swore that Pole Chess was the best variant ever; others condemned it as a decadent offshoot.' Further on, Anthony describes **Huffdraw**. 'A device that had come into play in the last few centuries because too many tournaments were being stymied by frequent draws. There were several applications, depending on the type of draw that was threatened. But the basic element was the removal of "dead" pieces; those that hadn't moved in some time.'

Excalibor (Proprietary game, Franjeux, 1989). The Knights of the Round Table replace the usual chess pieces but retain their moves. The sword Excalibur moves as Q. If captured, it is plunged into a 'lake', from where it can only be rescued by King Arthur. Elaborate rules. (*Jeux et Stratégie* 7)

Supers Echecs (Proprietary game, SEI, 1994). Board 9x9; extra pieces are a Prince and a Mage. Pawns include a traitor and a plague-carrier, and the game also features a treasury. (Photocopy of a notice in *Science et Vie*,

December 1994)

Ruddigore Chess Peter Aronson (2002) Board 8x8; usual men and array except that Ks replaced by Baronets (move as K, capture as K or N, can capture friendly as well as enemy men) and Ns by Gentlemen (can make one or more knight moves in a straight line, but if two steps from the edge of the board can only move one and if three steps from the edge can only move two). Pawns may move two squares at any time, no e.p. Captured pieces may subsequently be dropped back into play; promoted pawns retain their rank. On each even turn (2, 4, 6 etc) each player must capture a man, either an opponent's or a friendly man with the Baronet (the captured piece is kept in hand), or move and give up a man either on the board or in hand. Inspired by the Gilbert & Sullivan operetta. (Chess Variant Pages) [Text revised]

Tigerchess (Glenn Nicholls, 2003). Standard board and array but with additional squares, extra pieces, and elaborate rules. Win by checkmating opposing Q (not K) or occupying opposing palace. (Chess Variant Pages)

Part 3

Boards of other kinds

[We now look at boards based on cells other than squares: boards based on hexagons and other figures, circular and figure-of-eight boards, boards wrapped round cylinders and spheres, and boards with three and even more dimensions.]

Chapter 22

Boards based on hexagons

[In this chapter, every board cell away from the edge has a side in common with each of six neighbours. There are hence six natural directions of rook movement, and the hexagons are most often arranged so that these are straight forwards and backwards and 30 degrees either side of left and right. The hexagons can also be placed so as to give rook movement directly to left and right and 30 degrees either side of forwards and backwards, but games with the hexagons so aligned have a different character and they are given a section to themselves.

Chess on a board composed of hexagons is a relatively recent phenomenon. The first approaches to such games were possibly Croughton's Hexagonal Chess of 1853 and Jaques's Hexagonia of 1860, but in neither of these was the object checkmate. It was not until a half-century later that Ayres's chess-like game Mars appeared, followed by Wellisch's attempt to transfer orthochess - albeit without bishops - to a hex board as a three-handed game. Since then a number of hex games have been created, with Glinski's the best known and probably the most widely played. The hex board is now a popular medium for strategy games, particularly wargames, since it offers six instead of four directions of movement, thereby increasing piece mobility. Three cell colours are necessary in order to ensure that no two adjacent hexes be coloured the same, and it follows that any colour-restricted piece which is provided as an analogue to the orthochess bishop needs to be present in sets of three if the game is not to be unbalanced. Not every inventor appears to have realised this.

As will be seen, while all the boards in this chapter have been built up from hexagonal cells, there has been very little agreement between inventors concerning their overall shape and size. The smallest boards in this chapter have 43 cells, the largest 169, and there are seventeen other sizes in between. But the 91-cell board of Glinski's game has been used more often than any other, and Glinski's was the first game to command significant attention. The rules of Glinski's game are therefore given in full, those of other variants by reference to Glinski at least as regards the moves of the men (Glinski's treatment of stalemate has not been followed elsewhere).]

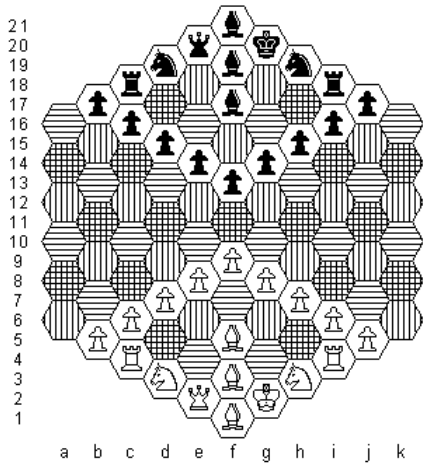
22.1 Hexagonally symmetric boards with a forward rook move

[There have been almost as many notations for hex-based boards as there have been inventors, and in this book we shall adopt a standard 'count in twos' system irrespective of any notation that may be in use elsewhere. For boards with a forward rook move, we shall label the files a, b, c etc in the usual way, but the cells in a file will be numbered in steps of 2 so that cells with the same number are always at the same horizontal level.]

Glinski's Hexagonal Chess (Wladyslaw Glinski, 1936). Probably the most widely played of the hexagonal chess games, in part due to the inventor's life-long enthusiasm and promotional efforts. First launched in Britain (1949), the game enjoyed remarkable popularity in Eastern Europe where there were once reportedly over half-a-million players, mostly in Glinski's native Poland where 130,000 sets were once sold in the space of a few months, but also in Czechoslovakia, Hungary and Russia. The first British Cham-

pionship was held in 1976. Subsequently, a European Championship was inaugurated (the first title holder was Marek Mackowiak of Poland) and World Championship candidates tournaments were held in London, Moscow and Subotica (1987-8). At its height there was an International Hexagonal Chess Federation as well as several national organisations. The game appeared to go into decline on the death of its inventor.

The game is played on an hexagonal board of 91 cells as shown overleaf :



The usual men are employed, but there are an extra B and P on each side. For clarity, occupied squares are shown uncoloured, but on an actual board the cell colouring extends throughout.

The rook moves on the files and at 30 degrees to the horizontal (if the board were empty, Rc4 could move to c6/c8/.../c18 on the file, b5/a6 and d3/e2/f1 along its second line, d5/e6/.../k12 along its third). The bishop moves horizontally and at 30 degrees to the vertical (Bf5 to d5/b5 and h5/j5 horizontally, e8/d11/.../b17 and g2 in its second direction, g8/h11/.../j17 and e2 in its third); each bishop is restricted to cells of one colour, and the three between them cover the whole board. The queen moves as R+B, the king one step as Q (thus a midboard K has 12 possible moves and even a K in a corner has 5). The knight leaps the equivalent of one B-step then one R-step at 30 degrees, so Nd3 has 6 possible moves (to b7, c8, e8, f7, g4, or g2) and a midboard N has 12. The pawn advances one cell straight forward, captures obliquely forward (WPf9 moves to f11, captures to e10 or g10). Pawns promote on the opponent's back line. Opening pawn-two permitted, and if a pawn in its initial position makes a capture is made towards the centre it retains the two-step option since in effect it has not advanced. No castling.

The array has some interesting features. All the pieces can move initially so that development is rapid and tactical clashes early in the game are common. The Bf3 has two open lines, the Q one. Every pawn is

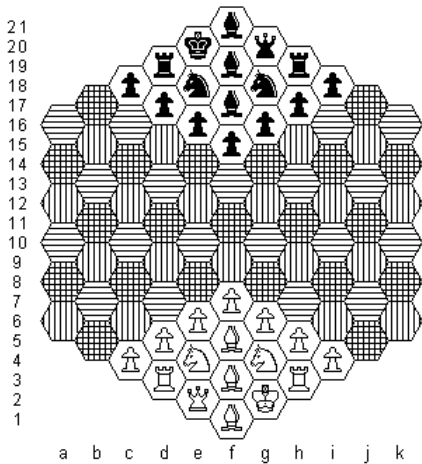
theoretically five steps from promotion and the first move can result in a pawn clash on the e- or g-files. There are a number of recognized openings. Knights are on the whole stronger than bishops. Fool's mate: 1 Qc8 Qc14 2 b7 b15 3 Bb5 e12 4 Qxf17.

In match play, stalemate earns three-quarters of a point for the player delivering it, quarter of a point for the player stalemated. In the unlikely ending K v K, a false step can lead to a stalemate in a board corner. The opposition in end-play is as important as in orthochess. In most endings K+P v K the stronger side wins; however the win is impossible in some positions. Suppose White Kf13, Pf15, Black Kf17; White to move can only draw: 1 Ke12 Kg14 2 Kd15 Kf17 etc. With a wing pawn, the same position wins. Suppose White Ka6, Pa8, Black Ka10; now 1 Kb5 Kb13 2 Kb7 Kb11 3 a10+ Ka14 4 Kc8 Ka12 5 Kc10 Kb15 6 Kb11 Ka16 7 Ka12 (Kc14 is stalemate!) Kc16 8 Ka14 etc. K + R wins easily but K + two minor pieces can only force a win in certain positions. John Jackson contends in *A Player's Guide to Table Games* that the game would be improved if the central pawns (three or five) were set back one cell in the starting position. Glinski's booklet *First Theories of Hexagonal Chess* provides a convenient introduction. [Text revised]

Honeycomb Chess, also known as **Hexabrain** and **Six-Way Brain Game** (Proprietary game, Douglas Reid, 1972). 91-cell hexagonal board as Glinski. Each side has 22 men: 1 x king; 2 x queen, castle; 6 x hopper; 11 x pawn. King moves to any adjacent hex; queen as Glinski's R; castle vertically as Glinski's R, laterally as Glinski's B (so can only move to alternate files); hopper one step as Glinski's B; pawn as Glinski. Promotion normal, object checkmate. Baseline (a6-f1-k6/a16-f21-k16) CHHHQKQHHC fronted by 11xP. As in many hex games, the pawns live in an unequal world; wing pawns can promote in three moves, the central pawn takes eight. (Author's rules leaflet, also manuscript notes presumably deriving from personal communication) [Text revised]

McCooley and Honeycutt's Hexagonal Chess (David McCooley and Richard Honeycutt, 1979). 91-cell hexagonal board as

Glinski; extra B but only 7 x P:



K, Q, R, B, N move as in Glinski. P moves one step forward as R, captures one step obliquely forward as B; pawns other than the centre pawn have a two-step option (e.p. permitted). The aim was to create a hex game as close to orthochess as possible. (Chess Variant Pages) [Text slightly revised]

Hexchad (Christiaan Freeling, 1980). The hexagonal version of Chad (see chapter 21). 127-cell hexagonal board, a7/a9/.../a19 out to g1/g3/.../g25 and back to m7/m9/.../m19; kings on g7/g19, eight rooks on e7-g9-i7-g5-e7 and e19-g21 etc, walls on d8-g11-j8-j6-g3-d6-d8 and d20-g23 etc. Rules are identical to those of Chad with one addition: kings may not face each other on the same file if the hexes between them are unoccupied. This has considerable implications for the attacker who can use his king to protect a queen in the opponent's castle or cut off flight hexes. The fundamental difference between Hexchad and Chad is that in Hexchad the forces face each other directly down files so that practically the whole front is restricted to forward movement. Because of the tightness of the position, any mistake is likely to be grievous. There are a number of opening traps. Stalemate is unknown. (Manuscript notes presumably deriving from personal communication)

King's Colour (Freeling, 1976) is a Chad system but without promotion to queen. Rooks and bishops are discs showing R on one side and B on the other. Pieces on the same colour

cell as the friendly K are Bs, otherwise Rs (so in the initial array, the men on e7/i7 and e19/i19 show B, the remaining men show R). Pieces are reversed as necessary as part of a move; a K moving to escape check for example can cause the attacker to be attacked through piece reversal. The K is confined to the castle but, as in Chad, may also move like a N. The Ks may not face each other uninterrupted on B or R lines. (Personal communication)

Sjakti [Hex] (Christiaan Freeling, 1982) is the hex version of Sjakti (see chapter 21). 61-cell hexagonal board, a5/a7/.../a13 out to e1/e3/.../e17 and back to i5/i7/.../i13; pieces initially set at e5/e13 (kings) and c5/c13, f5/f13 (men).

Loonybird Chess [Hex] (Christiaan Freeling, 1983), played on a 61-cell hexagonal board, is a hex version of Loonybird or Dragon Chess (chapter 14). Baseline as before on b4-e1-h4, 9xP on a5-c7-e5-g7-i5. **Caissa [Hex]** (Freeling, 1982) is a hex version of Caissa (chapter 21). [A note in the Addenda to the first edition gives an illustration of 'the' array in the latter case, but this would seem to conflict with the statement that the first player arranges the initial position and the second player chooses sides. There are also references to hex versions of **Bird Chess** (chapter 13) and **Dragonfly** (chapter 17) as being played on a regular 61-cell board with two extra pawns a side, but there is no further detail in David's Encyclopedia files.]

Rose Chess (Peter Krystufek, 1986). Played on the points of a 61-cell hexagonal lattice. Usual men, array (a5-e1-i5/a13-e17-i13 and inwards, centred) PRBQNKBRP, PPPNPPP, d4/f4/d14/f14 are Rose points. Pawns on rose points have two-step option (e.p. possible); other pawns one step only. Pawns promote to previously captured pieces. Rooks and queens have identical moves (any of six directions) but rooks cannot alight on rose points and cannot check if on point immediately in front of or behind rose point. The K and Q 'castle' at any time by exchanging places, even if K in check, but not if K on rose point. Claimed to be an improvement on 'the Arabic game'. (*100 mal Kniffel Schach*)

Troy (members of the Fanaat games club, Netherlands, 1988). A game developed for a special occasion: the marriage of Anneke Treep and Lukas Schoonhoven, prominent members of Fanaat. A set, designed and made by the members, was presented to the newlyweds. The game is based on the Trojan war and is played on a regular hexagon of 91 cells. One side are the Trojans, the other the Greeks. Each side has 19 pieces made up of Ares/Pallas Athene (moves as K), 2 Heroes (move as Q), Hector/Achilles (moves as Q but cannot be taken by a Greek/Trojan), 3 Amazons/Spartans (two cells in any direction, leaping adjacent cell whether occupied or not), and 12 Trojans/Greeks (move one cell straight ahead or two cells diagonally ahead; capture one cell diagonally ahead). Aim is to checkmate Ares/Athene. Capture by displacement. Trojans/Greeks promote at end of board to any piece already lost. Ares and Athene on f3 and f19, Hector and Achilles on f5 and f17, Heroes on e4/g4 and e18/g18, Amazons and Spartans on e6/f7/g6 and e16/f15/g16, Trojans and Greeks on the 12 surrounding cells. (Inventor's leaflet)

New Chess [Radovic] (Goran Radovic, 2002). Regular 91-cell hex board; 22 pieces a side: 1 x king, queen; 3 x knight, spy; 2 x rook, bishop; 10 x pawn. Asymmetrical layout with pawns initially doubled on the c- and h-files. Spies move one hex in any of up to 12 directions (to adjacent hex or through hex corner to cell of same colour). There are only two bishops on each side, and they stand on like-hexes and so only cover a third of the board. Subject of an ill-informed article in *The Scotsman* (1 October 2002). [The array shown in the article is as Glinski but with spies on f1/f9/e6 facing f21/f13/g16, extra knights on g6 and e16, extra pawns on d5/h5 and d17/h17, bishops on e4/g4 and e18/g18, and f3/5/7/15/17/19 empty, but it seems odd to have the spies and knights mirrored across the centre while the K and Q are mirrored on the file and the possibility of error cannot be excluded. The spies appear to be represented by men holding daggers, which is picturesque but curious; the last thing a spy normally wants to do is to draw attention to himself by committing gratuitous murders.]

Asteryx Chess (David Jagger, 2003). 43-cell board, regular 37-cell hexagon with a one-cell extension at each corner, thus a5/a13, b6/.../b12, c5/.../c13, d4/.../d14, e1/.../e17, f4/.../f14, and so on to i5/i13. Usual men. Array for White, Ke1, Qe3, Bd4/f4, Nc5/g5, Ra5/i5, 8xP on rest of ranks 5-7. K one step in any direction; R, N as Glinski; P one or two steps directly or obliquely forward, may change direction in mid-move; B 'snakes' along path of two colours, say d4-d6-e7-e9-f10-f12-g13 or d4-e5-e7-f8-f10-g11-g13; Q as R+B. Pawns promote on opponent's three extension points (for White, a13/e17/i13). Custodian capture: occupy two cells of the same colour bracketing the target man, unless no cell on the far side exists in which case occupying one cell is sufficient. Multiple captures allowed by agreement. Win by capturing or baring the K, or by stalemate. (Chess Variant Pages) [Text largely editorial]

Walnut Chess (John Beasley, 2003). 43-cell hexagonal board (a7, b4/.../b10, c1/.../c13, d2/.../d12, e1/.../e13, and back to i7). Each player has king, 1 x light cavalry, 2 x heavy cavalry, 2 x gun, 12 x infantry. Setup at will; all men apart from K are initially covered. K, covered men, and empty covers move one cell in any direction. When uncovered, light cavalryman can move up to three cells in a straight line, heavy cavalryman one or two cells changing direction if wished, infantryman and gun one cell only, but up to three infantrymen (covered or not) can occupy the same cell and be moved together. Up to six moves per turn, and a player can then make up to six 'attacks': he indicates a target cell and one or more uncovered attacking men on adjacent cells, demands that any defender occupying the cell uncover also, and the man or men of the weaker side are removed (K=L=I=1, H=2, G=0). If equality, both sides stay. He may also fire either or both his guns at units not more than three cells away in any direction (straight or oblique), but a player using a gun to knock out a covered man is not told what he has hit. A gun may not move and fire in the same turn. There is a preliminary 'you cut, I'll choose' handicap stage: one player specifies a handicap to be suffered by the player moving first, the other decides whether to take first move in the face of it.

(*Variant Chess* 47, also author's leaflets 'Walnut Chess' giving the rules and a specimen game)

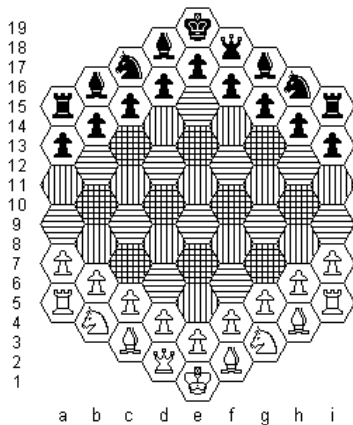
[In *Variant Chess* 48, David briefly compared this game with 19th century war games, and pointed out various similarities. Since he went on to say that he had explored 'dozens' of these games when researching the original *Encyclopedia* and had rejected them all as too remote from chess, I was a little surprised to find an embryonic entry for the game in his text for the new edition. But it was there, and I have expanded it in the same way that I have expanded similarly embryonic entries for other games. The idea behind the

name was that players could use matchsticks or counters for the men, and cover them with walnut shells. A probable improvement would be to limit the guns to six shots each.]

Hexofen (Valery Trubitsyn, 2004). Regular 91-cell hex board, 21 men a side: White Kf1, Qg2, Rd3/h3, Be2/f3/i4, Nc4/e4/g4, 11xP on ranks 5/6, Black mirrors diametrically (Qe20). Pieces as Glinski; pawns promote on reaching any rank beyond the opponent's initial pawn line (nothing said about the difficulty this creates for the side pawns). A curiously designed game. (Inventor's rules document) [Text revised]

22.2 Other hexagonal boards with a forward rook move

Shafran's Hexagonal Chess (I. G. Shafran, 1953). 70-cell hexagonal board with nine files, their lengths running from 6 to 10 :



Extra B and P on each side. To compensate for the varying distance pawns must travel to promotion, initially the d, e, f pawns can move up to three spaces (e.p. possible), the b, c, g, h pawns up to two spaces, and the a and i pawns one space only. Pawns capture by one-step B move, not as Glinski. Castling permitted: K moves three hexes towards R, thus after 0-0, White position is Kh4/Rg3, and after 0-0-0, Kb4/Rc3. Other moves as Glinski. A brief game: 1 Nc9 Nf12 2 Qe5 Nd12?? 3 Nd14 mate. Notice that the queens do not face each other and that all the bishops can move in the initial position. (*Nauka i Zhizn*, March 1979)

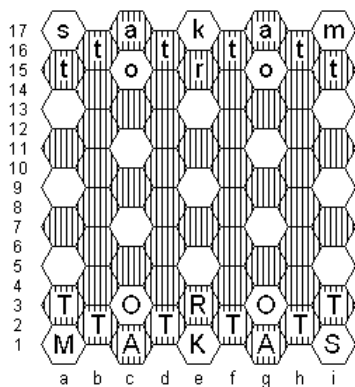
Chex [Knizia] (Reiner Knizia, 1994). 44-cell hex board on seven files, a4/.../a12 out to d1/.../d15 and back to g4/.../g12; each side has 1 x K, 2 x R, B, N, 7 x P; baseline BRNKNRB. K to an adjacent cell only; R as Glinski; B as R but not vertically; N to any cell not more than two away in any direction direct or oblique, may leap (thus, if centrally placed, attacking a total of 18 cells); P as Glinski but no e.p. permitted. No castling. (Author's rules pamphlet)

Boar Chess (Ivan Derzhanski, 2000). 70-cell board as for Shafran's game; men are 1 x Boar (royal piece), 2 x Bull, 3 x Horse, Ram, 4 x Dog, 5 x Cock. Complicated rules governing movement. The game is won when the opposing boar is captured, stalemated, or pushed out of its sty (a 7-cell hexagon), or when a cock moves to the hex originally occupied by the opposing boar. (Chess Variant Pages) [Text editorial]

Hexes (Proprietary game, Mike Layfield, 2002). 54-cell board in the form of a hexagon with sides 8/4/3, thus a3/.../a17, b2/.../b18, c1/.../c19, then d2/.../d20 and back to f4/.../f18; array (c1/d20, b2-d2/e19-c19 and inwards) B, BK, RBQ, NNR, PPP, PPP. Pieces as Glinski. Pawns move one R-step forward or one B-step obliquely forward, capture one R-step obliquely forward; two-step option straight forward for unmoved P, e.p. permitted. (Chess Variant Pages)

22.3 Rectangular and diamond-shaped boards with a forward rook move

Mars (Proprietary game, F. H. Ayres Ltd; M. van Leeuwen, 1910). Russian edition, Moscow 1911. Inspired by scientific talk of the possibility of intelligent life on Mars, the inventor decided to create a game of skill in which Earth and Mars are seeking to make a 'full observation' of each other. 77-cell rectangular board with 9 files. White is Earth, Black is Mars. Each side has 14 men made up of 1 king piece (Earth or Mars, shown as 'K' and 'k' in the diagram below), 1 Sun, 1 Moon, 2 Astronomers, 2 Observatories, 1 Radium Tower, and 6 Telescopes.



Alternate cells on files a, c etc are light, remaining 54 cells are dark. Earth and Mars move to any adjacent cell, regardless of colour; Moon any direction over any distance, regardless of colour (the move to be adopted later by Glinski's R); Sun as Moon but on light cells only; Astronomer ditto but on dark cells only; Radium Tower as Astronomer, but obliquely only; Observatory on light cells only, one step only but in any direction and may leap; Telescope one cell (either colour) straight forward or obliquely forward only. Telescope promotes on last cell of files a, c, g and j to the piece on that file in the starting position providing one has previously been captured. If not, it must wait until one is available.

White starts. Capture is by displacement. Object is to place opponent's king piece (Earth/Mars) under 'complete observation' (checkmate) and then capture it next move. A king piece under attack is said to be 'in observation', and the player giving check must

say 'Take care'. (Notes based on Bodleian Library 38491.f.15(12), also photocopy of pages 4-7 of Saltikov-Shchedrin Library 18.294.5.123)

Baskerville's Hexagonal Chess (H. D. Baskerville, 1929). This game was born in the period when Capablanca's call for reform was being widely heeded. In his booklet *Hexagonal Chess*, the inventor remarks controversially that '(ortho chess) interests a far smaller circle to-day than it did even one generation ago', adding '...so far it does not seem to have occurred to anyone that a more radical reformation can be effected by constructing a new board composed of geometrical figures other than squares'. 83-cell rectangular board with 11 files, a1/.../a15, b2/.../b14, c1/.../c15 across to k1/.../k15; normal men; White RBQKBR on rank 1, NP-PN on rank 2 (cell f2 empty), 6xP on rank 3, Black similarly except Ke15 and Qg15. A tinge of patriotism is detected in the cell colours: red, white and blue. All men move as in Glinski's game except that the K is limited to adjacent cells (one space as a R) and there is no e.p. The game is flawed through Baskerville's determination to keep the game as close to ortho chess as possible: bishops on each side stand on contrasting colour complexes so can never attack one another whilst the third set of cells (coloured red and including the centre) is immune from penetration by a B of either side.

Galachess (Proprietary game, Mathew B. Harrer Co; Mathew Harrer, 1980). A maverick amongst hexagonal chess games occasioned by the inventor's geometrical perception of the (uncoloured) board, described as a 'galaxy with space corridors'. 67-cell rectangular board with 9 files, a2/.../a14, b1/.../b15, across to i2/.../i14; NQQN on rank 1, RBKBR rank 2, 9xP ranks 3/4, Black similarly. R moves vertically as Glinski R, laterally as Glinski B; B moves obliquely (but not vertically) along cell lines. This means that the rooks are confined to alternate files, whereas the bishops can reach any cell. Q moves as R+B, K to adjacent hexes only. In castling, the K moves to a B hex and the nearer R to a hex on the

same side. This gives a castled R access to the other set of files from which it cannot then escape, so, for example, a player who castles can never double rooks. The knight's leap is no less remarkable: the N moves to any of the five cells in its orbit. Since however the cell it occupies can be part of up to six orbits, the N can normally move up to two hexes in any direction, and being unimpeded is probably more powerful than the queen. The P alone is orthodox Glinski. (Information presumably taken from a set in David's game collection)

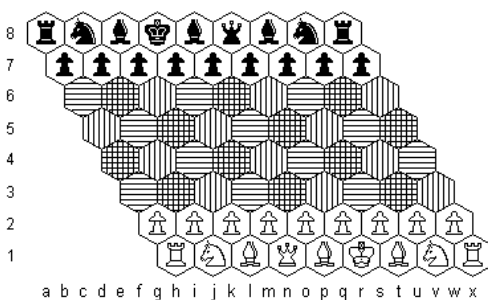
Impact (Proprietary game, Anton Obermaier, 1993). 100-cell square board with 10 files. Each side has 20 men (chess equivalents in parentheses) 1 x Commander (K), General (Q); 2 x Chief (augmented B), Colonel (N), Major (B), Lieutenant (R); 10x Pioneer (P). Promotion to captured piece; no P-2 or castling. (*Fairplay* 26)

Schach 2000 (Proprietary game, Schachverlag Hoppe; Bodo Hoppe, 1994). 64-cell square board with 8 files. Orthochess array except Black K and Q reversed; moves of men as Glinski. The QBs are on hexes of the same colour, the KBs on the other two colours, hence an imbalance in the deployment. (Information presumably taken from a set in David's game collection)

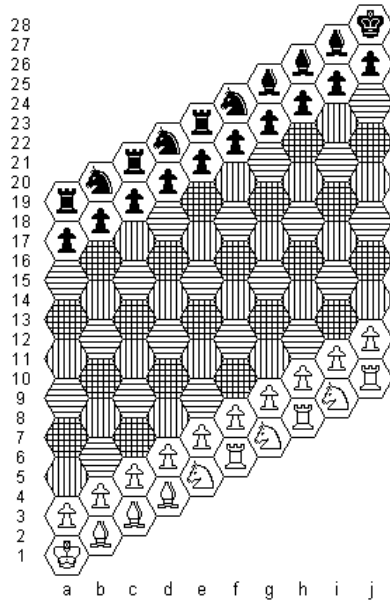
22.4 Boards with a lateral rook move

[With these boards, it is the ranks along which we step in twos, a1, c1, e1 etc. The underlying geometry is the same and the pieces can continue to be described with reference to Glinski, but the pawns behave quite differently.]

De Vasa's Hexagonal Chess (Helge E. de Vasa, 1953). 72-cell diamond-shaped board, extra B and P each side:



Hornyak's Hexagonal Chess (Anthony Hornyak, 1990s). 100-cell diamond-shaped board with 10 files; 1 x K, 3 x R, B, N, 10 x P, no queens initially but promotion can include Q.



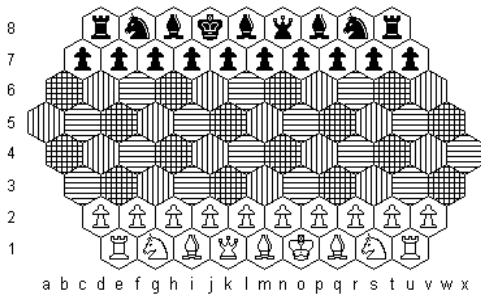
R, B, N, Q as Glinski, K to adjacent hexes only. Ps up to 3 cells initially, and if moving only one preserve a 2-step option at their next turn; e.p. permitted. No castling. (Personal communication) [Text slightly revised]

An attempt to retain as near as possible the orthochess array. All pieces move as in the Glinski game. Pawns advance one cell at a time as a R (two alternatives in the array, except for WPw2 and BPb7) with initial two-step option. Pawns capture ahead as a bishop (normally three alternatives), greatly enhancing their value vis-a-vis the pieces.

A revised form of the game, probably in response to criticism of the dominant pawns, has the board extended by an extra nine-cell rank with the array pawns on the 3rd and 7th ranks respectively. The pawn capture is limited to the two hexes on either side a

bishop's step in advance. Castling permitted: K moves three (0-0-0) or two (0-0) hexes towards the R, the R moving adjacent to K on inside. (*Nouveaux Jeux d'Échecs Non-orthodoxes*, also a note in French annotated 'ex Martin Gardner' but not otherwise provenanced)

Brusky's Hexagonal Chess (Yakov Brusky, 1966). 84-cell board in the form of a hexagon with sides 9/5/4, extra B+2P:

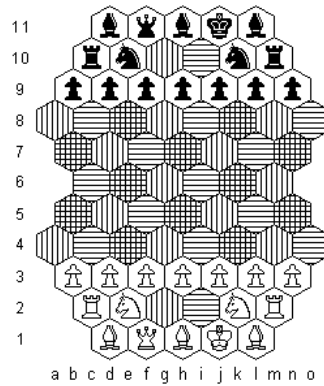


Pieces move as Glinski. Pawns advance one cell at a time as a R with initial two-step option (e.p. possible), but a pawn blocked by an opposing man on one of its two lines of advance cannot move on the other either (so an enemy man on e3 would prevent not just d2-e3 but d2-c3 as well). Pawns capture obliquely as bishops, one step only; unmoved pawns can capture straight ahead also (WPf2 can capture to c3/i3/f5, WPg3 to d4/j4 only). When castling, WK goes to s1 or i1.

The originator gives some notes on elementary endings, which of course are also valid for other games in which the pieces have Glinski's moves. K+R win easily against bare K, as do two knights. K+B+N v K is more difficult and can only be achieved by driving the K to a corner hex. The colour of the corner hex, or that of the two hexes on either side of it, must be of the same colour as that on which the B stands. Mate with two bishops can only be achieved if the pieces are on the same two colours as those of the corner hex and the two hexes adjacent to it on either side. (Personal communication) [Text slightly revised. It would appear that the conditions for mate with K+B+N and K+2B can always be met on Brusky's board, since the six corners embrace all possible colour combinations, but I have not verified that there is a guaranteed driving

procedure. The same is not true of Glinski's board, nor of any hexagonal board where two adjacent sides have the same length.]

Hyperchess [Groman] (Proprietary game, Hypergames Co; William Groman, early 1970s). 72-cell board on 11 ranks, extra B but only 7xP:

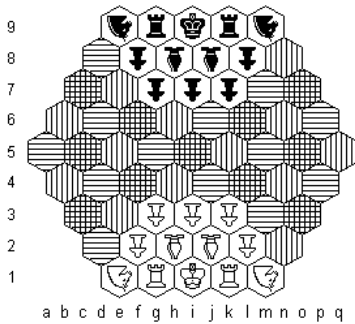


Pieces as Glinski. Pawns are unusually strong: they move straight forward one cell (i.e., to a cell of the colour on which they stand), they also move or capture one cell diagonally forwards, and in addition can capture (but not move) one cell sideways; thus in the array pawns defend one another. Promotion is on the furthest row. No e.p. or castling. Jackson describes a pawn line in Hyperchess as the Great Wall of China - a formidable barrier. (Sackson, *A Gamut of Games*, also Jackson, *A Player's Guide to Table Games*)

A variant, **Hyperchess 'A'**, was suggested by Ernest Groman (the originator's son) and Daniel Jacobson in 1975. The only difference from the parent game is in the move of the pawn, modified possibly in response to player criticism, and in the inclusion of the e.p. move. The pawns remain a formidable force. A pawn moves one cell at a time forward along a file to the left or right with a two-cell option on the first move. It can capture one hex straight ahead or diagonally forward to the left or right (i.e., to a cell of the same colour as that on which it stands). There are two e.p. positions, one familiar (the pawn crosses a cell under attack from an opposing pawn) and the other remarkable. This latter occurs when an unmoved pawn faces an opponent's pawn that has advanced to the 7th rank, the two pawns

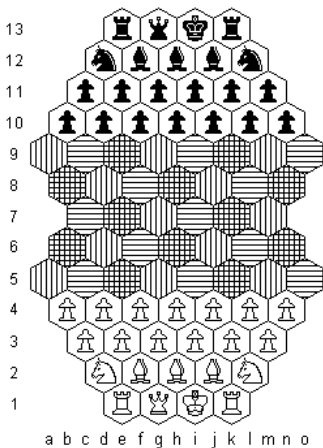
thus under mutual attack. If now the unmoved pawn advances one hex there is no capture, but if it exercises its option of moving two it can be taken 'e.p.' even though it does not cross an attacked hex. More remarkable still, it is captured on the cell that it vacated. (Personal communication)

Ludus Chessunculus (John Cleaveland, 1973). 61-cell hexagonal board; men are King, 2 x Axial (R), 1-Hopper (inverted B), 2-Hopper (inverted N), 5 x Block (inverted P):



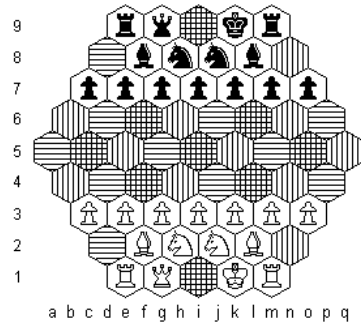
King moves one cell in any direction. Axial as Glinski R. 1-hopper moves one step as Glinski B. 2-hopper moves twice as 1-hopper; may change direction but not to return to starting point; intervening cell must be vacant. Blocks move one hex to right, left, or diagonally ahead; can only capture ahead; no promotion. Aim checkmate. (*Ye Faerie Chessman*)

Hexachess [Moerer] (David Moerer, 1970s). 80-cell board on 13 ranks, usual pieces with 3xB and 13xP:



Pieces as Glinski. Pawns can move or capture one R-step obliquely forward, move one B-step directly forward (WPb4 can move to a5/c5/b6 and capture on a5/c5). Promotion on the opponent's first rank, an unlikely achievement. No castling. (Author's rules pamphlet) [Text slightly revised]

Hexchess [Paletta] (Tony Paletta, 1980). 61-cell hexagonal board, normal men but 7xP only:



K to an adjacent hex only; N as Glinski; B as Glinski's K; R as Glinski but not to an adjacent cell; Q as R+B; P one step obliquely forward (WPi3 to h4 or j4), capturing with its normal move. Promotion normal. No P-2 or castling. (*Chess Spectrum Newsletter*) [Text slightly revised]

Chessnik (Proprietary game, Drift Inc, 1985). 76-cell laterally symmetric board on 9 ranks of 8 and 9 hexes alternately; array (b1-p1/p9-b9 and inwards) NB-QK-BN, R-PP-PP-R, PP-PP-PP. Little information on moves of pieces. (Advertisement in *Chess Life*, January 1986)

Credo Chess, also known as **Round Chess [St Alban's]** (Proprietary game, Friends of St. Alban's Abbey). Developed (1976-86) as part of the celebration of 500 years of printing in the Abbeys of Westminster, St Albans and Oxford which began with Caxton's *Game and Playe of the Chesse* (1474). The game is one of many adapted to the Credo board, the board itself having undergone change from 163 cells (1976) through 109 to 91 (1986). King one cell in any direction, other pieces as Glinski. P moves one step as B, captures on the square laterally adjacent to that to which it could have moved; can move two steps at any time

provided that it could not have been captured on the intervening square; promotes when further forward movement is impossible. Array (f1-p1/f11-p11 and inwards, centred) BRQKRB, N-B-N, 6xP, P. Championships have been held and booklets on the game published. (Proprietor's rules booklet)

Cr-Isis (Michael Taylor, 1980). 163-cell Credo board (169-cell hexagon less the six corner cells). Each side has 18 men (chess equivalents in brackets): 1 x King, Commander (Q), Negotiator, Rocket, 2 x Aircraft, Submarine (N), 3 x battleship (B), 7 x Marine (P). A negotiator can move to any empty square. It cannot capture or be captured, and can move only six times in a game. A rocket can be fired once to any square other than that occupied by a king, removing the occupant (either colour) and itself from the board. Aircraft must have an empty adjacent square to 'take off'. They move and capture as rooks, but once airborne can land on any square on the rank or file. Marines, in addition to behaving as pawns, may commit hari-kiri, together with the occupant, on the cell immediately ahead. Array (i1-s1 and inwards, centred) apparently BACKAB, SRBNS, 7xM, M, but while the kings are shown on o1/m15, the rockets are on l2/l14. (Proprietor's rules booklet)

Polka Chess (Proprietary game, Friends of St Alban's Abbey, 1989). Board 9x11, circular cells in a regular three-colour pattern, central

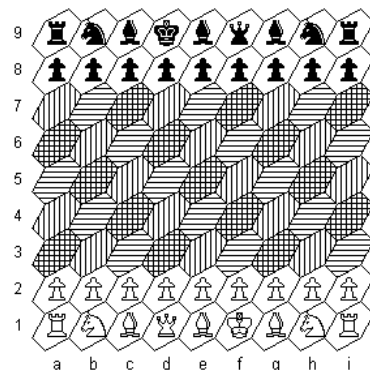
cell marked with a rosette. Ranks are staggered alternately to right and left. The board design is said to symbolise, inter alia, roses and crowns of the martyrs and reconciliation. The array is unusual: White K11, Qj1, Rh1/n1, Bf1/k2/p1, Ng2/o2, 8xP on d3-r3, Black opposite as usual. Play as for Credo Chess. (Proprietor's rules booklet) [Text revised throughout]

Hexanova (George Jelliss, 1995). 127-cell hexagonal board; usual pieces with 3xB and 15xP; array (g1-s1/g13-s13 and inwards) NBQBKBN, RPPPPPPR, 9xP, but Black K and Q can be interchanged if desired. Pieces as Glinski. Pawn moves one step forward as B (initial two-step permitted), captures one step obliquely forward as R. Various options for promotion: on last rank only (in which case the pawns which start on the second rank must make at least one capture in order to promote), or on any cell from which no move directly forward is possible, or to any piece on the last rank but only to R/B/N on any other cell from which no forward move is possible. Castling, if desired, by moving the K two cells towards the rook and placing the rook on the cell jumped over; alternatively, in place of castling, the K may be allowed a three-cell 'escape' move along the back rank but not out of or through check. This may be done even if the king has previously moved. (*Variant Chess* 18)

22.5 Other boards based on hexagons

Strozewski's Hexagonal Chess (Casimir Strozewski, 1976). 81-cell board in which the hexes are elongated and tilted so that the directions of rook movement are N-S, E-W, and NE-SW. The result has some of the properties of a 9x9 square board and some of the properties of a hex board. Array as in de Vasa's game, with Ks and Qs facing each other. K and N move as if the hexes were squares and the game was orthochess, eight directions of movement in each case; B, R, Q as Glinski; moves of P not recorded. (Copy of U. S. Patent 4,045,030 of 30 August 1977, possibly incomplete) [Text slightly revised. I don't why P cannot be treated like K and N

and given its ordinary square-board moves.]



Chapter 23

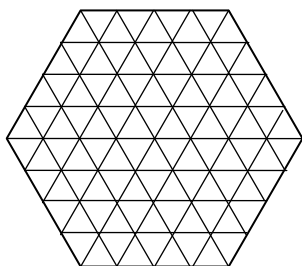
Other planar boards

[We have had squares, and we have had hexagons. In this chapter, we consider planar boards based on cells of other kinds.]

23.1 Boards based on triangles

[A triangle-based board offers 12 natural directions of movement: across the middle of a side (three cases), through a vertex (three more), and parallel to a side (the remaining six). Moves of the first and second kinds, if prolonged, take a piece through edges and vertices alternately; moves of the third kind take it along rows of triangles which alternately face 'left' and 'right' (or 'up' and 'down'). Some games restrict themselves to moves of the first two kinds, others exploit all three.]

Triangular Chess [Dekle] (George Dekle Sr, 1986). Hexagonal board made up of 96 triangles arranged in rows of 9, 11, 13, 15, 15, 13, 11, 9, the triangles in each row being alternately vertex-up and vertex-down :



Men are 1 x K, Q, Unicorn, 2 x R, B, N, 11 x P. K can move across any edge to the triangle immediately beyond (three possibilities), or across any vertex to the triangle directly beyond in the same line (three more). R can cross any edge and continue in the same straight line, crossing vertices and edges alternately (three directions of movement). B the same but starting by crossing a vertex. Q as R+B. N two triangles as B and then one as R, may leap. U two triangles as R and then one as R in a different direction (see note below), may leap. P moves one triangle forward whether across a vertex or across an edge, captures to either adjoining triangle in the same row (may capture even if the triangle directly ahead is occupied), promotes on

reaching the last row. A pawn which hits the side of the board before promoting may advance by using its capture move even if there is no man to be captured. Pawn-2 and e.p. allowed. K castles by moving three triangles towards the rook. Baseline RNBQUKBNR with 11xP in front, BK opposite WK.

Tri-Chess [Dekle, two-player game] is the same except that the powers of K, Q, R, B are increased. K now moves one triangle as (previous) B or two as (previous) R; B now moves as previous Q; R moves along rows of triangles (so has six directions of movement); Q as new R+B. (Author's rule sheets) [Text revised. The author's text for the U move actually specifies two steps as R and then one as B, but an explanatory diagram to which he refers does not conform to this and David followed the diagram. As specified, K-side castling moves the K to the R's triangle, but the source is quite explicit.]

Enchantment (Tony Berard, 1988). Board of 76 chequered triangles; 12 pieces and 8 pawns per side. The pieces are an odd assortment: Emperor (K), Mother Nature (Q), Death (R), Aphrodite (B), Mars (N), and two unique pieces, Time and Fate. A novelty is that pawns are either male (serf) or female (damsel) with pleasing promotion logic (e.g. serf cannot become Mother Nature). Object is to checkmate the Emperor. (Author's rules pamphlet)

Klin Zha (Leonard Loyd Jr, 1989). Practical realisation of a game featured in the Star Trek novel *The Final Reflection* by John M. Ford. Triangular 81-cell board; 1 x Fencer (moves up to three unobstructed cells in any direction or combination of directions), 1 x Lancer (moves up to three unobstructed cells in a straight line in any direction), 1 x Swift (moves two, three, or four unobstructed cells in any direction or combination), 2 x Fliers (move from three to six squares straight in any direction, and may jump), 3 x Vanguard (move one cell in any direction), 1 x Blockader (moves one or two unobstructed cells in any direction, and controls the three cells adjacent to itself as described below); 1 x Goal, which cannot move by itself but can be carried to another cell by a Fencer, Lancer, or Vanguard. Win by capturing the Goal or by stalemate. A man may not enter or pass any cell controlled by the opposing Blockader; a Blockader may not be moved to a cell occupied by or adjacent to an enemy man; the cells controlled by the Blockaders may not overlap; the Goal may not be at any time on a cell controlled by its Blockader. To start the game, one player chooses a corner, and distributes his men (apart from the Goal) as he wishes among the 24 cells which are nearer to this corner than to any other; his opponent chooses a second corner and does the same; the players in turn then place their Goals with

a carrying piece, and play commences. It is generally reckoned to be a disadvantage to have to choose and place first. (Cazaux, also *Variant Chess* 31) [Text editorial. After drafting it, I came across a letter in David's files saying that he had decided to exclude the game as being too remote from chess, but on balance I am inclined to retain it. The movable 'Goal' provides an objective with a flavour of its own, being essentially a mutating king but with the restriction that it is left immobile after its previous carrier moves away and until its next carrier arrives to take it up.]

Diamond Chess [Sirius] (Proprietary game, Sirius Products; Bart D. Follis and James G. Chapman, 1991). Diamond-shaped board composed of 98 alternating black-and-white triangles; usual men. Q can move in up to 12 directions, other pieces in up to six. Pawns move and capture as in orthochess but when facing a cell apex the pawn moves sideways. An optional game excludes the four board cells at each end. (Proprietor's rules brochure)

Chass (Peter Kirk, 2003). Board 6x6, each square divided into a black and white triangle so arranged that no triangle abuts another of the same colour, thus board 12x12 triangles. Smaller board 8x12 triangles also offered. Standard men in usual array on both boards. (Inventor's rules pamphlets)

23.2 Boards based on diamonds

Rhombic Chess (Tony Paletta, 1980). Board of 72 diamonds with angles of 60 and 120 degrees, 24 in each of three colours. White diamonds are oriented E-W, black NE-SW (30 degrees round from N-S), grey NW-SE similarly. Six white diamonds across the centre; five black and five grey nestled below them; five white diamonds across the bottom of these; four more black and four more grey; four white; three black and three grey. Normal men; array RNQKNR (black and grey diamonds), -BB- (white), 8xP (black and grey), Black mirroring vertically as usual.

There are two directions of movement: edgewise and pointwise. Edgewise is a straight-line move from one diamond to another through a common side; pointwise is a straight-line move from one diamond to

another through a common 60-degree corner. R moves only edgewise, two or more spaces; B point-wise but also one space edgewise; Q as R+B; K one space edgewise or pointwise; N two spaces edgewise and then one space edgewise in a different direction, may jump. Pawns move edgewise (two-step option initially), capture as they move, and promote on the array spaces of opponent's pawns. No e.p. or castling. (*Chess Spectrum Newsletter*) [Text revised]

Hexstar Chess (Tony Paletta, 1980). Six-pointed star board made up from six 60-120 degree diamond-shaped sections meeting at a central point, each divided into nine smaller diamonds which are the board cells (hence 54 cells in all). Sections and cells are oriented

E-W and 30 degrees either side of N-S. Each player has two home sections in which his men are placed initially, the two remaining sections (those oriented E-W) being called 'side sections' and being initially empty. Moves are edgewise (between cells connected by a common side) and pointwise (between cells connected only at a corner); a pointwise move across the centre is possible only between cells diametrically opposite. R and B always leave a cell by the edge or corner opposite to that by which they entered, so they move normally within a section but on entering a new section they change direction. Q as R+B. N two steps as R then one step across an edge adjacent to that of entry, may leap. K one step edgewise or pointwise. P in its home section or in one of its opponent's sections moves one step forward only, in a side section may move one step edgewise in any direction but may not return to its home section; captures as it moves, promotes on its opponent's back rank. No castling. Players occupy two sections initially,

23.3 Boards based on rectangles

Masonic Chess (George Dekle Sr, 1983). Tricolour 8x8 board consisting of staggered rectangles (like a brick wall), even-numbered ranks half a brick to the right of odd-numbered ranks. Usual array. Rook moves to left and right, or up and down at 30 degrees to the vertical (six directions in all). Bishop moves at 30 degrees to left and right (four directions), and also one cell as R. Q as R+B (ten directions), K one cell as Q. N up or down two ranks at 30 degrees to the vertical, or the same at 50 degrees to the vertical, or up or down

23.4 Boards containing cells of more than one shape

Circle Chess (Proprietary game, Alphonso Stanonis, 1968). 77-cell board based on a tessellation comprising hexagons, rectangles, and triangles. Each hexagon is surrounded by six rectangles; each triangle is surrounded by three rectangles; each rectangle is surrounded by hexagons and triangles alternately. The board contains nine hexagons in a diamond formation, 1-2-3-2-1, each surrounded by a circle of rectangles with interleaving triangles, giving 38 rectangles and 30 triangles in all.

array RBQ/KBR, -N/-N-, PPP/PPP (six pawns only), Black mirroring vertically as usual.

Paletta also proposed **Octostar Chess** using a 72-cell board based on 45-135 degree sections and diamonds, and **Hexagram Chess** in which the 60-120 degree sections of Hexstar Chess are divided into 16 diamonds instead of 9 (array RNBQ/KBNR fronted by 8xP, P-2 permitted). So far as is known, none of these games has been widely tested. (*Chess Spectrum Newsletter*)

Omni-Chess [Holmes] (Proprietary game, Rocket Games; Simon J. Holmes, 1987). Two-dimensional board giving an illusion of a 3-D board made up of cubes. There are 184 diamond-shaped cells of which 56 are black (tops of cubes) and 128 white (64 half-left and 64 half-right side faces). Each player has 24 men, the usual eight pieces and 16 pawns. The rules, including those of movement, remain close to those of orthochess. (Inventor's presentation brochure)

one rank at 20 degrees to left or right. Pawn moves one step forward as R, captures one step forward as B (but not by the B's one-step R move), usual pawn-two, e.p. allowed. Castling normal. (Author's rule sheet) [Text revised. The knight's move is curious, since the moves at 30 degrees to the vertical are merely two steps along R-lines and there is no piece which can move to the cells two ranks away and directly above and below, but the diagram in the source document is quite explicit.]

Straight paths unite hexagons and rectangles, circle paths are composed of alternate rectangles and triangles. No direct movement is possible between hexagons and triangles.

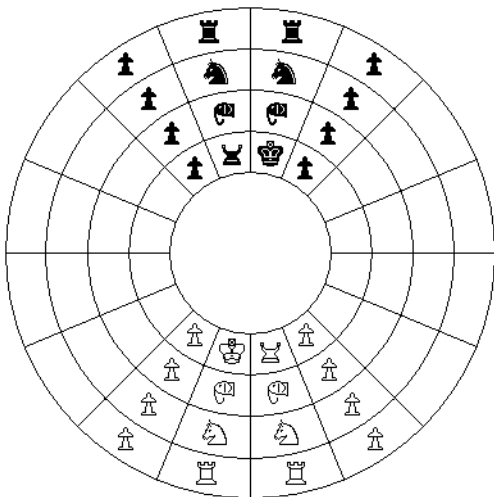
Standard set except that each player has only 4 pawns. Initially the men are set up in the 12 spaces surrounding the black hexagons at either end of the board. Array clockwise from outer triangle: PQNRBPPPBRNK. Two ways of winning: checkmate or occupying the centre space with the king. Rooks move in

straight paths, bishops in circle paths; queens in either. Kings move as bishops, or as rooks within the circle(s) they occupy only. Knights have two kinds of move; one or two spaces (circle or straight path, no capturing) but if occupying a hexagon a knight commands (move or capture) all adjacent hexagons and their circle paths surrounding the knight. Thus on the central hex a knight commands 48 spaces. Pawns move one or two spaces on circle or straight paths. Pawns promote on any of the opponent's array spaces. Stanonis edited the *Circle Chess Journal*. (Rules booklet *Circle Chess*, produced as volume 6 number 2 of this journal)

Lotus Chess (David Moeser, 1998) uses a 39-cell board based on the same tessellation except that the rectangles have become

23.5 Circular boards

Round Chess is both a general term given to chess on a circular board and a name applied to specific variants, in particular **Byzantine Chess**. G. W. G. Moraes analyses the transfer of orthochoess to a round board in his *Xadrez a seu Alcance* (1972). During a revival of interest in 19th-century Germany, two titles were published in quick succession: *Praktische Anweisung zum Rund-Schach-Spiel* (Schmalz, 1844) and *Das Rund-Schach-Spiel* (Crailshaimer, 1845). A round board is commonly met with in modern commercial variants but the detailed design can vary considerably.



squares; four hexagons in a 1-2-1 diamond, surrounded by 19 squares and 16 triangles. Each side has King, Counselor, Crook, Wyvern, Lotussa, Knight, and 5 x Pawn, and the smallness of the board is not matched by any simplicity of rule. *Lotus Chess: the Book* explores the game in depth. (Chess Variant Pages) [Text editorial]

Conquest [Berard] (Tony Berard, 1988). Board effectively 9x9 made up of 65 cells (25 squares and 40 hexagons of which 20 are aligned horizontally and 20 vertically) and 16 vertices (points where four hexes meet). Pieces have fantasy names mostly disguising regular chess pieces with movements adapted to the board. Object is to checkmate the Emperor (K). (Originator's rules pamphlet)

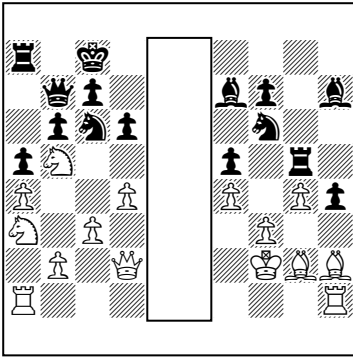
The seminal circular-board variant, **Byzantine Chess**, is a historical game and will be covered in chapter 26, but it is conveniently mentioned here in order to set the scene. The board had 64 cells arranged in four concentric rings of 16, and the original form of the game is shown in the diagram. The 'firzan' and 'fil' of shatranj had not yet been replaced by the modern queen and bishop, and there was no pawn promotion.

The game was revived in the late 18th century, and many people have been inspired to redesign it with modern accoutrements: queens and bishops, pawn promotion, and kings on the same side of the board instead of crosswise. Modern proprietary versions include **Manolo Chess** (Creative City; Manuel Macia, 1990) and **Strategem** (Logicsource Ltd; John Lion, 1990). The latter was endorsed by the British Chess Federation, which expressed an interest in organising tournaments and a U.K. Championship.

Whatever may have happened elsewhere, **Circular Chess [Lincoln]** (Dave Reynolds, 1983) has been the subject of an annual 'World Championship' since 1996. The sponsorship normally runs to prizes but not to travelling expenses and international participation tends to be limited to foreign nationals who happen to be in the U.K. on the day, but the leading regular players are of regional champion standard at orthochoess and

at least one international master has tried his hand with success. The pieces have their natural modern moves, with pawn promotion on the enemy piece lines; no castling, no e.p. (most modern versions permit these). The king's side is to White's left and Black's right, and the attractive wooden boards used on club nights and for tournaments feature the city emblem in the centre.

Here is part of the playoff game (15 minutes per player), fought out in front of the cameras of TransWorld Sport, which decided the 1999 championship. The game can be conveniently represented by two 4x8 half-boards set side by side, full algebraic notation being used for moves 'round the end' (thus 'a1' and 'h1' are in fact adjacent cells). Note that a1 is white. White was Paul Byway, Black Francis Bowers.



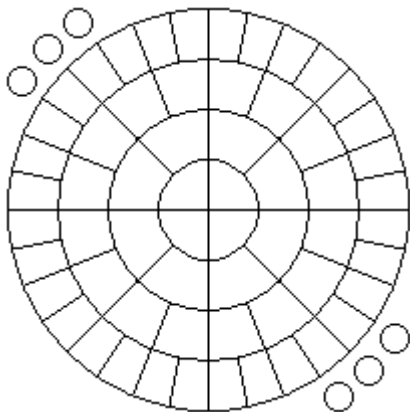
Black opened things up by 19...Bxe4, thinking it a reasonable gamble in a 15-minute game, and play continued 20 fxe4 Nxc4+ 21 Kf1 h3 (this P is guarded by Ra8) 22 Bf3 Nxc2+ 23 Rxc2 Rg1+ (guarded by Qb7) 24 Kf1-c1 Qb7-g3 25 Qd2-e2 Rb8 (Black now dominates the b/g ring, White's king is exposed, and few onlookers expected White to hold out) 26 Rb1 Bh4 27 Rh1 Rg1xb1+ 28 Nxb1 h2 29 Rxc2 Qg1+ 30 Kc2 Be1 31 Qxe1 Qg1xb1+ 32 Kb3 Rb8-g1 33 Qe1-d2 Qb1-f1 34 Be2 Qe1 35 Qd2xe1 Rxe1 36 Bf3. Contrary to the expectations of most of those present, White has weathered the storm and should have won, but Black proved the more ruthless blitzer in the final stages and it was White's flag which fell. Black could however claim that it was his enterprise in trying 19...Bxe4 which had made the game what it was. (*Variant Chess* 31/32)

[Text revised. All these modern interpretations have endgame differences from orthochess which should not be overlooked. K+R v K is only a draw unless the stronger side's king is already holding the defender's against the edge. K+2B v K and K+B+N v K are only drawn, though the first of these can become a win if the board dimensions are different (see next chapter). K+Q v K+R is only a draw. However, K+Q v K is still a win, and it follows that K+P v K is a win as soon as the pawn can be defended, even with a side pawn, because there is no stalemate defence.]

Jabberwocky Chess (V. R. Parton, 1961). The board is made up of five concentric circles crossed by six equally-spaced diameters (12 radii) making a total of 61 intersections, including the centre point, on which the game is played. Parton defined the pieces, mostly of Carrollian origin, but not the starting position. All play is along board lines. The Snatch (king) moves only to adjacent points, the Bandersnatch (queen) moves in any direction; the Tove moves as a rook but only on its circle of origin (Parton suggested that players should have a Tove on each circle); the Borogove is like a queen but must leap at least one man of either colour to move or capture; the Onewokey or Wonkey moves like a king; the Twowokey or Twokey exactly two points in any direction; the Threwokey three points in any direction. The Jabberwocky's move is unclear but would appear to be that of the Bandersnatch or Borogove. (*Chess - Curiouser and Curiouser, Chesshyre Cat Playeth Looking Glass Chessys*)

Concentric Chess, also known as **Capablanca Concentric Chess** (Proprietary game, Abercrombie and Fitch; Fernando A. Capablanca and Douglas E. Whitney, 1971). Round board with eight sectors and eight rings. The white pieces occupy the outermost ring with the pawns in front of them, the black men the two innermost rings. Usual array (rooks in adjacent spaces) but with kings opposite queens. No rules are given, but the game might be a realisation of Cylinder Chess (see next chapter) with rings and sectors for ranks and files. (Photocopy of advertisement in *New York Times*, 23 March 1972, also U.S. patent 3,776,554 of 1973) [Text revised]

Fourth Dimension, also known as **4D** (Proprietary game, J. A. Ball and Co; J. A. Ball, R. D. Carew, and K. A. Warburton, 1974). Played on a 60-cell round board divided into rings containing successively 4, 8, 16, and 32 cells outwards from the centre, so a typical cell outside the central quartet is a curved segment with five neighbours: two in its own ring, one in the next ring inside, and two in the next ring outside. Additionally, each player has three off-board ‘time warp’ cells.



Each player has a Time Lord, 2 x Guardian, 3 x Ranger, 6 x Warrior. Aim is to capture the opponent’s Time Lord. A turn normally consists of three actions: a move of a man to an adjacent cell, a ‘beam down’ (except on a player’s first turn), and a ‘beam up’; the beam down must precede the beam up, but otherwise they may be in any order. Beaming up takes a man off the board into the first of the player’s time warp cells, a marker being placed on the cell it came from; beaming down brings it back into play in a cell not more than two spaces away from the marker. As an alternative to beaming up and beaming down, a player may advance a man within his time warp cells, but there are only three of these and when he has reached the last one he must beam down whether he likes it or not; part of the skill of the game lies in arranging a suitable reception committee for a man whose reappearance is imminent. Captures are made from adjacent spaces, not by displacement, and in general a man can only capture an inferior (T>G>R>W); exceptionally, however, W can capture T and not the other way round

(so a player who has captured all his opponent’s warriors can never lose). At the game’s peak there were about 30 clubs in the U.K., mostly combined with chess, and a magazine. There is (or was) a British 4D Association and regular championships at different levels have been held. In the U.S., TSR have run regular tournaments. Two books on strategy have been published. (Proprietor’s booklet *4D Strategy*)

[Text revised. I fear that ‘was’ is the appropriate word; an enquiry in 2005 as to what was still available and at what price came back ‘not known at this address’, an enquiry to a later address found in David’s files also failed, and a Google search for the phrase ‘British 4D Association’ produced only a library catalogue entry listing *4D Strategy*. A pity, because the game is a good one. Perhaps the appearance of this book will cause the proprietors to resume operations. If they don’t, there is a copy of *4D Strategy* in the library of the British Chess Variants Society, there was an article on the game in issue 50 of *Variant Chess*, and each will give enough information for the game to be resurrected when the proprietary rights have expired.]

Chess In The Round (Proprietary game, Saxon Enterprises Ltd, 1974). Circular board, in effect a distortion of the regular board: outer circle comprises squares a1-h1-h8-a8-a1 (28), next circle squares b2-g2-g7-b7-b2 (20), next circle squares c3-f3-f6-c6-c3 (12), innermost d4-e4-e5-d5-d4 (4). Men, rules, akin to orthochess. Qs and Rs have increased powers since they can rotate within a circle in addition to their normal moves, subject to not being obstructed. This has the effect of increasing their range the nearer they stand to the board edge. On an empty board, Qd1 for example can move to any of 38 squares (including d1 by rotation), but Q on a central square has only orthochess powers. (*Nostalgia* 168) [For an apparently equivalent normal-board game, see Circuit Chess in chapter 16.]

Imperial Chess [Fanning] (Proprietary game, Chris Fanning, 1977). Round board 14 sectors x 8 rings, chequered; two players each with usual pieces and 16 pawns. Pieces are set up in standard array in opposite sectors (queens on

own colours) flanked on each side by 8 pawns. The game is thus orthochess but on two fronts and with only one set of pieces. Pawns promote in the sector occupied by the opponent's pieces in the array. (Manuscript notes derived from personal communication)

An apparently similar game was later marketed as **Global Chess [Original Toy Corporation]** (Proprietary game, Original Toy Corporation; republished 1985 by International Chess Company). Circular board 14 sectors x 8 rings with base map of the world (apparently not used in the play); 'uses the same moves and strategies as standard chess'. Usual pieces but with 16 pawns a side, eight facing each way. (Photocopy of advertisement in *Chess Life*, November 1985) [Text revised]

Centre Chess (Proprietary game, Amerigames International; Joe Miccio, 1991). Round board; four concentric rings of chequered

cells, divided into 18 sectors by lines radiating from the centre point (72 cells). The men are arrayed round the outer two rings as for the standard game. A sector on either side, through which there is restricted movement, divides the two forces. (Proprietor's publicity leaflet, also manuscript notes presumably deriving from personal communication)

Checkchess RoundBoard (Proprietary game, Checkchess Co; Raymond H. Loomis, 1991). Circular board of 64 alternate red and black cells formed by eight concentric circles divided into eight sectors by lines radiating from the centre. Usual men arrayed round the two innermost circles (White) and two outermost circles (Black) with like-pieces occupying the same sector (e.g. white Q in red cell faces black Q in black cell with pawn in front of each). Moves are those of orthochess. (Manuscript notes presumably made from a set in David's game collection)

23.6 Spiral and figure-of-eight boards

Spiral Chess [Hitchcock] (Proprietary game, David Hitchcock, 1973). Circular board of 24 sectors x 8 rings in which the two halves are offset by one cell, producing two interleaved 96-cell spirals in which cells a distance 24 apart on the spiral are on the same radius. The men are set up normally facing one another across the board, the spiral preventing mutual attacks by the rooks. The spiral also allows queens and rooks to circle the board more than once in a single move. The centre can be crossed by pieces subject to certain rules. (Copy of cutting from the *Toledo Blade*, 22 July 1973, also U.S. patent 3851883 of 1973)

Crazy 38's (Ben Good, 1997). Figure-of-eight chequered board of 38 cells, most easily obtained by taking an ordinary 8x8 board, blanking off the 2x2 squares a1-b2 and g7-h8 and the L-shaped regions a5-a8-d8-d7-b7-b5-a5 and h4-h1 etc, and writing in new curved cells a1 joining c1 and a3, a6 joining a4 and c6, c8 joining c6 and e8, and h8, h3, f1 similarly. These new cells are quadrant segments with the same width as a normal square, and the spaces within them are left unfilled (so the board now has holes at b2, b5, d7, g7, g4, and e2). The players sit cornerwise,

White's home cell being a1 and Black's h8.

Each side has 1 x King, Rook, Bishop, Knight, Gold General, and Silver General, and 4 x P. K to any adjacent cell edgewise or cornerwise. R across cells as long as the road is clear, bending around quadrants in the natural way (so Rc1 on an empty board has moves c1-a1-a3-a6-c6-h6, c1-f1-f3-f8, and c1-c8-e8-h8-h3-f3-a3). B and N as in orthochess, N jumping as usual and being allowed to make its orthogonal and diagonal steps in either order (so Na1 can move to b4/c3/d2, Nc3 to a1/a4/d5/e4/d1). Gold General as K but not diagonally to the side, Silver General as K but not diagonally forwards or backwards (regrettably, these are not the moves of the similarly named pieces in shogi). P one square obliquely (i.e. orthogonally) forward, captures as it moves, promotes to queen (R+B) on opponent's home cell. Captured men change sides and can be dropped (a P not on the opponent's home cell nor to give checkmate); a captured Q reverts to P before being dropped. Aim is to give checkmate or to move K to the opponent's home cell. White array Ka1, Gb3, Sc2, Nb4, Rc3, Bd2, Pa4/c4/d3/d1, Black mirrored about the board centre. (Chess Variant Pages) [Text editorial]

Infinite Chess (Proprietary game, Mark Colebank, 1997). 72-cell board in the form of a figure-of-eight ‘infinity’ symbol comprising two three-quarter circles, each with seven sectors and four concentric ranks, joined by a

4x4 central area. Men arrayed at opposite ends of the board as in Circular Chess except that the order of pieces is reversed (K, Q on outside rank). (Manuscript notes presumably derived from a set in David’s game collection)

23.7 Infinite and infinitely divisible boards

Infinite Plane Chess (Lav Rajcic and Nenad Petrovic, 1952). The board is extended in all directions, and four points are added analogous to the ‘points at infinity’ of geometry. There are ‘E-W’ (at infinity on the ranks), ‘N-S’ (on the files), and ‘NE-SW’ and ‘NW-SE’ (on the diagonals). Line pieces can move off the board to ‘infinity’ and return at will. For example, a rook moving off left to ‘E-W’ can re-enter on any rank and from either side of the board. In **Projected Chess** (described by Sergei Zubkov in 1990, apparently quoting an article by E. Gik in *Quantum* in 1974) only the four ‘points at infinity’ are added, the board remaining otherwise normal. Essentially a problem theme, the game has been little tried and according to Gik is impractical; Boyer however gives two examples, and says it has ‘interesting characteristics’. (*Problem 7-9*, March 1952, *Nouveaux Jeux d’Echecs Non-orthodoxes*; personal communication) [There were some inconsistencies in the original treatment, since Zubkov’s board did not match those shown by Rajcic and Petrovic and by

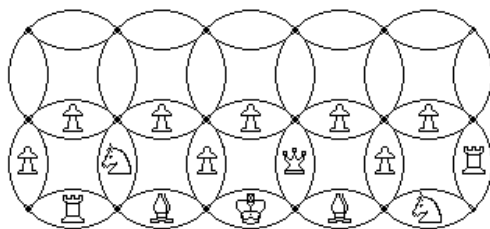
Boyer, and I will take responsibility for the present disentanglement. There is some added detail regarding the moves of KNP which I haven’t gone into since it doesn’t affect the salient feature of the game.]

Dense Chess (Richard Grandy, 1965). Play is on the rational points within the square $[0,0]-[1,1]$ of a Cartesian plane. Usual men plus three extra pawns a side. The pieces start at the decimal points of the back row, points 0, 1/2, 1 being left vacant (so rooks at 1/10 and 9/10, knights at 2/10 and 8/10, etc), with pawns all across the board a distance 1/10 in front. King moves to any point not more than 1/10 away in any direction; R orthogonally, B diagonally, Q both, N along any line with a slope of 2 or 1/2 (may not jump); P with a natural analogue of its normal move. The full rules of the game, helpfully annotated, are in issue 7 of *The Gamesman*. The game has been played, the inventor remarking that it is useful to have a blackboard on which the approximate positions of the pieces are marked. [Text revised]

23.8 Boards with transport mechanisms

Orion Chess (Steve Wilson, 1983). Chess played on the Orion principle. Orion is a proprietary games system (Parker Bros, 1971) which uses a 5x5 array of linked rotors that can be adapted to a number of games and puzzles. Orion pieces are elliptical and fit in the spaces between adjacent rotors. Each quarter-turn of a rotor moves any piece within the rotor through 90 degrees. A turn consists of moving one or more rotors in sequence according to the piece moved. Apart from the rotary actions, Orion Chess is surprisingly orthodox with the pawn moving two spaces

initially, e.p., and promotion on the last rank whether or not achieved by a pawn move; castling however is impossible. (*World Game Review* 3)



Chapter 24

Cylindrical, toroidal, and spherical boards

[The boards in this chapter occupy a half-way house between two-dimensional and three-dimensional boards, being two-dimensional in nature but needing to be bent around in a third dimension if they are to be accurately realised. That said, ‘cylinder chess’ is most often played on a normal 8x8 board, the players imagining the join between the extreme left and right hand files, and the other games in this chapter can be played on planar boards with a greater or lesser degree of imagination.]

24.1 Cylindrical boards

Cylinder Chess. Origins unknown: the board was used by the Marquis Teodoro Ciccolini (whose main occupation appears to have been the invention of a perpetual motion machine) in the early 19th century (*feenschach*, January-March 1980, quoting an article by Adriano Chicco in *L’Italia Scacchistica*, August 1939, itself citing Ciccolini’s 1836 book *Il Cavallo degli Scacchi*). It was later introduced as a problem theme by A. Piccinini in 1907, and has been claimed for others since. The 8x8 board is considered to be wrapped round a vertical cylinder so that files a and h are contiguous. This has the fortuitous effect of guarding every man in the array. Continuous movement, and a move which permits the position to remain unchanged, are disallowed. NOST allowed cylindrical castling: Ke1-g1, Ra1-f1 and Ke1-c1, Rh1-d1. The game is not difficult to absorb but a little care is needed initially: 1 b3 e5 2 Bxd8. Cylinder Chess has been successfully combined with Progressive Chess. AISE, which called this variant **Tamerlane’s Progressive Chess**, ran correspondence tournaments. Cylinder boards of other dimensions have also been used.

[It is instructive to compare the 8x8 board of Cylinder Chess with the 16x4 Circular Chess board which we met in the last chapter. In many respects they are similar, and in each case K+Q v K+R is only a draw and K+R cannot force a win against a bare K unless the attacking king is already holding the defending king against an edge. However, the bishops are far stronger in Cylinder Chess, and K+2B have a fairly easy win against a bare K

whereas in Circular Chess they can only draw (*Variant Chess* 48). And of course if the number of files is odd the distinction between ‘black’ and ‘white’ bishops vanishes, and a single bishop can reach all squares.

A curious endgame situation arises when White has Ka4, Pa5/b7 (3) against Black Ka7 (1). The winning move in ordinary chess is 1 a6 to defend the b-pawn, and if 1...Kxa6 then 2 b8(R) (promotion to Q would give stalemate). This doesn’t work in Cylinder Chess because K+R v K is not a win, but now 1 a6 Kxa6 2 b8(Q) wins because there is no stalemate. Neither line works in Circular Chess because K+R v K is still not a win and 2 b8(Q) once again gives stalemate, but there is no need to hold on to the b-pawn because K+aP v K is a win once the pawn is defended; the move 1 a6, needed to win in ordinary and cylindrical chess, is the only move *not* to win in circular!]

Moebius Chess (W. Pflughaupt, 1953). The board is a moebius ring on which a chessboard has been superimposed. It can be visualised as a cylinder board which has been twisted through 180 degrees so that a1 and h8 are adjacent, as are a8 and h1. Problem theme, but attempts have been made to play it as a game. The twist effectively destroys the distinction between ‘forwards’ and ‘backwards’, and Pflughaupt apparently regarded the pawns as able to move in either direction at will; George Jelliss prefers them to retain their original orientation, only changing direction after going ‘round the twist’. (*Chessics* 10) [Text slightly revised]

Incredulon (Bruce R. Trone, 1986). 8x8 vertical cylinder (a-file next to h-file). Orthochess with some confusing additions. (1) A player can exchange the positions of two of his men that are adjacent to each other. (2) A man may move to any square controlled by his own side. (3) Any number of men of one colour can occupy a square and move as one of them. (4) Any group can be dissolved by each piece moving to a different square according to its powers, this counting as one move. (5) A man may be pushed any number of squares by an adjacent man in the manner of the latter; however, a pawn cannot be pushed across the centre of the board. (6) Any number of men adjacent to each other in a straight line may be pushed one square from a piece at either end of the line provided its

power corresponds to the direction of movement. (7) Any block of four squares may be rotated as desired by a player who occupies more squares within the block than his opponent (this counts as one move). And concluding on a sober note: a king must get out of check with a regular move. [Personal communication assumed; source material missing from David's files.]

Chromopolis (Alexandre Muniz, 1999) is the game from which Chromopolis Simplified was generated (see chapter 17). 40-square cylindrical board on seven files, a1-f6 and g2-g5; rules and array as for the simplified game. The number of files being odd, prelates are no longer restricted to squares of one colour. (Chess Variant Pages) [Text editorial]

24.2 Toroidal boards

Toroidal Chess, also known as **Anchor-Ring Chess** and **Torus Chess**. Origins uncertain. The board is bent into in the shape of a torus. The 1st and 8th ranks are adjacent to each other, forming a horizontal cylinder, as are the a- and h-files, simultaneously forming a vertical cylinder. The square a1 is diagonally adjacent to h8 and similarly h1/a8. Pieces have complete freedom of movement wherever placed on an empty board.

A problem theme which poses various difficulties as a game. Giving mate requires at least three men since there are no corners or edges to which to drive the king (K+Q cannot mate bare king). Philip Cohen proposed kings restricted to orthogonal movement, bare king and stalemate as losses. As regards the initial array, one solution (Berloquin) is to start with an empty board, each side placing a man in turn until all are entered, pawns being allowed to move orthogonally in any direction; no promotion (*100 Jeux de Table*). Philip Cohen came up with a similar idea (*Nost-algia* 248) but restricted White to one half of the board and Black the other, with two further strictures: pawns may only be placed on the first three ranks and a check must be parried at once or the game is lost (before it's started!).

A king attacked on more than one line succumbs. Pawns move one square at a time (and in one direction only), promotion on 8th rank. Chris Tylor (*Chessics* 7, as **Toral Chess**) suggested a diagonal arrangement with White Kc3, Qb3, Ra1/d1, Bb2/c2, Na4/d4, Pb4/c4 (moving up), a2/a3 (moving left), d2/d3 (moving right), b1/c1 (moving down), promotion in any of the four squares b2/b3/c2/c3, Black the same mirrored in the diagonal h1-a8. Pawns would require directional markings. Matthias (*Eteroscacco* 19/20) set WKc2, Qd2, Rf2/f3, Bb2/e2, Na1/a2, Pb3-e3/b1-e1, Black mirrored in the board centre, and offered a sample game.

Larger boards have been tried. Berloquin suggested increasing the board to 10x10, allowing each side to assemble within a 4x4 square without abutting one another. Bruce Trone (*Nost-algia* 194, as **Megachess [Trone]**) has a 14x14 board with 22 pawns a side, normal baseline arrays on d4-k4/d11-k11 completely surrounded by pawns. Pawns move directly away from their original positions, corner pawns having a choice of direction; promotion on opponent's baseline. [Text revised to lay greater stress on the mating difficulties]

24.3 Spherical boards

Spherical Chess. The idea of wrapping a chessboard round a globe is a recent concept. The board is in effect a vertical cylinder with a- and h-files adjacent. The end ranks theoretically meet at a point (the poles) but in practice the poles are often represented as circular or octagonal zones which may or may not be designated board spaces. There are two constructional problems; one is the suspension of the board so as to give access to all squares, the other is securing the chessmen in position (gravity can induce mirth when the pieces start falling off). Added to these is the difficulty players have in visualising the game position since only half the board can be seen from any viewpoint. All these problems can be overcome by using the 8x8 board and adjusting piece movement according to the game rules. Another solution is to have two circular plane boards, one centred on the N pole and the other on the S, with the perimeter of both boards serving as the equator.

Trans-polar movement poses no problem for a rook in any game: the piece re-enters the board four files removed from the file of its departure (a1-a8-e8-e1). It should be noted that when crossing a pole a R traverses successively two squares of the same colour. Pawns can never make a trans-polar move, whilst, since the board has no edge, kings always have eight adjacent squares. Trans-polar moves of bishops and knights are not clear-cut, and it is the rules on these which separate some games.

Grayber's Spherical Chess (H. D. Grayber, 1950s). Possibly the first game on a sphere (*Nouveaux Jeux d'Echecs Intéressants*); rules not given, but the game may equate to that described by Berloquin (*100 Jeux de Table*). The trans-polar move of a B forms a loop, its path re-crossing the 2nd/7th rank square (Bh3-a2-b1-h1-a2-b3). Whether on the 1st or 2nd rank, the knight covers only six squares (Ng2 to a1/a3/h4/f4/e3/e1, Ng1 to a2/b2/h3/f3/e2/d2). Notice that in two cases the knight starts and ends its move on the same colour square.

Miller's Spherical Chess (Don Miller, 1965). Played on a two-dimensional board. B as

Grayber (or Berloquin). N as Grayber from g1, but from g2 has two additional squares: b1 and d1. The game has been used as a problem theme. (*Ye Fairie Chesseman 2*)

Yaspan's Spherical Chess, also known as **Global Chess** (Peter Yaspan, 1970). Gyromatic mount enables globe to be freely rotated; squares are replaced by magnets which, whilst forming the regular chequerboard pattern, avoid the linear distortions associated with spherical chess. Polar zones may not be occupied and a piece traversing the pole may not capture. An extension of this rule is that a piece cannot give check over a pole. An infinite move is prohibited but a stay-still move, for example by a rook circuiting the sphere, is legal. A diagonally-moving piece (K, Q, B) makes an inter-polar move (e.g. a7-b1) but not a trans-polar one. There are four possible ways to castle subject to the usual conditions: K moves two squares in either direction and either R is moved to square the K passed over. The array has WKe1 and BKd8. The first Spherical Chess Tournament, won by Jeffrey Shuster, was held in New York in 1972.

Carelman's Spherical Chess (Proprietary game, Delta Concept; J. Carelman, 1971). Board 8x8 wrapped round a sphere; rules not recorded. (Photocopy of postcard dated 1987 showing the set) [Text slightly revised. The South pole of the globe appears to be occupied by the supporting base, and the North pole appears to be similarly out of the game; its apparent occupant is out of scale with the men shown elsewhere, and may be merely the small protruding knob of an axis about which the globe can be turned. I therefore suspect that what is portrayed may perhaps be no more than an attractive realisation of ordinary Cylinder Chess, possibly produced as an objet d'art.]

Nadvorney's Spherical Chess (Leo Nadvorney, 1975). A conscious modification of Miller's game. The B changes square-colour on crossing the pole, making a loop one file wider: Bh3-a2-b1-g1-h2-a3. The N commands eight squares wherever situated.

Castling as in Yaspan. Nadvorney represented the globe as a mercator projection, thus allowing the game to be played with ease on the usual 8x8 board. To facilitate both trans-polar and lateral movement, he offered a diagram which afforded instant guidance when crossing the normal boundaries. An infinite move or one which does not change the position is illegal. Nadvorney also proposed **Spherical Chess**, a next-to-unplayable (and probably unplayed) mix of Spherical and Alice Chess. (*Nost-algia* 185/188)

Nelson's Spherical Chess (Martin Nelson, 1976). An experimental game using magnetic pieces. Polar zones are regular octagons, each considered to be a one-square rank. These are locations of great power, for a Q, R or B commands from them every square on a vacant sphere. Similarly a knight at the pole controls the first two ranks (16 squares). A trans-polar move by a B does not involve a colour-change: Bh3-a2-b1-f1-e2-d3. Ng1 crosses the pole to b1 or d1. (Personal communication)

Globe Chess [Boholy] (János Boholy, 1987). Board 8x8 wrapped round a sphere with an octagonal cell at each pole, giving a playing area of 66 cells. Usual chessmen. Three games are offered, one of which ignores the poles and reduces to ordinary Cylinder Chess. In the second, pieces may pass over the poles but not stop on them; in the third, polar cells are part of the board as in Nelson's game. In both these latter games, the Black men are offset four files with respect to the White, thus (a8-h8) KBNRRNBQ. The board was featured on the front cover of *Ceskoslovensky Sach* (12/1990). There is a book on the game by the inventor: *A Gömb Sakkjáték Alapjai*, now in its third edition. (Personal communication)

Chessball [Gramolt] (Proprietary game, The Original Chessball Co. Ltd; William Gramolt,

1986). As reported in the April 1997 issue of *Science et Avenir*, the board had twice the normal number of squares, and the accompanying photograph supported this; as marketed in 1998, the number of squares had increased to 160 (20 files). Three levels of play, according to whether no, one, or both poles are used - or, of course, you can use just a portion of the board and play ordinary chess. (Proprietor's publicity leaflet)

Global Thinker (Proprietary game, Klaus Schroer, 1990). Board 8x8 wrapped round a sphere with two circular polar areas; typical transpolar bishop move is d2-c1-pole-g1-h2-a3. (*Schach Magazin* 64)

[All these games are affected by the 'polar anomaly' whereby the poles have to be treated specially. Perhaps this is a good thing, perhaps it isn't, but reflections on how it might be avoided caused me to look briefly at the possibilities of what might be called **4-6-10 Chess**, exploiting the semi-regular solid whose faces comprise 30 squares, 20 hexagons, and 12 decagons (*Variant Chess* 49). Suppose we choose two opposite cells as bases around which the two armies are arrayed, and give K, R, P their natural moves (K to any adjacent cell, R straight across cells as long as the road is clear, P one step directly forward, capturing on the next nearest cells to directly forward and promoting on reaching the opponent's base). K+R v K is now a win, so K+P v K will be enough to win if the pawn can promote; in fact the defending king will draw if it can occupy a square (not a hexagon or decagon) immediately in front of the pawn, otherwise the result appears to depend on whether the stronger side has or can gain the opposition (which here is held by whoever is not to move when the kings are on cells of the same kind). So at least the endgame behaviour appears sensible, and I am sure that a playable game using this board could be devised.]

Chapter 25

Boards with three and more dimensions

[We now move on to true three-dimensional boards. The earliest definite reference to three-dimensional chess appears to be to the oft-quoted Kieseritzky board, and the earliest game of which details survive is Maack's 'Raumschach' of 1907. The multiple-board games of Part 1, such as Alice Chess, may also be classified as 3-D games, though we shall normally restrict the term to games where the boards are stacked one above the other rather than being placed side by side. The most popular 3-D board amongst inventors, and at the same time the most mentally indigestible for the players, consists of eight normal boards mounted in this way. Less demanding on spatial vision, and hence more practical, are games confined to two or three 8x8 boards and games with boards smaller than 8x8. A few multi-dimensional games beckon the intellectually courageous.

The rook generalizes immediately to three dimensions. The bishop does not, and three-dimensional games employ two different pieces: a 'bishop' which moves in a plane with the normal bishop move, and a new piece, often called a 'unicorn', which advances through all three dimensions at once. (Imagine the piece in the middle of a cube. If it is a rook, it moves to the middle of a face of the cube; if a bishop, to the middle of an edge; if a unicorn, to one of the corners.) The queen is sometimes treated as R+B, more usually as R+B+U. When away from the edge, a rook has 6 directions of movement, a bishop 12, a unicorn 8, and a queen 18 or 26. A king away from the edge has 26 squares available to it.

In orthochess, a rook or queen presents a barrier which the opposing king cannot cross. In three dimensions, it doesn't, and mating even a bare king can present difficulties. There are two ways of dealing with this. The first is simply to make the board small enough (if the queen is given the power of R+B+U, K+Q can mate a bare king if they can trap it against the side, and on a 5x5x5 board all the stronger side has to do is to put its king in the centre and let the queen do the rest). The second is to give the rook a double move, so that it can command a whole plane and not just a line. The danger is now that the rook becomes too powerful rather than too weak, but it is an idea that can be made to work and a special section is given to the games which embody it.]

25.1 Square boards on two levels

Peruvian Army Chess, also known as **Military Game [Weaver]** (Walter R. Weaver, 1930). *The West Coast Leader* (Lima) reported that the Peruvian army had hit on the novel idea of substituting the various classes of air attack and ground defence for the chessmen 'to facilitate the teaching of air manoeuvres'. Board 8x8x2; pieces on upper board represent various types of aviation: Bombardment (R), Attack (B), Pursuit (N), Local observation (K), Distant observation (Q). Orthochess on lower board, but men can also be captured from above by bombardment or attack aircraft. King can be checked and mated from above or by ground (lower board) forces, or a combination of the two. Pawns, if unmoved, serve as AA

artillery, the squares above them denied to hostile aircraft. Aircraft, with the exception of observation planes which serve simply as blocks, can only be captured by pursuit aircraft (*British Chess Magazine*, January 1931, also *Abstract Games* 11)

Two-Level Chess [Miller] (Donald L. Miller, 1948). Two 8x8 boards, one above the other; standard array on top board (Level 1), bottom board (a1 white) empty. Play as orthochess on either board. Instead of moving, a player may transfer a man from one board to the corresponding square on the other provided it is vacant, with the exception that a king cannot change levels if in check. Notice that a B

would then change its square colour. A P for its first move may drop to Level 2 and move one square forward but cannot move back to Level 1 unless promoted. A N makes the first step of its two-square move on changing levels and completes the move on the second board (first step is notionally either diagonal or orthogonal, as agreed). The N is the only piece that can change levels and capture in the same move. A P must be promoted on reaching the end rank of Level 2. It may be promoted on end rank of Level 1, but if not, must drop to Level 2 to promote. (*Ye Faerie Chessman*)

Trapdoor Chess [Hills and Bimler] (Greg Hills and Trevor Bimler, 1976). Two 8x8 boards, upper and lower. Four squares on the four central ranks of the upper board, decided by lot, are trapdoors, the corresponding squares on the lower board are mattresses. Usual set-up on upper board. Any piece crossing or landing on a trapdoor descends to a mattress. A piece falling through a trapdoor eliminates a piece of either colour on the mattress below. On each turn, a player moves on either the upper or lower board. Only queens, promoted or otherwise, can ascend to the upper board but must first move to mattress, then to trapdoor (two moves). One

strategy is to drop pawns, perhaps with a piece or two for protection, which come up as queens a few moves later. Kings are dropped only in desperation. If one player dominates one board and his opponent the other, a draw is the likely outcome. (*Ye Faerie Chessman*)

Flying Chess (Proprietary game, David Eltis, 1984). Two-tier board, usual array on lower. R, B, N can attain the upper level and fly. A move directly up or down is permitted, as are various other options: R can make a move on the lower board and ascend to the next upper-board square beyond, B can make a move on the upper board and descend similarly, N can make a move on the upper board and descend directly. All these moves can capture, and additionally any man (not just a man that can fly) can capture by 'head butting': if there is a flying man immediately above it, it can capture this man without moving (but the capture counts as a move). (Author's rules leaflet, also Chess Variant Pages) [Text revised. Apparently the game is normally played on a single large board capable of holding two men per square, pieces on the upper level being indicated by markers, but the two-level presentation seems more appropriate here.]

25.2 Square boards on three levels

Johnson's Three-dimensional Chess (Proprietary game, Rick Johnson, 1966). Board 8x8x3; usual men with White set up on level A and Black at opposite end of level C. Movement of pieces is described as normal except that each has also a vertical capability. The inventor claims to have played well over a thousand games. The game was marketed from 1967 onwards and was featured in the media. (*Nost-algia* 115)

Space Chess [Pacific Games] (Proprietary game, Pacific Games Co, 1969). Board 8x8x3. A proprietary game with rules developed by US chess champion Larry Evans. (Advertisement in *Popular Science*, March 1969, also *Ye Fairie Chessman*)

Star Trek Chess, also known as **Tridimensional Chess**. This game, described as 'the most complex form of the ancient

game yet devised', was issued as a technical order in the *Star Trek Manual* (1970s) and was purportedly played on the *U.S.S. Enterprise* in *Star Trek*. Usual men move in usual way except that they have 'tridimensional freedom to the extent of available consecutive squares'. The board, made up of 64 squares of which 16 are movable in 2x2 groups, is on three levels: (top) Black's defending board; (middle) neutral field board; (bottom) White's defending board. No games, so far as is known, have yet been recorded by space travellers. [Text revised]

Chess in the Third Dimension (Proprietary game, Skor-Mor, 1976). Board 8x8x3; usual array but Black chooses top or bottom level, White is then on the other. Orthochess play, but on its initial move every man must, after moving, transfer to the corresponding square on the middle board (if this square is occupied

the move is illegal). There are minor exceptions: the king may elect to change planes or not, and if castling the player may elect to move both pieces or neither to the central plane. On each subsequent play a man may be moved in the normal way or to the square directly above or below it, but only if it is vacant. Captures, check, and checkmate can only take place on the same plane. (Proprietor's rules pamphlet)

Hagemann's Three-Dimensional Chess (Wally Hagemann, date unclear). Board 8x8x3; usual men with orthochess array, White on top board and Black on bottom. Pawns, which can move up or down, and have two-step option with e.p., promote in cells occupied by opponent's pieces in the array. Moves of K and R as usual but B combines moves of normal bishop and unicorn. N moves to cells of board above or below that correspond to those it can move to in the plane. N on level A or C may also move to the corresponding squares of those that immediately surround it on the other board. Example: Nc1 can move to Cb3, Cc2; Bb3, Bc2; Aa2, Ab1, Ab2. Spatial capturing moves of pawns not given. (Author's rules pamphlet) [The game was dated '1960s?' by David, but the typographical style of the rules pamphlet suggests that it was printed in the late 1980s or late 1970s)

Parallel Worlds Chess (R. Wayne Schmittberger, 1980s). Board 8x8x3. A full array is assembled on both boards A and C, board B being empty. On turn, a player may move one, two or three men provided that no two men end their moves on the same level. Kings do not change level but all other men may move straight up or down one level provided the square moved to is vacant. Level B is a twilight zone in which all men move as queens but cannot capture. Thus a pawn can transfer to level B, later move to the first rank and subsequently move to board A or C on the first rank. It can then move only one square, but on the second rank it regains its two-square option. The object of the game is to capture either of the opponent's kings. Very wild. (*New Rules for Classic Games*)

3 Dimensional Chess [Carney] (Proprietary game, Carney's Compendium of Games; Paul Cope, 1992). Board 6x6x3; 26 men a side. Array (A bottom, C top) Aa1-f1/Ca6-f6: RNQKNR; Aa2-f2/Ca5-f5: PPBBPP; Acd3/Ccd4: PP; Ba1-f1/a6-f6: BRPrPsRB; Ba2-f2/a5-f5: PPPPPP. The Princess (Ps) moves and captures as Q but additionally has 'devotional' power. If the K is mated, it may move to the square occupied by the Ps which is removed from the board. The Prince (Pr) is simply a third knight. Pieces may move from one level to the next only to the square immediately above or below and only if the square is unoccupied. No pawn-two; promotion to captured piece only on Ca6-f6 (White)/Aa1-f1 (Black). The game, which was developed over five years, has approximately the same men-to-squares ratio as orthochess. (Manuscript notes apparently deriving from personal communication)

3 Dimensional Chess [Mind Games] (Proprietary game, Mind Games Manufacturing Ltd; Bernard Kennedy, 1992). Board 8x8x3, a1 black all boards. Each side has 24 pieces and 24 pawns. The new pieces are Prince (Pr), Princess (Ps), Abbey (A), Cannon (C) and Galleon (G). Array (top board: a1-h1/a8-h8) GCAPsPrACG; P x 8 2nd/7th rank; (middle board) orthochess array; (bottom board) as top board. Orthochess men can move between boards, knights and pawns excepted. Pr,Ps,G,A correspond respectively to K,Q,R,B and move exactly as their orthochess equivalents except that they cannot change levels and princes can be taken like any other piece. The move of the cannon defies simple description but always involves a change of level. Win by mating K or capturing both princes. (Manuscript notes deriving from a set in David's game collection)

Millenium 3D Chess (W. D'Agostino, 2001). Board 8x8x3. Blank board on central level, White has standard array on one level, Black on the other. P-two, promotion, castling and e.p. semi-orthodox. [Information presumably taken from a set in David's game collection; no source material in his Encyclopedia files]

25.3 Square boards on four levels

Tedco Three-Dimensional Chess (Proprietary game, Texas Educational Devices Co, 1966). Board 4x4x4 (a1 black all levels, but may also be unchequered). The Tedco board was developed for psychological studies on human ability to think in three dimensions and was used for a number of games in addition to chess. Usual chessmen. Moves: K one cell in any direction on the same level or level immediately above or below, no castling; R changes level straight up and down only (maximum cells covered: 9); B when changing level moves diagonally up or down in a straight line so can change colour; Q = R+B; N one cell at a time diagonally (maximum cells covered: 12); P moves one cell forward or vertically up or down, captures only as orthochess on same plane. Strategy focuses on the four central squares of levels B and C. In the endgame, K+R and K+B only draw against bare K, but K+Q is an easy win. Array (all boards a1-d1/d4-a4): A, PNPR; B, PBKP; C, PQBP; D, RPNP (kings on Bc1 and Bc4). (*Nost-algia* 90)

Isometric Chess (Proprietary game, Isometric Chess International; John Oden, 1977). The board is in the shape of a pyramid built up in four tiers of cubes from an 8x8 base to a 2x2 centre. Pawns are placed on their usual squares whilst pieces are entered one by one at choice on the respective baselines, the only restriction being that the bishops must be on opposite colours. Oden predicted, unwisely as it turned out, that people would be playing Isometric Chess - 'and only Isometric Chess' - in 2001, adding that 'people who know chess and understand its place in history realize right away what a giant step it is in the evolution of the game'. Robert Erkes, president of the Maryland Chess Association (the inventor was from Maryland) commented that 'All it is is a chess board that looks funny'. (Proprietor's publicity leaflet, also photocopy of cutting from a newspaper which appears to be the Baltimore *Sun*)

3-D Chess [Enjoyable Hour] (Proprietary game, Enjoyable Hour Products, 1979). Board 4x4x4, a1 black at all levels; usual men, array (White on D, Black diametrically opposite on

A) RNNR, BKQB, 4xP, 4xP (kings on Db2 and Ac3). Moves (orthochess on same plane, except P): K cannot change level; R can move straight up or down between levels, B can move one cell diagonally up or down; Q=R+B; N moves as orthochess from cell immediately above or below it (maximum 12 moves); Ps can move only down (W) or up (B), one cell at a time, and can capture diagonally only on same level. Pawns promote in any cell on opponent's array level. One of the fastest of the 3-D games. (Photocopies of box cover, board, rules leaflet)

Aztec Chess (Roberto Salvadori, 1982). The 8x8 board is in the form of an Aztec pyramid, viz: 8x8 base, 6x6, 4x4, 2x2 (d4/5,e4/5). Usual men but array (e1-h1/d8-a8 and inwards) PBRK, PBQR, PPNN, PPPP and the board is placed diagonally between the players so that White's 'forwards' direction is along the diagonal h1-a8. Rules of play are elaborate. (*Eteroscacco* 21)

Podionic Chess (Proprietary game, Prophecy Games Ltd; Jonathan Pennell, 1994). Four 4x4 boards arranged one above the other in an overlapping spiral formation; usual men. Seen from above, adjacent boards have a row of four overlapping squares, and all four inner corners overlap; these overlaps provide routes between the boards. (Proprietor's rules booklet and publicity material; see also *Variant Chess* 20) [Text revised]

Schach³, also known as **Raum-Schach [Töttger]** (Proprietary game, Peter-René Töttger, 1994). Board 4x4x4; usual pieces plus 4 pawns a side. Array boards (A bottom, D top) Aa1-d1/Dd4-a4: RQKR; (Aa2-D2/Dd3-a3) PPPP; (Ba1-d1/Cd4-a4) NBBN. Moves: K one square orthogonally or corresponding square to that occupied on next level up or down; Q one square in any direction or corresponding or orthogonally vacant square on next level; R as R on same level or vertically to any level; B one square diagonally on same or next level; N see diagram; P on level or next level with usual capture; promotion on end rank of D (White) or A (Black). (Personal communication)

25.4 Square boards on five levels

Raumschach [Maack], also known as **Space Chess** (Ferdinand Maack, 1907 and subsequently). The classic 3-D game. Its inventor contended that to make chess properly analogous to modern warfare, attack must be possible from above and below (air/underwater) as well as on the surface. Maack promoted space chess with demonstrations, articles, booklets and a magazine (*Raumschach*). The game was originally set on an 8x8x8 board as described later, but Maack experimented with other boards and 5x5x5 became the normal form. In 1919 he founded the Hamburg Space-Chess Club, which survived until World War II. Dawson in particular was attracted to Maack's 5x5x5 invention - 'the game which will naturally be the commonplace of the future' - and he ran a series of articles on it (*Chess Amateur*, July-December 1926). Each player has two extra pieces (unicorns as described above), and there are 10 pawns a side; White RNKNR fronted by 5xP on board A, BUQBU fronted by 5xP on board B, Black diametrically opposite on boards E and D (unicorns on Da5 and Dd5). White pawns promote on rank E5, black on rank A1. N makes one step as R and one as B (if you prefer a mathematical definition, it is a '2-1-0 leaper'). P moves one step at a time and captures diagonally forward, all movement being towards the promotion rank. Thus WP at Ab2 can move to either Ab3 or Bb2, and it can capture on any of the five squares Aa3, Ac3,

Ba2, Bc2, Cb3. Another array halves the number of pawns and has all white men on level A, all black men on level E: (Aa1-e1/Ee5-a5 and inwards) RNKNR, BUQBU, 5xP.

The game has attracted many leading problemists. Troitsky studied the endings and showed that K+Q always wins against K.

Stereoschach (Gerhard Jensch, 1975). Derived from Maack's Raumschach above, Stereoschach was introduced by Jensch as a problem theme (*feenschach*, May-July 1975), but its merits as a game were soon appreciated. Board 8x8 + 4x4x4, usual men in normal array positions on the 8x8. The small boards, A (bottom) to D (top), are directly above the squares c3-c6-f6-f3-c3 on the base board. Three-dimensional moves are possible on the 4x4 central squares. Movement on the same level as in orthochess. Pieces and pawns move between levels as in Maack's Raumschach (there is no corresponding piece to the unicorn in Stereoschach). Pawns promote in cells (White) (D)c6-f6; (Black) (D)c3-f3. Openings tend to start normally. An international tournament held at Imperia (January 1987) was won by Friedemann Arnold. Stereoschach was demonstrated by Hans-Peter Rehm at the F.I.D.E. problemists' meeting in Bournemouth, August 1989. **Spiral Chess [Jensch]** (Gerhard Jensch, 1984, dedicated to Peter Kniest) is a refinement in which the a-file is assumed to be above the h-file (*feenschach*, February 1984).

25.5 Square boards on six levels

Cubic Chess [Parton] (V. R. Parton, 1970). Board 6x6x6, levels A-F bottom to top; 6 pieces and 12 pawns a side. Array (Aa1-f1/Af6-a6) KQBUNR; pawns Aa2-f2/a5-f5 and Ba1-f1/Ba6-f6. Unicorn U moves in straight lines through cell vertices. Pawns move one cell forward orthogonally, diagonally, or through the cell vertex, and capture as they move; a pawn on Bd2 can move or capture to any of 9 cells. In **Compulsion Cubic Chess** capture is compulsory; no checks, aim is to capture enemy king.

Parton also proposed **Timur's Cubic Chess**, which is Timur's Great Chess (see the chapters on historical and regional games) translated onto a 6x6x6 board. He retained on each side a king and a fers, and two each of the rooks, knights, dabbabas, alfils and giraffes together with pawns. In the array the men are arranged on the two lowest levels. Level A (a1-f1/f6-a6) RGQKGR, 6 x P 2nd/5th rank. Level B (a1-f1/f6-a6) DANNAD, again with 6 x P in front. Parton did not expatiate on spatial movement. (*Chessical Cubism*)

25.6 Square boards on seven or eight levels

Cubic Chess [Kieseritzky], also known as **Kubikschack** (Kieseritzky, 1851). Kieseritzky is alleged to have shown a cubic game to Anderssen in London in 1851. According to Jean Dufresne, Kieseritzky displayed a large glass case separated into small cube-shaped boxes in which chess pieces were hanging on strings. He is said to have exclaimed 'I shall mate the black king from above with the white knight' and proceeded to do so. The author (Maack?) of an article in *Raumschach* (No.1, 1908), commented that Kieseritzky's model should therefore be in London, adding that 'Enquiries into this affair have remained unanswered. The rudeness accorded the German side would surely not have been suffered by an English investigator'. Maack, when demonstrating his game earlier (September 1907) said that the model was in the British Museum, but there is no trace of it there, nor in any of the major London museums, nor in the collection of exhibits from the Great Exhibition of 1851. [Anthony Dickins, in *A Guide to Fairy Chess*, cites *Deutsche Schachzeitung* 1878, page 117, as the source for the Kieseritzky anecdote. I have assumed that it referred to an eight-level board, or at least that it didn't explicitly refer to anything else.]

Raumschach [original formulation] (Ferdinand Maack, 1907). Maack's original version used an 8x8x8 board with 24 men on each side: the usual eight pieces, and 16 pawns. The array was as orthochess on board A with each player having 8 pawns a1-h1/a8-h8 on board B, the purpose of these pawns being to protect the corresponding pieces from overhead attack. An alternative arrangement had the black pieces on Ha8-h8 and pawns on Ha7-h7 and Ga8-h8. Queen moved as R+B only, K one step as R or B. Pawns moved normally on the plane (no pawn-two), or could move vertically up (with two-step initial option).

For a dozen years Maack experimented with other arrays and smaller boards, ending up with 5x5x5 as described above. One 7x7x7 variant included two Giraffes (4-1 leapers). [There are numerous references in David's files, but the primary sources would appear to

be *Raumschach*, an article in *Wiener Schachzeitung* in 1907, and Maack's booklets *Das Schachraumspiel* (1922 and 1930, apparently two different editions). Dickins, in *A Guide to Fairy Chess*, also cites a 1907 edition of *Das Schachraumspiel* and further booklets *Spielregeln zum Raumschach* (1913) and *Raumschach: Einführung in die Spielpraxis* (1919). I presume that '4-1 leaper' here means '4-1-0 leaper' in the same way that the knight has become a 2-1-0 leaper.]

Kogbetliantz's Game (Ervand Kogbetliantz, 1918). Board 8x8x8; 64 men a side comprising 1 x K, Q; 2 x N, Archbishop, Favourite; 4 x R, B, Hippogriff, Fool; 40 x P. K, Q, R, B as in Maack's game (26 directions for K and Q); Fool as Maack's Unicorn; Archbishop = B+Fo; Favourite = R+B. The knight has three distinct possible move combinations, as R/B (Aa1-Ab3), R/Fo (Aa1-Bb3), or B/Fo (Aa1-Cb3); the Hippogriff is a leaper whose move is made up of one cell as a R, then one as a B, then one as a Fo. The P moves as in Maack's game except that it has an initial two-step option (e.p. possible). At the start, each player's men occupy the first two ranks of the four central boards. Pawns occupy the second ranks on all four boards. The piece array is a1-h1/h8-a8 (3rd board) PPFBBFPP; (4th) RHNFaKAHR; (5th) RHAQFaNHR; (6th) PPFoBBFoPP. First developed in Russia, where Kogbetliantz was living at the time, the game was launched in the U.S. in 1952 where it received a lot of publicity (*Newsweek*, *Time*, *New Yorker* etc). It attracted a large following according to Boyer (*Nouveaux Jeux d'Echecs Non-orthodoxes*) but this appears to be contradicted by *Life* magazine which reported that there are about 1,500,000 possible positions after the first two moves of both sides, 'which explains why the Western Hemisphere contains only eight players; six are pupils of Dr Kogbetliantz, one is his daughter, and the last and best is the doctor himself'. Don Miller, who attended a presentation on the game, commented that 'the first ten moves of the demonstration game took three hours, at which point the game was abandoned'. Miller nevertheless found the game 'fascinating' and

constructed a model board by welding wire coathangers from which the men were suspended. He described Kogbetliantz's game as 'one of the best of all chess variants, and the best of the three-dimensional ones' (*Ye Fairie Chessman*). [The primary source is presumably what Miller describes as 'a four-page copyrighted booklet' which was on sale at the 1952 presentation, but I don't think David had a copy of this and the present exposition appears to follow Boyer.]

Godson's Three-dimensional Chess (William Godson, 1930). Board 8x8x8; Aa1 black, alternating vertically. Usual eight pieces plus 16 pawns a side. The arrangement differs from Maack's game in that the white array is normal on board A with 8 pawns above (Ba1-h1) while Black's array is on board H with 8 pawns on Ga8-h8. The men move as in Maack's game except that pawns have the initial two-step option but no e.p.; white pawns cannot move down, black pawns cannot move up. Pawns promote in any cell occupied by the opponent's pieces in the array. Castling normal. (Author's rules booklet)

Marks's Three-dimensional Chess (J. David Marks, c.1960). Essentially Maack's 8x8x8 game with Fool = unicorn and Space knight = N. (Manuscript notes presumably deriving from personal communication)

Gollon's Three-dimensional Chess (1960s). Quoted by Gollon in his *Chess Variations* but unascribed. Board 8x8x8. Normal array and game on level A. When one king is mated, he escapes to the square above him on level B. All the men now assume a 3-D role (see Maack). If this results in the king being simultaneously mated on level B, the game is over; otherwise it continues until a king is again mated when it escapes to the next level, and so on. There are apparently several versions. In one, the initial move upwards of a K opens the whole 8x8x8 board to all pieces; in another, no man may move to a board above the highest-placed K; another version allows the K to move upwards when checked, and yet another version permits a K to move upwards at any time. Gollon, who considered this a 'fine game', admitted to having invented a variant on a 9x9x9 board in which each

player had 141 pieces (of which 81 pawns), the details of which he spared his readers.

3-D Space Chess [Dimensional Enterprises] (Proprietary Game, Dimensional Enterprises Inc, 1967). Kogbetliantz's game, marketed with streamlined pieces. [There is an index pointer to source material in David's Encyclopedia files, but the material itself appears to be missing.]

Atkinson's Three-dimensional Chess (Tom Atkinson, early 1970s). Same as Kogbetliantz's game, marketed by Atkinson who asserted, with what authority is not known, that 3-D Chess was developed in Europe in the late 18th century - 'a game still played in Russia and some other countries'. (*Ye Faerie Chessman*) [David clearly felt obliged to report this assertion, but unless and until some definite evidence comes to light I think it has to be discounted.]

Cubical Chess [Berry] (Clive Berry, 1970s). Board 8x8x8; each side has 1xK, 3xQ, 20xR, B, N, 64xP to achieve the same ratio of men to squares as orthochess. (Author's booklet describing a computer realisation)

Gregory's Three-dimensional Chess (M. Dorian Gregory, 1970s). Board 8x8x8, Aa1 white alternating vertically. Pieces 48 a side comprising 1 x K, Q, Regent, Bar-Q; 2 x R, B, Centaur, Chancellor, Bar-R, Bar-B, Bar-Centaur, Bar-Chancellor; 4 x N; 24 x P. Centaur = B+N; Chancellor = R+N; Regent = R+B+N. Bar pieces are restricted to three levels, their array level and those immediately above or below it. R and N have the same moves as in Maack's game, B=unicorn, Q=R+B, P captures diagonally forward one square (as B) but does not move vertically. Array: White on E,F,H; Black on A,C,D. (H/A a1-h1/h8-a8): RNBReKBNR, 8xP 2nd/7th ranks; (F/C a1-h1/h8-a8): ChNCQQ(B)CNCh, 8xP 3rd/6th ranks; (E/D a1-h1/h8-a8): RCBChChBCR (all bar pieces), 8xP 2nd/7th ranks. Gregory also proposed a variant with the same pieces but levels 2x2, 4x4, 6x6, 8x8, 8x8, 6x6, 4x4, 2x2, lower boards keyed to h1, upper boards to a8. The game was presented at a symposium at the University of Victoria, B.C. (*Ye Faerie Chessman*)

Harper and Dietrich's Game Board (James W. Harper and Gary L. Dietrich, 1971). A vertical arrangement of seven boards successively of 4, 16, 36, 64, 36, 16, 4 squares, for use in chess or checkers. No details of moves are given, merely that the chess pieces include additional pawns and that the pieces may be moved in both horizontal and vertical directions. (U.S. patent 3,767,201 of 1973, possibly incomplete)

25.7 Square boards on more than eight levels

Prokofiev's Game. In a letter to Capablanca (November 1922), the composer spoke of a variant which he had invented, and of which Capablanca was aware, that was played 'on 9 compound boards' ('compound' is underlined)

25.8 Other boards with three dimensions

Lewin's Three-dimensional Chess [C. G. Lewin, 1970]. Board 8x8; orthochess array. All squares (cells) on a file are considered to be on the same level, the file level being determined by the number of men of both colours on it at the time. (Photocopy of pages 65-67 of an unidentified typescript)

Pyramid Chess (Proprietary game, Ruffin Enterprises, 1977). Board is a squat pyramid on a square base. There are 15 cells on each face, progressively reducing bottom to top 5-4-3-2-1. The men are flat, and the pyramid has parallel ledges on which they rest. 11 men a side, one each of the normal pieces and six pawns. The players occupy opposite sides and the men are set up so that each player sees RBKQN from left to right on the bottom rank, with pawns on the next rank up and on the nearest bottom-rank cell round each side. Pawns may move one cell in any direction, K may move two cells initially. Object checkmate. (Proprietor's rules pamphlet)

Xyrixa Chess (David Samuel, c.1980). An exotic three-dimensional game played on seven levels: A - 1x7; B - 2x6; C - 3x5; D - 4x4; E - 5x3; F - 6x2; G - 7x1. Each player has 19 men: 1 x K, 2 x Q, R, B, 12 x P. These are deployed initially, like facing like, on all levels (for example, P and R face P and R on levels A and G). Movement between levels is

Rohr's Three-dimensional Chess (Chris Rohr, 1975). Board 8x8x8; 28 men a side comprising 1 x K,Q; 4 x R,B,N; 14 x P. The interest is in the unusual array (White): Rs Aa1,h1 Ha1,h1; Ns Bb1,g1 Gb1,g1; Bs Cc1,f1 Fc1,f1; K De1/Q Dd1 or K Ee1/Q Ed1 (Black K/Q on alternative level); pawns on second rank in front of pieces at all levels. No castling. Don Miller suggested a revised array and movement rules. (*Ye Faerie Chessman*)

and in which one game 'is often lasting several nights'. In *Izvestia* (May 1936), Prokofiev enthused 'Chess for me is a world apart, a world of combat, of plans and of passion'. (Photocopy of part of original letter)

determined by viewing vertically down from above the board. Subject to the rules of movement of individual pieces, transfer can be made to any cell at another level the whole or part of which is seen to overlap the cell on which the man stands. The object is checkmate. (Inventor's rules leaflet)

Dragonchess [Gygax] (Gary Gygax, 1985). The inventor of this fantasy-based version of orthochess is probably the best-known and best creator of fantasy games. Board 12x8x3 chequered (a1 dark all levels). The three levels and their respective (and appropriate) square colourings are, top to bottom: air (blue/white), land (green/amber), subterranean (red/brown). The players are Gold and Scarlet and each has 42 pieces: 1 x Cleric, Dragon, Elemental, King, Mage, Paladin; 2 x Basilisk, Griffon, Hero, Oliphant, Thief, Unicorn; 6 x Dwarf, Sylph; 12 x Warrior. Pieces are adapted from *Dungeons & Dragons*, also a creation of Gary Gygax. The detailed rules, with explanatory diagrams, occupied six pages of the August 1985 issue of *Dragon Magazine*, but the game, although elaborate, is quite playable. Cazaux provides an alternative source. [Text revised]

Space Hexagonal Chess (John Stratford, 1985, revised 1992). Three hexagonal boards, each of 91 hexes as in Glinski's game, are set one above the other and designated

Underground (bottom), Ground (middle) and Sky (top). The pieces are also identical (1xK, Q, 2xR, N, 3xB, 9xP) but are given military names, respectively Government, Anti-aircraft units, Bomber units, Tank units, Fighter units, Infantry units. The array is on the bottom two levels. A turn consists of three actions (moves); if all three cannot be completed, or the Government falls, the game is lost. All pieces can capture without moving, but only tank units can move and then fire. Moves, including inter-level moves, are comparable to those of orthochess. (Author's rule booklet)

Time Warp Chess (Jacob Richman, 1997). Time is treated as a third dimension, and men

other than kings and pawns may move forwards or backwards in time as in any other dimension (so a knight can move one step forward on the board and two steps forward in time, or two and one, or whatever combination it likes). The 'step' interval in time is one move by each player, so a man which has moved two steps forward in time reappears after two moves by each player. The idea was simplified by Robert McGonigal as **Time Travel Chess**, in which a man may move forward and backward in time instead of making a normal move, and simplified further as **Future Chess** in which only moves forward in time are allowed. (*Nost-algia* 362) [Text editorial]

25.9 Three-dimensional games with double moves

Total Chess (Charles Beatty, 1945). The only variant to have been invented by a living saint, as the inventor was described by the thriller writer Dennis Wheatley, a description that sits uncomfortably with Beatty's reputation as a big-game hunter. Board 8x8x4 (a1 black all boards); vertical sequence of four squares is called a tier. Usual men; three types of move: (1) Flat (same plane), (2) Tier (vertically up or down), (3) Total (different level, different tier). A pawn is held to project a shadow to all cells in its tier. No flat or total move, except that of a knight, may pass over a shadowed cell, and a piece may only move to a shadowed cell in order to capture. If a pawn moves into a tier occupied by a piece, the pawn's shadow is neutralized until the piece moves away or is captured by a pawn. A piece, other than a knight, does not give check if any cell in a tier between it and the opposing king is occupied. No man may pass through an occupied cell in a tier move. Moves: all men behave as in orthochess on the same plane, subject to the restriction of shadowed cells. Space moves: K tier move one cell up or down, total move to any cell on the next level up or down adjacent to the tier in which the K stands. Q, R, B, N total move up or down any number of levels to a cell in the same tier as one which may be occupied in a flat move; in addition, Q and R may make a tier move up or down any number of levels. P tier move up one level, or two levels initially (P cannot capture in a tier move); total move up one

level, forward one cell (captures in either cell immediately above those on which it could capture with a flat move). Promotion on eighth rank of any level; e.p. possible. It will be seen that the game has two guiding principles: (1) a man may move to any vertical projection of its orthochess move; (2) Each pawn is, in a sense, simultaneously present at all levels. The mobility of the pieces compared with orthochess is increased by a factor of about four, which corresponds to the increase in board size. In the array, the men occupy their orthochess positions but on different boards. Level A (bottom) queens and pawns; B bishops; C knights; D (top) kings and rooks. Total Chess received considerable publicity on its launch but interest in the game soon subsided. Dawson, who had earlier nailed his colours to the mast of Maack's 5x5x5 variant, dismissed Total Chess as a geometrical curiosity, likely to be relegated to oblivion. It was however revived in the early 1990s to exercise management trainees at British Aerospace. **Quadrivalent Total Chess**, a four-handed version with nine men a side, was described in Beatty's booklet *Total Chess* (May 1945) but was omitted in subsequent editions. [Dawson was a problemist and theorist rather than a player, and I think he did the game an injustice. Its rules may seem somewhat arbitrary, but like Schmittberger's game below it addresses the fundamental problems of three-dimensional chess in a way that many versions have failed to do.]

Three-Dimensional Hook-Move Chess (R. Wayne Schmittberger, 1980s). The inventor observes that proprietary 3D chess games are mostly marketed with bad rules that make mate difficult, if not impossible, 'even when you are three queens ahead'. He argues that the rules fail to take account of the differences between plane and solid geometry. This game, which might have benefitted from a less cumbersome name, is designed to overcome these problems. For example, it allows K+R to mate a bare K as in orthochess. Board 8x8x3; eight extra pawns a side; array (Aa1-h1/Ca8-h8) RNBQKBNR as usual, (Aa2-h2/Ca7-h7) 8xP, (Ba1-h1/Ba8-h8) 8xP.

Pieces always move within a single plane, either 8x8 or 8x3.

25.10 Games in more than three dimensions

Maack's Four-dimensional Chess (Ferdinand Maack, 1926 or earlier). Maack added an extra dimension to his game to create a board 4x4x4x4 which, whilst appealing to problemists, failed to recruit players. (*Chess Amateur*, December 1926)

Continuum Chess (Yes Laboratories, Suffolk, 1964). Board 9x9x15 and each piece occupies a point along a temporal axis 9 quanta long, giving 10,935 points of play. The rules are calculated to baffle, thus: 'A red king on extra space positive or a white king on extra space negative lines shall be deemed the winner unless adjacent to a minus chessman'. For the resolute there is an advanced version of the game. There appears to be no evidence that either version has been played. (Booklet *Continuum Chess*, British Library X441/255) [Text revised]

Sphinx Chess (V. R. Parton, 1970). Practical chess in the 4th dimension, played on nine 4x4 boards arranged in a 3x3 pattern. The boards are lettered a-i (arranged abc/def/ghi horizontally, thus adg/beh/cfi vertically) and the squares on each board are numbered 1 from (top left) to 16 (bottom right). Squares with the same number are known as corresponding squares. Each side has the usual complement; 1 x K, Q; 2 x R,B; 8xP and two Centaurs (modified knights). All men move as in chess within each 4x4 board, the centaura

K as normal K, or vertically to next level.

R as orthochess R, or two R moves perpendicular to each other on the same level, or one in the vertical plane and one laterally.

B similar to R move but diagonally (cannot change square colour).

Q as R+B.

N to any square two moves away, leaping if necessary, or to any adjacent square.

P as orthochess P, but can also capture one square ahead on next level up or down; cannot otherwise change level. Pawns promote on end rank (any level).

Schmittberger points out that the hook mover is an ancient piece found in some of the large shogis of medieval Japan. (*New Rules for Classic Games*)

as a knight, except that there is no pawn-two.

The moves of the pieces are straightforward. A king can move to its corresponding square on an adjacent board; thus Kh6 can move to defgi6 but not to abc6. A rook a1 moves to any of bcdg1, a bishop a1 to e1l, a queen as a combination of the two. A centaura moves as a queen between boards. A pawn moves to the corresponding square of the board directly ahead (e.g., e11-b11). Capture is by displacement, thus pawn e11 captures on a11 or c11. Array: White Kh15, Qh14, Rg14/i15, Bh13/h16, Cg15/i14, Pe13/14/15/16, g13/16, i13/16; Black Kb3, Qb2, Ra2/c3, Bb1/b4, Ca3/c2, Pa1/4, c1/4, e1/2/3/4. White pawns promote on abc/1,2,3,4 and black pawns on ghi/13,14,15,16. Perpetual check is a win. Parton also proposed a reduced version on four 2x2 boards and a variant, **Compulsion Sphinx Chess**, in which capture is obligatory and the king has no royal powers, the object being to annihilate the opposition. This is extended to **Losing Sphinx Chess**, using Compulsion rules. (*Chessical Cubism*)

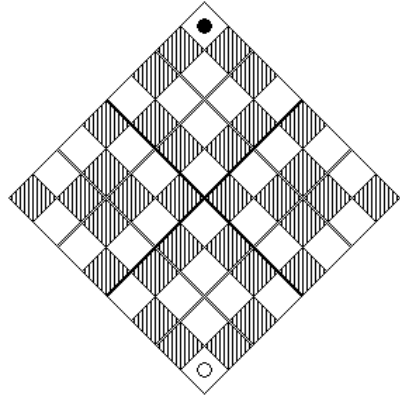
Ecila (V. R. Parton, 1970). A mind-crushing 6-dimensional variant played (?) on a 2x2x2 array of 2x2x2 cubes. The mix of pieces is agreed before play. Basically, there are three types of piece: that of the rook, the bishop (which together embrace the moves of king and queen), and the unicorn, a cubic piece moving through vertices. However, modified

pieces combining these powers are introduced, for example Narwhal (R+U), Hippogriff (a 4-dimensional beast), Wyvern (5-dimensional), these last two having no movement within a single cell. Pieces are placed on the board alternately, kings first, with the sole limitation that kings may not be placed in check. Was Parton perhaps aware of John Jenkins's masque *Cakeless*, an obscure work in which Alice Liddell is given the see-through name of Ecila? Probably not. (*Chessical Cubism*)

Lewin's Six-dimensional Chess (C. G. Lewin, 1978). Ordinary 8x8 board (!) divided into four 4x4 areas. A one-dimensional step takes a man to an orthogonally adjacent square in the same area (the top and bottom ranks within an area are considered as adjacent, as are the left and right files) or to the same square in an orthogonally adjacent area; an n -dimensional step takes a man to a square which can be reached in n one-dimensional steps but not in fewer (the occupancy of the intervening squares is ignored). Each player has 1 x King (has a 1-dimensional move), 4 x Rook (ditto), 2 x Bishop (a 2-dimensional move), 1 x Unicorn (a 3-dimensional move) in a curiously unbalanced initial array. The game is described as 'still experimental'. (*Ye Faerie Chessman*) [Text revised]

[While working on this book, I tried applying Lewin's approach to Ecila, and found it surprisingly effective. Consider an 8x8 board divided into 2x2 regions as for Grid Chess. The six one-dimensional moves from any square can now be now represented by the two orthogonal one-step moves within the 2x2 region, the two orthogonal two-step leaps within the same quarter of the board, and the two orthogonal four-step leaps. The matter can be made clearer by rechequering the board so that a one-dimensional move always takes the man to a square of different colour. In the six-dimensional board, all 64 cells are equivalent (there is no distinction between 'corner', 'edge', and 'central' cells), but each cell has an antipode which is six one-dimensional moves away, and in the case of a cell represented by a corner square on the 8x8 board the antipodean cell is at the far corner. It is therefore natural to give the players a pair of

opposite corners as home bases, and to set the board cornerwise between them. This gives



where the spots denote the home squares.

That has dealt with the geometry; what about the chess? Assume K/R/B/Q as already defined (Q = R+B, and we note that bishops are restricted to squares of a particular colour). K+R v K is hopeless (it takes K+3R to checkmate a bare K). K+Q can checkmate a bare K, but the mate cannot be forced. However, if we allow a K on its home square a double-step move, K+Q can force stalemate against a bare K, so if we count stalemate as a win we have the germ of a playable game.

If K+Q v K is a win, we can look at K+P v K. Give the pawn its natural properties (advance by a forward R move, capture by a forward B move, promote on the opponent's home square). K+P v K now turns out usually to be won if the pawn can be defended, though there are positions of reciprocal zugzwang with the pawn two steps from promotion, and if the defending king can blockade the pawn one step from promotion it always draws (because it has its two-step move and can force or keep the enemy king away from the pawn). But it would seem that a one-pawn advantage should normally be enough to win.

And a final twist: not only can K+Q force stalemate against a lone K, but so can K+B if the bishop runs on white squares (which it will if it has arisen by promotion). So we can consider doing without queens, which may be a good idea since experiment suggests that they are inconveniently powerful.

An article on the subject is scheduled for *Variant Chess* 54.]

Part 4

Regional and historical games

[We now proceed to games which developed independently of modern chess: the shatranj tradition, the xiangqi tradition, the shogi tradition, and other games which had or still have a significant regional currency. These are of course not ‘variants’ of orthochess in the normal sense of the word; indeed, in the case of shatranj, it is orthochess itself which is the variant and shatranj which is the parent game. But chess players who are interested in variants of the normal game are naturally interested also in the other forms that became established, and it is entirely appropriate that these games be covered here.

Most of the book so far has been personal and immediate: David possessed the game, or had played it, or had a copy of its rules, or had communicated with its inventor at no more than one or two removes. The present chapters are much more derivative, and there is little in them that cannot be found with more direct authority elsewhere. However, David believed he had sources for Burmese Chess, and to some extent for Indian Chess, which gave information not previously in print in the West. It will be appreciated that what appears here is a very selective account of an immensely complicated subject, and readers seeking further detail should refer to more specialized works.]

Chapter 26

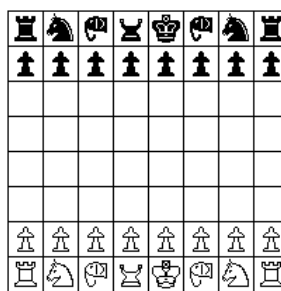
The Near East, Europe, Africa

[Although India may have been the birthplace of chess as we know it, the Near East saw its growth and development, and it is convenient to look first at the main historical thread leading from the earliest known forms of chess to our own and then at the most prominent regional variants.]

26.1 The thread leading to modern chess

Chaturanga. The seminal Indian game, considered in greater detail in chapter 29. No contemporary account appears to have survived, but as reported in Arabic sources it seems to have been essentially the same as the later Persian and Arabic game except in three respects: (1) the elephants started in the corners and jumped two squares orthogonally, (2) a player won by baring his opponent's king even if his opponent could immediately return the compliment (a rule retained by the people of Hijaz and called by them the Medinese Victory), and (3) stalemate was a win for the player stalemated. Al-Adli, as quoted by Murray: 'And this form is the form of chess which the Persians took from the Indians, and which we took from the Persians. The Persians altered some of the rules...' [Text editorial, relying on page 57 of Murray. According to a later note in Murray (page 159), the Persians used elephants on their chessboards even though it was not a native Persian animal, and it was the Persian word 'pil' which was subsequently Arabicized as 'fil'.]

Chatrang, also known as **Shatranj** (and also as the Small Chess to distinguish it from the various forms of Great Chess on larger boards, though the use of this name in the present era of minichess and microchess would surely cause confusion). Persian and Arabic names for the old form of chess, as played in the Islamic world for more than a millennium. It was replaced in Europe by the medieval game. The firzan (fers) and fil (alfil), pieces peculiar to the game, survive in several regional forms of chess. Board 8x8 uncoloured; set-up as for orthodox with firzan and fil in place of Q and B, but see (7) below; only the rules differ.



(1) The Firzan moves one square at a time, diagonally only; opposing firzans can never meet unless one of them is a promoted pawn.

(2) The Fil moves two squares diagonally, leaping the intervening square. It has access to only eight board squares. The fils cannot attack one another.

(3) Pawns move one square at a time and promote only to firzan.

(4) No castling.

(5) A player in stalemate may transpose his king with any other of his pieces so long as this does not put the king in check. The transposition counts as a move.

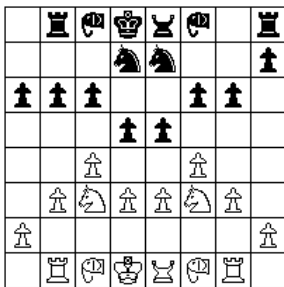
(6) Win by checkmate, delivering stalemate or depriving opponent of all his men ('bare king'); however, if a player whose king is bared can bare the opponent on the next move, the game is drawn.

(7) The K and firzan could be transposed in the initial position, but if so, the arrangement would be mandatory for both sides.

(8) Either player starts.

The game is slow and tends to be positional. Much of the skill lies in attaining positions in which the firzan and fils are active. Strong squares are those that can be controlled both by firzan and fil, weak squares those that can

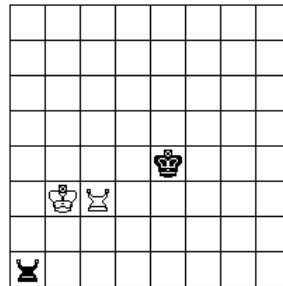
be covered by neither (there are eight of each). A fil is worth only about the same as a central pawn, the fil on the same colour as the firzan being slightly the stronger of the two. Because these pieces are weak, lessening the danger, the king can often be used as a fighting piece. The ta'bia, or battle array, was the opening stage of a game in which the players endeavoured to establish a favourable position based on the pawn formation. Often there was no collision of forces until 14 or 15 moves had been played. Ta'bias, of which Murray has a splendid collection in *A History of Chess*, had imaginative names like the Goat-peg and the Slave's Banner. The ta'bia illustrated below was one of three 'starting positions' laid down for a correspondence tournament organized by *Deutsches Wochenschach* in 1914.



The ta'bia could be played out formally. The players each made an agreed number of moves independently of the opponent, the only rule being that neither player could cross the centre line. Murray (*British Chess Magazine* 1903) gives a complete early game which, because of its swift conclusion, cannot have been typical. A match between H. Jacobs and G. A. (later Sir George) Thomas took place at the City of London Chess Club in 1914 (*The Times*, London, 5 March 1914).

The endings differ widely from those in orthodox chess because a promoted pawn cannot mate without assistance. Murray records many theoretical endings and their outcome. Checkmate was apparently rare between good players, the lesser victory of bare king being a more likely outcome, and hence it was usual for play to be directed towards this end. Even with disparate forces, draws were common due to the relative impotence of fil and firzan. The end position below, which is over a thousand years old, reflects the high degree of

skill attained at the time. The famous Muslim player as-Suli (10th century) boasted that 'no one on earth has solved it unless he was taught by me', and this was to remain true until Averbakh demonstrated the winning method in a pamphlet *The Secret of As-Souli* written for the Dubai Olympiad of 1986. Subsequent analysis by computer slightly refined Averbakh's solution, but he rediscovered everything that mattered.



To win by 'bare king', White must capture the black firzan without immediately losing his own. If he moves first, victory is swift: 1 Ka2 Kd3 2 Fb4 Kc4 3 Fa3 and the Black king cannot approach. With Black to move the play is more subtle, and the longest line runs to 20 moves by each side. Black's best defence is 1...Kd5, putting his king the same distance and direction from the White firzan as the White king is from the Black firzan. We call positions with this property 'balanced', and if White is to move they are good for Black because White cannot home in on the Black firzan; Black will play exactly the same moves to home in on the White firzan, creating a new balanced position at each turn, and will eventually be able to answer KxF with KxF. To win from such a position, White must first move *away* from the Black firzan until one of the far edges of the board prevents Black from setting up a new balanced position, after which he may be able to come back and force the win. Play therefore continues 2 Kb4! Kd6! 3 Kc4 Ke6 4 Kd4 Kf6 5 Kd5 Kf7 6 Ke5 Kg7 7 Ke6, and Averbakh played 7...Kg8 thinking that Black would do best to keep presenting White with a balanced position as long as possible. He then played 8 Kf6, which is certainly simplest although 8 Ke7 forces the win one move sooner, and after 8...Kh8 he continued with the elegant line 9 Kg6 Kg8

10 Fd2 Kf8 (10...Fb2 loses more quickly)
11 Fc1 Ke7 12-15 Kc2 Ka3 16 Kb1 and
17 Kxa1. However, the computer has shown
that Black can hold out longer by playing
7...Kf8, and the sequel is even more
instructive.

White must get back to the bottom corner
without allowing Black to set up another
balanced position, and the simplest way to
start doing so is to move to a balanced position
himself: 8 Kd6. Black, presented with a
balanced position, must move away from it,
and play continues 8...Ke8 9 Kc6 Kd8 10 Kb6
Kc8. Now 11 Ka6? would allow 11...Kc7
12 Kb5 Kd7 once more attaining a balanced
position, but 11 Kc5! leaves Black nothing
better than 11...Kd7, and after 12 Kb5 White
is back on track. Play continues 12...Kc7
13 Kc4 Kd6 14 Kb4, and with 14...Ke5 Black
tries one last throw: White cannot play the
balancing move 15 Kc3 because his firzan is
occupying this square. However, he can play
15 Ka3 forcing 15...Kd5 (so as to meet 16 Ka2
with 16...Kc4), and after 16 Kb3! we are back
at the position after Black's first move but
with Black to play. The rest is easy: 16...Kc5
(nothing else is better) 17 Fd2 Kd4 18 Kc2 K~
19 Fc1 K~ 20 Kb1 and 21 Kxa1. It is one of
the most remarkable chess endings of all time,
and there is nothing remotely like it in modern
chess.

[Treatment of the as-Suli ending revised. It
will be noted that the ta'bia illustrated assumes
kings and firzans interchanged as allowed by
rule (7). The game quoted by Murray in the
BCM was repeated as column 47 on pages
263-5 of *A History of Chess*.]

Medieval Chess. A generic term for the game
of shatranj, as played and subsequently
modified in Europe for over seven hundred
years until the introduction of the modern
game. There were many national and regional
differences introduced by reformers who
attempted to rectify flaws they perceived in
the old game, particularly as regards its slow
pace. One manuscript of the 13th century
gives the rules of 44 variants. It was during
this period that chequered boards and the
double-step of the pawn were introduced, and
the modern bishop first made its appearance
(in *Courier Chess*, described later in the
chapter).

Sets of rules called **Assizes** were drawn up
to regulate the game within a nation or region.
Murray identifies five: the Long Assize
(effectively the ordinary medieval game), the
Short Assize (pawns and pieces advanced
before the game proper begins in order to
speed up play), and the Spanish, Lombard, and
German Assizes (sundry provisions relating to
the opening privilege leap allowed to certain
men, the two-step pawn move, and the
treatment of stalemate and bare king). The
details, together with some other regional
variations, occupy him for more than a dozen
pages.

At the end of the period Lucena published
rules which included e.p. and unrestricted
promotion. The king on its first move, if never
having been checked, could jump to the third
square in any direction (from e1, to c1, c2, c3,
d3, e3, f3, g3, g2, or g1), though not across a
square commanded by a hostile piece; an
unmoved firzan could leap to the third square
orthogonally or diagonally, though not to
capture, and a newly promoted firzan could do
the same. 'Bare king' and stalemate were
considered victories, the former even if the
loser could immediately bare his opponent's
king, but they now ranked below checkmate.
However, none of these new rules was
universal.

Sadly, no record of a game has survived
from this period. [Text revised.]

New Chess. Term used here to describe the
successor to Medieval Chess from its origins
in the late 15th century until the codification
of the modern rules. Throughout this period,
national and regional rule differences
persisted. New Chess is characterized by the
increased powers of Q and B:

The Bishop black, in black must march,
And therein use his skill,
For in the white he may not come,
No man to hurt or kill.

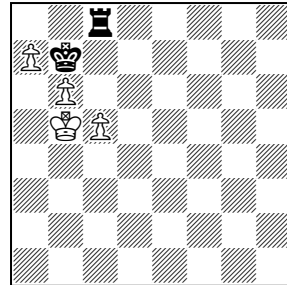
The other major change was the general
acceptance of the two-step initial advance
of the pawn. Many of the features of Medieval
Chess, such as the leap of K or firzan (now Q),
were retained for a while. Castling as we know
it had widely replaced the king's leap towards
the end of the 17th century. In Italy and

certain other countries, though not in France or Britain, the manoeuvre afforded a choice of moves. For example, White when castling K-side could choose between Kg1/Rf1, Kg1/Re1, Kh1/Rf1 and Kh1/Re1 (or even Rd1). ‘There can be no doubt’, wrote J. H. Sarratt in his *Laws of Chess* (1817), ‘of the superiority of this method of castling over ours’. Sometimes castling was performed in two moves. The rules of stalemate and pawn promotion were also diverse. There is record of stalemate being adjudged a draw in the 15th century, but in the 17th we have Barbier (after Saul) stating ‘Whosoever giveth a stale, which is when the distressed king is uncheckt, can remove nowhere but in Checke, and hath no man to stirre, looseth the game and his side’.

In the matter of promotion, practice varied widely. Salvio (1570-1640) thought that pawns should only be promoted to queens, but a century later Lolli favoured promotion to any piece previously lost. Saul concurred: ‘Whereas the bringing up of a Pawne of yours to your Adversaries first Ranke, in any of his Noble Houses (squares), is the absolute making of a Queene; yet ye shall make no Queene of that Pawne unlesse your Queene bee already lost; but you may there make it what piece you please, that already you have lost’. A common stricture was to limit a player to one queen on the board at a time on the grounds that two might seem to endorse bigamy! Amongst less popular innovations was one that a pawn could promote to a Hydra, a piece with two successive moves of a knight; another that a pawn should promote to Cadet and move to the first rank, there to wait as a replacement for the next piece lost by the player. Well into the nineteenth century it was not uncommon for both players to make consecutive moves at the start of a game. Although voices for radical change persisted throughout the period, there were few who listened.

The position in the next column is given in Alexandre’s *Collection des plus beaux problèmes d’échecs* (1846) as a win, but according to Oskar Korschelt it first appeared

in Salvio’s 1634 book *Il Puttino* as a position from play with promotion permitted only to queen and conclusion 1 c6+ Ka8 2 b7+ Kxa7 3 bxc8(Q) stalemate. Promotion to knight or bishop, had it been permitted, would have won.



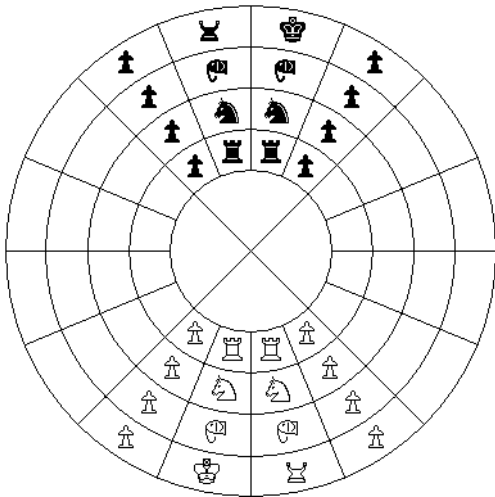
Orthochess. Term used here to describe the game whose laws are regulated by the Fédération Internationale des Échecs (FIDE) and embracing, more loosely, the same game in all essentials as played universally for the past 150 years.

[‘Orthochess’ is not of course a fixed game, and even since the publication of the first edition of this book there has been a change to the laws as promulgated by FIDE: it was decided to ignore the ever longer endgame wins being discovered by computer analysis, and to allow a player to claim a ‘fifty-move draw’ in over-the-board play irrespective of whether an eventual win could be forced with the remaining material if play was allowed to continue. Furthermore, it would appear from *Chess Life* (December 2006, page 31) that the United States Chess Federation considers itself entitled to deviate from the FIDE laws in domestic events, at least in matters of procedure, so the era of local variations is not yet over and probably never will be; in the words of the commentator, ‘If FIDE makes a bad rule, must we copy them?’ Be it also noted that the laws now include provisions for regulating certain forms of rapid-play chess, so that as far as the lawmakers are concerned these have now become mainstream forms of the game.]

26.2 Other games played in the Near East

Byzantine Chess, also known as **Circular Chess**, **Round Chess**, and **Zatrikion**. The seminal circular-board variant, with a history going back at least to the 10th century. Said to have been popular in Byzantium and to have been played at Timur's court, it was revived in the late 18th century.

The board, probably unchequered originally, has 64 cells arranged in four concentric rings of 16. The medieval game had two forms, one of which was shown in chapter 23. The pieces and pawns behaved as in shatranj, the firzans were on the same circuit and were therefore able to capture each other, and usual shatranj rules (bare king, stalemate) obtained. Pawns did not promote; two pawns of the same colour confronting each other were removed by the opponent.



In the second form, shown above, the centre was divided into four quadrants, known as citadels, and the pieces were arranged in reverse order with the kings and firzans on the outside. If the king was able to reach a quadrant he could not be captured and the game was declared drawn. Berloquin allows a king to gain sanctuary only in the opponent's quadrant, which would seem a sensible rule since a king has little difficulty in reaching the near citadel. The same source allows a piece other than a king to seek sanctuary in a citadel, which appears less plausible. (Murray, also Berloquin, *Livre des Jeux*)

[Quadrant diagram based on the description given by Murray. There may be more information in the British Library manuscript 'Cotton Lib., MS. Cleopatra, B. ix', where a diagram (I think non-quadrant) is on page 'f. 9'. Murray describes the accompanying text as 'completely erased' (page 343), but when I examined the manuscript a few years ago I found that this was misleading (or perhaps the meaning of the word has changed); it is not erased, merely obliterated, and a fair amount remains visible. Sadly, 'visible' did not mean 'intelligible', at least not to me, but if the page were to be X-rayed to bring out what lies below the obliterating lines, and the result treated by modern image-enhancement techniques, I think somebody familiar with the handwriting and languages of the period might be able to recover something. Van der Linde claimed to have read five words in Latin, but Murray could not see them and neither could I, and the rest of the manuscript is in what I take to be 13th-century Anglo-French. If somebody with the necessary linguistic knowledge were to take up the matter, I think he would find the Library authorities sympathetic.]

Talkhand's Chess (Muslim legend relating to the origin of chess). Board 10x10; the pieces included, apparently, rooks, knights, alfils and fers in addition to the king and pawns. Texts differ as to the names and moves. (Murray)

Camel Chess (Muslim, 8th century). Board 10x10; extra pieces are camels, placed in the array in the board corners. Moves not recorded. (Murray) [Name editorial]

The Complete Chess, also known as **The Full Chess**, also as **Arabic Chess** (Muslim, 9th century according to Forbes). Board 10x10; extra pieces are Dabbabas (move as K but have no royal powers), placed on either side of K and firzan. 10xP in normal position (Forbes), on 3rd and 8th ranks (Murray). Van der Linde attempted to popularize the game in the 19th century with modern Q and B moves.

Acedrex de las Diez Casas (Alfonso MS, 1283, but probably of 8th century Muslim origin). Board 10x10; the additional pieces are

two Judges (and two pawns). The move of the judge is not recorded and the only slight clue is that, in the dice version of the game (the die used having seven faces), the judge comes between the knight and the fil. (Murray)

Grande Acedrex (Alfonso MS, 1283). Origin attributed to India but Faidutti points out in *En Marge du Jeu d'Échecs* that the gryphon (see below) belongs to Arab, not Indian mythology. Board 12x12; pieces Lion (leaps to third square orthogonally), Unicorn (moves first as N but does not capture, then as modern B), Aanca (=gryphon, 'a bird so big it can lift elephants', one step diagonally then any number orthogonally), Giraffe (4-1 leaper), Crocodile (modern B), K and R normal but K may move (leap) two squares in any direction on its first turn. Pawns one-step only, promoted to file piece (to Gryphon on f-file). Array (a1-11/a12-112) RLUGCKACGULR; 12xP 4th/9th ranks.

[The first edition included a second 12x12 game with unicorns attributed to the Alfonso MS, but I have not seen a reference to this in any description of the manuscript, nor can I find a source reference in David's files. I therefore suspect that its inclusion was an error, but I record it in case information should come to light elsewhere. Board 12x12; extra pieces are 2 x Unicorn (B+N), 1 x Counsellor (K+N), 1 x Fool (K); baseline (a1-11/a12-112) RNUBFQKCBUNR. It is not clear whether Q and B have their old or their modern moves.]

Citadel Chess (14th Century?). Board 10x10 with four extra projecting squares, called citadel squares, orthogonally or diagonally adjacent to the four corner squares (the precise siting of the extra squares differs with different authorities). The citadels were sanctuaries for the kings. If a king reached an opponent's citadel, the game was drawn. Each player had two dabbabas, moving like the modern bishop, placed on either side of K and firzan, with corresponding pawns. Kings on e1/e10 but Murray quotes alternative arrangements for both kings and dabbabas. Another version (van der Linde) has two citadels on a 10x9 board, adjoining a8/j2. In an article on the Seljuks in the *Journal of the Royal Asiatic Society* (1902), the board is 12x12 with the citadels in the four corners and

the wing files vacant in the array. The extra pieces are described as lions and are placed outside the rooks. [Games of this kind were also recorded elsewhere, and this entry might alternatively have been put under 'India' or 'Central Asia'. I have placed it here because van der Linde explicitly captions his board 'Persisches Citadellenschach'.]

Persian Chess [Chatrang]. Chatrang as described above, the game as played in Persia for around a thousand years.

Oblong Chess, also known as **Persian Chess [Oblong board]**. Origins 9th century or earlier. Played in Persia and a number of Muslim countries; mentioned by al-Masudi. A 'perversion' according to Forbes. Board 4x16, pieces as in shatranj. The set-up appears to have varied considerably: Murray lists seven examples from different sources. Pawns could move two squares initially but only one in those arrays in which they were placed well forward. Promotion, if it existed, was probably to firzan, but any such rule seems academic.

Persian Chess [Camels]. Described in the *Shahnamah* (c. 1000 AD). Board 10x10; the two extra pieces are Camels which move to the second square orthogonally, leaping the intervening square. In the array they stand between the knights and elephants. (Murray)

[In my opinion, this is the game referred to as 'Attama' in the first edition, David having been misled by an incorrect statement of the camel's move in a secondary source. I have therefore removed the separate reference to that game. See Murray, page 341.]

Persian Chess [Vizier]. Described by L. Tressau (1840). The Q is replaced by a Vizier. The game must be opened by e3 with the V moving to the same square (i.e., a knight's move), after which the V moves as the fers, one square diagonally. Bishops are also those of the old game, moving two squares diagonally, leaping the intervening square unless occupied by a K, when the move is illegal. Pawns one square only, promoting to V provided the player has no other V on the board. A curiosity is that the promoted P stays on the board, sharing the V's square. No castling. (Verney)

Persian Chess [K-leap]. A mid-19th century game (*Chess Player's Chronicle* 1846) permits the king to leap once as a knight, provided it has not been checked, and also to castle (0-0 only), the rook moving directly to d1/d8. No two-square pawn move; Queens stand on right of Kings in the array; a player may only have one Q at a time; bare king loses.

Syrian Chess (c.1850). At the start of a game, each player makes a series of moves (but never with the same man twice) independent of the other. Pawns move one square only, promotion is to piece previously lost. Castling was usually performed in two moves. In the array, queens stood on left of kings. (Vincenz Grimm, quoted by Murray)

Turkish Chess. In the last three-quarter-century of Ottoman rule, and possibly for centuries before, orthochess was subject to local rules. Two rules seem to have been general: K was placed on the right of the Q in

the array, and pawns moved one square at a time. Falkener (1845) contended that the K could move once as a N (Murray quotes an Egyptian source of 1892 confirming this) and there was also some freedom in castling. Grimm (1851) said that castling was performed in two or three moves. More remarkably, at the start of the game the players rapidly redeployed their forces without regard to alternate turns, except that neither player could move a man more than once. These last modifications were endorsed by a contributor to the *Chicago Times* (1893), who added that a1 could be black or white (*British Chess Magazine*, January 1894).

Turkish Great Chess (originator unknown, 1806). Board 13x13, corner squares white (*Chess Eccentricities*); extra pieces are a Great Ferz (one step diagonally then three orthogonally, cannot leap), 2 x Rhino (B+N), 2 x Gazelle (3-1 leaper). Array (a1-m1/a13-m13) RNBRhGaGfKQGaRhBNR; 13xP on 4th/10th ranks. (Murray) [Text revised]

26.3 Other games played in Europe

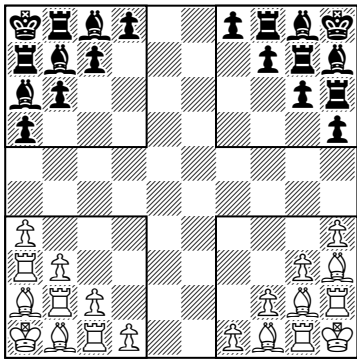
Courier Chess. Origins unknown. Probably 12th century; no record outside Germany although Selenus mentions it was played in neighbouring countries. The game survived until the start of the 19th century in the chess-playing village of Ströbeck, near Halberstadt. The first recorded great chess of European origin; possibly the game depicted in van Leyden's painting *The Chessplayers* (c.1510). Board 12x8; a1 white according to Selenus (*Schach oder Königspiel* 1616, the primary source on the game) but it seems likely that orientation was random. Extra pieces were two Couriers (couriers), one Man (counsellor) and one Schleich (spy, sneak, fool) plus four pawns; hence 24 men a side. Array (a1-11/a8-18) RNACMKFSCANR (A = fil or alfil). The Courier (believed then to be the strongest piece) moved as modern B, the Counsellor as K but without royal powers, the Spy one square orthogonally. No P-two or castling. Promotion unresolved - possibly to firzan but with move restrictions. There was a compulsory four-move start to the game: White a4, g4, l4, Fg3 (all privilege moves, not otherwise allowed in play), Black a5, g5, l5,

Fg6. (Verney, quoting Tressau, does not allow the central pawn advance, nor does he allow a pawn to capture until it has moved.)

An attempt was made to popularize the game in Germany by Albers (1821) who proposed several changes: (1) F = modern Q; (2) P = modern P (pawn-2, e.p.); (3) A = 1 or 2 squares (can leap first square); (4) Spy moves as K but without royal powers; (5) Counsellor moves as K or N; (6) P reaching 8th rank must stay there two turns before moving as promoted piece; (7) Castling permitted - K to square of A, R to square of C. Castling forbidden if any square between R and K attacked by enemy man. Courier-Spiel and Modern Courier Chess (see chapter 15) are further attempts to update the game.

Gala, also known as **The Farmers' Game**, **Peasants' Chess**, **The Peasants' Game**. Origins unknown, possibly medieval. A curious game, confined until recently to the area of Dithmarschen in Schleswig-Holstein, but now extinct. According to Bell, a few sets still exist in remote farmhouses. Board 10x10 with each 4x4 corner area surrounded by a line

called a ‘deflection line’. Each player has 20 men: 2 Galas (kings), 5 Kornas (rooks), 5 Horsas (bishops), 8 Kampas (pawns). Array :



Kings move normally except that occupation of any of the four central squares permits a king on a subsequent turn to move directly to a vacant square, though not to one of those occupied at the start of the game. Rooks and bishops move normally until they meet a deflection line, when they reverse roles. They revert to normal when again crossing a deflection line. Capture is by displacement, but a bishop cannot capture a man adjacent to it if a deflection line divides them. Pawn moves only diagonally forward until across a deflection line. If it returns to its starting line it is obliged again to move diagonally forward. The object is to capture both the opponent's kings. Check is announced by ‘Gala’. A mated king is removed from the board at the next turn. (Bell, *The Board Game Book* and *Discovering Old Board Games*, Faidutti, Koch, *Spiele für Zwei*, Alfeld, *Brettspiele*) [Research continues and Peter Michaelsen tells me that David's sources have not had the last word, but I have not updated the text.]

Korkser Chess. Derisory term for chess played to unorthodox rules, usually through ignorance. Specifically, a variety of German chess still practised in the 1870s: (1) pawn-two a matter for agreement, (2) promotion only to piece already lost, (3) a king cannot castle if it has been checked, (4) a player giving stalemate loses, (5) an attack on the queen is ineffective unless ‘Gardez la reine’ has been said, (6) it is ‘almost a law’ that the game must be begun with two simultaneous moves. (Murray) [Text revised]

Icelandic Chess. Murray declares that ‘the most extraordinary alterations in rule were those which were made by the Icelandic players’. He gives a long list of these, most of which appear to have been local. The win by bare king was widely accepted; also the king was allowed to move once as a knight. Promotion only to a lost piece or, in some parts, to the file piece. Remarkable were the different categories of mate and the rule, now long obsolete, that a player delivering mate could give further mates on successive moves provided the position changed each time. A total of nine was claimed as the maximum possible (E. Olafsson) but this would appear to be a considerable under-estimate unless what was meant was the legal limit. Fiske's *Chess in Iceland* sheds little light on the play.

Russian Chess. Term sometimes used to describe the old Russian game in which the queen had the additional powers of the knight. In the 19th century it was common practice in Russia to allow the players to make two (sometimes more) moves each at the start of a game provided no move crossed the centre line. Some Russians were still playing the old chess (queen moves one square diagonally) as late as the end of the 19th century. (Murray)

Welschen-Schach (loosely, ‘Foreign Chess’). The reformed medieval game with peculiarities similar to those found in the old Indian, Malay and Soyot games (Murray). Welschen-Schach was confined to Germany and is associated with Ströbeck (see Courier Chess above). Pieces move as in orthochess but pawns one square only except in the initial ‘privilege moves’ which are mandatory for both sides: the a, d, and h-pawns are advanced two squares and the Q is moved two squares forward. Even stranger are the promotion rules. A pawn on reaching the end rank must then move backwards, two squares at a time (called ‘joy-leaps’), to the second rank, where it is promoted. Joy-leaps require the intervening squares to be unoccupied and for this reason getting a pawn safely to the 8th by no means guarantees promotion. No castling. The English master Lewis, visiting Ströbeck early in the 19th century, played Welschen-Schach with the locals whom he found, contrary to earlier reports, weak players.

26.4 Africa

Ethiopian Chess, also known as **Senterej**. About 500 years old. A game of the nobility, still widely played at the time of the Italian invasion (mid-1930's) but now extinct according to Richard Pankhurst. Ethiopian chess is essentially the medieval game but with the addition of a preliminary phase known as 'marshalling'. Board unchequered; usual men as in the medieval game: Negus (king), Fers, Der (rooks), Saba (alfils), Feresenya (knights), Medeq (pawns). Moves as in the medieval game. King on right of fers. Pawn promotes to fers but only on prior loss of that piece (*Dictionnaire de la Langue Amarinna*, 1881) but Ras Imru (1950) states no restriction on promotion to fers, and also allows promotion to any piece previously captured. No castling. A player should ideally leave his opponent with two major pieces. If reduced to one, the opponent has only to move that piece 7 times (10 times according to Ras Imru) to claim a draw. Scale of merit for checkmate ranging from the least honourable (by rook or knight) to the most laudable (pawn). Henry Salt observed of the Tigrans (1809) 'When they have the occasion to take any one of their adversary's pieces, they strike it with great force and eagerness from its place', a practice not unknown elsewhere.

In the curious marshalling stage, players may move as often as they like and out of turn, the game proper starting only when a piece is captured (Pankhurst), but according to Plowden, a 19th century British consul quoted by Murray, only when a pawn is captured. Castling is permitted in this stage about which Plowden says '... in this consists one of the excellencies of a good player, as it frequently decides the fate of the game', adding that 'confusion appears great to a stranger'. (*Journal of Ethiopian Studies*, 1971, and *British Chess Magazine*, July 1985)

Madagascan Chess, also known as **Samantsy**. Known apparently only amongst the Tanala of the Ikongo, a forest people. Probably introduced by the Arabs with whom the Ikongo had links. Ardant du Picq (*Bulletin*

de l'Academie Malagache, 1912) gives the pieces as Hova (king), Anankova (prince=firzan), 2 x Vorona (bird=R), 2 x Basy (gun=alfil), 2 x Farasy (horse=N), 8 x Zaza (child=P). The positions of the kings and firzan are reversed in the array. The pieces move as in the medieval game; pawns promote to file piece. The article in the *British Chess Magazine* (May 1915) is a translation of du Picq. James Tattersfield (*Chess*, February 1938) has different piece names: Mpanjaka (chief=K) Foza (crab=R), Vahoaka (people=Ps) and, more importantly, different moves. Thus the knight moves two squares in any direction and the 'bishop' moves as a rook but leaps the first square of its move. However, his observations are suspect since he says that the powers of the king and queen are reversed whilst quoting the normal array. R. Decary (*Mœurs et Coutumes des Malagaches*, 1951) gives du Picq's description and adds that the game 'est exactement le jeu d'échecs' but he adds that the pieces are 'à très peu de choses près identifiés à celle des échecs'.

Algiers Chess. A leading article (*La Stratégie*, October 1902) reported that a small group, including a sheik, met regularly in Algiers to play a version of the old (medieval) game. Members were said to be keen, with others waiting to play. Unchequered board, pawns move one square and promote to lost piece only, king has right to knight's move once in a game if not checked, no castling, stalemate loss for player unable to move. Kings face queens in starting position. No mention of moves of Q or B.

Sudanese Chess. R. J. Darvall notes in *Fairy Chess Review* (October 1945) that in the Sudan two pawns may each be moved one square on the opening turn only, and that the b and g pawns are commonly so advanced by both sides.

According to Murray, there is no evidence of indigenous versions of chess in Western, Equatorial, or Southern Africa.

Chapter 27

China, Korea, Vietnam

[This chapter covers the second of the three major chess traditions, that of Xiangqi and its relatives. The most important difference between these games and our own chess lies in the presence of the cannon.]

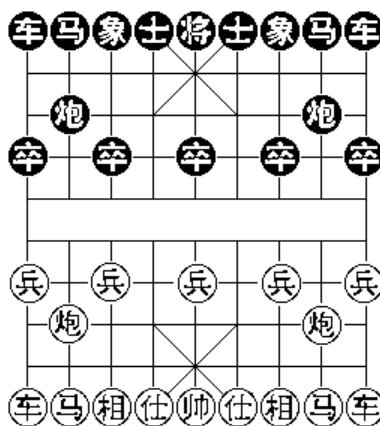
27.1 Xiangqi

Xiangqi, also known as **Chinese Chess** and sometimes called the **Elephant Game**, has been claimed as the world's most popular board game, with 200 million players according to one estimate. Origins uncertain; the first firm reference is in the 8th century, the array and rules of the modern game having evolved in the 12th century or shortly after. That xiangqi and orthochess have a common ancestor can hardly be doubted, similarities between the two games being many and remarkable. Although only one piece, the chariot, moves exactly like an orthochess piece, all men except the cannon have close parallels in orthochess or its ancestors. Xiangqi is played everywhere in China and in Chinese communities around the world. Major events in China attract thousands of spectators and get generous media coverage. Despite its long history, it is only in the last few decades that the game has been organized nationally within China, and only in recent years on an international scale. There is now a World Xiangqi Federation, which organizes a World Championship, also an Asian Xiangqi Federation as well as a number of national organizations in the U.K., the U.S., and elsewhere. A European Championship has been held for a number of years. Sets can be obtained at a range of prices from Chinese emporiums: wood or plastic sets with paper boards are remarkably cheap. Xiangqi computers and software are also available.

The game has a large literature. The first records of play and the first books date from the Ming dynasty, one of the best-known and earliest works being *Secrets inside the Orange* (1632). Modern introductory books in English are freely available, and more advanced works by leading Chinese writers are gradually being

translated. It is therefore open to Western chess enthusiasts not just to try the game, but to develop a reasonable level of proficiency.

Board 9x10 (play is on the intersection points), divided by a river and with a 3x3 'palace', marked by diagonal lines, at either end. The reason for the river is not known, but rivers are China's arteries and have commonly divided warring factions. Each player has 16 pieces, arrayed as shown below, which have historically enjoyed a variety of names: 1 x General or Governor (K), 2 x Chariot (R), Horse (H), Elephant or Minister (E), Guard, Counsellor or Mandarin (G), Cannon, Catapult or Ballista (C), 5 x Soldier (S).



Interpretation: RHEGKGEHR on ranks 1/10, cannons on ranks 3/8, soldiers on ranks 4/7.

Xiangqi pieces are normally circular discs with the ideogram for each piece embossed on one side in the appropriate colour (usually red or black, but other combinations of primary colours, such as red and blue or red and green, are by no means uncommon). The ideograms

for the chariots, cannons and horses are identical, or nearly so, for both sides, the remaining pieces being distinguished by ideogram as well as by colour.

The pieces move as follows.

General moves orthogonally, one point at a time, and is confined to the nine stations of the palace. Opposing generals cannot confront each other: if the two occupy the same file, there must be at least one man of either colour between them. The rules governing check and checkmate are the same as those of orthochess.

Guard moves one point diagonally in any direction but may not leave the palace, so the two guards are confined to just five points. They can defend each other.

Chariot moves exactly like a rook.

Horse moves as the orthochess knight except that the move is conducted in two steps, one step orthogonally and then one diagonally, and the intermediate point must be vacant.

Elephant moves two points diagonally in any direction but only if the intervening point is vacant. Elephants may not cross the river and so are confined to a total of eight points. Like guards, elephants can defend each other.

Cannon moves as a rook, but has a unique form of capture. Moving orthogonally over any number of vacant points, it must leap one man of either colour (the 'screen') to capture the first man on the same line anywhere beyond it. The cannon checks in the same manner as it captures.

27.2 Indigenous and regional variants

Indigenous variants. The earliest known version of xiangqi was on a board of 11x11 points, the array for which was reconstructed by Karl Himlay from archaeological findings. The deployment is similar to the modern game except that the cannons are on the first rank and there is only one guard (baseline RHEC-G-CEHR), the general is in the centre of the palace (point f2 for Red), and the soldiers are increased to six (a4/c4/.../k4 for Red). The horse moved three squares diagonally, the chariots could only advance, and soldiers could move sideways as well as straight forward. The game is believed to have been played during the Tang and Sung dynasties.

Soldier moves or captures straight forward, one point at a time. When across the river it still moves one point at a time but may now move horizontally in either direction as well as forward. It does not promote, and on reaching the last rank it can only move laterally.

Capture is by displacement, as in orthochess. Except for those men whose movement is restricted, any man can cross the river and enter either palace. Stalemate is a win for the player giving it. Perpetual check is not permitted: the first player must vary. There appears to be as yet no universal rule governing repetition of moves.

Xiangqi has been sold in the West under a number of proprietary names such as Commander, Elephant Chess, Neo-Panzer, etc. A game marketed in 1982 as Chinese Chess (Peter Pan Playthings) had nothing to do with xiangqi.

[Text slightly revised. David believed that xiangqi deserved more attention from Western chess enthusiasts than it had received, and in the first edition he devoted a further ten pages to what amounted to a basic introductory treatise on the game. However, the ground it could cover was inevitably limited, and good introductory material in English is now much more readily available than it was even in 1994. I have therefore decided not to repeat this, and instead to encourage readers to seek out full-length specialist books which can treat the subject in a way that not even the most generous encyclopedia can afford the space to do.]

Leventhal's quotation from Confucius (c.550-478 B.C.) that 'Chess playing is still better than doing nothing' (*Chess of China*), intimating that xiangqi in some form existed a millennium and a half earlier, strains credibility: 'Game playing' is probably a more accurate translation.

Around the 11th century, reference is made to a game on a 19x19 (weiqi?) board with 98 pieces (Dickins, *A Short History of Fairy Chess*). Other versions of xiangqi on large boards are known. One, played on a board of 11x10 points divided by a river, had the cannons between the chariots and horses and the soldiers increased to six (baseline

RCHEG-GEHCR but otherwise as in the 11x11 version above), whilst another, played unusually on the squares of an 11x11 board and dating from the 18th century, had the cannons in the corners and apparently without the customary palaces (baseline CRHEGKGEHRC, soldiers on b4/d4/.../j4). An advocate of the big-is-beautiful school once recommended that 'You may with little labour greatly augment the Chinese Chess ... By enlarging the board a little you make 18 houses more upon the banks of the river ... there will be 108 houses. Nine men on your first line, 6 on your second, 6 on your third and 9 soldiers on the fourth ... it will be an easy matter to invent peculiar names and moves for the additional pieces'.

A modern variant, strictly for gambling, and 'perhaps almost as popular as the actual game' according to Sloan in *Chinese Chess for Beginners*, is for the players to turn over the usual xiangqi pieces, shuffle them, and then place them at random on the array points. As the game progresses the pieces are revealed one by one. Predictably there is too a 'football chess' (6-a-side) played on the xiangqi board.

Korean Chess, also known as **Changgi**. Derived from xiangqi or sharing a common source, Korean Chess has features which link it to an early version of the Chinese game. It is little known outside Korea and there is very little literature, yet in 2005 it claimed 176 professional players. The first known changgi association was formed in Korea in 1956, since when players have been graded according to the dan system of weiqi (go); 14 players listed in 2005 were graded 9-dan.

The board as for xiangqi, but there is no river and it is wider in relation to its length so that the intersections on which the game is played form rectangles rather than squares. The pieces, usually green or blue and red, are the same as those of xiangqi but are octagonal in shape and are in three sizes: (large) K; (medium) R, C, H, E; (small) G, S. There are significant differences in both the movements of the pieces and the rules of play compared to those of xiangqi, but the game can perfectly well be played with a xiangqi board and men. Array as for xiangqi except that the kings are on e2/e9 and that players are at liberty, before moving, to interchange the positions of their H

and E on one or both sides of the board (some players only allow one interchange). However, a player may not have EE on one side and HH on the other. In North Korea, the initial positions of the R and E are sometimes reversed. According to Culin, it is usually advisable for the second player to copy the disposition chosen by the first player.

The pieces move as follows.

General moves one point in any direction along any marked line of the palace, to which he is confined.

Guard moves like the general and is also confined to the palace.

Chariot moves as in xiangqi, but within either palace it may also move diagonally one or two points along a marked line.

Horse as in xiangqi.

Elephant moves one point orthogonally then two points diagonally in the same general direction, i.e., to the opposite corner of a 2x3 grid, but the intervening points must be vacant.

Cannon generally like the xiangqi cannon, but must leap another man (the screen) to move as well as to capture. Within either palace a cannon can leap diagonally from one corner to the opposite corner provided the central point is occupied. However, a C can never leap another C nor capture one so, for example, it is possible to escape a cannon check by capturing the opponent's screen with a cannon.

Soldier moves and captures one point straight ahead or sideways. If within the enemy palace, it can also move one point diagonally (but forward only) along the marked lines. No promotion.

A player may pass his turn, hence no stalemate or zugzwang. The rule concerning facing generals is ill-defined. In theory, the player who in piece terms is materially weaker may face generals, directly or as the result of a capture, forcing the second player to avoid the confrontation or accept a draw. Perpetual check and repeated moves are permitted in Korean Chess but many players prefer to follow the xiangqi rules.

Because of the ease with which they can simultaneously block a file and acquire mutual protection, the soldiers have a bigger role than in xiangqi. By contrast, the cannon is weaker. Elephants can be easily blocked and are not as

formidable as they might appear. Since the cannons cannot move in the initial position, the game is normally opened with a horse or soldier move, one object being to get the cannons active quickly. Blue or Green starts. (Culin, *Korean Games*) [Text slightly revised]

Vietnamese Chess, also known as **Co-Tuong** (literally ‘Game of the Generals’). A Chinese import in most respects identical to xiangqi. Indigenous literature apart, there is a detailed discourse on the game and its background by Léon Slobodchikoff in the *Bulletin de la Société des Etudes Indochinoises* (Volume 28, number 4, 1953). The game is very popular and living chess displays used to be common during the seasonal festivals. One game, watched by ‘an immense crowd’, had a herald trumpeting the moves with two other heralds conducting the pieces to their positions. The Royal Executioner of Cochin China, armed with a sabre, expelled captured men (peacefully, one hopes) from the board (*Illustrated London News*, May 1865). At another well-attended gathering (reported in the *National Geographic Magazine*, October 1935) the pieces are represented by girls

sitting on stools holding aloft plaques indicating their rank, whilst the intersections are created by bamboo poles laid on the ground. The caption-writer regrettably identified the game as checkers.

There appear to be at least three variants. In one, the board is 10x10; 1 x General, Councillor; 2 x Cannon, Chariot, Elephant, Horse, 6 x Pawn; array (a1-j1/a10-j10) ChHECaGCoCaEHCh, (c3-h3/c8-h8) 6xP. The object is to mate the opponent’s General or to move a pawn to the 8th rank where it cannot be taken at once. Cannon moves as orthochess. Chariot moves as orthochess R but leaps to vacant square immediately beyond to capture. Horse moves as in xiangqi. Elephant is a 3-1 leaper. Councillor moves and captures 3 squares orthogonally or 2 squares diagonally, leaping intervening men if necessary. P moves and captures one square diagonally forward. An unmoved P can move 2 squares straight forward. General moves one square diagonally followed by another orthogonally. A General can check his rival. General and pawns must stay within files c-h. No castling, e.p. or pawn promotion. (Information from Lev Kisliuk)

27.3 Modern non-indigenous variants

Imperial Dragon Chess (Paul Fredrix, 1973). An attempt to boost xiangqi for western players. Rules are as for the classic game except as modified below.

(1) The horse moves as a western knight.

(2) The elephant may take one or two steps diagonally, to move or to capture. It still may not cross the river.

(3) A soldier on reaching the last rank is promoted to Dragon Elephant. The DE moves one point in any direction or two points diagonally, leaping an intervening man if necessary. A DE may cross the river.

(4) A player without pawns may move one or both elephants across the river, when they promote to DEs.

Endorsed by John McCallion, Games editor of *Games* magazine. (*Nost-algia* 349)

Minixiangqi (S. Kusumoto, 1974) Board 7x7; moves as in xiangqi, but no guards or elephants; array (a1-g1 and forwards) RCNKNCR, S-SSS-S. (*Eterosacco* 86-88)

Eurasian Chess (Fergus Duniho, 2003). Board 10x10 crossed by a river. Each player has 1 x K, Q, 2 x R, B, N, 10 x P (all as in orthochess), 2 x Cannon (as in xiangqi), 2 x Vao (as cannon but diagonally). Kings may not cross river, nor face each other along an empty vertical or diagonal line; promotion only to captured pieces. (Chess Variant Pages)

Chapter 28

Japan

[The third major chess tradition is that of the Japanese game Shogi, whose salient feature is that captured men become the property of their captors.]

28.1 Shogi

Shogi, also known as **Japanese Chess**. The ‘game of the generals’ probably arrived in Japan via Korea or Thailand sometime between the 10th and 12th centuries or possibly earlier. Although its early form is obscure, one piece of the modern game (the lance) is identical to the primitive Chinese piece (see the previous chapter), though shogi is remarkable not for its similarities to other chess games but for its differences. In particular, it is the only game in which captured pieces change sides, a 16th century innovation inspired, it is suggested, by the practice of captured mercenaries switching loyalties (in preference to an unpleasant alternative) during the internecine wars that beset Japan during that period.

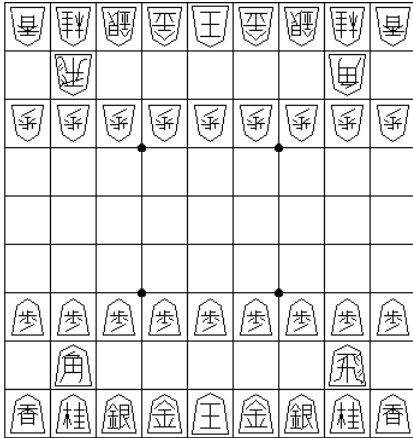
The game has been little played in the West although a number of shogi clubs and associations have been formed in U.K., Europe and America. A visit by Japanese shogi players to the Philadelphia Chess Club was reported in 1860 (*Illustrated London News*) and a few years later *The Chess World*, reprinting an article from the *Philadelphian Daily Bulletin*, recounted how, ‘on being introduced to the (Japanese) Embassy, we learned that the game (shogi) was exclusively confined to the middle and lower ranks, a striking illustration of the semi-barbarism of these islanders...’ (The arrogance is partly explained, if not excused, by the fact that Commodore Perry had sailed into Yedo Bay only 13 years previously, opening Japan to the world after 250 years of isolation.) The article went on to observe that ‘...two Japanese soldiers played the first game of Japanese chess ever played in a Christian land...’. In the opinion of Alekhine, who passed through Tokyo in 1933, ‘Japanese Chess cedes nothing in depth or beauty to the European game ... it

is at least as interesting’. Shogi flourished during the Tokugawa shogunate, lapsed briefly after the Meiji restoration (1868) but is now Japan’s most popular game with estimates of between 10 and 20 million who are familiar with the rules, of whom perhaps a million are players. The Nihon Shogi Renmei (Japan Shogi Federation), formed in 1924, regulates the game. A grading system, similar to that of weiqi (go), groups amateurs and professionals separately. Amateurs start at 15-kyu and work up to 1-kyu then to 1-dan (shodan) and upwards to 7-dan, the top grade; professionals start at about 6 kyu (roughly equivalent to amateur 3-dan) up to 9-dan. Major events, of which the Meijin title is the most prestigious, are lavishly funded and get wide press coverage. There is an extensive literature. The first international shogi tournament took place in June, 1999. It was won by Hayashi Takahiro of Japan. Players from 27 countries competed.

Shogi is a battle between two armies on an uncoloured board of 9x9 ‘squares’ (actually rectangular cells). Four of the grid intersections are emphasised to denote the respective camps and promotion zones. The marks are so sited as to divide the board into 3x3 regions. The board is placed lengthwise between the players. The pieces, of which there are 20 a side, are wedge-shaped, thicker at the base than at the head, and vary in size according to their importance. On one face is printed the black character representing the piece, and on the reverse face, where appropriate, the character (sometimes printed in red) for the same piece when promoted. On promotion a piece is turned over to show its new rank. The men are uncoloured and are identical for both sides, arbitrarily named

Black and White. The allegiance of a man is shown by the direction in which it is facing.

Each army is made up of 1 x King, Rook, Bishop, 2 x Gold General (commonly abbreviated to Gold), Silver General (Silver), Knight, Lance, 9 x Pawn.



Interpretation: LNSGKGSNL on ranks 1/9, BR on ranks 2/8 (each player's bishop on his left), 9xS on ranks 3/7.

The pieces move as follows.

King as an orthochess K.

Rook as an orthochess R.

Bishop as an orthochess B.

Gold General one square at a time as a K but not diagonally backwards, i.e. in any of six directions.

Silver General one square at a time as a K but not sideways or straight back, i.e. in any of five directions.

Knight as in orthochess but only forwards to an adjacent file, i.e. a choice of two moves at most.

Lance straight ahead as a R, but not sideways or backwards.

Pawn one square straight ahead only.

Capture is by displacement and all pieces, including the pawn, capture in the same manner as they move.

All pieces except King and Gold can promote. The promotion zone is made up of the three ranks occupied by the opponent at the start of the game as indicated by the board markers. Promotion can take place on the completion of any move or capture in which the piece crosses into, moves within, or leaves the promotion zone. Promotion is only

compulsory in the case of an L or P reaching the last rank, or of a N reaching either of the last two ranks, since without promotion the piece concerned would then be permanently immobile (a N can reach the penultimate rank as the result of an earlier drop, as described below). Pieces promote as follows.

Rook to Dragon King, when it acquires the additional power of moving one square as a B.

Bishop to Dragon Horse, when it acquires the additional power of moving one square as a R.

Silver, Knight, Lance, and Pawn all to Gold General.

A captured piece (described as a piece 'in hand') belongs to the player who captured it. It assumes its unpromoted rank and is placed in a 'reserve base' beside the player who can then enter it on the board as part of his army at any time instead of making a move. A piece can be dropped in any vacant cell but with certain restrictions.

(1) A piece dropped in the promotion zone cannot immediately be promoted; it may however be promoted on its next move.

(2) A pawn may not be dropped on a file on which the player already has an unpromoted pawn.

(3) A pawn may not be dropped to give checkmate, though it may be dropped to give check.

(4) A knight, lance or pawn may not be dropped on a square where it is rendered permanently immobile (last rank for L or P, last two ranks for N), though it may be dropped on a square it could not otherwise reach.

The object of the game is to capture the opponent's king and the rules governing check and checkmate parallel those of orthochess with one small difference: moving the king into check is not illegal though its capture ends the game. There is no castling as such. Draws, although rare, can occur (about 1% of all games). The rule governing repetition of moves and position is still in dispute. At present, a position which has been repeated four times, with the same pieces in hand and the same player to move, is a draw. Perpetual check is forbidden: the checking player must alter. If both players move their kings into the opposing camp, or can be assured of doing so, and there is no prospect of a checkmate - a

most unlikely event - the game is adjudged an 'impasse'. The pieces of each side, both in play and in hand, are counted: 5 points for a major piece (R, B) and 1 point for all other men, the K not counting. If both players have 24 points or more the game is a draw, otherwise the player with less than 24 points loses. An illegal move loses at once, even if discovered after play has continued. 'Touch and move' is not enforced. Shogi, like weiqi, has an attractive etiquette. Cho-Yo, in his egregious but entertaining work *Japanese*

Chess, advises 'Never violate etiquette even though while playing with an enemy'.

Shogi sets are readily available in the west. Computers and software are also available.

[Text slightly revised. As with xiangqi, David proceeded in the first edition to devote several more pages to what was effectively a basic introductory treatise on the game, and again I have decided to not to repeat this but instead to encourage readers to seek out one of the full-length introductory books which are available.]

28.2 Historical shogi variants

It is only in recent years that serious research has been undertaken into the precursors of modern shogi. Fragmentary evidence has suggested that the seminal game or games may date back as far as the 8th century and that a small and large (13x13) shogi, both without R and B, existed at the same time. Several of the large variants (boards greater than 9x9) were never widely played and some may not even have been played at all. One game which was and still is played is Chu Shogi, whilst Tori Shogi has a small but enthusiastic following in the West. George Hodges of the Shogi Association was instrumental in unearthing and evaluating documents on these early games and making his and Japanese researches available to western readers through the Association magazine *Shogi* and in monographs. In all historical variants, the boards are uncoloured as are the pieces which are wedge-shaped, as in shogi, with promoted values, where applicable, on the reverse. The two sides are notionally Black and White, Black starting and playing down the board. Many of the piece names are open to alternative transliterations. For example, Ferocious Leopard is sometimes rendered as Horrible Panther. Where names are given, Shogi Association nomenclature is used. A modern variant has one player with a lone king which has the power of the Lion in Chu Shogi, whilst the opponent (who should win) has a full complement of pieces plus an extra R and B in hand. The Shogi Association has marketed sets for several of these variants. [Where no other provenance is given, information in this section is based on Shogi Association monographs.]

Heian Dai Shogi. An early form of large shogi dating from about the 12th century. The array, which is symmetrical about the centre file, has been reconstructed with some confidence, but the moves of the pieces are not firmly established. Board 13x13; 34 men a side, 1 x King, Go-Between, Side-Mover; 2 x Copper, Gold, Iron, Silver General, Lance, Knight, Free Chariot, Flying Dragon, Fierce Tiger; 13 x Pawn (*Shogi*, September 1980).

Chu Shogi, also known as **Middle Shogi**. Origins unknown but popular in the 14th and 15th centuries and the only large shogi to have survived to the present day; now with a small but ardent following in the West as well as in Japan. Reckoned by many to be the best of all large chess games. Early sources on the game are not conclusive; ideograms, nomenclature and rules given here are those approved by the Shogi Association. The game is described in a monograph, and is discussed in some depth by R. Wayne Schmittberger in a series of articles in *Shogi*. Board 12x12 uncoloured, 46 men a side: 1 x Drunk Elephant (DE), Free King (FK), King (K), Kylin (Ky), Lion (Ln), Phoenix (Ph); 2 x Bishop (B), Blind Tiger (BT), Copper General (C), Dragon Horse (DH), Dragon King (DK), Ferocious Leopard (FL), Go-Between (GB), Gold General (G), Lance (L), Reverse Chariot (RC), Rook (R), Side Mover (SM), Silver General (S), Vertical Mover (VM); 12 x Pawn (P). The moves of these pieces are as follows.

Bishop moves and promotes as in shogi.

Blind Tiger moves as K but not straight ahead. Promotes to Flying Stag (moves as K, or as R on file only).

Copper General moves as Gold, but not sideways. Promotes to SM.

Dragon Horse moves as B or one square orthogonally. Promotes to Horned Falcon (moves as FK except straight ahead, when it moves one or two squares as Ln).

Dragon King moves as R or one square diagonally. Promotes to Soaring Eagle (moves as FK except diagonally forward, when it moves one or two squares as Ln).

Drunk Elephant moves as K but not straight back. Promotes to Crown Prince (moves as K).

Ferocious Leopard moves as K but not sideways. Promotes to B.

Free King moves as orthochess Q. Does not promote.

Go-Between moves one square straight forward or back. Promotes to DE.

Gold General moves as in shogi. Promotes to R (unlike shogi Gold).

King moves as in shogi, does not promote.

Kylin moves one square diagonally or two squares orthogonally, leaping intervening square. Promotes to Ln.

Lance moves as in shogi. Promotes to White Horse (moves as FK in the three forward directions and straight back only).

Lion moves one or two squares, changing direction or leaping the intervening square if desired. It may move one square and return to its start square. It captures as it moves, and may therefore take two pieces in a single move or capture on an adjacent square without in effect moving. A lion may capture an opposing lion that is two squares away but only if it is unguarded. It may take an adjacent lion without restriction. It does not promote.

Pawn moves and promotes as in shogi.

Phoenix moves one square orthogonally or two squares diagonally, leaping intervening square. Promotes to FK.

Reverse Chariot moves as R but on file only. Promotes to Whale (as FK but straight ahead and in the three backward directions only).

Rook moves and promotes as in shogi.

Side Mover moves one square straight forward or back, or as R along rank only. Promotes to Free Boar (as FK but not on file).

Silver General moves as in shogi. Promotes to VM.

Vertical Mover moves one square sideways, or as R on file only. Promotes to Flying Ox (as

FK but not sideways).

Array for White (Black men diametrically opposite, king on g12):

```

- - - GB - - - - GB - - -
P P P P P P P P P P P P
SMVM R DHDK Ln FKDKDH R VMMS
RC - B - BT Ky Ph BT - B - RC
L FL C S G K DE G S C FL L

```

The complexity presented by the array is to some extent illusory. There are basically only three types of piece: (1) Step-movers; (2) Line-movers; (3) Leapers. The step-movers, of which there are nine, move one square as a K or restricted K and are mostly on the first rank; the line-movers, also nine in number, move freely down one or more unobstructed lines; and there are three leapers: the lion, the kylin and the phoenix, the last two complementing each other. Curiously, there is no knight.

Promotion is on any square of the opponent's four first ranks and is optional. No piece may promote twice. For example, a B promotes to DH and an unpromoted DH promotes to HF but a B can never promote to HF. There are no drops as in shogi; captured pieces are removed from play. The object of the game is to capture the opponent's K or all his pieces except the K. If the opponent has promoted his DE to CP, however, the CP as well as the K must be captured. Perpetual check is illegal. There are one or two minor rules in addition. Black starts and plays down the board as in other shogi games. The average game runs to about 160 moves.

The lion is the strongest piece on the board and is the standard-bearer of the attack against the enemy king. As in shogi, it is normal to keep two or three step-movers in proximity to the K to protect it. Schmittberger submits, perhaps surprisingly in view of the large forces engaged, that the loss of a single tempo can be serious. He also argues that sacrificing material to achieve a breakthrough, a common strategy in shogi itself, is rarely advisable. Relative values are hard to determine since much will depend on how near a piece stands to promotion. Consider the SM and the VM whose moves complement each other. A VM can reach a promotion square in a single move from the array position but a SM needs at least six moves to do so.

Dai Shogi (Great Shogi); about 15th century. Board 15x15; 65 men a side. The pieces and their promotions are identical to those of Chu Shogi but with eight additional pieces. However, there may be no other connection between the two games, and no early game scores of Dai Shogi have survived. The additional pieces are Angry Boar (moves one square orthogonally), Cat-Sword (one square diagonally), Evil Wolf (as Gold General but not backwards), Flying Dragon (one or two squares diagonally), Iron General (one square straight or diagonally ahead), Knight (as in shogi), Stone General (one square diagonally ahead), and Violent Ox (one or two squares orthogonally). Cat-Sword promotes to Free Demon (up to five squares vertically, otherwise as orthochess Q), Flying Dragon to Square Mover (as R or one square diagonally ahead), Iron General to Free Iron (any distance straight or diagonally ahead), Stone General to Free Stone (any distance diagonally ahead), others to Gold General. The array has many similarities with that of Chu Shogi.

Dai-Dai Shogi (Great-Great Shogi); late 16th century, perhaps earlier. Board 17x17; 96 men a side of which 64 different. These include the interesting Hook Mover which moves as a R but changes direction at right angles unless it makes a capture on the first leg. The HM also appears in Maka-Dai-Dai Shogi and Tai Shogi. The Long-Nosed Goblin moves like the HM but also as a B, and can also move one square orthogonally. The LNG also appears in Tai Shogi; and in Maka-Dai-Dai Shogi as a Capricorn, a LNG without the one-step orthogonal option. As with other large shogis, promotion is by capture and is then mandatory. There are no drops, captured pieces being removed from play. The Shogi Association monograph on the game gives the score of a 256-move encounter.

Maka-Dai-Dai Shogi (Super-Great-Great Shogi). Late 16th century, perhaps earlier. Board 19x19; 96 men a side, the same as in Dai-Dai Shogi, but there are only 50 different pieces. Hodges suspects that the game was invented by Buddhist monks in order to play shogi on a weiqi (go) board. Certainly one or two pieces, like the Drunk Elephant, have Buddhist links. All pieces promote except the

Free King (moves like orthochess Q), Dragon Horse, and Dragon King (which are promoted pieces in shogi anyway). The King, whose capture is the aim of the game, promotes to Emperor and can then move to any square on the board. The promotion of a piece takes place immediately it makes a capture. There are no drops, captured pieces being removed from play.

Ko Shogi (Wide Shogi), attributed to Ogi Serai (1666-1728). A go board (19x19 intersections) is used with 90 pieces a side. These are go stones, white pieces are depicted in black on white stones and vice versa. Most pieces promote but there is no re-entering of captured pieces. (*Variant Chess* 44/47, the latter citing a book *Sekai no Shogi*)

Tai Shogi (Grand Shogi). About 16th century. Claimed as the world's largest chess game, 'invented by some recreational megalomaniac' in Trevor Leggett's words. (Larger shogi variants have been hinted at but only Tai-Kyoku Shogi below has been even partially confirmed.) Board 25x25; 177 men a side. There are over 100 different pieces if one includes promoted pieces (93 in the array); a mixture of humans, animals, birds and mythical creatures, mostly short-stepping. A game can run to 1,000-2,000 moves, yet according to Wayne Schmittberger a single pawn lost can prove fatal, a judgment that no one will be in a hurry to dispute. In common with other big shogis, promotion is by capture and not by movement within the opponent's base area, and there are no drops; captured pieces are removed from play. Otherwise the rules closely follow those of shogi. The aim is to capture the Emperor (which can move anywhere on the board) and the Crown Prince (which moves like a K).

Tai-Kyoku Shogi (Ultra Grand Shogi). A game on a 36x36 board, with 402 men a side, is mentioned in an old text, but only the array is known with any certainty. [Text editorial, from a monograph produced by the Shogi Association]

Tenjiku Shogi (Exotic Shogi) dates back several centuries and is a development of Chu Shogi. No scores have survived and it is

possible that the game was never seriously played. Board 16x16; 76 men a side of which 36 different (45 including promoted pieces). The object, as with all shogis, is to capture the opponent's K; but it is also necessary to capture another piece, the Drunk Elephant, if it has been promoted. Promotion is earned by a move partly or wholly within the five ranks furthest from the player, and is optional unless the piece would otherwise be rendered permanently immobile. In this respect the game follows shogi but there are no drops, captured pieces being removed from play. Tenjiku is not related to the other large shogis although the games have a number of pieces in common. A complex piece, the Lion, for example, is found in all the large shogis as well as in Chu Shogi. Unique to Tenjiku amongst the shogis is the Fire Demon that destroys all hostile pieces adjacent to it. Each side has a number of powerful pieces in addition to the Fire Demons, and this ensures lively opening play, a feature rarely found in large chess games.

Wa Shogi. Seventeenth century or earlier. Board 11x11; 27 pieces a side, all named after birds or animals. Normal shogi rules although no good evidence whether or not drops permitted. The Shogi Association recommends no drops (captured piece removed from play), Wayne Schmittberger favours drops. Object is to mate the Crane-King (moves as K). There are 11 Sparrow Pawns a side which exactly parallel the shogi pawn, promoting to Golden Bird (Gold General). Including promotions, there are 25 different pieces, a few corresponding to shogi pieces (Oxcart = Lance, Violent Stage = Silver General, Violent Wolf = Gold General, Gliding Swallow = Rook).

Tori Shogi (Bird Shogi); inventor uncertain, perhaps Ohashi Soei (1799) or Toyota Genryu (1828). The game has a small following to-day in Japan and in the West. Board 7x7; the pieces are all birds of which there are 16 a side: 1 x Phoenix, Falcon, Left Quail, Right Quail; 2 x Crane, Pheasant; 8 x Swallow.

Their moves are as follows.

Phoenix as shogi K.

Crane as K, but not sideways.

Falcon as K, but not straight back.

Pheasant one square diagonally backwards or two squares straight ahead, leaping intervening square.

Quail any number of squares straight ahead or diagonally backwards to the left, or one square diagonally backwards to the right (right quail); backward movements reversed (left quail).

Swallow one square straight ahead, as shogi P.

Capture is by displacement. Falcon and swallow promote if they move wholly or partly within the opponent's first two ranks. Promotion is compulsory. A falcon promotes to Eagle which can move (1) over any distance diagonally forward or straight back, or (2) one square sideways or straight ahead, or (3) one or two squares diagonally backwards (no leap). A swallow promotes to Goose: two squares diagonally forward or two squares straight back, leaping the intervening square. Tori Shogi is played with drops according to normal shogi rules. A swallow cannot be dropped (1) to give checkmate, nor (2) on the end rank, nor (3) on a file on which a player has two unpromoted swallows. Where the same position is repeated three times (same pieces in hand, same turn to play) the player starting the sequence must vary. The object of the game is to capture the opponent's phoenix. White baseline LPsCPxCPsR with F on d2 and 8xS on a3-g3 and e4, Black reflected in the board centre (so each side has a swallow on the fourth rank). The quails are distinguished only by characters 'left' and 'right' on their undersides.

Cho-Sen Chess, also known as **Choson Chess**. A game described in outline in a novel *The Jacket* by Jack London (1915, reprinted in 1963 as *Star Rover*), presumed to have been seen by the writer during his travels, and apparently either shogi or a variant thereof. For a discussion of the issues, see *Variant Chess* 40, page 126. [Text editorial]

28.3 Modern variants using the normal board

An-nan Shogi, also known as **Korean Shogi** (origins unclear). A piece moves in the manner of the friendly piece immediately behind it. If none, it moves normally. Can also be played with a piece moving in the manner of any friendly piece guarding it. The diversion is popular in Japan. (*Shogi* 68)

Kilyow (Japanese: The Dominion Game). Origins unclear. Play and array as for shogi with new piece names. Some additional rules: Lance can move along the rank on the first move only, Silver can advance two squares, Pawn is as in orthochess. Complex promotion rules. [The only source material now in David's Encyclopedia files is a photocopy of a single page from an unidentified Japanese book, but I imagine he must have had more.]

Small Shogi (John Gollon, 1960s). A curiously named variant. Set-up as for shogi with addition of Drunk Elephant in front of the K (e2/e8) and two Ferocious Leopards in front of the Silvers (c2,g2/c8,g8). DE and FL move as in Chu Shogi. (*Nost-algia* 369)

Quasi-Shogi (Nort Black, 1970). Usual shogi set-up but rooks and bishops have powers of their promoted equivalents (R+K and B+K respectively) putting a premium on attack. (Manuscript note presumably deriving from personal communication)

Unashogi (Edward Jackman, 1994). As shogi except (1) Board starts empty; each player has usual 20 men in reserve; (2) On his turn, the player can either drop a piece or move a piece. No capture or promotion until a player's K is on the board. (Inventor's rule sheet)

Hand Shogi (John W. Brown, 1997). Usual board but each side has 19 men: 1 x King, Hasty, Onager, Pard, Shogun, Tycoon, 2 x Gold General, Half Knight, Lance, Silver General, 5 x Soldier. King, Lance and Generals move as in shogi, Soldier as in Korean Chess (not more than one soldier of both sides on same file). Other moves: Hasty moves to second diagonal square; Onager

moves to second orthogonal square; Pard leaps two squares in any direction; Shogun moves up to three squares as orthochess R; Tycoon moves up to three squares as orthochess B; Half Knight moves as orthochess N but only in a forward direction. White array Ke1, Pe2, GGc1/g1, Sc2/g2/d3/e3/f3, Black similarly, all other pieces in hand at start of game. Hasty and Onager are 'assassins' and may only be dropped to give check. Half Knights may not be dropped beyond the 6th rank, promote to GG on end rank. On turn, move on board or drop a piece in hand. Captured pieces added to hand as in shogi. A game is called a hand. Players alternate colours. First player to win two hands in a row is the victor. (*Meta-Chess*)

Cannon Shogi (Peter Michaelsen, 1998) Usual board and men (five pawns only) plus Gold, Silver, Copper, and Iron Cannons. GC moves as R but can capture only if there is a piece between it and its target (so it moves and captures as the xiangqi cannon). SC the same except that it needs a screening piece to move as well as to capture (so it has the basic move of the Korean cannon). CC and IC the same but diagonally. Cannons promote to Flying Cannons which can leap one piece while moving; additionally, FGC and FSC can move one square diagonally and move or capture two squares diagonally by leaping an adjacent piece, and FCC and FIC can do the same orthogonally. Normal shogi array except that there are no pawns on the b/d/f/h files; cannons on c2-g2/g8-c8, SG-IC. (*Nost-algia* 376, *Eterosacco* 86-88) [Text editorial]

Miburishogi (origins not recorded). First player to check three times wins. (*Eterosacco* 86-88)

Kamikaze Mortal Shogi (Fergus Duniho and Roberto Lavieri, 2003). Normal setup. Pawns, Lances, Knights and Silvers may promote to Gold or any rank below; captured pieces are demoted one rank. A captured P returns to the board as a Kamikaze and is removed from play if captured or capturing. (Chess Variant Pages)

28.4 Modern variants using smaller square or rectangular boards

Minishogi. Origins unknown; discovered by Shigeo Kusumoto c.1970. Board 5x5; players have one each of King, Rook, Bishop, Gold, Silver, Pawn. Promotion is on end rank. Baseline (a1-e1/e5-a5) KGSBR, pawns on a2/e4. First player is decided by tossing a pawn. (*Schach Magazin*, August 1990).

Kyoto Shogi (originator unknown, 1976). Board 5x5, five pieces per side; each piece apart from the king represents two different men according to which side is face up: Lance/Tokin (promoted P, moves as Gold), Bishop/Silver, Gold/Knight, Rook/Pawn. Array (a1-e1/e5-a5) PGKSR. Every time a piece is moved it is reversed. Rules are as in shogi except that there is no promotion, and a piece in hand can be dropped either way up. Despite the deceptive simplicity of Kyoto Shogi, games can develop into violent and unpredictable tussles. An hexagonal version was published by Jochen Drechsler in 2000. (*Abstract Games* 1, with additional material deriving from sources not recorded)

Five-Minute Poppy Shogi, also known as **Microshogi** (attributed to Oyama Yasuharu, see below). Board 4x5; five pieces per side; as with Kyoto Shogi, each piece apart from the king represents two different men according to which side is face up, though the pairings are different: Bishop/Tokin, Gold/Rook, Silver/Lance, Pawn/Knight. Baseline (a1-d1/d5-a5) SGBK, pawns on d2/a4. Play as in shogi except that when a piece other than a K makes a capture it is reversed (this is a difference from Kyoto Shogi, where reversal occurs after every move). A captured piece may be re-entered either side up, and the normal restrictions on pawn drops (not on a file with an unpromoted pawn, not to give mate) do not apply. (Document 'Microshogi' by Kerry Handscomb) [In *Variant Chess* 21, David describes this as a 'commercial' variant, but I am not so sure. From the source document: 'During a meeting in Tokyo in 1989, my host [...] showed me a very small shogi variant that his company had been using in a sales promotion. We played a couple of games and he showed me an article about this game that was written by the great shogi

player Oyama Yasuharu, who, I assume, was the inventor. After the meeting, my host presented me with the wooden set we had been using.' Perhaps the company was exploiting an existing game, perhaps it had invented the game or procured its invention, but the fact that a leading player thought it worth an article speaks for itself. And far be it from me to discourage companies from handing out good games as sales promotions.]

Gorogoro Shogi (Shogi to idle the time away). Origins unclear, reported in 1994. Board 5x6; each side has 1 x K, 2 x Gold, Silver, 3 x P. Baseline SGKGS, 3xP on b3-d3/4-d4. Promotion on last two ranks, other rules as for shogi. (Personal communication, also photocopy of page 5 of an unidentified Japanese shogi magazine)

Whale Shogi (R. Wayne Schmittberger, 1981). Board 6x6; 13 men a side (12 in the array) representing species of whale. Each player has 1 x White whale (W, royal piece, moves as orthochess king), Blue (B, one square forward straight or diagonally, or one square straight back), Grey (G, forward like a rook, backward like a bishop), Humpback (H, one square diagonally or one square straight back), Killer (K, as rook, or one square diagonally), Narwhal (N, one square sideways, or one straight back, or two squares straight ahead leaping if necessary), Porpoise (P, one square sideways), 6 x Dolphin (D, one square straight ahead, on reaching end rank it moves once like a bishop then reverts to D); array (a1-f1/f6-a6 and inwards) HGWPNB (royal pieces on c1/d6), 6xD (K not in the array). Captured pieces other than P change sides and can be dropped on any vacant square instead of a normal move; A captured P is removed permanently from play, and the capturing player can drop a K in its place. A D may not be dropped on the last rank, nor to checkmate, nor on a file on which the player has two or more Ds. Object of the game is to capture (checkmate) the white whale. (*Nostalgia* 355)

Yari Shogi (Christiaan Freeling, 1981). Board 7x9; 14 men a side, 1 x K, 2 x R, N, B, 7 x P. K as in orthochess. R as shogi (or orthochess)

R but not backwards; promotes to normal shogi R. B as shogi lance, or one step diagonally forwards; N as shogi N+L; both promote to Gold, which moves as shogi gold or as R backwards. Pawn as shogi, except that it may be dropped to give mate; promotes to Silver, which one step straight or diagonally forwards or as R backwards. Baseline (a1-g1/g9-a9) RBBKNNR, 7xP on ranks 3/7; promotion zone covers last three ranks. Three-fold repetition of position is illegal, stalemate is a draw. (Inventor's rules pamphlet)

Judkins's Shogi (Paul Judkins, 1996). Board 6x6, 7 men per side; baseline (a1-f1/f6-a6) KGSNBR, pawns on a2/f5. Promotion zone is last two ranks. (*Eterosacco* 75)

28.5 Variants using non-rectangular boards

Trishogi (George Dekle Sr, 1987). Board 9x10 interlocked triangles (a1/c1/e1/g1/i1 apex towards player, b1/d1/f1/g1 base towards player). Except for board configuration, the game is identical to shogi, including the array. Rs and Bs have six directions of movement whilst moves of Gold and Silver vary slightly according to the orientation of the triangle occupied (apex towards player, G has 10 possible moves; base towards player, 8 moves; S moves also vary but both orientations give 8 possible moves). (Inventor's rules pamphlet)

Hexshogi (George Dekle Sr, 1986). Shogi on a board consisting of 85 hexagonal cells (nine files, lengths 9 and 10 alternately). K, R, B as in Glinski's hexagonal chess (see chapter 22), N as Glinski but only in the two directions closest to straight forward, Gold one step as R or one forward as B, Silver one step as B or one directly forward as R, L and P as in normal shogi. Promotion on the last three cells of each file. Array basically as shogi, a piece on the bottom cell of each file and a pawn on the third cell up, but the bishops and rooks are brought in from the b/h files to the c/g files.

If an impasse is reached, the game is ended and a piece count takes place. Kings count zero, rooks and bishops whether on board or in hand, 5 points; all other men 1 point. If both players have at least 24 points the game is drawn; if one player has less than 24 points he loses. (Inventor's rules pamphlet)

Cubic Shogi (Vladimir Pribylinec, 2000 and later). Board 7x8; each side has 14 cubic pieces with chess symbols on some or all of their faces. KRBP move as in shogi, N as in orthochess, Q as in orthochess but one or two squares only. NQKBN on b1-f1/f8-b8, B on a2/g7, R on g2/a7, 7xP on ranks 3/6. A unit that reaches the last two ranks promotes, P to B/N to R. Captured pieces can be dropped back in the game as in shogi but a pawn may not be dropped on a file on which the player already has a pawn (again as in shogi). Pieces retain their rank on capture. An alternative version has board 8x8 with NBQKBN on b1-g1, RR on b2/g2, 8xP on rank 3, Black mirroring on the file as in chess. (Inventor's rules pamphlets) [Text revised]

Masonic Shogi (George Dekle Sr, 1987). 9x9 board staggered as for Masonic Chess (see chapter 23), usual shogi array. R, B, K as in Masonic Chess. Knight as Masonic Chess N but only forward to second rank (four options). Lance straight forward on 'file' (in other words, wiggling parallel to the staggered edge of the board, so the L move and the forward R moves are different). Pawn one step forward on file. Gold one step as R, or one step forward as B (eight options). Silver one step as B, or one step forward as R (six options). Normal shogi promotions and drops (promoted R and B add K move). (Author's rules pamphlet) [Text revised. There seems to be a discrepancy between the explanation of the knight move and the accompanying diagram, and we have followed the diagram.]

Spherical Shogi (George Dekle Sr, 1988). The board is imagined to be superimposed on a sphere, the files being meridians and the pieces being able to cross the poles. Board 10x9; baseline (a1-j1/a9-j9, orthodox shogi pieces) SLNSGKGSNL, bishops on c2/i8, rooks i2/c8, 10 pawns on 3rd/6th ranks. Rooks cross to opposite meridian; bishops emerge one square removed from opposite meridian but travelling in other direction; knights better described with examples: Ne8 re-enters a9 or i9 while Nc9 re-enters g8 or i8. Any move that leaves the position unchanged is illegal. All other rules as shogi. (*World Game Review* 10)

Space Shogi (George Dekle Sr, 1987). Board 9x9x9. In the array, one side occupies bottom three boards, the other the top three. First-rank pieces on boards 1/9, ranks 1/9, usual layout

except silvers between knights and lances. Rooks and bishops in usual positions on boards 2/8, ranks 2/8; pawns on boards 3/6, ranks 3/6. (*World Game Review* 10)

28.6 Combination games

Blind Shogi (origins unclear). A potent blend of shogi and Kriegspiel. The position of the king is always known. The umpire announces a check without further elaboration and also any king move. When a man is taken it is passed by the umpire to the player making the capture who puts it in his reserve base. Opponent's pieces are not manipulated as they are in Kriegspiel. [Source material apparently missing from David's Encyclopedia files]

Kohl's Game (Herbert Kohl, 1974). A chess-shogi hybrid. Board 5x7; three central squares (b4/c4/d4) marked. Each side has 1xK, 2xR, B, 5xP; baseline (a1-e1/a7-e7) RBKBR. A

captured man belongs to the player making the capture and may be entered at any time on an empty square instead of moving. Bishops optionally promote to rooks when alighting on a marked square; revert to B when captured. No pawn promotion. (*Chess 'n Stuff*, February 1983)

WWII Chess (Edward Jackman, 1995). Board 9x9; White has shogi men in usual array; Black has orthochess men ditto (a8/a9 vacant). Each side plays according to its usual rules. Obviously biased, but in whose favour? 'A really silly game' according to its inventor. (Inventor's rule sheet)

Chapter 29

India and the rest of Asia

[This final chapter on regional and historical variants considers Asian games outside the xiangqi and shogi traditions. Be it noted that while most of these four chapters merely summarize material that is available elsewhere, with Burmese Chess and to some extent with Indian Chess David believed he was tapping sources which had not hitherto contributed to Western chess literature.]

29.1 Indian chess on the 8x8 board

Indian Chess. ‘There is no Indian game of chess. Rather there are three, and the two most played have varying rules. Some play European chess some the ancient four-handed game and a few Great Chess.’ Thus W. S. Branch (*Chess Amateur*, July 1917). Murray, too, recognizes three main games which he calls Hindustani, Parsi (S. India) and Rumi (N.W. India). Modern historians are less dogmatic. A. Goswami observes that ‘The indigenous chess is played in this country in a variety of ways and styles...’ (*Bulletin of the Correspondence Chess Association of India*, December 1988), and V. D. Pandit says ‘The rules (of the Indian game) were not uniform, but varied from place to place and time to time’ (correspondence, 1989). The weak Q and B, a hangover from the ancient game, survived in S. India into the 20th century (Rama Patler and G. H. B. Jackson, *Chess Amateur*, May 1918), although Murray stated that it had long died out. It is not surprising, in this vast sub-continent of many races and languages and lacking any central authority for indigenous games, that rules have not been codified. Whilst the influence of orthochess has long been apparent in Indian variants, there has been little outside interest in these games. An English officer observed that there were three kinds of chess in India ‘two of them more complex than the game played in Europe’, clearly a local observation embracing versions of Great Chess (*Memoirs of the War in Asia from 1780 to 1784*). That Indian chess received small notice from outsiders is evidenced by von der Lasa’s curiosity (*Chess Monthly*, March 1883, referring to an incident in Jaipur the year before): ‘I approached the

game as near as the surrounding circle of natives permitted, and I followed well the moves with the help of a small opera-glass’. Native writers have been the principal source of information. Often quoted are Lala Raja Babu and Trevangadacharya Shastree, ‘the Brahmin’, who was said never to have lost a game at chess, except one, in which he allowed himself to be beaten by a lady. (The Brahmin had not miscalculated - the lost game secured him a bullock contract.)

Summarized are the features in common of the mainstream games. Board 8x8, usually uncoloured, sometimes with crossed lines as on the ashtapada board. (According to Iyer’s *Indian Chess*, these should be on a4, a5, d4, d5, e4, e5, h4, h5, known as ‘the feet of a swan’.) Usual men (various names), referred to for convenience in orthochess terms.

(1) In the array, the king is placed on the right of the queen.

(2) The pawns move one square only, except initially the a-d-e-h pawns can make the double move but only if the respective file piece is on its original square.

(3) The king can move once as a knight, but not to capture nor if it has been checked.

(4) Promotion is to the file piece provided one has been captured. However, promotion on c- and f-files allowed only if bishop on same colour has been taken. Promotion on e1/e8 to Q. Promotion to knight allows another move immediately with the promoted piece although not if the promotion square is attacked.

(5) No castling, e.p., stalemate or perpetual check - the player must vary in the last two cases.

(6) White starts by making an agreed number of moves; Black does likewise. The number is usually 4 or 8, occasionally 3. It is not permitted to cross into the opponent's half of the board nor to move the same man twice.

(7) There are three grades of victory. In ascending order of merit: loser has bare king (boorj); loser has at least one piece; mate with a pawn.

Variations are common on almost all the above rules. Boorj is often considered a draw, when the rule is that there must be five or more men on the board at the end of the game of which at least two (king and one other) must be the loser's. The losing player will be looking for a sacrifice since if the men are reduced to four ('chamori bhaaji') the game is drawn. Because of this rule, the attacker will not take the opponent's last piece known, reasonably, as 'the immortal'. In some variants only the d-pawn or the d and e pawns have the initial two-square option, whilst Lala Singha Hunday says that in Bengal the king stands on the left of the queen (*Chess Amateur*, July 1909). And so on. To list the recorded variations on all the rules given would be both tedious and unhelpful.

OrthoChess strategy can be inappropriate in the Indian game. For example, where boorj is a draw a number of endings that are wins in orthoChess can only be drawn, for example $R+B \text{ v } N$ and $R+N \text{ v } B$. $R+R \text{ v } B$ is only drawn when the defending king can reach corner square of the same colour as the bishop. $R+B \text{ v } B$ is drawn if bishops are on the same colour squares, won for the stronger side if they are on opposite colour squares. The early move of the g-pawn in Indian chess is primarily to make a haven for the king, not to develop the bishop. Pawn play varies from orthoChess because of the promotion rules (for example, a pawn capture fxg might be preferred to hxg so as to preserve the h-pawn's potential of promotion to R.)

The arrival of Europeans brought European chess to India, and some modern Indian variants appear to owe more to the European chess tradition than to the Indian. Two-player variants which appear to be based on the Indian tradition are listed below, those using a normal board in the present section and those using larger boards in the next. Four-player variants will be considered in a later chapter.

[Text slightly revised. In addition to some of the source material explicitly cited above, David's files contain correspondence from A. Goswami, V. D. Pandit, and R. Ravi Sekhar, and also copies of extracts from the *Chess Player's Chronicle* 1846, *Geistreiche Schachpartien alter und neuer Zeit* (Bachmann, 1894), the *Chess Amateur*, July-September 1909 and June 1917, *The Times*, 17 December 1928, *Chess*, September 1952, and *Europe Echecs*, October 1988.]

Chaturanga. India, 7th century at latest; precursor of orthoChess. Claims for the inventor are almost certainly myth. The name refers to the four arms of the Indian army, the infantry, elephants, cavalry and chariots. The name, as the board it was originally played on, pre-dates the game which it would appear was essentially the same as shatranj. The board, known as the ashtapada ('eight-square') was unchequered but with some squares regularly marked. It was believed to have been adopted from a race game related to parcheesi, the forerunner of Ludo. The markings are retained to this day on some oriental boards. Each side had a Rajah, a Counsellor, 2 x Chariot, 2 x Horse, 2 x Elephant, and 8 x P. The counsellor moved one square diagonally in any direction, the elephant two squares diagonally, leaping the intervening square. Pawns advanced one square at a time; no castling. Stalemate was a win for the player giving it.

[Murray (pages 57-60), citing Arabic sources, gives two alternative moves for the elephant in early Indian chess: a jump of two squares orthogonally rather than diagonally, and the 'trunk and four feet' move (one square straight forward or in any diagonal direction) that we shall meet in Burmese and Thai chess. The first is attributed to al-Adli, who was active in the 9th century though the earliest extant manuscript claiming to quote him dates from the 12th, the second to al-Beruni, who lived in the 11th century and travelled as far as the Punjab. Murray also says, on authority attributed to al-Adli, that stalemate was a win for the player stalemated. These pages are not in Murray's index entry for 'Chaturanga' and they are not among the sources David lists for the game, but I think I should record what they contain. I am not competent to judge what weight they should be given.]

Desi Chess. The ancient Indian game. Ks face Qs (old moves), no pawn-two or castling. King can move once as N provided it has not been checked. Promotion to file piece, but not if this exceeds the array quota (one Q, two Rs, etc); last piece apart from K cannot be captured. These rules have been known to vary over the sub-continent, and from time to time. (*Bulletin of the All-India Correspondence Chess Federation*, February 1998)

Gosai Chess. Origins unknown, Form of Indian game widely played by wanderers of the Hindu Gosavee sect in Southern India, believed now to be near extinction. During their periodical halts, they would start a game with the equipment they always carried, and continue the game blindfold when they resumed their journey using a notation peculiar to the Gosai; thus 'I removed your horse on the 30th square with my devaratha ('the small horse on the left hand')'. At the end of a game the players would stop and verify the final position. (Pandit)

Parsi Chess. Term used, particularly by Murray, to describe the game played in southern India, at least until recent times, probably a direct descendant of the original Indian game. Each player has the K on the right hand. The a, d, e, h pawns can move one or two squares initially; the other pawns have no right to a two-step move. Both players make four moves each before the start of the game proper. The grades of win are as described above.

29.2 Indian games on larger boards

Atranj. Corruption of Shatranj; N.W. India, origins unknown but probably Muslim according to Goswami. Board 10x10; baseline (a1-j1/j10-a10) RNBQKPrQBNR. The Prince moves as Q+N. Second rank PPPPUUPPPP where the central pawns are Urdabegs, a corruption of udtabegums (flying queens) which move like pawns but have the extra power of moving and capturing backwards. Pawns move one square at a time and promote to file piece. (Goswami, Pandit) [The first edition mentioned a second 'Atranj', but it is a 22-man game with alternative name 'Qatranj' and I have moved it to the following entry.]

Joara-Joari (also known as **Zoraabhaji, Madadmar** and by other names). A game generously distributed (Murray gives only W. India) in which it is illegal to capture a supported piece unless in so doing one gives a discovered check. The king cannot be moved unless checked. Opinions differ as to whether the king retains its knight-move privilege; some say that it is forfeited altogether, others that it can be exercised only before the king has received a check. (Pandit, Sekhar)

The Maharajah and the Sepoys, also known as **The Mad King's Game** (mid-19th century). One player has a single piece, the Maharajah, which is a combination of all pieces (in effect, Q+N), the other a full complement. The maharajah stands initially on any unattacked square. The object of the maharajah player is to deliver checkmate, and of the other player to capture the maharajah. Pawns don't promote. A trivial game since the array player should always win, but in practice inexperienced players often come to grief. Falkener gives a number of game scores. William Rudge, quoted by Martin Gardner (*New Mathematical Diversions*), evolved a winning strategy irrespective of the moves of the M player: a4, a5, a6, a7, e3, Nh3, Nf4, Bd3, 0-0, Qh5, Nc3, Ncd5, Ra6, b4 (M forced to the 7th or 8th rank), h3 (only played if M on g7), Bb2, Rfa1, Re6, Rae6, Re7 (M forced to the 8th rank), Rae6 and mate next move. Rudge extends the solution unnecessarily. Some moves may be transposed, and a shorter solution probably exists. (Iyer, *Indian Chess*)

Shataranja. Origins unknown, closely related to atranj. The name appears to be a corruption of shatranj/chaturanga. As described in *Indian Chess*, the board is 10x10 and there are 22 men a side (orthochess equivalents in parentheses): 1 x King (K), Crown Prince (Q+N), Minister (Q), Kotwala (B+N), 2 x Chariot (R), Elephant (B), Begum (moves as K but not royal), 4 x Horse (N), 8 x Pawn, array (a1-j1/j10-a10 and inwards, centred) ChHEMCpKKoEHCh, PPPBBPPPP, HH. Murray quotes Lala Raja Babu (1901) who gives a game called Atranj or Qatranj, which appears identical except that the begums have

become 'armed female attendants' with move 'one square towards the opponent's King'. [Text revised.]

Hyder Ali's Great Chess. A game with thirty men on each side, demonstrated by Hyder Ali to his prisoner Captain Lucas in 1780. [In the first edition, David said this had been conjectured to be a piece and a pawn added to Timur's Great Chess, but this conjecture seems to have been made only by Forbes and I have to say that I find it hard to understand. The games were separated by four hundred years and a massive mountain range, and the existence of other contemporary large-board games in India removes any need to invoke foreign influence. It may even have been a version of one of the games in the next entry. I have provisionally altered the statement '60 men a side' in the first edition to conform to Forbes ('thirty on each side') and Murray ('60 men employed'), but I haven't seen *Memoirs of the War in Asia from 1780 to 1784* which was their primary source.]

Indian Great Chess (reported in 1796-8). Two composite-piece games are reported in a manuscript described by Murray. The first has board 10x10 with Giraffe (Q+N), Wazir (B+N), 2 x Dabbaba (R+N), array (a1-j1/j10-a10 and inwards, centred) RNBWGKQBNR, PPPDDPPPP, PP. P promotes to Q. Gollon describes this as the most entertaining of the Great chesses. The second has a 12x12 board with the same pieces and also two lions 'and other pieces' (32 a side).

Mysore Chess (Krishnaraja Wodiyar III, Maharajah of Mysore, 19th century). Board 12x12; extra pieces are two Chariots and two Flagcars which are in effect rooks and bishops respectively, thus each side has four rooks and four bishops, and the piece with the queen's move is called a Minister. The white baseline is (a1-a12) RNFCBMKBCFNR. The array shown for Black is quite different. In another version, the board is 14x14, with the addition of Queen (moves like K) on right of K and Prince (moves like M, orthochess Q) on left of Minister. (*Indian Chess*, also Pandit) [In respect of the 12x12 board, I suspect that only the white array is intended to show the opening position, and that the black is

intended to illustrate a possible target position after a number of moves have been played. Murray, reporting what appears to be the same game on the authority of Lala Raja Babu, gives the king positions as 'g1 (f12)', implying that Black mirrors the white array diametrically.]

Baroda Chess (Madhavrao Datey, 1890s). Developed on the order of Maharajah Sayajirao Gaikwad of Baroda. Board 10x10; pieces are King, Prince (Q+N), Chief Minister (Q), Chief of Army (as K or with 3-1 leap), Governor (R+N), Commander (B+N), Bandmaster (as N or can leap two squares orthogonally), Elephant (R), Camel (B), Horse (N), Police (two squares straight or diagonally forward, leaping intermediate square), Citizen (K+N) array (a1-j1/a10-j10 and inwards) BaGCoMPrKACoGBa, RNBPoCiCiPoBNR, 10xP. The king could move like a knight once in a game. Only the aefj pawns could move two squares initially. Promotion on end rank to either piece on same file provided that piece already captured. Datey wrote a book about the variant, *Yuvarajacha Budhhibalacha Khel* (Chessgame for a Prince, 1897). (Pandit)

Maharaja [12x8 board] (inventor unknown, reported c.1935). Board 12x8 (a1 black); extra pieces are Maharani (Q+N) and Elf (leaps two squares diagonally); baseline (a1-11/a12-112) RNEBQMKQBENR. Captured pieces can be claimed as deserters and are entered on an array square of player's corresponding piece. Pawns move one square at a time and may, at the option of the player, be promoted on reaching any rank from 3rd to 8th in order N-E-B-R-Q-M; thus pawn reaching 6th rank can promote to R. Players have the right, instead of moving, to remove one of their men from play, called, inappropriately one might think, a Forlorn Hope. There is also a double version played with two sets of men (distinguishable and each with a king) on a 24x8 board, a mated king being out of the game unless and until the mate is released; his turn is lost, but his men may still be captured and claimed as deserters. (Photocopy of anonymous manuscript 'Maharaja - Rules' apparently from the van der Linde - Niemeijer Collection) [The manuscript is in English in a characteristic pre-war handwriting and David

conjectured ‘probably British’, but both the terminology and the move of the elf (a corruption of ‘elephant’?) cause me to suspect an Anglo-Indian description of an Indian game.]

29.3 Myanmar (Burma), Thailand, Cambodia

Burmese Chess, also known as **Sittuyin**. Origins unknown, but probably of Indian ancestry. In the opinion of Hiram Cox, Burmese chess is ‘a very advanced improvement on the Hindu game’, and the game is ‘undeniably a good one’. Falkener on the other hand describes it as ‘a heavy, wearisome, uninteresting game’.

Burmese chess is a neglected variant which has suffered through having no codified rules. Early writers - Cox, Bastian, Shway Yoe (Sir J. G. Scott), Falkener - and later the Ferrars, Murray and Branch, give contradictory accounts of how the game should be played. Modern writers have added nothing to our knowledge, for the most part faithfully echoing the pathfinders, particularly Murray. A feature article on the game (1990) even gives Bastian’s opening position ‘most favoured by Burmese players’ (in 1863!). With regard to the initial set-up, a distinctive feature of Burmese chess, Murray remarks ‘Previous observers have recorded the favourite arrangements of their native informers’. He might have added ‘and rules’ as well. The confusion has not been helped by reports of radical versions of the game. Falkener records a variant in which pawns are promoted to rooks (‘a game of his own invention’ was the unkind and probably unjust comment of Murray); a game using three dice in which the players made three moves at a time (Sunnucks, *The Encyclopedia of Chess*); and a bastard version in which the pieces are set up anywhere within the player’s half of the board, the queen and bishop (elephant) moving as in orthochess but captures by Q, R and B are on adjacent squares only, no stalemate, and pawns promote on reaching the diagonal d5-a8 or e5-h8 (*Chess Amateur*, April 1920, reprinted from *The Times*).

Previous accounts of the game relied on informants whose status as players has never been established. Fortunately, there exists a book on Burmese chess whose authority, if not

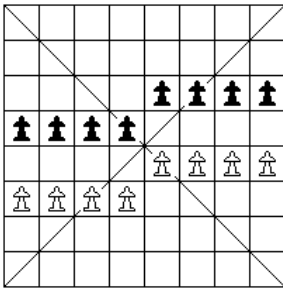
‘Of the making of these games there need be no end, and I have no doubt that many other varieties have been proposed and perhaps played, of which we have been spared the knowledge’ (Murray).

beyond question, certainly carries a great deal more weight than past European writings on the game: *Myan-ma sit bayin lan-nyunt sa-ok gyi* (Burmese Chess Guide) by Shwei-gyin U Bha, a retired Education officer, in consultation with chess masters Pantanaw U Maung Galei, Nyaung-don U Hamet and Bassein U Hmat (other Burmese masters are listed). Date unknown but *circa* 1924. In it, the author states significantly ‘There may still be different rules in Upper and Lower Burma, especially with regard to creating sitke (promotion)’ echoing Sir William Jones who wrote in 1883 that ‘...the Burmans admit of great variations’. The first edition reported that the game had largely died out in Lower Burma and in urban areas, having been replaced by orthochess, and that it was largely confined to tea-houses in the north-west. Old men played it with passion and arguments were commonplace. ‘It is usually played for money,’ according to one writer, ‘except at funeral gatherings, where games are played to pass the time’. Chessmen were invariably of wood, poorly carved, and stained red and ‘dark’ (black). It enjoyed a revival in the 1980s.

The rules which follow are taken from the above work.

The board is 8x8, unchequered, with the two long diagonals often marked, and sometimes the 4x4 squares in each corner (a1, b1, a2, b2 etc). Each side has 16 men: 1 x K, General, 2 x Carriage (moves as orthochess R), Elephant, Horse (moves as N), 8 x Soldier (P). The king moves as in orthochess. The general moves one square diagonally in any direction, the elephant similarly but in addition it can move one square straight forward (the resulting five moves of the piece representing the four feet and trunk of the pachyderm). Capture is as in orthochess but there is no pawn-two. A pawn promotes when standing on any square of either diagonal line in the opponent’s half of the board. A pawn can only

promote to general, and then only if the player's general has been captured. Promotion does not take place immediately but on any subsequent turn; it may be effected on the promotion square (i.e., without moving) or by moving away one square diagonally but not to capture the opponent's general nor to give check (previously published interpretations of this rule, which suggest that a pawn can promote on any adjacent square, are incorrect). A pawn that passes its promotion square cannot promote.



The pawns are placed first, Red on a3-d3/e4-h4 and Black on h6-e6/d5-a5. Red then puts his major pieces anywhere behind his pawns, after which Black does likewise. (In all previous accounts, the pieces are entered one at a time by Red and Black alternately; probably an earlier form of the game.) It is permissible to replace a pawn with a piece and to redeploy the pawn on a vacant square in one's territory. There are restrictions on Black who would otherwise be at a considerable advantage. For example, Black may not put a rook on the file on which the red king stands, nor may he enter both rooks on the same file if Red objects.

Red starts. The object of the game is to checkmate the opponent's king. Check must be announced. There is no stalemate (a player must allow his opponent a move) but perpetual check and draw by repetition of position are possible. There are involved rules for the endgame, which parallel in several respects those for Thai chess, that are designed to limit random play. These include a requirement that K and R must mate a bare king in 16 moves or the game is drawn. However, if the lone king is in any of the marked corners or on one of the central squares (d4,d5,e4,e5; known as 'the four squares of the death of the king') this is

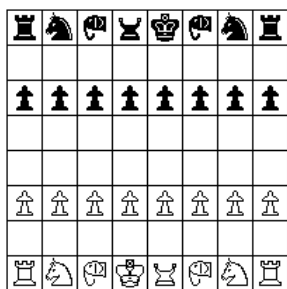
called '5 moves in 4 squares' and the counting does not start until the defender's 5th move. Murray illustrates a board in which these squares are marked, his Burmese informants suggesting the markings were 'ornaments'. There are also detailed guidelines dealing with transgressions (example: 'a player who sweeps away the pieces before a game is finished must be declared the loser').

A total of 33 starting positions is recorded of which eight are given emphasis. It is noteworthy that not one of the 'favoured positions' given by European writers is mentioned. A 1989 publication *Myanmar Traditional Chess* adds eight new positions. The king is usually placed at f2 or g2 (c7/b7) with an elephant on the square in front and a knight on an adjacent square. If the king is placed on the first rank, it is always on the c or f file. The general is almost invariably stationed at e3/d6 looking straight through the gap between the pawn lines, and is always adjacent to an elephant except when replacing a pawn. (There is a Burmese saying that elephant and general should never be separated.) Except when in the corners, the rooks tend to be close to each other.

Of all the regional variants, Burmese chess comes closest to a war game. Despite the shortage of long-range pieces, the proximity of the hostile pawn lines ensures early battle whilst the time-consuming fortress-building of shogi is here achieved at a stroke. On the minus side, Sittuyin is a game of limited strategy.

[Text slightly revised. David actually wrote 'Sittuyin enjoyed a brief revival in the 1980s' and in a letter to a correspondent he reported not having seen the game in play when he last visited the country in 1987, but it would appear that there has since been a recovery. His files contain photocopies of several pages from an unidentified book in Japanese which include two photographs of a well-attended tournament apparently held in 1998, an accompanying manuscript translation refers to an all-country tournament with 24 players of sittuyin and 40 of European chess, and most of the players in the photographs appear to be in the 18-30 age group. The book also includes a copy of the frontispiece of the book by Shwei-gyin U Bha, and the figures '1923' are distinguishable within the accompanying text.]

Makruk, also known as **Thai Chess**. Origins, including origin of name, unknown. According to Murray, pre-dates Burmese Chess with which it has clear affinities. It is estimated that two million Thais know at least the rules as against five thousand who are familiar with orthochess. Masters are known as sian (god). Living chess displays are popular: a move is executed to music in a series of dancing movements and there is traditional duelling when a capture is made.



Board 8x8 uncoloured; 16 men a side comprising 1 x Khun (lord, moves as orthochess K), Met (fruit-stone, one square diagonally); 2 x Rua (boat, as orthochess R), Thon (?nobleman, one square diagonally or straight forward, in other words as Burmese elephant), Ma (horse, as N); 8 x bia (cowrie, as orthochess P but promotes on rank 6 and only to met. Falkener allows the K on its first move the privilege leap of a N and the met a double step; Murray also gives this rule, but allows the met to move only e1-e3 (d8-d6) as in Medieval Chess. Subsequent writers like Gollon repeat these rules, but privilege moves are unknown in the modern game. Capture by displacement; no castling. Tedious endings are avoided by a rule that when a player is without major pieces (R,B,N), the other player must mate in a prescribed number of moves, according to the major pieces remaining to him, or the game is a draw: 2 x R = 8 moves; 1 x R = 16 moves; 2 x T = 22 moves; 1 x T = 44 moves; 2 x N = 33 moves; 1 x N = 66 moves. These stipulations take no account of mets. Stalemate is a draw. The pawns are sometimes cowrie shells and are commonly shown as such in indigenous diagrams; they are placed mouth-down in the array and are turned over (mouth-up) on promotion to indicate their new rank.

The opening is usually a sedate affair due to the lack of any strong diagonal-moving piece or open files on which to operate. Both sides tend to avoid contact until development is complete. The KN usually moves in front of the K whilst the other N moves alongside or at f3 (c6). The met commonly goes to e3 (d6) via f2 (c7), facing the enemy king whilst the thons move up next to the knights. Both players then advance on their right against the opposing king with the idea of forcing an open file. Books are readily available. There is no uniformity as regards notation: both the descriptive and the algebraic are in use. In the algebraic, it is usual to use arabic numerals for ranks, Thai numerals for files.

[Because the thon has the move of the Burmese elephant, I have used the elephant symbol in the diagram, although the actual meaning of the word 'thon' is apparently quite different. David's first edition included some speculations that shogi might have borrowed from makruk, specifically as regards the placing of the pawns on the third rank and the reversal of the cowrie shell to show promotion, but these are relatively superficial points and the countries in between appear to have played games of the xiangqi family. After I had started work on the present edition, I received a message from Peter Michaelsen suggesting that the rules may have been revised in recent years to reduce the number of draws in master play, but I know no details. In the absence of other pieces, three mets (not all on the same colour) are needed to mate a bare king; K+2M is only a draw, as is K+N+M; K+T is an easy win if the defending king can be kept away from the attacking side's corners, but only a draw if it can reach one of them. Against this, the nearness of the promotion rank means that a passed pawn can promote and add its weight to the attack much more quickly than in orthochess, and once a breach has been made, the defender's pawns, being already on the third rank at least, can more easily be got at from behind.]

According to information available on the web site of the Khmer Institute in 2004, **Cambodian Chess**, also known as **Ok**, is essentially makruk with two privilege moves: an unmoved K can make a sideways N leap (from d1 to b2/f2, e8 to c7/g7) though not to

get out of check, and an unmoved met can advance two spaces though not to capture. There are also differences of detail in the rules regarding the number of moves allowed to mate a bare king. In an alternative version called **Ka Ok**, ‘popular in ancient times’, the first player to give check wins.

[Text revised. The first edition contained a description, attributed to P. A. Hill, of a different game, but this has been challenged and perhaps I should quote directly from the source David used. This was a photocopy of a typed letter from John Gollon to Philip Cohen, 25 February 1975, the relevant part of which reads as follows (typography adjusted but text verbatim):

‘On the subject of Eastern chess variations, I received in 1969, from a U.S. serviceman serving as an interrogator in Saigon, a variation of chess which he obtained details about from a Cambodian born guerrilla officer he was questioning.

‘The transliteration and translation of the piece names and their positions (for “white”) are:

‘Chhwie	king	e1
‘Ta Hien	official	d1, f1
‘Tam Mai	elephant	c1, g1
‘Sheh	horse	b1, h1
‘tuk [<i>sic</i>]	boat	a1, i1
‘Trei	fish	fourth rank filled

‘The game is played on the points of a [*sic*] eight by eight, uncheckered board. The horse moves as the standard knight; the boat, as the rook; the king, as the standard king; the official, one square at a time diagonally, but captures only forward diagonally; the elephant, one square at a time in any direction (like king) but may not capture straight backward nor diagonally backward; the fish moves one square at a time forward until it crosses the center line (on its second move), at which point the piece is flipped over and can move as a king anywhere on the board.

‘The pieces, my informant noted, are little statues except for the fish, which are irregular disks marked differently on either side so that pieces which have crossed the center line and have been flipped can be distinguished. He did not know the bare king nor stalemate rules.

‘At the time, I boiled over with enthusiasm

about this awkward [*sic* - backward? awkward?] little game, viewing it either as a link between the Chaturanga and Chinese Chess forms, or as a blend resulting from the meeting of the two traditions (Thai and Burmese Chess, say, still are more closely linked to Chaturanga-like games, while Chinese Chess is the chess of Vietnam).

‘In either event, I thought the game extremely fascinating and valuable. I have not particularly changed my mind.

‘The correspondent later expressed some concern that he may have been mistaken in some details. I have never been able to check with an official Cambodian source. So there could be some errors - then again, perhaps there are none.’

The name ‘P. A. Hill’ has been added as a manuscript annotation to the words ‘U.S. serviceman’.

I do not know whether Gollon was eventually able to check with an official source, but no other confirmation seems to have come to light, and a recent paper *Kambodschach / Work in Progress zur Geschichte des Schachspiels in Kambodscha* by Bernd Ellinghoven (*Kambodschanische Kultur* 8, Berlin 2003, pages 90-122) mentions the makruk game at some length, with contemporary photographs, and the Hill game not at all. The nearest approach to the latter is a photograph captioned ‘Kampot 2003, Hotel Phnom Kamchay’ which shows some makruk men on an 8x8 board with palaces marked as for xiangqi, but this has some curious features and appears to record a display carelessly assembled for tourists rather than a position from a genuine game (there are no players within shot, and some of the men are on the intersections, some in the squares, and some in nondescript positions).

It would therefore appear that whatever else was being played on the streets of Phnom Penh in 2003, the Hill game was not, and the authority for its existence appears to reduce to a single informant whose statements are at variance with all other known testimony. I have therefore taken it on myself to remove the reference to it from the main entry, and to mention it only in the present editorial note.]

29.4 Malaysia and Indonesia

Batak Chess. The game as played by the Batak people of Sumatra. Board 8x8 unchequered; usual men with same names as in Malay Chess. Kings stand on left of queens, otherwise standard array. The KP, if it moves one square initially, retains the two-square option on its second move (e.p. possible). The K may leap two squares in any direction (including N move) but only if unmoved; thereafter normal. Castling allowed but in two moves, not one. Promotion is complicated and can differ from region to region. A pawn makes a single backward diagonal move as part of promotion, termed ‘gelong’. If White has Pc7, he can play c8(Q) and then move to d7, capturing any Black man other than a K; however, if opponent’s K is on d7, it is not in check (play is now c8(Q)+). A pinned piece has no powers. Discovered mate (‘ares’) is a draw! A handicap, known as ‘tepong’, requires a player to mate on one of the four central squares. There is a small problem literature, problems being composed (often in twin form) as a challenge for stakes. (Armin van Oefele, *Das Schachspiel der Bataker*, 1904, also *Jaarboek 1931 van den Nederlandschen Bond van Probleemvrienden*)

29.5 Central Asia and Tibet

Alisher Navoi’s Great Chess. According to Gizycki, the 15th-century Uzbek poet Alisher Navoi described a ‘Great Chess’, played in Central Asia in the 13th and 14th centuries, in which each side had king, two viziers, elephant, giraffe, bear, camel, ruhbird, horses, and pawns, starting in three ranks on a 100-square board.

Timur’s Great Chess. 14th century. Sometimes referred to as the ‘perfect’ or ‘complete’ chess. Said to have been the favourite game of (and even invented by) Timur the Lame (Tamerlane) who scorned the ‘little chess’ (shatranj). Acclaimed by Gollon as ‘the most playable and most entertaining of the early forms of Great Chess’. Board 11x10 with an extruded square on the right of each player’s second rank. These were citadels: if a king could attain the opponent’s citadel it was immune from capture. Apart from the usual

Malay Chess, also known as **Main Chator** (‘Chaturanga game’). Established in the Malay peninsula before the 15th century. Essentially the same game as Batak Chess, the Bataks being of Malay origin. Board uncoloured; long diagonals marked. Standard array except that Q stands on right of K. Rules varied from state to state but had a common feature in that a pawn promoted to Q only on the a- and h-files. On any other file it then had to make one or more moves backwards before promoting, the rules being both complex and varied. En passant, too, suffered from a diversity of rules. The king had the right to move two squares (as Q or N) initially if he had not been checked, and castling took two moves, the R being moved first, but here again rules differed throughout the peninsula. Skeat, for example, whose observations were largely in Selangor, stated in *Malay Magic* (1900) that the K could only castle if had not been checked, ‘but over one square only’. According to H. O. Robinson (1904) a bare king could move as any piece. Malay Chess was a casualty of the 20th century, but may still be played in remote areas. [Robinson wrote an article *Malay Chess* in the *Cheltenham Examiner*, 27 July 1904.]

shatranj pieces, each player had a Wazir (moved one square orthogonally), 2 x Dabbaba (two squares orthogonally, leaping first square), 2 x Camel (3-1 leaper), 2 x Giraffe (one square diagonally then three or more squares orthogonally, no leaping), 2 x Talia (as B but not to first square), 11 x P (move one square only). K, once in a game, could change places with any allied piece on the board. Each pawn was related to one of the 10 pieces and could promote only to that piece. The KP promoted to Prince (K without royal powers). In addition there was an Original Pawn. The OP had a curious promotion cycle. (1) On first promotion, it remained immobile and immune from capture. Player could deploy (move) it as a pawn to any square other than one occupied by a K. Any man of either colour on the square was removed. Object was usually to achieve a fork but the removal of a strong piece seems more

pertinent. (2) If again reaching the 10th rank, it achieved a dubious promotion to king's pawn with the same powers as in (1). (3) If once more reaching the end rank, it became a Prince ('Adventitious K'). A king sheltering in a citadel could change places with a prince (either promoted KP or OP). Forbes gives the array (a1-k1/k10-a10 and inwards, empty citadel squares adjoining k2 and a9) A-C-D-D-C-A, RNTGFKWGTNR, 11xP (odcbfkwgtnr), each pawn being related to the piece with the corresponding upper-case letter ('o' being the Original Pawn). Others are recorded including 'masculine' and 'feminine' arrangements, the latter omitting the alfils and with the KP on the second rank (Bland). A feature of the array is that both a player's camels are confined to the squares of one colour, the opponent's to the other colour. Hyde (1694) gives a somewhat similar arrangement on an 11x12 board. The copyist of Timur's biographer, b. 'Arabshah, in illustrating the array (India Office MS 7322), filled the vacancies, for what reason is not known, with new pieces: lions, bulls and a sentinel with their respective pawns, and replaced the wazir with a crocodile. The moves of these additional pieces (if they had moves) are not recorded.

Mongolian Chess, also known as **Shatar**. It seems likely that the variants indigenous to Mongolia and Central Asia described by Murray and van der Linde have been replaced in many areas by ortho-chess as the result of Soviet cultural penetration. However, recent sources suggest that they have yet to be eradicated. Articles by S. Kondratev in *Shakmatny Listok* (1931) describe the Mongolian game as having an uncoloured board with the pieces distinguished by red and green bases. The R is represented by a chariot or wheel, the B by a camel and the P by a child. The Q moves as R+K; no castling. Positions of K and Q may be reversed in the array, but kings always on same file; in an alternative arrangement, the Ks face the Qs in the array. QP (d or e) alone can move two squares initially, and this is always the first move of both sides. (In some parts it is permitted to move the KP two squares instead.) A knight cannot mate (ignored in some parts); stranger is the fact that a

succession of B (Tuk!) and P (Tsod!) checks ending in mate is a draw, but if during the sequence another piece checks, it's a win. Bare king is a draw.

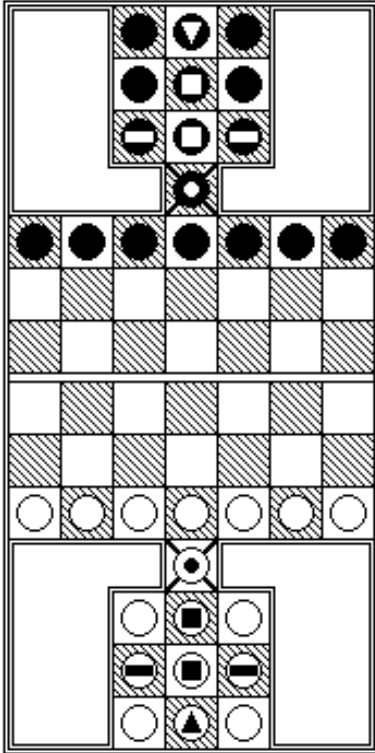
The game described by Assia Popova (*Jeux des Calculs Mongols*, 1974), whilst agreeing in the appearance of the chessmen (above), offers 'supplementary rules' in which the N is affirmed as the most powerful piece since on completion of its first move it becomes an Amazon (Q+N) whilst a R that penetrates to the 8th rank assumes the additional power of a N. According to Giadda Ricci (*Mongolie - traditions de la steppe*, Musée de l'Homme 1983) chessplayers occupy a place of honour in the community and are not obliged to rise when their betters enter the yurt.

Hiashatar, also known as **Mongolian Great Chess**, is a larger version. Board 10x10 (unchequered), 20 pieces a side. The extra pieces (+ pawns) are Bodyguards, standing on either side of the king and queen. Bodyguards move two squares in any direction but do not give check. They influence the squares adjacent to them. Any piece on a square adjacent to a bodyguard, whether hostile or friendly, may only move one square on its next turn. A hostile piece (Q, R, B) cannot capture a bodyguard directly but must first move to a square adjacent to it. It is not known if the game is still played. (Material taken from a web site maintained by Lev Kisliuk, also photocopies of pages 110-2 of an unidentified book in Japanese)

Tibetan Chess. Murray quotes a 200-year-old source which describes the game then played in Tibet. Some of its rules at least are identical with the description of the game apparently still played in Mongolia in 1931 (see above). First pawn (usually QP) alone can move two squares; castling allowed; bare king draws.

Shatra. Origins unknown. A game of the Altai region, blending chess and draughts. Velyenin Taushkanov codified the contemporary rules in 1979 and the Presidium of the Central Shatra Section published official rules in 1985. The playing area comprises 62 squares made up of the field (7x6 central area divided in two by a ditch), two fortresses (3x3 squares at either end of board), and two gates (single squares linking the two). The central file

through the fortresses and gates is known as the big road. Each side has a king (ring), a queen (triangle), 2 rooks (squares), 2 bishops (bars), and 11 shatras. Additionally, each side has a temdek (cross) which is initially placed in the gate and serves as a marker.



Shatras move as chess pawns up to the ditch, thereafter like kings, but never backwards. A shatra promotes on the back rank (3 squares) to any piece previously captured; if none, it can move horizontally until one is available. Pieces in the fortresses are reserves and are brought out one at a time during play by placing in own half of field on any vacant square except on the big road. If a reserve makes a capture within its own fortress it must move into the field on the next turn. Shatras cannot capture within their own fortresses. When the fortress is vacated, the temdek is removed, which allows captures from the field back into the fortress. The king can move independently of the temdek. Kings and shatras capture by a short leap (over an adjacent piece to an empty square immediately beyond) in any direction. The other pieces capture by a long leap (move over any number of vacant squares and leap over an opposing man to any vacant square beyond). Capturing is compulsory except for the king, but the player can choose between alternatives; he cannot elect for the king and then opt not to capture. If a second capture is available, this must be made also, and so on. The same piece cannot be jumped more than once in a multiple capture. A pawn which promotes on capturing must continue to capture as a promoted piece if a capture is available. The aim of the game is to capture or stalemate the opposing king. (Personal communication)

Part 5

Games using dice and cards

[The use of dice to add a chance element to chess is ancient, that of cards very much more recent. We shall take 'dice' to mean anything capable of delivering a random choice from a small number of possibilities, and 'cards' any set of things whose contents are unknown until they are turned over.]

Chapter 30

Dice games

[Dice have been used from very early days to add a chance element to chess. They can of course merely be used to choose an initial array or an opening sequence of moves, but that is a very peripheral use. In the present chapter, they will be called on much more often.]

30.1 Using dice to determine the man to be moved

Medieval Dice Chess. One of the earliest forms of chess, in which dice were used to determine the man to be moved. The Alfonso MS (1283) gives 6=king, 5=firzan, 4=rook, 3=knight, 2=fil, 1=pawn, with the requirement that if a piece cannot be legally moved or none of that type is on the board, the die is thrown again. The game is stated to have been as popular in the 11th century as chess. Several of the games described in section 26.2 could also be played with dice: Acedrex de las Diez Casas with a seven-sided die, Grande Acedrex with an eight-sided, Oblong Chess with a cubic. In the last case, the values were 6=king, 5=firzan, 4=fil, 3=knight, 2=rook, 1=pawn, and a player unable to escape check with the number rolled apparently lost. [Text revised. David's files cite various sources in addition to those listed in chapter 26 (Addison, *100 Other Games to Play on a Chessboard*, Gollon, *Chess Variations*, Brace, *An Illustrated Dictionary of Chess*). Those who can read medieval Spanish will find a transcription of the relevant part of the Alfonso MS on pages 488-9 of Murray.]

Modern Single-Die Chess. With modern men, the usual relationships are 6=K, 5=Q, 4=R, 3=B, 2=N, 1=P, but many permutations have been employed. AISE (1978) used 1=K, 2=Q, 3=B, 4=N, 5=R, 6=P (*Eterostacco* 16 and later). The first correspondence tournament was held in 1979. Also played in conjunction with Progressive Chess. In **Team Dice Chess** an organiser throws dice for White and Black alternately. Scale as above but 6 = any move; castling is R move. If legal move not possible, move king; if king not possible, move pawn; if still not possible, move a piece specified by the opponent. (*Chess*, May 1952)

Gaudeamus (Manfred Mittelback, early 20th century?). Board chequered 8x8 with array squares a1-h1/a8-h8 numbered 17-11-15-13-18-14-12-16 and a2-h2/a7-h7 numbered 3-5-7-9-10-8-6-4. These numbers correspond to all possible totals on the faces of three cubic dice. The pieces are discs, each displaying a piece symbol and a number corresponding to that of its array square. Usual men and array. On each turn, three dice are cast and the player is obliged to move the man indicated. Castling permitted on a throw of 16 (short), 17 (long), 18 (either). If a throw cannot be utilized, the dice are rolled again. There is no check and the game is won by capturing the king. The game is flawed by the laws of probability. Whereas the e-pawn can expect one move in eight, swiftly exhausting its mobility, the a-pawn and king will rarely stir. [Author's rules pamphlet, set out in such a way as to suggest that it may have been intended as a patent application]

La Régence Dice Chess (originator unknown, 1934). The game practised by adepts at the Régence in Paris used two dice with the player choosing between them (if neither playable, the move was lost). The game had a curious feature: the die values for B and N were reversed (2=B, 3=N), whilst only double-6 (a 1-in-36 chance) permitted castling. Inexplicably, a K was mated if the only escape for it was to capture a non-checking man. (*L'Action Française*, 16 July 1934)

Las Vegas Chess (Art Gamlin, early 1960s). A form of Dice Chess dignified by Kenneth Harkness in the U.S. Official Chess Handbook, the variant has reportedly provided commercial sponsorship for a number of chess

events in Nevada. Two cubic dice are used, the twelve faces showing 3 x P, 2 x R, 2 x B, 2 x N, 1 x Q, 1 x K, 1 x free choice. Both dice are thrown and the player must move one of the men indicated. When a check is given, it is parried by any legal move at the defender's choice after which dice rolls are resumed. 'A silly game in which skill plays next to no part at all' in the opinion of Bobby Fischer (*Boys' Life*, August 1969). **Vegas Fun Chess** (George Koltanowski) differs only in minor detail. (*Chess*, September 1964, also Chess Variant Pages)

Buczko's Dice Chess (Anthony Buczko, 1970s). Board 8x12; standard array with a marker placed at the side of the board between 6th and 7th ranks. Three cubic dice are used; two are normal and the third has an extra 1 instead of a 5 (faces 1, 1, 2, 3, 4, 6). A player on turn casts all three dice and may elect which type of piece to move. Pawns can move up to three squares initially. A double or triplet requires that that man is moved two (three) times. Thus a roll of 1, 3, 3 permits the player to move either a pawn or one bishop twice. If a player rolls a double (triplet) but can only move the designated piece once (twice) the whole move is lost. If a player cannot move, the marker is shifted one rank towards him. There is no check: a player wins if he captures the king or if the marker crosses the opponent's base line. Another version permits check (win by checkmate) and allows the

player in check to make any single move or capture to escape the check without throwing the dice. The queen is relatively weak whereas the pawns are active. It is often better to deprive the opponent of one type of piece (so that the dice number cannot be used) rather than to go for material advantage. Buczko also suggests a 10x10 game with two extra knights and pawns on each side played to the same rules. (Originator's rules pamphlet)

Sui-Chess (J. R. Weddle, 1973). Chess by yourself. At each turn, roll a die: 1 = files 1, 2 or 3 (from left of each player), 2 = files 2, 3 or 4, and so on to 6 = files 6, 7 or 8. You must move a man on one of the three files indicated. If there are none, roll again; if in check, do not roll but get out of check in normal way. Castling permitted if King's file indicated. (Letter in *Chess*, June 1973)

Novak's Dice Chess (Paul Novak, 1977). Five moves are played by each side under normal rules. From then on, a die roll determines the type of man to be moved (castling is a K move). If the player has no man of that type, he rolls again, but the game hinges on a unique rule: if he has one or more men of the stipulated type and cannot make a legal move with any of them, he loses. A fun game with quite a lot of skill apart from calculating the odds. Freedom for the pieces is everything. [Index sheet for the game missing from David's files.]

30.2 Other uses of thrown dice

Tibetan Dice Chess. An unsubstantiated source mentions an ancient 11x11 game with 14 men a side in which a die influences but does not dominate play. The name, originating it is said in Italy, is derived from the putative fact that from about the 13th century sets were carved by Indian and Nepalese ivory workers. (*Games and Puzzles* 27)

Brunner's Game, also known as **Zeiger-Schach** and **Turntable Chess** (Erich Brunner, 1924). The Swiss problemist and games inventor, in common with many of his contemporaries, deplored the fact that advances in chess theory had placed a premium on memory at the expense of original

thought. This variant, a creative leap from his Free Chess, invalidates both opening and endgame knowledge. Brunner's radical solution requires that the powers of the pieces change in every game, and can even change after each move within a game. The pawns are unaffected however, and behave exactly as in orthochess.

Each player has eight small boxes, open at the top, numbered 1-8. There are 16 cubes (dice), that fit snugly in the boxes, of which 8 are white and 8 black, representing the pieces. On one of the faces of each die the piece is shown with lines indicating its normal movement; on the other five faces, each different, its movement is modified. The

pawns are set up normally and the boxes are arranged in sequence 1-8 from left to right on the rank nearest each player. Each player takes all the dice of his own colour. One player casts his dice which determines the power of the pieces for the game; the second player rotates his set of dice to correspond with those cast. White then places one of his dice (pieces) in any box on his first rank (i.e., randomized array), orientating it as he pleases to face forwards, backwards, left or right in order to make the best use of the piece's directional powers. Black must then take his corresponding piece and drop it in his box on the same file, but again selecting the orientation. Next, Black places a piece in an empty box and White copies, and so on until the array is complete. Thus despite the chance factor of the dice roll, both players have equal forces in an identical array, orientation of the pieces apart. Play is as orthochess with two important rule changes: pieces can only move as indicated on their exposed faces; and after moving a piece the player may turn it to face in any direction. Brunner did not mention pawn promotion but a common-sense rule would allow promotion to any piece in the array (with appropriate movement factor). The purpose of the boxes is so that players can repeat a game with identical forces if they so wish. If this facility is not required, the boxes can be dispensed with. Boyer pointed out (*Nouveaux Jeux d'Echecs Non-orthodoxes*) that if the players chose not to oblige one player to copy the other then not only would the number of possible opening arrays, already astronomical, be multiplied, but an extra skill would be introduced into the game. Brunner suggested that instead of dice, tiles could be used showing directions of movement, a concept realised a half-century later in the commercial game Ploy. (Hans Klüver, *Das Brunner-Buch*)

Toss For Next To Play Chess (origins unknown). A coin or die is used to determine who moves next. This is essentially the same as A.C.'s card game (see next chapter), except that the odds do not change as the cards are used up. (*Les Jeux d'Echecs Non-orthodoxes*)

Crazy Chess (said to be of Dutch origin, date unknown). Three standard dice are used, and

their spots totalled. The players then obey the appropriate one of a list of actions previously drawn up. If no legal move is possible, the player has a free choice. (Notes apparently deriving from personal communication) [A note on David's index sheet for the game reads 'per Steve Boniface', and the list of actions in his Encyclopedia files gives 3/18 change sides, 4 forward move, 5/9 pawn move, 6/8 move to the right, 7 rook move, 10 king move, 11 knight move, 12 bishop move, 13 move to the left, 14 queen move, 15 backwards move, 16/17 two moves. In an accompanying note, he is critical of some of these and says that they could be varied with advantage, but there is nothing to prevent intending players from experimenting.]

Chuck-A-Chess (Proprietary game, Chexi Games Ltd; Peter Costa, 1987). Each player has four dice, each die depicting one of each type of chessman on its faces. In addition, there is a doubling die for gambling. Four different games are given. In all games, two or more dice are rolled, the player choosing between them. Certain combinations earn bonuses such as an extra move. (*Variant Chess* 12)

Chess=Izer (Proprietary game, Fred Pennington Jr, 1989). Two identical decahedral dice depicting chessmen (4xP, K, Q, R, B, N, Free choice). Rules for eight chess games variously modified by dice rolls. (Carbon copy of article by L. U. Dikus annotated 'Pöppel-Revue next issue', 1990)

Turncoat Chess (J. Leistiko and F. Truelove, 1990). Usual array. After each move two eight-sided dice are thrown, one giving a file, the other a rank. If the indicated square is occupied, the man on it changes sides provided there is a previously-captured man of the right colour to replace it. If not, nothing happens. (*Variant Chess* 24)

Dicey Dropsy (Ian Richardson, 1994). Normal board and men, and in addition each player has five ordinary dice and one special die (the originator uses a backgammon doubler). The faces of the ordinary dice denote men, those of the special die denote regions of the board (first two ranks, first four ranks, anywhere,

first two files on left, first four files on left, anywhere).

The game has two phases. In the 'drop' phase, White throws one die plus the special and places a man accordingly, Black does the same, White throws two dice plus the special and places two men, Black does the same, White throws three dice plus the special, and so on. Bishops must not be placed on the same colour, pawns not on the first or last rank. Multiple checks are allowed, and the king must be placed at drop 4 if it has not already come up. If a player has already placed all men of the kind specified, that part of the drop appears to be lost (this is not explicitly stated in the source but is implied by the sample game given).

In the 'move' phase, White starts with one move, and he must get out of check if he can. If he cannot, and Black can, he loses; if neither can, the game is drawn. Black plays one move similarly, then White plays two moves, Black two, White three, Black three, and so on. During this phase, giving check before the end of a player's turn terminates the turn. Games tend to be short, and the originator claims that there is a good balance of luck and skill. (*Variant Chess* 15) [Text editorial]

Skock (Swedish, inventor not known). Board 8x8 with two sets of chessmen. Players set up their pieces (usual arrangement) on the first two ranks and their pawns on the next two so that the board starts full. Two cubic dice are used. On one die the spots 1-6 correspond to P-N-B-R-Q-K respectively, on the other they

30.3 Using dice other than by throwing

Anticipation Chess (Raymond Pink, 1981) Each player has a chess die and cup. An ordinary die can be used substituting P, N, B, R, Q, K for the spots 1-6 respectively. Usual array. Both players decide which man they will move on their first turn and set the die appropriately (1 or 2, i.e. pawn or knight) under the cup. Each player's turn consists of three parts: (1) Reveal the die; (2) Move a man of the type shown; (3) Decide on the man it is planned to move on the next turn and adjust the die secretly under the cup. Castling is a K

equate to the number of consecutive moves (player chooses which is which). Capture the first king normally, mate the second to win. Kings may not pass over threatened squares. (*Variant Chess* 21) [Text completed editorially]

Conflict Chess (Derick Green, 1997). Usual array. Four marked squares (c5, d5, e4, f4) are designated terrain squares. Pawns may move one square diagonally forward in addition to their normal powers; K moves as Q and there is no castling. K and Q are Leaders and both (plus any pawn promoted to Leader) must be eliminated to win (so no checking). Other pieces are Officers. A pawn promotes to Officer on the end rank and an Officer to Leader. Pieces may move onto but not over terrain squares. Each man has a combat strength, used in attack or defence. Men may combine strengths. Both players roll a cubic die and add their respective combat strengths to determine the victor. (*Variant Chess* 25)

Piece-Eater Chess (Peter Aronson, date not recorded) Standard set-up with Piece-eater on d4. Each player has 1xR, B, N and 3xP in reserve. P-E moves like K after each move (an eight-sided die can be used to determine move). P-E treats board as a torus but cannot move next to a K. Piece in reserve can be dropped on player's first rank, pawn on second, instead of moving. P can promote to R, B or N on 7th, Q on 8th rank. (Manuscript notes presumably deriving from personal communication)

move. If a player is unable legally to move the type of man chosen, the move is forfeit and only steps (1) and (3) are enacted. If a player is unable to counter a check, the king is left in check. He remains in check for as many turns as are necessary to break the check or until he is checkmated. A player whose opponent is in check may add an additional check or make any other move that his die selection allows. The skill of the game, chess apart, lies in knowing when to bluff and how often. (Author's explanatory document)

Chapter 31

Card games

[While the use of dice in conjunction with chess is ancient, the earliest use of cards appears to date back little more than a hundred years. However, many such games have appeared in recent years, including a 25-game compendium 'Karten Schach' which is given a section to itself.]

31.1 Games using cards to represent chessmen

Card Chess [Ramsden] (Proprietary game, Sherratt and Hughes; Herbert Ramsden, 1899). Board 6x3. Each player has 12 cards representing the usual chess pieces plus four pawns. Array side-to-side rather than top-to-bottom: White Kb2, Na1/a3, Black Ke2, Nf1/f3, rest of cards in hand. Kings do not move, pawns move one square orthogonally in any direction and capture one square diagonally in any direction, moves of other pieces are orthodox. The aim is checkmate. A move consists of playing a card from hand or moving a man (card) on the board. A card may be played or moved on top of an existing card of either colour. If played from hand, the card must be of at least equal value to the piece covered. The scale of values is Q, R, N, B, P. A covered card has no powers. The king commands adjacent squares: if an undefended hostile man is placed next to the king it can be captured (king does not move). Fool's mate is given as 1 Nb3 N(either)d2 2 Nc1. Any card played to cover the attacking knight will be automatically subject to capture by the attacker's king. (Notes annotated 'BL: 7915.aaa.67', presumably a British Library shelfmark)

Card Ches (Proprietary game, Card Ches Inc, 1974). Described as a game of planned strategy. Each player has 11 cards, depicting King, Queen, Cardinal (B), 2 x Fort (R), 2 x Cavalier (N), 2 x Guard (moves one square orthogonally, captures one square diagonally), Scout (moves and captures one square diagonally), Jester (moves and captures one square orthogonally). The playing area is 5x4, made up of a 4x4 Arena and a 1x4 Domain, each accessible to both players, plus a one-square Safety Box for each side. The object is

to capture (checkmate) the K. To start the game, White plays his K card to any square in the arena, Black likewise to any square in the domain, and each player puts a card (not his cardinal) in his safety box. Thereafter a move consists of one of three actions: playing a card from hand into the safety box (if unoccupied), or moving from the box to the arena, or moving a card already in play. The full rules of this unusual game are fairly elaborate. (Photocopy of manufacturer's rule sheet)

Express Chess (Proprietary game, Black Box Inc; William Jemas, 1996). Games using 50-card packs for chessmen. Players draw hands, deal out chess positions on a notional board, and play them out with modifications of the normal chess rules. Cards carry pictures of wildlife, presumably for visual appeal. (*Variant Chess* 35) [Text editorial]

Cardmate (A. Derzhanski, 1999). Board 10x10; standard pack of 52 playing cards plus four 1s, each rank representing a piece with different powers of movement and capture (suits ignored); elaborate rules. (Chess Variant Pages, also *Variant Chess* 36) [Text editorial]

Xiangqi Cards. In *Korean Games*, Stewart Culin records a number of different packs of xiangqi playing cards all from S. or S.E. China. The cards were usually in four colours (allowing for up to four players), each depicting a piece. The pieces were duplicated and one or more jokers were sometimes included. It is not evident what games were played with these packs but it seems likely that they were used at times to introduce a chance element into xiangqi, probably for gambling purposes.

31.2 Games using cards to influence play

Schachett (Proprietary game, Germany, 1890). Handsome playing cards of two suits, black and white. Court cards are pieces, others pawns. Rules blend cards and chess. (Gizycki)

Card Chess [A.C.] ('A.C.', 1902). The player whose turn it is to move is dictated by the turn of a card. Shuffle standard pack of playing cards and place face down. Cards are turned over one by one. A red card requires a White move, a black card a Black move. A player giving check may continue to check. A checked player unable to escape on his first available move is checkmated. When the pack is exhausted it is reshuffled and used again. Tom Braunlich and Rollie Tosh have proposed two improvements: (1) A player whose king is in check may immediately move out of check (capture and interposing not allowed) before the next card is turned; (2) A black and red suit are removed from the pack. This heightens the calculation of odds. (*British Chess Magazine*, September 1903, also *Eterosacco* 53 and *Nost-algia* 322/348)

Chessmatch (Proprietary game, Wayne Eberhart, 1965, marketed 1986). Pack of 65 cards depicting individual chessmen: 6 x K, Q, R, B, N, 32 x P, 3 wild cards. Each player is dealt five cards initially and draws another before each move, choosing one of the six to play and moving the corresponding man on the board. There is no check or checkmate; capture the king to win. Castling with either K or R card. The choice of cards to play and hold calls for additional skill. (Notes apparently derived from a set in David's game collection)

Card Chess [Dunne] (Alex Dunne, 1974). Standard pack of playing cards. Cards are shuffled and each player draws one before moving, the type of man to be moved being determined by the card drawn: Ace = free choice, 2-8 = P, 9 = B, 10 = R, J = N, Q = Q, K = K. A player unable to move loses his turn. A player in check still draws a card; if he cannot get out of check by moving the man indicated, he makes any legal move. K or R permit castling. Stalemate only if player draws K and is in stalemate. **Card Chess [Nominated Pawns]** (origins unknown) is

similar but the cards have different meanings: A-8 = pawns a-h respectively, 9 = R, 10 = N, J = B. A player unable to move forfeits his turn. If in check, draw card normally; if unable to move, proceed in following order: (1) move the king; if not possible, (2) interpose; if not possible, (3) capture checking piece. The ending tends to be drawn out because of the nominated pawn moves. **Scottish Card Chess** (Peter Smith, 1970s) is the same except that a captured piece must immediately be reentered on any empty square chosen by the capturer. This can give rise to some interesting tactics. [Dunne's game by personal communication; information about the others two presumably also derived from personal communication, but no source material in David's Encyclopedia files]

Leveler Chess (Proprietary game, Christopher Cagan and Mark Schynert, 1975). Eighteen tiles (in effect, cards) marked 1-8 and N (two of each), and nine new pieces which belong to neither side and are moved as dictated by the tiles: 6 x Duck, 2 x Matter Transfer Unit, 1 x Leveler. Ducks are blocks which move in formation; they cannot be moved onto or through and they block a check. Only the leveler can capture a duck. Transfer units, which cannot be captured but can mutually destroy each other, can occupy a square with another man. They transfer any man (including duck and leveler) from one unit to the other. The leveler occupies four squares and destroys anything except a transfer unit on all squares it covers. The sequence of play within a turn is (1) make a normal move, (2) draw a tile for each extra piece in turn (one tile for all the ducks), in order leveler, transfer units, ducks, and move the piece one square in the direction indicated (1 = S round to 8 = SE as seen by White, N = no move). In the array, the leveller covers d4/d5/e4/e5, the transfer units are on a5 and h4, and the ducks on a4/b4/b5 and g4/g5/h5. There are a number of detailed rules to cover anomalous situations. (Proprietor's rules pamphlet)

Chance Chess (Proprietary game, Chance Chess Co; Tino Giminez, 1983). A blend of chance and chess. The game consists of a large

pack of cards (101) composed of 10 x K, Q, R, B, N, 25 x P, Move any piece, 1 x Reshuffle. The cards are shuffled and placed face down. Before each move the player turns over the top card. If he cannot move the man indicated, he loses his turn. If he can, he may either move the man or elect not to move. The turn then passes to the opponent. If a king is checked, the checked player first plays a regular move (capture, interpose, move K) then draws a card and moves again accordingly. Castling permitted if a K card is drawn. Boldness pays, and Lady Luck can be an indulgent partner. Tournaments held include one in San Diego (\$2,000 prize money) won by a grandmaster. (*Nostalgia* 292/3)

Tempête Sur L'Echiquier (Proprietary game, Ludodelire; Pierre Clequin and Bruno Faidutti, 1986). Chance-card chess. Handsome 72-card pack, humorously illustrated, dictates events. Five cards are dealt face down to each player and the pack placed beside the board. Players then examine their cards. During the game, a card may be played from hand at any time subject to the instruction on it (e.g. immediately after opponent's move) and the command executed (e.g. move any of your pieces like a knight). Once played, a card is replaced from the pack so that each player always retains five cards. There is no obligation to play a card, and a normal chess move may be made instead. One fundamental rule: a card played that attacks the opponent's king (check, checkmate or capture) or hinders its escape from check is annulled. The game was subsequently marketed in Germany as **Tshcach** and in the U.S. as **Knightmare Chess**. (Notes presumably deriving from a set in David's game collection)

Manchester (Proprietary game, Rostherne Games; David Watts, 1991). Board 6x6; each player has 10 cones (pieces) which are set up on the first two ranks, the end squares on the second rank being left empty. There are 36 cards, each depicting a chessman (six of each). The pack is shuffled and placed face down, and the top card is turned over. A cone not on a card moves forward or back one square; it cannot capture. The player then takes the top card, puts it in the square just vacated, and turns over the next card. A cone on a square

with a card on it moves and captures as the chessman depicted (no pawn-two); it may cross squares with cards on but not squares with cones. A player moving a cone as a chessman puts the next card on any vacant square. There is but one restriction: there may not be more than three queens in either half of the board. Object is to capture all the enemy cones, or to have the greater number of cones left when all the cards have been placed. (Proprietor's rule sheet)

Chess Mess (Proprietary game, Chess Mess Games, 1993). Novel board in form of eight-spoke wheel, each spoke eight squares long; usual chessmen. Alternative arrays; game played with or without spinner and cards. (Manufacturer's publicity material)

Chessmen-At-Arms (Proprietary game, MGM Information Services, 1996). Board 8x8 but the 81 intersections are used for movement. Usual chessmen but K, Q, Ns are cavalry, the rest (Rs, Bs, Ps) are infantry. Initial array on the 16 intersections (3x3 squares) in opposite corners of the board. Each side has a castle (g2/b7). Elaborate rules using playing cards, described as a simulation of medieval warfare. Capture the K to win. (Proprietor's rules pamphlet)

Zany Chess (Joli Kansil, 1997). Required are a chess set and a pack of playing cards (2 jokers). The cards correspond to the chessmen as follows: K=king; Q/J=queen; 10/9=rook; 8/7=bishop; 6/5=knight; 4/3/2=pawn. Aces and jokers have special meanings. Usual set-up. On your turn you draw top two cards of pack. If cards are of different suits and indicate different pieces, player chooses which piece to move. If the cards are of the same suit, player has option of moving both pieces in either order or the same piece twice (if so indicated). If cards of same rank, player may choose a legal chess move or may move each piece once or one piece twice. An ace is *jeopardy*: move any threatened man (but you cannot capture); If *double jeopardy* (pair of aces), move two threatened men or make one orthodox chess move. A joker is *switch*: you can change positions of a pawn and any piece (including the king). Double switch allows you to switch two pawns with two pieces or

play a single orthodox move. If *nullo*, (cannot play either piece indicated) move a pawn; if not possible, move the king. On a check, attacked player does not draw cards but makes any legal move. Game named after inventor's son, Zane. (Inventor's rules pamphlet)

31.3 Combination games

Pinochle Chess (David Moeser, 1970). Unlikely wedlock of chess and pinochle. Deal as for two-handed game with cards representing chessmen: Ace = R, 10 = N, King = K, Queen = Q, Jack = B, 9 = P. When a card is played, player may move corresponding chessman on board. First player to put down a jack or 9 has White. Both games must be played to legal rules. Castling permitted on play of either ace or king. Exchanging 9 for trump indicator does not qualify for a pawn move. Winner is first to checkmate or score 1000 points. (*Nostalgia* 282, *Neue Chess* 8)

31.4 Karten Schach

Karten Schach (Proprietary games, Berliner Spielkarten GmbH; Reiner Knizia, 2000). A book of 25 original chess variants packaged with a chess set, black and white counters, 28 cards and a 78-page rule book. Cards depict 4 x K, Q, R, B, N (two of each colour), 8 x P (four of each colour) plus four jokers (two of each colour). In all games you capture (not mate) opponent's K to win. K may not attack K. White starts. When cards are exhausted they are reshuffled and a new stack formed.

Aristocratic Chess. Six cards, one of each piece type, are laid face up between the players. Six counters are placed nearby. On turn, a player may move one or more (up to six) pieces indicated by the cards. A counter is placed on each man moved to avoid duplication. At the end of a turn, the counters are removed and are used again.

Feudal Chess [Karten Schach]. Each player has a set of seven cards (one of each piece, two pawns) and seven counters. These are laid openly. The player with the move has two possibilities: (1) Play one of the men indicated on a free card (no counter) and place a counter on it; or (2) Sacrifice a turn and remove all counters from his cards.

Chaos Chess (Proprietary game, Hammerdog; Danny O'Neill, 2001). Pack of 80 chance cards for use with orthochess. Examples: (1) Remove two of your opponent's and one of your own pawns; (2) Convert one of your pawns to a knight. (*Variant Chess* 20)

Gambler Chess [Lawless] (Kevin Lawless, 1994). Five-check chess (the first to give five checks wins), with the added twist that a player draws a card for each check and so gradually builds up a poker hand. Games are played in pairs, each player having each colour once, and if each player wins one game the better poker hand wins; if the same player wins both chess games, he may choose the better of his two poker hands. The holder of the winning hand is paid according to an agreed scale. (*Variant Chess* 16) [Text editorial]

Proletarian Chess. Omit the pawns and joker cards from the pack. Turn player takes top card and places it face up on the discard pile. Now the player must (1) Move a piece corresponding to the exposed card, or (2) Move a pawn, or (3) Pass.

Prophet Chess. White and Black each hold 12 cards (two of each type) and in addition White has a joker. White starts and places a card face up in front of him. Black does likewise. This procedure continues until each player has a line of seven cards. White's last two cards may not be of the same type. White adds the joker as his eighth card. White now makes the first move, the players always moving a man corresponding to the next card in their line. Finally, White plays the joker and moves any man. The cards are now taken back in hand and a new line of seven is laid out, this time Black having the joker as his eighth card and starting. The process is repeated as many times as is necessary.

Psycho Chess. 24 cards (2 white, 2 black of each piece type) but colour irrelevant. Five cards are dealt to each player, the remainder forming a stockpile. At each turn, the players simultaneously disclose a card. Highest-ranking card wins (normal order KQRNBP,

but P beats K). Winner either moves a piece of the rank he played, or a pawn, or he can pass. If ranks are the same, neither player moves. The cards used are discarded and the players draw replacements to maintain a hand of five cards.

In the next group of games all 28 cards are used (no jokers). Colours are irrelevant. Cards are shuffled and placed in a stack face down.

Cassandra Chess [Karten Schach]. The white and black cards are shuffled separately and then laid out alternately round the board, seven cards a side. A counter is placed outside the board at the bottom right corner as a marker. White starts with any move and Black likewise. White may now move the man indicated by the white card next to the marker or pass. The marker is then moved onto this card when Black acts accordingly.

Cockayne Chess. Three cards are turned up in front of each player. The player with the move has two choices. (1) Move a man indicated by one of his cards. Then remove the card and place it face up on a discard pile. Finally, draw a replacement card from stock. (2) Without moving, discard one or more cards and replace them from stock. If both players use up all their counters they are replaced.

Ducat Chess. The players have eight counters each exposed in front of them. Turn player exposes the top card. He has three choices: (1) Play a man of the rank shown, (2) Pass, or (3) Surrender a counter and make any legal move. Exposed cards are discarded

Eunuch Chess. Four cards are laid face up in front of each player. Black starts by selecting one of his four cards placing it on a face-up pile in the middle and replacing it from stock. White now either moves or passes. He may not play a piece of the type chosen by Black. Then White selects a card and Black moves, and so on.

Gambler Chess [Knizia]. The player takes the top card from the stack and moves the indicated piece. He can continue to draw cards and move accordingly but can stop at any time. If he draws a second card of the same rank he loses his turn. If he stops before that he may use any or all of the revealed cards to move the corresponding pieces. Exposed cards are removed from play.

Liar Chess [Knizia]. Turn player takes top card of pack, looks at it, places it face down on the discard pile, and moves. Opponent may challenge or pass. In the event of a challenge, the card is revealed. If the challenge is correct, the move is retracted and the man moved is removed from play. If the challenge fails, the challenger loses his turn and the opponent plays again.

Pea-Counting Chess. Each player has six counters of own colour. Turn player draws a card, exposes it, and may play the appropriate man or pass. Alternatively, the player pays a counter to the opponent, draws another card, plays the man indicated or passes. The player may continue to buy cards until satisfied as long as he has counters to pay for them. Passing is always an option.

Pirate Chess. Turn player takes top card, looks at it, places it face down on the discard pile and either moves any man or passes. The opponent now decides whether or not to challenge the move. If he does the card is exposed. If the challenge succeeds, the move is retracted and the challenger has a free move (no card drawn), if it fails, the move stands, the challenger loses his turn and the turn player has a free move.

Purist Chess. Draw a card and move the indicated piece (colour irrelevant) or opt to pass. If you cannot move the piece indicated, move any man or pass. Used cards form a discard pile.

Skateboard Chess. The top card of the stack is exposed. The turn player now has two options: (1) Move a man of the type indicated or (2) Turn over a new card and either move the piece indicated or pass. Players may use the same card consecutively more than once.

Speculator Chess. The turn player draws a card and exposes it. He can elect to move a piece of the type indicated or draw a second card with the same option. This can be repeated a third time but he must then move or pass. Exposed cards form a discard pile.

In the following three games each player begins with 12 counters. The winner of an auction pays the amount of the bid to the opponent.

Capitalist Chess. The turn player takes the top card and exposes it. He now has two options: he can pass, when the opponent

receives the card gratis, or he can make a bid (zero bid permissible). If the opponent now passes, the turn player takes the card. If the opponent bids there is an auction. Bidding continues until one player passes. The winner now pays the loser the number of counters corresponding to the final bid and moves the relevant piece or passes. The player who passed in the auction exposes the next card.

Machiavelli Chess. Four cards are dealt face up in front of each player. The player with the move chooses one of his four cards and places it near the stack, replacing it from stock. There is an auction for the chosen card (bids from nought upwards). The player with the higher bid takes the card and pays the appropriate number of counters (if any) to the opponent. The winner now plays a piece appropriate to the card or he can elect to pass. The player who passed in the auction chooses the next card.

Socialist Chess. The turn player takes the top two cards and exposes them. The auction is as in Capitalist Chess. Whoever wins the auction pays the opponent the number of counters bid and picks one of the two cards. The player now moves the appropriate piece or passes. The loser may use the remaining card or pass. The loser turns up the next two cards.

In the following games the players start with a set of six different cards (KQRBNP) of the appropriate colour face up in front of them unless stated otherwise. A card played is reversed. When all six cards have been reversed by both players, they are again exposed and available.

Clairvoyant Chess. Players take their cards in hand. Both players select a card and place it

face down in front of them. White exposes his card and either plays a man of corresponding rank or he passes then retrieves his card and places any new card from his hand face down in front of him, for his next turn. Black then does likewise.

Döppelgänger Chess. On turn, a player may either make a normal move or select a card and make an additional move with the piece depicted. The card is then turned over. Example: 1 e4 e5 2 Bc4 when White threatens to select his B card and play Bxf7,xe8 winning. However, Black can now choose his P card and play d5,dxc4. Capture the K to win.

Generation Chess. Nine cards are dealt face up between the players. The turn player chooses any card (colour irrelevant), moves a corresponding man or passes, and turns the card face down. When the nine cards are exhausted, a further nine are dealt and play proceeds as before.

High-Flyer Chess. On turn, a player makes a normal move or declares a card and moves the piece indicated to any unoccupied square (no pawn to the end rank). The card is then reversed. A card is also reversed if the player has no men remaining of the rank indicated. When the cards of both players are exhausted, they are replaced.

Impostor Chess. On turn, a player makes a normal move or selects one of his cards and moves any man in the manner of the piece chosen.

Proxy Chess. On turn, a player makes a normal move or exchanges the positions of two of his own men. The card reversed is the higher-ranking of the two men moved (order KQRBNP). A pawn card allows the player to swap a pawn with any man other than the king.

Part 6

Games with non-chess objectives

[These final chapters on two-part games cover games where the win is achieved not than by capturing the enemy king but by occupying his base, by reaching some other goal before he does, by annihilating his force, by scoring more points according to some scale, or whatever.]

Chapter 32

Playing to reach a fixed goal

[In this chapter, we look at games where the aim is to occupy a specific location rather than to capture a particular man. There are two distinct classes: where each side is aiming for a separate goal which is usually deep in enemy territory, and where both sides are aiming for the same goal. A special case of the former is provided by football games, which are sufficiently distinctive to have been given a section to themselves.]

32.1 Fixed goals in enemy territory

Helwig's Military Chess, also known as **Estralography** (J. C. L. Helwig, 1780). One of the first war-games in which the board displayed terrain features. Pieces represented infantry, cavalry, artillery, transport, fortified camps, stores; object was to storm enemy fort. Later modified by M. C. F. Cranmer (1803). Helwig was Master of Pages to the Duke of Brunswick, who instructed him to evolve a game for the training of young men in the art of war. (Gizycki, also *Le Palamède*, September 1846) [This is the game given in the first edition as 'Military Chess (I)'. That edition also included a Helwig Chess on a 1414-square board, which I am taking to have been the same.]

Jeu de la Guerre [Giacometti] (François Giacommetti, 1793). Described in 1801 as the new game of chess. Giacommetti expresses surprise, not a little naively, that 'Whatever the origin of chess, it is astonishing that, ever since it has been played, nobody has thought of making any changes'. Dedicated to Napoleon Bonaparte. Board 9x17, central rank = river; 52 pieces a side (assorted military personnel, artillery and defences), object is to take the enemy citadel. Interestingly there were no fixed dispositions, the inventor observing that it was natural that a General should be free to deploy as he saw fit - an early if inflated example of randomized chess. (*Nouveau Jeu d'Echecs, ou Le Jeu de la Guerre*, 1801, also *Le Palamède*, 1837, pp 389-93)

Jeu des Drapeaux (F. Darbo, 1823). The two sides represent regiments whose aim is to

capture the opponent's flag, which is immobile, and return with it to base. Board dimensions unknown. Each player has 11 pieces in addition to the flag: 1 x Colonel, Major; 2 x Officers, Grenadiers; 5 x soldiers. Colonels and Majors move like a queen; officers one square forward, straight or diagonal, or one square straight back; grenadiers one square orthogonally and soldiers forward only one square, straight or diagonal. Capture by displacement. Array (centred): first rank OMFCO, second rank GSSSSG. (Inventor's book *Jeu des Drapeaux*)

Croughton's Hexagonal Chess (Thomas Croughton, 1853). The first recorded variant on an hexagonal board. 61-cell hexagonal board; each player has 1 x General, 2 x Colonel, Captain, 6 x Infantry. The General moves as a Q, the Colonel likewise but up to two squares only, the Captain (a junior officer with enhanced powers!) like a rook along files or like a knight. Pawns (Infantry) move forward one cell in either direction with the option of two cells initially. A pawn promotes to 'a more valuable piece' which is placed on its start cell. No capture can be made backwards. Aim is to get the General to the opposing General's square. (Inventor's book *Hexagonal Chess*)

Jeu de la Guerre d'Orient (J. François Gilot, 1855). Based on the fall of Sebastopol (Crimean War) in which the allies (England, France, Turkey, Sardinia), who had carried out a 'double check' (double attack) on the town, inspired the unique 'double check' stipulation

for victory. Board 9x13 (a1 white); a total of 61 pieces plus two immovable 'capitals' - Paris and St. Petersburg (each valued at 1143 points, half the value of the respective armies) - whose capture 'with a double check' is the object of the game. The principal pieces are Heads of State and the senior commanders; the allies include Napoleon III (who moves up to four squares in any direction: value 72 points), Queen Victoria (who moves appropriately as a queen: 180 points), the Sultan of Turkey (up to three squares in any direction: 54 points), the Russians include the Emperor Alexander II (72 points) and the Empress (180 points). The points represent estimated strengths and have no influence on the game; the award of 1143 points to each of the immovable capitals is therefore something of a curiosity. Each side has 9 knights, the allies 9 pawns and the Russians 18, an apparent injustice rectified by the greater power of the allied knights (an alternative game allows balanced forces). Capture by displacement; pawn promotion to file piece. Chess terms adopted; for example, 'j'adoube', and an attack on the opponent's capital must be heralded by name ('Paris' = check). Frank Marshall was invited to take part in an exhibition game at the Marshall Chess Club, an event which may or may not have taken place. (Author's booklet *Jeu de la Guerre d'Orient*, 1856)

Military Chess [Conder] (Proprietary game, Mead and Co; Charles Conder, 1871). Inspired by the Franco-German war of 1870. Board 12x12 of which two ranks formed a river crossed by a four-square bridge. Men 22 a side (various soldiers and artillery pieces). Capture of the enemy's standard or planting one's own in the enemy stronghold won the game. (Advertisement in the *Westminster Papers*, 1871)

Zodiac Chess (Proprietary game, Zodiac Games; 'Mercury in Virgo', late 19th Century). Round board 12x5 sectors; pieces are named after heavenly bodies: K=Sun, Q=Moon, Rs=Jupiter and Saturn; Ns and Bs the other planets (omitting Mercury and Neptune); Ps are satellites. The twelve sectors are named after the signs of the Zodiac. White wins if he gets a piece in Pisces, Black if in Aries. [The source is a book or other

document with reference '(BL) CUP 700g.1', which I presume to be a British Library shelfmark. The first edition included a second game from the same stable, **Copernican Chess**, which would appear to have used the same or a similar board but to have been different in detail: 'Obscure winning conditions'.]

Land and Water (Proprietary game, c.1890). 8x8 board; 24 pieces a side representing various land and sea forces which move and capture as draughtsmen but can only take a weaker or equal adversary; object is to occupy opponent's back rank or to block him so that he cannot move. (Manufacturer's rule sheet apparently found in the Bodleian Library) [Text revised]

The Jungle Game. Origins obscure; in the opinion of Bell, possibly a development of xiangqi. Sometimes called **Children's Chess** or **Oriental Chess**. Board 7x9 of which b4-b6/c4-c6 and e4-e6/f4-f6 are 'water'. Eight pieces a side, each a different animal. Displacement capture according to precedence. Object is to enter opponent's den (d1/d9). (Bell, *Board and Table Games from Many Civilizations*) [I have also met the name **Animal Chess**. 'Capture according to precedence' seems to be rarely employed in chess games, though Fourth Dimension (chapter 23) provides an exception. When writing about the Jungle Game in *Variant Chess* 40, I looked briefly at what might be called **Scissors, Paper, Stone Chess**, inspired by the childhood playground game (scissors cut paper, paper wraps stone, stone blunts scissors). A first essay (board 5x5, all men move as kings, each player has a king and three of each of the other pieces, a king can capture and be captured by anything, other men capture each other only in the cases given) suggested that the game was playable, and not without interest; a deeper investigation might come to an exactly opposite conclusion.]

Tugelia, also known as **The Relief of Ladysmith** (Proprietary game, T. and W. White, 1900). Marketed six months after the lifting of the siege. The Tugela (sic) is a river of Southern Africa on whose banks a number

of major engagements of the Boer War were fought. Board 16x16; each player has 15 men: 5 cavalry (move as knights), 8 infantry (one square diagonally), 3 artillery (one square orthogonally). Aim is to occupy opponent's citadel. 'Prisoners' taken by displacement. [There is no source material in David's Encyclopedia files, merely the name of a correspondent. The proprietors were not necessarily being careless when naming the game, since it is quite possible that the name under which the river appeared in contemporary news reports differed from that by which it is known today.]

Naval Chess (A. Teplov, 1908). Marine kriegsspiel on a lattice board. Pieces representing naval units move on intersections. Remote from chess. [Information presumably deriving from personal communication. There is no source material in David's 'Encyclopedia' files, merely a manuscript note 'Press-mark of the Leningrad library 38.45.5.985'. The placing of the game in this section is merely an inference from the word 'kriegsspiel'.]

The Game of War [Maxim] (Proprietary game, Druke; Hudson Maxim, 1910). Board 10x10 (a1 black) plus four aircraft bases adjacent to and of the same colour as squares d1/d10 and g1/g10. The squares f1/f10 are Citadel squares and are appropriately marked. Each side has 20 men. These are (chess equivalents) 1 x King (K), General (Q), 2 x Mortar (R), Cannon (B), Cavalry (N), Aircraft (appropriately for the era, called 'flying machines') 10 x Trooper. Aircraft move only once in a game to any vacant square where they act as blocks to both sides (at that time, strategists saw the aircraft's primary role as that of reconnaissance). Troopers move and capture as pawns or draughtsmen. Captures are compulsory for troopers who, if they capture by leaping, must continue to capture in the same turn if further captures are possible. A trooper reaching the end rank becomes both inert and immune from capture, acting as a block precisely like an aircraft. Kings have no royal powers and the object of the game is to occupy the opponent's citadel square for one turn. The array parallels that of orthochess but with d1/d10, g1/g10 empty and aircraft on

bases adjoining these squares. Note that the Ks occupy the citadel squares. The game was sometimes played at the Marshall Chess Club and is pictured in *Marshall's Best Games of Chess*. (*Ye Faerie Chessman*)

Counter Chess (Karl O. Hill, 1960s). All men move and capture like kings except that a man may not capture a man taller than itself. Thus kings, which have no royal powers, can capture any man, but pawns can capture only pawns; the powers of the other pieces depend on the set being used. Either the array is randomized, the men being set up in opposite corners of the board, or a starting position is agreed. The object is to get any piece to the opposite corner square. (Originator's rule sheet)

Hexapawn was put forward by Martin Gardner in *The Unexpected Hanging* (1969 but largely repeating material which had appeared earlier in *Scientific American*) as a vehicle for the construction of an elementary artificial-intelligence machine (the game itself being described by Gardner as 'trivial'). Board 3x3; three white pawns face three black pawns, the object being (1) to advance a pawn to the third rank, or (2) to capture all three enemy pawns, or (3) to deliver stalemate. Jacobs and Meirovitz (*Brain Muscle Builders*) extended the game to 4x4 and 5x5 boards with extra pawns. [Reference to Gardner material added editorially]

Cu-Bono (A. E. Ball, 1969). Board 10x10. Described as 'a scientific mimicry of warfare' by its inventor. Each side has 20 pieces: 2 each of missiles, guns, tanks, airplanes and generals on the nearest rank, 10 flags on the next. Flags move like pawns with three-square initial option. Other pieces move either orthogonally or diagonally over different distances. Object is to occupy one of opponent's capital squares. Inventor's Diploma, Geneva 1971. Ex-President Nixon and Prince Charles were lucky recipients of sets. (*Games and Puzzles* 23)

Bombalot (Bruce Harper and Duncan Suttles, 1972). Board 8x8 with two additional squares at either end of the board centrally sited (d0/d9 and e0/e9). The object is to get any two pieces

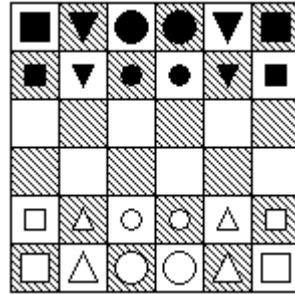
into the opponent's extra squares. A player cannot occupy his own extra squares. The usual men can be used (one rook must be inverted) but they have new roles with odd names and odder moves. Twekes (P) move as K but may leap in any direction as draughtsmen over own men and enemy Bomb, or over enemy men, which are captured. A tweke cannot jump friendly and enemy men in the same turn. Bishops (B) move exactly as twekes but can combine jumps. The Immobilizer (K) moves and leaps as bishop but does not capture. Any enemy piece next to it is immobilized. A tweke or bishop can capture an immobilizer provided it starts its move out of range. The Bomb (Q) moves like K, cannot capture or be captured, and may be detonated by the player at any time after moving it or instead of a move. The detonation destroys the piece and all men of either colour within two squares of it (it thus covers 24 squares in the middle of the board). The Detonator (N) moves as the immobilizer and has two functions. If it lands on the enemy bomb it immediately detonates it. Taking the detonators as co-pairs (see Co-Chess in chapter 12), any men on co-squares are destroyed and bombs detonated. The Tank (R) moves like a K, does not jump or capture, but pushes adjacent men in direction of movement. A piece pushed off the board is lost; a bomb explodes before it is pushed off. The Imitator (inverted R) copies the actions of the last enemy piece moved. A man that cannot move can commit suicide. Array (a1-h1/a8-h8 and inwards, centred) ID-BoI-DT_a, BiTTTTBi, TTTT. The game has been played from Vancouver to Nova Scotia and also in Germany, but probably not often. (*Chess Federation of Canada Bulletin* 19, November 1976)

Advice (Proprietary game, Inquot Ltd; Alick Elithorn, 1976). Board 9x9; 13 men a side made up of 1 x Citizen, 4 x Lawyer, Psychiatrist, Priest. Object is to occupy opponent's corner. Less like chess than it seems. [Information presumably deriving from a set in David's game collection]

Pharaoh's Quest (Proprietary game, Protel Games, 1985). Design award winner; described as 'Pharaoh and invading king battle

over Nile's ancient riches', but components (abstract pieces, chequered board) belie the box-lid blurb. Board 44 squares in form of Z; 9 men a side. Pieces move as Q, R, N; object is to capture opponent's immovable towns. (*Die Pöppel-Revue*, March 1989)

Alapo (Johannes Tranelis, 1982). Board 6x6; men are squares, triangles, and circles, large and small.



Small square pieces move one square orthogonally in any direction, triangles one square diagonally, circles one square either orthogonally or diagonally (like a K). The large pieces move in the same manner but over any number of vacant squares (like R, B, Q respectively). Capture by displacement. The first side to move any piece to a square on the opponent's baseline where it is not immediately captured is the winner. (Koch, *Spiele für Zwei*)

Duell (Proprietary game, Parker Bros, 1984, first published in U.K. in 1975 as **Conquest**). Board 9x8; each side has eight dice arranged on rear ranks in addition to a king. Dice are rotated from square to square (and may change direction once during a move) according to number displayed. Win by capturing opponent's K or occupying its array square. (*Spielbox*, January 1985)

Artificial Intelligence (Proprietary game, Richard Hazlewood, 1986). Board 8x8, 16 men a side: 1 x A.I., 2 x Executive, 3 x Designer, 4 x Analyst, 6 x Programmer. Object is to get A.I. to opponent's A.I. cell without its being captured. Elementary and advanced games have boards 7x7 (11 men a side) and 9x9 (18 men). (Proprietor's rules leaflet)

Chess 2000 (Proprietary game, Catalfa House; T. Lezemoire, 1986). Board 13x12, 26 men a side (1 x king, 2 x queen, rook, 4 x bishop, knight, 13 x P). Chessmen are black and white but have coloured bases. Board squares are in same pastel shades (six colours) arranged in a symmetrical pattern. A man of the same base colour as the square it stands on can only be captured by a piece of the same base colour. Game is unique in that king can be captured any number of times. Each time it is returned to its base square, the occupation of which by the opposing king wins the game. The king moves up to three squares in any direction and because it never leaves the board is a useful attacking piece. All other men move as in chess but no e.p. or castling. (Proprietor's press release)

Rugby Chess [Sekatsky] (Igor Sekatsky, 1986). The inventor, who is paralysed, invented the game during a night of insomnia. Board 10x10; 20 men a side, baseline (a1-j1/a10-j10) NKQRBBRQKN. The object is to pass (conduct) the pair of knights to adjacent squares on the opponent's first rank. Knights cannot capture or be captured; kings move only on squares of starting colour. Knights and bishops move only to adjacent diagonal squares, the difference between them being that bishops can capture. The queen moves as a bishop and the rook as a rook but only on the squares of the same colour. The pawns move as chess pawns and so are the only men that can change the colour of their square. Promotion is to bishop. Black draws if he can immediately match White's touch-down. (Manuscript notes presumably deriving from personal communication)

Military Affairs Chess (Proprietary game, David Games; Hoa Vinh Hua, 1987). The aim is to capture the opponent's castle, which, although concealed, cannot move. Little to do with chess. [Information presumably deriving from a set in David's game collection]

Admirals-Schach (Proprietary game, Reality Games GmbH, 1988). Naval strategy game with little resemblance to chess. [David's Encyclopedia files contain only a proprietor's publicity sheet, and the verdict presumably comes from a set he possessed or had seen.]

Ayanu (Proprietary game, Keller; Harald Germer, 1988). Board 9x9 plus small space at either end of e-file whose occupation is the aim of the game. Stronghold, akin to palace in xiangqi, covers six squares in either camp (d1-f2/d8-f9). Tolkien-like theme. Each side has 9 men (equivalents in parentheses): 3 x Essa (Q), 2 x Itta (B), 2 x Onnu (R), Ayanu (Q+N), Urum (a sort of dummy). Each man is in two parts, a base and a cap; the cap, which indicates length of move permitted, changes during play. There is a form of displacement capture. [Information presumably deriving from a set in David's game collection]

Galaxy Chess (Proprietary game, Reality Games; Constantino Parselli, 1988). Space board game with little relationship to chess. (Proprietor's publicity material)

Occupation (Julian Grafa, 1988). Board 8x8; each player has 1 x General, Colonel, Major, Captain, Lieutenant, 8 x Private; array (h1-e1/a8-d8 and inwards) GCPP, MC-P, --LP, PPPP. General as Q; Colonel as R+N; Major as R or one square diagonally; Captain as B or one square orthogonally; Lieutenant as N; P moves one square diagonally, captures one square orthogonally, both in any direction. On capturing an officer, a private is promoted to the rank of the piece captured or any below. Captured men may be exchanged; an exchanged prisoner is restored to its original square provided that this is vacant (a private is put back on any of the eight P squares). Object is to occupy, with any piece and for one move, any square of the opponent's Fortress (g2/h2/g1/h1, b7/a7/b8/a8). (Inventor's rules pamphlet)

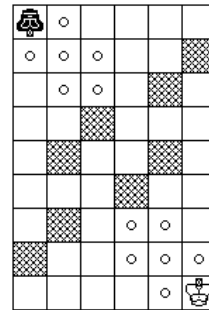
Trinome (Proprietary game, Jocus S.A.; J. F. Augey, 1988). Described as 'between draughts and chess'. Board 11x11; 15 men a side; 3 Circles (move two squares in any direction, no leaping), 6 Squares (one square orthogonally), 6 Triangles (one square diagonally). Capture by displacement. Object is to get one of each type of piece in enemy's camp (efg1/efg11). The game has won three silver medals at exhibitions. (Manufacturer's rule sheet)

Chafts (Proprietary game, Rostherne Games; David Watts, 1990). The most exotic of all the chess-draughts hybrids. Board 7x10, a1 black. Each side has 7 draughtsmen, 6 cones, and a set of six chess cards representing the different chessmen. White places his draughtsmen on black squares of first two ranks with a cone on each except the man d2. Black does likewise but on the white squares (no cone e9). Each player arrays his six cards in front of him. Draughtsmen move diagonally forward only and the object is to get one onto the opponent's back row and retain it there unchallenged for one turn. Notice that since the two sides start on opposite-coloured squares, the draughtsmen can never threaten or block one another. Cones move like chessmen as described below. A turn consists of three parts, taken in strict rotation: (1) Select a card from those available (initially six); (2) Move a cone like the chessman the card depicts; (3) Move a draughtsman (if possible). The card is then put aside and when all six are exhausted they are taken up and again arrayed in front of the player; thus every six turns a player has a choice of moving like any chessman. Cones can move freely on and off draughtsmen of either colour. A cone can 'capture' another cone by changing places with it but a cone not on a draughtsman cannot capture one that is. Draughtsmen cannot be captured. [Information presumably deriving from a set in David's game collection]

Riga Chess (Eduard Riekstins, 1990). Standard set-up but K is Gentleman, Q is Lady. Neither can capture or be captured and they have identical moves: like a king but not to the square directly ahead. The object, inspired by Sekatsky's Rugby Chess above, is to conduct the G and L to adjacent squares on the end rank. Pieces of the same colour can unite and disperse at will. Combined pieces have identities: R+N = Count; B+N = Horseman; Q+N = Amazon. White starts with one move; thereafter players make two moves a turn but the win must be achieved by a single move. [Information presumably deriving from personal communication; no source material in David's Encyclopedia files]

Chessence (Jim Winslow, 1990). Board 6x9; immobile kings (in effect, citadels) at f1/a9,

'starting squares' at d2 etc, blocks at a2 etc. Each side has nine identical men. Six men on each side are placed on the starting squares, the remaining three being kept as reserves.



A turn consists of moving a man or introducing a reserve on one of the player's unoccupied starting squares. The object is to mate the opposing king (in effect, to reach his citadel). How a piece can move depends on its relationship to another piece of the same colour. If a piece is orthogonally adjacent to another, either may move like a rook; if diagonally adjacent, like a bishop; and if a knight's move apart, like a knight. If it has none of these powers, it cannot be moved. Kings are ignored for the purpose of determining the powers of adjacent men. Capture is by displacement. A player unable to move loses the game. Blocked squares may not be landed on, nor crossed except by a knight's move. When moving, it is etiquette to announce the role of the piece moved. (Originator's rules leaflet)

Isis (Proprietary game, Adam Godfroy, 1993). Board 12x12; eight squares in each half are designated energy zones, two in each of four colours; each player has eight pieces, again two in each of four colours; object is to occupy opponent's energy zones with pieces of the appropriate colour. (*Variant Chess 22*) [Text editorial]

Hexabeast, also known as **Liu Chu** (Ivan Derzhanski, 2000). 70-cell hex board as in Shafran's game. Each side has 3 x Boar, Bull, Cock, Dog, Horse, Ram. Complicated rules governing movement; objective is to occupy opponent's home hex or to stalemate him. (Chess Variant Pages) [Text editorial]

Invasion (J.-L. Cazaux, 2001). Board 10x10 with centre 4x4 squares prohibited; play from corner to corner; military pieces with slight

chess connections. Object is to checkmate or stalemate opposing HQ or occupy his home corner. (Chess Variant Pages) [Text editorial]

32.2 Fixed goals in neutral territory

Jesön Mor. Mongol game (literally ‘Nine Horses’). Board 9x9; each player has nine knights arranged on respective first ranks. Object is to be the first to occupy the central square (e5); usual displacement capture. Presumably a player would have to occupy the square for one turn in order to win. (Assia Popova, *Jeux de Calculs Mongols*, 1974)

Hexagonia (Proprietary game, John Jaques and Son). Published in 1860 according to van der Linde, and allegedly awarded two prize medals in 1862, the game was in fact published on 23 September 1864 and registered at Stationers’ Hall the following January. 127-cell hexagonal board, central cell distinguished. Each player has 1 x King, 2 x Cannon (artillery), 4 x Knight (cavalry), 8 x Pawn (infantry). The moves of the pieces are not recorded. The object was to get one’s K safely to the central cell. (Photocopy of what appears to be a game box cover, also manuscript notes possibly from a library visit)

The Game of Coronation (George Mumby, 1870). In an article (*Westminster Papers*, 1 December 1870), the unnamed writer (Mumby himself?) refers to earlier chess variants noting that ‘as the only novelty introduced was the additional intricacy, they soon fell into merited oblivion’. The Game of Coronation, he goes on, ‘although to some extent based upon Chess, is ... far superior to the imitations referred to’. The board is composed of eight concentric circles, the centre one containing the Crown. The circles are divided by radial lines to form spaces which are chequered. Each side has a 1 x Prince, General, 2 x Colonel, Major, Captain, 8 x Soldier. The Prince (=king) must reach the crown to win.

Kastellet (Proprietary game, Henry Smith, 1892). 61-cell hexagonal board arranged so that adjacent hexes abut left, right, and 30 degrees either side of forwards and backwards. The central hex is known as the point and

cannot be occupied. The aim of the game is curious: to maintain a guard (‘cover’) of the point. A player, none of whose pieces could in theory occupy the point, and who cannot, on his next turn, move a piece to cover it, loses the game. Each side has 12 pieces which, with their moves, are 5 x Flag (one hex diagonally forward), 4 x Mace (to any adjacent hex), 3 x Lance (to any of the six nearby hexes of the same colour, assuming a normal three-colour chequering). In addition, when a flag reaches the end rank it promotes to a Bar which the player puts on any vacant hex; thereafter neither player may cross or occupy that hex. (U.S. Patent 521,737 of 1894) [Text revised. The game had apparently been previously patented in England, patent 13,662 of 1892.]

Krona (originator not noted, 1894). Board 9x9, each side having 8 Esquires, 8 Knights and a Prince arranged in two ranks. Object is to get the Prince (moves as king, immune from capture) to the central square. Esquires move and capture as pawns but with no two-square jump or promotion, knights move and capture one square diagonally. (U.K. patent 3,022 of 1894)

Primrose Dames (Lewis Waterman, 1899). Board 16x16, each side having 16 Dames (bishops), 6 Knights and 4 Members (kings). The object is to get all of one’s members into the ‘house’ (the eight central squares g-j/8-9). Members do not capture, and if captured are returned to their start squares. (U.K. patent 20,874 of 1899)

Chessword (Proprietary game, Waddingtons; Walter Blady, 1960s, published 1972). Board 8x14; a letter of the alphabet is printed on 40 of the squares. Each side has the usual chess pieces (no pawns) which move and capture as in orthochess except that the king has no special powers. Array (White): Ke2, Qc2, Rb1/h1, Bd1/f1, Na2/g2. Black has the same array (ranks 13/14) on the same-coloured squares as White but with king on left of

queen. Players agree beforehand on a word and the first player to spell out the word by landing on the appropriate squares in correct order wins the game. A letter is only gained if the player's piece stays on the square for one move - i.e., if it is not at once captured, when the same one-move requirement applies to the capturing piece. If the next letter required is occupied by a friendly piece, the letter cannot be claimed until the piece moves away and it or another piece moves back on, or another square with the same letter is occupied. 'The most imaginative and refreshing - if not, the only - new way to play chess since the game's invention' claimed the publishers! (Manufacturer's rule sheet, photocopy of board)

Stakato (Proprietary game, Lukesch Spiele; Robert Lukesch, 1987). Board 8x8 tiered with a1 lowest, rising a step at a time along ranks and files to h8 highest (14 steps above a1). Pieces are two kings and 8 cubic chess dice. Object is to mount the throne (h8) with one's own king or trap the opponent's king. Each side has four dice depicting, initially and respectively, Q, R, B, N uppermost, but they can change (by rotating) during play. Each die has two blank faces. There is no capturing, but a die can be temporarily deactivated in certain circumstances by exposing one of these faces. The pieces exert influence according to their powers of movement effectively erecting barriers which the opposing king cannot cross. There is some complex strategy. (Manufacturer's publicity leaflets)

Brinkmanship (Barry Foster, 1988). Board chequered, base 11x11 (a1 black) forming a regular pyramid; summit square (f6) has distinctive markings. Military pieces 16 a side: 1 x General (with flag), 2 x Artillery, Commando, Paratrooper, Tank, 7 x Infantry. Object of game is to occupy f6 with the general (flag) or to take hostile general (there is no checking). Capture is by displacement; no piece may cross the summit square and only a general may occupy it. Movement: G as king; A as rook but on same level, can change levels by moving up or down either orthogonally or diagonally to an adjacent square; C four squares orthogonally changing direction if desired, commando operates on

white squares only; P as queen and may leap other pieces of either colour (only piece able to do so); T as bishop and hence changes level with every step, operates on black squares only; I moves one or two squares at a time either straight or diagonally, but cannot move down levels; moves only one square to capture. Array (b1-j1/b11-j11) ATCPGPCTA, (c2-i2/c10-i10) 7 x infantry. Paratroopers attack each other in initial position but first player cannot eliminate both as opponent can recapture with second and take it out of range. (Inventor's rule sheets, also manuscript notes presumably deriving from a set in David's game collection)

Logitac (Proprietary game, Indice S.A.; Ghislaine and Daniel Siguier, 1988). Board 3-D; four levels, 12x12, 8x8, 5x5, 1x1. A total of nine black squares are replaced by orifices: (level 1) d4, d9, i4, i9, (level 2) c3, c6, f3, f6, (level 3) c3. Players begin with one each of Pyramid (K), Cube (R), Cylinder (B) (chess equivalents in parentheses) and 12 pawns. In addition, each player holds in reserve 33 pawns and one double pawn (N). Object is to get one's pyramid to the top. Pieces ascend to next level after a certain number of captures, descend (via the chimneys) optionally. A pawn's power is increased as it ascends. The double-pawn and extra pawns are brought into play one at a time on any vacant square on back rank of first level instead of a move. Array (d1-h1/d12-h12) PCyPyCuP, (b2-k2/b11-k11) 10xP. (Proprietor's rules pamphlet)

Monarch [de Poël] (Proprietary game, Historien Spielverlag; Jean de Poël, 1990). Hex board of 37 cells in regular array. Each side has 12 men; 1 x Duke (moves like K), 2 x Horseman (1 or 2 cells, captures on 2nd cell only), 2 x Paladin (moves like K, captures like N), 1 x Marshal (1, 2 or 3 cells, captures on 3rd cell only), 4 x Pawn (moves as K). Object is to get duke (which has no royal powers) to central cell and to stay there for one move. The starting position (a number are suggested) is agreed between the players. Win (2 points) if duke attains centre or if opponent resigns; win (1 point) if duke captured; draw 1 point each. Points only applicable if a series of games is played. (Notes deriving from a set in David's game collection)

32.3 Football games

Chess and football (soccer) are familiar bedfellows: 'Football Chess is popular amongst Oxford University undergraduates' (*Chess*, June 1973). Because moves in a football boardgame are likely to replicate those of K, Q, R, and B at least, and such games are very common (Boyer, writing in the 1950s, refers to a dozen or so in France), it is difficult to rule on which are and which are not chess variants. Those mentioned here have been acclaimed by chess players and have enjoyed a measure of support.

Football Chess [Boissier] (Henri Boissier, 1940). Board 17x23; goals are five squares wide (g1-k1/g23-k23). Apart from the goalkeepers, who can move within their goals, the play is confined to a field b2-b22-p22-p2-b2. Each player has a team of 11, a goalkeeper, 2 backs, 3 half-backs and 5 forwards (strikers and sweepers had not been born) and predictably there is a ball. The line-up (White) is i1; g4, k4; f7, i7, l7; b11, h11, ill, j11, p11. Black mirrors this and the ball is on i12. The line-up is assumed at the start of a game, on resumption (second half), and when a goal is scored. The ball can move (subject to it being kicked) like a queen and play is quite sophisticated. Full rules are given by Boyer (*Nouveaux Jeux d'Echecs Non-orthodoxes*). Described as 'very popular in Switzerland where the inventor supplies regular problems to the papers' (*Chess*, October 1950); the game was also popular in Germany.

Football Chess [Tylor] (Chris Tylor, c.1950) Board 8x8; standard set-up. For problem composers or for a skittles game, the starting position could consist of any required set of pieces and pawns on their initial squares with the ball on any convenient square. A man plays the ball by moving to the square occupied by it and kicking it to an occupied or unoccupied square to which the kicking piece could itself move. For pawns, a kick to an occupied square is made as a pawn capture in orthochess, to an unoccupied square as a pawn move. In the course of a single turn the ball can be passed to any number of men of either colour, the kick being at the choice of the player with whom the ball rests. A move ends

when the ball is kicked to an unoccupied square. The two players move alternately regardless of who last kicked the ball. There is no capturing, the king has no royal powers and there is no castling; a pawn may promote to king. The object is to kick the ball into the opponent's goal (goals are d1/e1 and d8/e8). A piece occupying the goal does not save. A goal may not be scored from kick-off. Tylor suggests the game is best played with pieces only and ball at d4. As with the field game, possession is everything. (Inventor's rule sheet)

Football Chess [Boyer] (J. Boyer, 1951). Board 9x9; the eight pieces in usual sequence a1-d1, f1-i1 and a9-d9, f9-i9; no pawns. Notice all bishops on black squares. Goals are e1/e9; ball on e5. No captures, no checks; king is ordinary piece. Pieces move as in orthochess but cannot occupy goals. A piece can kick the ball if adjacent to it. The kick is executed in the same manner as the piece moves and must be directly away from the kicking piece. In the case of a knight (a powerful piece in this game), the ball can be kicked to any square a knight's move away but not to a square next to it. If the ball is kicked to a square adjacent to another friendly piece, this is a 'pass' and the ball can be kicked again, and so on. The ball may not be kicked into or across the goal from the 1st or 9th ranks. (*Jeux d'Echecs Non-orthodoxes*)

Chessball [Kamzalov] (U. N. Kamzolov, 1957). Board 5x8 (a1 black); each side has three Attackers (bcd3/6), three Defenders (bcd2/7), one Goalkeeper (c1/8). The ball starts on c4. White kicks off; a goal is scored when a ball reaches an end rank (1/8). Only goalkeepers allowed on end ranks. The ball is kicked when player in adjacent square: attacker occupies square and moves ball any number of vacant squares orthogonally; defender likewise but only ahead (diagonally or along file). Goalkeepers move any number of squares along rank only; they block but cannot kick. Other men move as queens when not kicking. (Author's certificate of invention 112730)

Football Chess [Stone] (Jed Stone, 1982). Usual set-up, moves and captures but the king is an ordinary piece. Ball starts on one of the four central squares at White's choice. The ball is kicked by a man landing on its square. King kicks the ball one square in any direction, pawn, which may move diagonally to kick, one square likewise. Rook kicks along ranks or files or one square diagonally, bishop along diagonals or one square orthogonally, queen in any direction, knight chips the ball a knight's move away. The ball may be 'intercepted' on any square it passes through on its way to the goal. The ball travels until it reaches an unoccupied square or the board edge except that a kick along a diagonal rebounds off the board edge in the manner of Billiards Chess. Pieces can move over the ball. Each player is allowed up to three consecutive moves. The first may be an orthochess move, but the second and third must move the ball. If the ball reaches the back rank (opponent's first) on the first or second move, the player's turn ends. A ball anywhere on the end ranks is a goal unless it is cleared by the defence immediately. (Inventor's rule sheet)

Waje's Football Chess (Proprietary game, Schwanenburg Verlag, date not known). Board 17x24, 11 men a side. Player kicking off puts man with ball on centre spot, players then place men alternately. At each turn, each player writes down three intended moves which must be disclosed on demand. Men move like queens, up to 3 squares with the ball and up to 5 without it. (Proprietor's rules pamphlet) [Text revised]

Chess Football [Arbogast] (Porter Arbogast, 1982). American football. Board 8x8 and usual men with addition of die, score pad and imaginary ball. The piece in contact with the imaginary football is the ball carrier. A series of moves constitutes a down. A capture constitutes a block, the blocked piece is removed from play but may be brought back later onto an unoccupied square on the player's baseline though not onto a square occupied by the imaginary football. Pawns move only one square at a time. All pieces are eligible ball carriers but pawns are not except for fumbles, interceptions and at kick-offs. Only a king may kick the ball. One pawn (the d-pawn unless the player specifies otherwise) is designated the center. The center puts the ball in play via the hike to any square directly behind it nominated by the offense. A tackle takes place when an opposing man occupies the ball carrier's square; the square on which this occurs determines the yardage which is recorded in a table. The ball stays with the ball carrier until the offense declares a pass, lateral or a kick. A pass is a forward movement in any direction (one pass a down is allowed), a lateral is movement of the ball to the side or rear. The ball carrier must pass or lateral in the direction it moves. Play is complex with scrimmage line, huddles, runback, interception, loose balls, punts, blocked kick, touchdown etc. A special game clock is introduced to maintain the pace associated with the field game. Chess Football is a realistic simulation playable at four levels from beginners to advance. (Inventor's rules booklet)

Chapter 33

Other objectives of play

[This final chapter on two-player games considers objectives other than the capture of a king and the reaching of a fixed goal. A section at the end lists games whose nature is unknown or unclear.]

33.1 Blocking and annihilation : games with jump captures

Jeu Militaire (Proprietary game, d'Hautancourt, 1818). Map board; armies comprise 1 x General, 4 x Officer, Portable bridge, 12 x Soldier. General moves one or two squares as queen, officers as king, soldiers one square orthogonally, capture by draughts-leap. Aim is to render opponent immobile or decimate his army (general + one soldier loses). Bridges are used to cross indicated water channels. (Photocopy of booklet *Jeu Militaire Sur Un Plan Topographique*)

QuatrArmes (Proprietary game, c.1910). Claimed as 'more amusing than draughts, simpler than chess'. Board of 55 points equivalent to the black squares of a 10x11 chequered board (a1 black); each side has 2 aircraft, 3 cannons, 5 cavalry, 10 infantry; aim is annihilation. Infantry are draughtsmen in manner of move/capture, promote to aircraft; cavalry as Turkish draughtsmen (move one space straight ahead or sideways, capture by leaping), promote to cannon; cannon and aircraft akin to rook and bishop respectively. Capturing is compulsory. Array (ranks 1-4): CACAC, infantry (5), cavalry (5), infantry (5). (Photocopy of proprietor's rule sheet)

Chesica (Frederick Copley, pre-1930). Pieces are placed on black squares of 8x8 board: ranks 1/8 4xQ, ranks 2/7 4xR, ranks 3/6 4xB. Pieces have normal chess move, but one square only, in addition to that of draughtsmen. Capture as draughtsman or chess piece. Forward moves only. On reaching back rank piece assumes full chess powers but also retains right of jump capture. (*Chessmen*)

Checkers Chess [Parton] (V. R. Parton, 1950s). Usual board and set-up, but the king is

a commoner and the object is to exterminate the opponent's men or otherwise leave him without a move. Non-capturing moves as in orthochess. Q, R, B capture by leaping over a single man (not necessarily on an adjacent square) and landing on any empty square beyond, K by leaping over an adjacent man and landing on an empty square immediately beyond. Pawns take as K but diagonally forward only. The knight is considered to move as R+B or B+R as preferred, so Ne4-f6 can involve a capture on e5 or f5 but not both. A succession of captures by the same man is permitted, but the men jumped over are not removed until the end of the turn. Capturing is compulsory, and the greatest possible number of pieces must be taken on a turn. [David gives a reference to 'Dix-sept Jeux de Dames Fantaisistes', which I haven't seen, and he gives two additional rules concerning promotion: a sequence of captures by a pawn ends on promotion, and promotion may be to king. The same title is used for chapter 50 of *Les Jeux de Dames Non Orthodoxes* by Boyer and Parton and this game appears as section XVII of this chapter, but these particular rules are not to be found there. They are of course entirely reasonable, and even if they do not appear in print they may well have been dictated by practical experience. Boyer and Parton also mention **Losing Checkers Chess**, which they describe as very attractive. The game **Chess-Checkers**, referred to in *Nostalgia* 189, would appear to differ only in minor detail if at all.]

Damate (V. R. Parton, 1961). Board 10x10, 20 men a side (2 x K, Q, R, B, 12 x P, no knights), array (a1-j1/a10-j10 and inwards) PBRQKKQRBP, 10xP. K, Q, R, B as in

Checkers Chess above. P as K but orthogonally or diagonally forward only (whether capturing or not), and a P moving across the central line into the enemy side or half is promoted (no apparent specification as

to what). Capturing is compulsory, including multiple captures if available, and the aim is to take all the opponent's men; the K has no special role. (*Challenge and Delight of Chessical and Decimal*)

33.2 Blocking and annihilation : other games

Le Jeu de Stratégie, also known as **Military Chess** (Count A. C. de Firmas-Périés, 1808). The inventor's intention was to make chess, a war game, more realistic. The board is assembled from cubes with faces of different colours representing terrain features; maximum 40x66 (2640 squares), minimum 33x49 (1617). Pieces consist of infantry, cavalry and artillery. All pieces move as queens but over different distances (dragoons 12 squares, infantry 8 squares, mortars 6 squares etc). Hussars have the additional move of the knight. The game concludes either by annihilation of one side's pieces or by a 'peace treaty'. (Author's book *Le Jeu de Stratégie ou les Echecs Militaires*, second edition 1815, also *Le Palamède*, September 1846)

Atomic Chess [Taher] (Nassah Bey Taher, 1947). It was reported (*Chess*, December 1947) that King Abdullah of Transjordan had an atomic set, and the bey, when in London that year, confided to the author that the inventor of the game was in fact the king. (Taher may or may not have been following the ancient tradition of crediting the master with all things sublime.) An attempt to modernise chess. Board 12x12; each side has additionally 2 x Tanks and Aeroplanes. Tanks are knights which can take a second step in the same straight line (so if c3 is empty, Tb1 can move to c3 or carry on to d5); aeroplanes move like queens and can pass over any number of pieces but can only capture if there is a vacant square beyond the target piece. Pawns promote to atomic bombs which move like aeroplanes and can be detonated at the choice of the player when they destroy all men, friendly as well as hostile, within a radius of six squares. If the king is destroyed, the next highest value piece surviving replaces him. Aim is destruction rather than mate. The first to promote a pawn is almost certain of victory.

Dawson's Chess (T. R. Dawson as amended by C. A. B. Smith and R. K. Guy, c. 1949). Board 3 x n . Rows of pawns face each other with empty rank between. Capturing is compulsory so promotion is impossible. Last player to move wins. [Date added editorially. The game has acquired a major role in the branch of mathematics known as 'combinational games theory'. As originally conceived by Dawson, it was a problem in *Losing Chess (The Problemist Fairy Chess Supplement*, December 1934) with the usual *Losing Chess* objective of leaving yourself without a move. Dawson thought he had found a systematic solution specifying the winner for all values of n and showing how to force the win, but by the time he came to write *Caissa's Wild Roses* in 1935 he realised he had made an error, and to the best of my knowledge no such solution has yet been discovered. Smith and Guy proposed a simpler version in which the last player to move won, and solved it for all n . The game therefore became, and may still remain, the simplest example of a game which has been completely solved under 'normal' rules (last player to move wins) but remains unsolved under 'misère' rules (last player to move loses). For further discussion, see *Winning Ways for your Mathematical Plays* (Berlekamp, Conway, and Guy, second edition 2001-4). Dawson's game with n pawns on each side can be shown to be equivalent to a simpler game in which the players start with a single row of $(n+1)$ objects and the move is to remove two adjacent objects, and it is usually presented and discussed in this form.]

An-Qi (origins unclear). Xiangqi variant. The pieces are reversed and mixed, then one each is placed face down on the 32 squares of a half-board. A player on turn either exposes a piece or moves an exposed piece. All pieces move one square orthogonally. Pieces only capture men of the same rank or below, the sequence being king-chariot-horse-cannon-

elephant-guard-pawn-king (only a pawn can take a king). Annihilate the opposition to win. (*Xiangqi Review*, volume 2 number 5)

Explosion Chess (origins unclear). Usual array and moves, but no displacement capture. When a move is completed, all men then under attack from the man moved are captured. If there is a simultaneous mutual attack, the attacker is also removed. The kings are without royal powers and the object is to annihilate the opposition. (Addison, *100 Other Games to Play on a Chessboard*)

Pentaplane Chess (Proprietary game, Geo Games; George Marino, 1986). Five 5x5 boards arranged vertically. Two players, each having 2 x R, 2 x B, 1 x N, 5 x P. No kings: object is to annihilate opposition. Pawns promote to Presidents (=Q). White men set up on bottom board, Black on top; vertical movement between boards. According to Jochen Corts, plays well with interesting strategy. (*Die Pöppel-Revue*, March 1989)

Latrel (Proprietary game, Millenium 2 Games; Richard Morgan, 1993). Board 8x8; 8 attackers per side, 2 x Trident (move as B, capture by occupying vacant square immediately beyond victim), 2 x Warrior (ditto as Q), 4 x Sabre (ditto as R), and 8 defenders (move one square orthogonally,

cannot capture, promote on back rank to previously captured attackers). Array (a1-h1/a8-h8 and inwards) SSTWWTSS, 8xD. Multiple captures permitted as in draughts, objective is to capture all the opponent's attackers. An advanced version replaces two of the defenders by blockers with additional powers. (Proprietor's instruction booklet) [Text revised. The cover of the instruction booklet announces the game as 'The ultimate lateral thinking board game' and on the very next line says '8 years - adult'!]

The Game of Nemoroth (Ralph Betza, 2002). A complicated game in which the ordinary men are replaced by Basilisks (petrify friend and foe alike), Ghasts (cannot be approached, and cause men within their ambit to flee), Leaf Piles (engulf anything they land on, and leave mummies of hideous and terrifying aspect), Go Aways (can make adjacent pieces move away), Wounded Fiends (move like rooks, but ooze copious amounts of fetid ichor which drench every square they land on or cross), and Humans (who seem to have a fairly limited outlook on life but may eventually promote to Zombies, which feel no fear, can destroy all other men, but are dissolved by ichor). The game is won by leaving the opponent without a legal move. Published on the Chess Variant Pages, and received with apparent enthusiasm. [Text editorial]

33.3 Point scoring

The Game of Ramparts (1893). Board 11x11; 11 squares on each side are marked and represent ramparts. Both sides start with 11 men on their own baselines. All men move and capture as pawns, including the initial double-step. Pawns have increased powers when on own ramparts, diminished powers on opponent's ramparts. Pawns reaching 11th rank do not move again. When all moves are exhausted, the winner is decided by a points system. There is said to be an infallible draw for one player (presumably the second, by imitating White's moves). 'Players', say the rules, 'should have a mutual understanding not to play like this.' (Sheets or booklets identified only as 'Bodleian Library 38491 f.6(13)' and 'British Library CUP 900 g.1')

Numericron (Bruce Trone, 1986). After making his move, a player totals the number of his opponent's men under attack. These are his attack points for the turn. A check earns a bonus of 5 points and checkmate (which does not end the game, the king being simply removed from play) a bonus of 10. Turn points are accumulator and the winner is the player who has maintained an agreed lead (say 20 points) for five consecutive turns or has the highest total after 30 moves have been played. (Inventor's rule sheet)

Benighted (Maureen Hiron, 1987). Board 5x5. Each player has 11 markers of his own colour and two knights which start initially on a3/e3 (White) and c1/c5 (Black). The object of the game is to capture more squares than your

opponent. A player moves one of his knights either to a vacant square, in which case he puts his marker on it, or to a square he already owns, which includes his two start squares. A player may never move to a square owned by an opponent, nor to a square attacked by an opponent's knight whether owned or not. The first player to control 13 squares is the winner. (Information deriving from personal correspondence)

A related game is suggested in *Brain Muscle Builders* by Marco Meirovitz and Paul Jacobs. A white and black knight are placed at opposite corners of a 5x5 grid and markers are placed on the remaining 23 squares. A player landing on a square with a marker on it takes it. A knight may not move to a square attacked by the opponent's knight. First player to collect 12 markers wins.

Re (Reiner Knizia, 1993). Board 5x5, empty at start of play. The players have the usual eight pieces plus two pawns. The K can be captured like any other piece and pawns do not promote (so P on 5th rank is immobile). White starts and puts one of his men on any empty square when Black does likewise. From now on, a player on turn may either (1) enter a man on any empty square; or (2) make an orthochess capture on the board; or (3) pass his turn, but only if he has entered all his men. Bishops may be placed on the same colour. Notice that no man may move except to capture.

The game ends when one player loses his last man or both players pass consecutively. In the latter case, the winner is the player whose remaining men have the higher point count (K=Q=3, R=B=N=2, P=1). A variant, **Re-2**, requires all men to be entered before any capture is made. Both games are fast and dramatic. Black appears to have a slight advantage. (Inventor's rules pamphlet, also *Spielbox*, April 1994)

33.4 Achieving a pattern or alignment

Bingo Chess [Connect-Four]. The game Connect-Four, which has no connection with chess, has been marketed under this name.

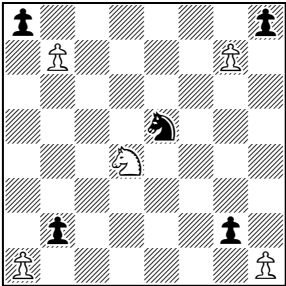
Twixt (Proprietary game, Avalon Hill; Alex Randolph, 1972). For 20 years one of the

Monochrome Chess (Proprietary game, Looney Industries; Andrew Looney, 1996). Usual men and array but pieces are all of the same colour. A man is controlled by the player in whose half of the board it stands. Thus after e4-e5, the pawn changes sides and reverses direction. When you capture (by definition, in the opponent's half) there can be no recapture as the piece has changed sides. You may not immediately reverse an opponent's move. The king has no royal powers but can castle. The men are allocated points and the object is to have the most points (in pieces captured) when the game ends, which is usually when the players agree or when one half of the board is empty. Values: King=10, Queen=8, Rook=5, Bishop=4, Knight=3, Pawn=1. A related game **Martian Chess** is described in chapter 38. (Proprietor's rule sheet, *Variant Chess* 39)

Proteus (Proprietary game, Steve Jackson Games; Francis K. Lumière, 2001). Board 8x8. Sixteen cubic dice, eight each of black and white. Symbols are identical on all dice: 1 x Q, R, B, N, P, triangle (notice there is no king). Pieces and their values are Q 6 points, R 5, N 4, B 3, P 2, triangle 0. To start, the dice placed on the black squares of the first two ranks, pawns uppermost. The turn player moves a man and rotates a second man up or down one step according to point value. The triangle is a block; it cannot move or be captured. Capture by displacement. Two unique rules: pawn has two-move option on any starting square even if it has previously moved, and the queen can be captured (stabbed in the back) by any hostile piece occupying the square immediately behind it. Game ends when one player is reduced to a single man. Player with the most points is the winner. Amongst variants suggested is **Trade-off**, in which a player can forgo move by rotating any die two steps up or down. (*Variant Chess* 43)

world's top-selling strategy games, Twixt has but one link to chess: the aim is to deploy pegs that will eventually be linked across the board in a succession of knights' moves. [Information presumably deriving from a set in David's game collection]

Chessboard Morris (Peter Fayers, 1976). An attempt to enliven alignment games by adding a chess element. Board 8x8, N and 4xP a side :



Pawns move as kings; no capturing. Object is to manoeuvre four of one's own pieces adjacent to one another in a straight line, orthogonal or diagonal. A well-balanced game. Can be played with other pieces instead of knights. Bishops will draw easily unless permitted to leap; queens make for a very complex game. (*Games and Puzzles* 51)

Knights And Crosses (Trevor Truran, 1981). The players agree a board of any dimensions (an irregular board makes for more interesting play). Each player has a knight and a pile of markers of his own colour. First player puts his knight on any square, second player does likewise on any vacant square. Moves alternate, players putting their markers on vacated squares. Knights may be moved to

vacant squares or squares containing their own markers. First player to get four markers in a row wins. (*Games and Puzzles* 81)

Big Horse Chess (Veli Toukomies, 1986). Board 8x8; each player has eight knights which move and capture as in orthochess. The object is to move one's own knights so as to form squares of any size (e.g. a1/a8/h8/h1 or d4/d5/e5/e4). A piece can be part of more than one square. The game ends when one player has no more moves or further play is purposeless. The winner is the player with more squares, and if squares are equal then the player with more pieces. If again equal, the game is drawn. An earlier version also scored three points on a line. (Manuscript notes presumably deriving from personal communication)

Chess Addresses (Veli Toukomies, 1988). Each player sets up his opponent's men at random (i.e. White sets up Black's men on ranks 7 and 8). Each player in turn moves one of his own men in a straight line without touching any other man or the sides of the board. Moves take no account of the powers of the various pieces. If a block (another man or board edge) is reached, the piece being moved stops on the nearest square. The object is to be the first player to assemble his own men in the orthochess array. (Author's rule sheets)

33.5 Other objectives

Rhythmomachia or **Rithmomachy**, also known as **The Philosophers' Game** (12th century). The 'battle of numbers' is a medieval strategy game probably inspired by chess though not strictly a variant. Rhythmomachia vied with chess as the pursuit of the wise and for several centuries appears to have occupied the intellectual high ground in the way weiqi was considered superior to xiangqi in China. Played on a double (8x16) chess board, White has 29 men, of which six form a pyramid, and Black 28 men (pyramid of five). The men are numbered tiles in three shapes which determine movement. The pyramids are made up of men of all three shapes. The W pyramid comprises 1, 4, 9, 16, 25, 36 (91) and the B 16, 25, 36, 49, 64 (190).

Capture is by equation (equality, adding, subtracting etc.) and the object is to take the pyramid which can be captured as a unit or piece by piece. When this is achieved, the player proceeds to the triumphs in which men are required to be arranged in certain numerical progressions. The pyramids move up to three squares in any direction, the individual pieces having more restricted moves. The link to chess is established by privileges that permit movement as a 2-1 leaper (knight) or 3-1 leaper. There are two main forms, an early version and a later one to which Selenus devotes a whole chapter. Many minor rule variations have been recorded. The game died out in the 18th century.

Rhythmomachia has an extensive literature

and has been researched in recent years by Boutin (*Jeux et Stratégie* 26), Lewin (*Games and Puzzles* 16) and others. It is outlined in a modern collaborative work, *Rhythmomachia* (Illmer, Gädeke, Henge, Pfeiffer, Spicker-Beck, 1987), and in a recent research paper, *Rithmomachia* (Stigter, 1990). There is a proprietary version, **Rhythmo** (Quantum Games), with simplified numbers, that is essentially the same game.

Bottle Chess. Name used by Thomas Hyde to describe the Chinese game of backgammon.

Wuterich's Game (Proprietary game, Emil Wuterich, 1899). Board 9x9 with a further rank of five positioned centrally at either end. Each side has 26 pieces comprising the letters of the alphabet. The vowels are arranged IAEUO on the extra rank, respectively a knight, queen, bishop, king, and rook. The consonants are arrayed in order B-L and M-W on the next two ranks, with XYZ spaced evenly in front. Consonants move one square forwards or sideways and can only capture straight ahead. The game is won by checkmate or the king (U) gaining the back rank of the enemy's camp and there, with pieces of either colour, spelling out a pre-arranged five-letter word which, of course, has to contain a U. A player forming a word of four or more letters orthogonally or diagonally, the men being of either colour, can claim back a captured man. (U.K. patent 1239 of 1899)

Monopoly Chess (Michael Solomon, 1970). Chess and Monopoly played simultaneously, the turn player deciding which game he wishes

to move in. The aim is to be the first to win either. There is some cross-fertilization but it seems that few players have been tempted to pass Go. (*Neue Chess* 12)

Pool Chess (James A. Gutzwiller, Michael Juhasz, David Moeser, 1970). Coupling of chess with 8-ball pool. The chessboard is set up in the middle of a pocket billiards table. Five chess moves each, then White breaks; when White misses, Black plays; when he also misses, five more chess moves. Various rules control the interactions. First to win either game wins. (*Neue Chess* 7)

Chessplexity (Dave Thomas, 1989). Codebreaking game. One player places K, Q, R, N, B on a 6x6 board; the other player nominates squares and the first player then provides certain information. Object of second player is to deduce placings in minimum time. Roles are then reversed. **Detective Chess** (Gerry Quinn, reviewed on the Internet in 1999) is a computer version using an 8x8 board. (*Games Monthly*, January/February 1989, also *Nost-algia* 347 and later)

Chebache (Proprietary game, Pardee Games; Scott D. Pardee, 1997). Claimed to be a marriage of chess, backgammon and draughts (checkers), hence the name, but basically a backgammon variant. The main thrust of the game is to bear off all pieces as in normal backgammon, but one of the pieces is a king, and if the opponent manages an inverted V-formation facing it the king is checkmated and the game is over. The chess element is however minimal. (*Variante Chess* 42)

33.6 Games with different objectives for each side

Siege Chess [von Pillsach] (Senfft von Pillsach, 1820). 160-square board (8x8 with four 8x3 extensions) with citadel covering an area of 6x6 squares. The game is a precursor of the Siege of Paris (board 16x12, also 6x6 citadel), with one side besieging, the other defending. (Faidutti, also *Le Palamède*, September 1846)

War Chess [Richardson], also known as **Game of Battle** (Proprietary game, Col. Charles Richardson, 1866). Played on a map

board with infantry, cavalry and artillery. One side is defending a city and the other a supply train, the capture of either ending the game. (*Chess Player's Magazine*).

Burglar and Policemen (T. Sturgeon, 1890). Board 5x5; all pieces are knights. One side has the Burglar (initially on c3) and the other the Policemen (on a1, c1, e1, a5, c5, e5). The burglar moves first; no capturing; the burglar loses if he cannot move (there appears to be no rule saying how he wins). A forerunner of

several such games. (U.K. patent 514 of 1890) [The game is mentioned under 'Patents' in the appendix. The reason for the absence of a rule saying how the burglar wins appears to be that he cannot; if the policemen play properly, they can always trap him. They can do this even if there are only five of them, whatever the starting position and whoever has first move.]

Prairie (Proprietary game, Pelikan; Alex Randolph, 1975). Board 7x11. Game in which 11 buffaloes (pawns) face four dogs (queens) and an Indian (king). The dogs can only block, not capture. The king captures by displacement. The aim of the buffalo player is to get one piece to the end rank, that of the Indian player to paralyse the buffaloes. Two rivers on the board may not be crossed by the Indian player. Game slightly favours the buffaloes. (Inventor's rule sheet)

Rugby Chess [Beasley] (John Beasley, 1979). Board 8x8; each side has one or more men, and there is a ball. White has the ball and his object is to carry it to the 8th rank. Black wins if he can capture the ball-carrier (he may not

capture another man), block White, or repeat a previous position. There are no draws. White on turn can move the man with the ball one square diagonally in any direction, or pass the ball backwards to the second man. The man without the ball cannot move. The Black man also moves one square diagonally and is immune from capture. The natural game is two-against-one, all on the back ranks. Possibilities are limited and have been analysed by the inventor. (*Chessics* 18)

Peasants' Revolt [Koch] (Karl Koch, 1987). Dice game. White has a single knight at g1; black pawns on b7, c7, d7, e7, f7, g7, equating to 1-6 on the dice. Black throws two dice and moves corresponding pawns (pawn-2 permitted; if double thrown, pawn is moved twice). Knight may not move to an attacked square; pawn blocked by knight forfeits its move. Aim for White is to crush the revolt by capturing all the pawns, for Black to get a pawn to end rank when, if it cannot be captured on next move, the revolt succeeds. Koch offers some alternative rules. (*Spiele für einem Allein*)

33.7 Games of unclear or unknown nature

Limb Chess (10th Century). Board 7x8; 6 pieces a side named after the senses ('limbs') and the heart. Rules unknown. (Murray)

Celtic Chess, also known as **Fidchell** and **Gwyddbwyll**. An ancient game, believed to have died out about 1000 A.D. Wrongly referred to by some writers as a form of chess. Boards of many sizes are known: 7x8, 9x10, 10x13, with the 8x8 board being the most common. Fidchell is also the name of a 1990 proprietary game played on a circular board, imaginatively created from early Celtic sources by Nigel Suckling. [In the first edition, David referred to 'fragments of literature quoted by Murray, Forbes and others' from which it appeared that the game was 'either the Roman latrunculi or a modification of it', but while Forbes does indeed conjecture such a link Murray does not, and I have to say that

I find it implausible. However, all that matters here is whether the game was a form of chess, and everyone seems to be agreed that it wasn't.]

Merlaro (16th century). Game on 8x6 chequered board (a1 white) mentioned, without rules, in *L'Institutioni Oratorie* (Venice, 1558). [In forwarding a photocopy of the relevant page, David's correspondent wondered whether the game might have been a chess variant, but there seems to be no evidence of this.]

Chemical Chess (Toyohiko Kagawa, 1940). Played with 92 men. The patent states that the game is 'Designed to inculcate an understanding of the order of the universe and hence the spiritual and systematic nature of the divine order'. (*Chess*, December 1941)

Part 7

Partnership and team games

[Multi-player chess games divide into two classes: games in which the players form partnerships or teams, and those in which everybody plays for himself. Games in the first class are very much more satisfactory. Many of them can be played as two-player games, one person playing all the men of his side, but usually it is intended that they should not be.]

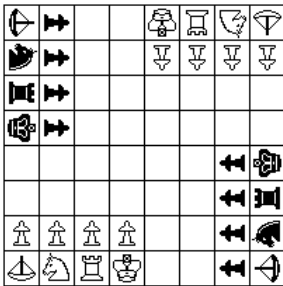
Chapter 34

Games using a single square or rectangular board

[Although what became the standard single-board four-handed game used a board with extensions, the earliest known four-handed game used a standard 8x8 board, and it is convenient to consider this and other such games first.]

34.1 Classical Indian four-player games

Chaturaji, also known as **The Game Of The Four Kings**. Four-handed Indian game, once thought to be the germinal chess game and associated with Chaturanga. The first firm reference to it is now believed to be about 11th century. The game could be partnership or all-against-all; it could be played with or without dice, or with dice determining the opening moves only. Turn of play was clockwise. Each side has four pieces, Rajah (K), Elephant (R), Horse (N) and Boat (B) and in addition four Soldiers (P). As usually given, the pawns were placed on a2-d2, g1-g4, h7-e7, and b8-b5, with the pieces in order BNRK behind them, but it is very likely that the arrangement of the pieces and the rules of play were subject to change from time to time and from place to place.

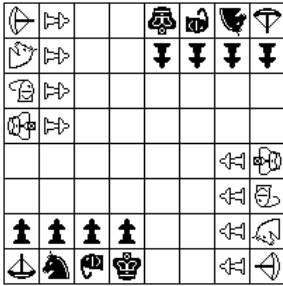


The K, R and N move as in orthochess; the B moves two squares diagonally, leaping the intervening square. The P moves one step at a time and promotes on reaching an end rank (six moves) but only on the start square of a N or R, promoting to the appropriate piece, and then only if the player has already lost at least one P, otherwise the pawn waits until the condition is fulfilled. A pawn reaching any end square other than that of N or R does not

promote and is rendered immobile. However, if a player is reduced to a P, or a P and a B, then the P can promote to any piece (including a K) on any end square. Kings are subject to capture like other pieces. The object of the game is to earn points by capturing opposing kings and/or occupying the throne square of a rival. A player occupying the throne of an ally takes over his partner's forces. An exchange of captured kings could be agreed between opponents, the kings then being restored to their original squares. A player with a bare king could then retire honourably (draw). None of the four boats can ever attack another but if a player moves his boat adjacent to the other three so that the four form a 2x2 square, the two opponents' boats are captured and the player takes over his ally's boat. Since there are only five positions where this get-together could happen, the coup seems at best improbable. A long (four-sided) or cubic die was used in the dice game which was probably associated with gambling. The die was cast at the start of each turn to determine the type of piece to be moved. A player unable to move a man of the type indicated lost his turn. The game has been an inspiration to other inventors.

[This topic has been hashed and rehashed in numerous books on chess and David's index sheet for the game gives over a dozen references, but the primary sources on which they explicitly or implicitly rely appear to reduce to two: the 11th-century manuscript of al-Beruni referred to under Chaturanga in chapter 29, and a Bengali account, now regarded as dating from around 1500. The 15th-century *Caturanga-Dipika* on which the following entry is based apparently came to light only in 1924.]

Four-Handed Dice Chess according to the Caturanga-Dipika. The origins and workings of this ancient Indian game are obscure. The following version, symbolising a war between two kings and their respective allies, is as good (or as bad) as any other and is perhaps the most authoritative as it is the most recent and exhaustive.



Array as shown, two cubic dice. The four sides are Red (East), Green (S), Yellow (W) and Black (N). The moves of the pieces do not

correspond with those of earlier writers. The elephant moves one square orthogonally, the boat one square diagonally, the king, knight and pawn as in ortho chess (no pawn-two). The dice are both numbered 1-6. Nos. 1 and 6 carry no value (zero). King or pawn move on a throw of 5, elephant on 4, horse on 3, boat on 2. The players throw in turn. The two dice are cast on each turn. If the numbers are different, both men move (if a 5 is thrown, either the K or a P is moved). If either but not both can move, the higher number moves. When a double is thrown, the piece moves twice. A number that can't be utilized is forfeited. A pawn is promoted on the end rank to the file piece, but not to king or boat. Kings are taken like other men (i.e., no checking) and allies can be back-stabbed. A stake was paid for each man captured. There were seven classified levels of victory and defeat, which affected the stake. (*Caturanga-Dipika*, edited and translated by Manomohan Ghosh, Calcutta Sanskrit Series 21, Calcutta 1936)

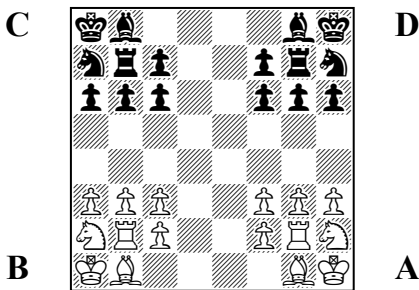
34.2 Modern games using a single 8x8 board

Alternation Chess, also known as **Partnership Chess [Alternation]** and **Tandem Chess [Alternation]** (origins unknown). Partnership game in which partners move alternately without consultation. (*Illustrated London News*, 7 August 1875, also *British Chess Magazine*, September 1903)

Diamond Chess-Whist (A. K. Porterfield Rynd, 1887). Partnership game, each partner having half a set. A normal set can be used, queens serving as kings with one army of each partnership capped or otherwise distinguished.

in Diamond Chess, that is diagonally, one square at a time', and capture vertically or horizontally, but never move or take backwards; nothing said about promotion, but the statement that pawns 'move as in Diamond Chess' perhaps implies that they promote in the same way. Mate both enemy kings to win. Pieces of a mated player are frozen. Partners cannot consult. Some 'exceedingly pretty finishes' achieved. (*Irish Chess Chronicle*, August 1887) [Text revised]

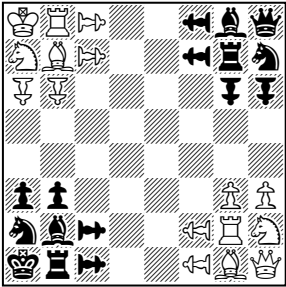
Slater's Game (E. T. O. Slater, 1954). Designed as a fast four-player partnership game, which Slater attempted to keep as close as possible to ortho chess. The rooks were dispensed with on the grounds that they take time to develop and slow down the game, a necessary sacrifice to accommodate the extra K and Q. Partners sit side-by-side, baseline KQBN/NBQK fronted by 8xP as usual. Ideally, two different sets of men are used so that the forces of each player are distinctive. Players move in sequence, colours alternating. The aim is to mate both the opponents' kings. When a king is mated, it is removed from the board, its owner ceases to play and his



Partners sit side by side, A and B against C and D. Order of play ACBD. Pawns 'move as

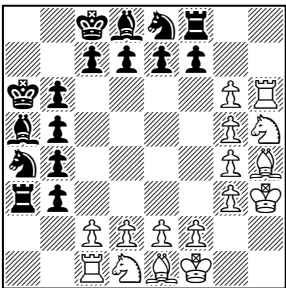
remaining men are inert though subject to capture. A faster game calls for only one king to be mated. (*Nouveaux Jeux d'Echecs Non-orthodoxes*)

Double Skak (Soren and Christian Kirk, 1970s). Four-player partnership game using standard set, but equally playable by two.



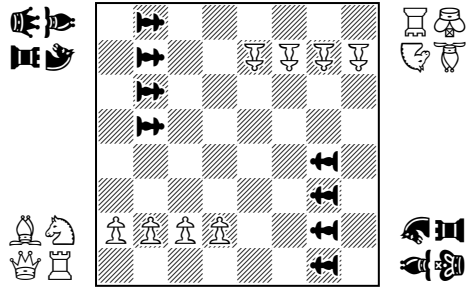
Partners occupy opposite corners, one having the K and the other the Q. No pawn-2 or castling, promotion only to captured piece. White (bottom right) has first move, play in rotation anti-clockwise. The eight inside pawns have noses to indicate their direction of movement; their first move can be in either direction, but they are then rotated and are restricted to the same direction subsequently. Aim is checkmate. (*Variant Chess* 21/22)

Gemini [Fisher] (P. Fisher, 1981). Four-handed partnership game in which players occupy adjacent sides:



Pawns move towards end rank opposite them, promotion to Q possible; no castling. The object is to mate either of the opponents' kings. The allied forces can unite for this purpose. If a player is obliged to move into check this is a loss. A player in check moves in turn. (Personal communication)

Chatty Chess (Ian Richardson, 1989) Partnership game using the standard set. In each partnership there is an Attacker who has the Q and a Defender who has the K. Partners occupy opposite corners, attackers on Q side, defenders on K side.



The pawns are set up as for chaturaji. The pieces may be arranged in any order on the squares behind them. WA (a1-d1) sets his pieces first, then the other players in clockwise order. Pieces behave as in orthochess but pawns are confined within their initial four files or ranks, no pawn-two or castling. WA begins, then BA, WD, BD. For the first four moves of each side a player may only move his own men except to escape check. Thereafter, play stays in rotation but a player may move any man of his own colour. Communication between partners is allowed but should be formalized to avoid anarchy. (*Variant Chess* 1/52)

Chitty-Chatty Chess (Richardson, 1989) is a simplified version intended to introduce chess to beginners. Two pawns per player only (a2/b2 etc) and three pieces typified by QBN on a1-c1 and KNB on h8-f8 (no rooks, and no flexibility as in Chatty Chess). Players can only move their own men except if a king is in check, when the next player can move one of his partner's men to escape. Partners may communicate, either informally or formally on some pre-arranged system which would allow a player to retract a move on his partner's advice. The game develops quickly but is likely to be stereotyped. (Personal communication)

Crompton's Chess (George Crompton, 1960). Four-player partnership game, partners sitting opposite. Each player has KQBB, 5xP.

White A sets BQKB on c1-f1 with 4xP in front and the extra pawn, known as the corner pawn, on b2. The other players do the same in rotation round the board (all queens on own colour). Move in rotation clockwise. Initial pawn capture prohibited and unmoved bishops may not be captured by corner pawns. No pawn-two. Promotion on 8th rank to R or N only. Object is to mate both opponents' kings. A mated player's men are removed from play. (Photocopy of inventor's rules brochure) [David added 'Curious and suspect' in the first edition, but I cannot wholly agree. Curious, certainly, but suspect? The source is neatly printed and claims the authority of the inventor himself, and the shadows of staple marks in the centre of what is only a four-page document can be explained by assuming that it originally had a cover which has not been copied. I tend to use 'suspect' only when I believe that a game has been incorrectly reported somewhere along the line and did not really exist, and in no sense can this be said to apply here. Nor is there any reason to suspect plagiarism, which would be another reason for

using the word. This leaves the possibility that it was merely a joke, but in that case its author went to uncommon trouble and expense.]

Forchess (Proprietary game, Smalbook Associates; T. K. Rogers, 1992). Partners sit opposite each other, and each has an (almost) full set of men. Array for White 1 (h1-e1 and upwards) KRNP, RQBP, BN-P, PPPP, other players by rotation (so knights on c2/a3, b6/c8 etc, and only four empty squares). Pieces behave as in orthochess. Pawns move diagonally towards opposite corner and capture straight ahead, promoting on reaching board edge (four moves). Object is to capture both enemy kings. A player whose king is captured quits the game but his remaining men stay on the board. A mated player whose king awaits capture is allowed a 'token move' with any other piece, the object being to inflict the maximum damage before extinction. Described as 'the ultimate social game', Forchess is mayhem from move one. An international tournament was planned for 1994. (Proprietor's rules booklet)

34.3 Two or more 8x8 boards joined as one

Mecklenburg Chess [Four-Handed] (inventor unknown, 1824 or earlier). Two 8x8 boards side by side, forming a single board 16x8; partners sit alongside each other, moves alternate crosswise over the table. Usual partnership rules. The game was seen at the Café de la Régence in Paris in 1824 and analysed by Bilguer in 1836, and was played in Mecklenburg for at least 20 years. (Letter in *Schachzeitung*, September 1848)

Alliance [Liptak and Babcock] (Mark Liptak and Rick Babcock, 1990). Two 8x8 boards one beyond the other, forming a single board 8x16; each team has a primary player and a secondary player. White (primary) and Yellow play Black (primary) and Gold, the sequence of play being WBYG. The object of the game is to mate the primary opponent's king. Normal arrays on ranks 1/2 (White, playing up), 7/8 (Gold, playing down), 9/10 (Yellow, up), 15/16 (Black, down). The secondary forces are confined to their respective halves of the board; the primary forces can move over both halves. Only W and G move on the

bottom half, B and Y on the top; thus if W plays a rook to the top half it is controlled by Y unless and until moved back again. All pawns promote only on ranks 1 and 16 and always to W and B. Mate of a secondary king results in its forces (including any primary pieces in that half of the board) being frozen. Thereafter the primary player moves on his own turn and on partner's turn. Partner's forces can be unfrozen only by the primary player moving his king to that side of the board. Each team takes an equal number (up to four, as agreed) of caucus chips at the start of a game. If a team wants to converse at any stage it surrenders a chip, but there is no penalty on consultation if one member of a team is mated. (Authors' rules booklet)

Six-Handed Chess [Lange] (Max Lange, 1881). Three 8x8 boards side by side, treated as a single board 24x8. Whites face Blacks. Usual array on each board, sets distinguishable. Rules of Four-Handed Chess apply. Assuming that the boards are numbered 1-3 from the left, the order of play is W1, B2,

W3, B1, W2, B3. As Boyer pointed out in *Les Jeux d'Echecs Non-orthodoxes*, the boards can be extended indefinitely to accommodate any number of players, though he conceded that such a game would be 'too long and complicated to be agreeable'. (Verney)

Six-Handed Chess [Godneff] (M. Godneff, 1940s?). As Lange but the boards are placed

end-to-end and so are treated as a single board 8 x 24. White 1 on ranks 1/2 playing up, Black 1 on ranks 7/8 playing down, Black 2 on 9/10 playing up, W2 on 15/16 playing down, W3 17/18, B3 23/24. Pawns promote in the usual way on their respective boards. The sequence of play is W1, B2, W3, B3, W2, B1. Awkward seating if nothing else. (*Les Jeux d'Echecs Non-orthodoxes*)

34.4 Other square or rectangular boards

Social Chess [Head] (W. Head, 1834). Board 12x12; 2-4 players; 4 sets of men arrayed centrally on each side, thus corners (2x2) vacant at start. Kings of allies may occupy adjacent squares. Partners (White and Black against Yellow and Red) sit opposite each other, light-coloured queens on light-coloured squares (so light and dark queens face each other). 'If,' declared the inventor, 'a game could be formed in which two, three or four persons could join, so that where two had met to play, a casual third or fourth need neither prevent the intended game, nor stand out - this, I say, may appear an advantageous improvement', adding. '...all who have as yet honoured it with their attention are unanimous in their opinion of its superiority in interest over the common game, in the same ratio as four minds may be expected to be more comprehensive than two'. (*The New Game of Social Chess*)

Neo Chess [Nayler and Ower] (J. L. Nayler and E. Ower, c.1925). Board 10x8, partners side by side. Each player has one of each piece and five pawns, baseline RNBKQ/QKBNR on each side. Usual four-handed rules: object is to mate both opponents, pieces of a mated player are frozen. Castling only with own rook, not partner's; allied kings can occupy adjacent squares; e.p. by either opponent. White player with Kg1 starts, then Black player opposite him, and so on. (*British Chess Magazine*, October 1928)

Decimal Four-Handed Chess (V. R. Parton, 1950s). Board 10x10. Parton experimented with four arrays, all with partners diagonally opposite and the turn proceeding clockwise.

(1) White array (j1-f1 and up) KQRBN, 5xP, other players similarly by rotation (thus

Black pieces on a1-a5, Red on a10-e10, Green on j10-j6). Pawns move and promote normally; thus the pawns of each player move in a different direction from those of the other three. Players agree whether victory is achieved by mating one king or two. In the latter case, a mated king is removed but the mated player continues to move

(2) White array KRB, RQN, NR (no pawns), other players similarly by rotation. Conditions of play as in (1).

(3) White array KBRP, QBN, RN, P, other players by rotation. Pawns are Guards which move as a K but without royal powers. Otherwise play as in (1).

(4) White array KBP, RQP, PPN, other players by rotation. In this game, a pawn may move parallel to either of the sides forming the player's corner. There is no check, and the aim of each side is to capture the opponents' kings. Both cannot be captured by the same player. (*Nouveaux Jeux d'Echecs Non-orthodoxes, Enduring Spirit of Dasapada*)

Quatre Quest-Chess (Proprietary game, Conquest Games; Donald Benge, 1977). The four-handed version of Quest-Chess. Board 11x11, squares f1, a6, f6, k6, f11 blocked out of use; array for player A (k1-h1 and inwards) KQRP, BBNP, RNPP, PPPP, other players by rotation. Player A starts with 2 moves, B makes 4 moves, C 6 moves and D 8 moves; thereafter each player makes up to 10 moves per turn. Pawns move laterally forward, either right or left, and capture diagonally right, left or straight forward (i.e. on opposite-coloured squares). No pawn-two or en passant capture. A pawn promotes to any piece on reaching the far side of the board (nine squares). All Quest-Chess rules apply. If a player checks two or more kings with a single move, or captures

one player's man and checks another player's king at the same time, the players concerned respond in clockwise rotation.

The game can be played as all-against-all (first player to mate a king wins) or, better, as a partnership game. A seven-pawn version, omitting the apex pawns h4 etc, is considered superior. (Proprietor's article in *Conquest Review*, also personal communication)

Morton's Game (Proprietary game, P. R. Morton, 1983). Partnership game in which White and Green play Black and Red. Board 12x12 (corner squares can be occupied); White array on ranks 1/2, Green on files a/b, Black on ranks 11/12, Red on files k/l (kings on g1, a6, g12, l6, so WQ/GQ to left of K, BQ/RQ to right). Pawns can advance directly to the 5th rank (1, 2 or 3 squares, or 2 squares from 3rd rank; no e.p.) but thereafter move one square at a time promoting normally on the 10th rank (sic). White and Black can only take each other's men and check each other's kings, the pieces of the other two players serving as blocks; similarly Green and Red, hence a RK can stand next to a WK etc. The object is to mate one of the opponents' kings. The sequence of play is WBRG. (Manuscript note citing patent applications)

Quattrochess (George Dekle Sr, 1986). Four players (partnership or all-play-all); board 14x14 with centre squares (g/h 7/8) impassable blocks; 25 men a side. Additional pieces, all drawn from earlier games, are Chancellor (R+N), Archbishop (B+N), Mann (as K but without royal powers), Wazir (one square orthogonally), Fers (one square diagonally), Camel (3-1 leaper), Giraffe (4-1 leaper). A mated king is removed from the board and the partner, or mating player in an all-play-all, takes over the mated player's forces. The aim is to be the last surviving player or partnership. Stalemate is a loss for the player unable to move. Men are set up initially in the four corners; thus White (a-e/1-5) KWQRP, FCaGNP, ChGCaBP, RNABP, PPPPM and similarly for other players. (*World Game Review* 10)

Quadruple (Proprietary game, Bork Brettspiele; Heinz Weisfeld, 1988). Board 14x14; White and Black (queens on own colour) play 'Small' White and Black (contrasting set, kings on own colour). Usual men set up on perimeter ranks/files so as to leave 3x3 unoccupied squares in each corner. Object is to mate one of the opponents' kings. (Proprietor's rules booklet)

Chapter 35

Games using non-rectangular boards

[Although partnership and team games can be played on square or rectangular boards, the board corners tend to be under-used, and many such games use boards specially designed to accommodate more than two players.]

35.1 Games using a normal 8x8 board with extensions

Four-Handed Chess is loosely any variant for four players. More specifically, it is generally understood to be a partnership game played with two sets on a standard board with four extensions, one on each side, usually of 8x3 squares (arguably the best arrangement) but sometimes 8x2 or 8x4, on which the pieces are set up in the normal array positions.

The four-handed game dates from the 18th century and enjoyed considerable popularity, particularly in Germany but also in England - *The Philidorian* reported (1838) 'The game of chess for four is advancing daily in fashion and favour with the British Public'. The year before it had been described as coming from Germany, 'the only country where it is practised'. During the half-century 1825-1875, numerous booklets appeared, mostly in the U.K. but also in Europe and America, giving basic rules for four-player chess. Almost all of these, some little more than pamphlets, carried only the name of the publisher. The game was dismissed as 'a kind of whist' (*Le Palamède*). Another theory has the game originating in Russia. Later (1881) Verney declared ecstatically: 'The electric light and Four-handed chess now throw their luminous rays on a hitherto dark and dreary world'. Not everyone waxed lyrical however. In an article in *Chess Player's Magazine* (1847) the author remarked that 'Irascible or ill-tempered people are advised to let this game alone' (adding that those who could control their tempers would find it extremely interesting) to which the editor added 'We heartily concur in the advice thus offered by our contributor; and although the class of person legitimately included in his recommendation ... is without doubt exceedingly large, yet we could still wish that he had extended it so far as to include all

those, who have either taste or discernment, enabling them to appreciate the beauties of the ancient and patriarchal game, and to detect the absurdities of this modern innovation and perversion'. A poetaster (*Chess Monthly*, 1891) drew attention to a congenial aspect of the game:

The boards, too, lend their aid
In forging friendship's links
By having corners blank
On which to place the drinks.

The game enjoyed a considerable following until the end of the 19th century (the White collection has a score of books on it) after which support slowly declined. The Ulyanov family, including Vladimir Ilyich (Lenin) is alleged to have played it 'passionately into the night' (Machatscheck, *Zug um Zug*). There was a four-handed club in London until World War II and tournaments in America up until at least 1961, the year B. H. Wood reported enthusiasm for the game in the Faroes, but today it is very little played except in commercial versions.

The present section describes a procession of games that have been promoted, often with extravagant claims, at frequent intervals over the past 200 years. Partners sit opposite one another and play alternates between the partnerships, passing either clockwise or counter-clockwise round the board. The object of the game is to mate both of the opponents' kings; if one is mated and the other stalemated the game is drawn. If a player is mated, his pieces are immobile and he passes his turn. He resumes play if he is released from the mate. The pieces move as in orthochess. No move may be made that puts the partner's king in

check and a player must respond to a check, he cannot leave it for his ally to counter. Almost all the games can also be played by two or three players ('a marvellous double-dummy game' according to C. H. O'D. Alexander). Differences between games occur principally in extension size, placement of the kings and queens, and behaviour of the pawns.

Four-handed Chess is not chess played by four people, but a very different game. All stages of the game are quite unlike their equivalents in orthochess and the values of the pieces differ considerably; the queens dominate the board, bishops are about equal to rooks, while the usefulness of the knights, and particularly the pawns, is diminished. The pawns pose a special problem. It was early appreciated that blocks would occur when allied pawns met. Most games of German origin overcame this situation by allowing either pawn to move diagonally forward one square, then back to its original file when it moved again. The English games, from Sherwin onwards, permitted this in a single movement - in effect, a vertical leap to the vacant square immediately beyond. Most games only allow pawn promotion on the rear rank of an opponent. Since this involves between three and six captures on the ordinary board, it may be considered academic. In all games, allied kings can stand adjacent to one another and usually also to an opponent's mated king. Kings normally face queens in the initial array, giving two fundamentally different arrangements. For play, two contra-distinguished sets (usually by colour) are necessary. The rules of the Verney and Hughes versions, the most widely played, are given in full, the rest by reference to them.

Verney's Four-Handed Chess (George Hope Verney, 1881). Probably the best-known exponent of the four-handed game, Capt. (later Major/Lt.Col.) Verney published his *Four-handed Chess* following the response he had to a letter in *The Times* (22 September 1881). It was followed in 1885 by his *Chess Eccentricities* which included many of the games given here. The rules of the Verney game are:

(1) 160-square board (8x8 plus four 8x3 extensions), normal array in each extension (so all queens on white squares).

(2) Opposite players are partners (typically, White and Yellow against Black and Red).

(3) Object is to checkmate both opponents. Unless both of a partnership's kings are mated, the game is drawn.

(4) Pawns move one square at a time and promote (to Q only) on opponents' back ranks. (Falkener and Gollon both favour the pawn-two move for all but the rooks' pawns; they also favour promotion on partner's as well as opponents' back rank.)

(5) When a pawn is blocked by a friendly pawn it can leap over it to a vacant square immediately beyond even if both pawns are moving in the same direction.

(6) A pawn reaching the rear rank of partner reverses direction (and is marked to indicate this), and again if reaching the first rank of the player, and so on, a situation that appears highly unlikely.

(7) The men of a player whose king is mated are inert. They do not exercise any power and are immune from capture.

(8) A player may release an opponent from mate but in doing so may not capture one of the mated player's men.

(9) No castling.

(10) The partnership that does not have the move may change seats before or after White's first move.

(11) The turn of play rotates clockwise.

The first move confers a large advantage (hence rule 10). Games quickly assume a unique character - Verney claims he never saw two games alike after four moves by each player. Double threats are the danger: if partners advance knights so that one attacks an adversary's K, the other the Q, the Q is won. As a general guide, attack the last player or check the following player. Combined attack on one of the opponents is the most effective strategy.

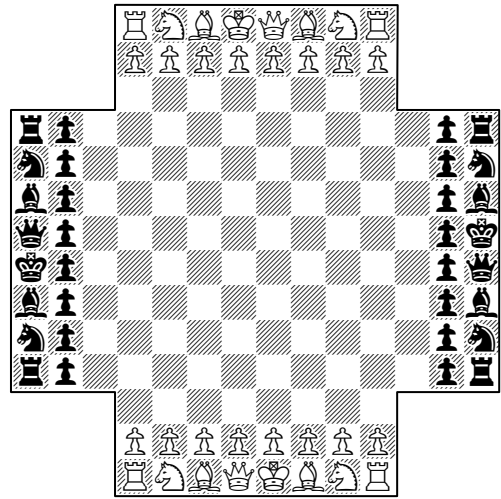
In the ending, as in orthochess, a single rook is sufficient to ensure the win. The method is (1) force a king onto a back rank, (2) post a king to keep it there, (3) mate the second king, (4) mate the first king while retaining the mate on the second king. The same system is used to force the win with two bishops. Pawns are of small value in the endings since promotion is practically impossible. Bizarre end-games can occur

when a king is hunted among his partner's inert men.

According to J. A. Fuller-Maitland (letter to *The Times*, 17 August 1933) Verney got his knowledge of Four-handed Chess from Horatia Nelson, a niece of the admiral. By the end of 1881 the Verney game was already established in America; *The Cincinnati Commercial* (31 December), quoting *The Philadelphia Sunday Times*, noted that 'the game ... is rapidly growing into favour and becoming a marked feature of club play'. In 1883/4 Verney founded the Four-handed Chess Club of London; it was inaugurated on 13 October 1885 with 80 members and survived until World War II. In his opening address Verney remarked that the Czar of Russia was a devotee of the game and he hoped the masters of the 'diminutive game' present (they included Blackburne, Gunsberg, Hoffer and the Rev. MacDonnell) would be initiated into the mysteries of Four-handed Chess and that 'they might eventually aspire to the dignity of mastering the more extended game'. Verney carried his enthusiasm into his home where his floor was inlaid with 28 different chess boards in parquet work whilst his dinner table was graced with a miniature four-handed board, complete with chessmen.

Hughes-Hughes's Four-Handed Chess (M. E. Hughes-Hughes, 1888). An attempt to make the four-handed game as close to orthochess as possible and thereby attract wider support. The rules are as Verney with three main differences: (1) Qs are on left of Ks (and so on squares of own colour); (2) Pawns can advance two squares initially (e.p. possible); (3) Castling is allowed (if rarely practised). One other minor difference is that a pawn cannot vault a pawn of the same colour, only that of partner (it is possible this was also enforced in the Verney game: the rule is ambiguous). It is odd that Verney, arguing in favour of having all queens on white squares, stated a few years previously (in *Chess Eccentricities*) that 'it is very important that the queen of one party should not be in a position to at once give check to his adversary on the advance of the king's pawn'; adding '(this is) the position adopted almost universally by players in recent times'. The advantage of the first move is much less than

in the Verney game. Within a short while of their introduction, the Hughes rules prevailed.



The game featured in a match between London and Cambridge University at Cambridge on 18 March 1892. A century to the day later a 'return' match was played with Insurance C.C. representing London, the university winning again. Games were played to Insurance C.C. rules, a cross between those of Hughes and Verney.

The games that follow will be described in terms of those above.

Dessau Four-Handed Chess (K.E.G., Dessau, 1784). Extensions 8x3; Qs on white squares; pawns move one square only, no castling; movement anti-clockwise. Allied pawns pass each other by diagonal movement and promote on back rank of opponents or partner. If a player is released from mate, none of his men can be taken until he has moved. (*Méthode de Jeu d'Échecs à Quatre*)

Altenburg Four-Handed Chess (1792). As played in the town. Variant attributed by van der Linde to Duke Ernest II of Gotha-Altenburg. An anonymous pamphlet *Gesetze des Schachs zu Vieren* (Gotha, 1779), the first reference to the game, is similarly credited. Extensions 8x2; Qs on white squares; pawn-2 and castling allowed; rooks' pawns cannot capture one another in the starting position; movement anti-clockwise.

Koch's Four-Handed Chess (J. F. W. Koch, 1801). Extensions 8x3; Qs on white

squares; pawns one square with diagonal passing; promotion on back rank of opponents or partner; no castling. (*Die Schachspielkunst*)

Wilkinson's Four-Handed Chess (C. H. Wilkinson, 1804). Extensions 8x2; partners side-by-side. 'The interest it (the game) excites is beyond description' according to the inventor, who professed no knowledge of any earlier game. (*An Easy Introduction to the Game of Chess*, 1813 edition)

Braunschweig Four-Handed Chess (1814). As played in Brunswick for many decades. Extensions 8x2; Qs on white squares; pawn-2 (unmoved wing pawns cannot capture one another); e.p. allowed; short castling only; play clockwise. 'We prefer this to the English four-handed' (*Schachzeitung*, 1848).

Martensen's Four-Handed Chess (Theodorich Martensen, 1814/15). Played in Lüneburg until at least 1848. Extensions 8x2; partners side-by-side; Qs on black squares; wing pawns cannot be taken until they have moved; pawn-2 and castling allowed. Promotion is on rear ranks of either opponent. (*Schachzeitung*, 1848) ['May have been taken from Wilkinson', wrote David in the first edition presumably on account of the side-by-side partners, but I suspect that chance coincidence is more likely. The arrangement is in many respects a more natural one than that with partners opposite, since pawns advance into enemy rather than allied territory.]

Enderlein's Four-Handed Chess (K. Enderlein, 1815). Extensions 8x3; Qs on left of Ks, i.e. on own colour; no piece can be taken until all players have moved twice; pawn-2 with promotion on any end-rank, opponents' or partner's (the pawn is exchanged for any piece that has been taken, but a player cannot have two bishops on the same colour on the board, a curious restriction). Castling allowed. Enderlein founded a four-handed chess club in Berlin, and his *Anweisung zum Vierschachspiel* was later acknowledged in Germany as the definitive work on the game. His intention was to keep the four-handed game as close as possible to orthochess.

Alberti's Four-Handed Chess (J. J. Alberti, 1821). Extensions 8x3; Qs on left of Ks; pawn-one with promotion on partner's back rank. Castling allowed. (Verney)

Albers's Four-Handed Chess (H. G.

Albers, 1821) Extensions 8x3; Qs on black squares; pawn-2 (probable); castling allowed. Promotion on opponents' back ranks, but if no piece of the same colour has been taken, the pawn must wait. Albers, who came from Lüneburg, called this the English board as distinct from the 8x2 which he called the Lüneburg board. (Verney)

Rust's Four-Handed Chess (L. F. Rust, 1834). Extensions 8x3; Qs on own colour; play clockwise. (Verney; van der Linde gives the first initial as 'J'.)

Waidder's Four-Handed Chess (S. Waidder, 1837). Extensions 8x3; Qs on same colour; pawn-one with diagonal move to pass ally; promotion on any of the three end ranks; play anti-clockwise. Waidder proposed that pawns be allowed to move one step orthogonally and take one step diagonally. The usual 'no conferring' rule was in force but players were permitted to make any of the following statements: 'Partner, you are in danger', 'Partner, come and help me', 'Come and release me from mate' and (it must have been a common one), 'You do not see my plan'. (Verney) [Verney apparently gives the name as 'Waider', but van der Linde gives 'Waidder', as does Wellisch (see Waidder's three-handed game in chapter 37), and I have followed them.]

Sherwin's Four-Handed Chess (T. Sherwin, 1837). Extensions 8x3; Qs on white squares; pawn-one; promotion on opponents' back ranks, pawn reaching partner's back rank reverses direction, pawn meeting allied pawn may leap it; castling by agreement; clockwise play. This game, published in London, was apparently appropriated by Verney. The inventor gave stern warning on what must have been a common practice: 'The partners are rigorously interdicted from intimating aught to each other by word, look or gesture'. (*Complete Rules for Playing the New Game of Chess for Four Persons*)

Tressau's Four-Handed Chess (L. Tressau, 1840). Extensions 8x3; partners (adjacent) can play one after the other or alternately with opponents. All-play-all offered as alternative. (Verney)

Sause's Four-Handed Chess (W. Sause, 1841). Extensions 8x3; Qs on squares of own colour. Ps on reaching the fourth rank or thereafter could move at right angles towards

an opponent but could not change direction thereafter. Play anti-clockwise, orthodox except no e.p. (Verney)

Fraustadt Four-Handed Chess (1846). Rules published in this Prussian town. Extensions 8x3; Qs on left of Ks. Pawn-one, passes allied pawns on same file by diagonal movement; promotion on opponents' or partner's back rank. (Verney)

The Double Game of Chess [H.H.] (H.H., 1847). The four-handed game 'lately introduced into America' according to the author of an article in the *Chess Player's Magazine* (1847). Extensions 8x2; the men of a checkmated player may be captured by either of the opponents, a rule which does not match that of any European game.

Trabue's Four-Handed Chess (I. H. Trabue, 1855). Extensions 8x3; Qs on left of Ks; e.p. and castling. Characterized by the rule that when a pawn first reaches one of the two major diagonals of the main board (a1-h8/a8-h1), it changes direction ('wheels') towards the nearer opponent. (Personal communication apparently citing a work entitled 'Rules and Directions to Play / Four-Handed Trabue, American Chess / Isaac H. Trabue / Apr 16 / 1904')

Neumann's Four-Handed Chess (G. R. Neumann, 1867). Extensions 8x3; Qs on left of Ks; pawn-2, e.p. and castling permitted. Play is clockwise. (*Das Schachspiel und seine Abarten*)

Gaebeler's Four-Handed Chess (A. Gaebeler, 1873). Extensions 8x3; Qs on left of Ks; pawn-2; promotion on any back rank; e.p. and castling. No piece can be taken before all players have moved twice. Play clockwise. Essentially Enderlein's game. (Verney)

Lange's Four-Handed Chess (Max Lange, 1881). Extensions 8x3; Qs on left of Ks; clockwise play. (Verney)

Double Chess [Crawley and Mooney] (Capt. Crawley and H. Mooney, 1882). Extensions 8x3. Expounded in a series of articles in the *Boy's Own Paper* ('Exception must be taken to the name Four-handed Chess ... why not Four-brained Chess?'). The authors predictably needled Verney who was quick to point out the flaws in the rules: 'In giving a plan of the board, they place two of their queens on black squares and the other two queens on white squares, and then in their

rules state that all the queens are to be on the same colour'. Two innovations to which Verney objected allowed a player to call attention to a partner's queen under attack and, more obscurely, 'a pawn-piece (sic) can only be taken by a piece of its own rank or by a king or a queen'.

Partnership Chess [Chauvenet] (Russell Chauvenet, 1943). Extensions 8x2; positions of Qs not specified. Pawns move 1, 2 or 3 squares initially; wing pawns can capture in the initial array. (Letter to *Chess*, January 1944)

Fouray (Proprietary game, Gallant Knight Inc; Don and Paul Quinn, 1962). Extensions 8x4; Qs on left of Ks. A later version (Jack Quinn, marketed in 1988 by Fouray Plus) has 8x3 extensions. (*Nostalgia* 309, *World Game Review* 10, advertisement in *Chess Life*, January 1988)

Multi-Chess (Gerald Sorek, 1960s). Extensions 8x4; Qs on own colour. Several variations suggested. (Author's rules pamphlet)

Duplicate Chess (Proprietary game, Crea Tek Inc; Gerry Sorek, 1967). Extensions 8x3; Qs on left of Ks. Each team, according to the publishers, 'attempts to checkmate both opponents simultaneously', something of a feat. (Proprietor's publicity material)

Quadrachess (Proprietary game, California Games Co; Honey Sauberman, 1977). Extensions 8x4; Qs on white squares. Pawns promote on 16th rank; if deflected into an extension they can move sideways (no captures) until back on own rook's file. Player who delivers checkmate takes over the mated player's army but does not get an extra turn. (Proprietor's publicity material)

Quart'Echecs (Proprietary game, Detente, 1980s). Extensions 8x3; White and Black play Red and Green. (Proprietor's publicity material) [In the array pictured, three of the queens appear to be on black squares and one on white.]

Four-Way Chess (Proprietary game, Taurus Games; Stephen Stockman, 1987). Extensions 8x3; Qs on white squares. Pawns promote on either partner's or opponents' back ranks, also on opponents' edge extension squares, a total of 24 promotion squares (maximum of 19 attainable by any one pawn). (Proprietor's rules booklet, also advertisement

in *Chess Life*, August 1988)

Ajedrez-4 (Proprietary game, Anro, 1980s). Extensions 8x3; Qs on left of Ks. (Advertisement in *Revista Internationale de Ajedrez*, November 1989)

Carre-Schaak (H. P. Kluitmans, 1988). Extensions 8x2; one player in each partnership has an extra Q instead of a K. (*Schakend Nederland*, February 1988)

Maxichec (Proprietary game, Edimax; Jacques Venturini, 1988). Extensions 8x2; two players in each partnership control the Principal armies, their partners the Allied armies; two fortresses, each of four white squares, in the right corner of the principal players, and two neutral zones, also of four squares, in the left corner, thus effectively a 12x12 board. In a principal army, the king and queen are replaced by a General and Lieutenant respectively. Their powers are unchanged except that the General is not subject to check and, if captured, is placed in the fortress of the opposing principal player together with the Lieutenant, from which they can be liberated. Pawns can also move sideways. A pawn on promotion is exchanged for a piece already lost which is at once placed in the appropriate neutral zone. Various restrictions on movement and capture in fortresses and neutral zones, otherwise orthodox with the aim of mating the (allied) king. Also playable by 2 or 3. Diplomas at the Salons de l'Invention, Paris and Le Havre. (Proprietor's rules pamphlet)

Intense Chess (Proprietary game, Intense

Games; Robert King, 1991). Extensions 8x3; Ks on left of Qs. Yellow and Brown play Red and Blue. Object is to checkmate both opponents (also all-play-all, two- and three-player games). The men of a mated player are removed from play. Pawns may move up to three squares initially, promote on 11th rank. Analyzed and endorsed by Judit Polgar and researched by several grandmasters. (Proprietor's rules pamphlets and publicity material) [For Basic Intense Chess and Super Intense Chess, see the next section.]

Board of the Tao King (Proprietary game, Ty Scian, 1992). Extensions 8x2. The game has a mantle of eastern philosophy with the four sets of men coloured green (earth), blue (water), red (fire) and yellow (air).

Chessapeak Challenge (Proprietary game, J. Bruce Jones, 1994). Extensions 8x3; Qs on white squares. Pawns promote on the back rank of the nearest opponent. They change direction on the square, known as the pivotal square, of the first corresponding piece file of the nearest opponent; for example, the c-pawn changes direction on c6, the e-pawn on e7. Pawns may move directly to the square immediately behind the pivotal square, thus the a and h pawns move only one square, the d-pawn five squares. The pivotal squares are marked. One Canadian school structured its whole mathematical curriculum round the game! (Proprietor's publicity material) [The change-of-direction idea would seem to have been anticipated by Trabue, see above, but I haven't checked out the details.]

35.2 Games using other square boards with extensions

Four-Handed Xiangqi. Chinese Chess for four; rules similar to those of four-handed orthodox chess. Board has 9x4 extensions to accommodate the usual pieces for each player. There is no river, hence elephants have freedom of movement. The board may or may not have the Palaces marked. [David's index sheet for the game refers to two Chinese paperback games books, but there are presumably in Chinese and there is nothing from them in his Encyclopedia files. It is therefore impossible to say whether the game is partnership or all-play-all, but I have provisionally assumed the former.]

Basic Intense Chess (see above) has a 6x6 central area and four 6x3 extensions, the knights being omitted from the array, and **Super Intense Chess** has a 10x10 central area and four 10x3 extensions. In addition to the usual men, each player has two Unicorns (3-1 leapers) and two extra pawns. In the array, the unicorns are in the extension corners with the rooks next to them. (Proprietor's rules pamphlets and publicity material)

The four-handed version of **Victrix** (board 10x10 with extensions 10x3) is described with **Victrix** in chapter 15.

Partnership Four-Hand Chess (Michael Stricker, first version 1949). Board 10x10 with 10x3 extensions; two Lancers and two extra pawns a side. Lancer moves as a queen but up to three squares only; may leap one man of either colour but not to capture. Pawns can move up to three squares initially, one or two squares on their next three moves (pads allow a tally to be kept). King can move up to three squares on its first move only, but not if checked. No e.p., castling. Object is checkmate of both opposing kings. If a player is checkmated, his king is removed from the board and his partner takes over his pieces. Baseline RLNBQKBNLR but K and Q can be interchanged if desired. No discussion is permitted during play but an odd feature of the game is that a player may, in moving a man, point it towards a square or area as an indication to partner. It is up to the partner to deduce the significance of this. (Inventor's rules pamphlet dated 1988)

Alliance Chess [Bathgate] (Harold Bathgate, 1970s). Four-player game (partnerships or all-play-all). Board 12x12 with four 12x3 extensions (two are ignored if two play). Extra pieces are 2 x Financier (as Q but up to 3 squares) and 2 x Saboteur (3-1 leaper). Pawns can move up to three squares initially. (*Chess Spectrum Newsletter*)

Schwentzer's Four-Handed Chess (Manfred Schwentzer, 1982). Four players; board 15x15 with a 15x2 extension on each side occupied initially by the players' forces. Thus 120 men on 345 squares; a game for those who believe big is beautiful. (*Komsomol Pravda*, 15 April 1983)

Cincinnati 4-Way Chess (David Moeser, 1991). Four-handed partnership game in which the men-to-squares ratio is high. Board 5x5 with four 5x3 extensions, a further 3x1 extension centred on the last row of each 5x3, and a triangular area abutting on all three squares of the 3x1; array K, RQR, NNBBN,

5xP in each extension, but the inventor suggests that one of the knights might be replaced by a squirrel (leaps as N or two squares orthogonally or diagonally). Play is clockwise; object to mate kings of both opponents. If a player is mated, his men are frozen and he does not move unless released from mate; if stalemated, his men may be captured. No pawn-two; if two friendly pawns meet on a file with a vacant square beyond one of them, the other can leapfrog. Promotion in partner's territory (extension) to Superpawn (moves backwards and forwards, captures diagonally in any direction). If a pawn enters an opponent's territory it changes direction at right-angles and promotes to any piece on reaching the triangle. This can be entered from any of the three squares in front of it. Only one piece can occupy it. This piece blocks an incoming pawn on the central square, but can be captured by a pawn on either adjacent square. A rook in the triangle can exit only down the central file. The name derives from Cincinnati's chili parlours where a '4-way' consists of chili, spaghetti, cheese, and onions. Played in Mt Carmel. (Inventor's rules pamphlet)

Eight-Handed Chess (G. H. Verney, 1884). Teams-of-four game. Board 16x16 with 16x3 extensions on each of the four sides (448 squares); four complete sets of men. On the first two ranks of each extension two full arrays of the same partnership side by side, all queens on white squares, partners facing across the board. Pawns move one square at a time, no castling. The aim is to mate all four opponents. Rules as for Four-Handed Chess; order of play clockwise. This is Verney's four-handed game extended to accommodate eight players, an unlikely assembly. (*Chess Eccentricities*) [An unlikely assembly indeed, but Multiple Bughouse (see next chapter) has been played with eight players *per team* and what is perhaps truly unlikely is to find eight players each willing to wait for all the others to move before his turn comes round again.]

35.3 Games using a round board

Four-Handed Round Chess (George Verney, 1884). 128-cell circular board consisting of 4 rings (files) and 32 sectors (ranks); four arrays

PPPP, QBNR, KBNR, PPPP at regular intervals round the board (kings and queens on the inside ring, all queens on white squares).

Partners sit opposite. General rules as for Verney's Four-Handed Chess. Half the pawns move clockwise, half anticlockwise; they have only a one-square move and do not promote. (*Chess Eccentricities*, also *Les Jeux d'Échecs Non-orthodoxes*)

Orbital Chess [Schmidt and Dyson] (Proprietary game, SDM Inc; B. W. Schmidt and E. P. Dyson, 1969). Circular board, 32 sectors x 6 cells (4 players in partnership, also for 2), modified board of 180 cells (3 players). Pieces are placed in usual arrangement round the perimeter with pawns in front, partners opposite each other. Barriers between the arrays prevent movement to the left or right on the first two ranks so that rooks are not en prise to one another. Pawns must cross the centre space and continue to opponent's back rank to promote. Checkmate both kings to win. The men of a checkmated player are frozen but come to life if the king is later released. (Information presumably deriving from a set in David's game collection)

Quad Chess (Steve Preston, 1981). Four-handed (partnership?) game on 224-cell

35.4 Games using other boards

Fortress Chess, also known as **Russian Four-Handed Chess**. Origins unknown, but Murray believed it was the game referred to by Coxe on his Russian tour in 1772. There was a London club devoted to the game in 1855, and both Tchigorin and Capablanca are recorded as players. The playing area is 192 squares, the normal board with four 8x2 extensions and four fortresses, each of 4x4 squares, in the corners. There are 24 small holes outside the playing area, six in front of each player. These are for pegs to keep tally of games won. A partition, raised on some boards, is set between the two left-hand squares of each player's array and the adjacent fortress. Normal array (Qs on left of Ks), and in addition each player has an extra R, B and N which are placed initially in the fortress to his right on squares of his choice. Partners face each other, the turn of play is clockwise, and the object of the game is to mate both opponents. When a player is mated his forces are removed from play, after which the

circular board consisting of 8 rings (files) and 28 sectors (ranks). Each player has the usual eight pieces arranged RNBKQBNR from the centre (so alternate queens are on white and black squares), flanked by two rows each of eight pawns which move clockwise or anticlockwise as appropriate. Pawns have six steps to promotion. Partners may combine forces to checkmate. The pieces of a checkmated player are frozen. Variations have been suggested. (Inventor's rules pamphlet)

Escher (Proprietary game, Oreste Gallino, 1986). Round chess for four. Each quadrant is composed of 8x4 chequered squares (cells) distorted symmetrically to form a 128-cell circular board. White and Green play Red and Black. (*Eteroscacco* 38)

Duchess (Proprietary game, Alain Blair, 1984). Two-six player partnership game. Modified circular board of 157 cells. Each player has 1 x K, Q, N, Duchess (B+N), Fortress (R+N), Wizard (as K), 2 x R, B, 5 x P. A piece adjacent to a W may be teleported next to any other W. Mate all opposing Ks to win. (Proprietor's rules pamphlet)

partner, faced by the combined forces of the opponents who move twice to his once, rarely survives long. The fortress minimises the risk of early loss as it offers a comparatively safe sanctuary. Players normally castle short early in the game to hurry the king into the fortress. Access to the fortresses is not restricted but the barriers cannot be crossed by any piece. The knight is assumed to move first orthogonally and then diagonally, so even if placed at the entrance to a fortress it will command just two squares in the main playing area. It is usual to place the rook in the fortress on the same rank as the array rooks, the bishop poised to operate on the diagonal opened when the RP is moved, and the knight close to the entrance to defend the king in its flight to safety. Wing pawns cannot capture each other in the initial position and there is no accommodation, as is found in Four-Handed Chess, to relieve a block caused by two allied pawns meeting on the same file. Sometimes Fortress Chess was played with the Ks on the

left of the Qs, a harder game since it increased the difficulty of removing the king from danger. (*Schachzeitung*, May 1850, *Shakhmatny Listok*, August 1862, Verney, Faidutti, Machatschek, *Zug um Zug*)

Baltic Four-Handed Chess (L. Kieseritzky, 1835?). Partnership game played on a board in the form of an eight-pointed star. Eight diamonds with alternate angles of 45 and 135 degrees meet at a point, and each is divided 4x4 into 16 diamond-shaped cells to give a 128-cell board. Each side has the full complement of chessmen in normal array. Pawn-two, castling permitted; object to mate both opponents.

The game was described in the first chess book to be published in Lett (1855) and later in German, *Das Baltische Vierschach*, by Leonard Stunde under the pen-name of Leo Livonus. The author declared, with considerable optimism in view of the visual discomfort players must have experienced with the distorted squares, that the game rang the death-knell for the English four-handed game. The game was little played outside North Germany and the Baltic States. (*Schachzeitung* 1865, *Rochade*, 1978.)

Tetra-Schach (Victor Manakin, 1948). Four-handed partnership game played on a 204-square board. Usual forces in four colours but pieces are renamed (e.g., bishops are Officers). The main difference is that the pawns standing in front of the rooks in the array are known as Tetra-pawns and have their own behaviour pattern. A TP moves 1, 2 or 3 squares straight ahead, and can capture 1 or 2 squares diagonally (but cannot leap) regardless of whether or not it has previously moved. A TP promotes to a Tetra Queen (Q+N). If a partnership has lost all its major pieces, the opponents must mate within 10 moves, or if only one king is free in five moves, otherwise the game is drawn. (Photocopy of inventor's rules booklet) [Unfortunately the rule booklet as held by David appears to have been produced for use with a set, because it just mentions a 204-square Tetra-Schach board

without giving an illustration. A possibility giving the normal four-fold symmetry would be an 8x8 board with four 8x4 extensions plus a three-square L at each inside corner, but this has to be a guess and it is a guess which David was unwilling to make.]

Chess-O-Rama (Proprietary game, Lawrence H. Nolte, 1972). Eight players on four boards which interlock to represent four oceans and five continents. Two teams, but in the early stages the four games are played in relative isolation. Awarded gold medal at International Licensing Exhibition of 1973. (Brace, *Illustrated Dictionary of Chess*)

Doubles Chess (Proprietary game, Doubles Chess; Rick Gillipsie, 1983). Four-handed partnership game marketed 1994. 128-cell board obtained by surrounding a central point with 8 quadrilateral kites having successive angles of 45, 90, 135, and 90 degrees, and then dividing each kite 4x4 into 16 quadrilaterals. This gives an octagonal board with eight quadrilateral cells along each side, and every point apart from the centre is the meeting point of four cells. Usual arrays on pairs of opposite sides, partners White/Red having Ks on dark squares, Black/Gray on light. Moves as in orthochess allowing for board distortion. Checkmate or capture both opponents' Ks to win. A checkmated K is removed from play but the player continues to move on turn. Described by Larry Evans as 'The best four-handed version I ever saw - a kissing cousin to chess', Doubles Chess received wide media coverage in the U.S. (Proprietor's rules pamphlet and publicity material)

Octopus Chess (Henk Breugem, 1989). Eight-player game (teams of four, teams of two, or all-play-all) around a 257-cell octagonal board. Central circular cell; surrounding it, a ring of eight kite-shaped pentagons together forming an octagon; from each side, rows of two, four, six rectangles with kite-shaped quadrilaterals joining them; 8x2 extensions on the outside. (*Schakend Nederland*, June 1989) [Text revised.]

Chapter 36

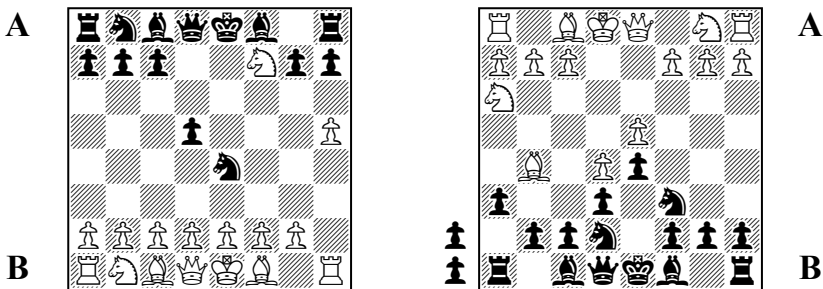
Games using more than one board

[In the games so far, all the play has taken place on a single board. In the present chapter, each pair of players plays what is superficially an ordinary game of chess on its own board, but these games interact in various ways.]

36.1 Four players, two boards

Bughouse, also known as **New England Double Bughouse**, **Pass-On Chess**, and **Tandem Put-Back**. Origins unknown (probably early 1960s). Teams of two. Partners sit adjacent to each other on two boards, one player White, the other Black. When a capture is made, the captured man is passed to the player's partner, who may enter

it on his board on any vacant square at any subsequent turn of play. A drop counts as a move. A dropped man may give check or mate. Pawns may not be dropped on 1st or 8th ranks, and a promoted piece, if captured, reverts to a P. The game is played with clocks, always to a fast time limit, and first mate or flag-fall decides.



The reason for a fast time limit is shown by a situation that occurs quite often (the present example is due to Chris Ferrante). Suppose that the upper team A is to play on both boards, and that Black A sees that his partner White A has more time in hand than his opponent White B (clocks must be visible to all players, and the game features much squinting to see who is ahead). He therefore plays ...Qf6 threatening mate, yells 'Sit!' and sets his opponent's clock going. White A now sits without playing (his side cannot lose on time because White B's flag will fall first), and sooner or later White B must play his pawn to f3 or f4 to stop the mate. White A now comes to life and plays Bxh6, passing the captured pawn for his partner to drop on f2 (he couldn't do this earlier because Black B would have recaptured on h6 and passed the bishop for his partner to drop on f3, removing the

need for the weakening pawn move). White A will sit and wait whether White B has two minutes left on his clock or two hours, so nothing is gained by playing at slow time limits and in practice five minutes is customary.

Bughouse is a popular diversion at U.S. chess events, where it has been played by many masters including Joel Benjamin, Yasser Seirawan and Andy Soltis. Tournaments are spreading: one U.S. club claimed to have held 75(!). There are sites on the web, and in recent years an annual weekend in Geneva has attracted the best European players. There is a *Bughouse Newsletter* (founded 1992) in the U.S. published by Jeremy Graham, who has proposed standardized rules. In these, players may discuss the game and advise each other. The rules in force in Geneva state that all forms of communication between partners are

permitted, the noisier the better. (*Nost-algia* 174, *Variant Chess* 32/33/36/39)

[Text revised. Had David been to any of the Geneva weekends himself, he would certainly have included **Outdoor Bughouse**, which is played with the giant men in the park and involves much dashing to and fro to hit the clock (the normal five-minute time allowance is usually extended to seven). As originally practised, captured men were thrown across to the other board, juggling ability being thus added to the skills required, but this was discontinued after a thunderstorm filled some of the men with water and one of the pawns was seen to be coming apart under the strain.

The game is indeed thriving, and a book *Bughouse Chess*, edited by Georg von Zimmermann, appeared late in 2006. This covers all aspects of the game, with particular reference to play on the Internet. Bughouse is well suited to control by computer, since there is no longer any argument about whose flag

36.2 Four players, four boards

Phase Chess (John McCallion, 1995). Experimental four-player partnership game using four boards. Each player plays two opponents, having the same colour in both, and must make the same move in each game; if a move would be illegal in one game, it cannot be played in the other. The weakness of the pawns is a drawback (a pawn cannot attack on one board unless it can attack on both, which is easily avoided). (Inventor's document 'Phase Chess, an experimental

36.3 More than four players

Multiple Bughouse can be played between teams of any even number (at least eight a side has been tried and found practicable). Half the players in a team take White, half take Black; captured men are made available to any player within the team. Victory goes to the first team to win half the games. Even more frenetic than ordinary bughouse. (*Variant Chess* 36) [Text editorial. For some real-life communication difficulties, see the book *Bughouse Chess* mentioned above.]

Sociable Chess, also known as **Social Chess** [Cambridge] ('A Cambridge man', 1865).

fell first, and with such control a three-minute time limit now appears to be the norm.]

Minichess [Bughouse] (Hamburger Schachjugendbund, date not recorded). Bughouse using a 3x7 board. Each player has 1 x K, R, B, and 3 x P. Ps move one square; no promotion. (Manuscript notes presumably deriving from personal communication)

Stupid House (1999). Bughouse variant in which partners have the same colours. On a capture, the captured man is passed to the partner who must place it on a vacant square of his board on his next turn instead of moving. (*Variant Chess* 33)

Kriegspiel Bughouse (1976) combines Bughouse with Kriegspiel. Players sit as for Bughouse but moves are in sequence board A W/B, board B W/B. An umpire is needed to approve moves. (*Neue Chess* 10)

game') [Text editorial. Given the experimental nature of the game, it is by no means certain that David would have retained it in his final selection, but the idea seems worth recording even though it would be better suited to games where every man captures with its ordinary move.]

Enochian Chess [Barr and Eschner] is described with other Enochian Chess games in chapter 38.

Team game involving any even number of players. The inventor expressed his conviction that 'chess would be a more popular game than it is if ... a large number of persons might engage in one contest', adding 'a sufficient number (of sets and boards) might be collected for a large party, by friends lending to each other for the occasion'. Team leaders are appointed. When a game is finished, the leader of the winner is entitled to distribute the winner's remaining men amongst his team as he thinks fit. Men are placed on starting squares provided these are vacant. The only limitation is that no board may have its force

increased beyond its original strength. The team winning most games is the victor. (*Chess Player's Magazine*, January 1866, also *Chess World*, October 1866)

Multiple Chess (J. W. Jeffery, 1943). Teams of any size; one player on each side appointed C-in-C. Sets arranged in a row, one side having Black, the other White. Players move in rotation. The C-in-C may offer advice to a player, having announced his intention one move before. The C-in-C may direct transfer of material from one board to another; the player thus forced to surrender material forfeits the move on his own board, and the piece is placed on the nearest file (a or h) of the new board. When a game ends, the winner's men, K excepted, may be transferred one at a time to the next board, but only after three moves have elapsed. The C-in-C may take over the last board. (*Chess*, September 1943)

Caterpillar Chess (E. H. Ratcliffe, 1952). Team game requiring two sides of any even number, a timekeeper, an umpire, and as many

sets and boards as there are players. The boards are set up in a circle, alternating black and white. Every player starts with the white pieces so there is only one player at each board. The timekeeper calls 'White', when everyone plays and then moves clockwise to the next board when, after an agreed lapse (say, 15 seconds) the timekeeper calls 'Black' and everyone moves with the black pieces. There are no resignations. A player who delivers mate or stalemate calls 'Stop', when the umpire checks and records the result and resets the men, and the game is restarted. The team which registers most mates in a given time is the winner. As a variation, one team moves clockwise and the other anti-clockwise. (*Chess*, May 1952)

Chain-Letter Chess (NOST, 1974). Correspondence chess with two teams of indeterminate size. No player moves more than once in a game. (*Nost-algia* 173) [I haven't seen the source, but I take this to mean 'players move in rotation, nobody moving twice until everyone has moved once, and no consultation'.]

Part 8

Every man for himself

[These last two chapters cover multi-player games in which everyone plays for himself. Of all chess games, these are the least likely to be satisfactory. The possibility of secret alliances is always present, and even when everyone is playing honestly the best strategy is often to do nothing and to wait for someone else to make the first move (see David's remarks under 'Designing a Variant' in the Appendix).

Many of the games in these two chapters are proprietary, and it will be seen that in some cases we know as little about them as about the long-dead games now glimpsed through fragmentary references in ancient manuscripts. Typically, David saw or was sent an advertisement or newspaper cutting containing a small amount of information, he wrote for more to the address given, and the lack of response suggested that the proprietors had already ceased operations. It has been a story too often repeated: inventors think they have spotted a gap in the market, only to discover that there is no market in the gap.]

Chapter 37

Games for three

[Three-player chess has a long history. Marinelli's game of 1722 was seminal, and other early examples cited in the first edition were a triangular game (Regensburg 1765), Lallemond's game of 1802, and Wildt's Burgspiel of 1803. Thereafter three-player games appear fairly frequently, those below being amongst the best known or having enjoyed some favour. Nevertheless, they are arguably the most unsatisfactory of all multi-player chess games, because the disparity when two gang up against one is greatest. If three would-be players are present and it is not practicable for each in turn to look after the refreshments or to act as an umpire for Kriegspiel, the best fun may be had by trying one of the variants in this chapter and the next where the players have different roles.]

37.1 Rotationally symmetric boards based on triangles

Noris Schach (Proprietary game, Treugut - Bottcher; H. Koller and D. Stegmann, 1974). Three-player chess on a 106-triangle board formed by taking a hexagon with alternate sides of lengths 5 and 4, drawing a triangular mesh on it, and removing the middle five triangles (three up meshed with two down) from each of the long sides. The sides of length 4 now act as bases for the players, each player having 18 triangles for his array (four up meshed with five down forming the first rank, five up meshed with four down forming the second). Each player has 18 men; 9 pawns, the usual 8 pieces and a Cardinal. The cardinal (between KB and N in the array) moves as a queen but cannot capture. It can only be captured if attacked by pieces of both opponents simultaneously when the capturing piece (not a king) is also removed from the board. The rook and bishop each have six lines of travel, the queen 12. The king moves to any adjacent triangle which, away from the board edge, number 12. Castling, pawn promotion as orthochess. First checkmate wins game. If a player is stalemated, the game is drawn; similarly by agreement of all three players. Noris Schach was widely played, particularly in Germany, for several years. (Proprietor's rules booklet and publicity material)

Tri-Chess [Dekle, three-player game] (George Dekle Sr, 1986). 150-triangle board,

as for Noris Schach but formed from a hexagon with alternate sides of lengths 7 and 4 by removing the middle nine triangles from each long side. The sides of length 4 again act as bases. Each side has 18 men (no queen but Chancellor (R+N) and Cardinal (B+N) respectively on left and right of king, 9 pawns). If a pawn reaches the edge before attaining a back rank, it may move diagonally. A king in checkmate or stalemate is removed from the board and the remaining pieces are added to the army of the player delivering the *coup-de-grâce* (pawns do not change direction in consequence). (Inventor's rules sheets)

Triangular Chess [Seaby and Lee] (Proprietary game, D. A. Seaby and J. P. Lee, 1993). Three-player game on triangular chequerboard divided into 64 regular triangles plus three abutting 'home' areas of 8x2 triangles, one on each side of the main board. Usual chessmen in contrasting colours set up in home areas in orthochess array. Movement regular when moving into, out of or within home areas but some differences when moving wholly within the main board. A captured K can be ransomed and there is a rule intended to discourage two players combining against the third. Surviving player wins, or a time limit can be set when a scoring system based on men captured is used to determine the winner. (Proprietor's rule sheet)

37.2 Rotationally symmetric boards based on hexagons

Three-Handed Hexagonal Chess [Wellisch] (Sigmund Wellisch, 1912). Wellisch believed, with reason, that his three-handed game offered a considerable improvement over those of his predecessors, in particular in that the board and array ensure that no side is disadvantaged. Apart however from the weaknesses inherent in all three-player games, Wellisch dodges the problem of the extra bishop, necessary for complete coverage of the board, by doing without bishops altogether on the grounds that there are no diagonals. Pieces and board cells are coloured yellow, red and black. Each player has an extra knight. 91-cell hexagonal board as for Glinski's game, but the men are placed along the sides instead of being grouped around opposite corners; array (centred on three ranks) NRQKRN, PPPNPP, PP (Qs always to left of Ks). R moves as in Glinski's game. K moves to any adjacent hex, changes place with R when castling. N moves in any direction to nearest cell of the same colour. Q = R+N; P moves one cell forward (two directions), captures in same manner (no pawn-two or e.p.), and promotes on end row to piece previously lost. A checkmated player may be released from checkmate or his king captured. The player capturing the king, who may or may not be the player who delivered checkmate, takes over the remaining pieces of the mated player. Pawns taken over keep their direction of movement. The object of the game is to defeat both opponents. (*Wiener Schachzeitung* 1912)

Modern Chess [Perry] (Proprietary game, Elizabeth Perry, 1918). Board of 64 hexagons in three colours arranged in a triangle. Set-up not known. (Collection of game rules under 'CUP 700.g.1', presumed to be a British Library shelfmark)

Kokusai Sannin Shogi (Tanigasaki Jisuke, c. 1930, revived by Maruo Manabu). Three-handed shogi. The board is hexagonal in shape and is made up of 127 cells (seven a side). The central hexagon, marked, is the Pleasure Garden. Each player has 18 pieces symbolizing political elements. Two players may form an alliance, for which there are elaborate rules, or the game may be all-

against-all. The pieces physically resemble those of shogi and many move in ways similar to those of the parent game. Promotion and drops also closely parallel those of shogi. A solo player able to move his king safely into the pleasure garden wins. (*Shogi* 35)

Three-Handed Hexagonal Chess [Baxter] (Joe H. Baxter, 1964). Hexagonal board of 217 regular hexagons (nine along each side) in three colours. Each player has a total of 19 men, the usual 16 plus an extra B and two extra Ps. The three sides are regularly spaced round the board, the array being identical in each case: 1st rank RNBKBQBNR, 2nd rank 10xP. When one player is mated he withdraws, his pieces remaining unmoved for the rest of the game but subject to capture by either of the remaining players. The K moves to any adjacent hex (maximum 6) but captures as in Glinski; castling possible. The P moves one cell at a time, with option of two on first move, in either of the two forward directions. The P captures forward one cell as a B (three options, with exception of perimeter pawns). Other pieces move as Glinski. (Photocopy of inventor's rules pamphlet, possibly produced as a patent application)

Hyperchess [Groman] (William Groman, early 1970s), three-player version. 97-cell board, obtained by taking a hexagonal board with alternate sides 8 and 5 and removing the middle two hexes from each of the long sides and the middle hex from the next row in. The 5-cell sides now form the bases for the players, with array BQBKB, R-NN-R, 7xP. In this game, the men of a mated or stalemated player are frozen but can be captured. Unique to a multi-player game (at least at the time) is the 'recovery move': the player delivering the coup-de-grace has the privilege of making another move immediately, effectively having two successive moves.

Hexachess [Moeser] (David Moeser, 1971), three-player version. 153-cell board obtained by taking a triangle of side 18 and removing a 6-cell triangle from each vertex, giving a four-cell baseline; each player's initial position as for the two-player game. The forces of a

player who is mated or stalemated are frozen, but can be captured by the other players. [Text revised. The array for the two-player has K facing K; I presume that the positions for the three-player game repeat by rotation, but the rules do not explicitly say so.]

Hexchess [Hexchess Inc] (Proprietary game, Hexchess Inc, 1975). Two or three players. 127-cell hexagonal board, normal men, corner-based array K, NQB, RBPNR, PPPPPP rotating round. Moves as in Glinski except that the K's move is confined to adjacent hexes. Pawns promote on reaching an end hex; no e.p. or castling. In the three-player version, three objectives are offered: (1) winner is player who first checkmates an opponent, third player earns draw; (2) pieces of first player to be mated are frozen but can be captured by other players; (3) pieces of first player to be mated are frozen and cannot be captured. The absence of a third bishop and the pawn's long march to queen detract from the game. (Proprietor's rules booklet)

Tri-Chess [Patton] (Proprietary game, Anthony Patton, 1975). A survivor amongst three-player variants, where life is usually short and sour. Hexagonal board made up of 217 hexes in three colours. Each side has an additional bishop and two extra pawns, baseline RNBKBQBNR. K moves to any adjacent hex; other pieces as Glinski but a Q or B cannot pass between two occupied hexes; P moves one step as B (opening two-step permitted) and captures with a two-step R move. When a player is checkmated his forces are immobilized; the first player to capture the king then takes over the immobilized forces. The capture can be made by either of the remaining players. (Proprietor's rule sheet and publicity material) [Text revised]

Szenario (Proprietary game, Edelbert Wiedmann, 1977). Three players; hexagonal board (81 cells). Described, unoriginally, as the greatest game since chess, Szenario embraces the social spectrum. Each side has nine pieces (chess equivalent powers in parentheses): Capital (dollar sign, K), Military (R), Church (B), Intelligence (N), Politics (B+K), 2 x Worker (male and female) (P), Employee (P). The military can capture two

pieces in the same line in the one move. The winner is the State (player) whose capital (K) remains uncaptured. Promotion for a worker, employee or intelligence is on any one of the three central hexes when he or she becomes Culture (K). Disarmament and revolution can both occur during play but without doing much for the game. (Manuscript notes presumably deriving from a set in David's game collection)

En Garde (Proprietary game, Mynd Games; Herb Maretz, 1988). 165-cell tricorn board in three colours; each player has an extra bishop. Array RNBKBQBNR with 8 pawns in front. (Proprietor's publicity material)

Astral Battle (Proprietary game, Michel Boutin, 1989). Two or three players. Regular 61-cell board, 11 men a side if two players, nine men if three. One piece, known as 'the Vulnerable', moves one space at a time. It can neither attack nor defend and its capture is the object of the game. All other pieces, which can be rotated, carry directional markings determining both movement and vulnerability. Capture by displacement. (*Vers L'Education Nouvelle*, January 1990)

Chesser (Proprietary game, Per Halmo, 1989). 78-cell triangular board; usual pieces but only five pawns. Array from corner (centred) K, RR, BQB, PNNP, PPP. [David's Encyclopedia files contain only a photocopy of a board set up for play; the information regarding ownership presumably derives from a set he owned or had seen.]

Triscia (Proprietary game, Coruna; Edgardo Saronne, 1992). 111-cell hexagonal board; usual chessmen apart from knights. (Advance notice in unidentified Italian magazine)

Hexanova (George Jelliss, 1995), three-player version. Arrays as in two-player version, but Qs always to the left of Ks. The men of a mated side become neutrals (see chapter 21) but pawns thus neutralized continue to move in the direction appropriate to their original colour. The mated king is also retained; it may not be left in check, and the mating move must be retracted before play continues. An optional rule prohibits the immediate reversal of a

move just made by a neutral. (*Variant Chess* 18) [Text editorial]

The Jester's Game (Brain Sports Industries, 2000). 100-cell hex board; each side has 1 x K, Q, Jester, 2 x R, B, N, 9 x P. J moves as Q+N but does not capture; is captured only if attacked by both opponents, capturing piece also removed. First player to checkmate wins, both opponents lose. (*Variant Chess* 49)

Diplomat (Valery Trubitsyn, 2004). The three-player version of Hexofen (see chapter

22). 91-cell hexagonal board as before, but only 20 men a side: White Kf1, Qg2, Rd3/h3/h5/i4, Be2/f3/g4, Ne4/f5/g6, 9xP on c4-g8-j5. (Author's rules pamphlet)

Chesh (D. R. Hofstadter, 2005). 169-cell hexagonal board; baselines RBNQKNBR with PPPPBPPPP in front. [This was a very late addition to David's text, and I can find neither an index sheet for the game nor any source material. I will take responsibility for having altered an apparent typo in the inventor's name.]

37.3 Rotationally symmetric boards based on quadrilaterals

Coqueret's Three-Handed Chess (1837). 91-cell board obtained by taking three 7x6 boards and cutting upwards at 30 degrees from halfway along each side, discarding the top pieces, putting the rest together, and adjusting the cell boundaries where the cut hasn't quite gone through the corner. So, from each side, rows 1-3 are normal, b4-f4 and d5 are distorted squares, a4/c5/e5/g4 combine with the corresponding cells on neighbouring boards to form kite-shaped quadrilaterals, and d6 becomes part of a central triangle. This gives a board with 88 cells, and the number is made up to 91 by adding another kite-shaped quadrilateral at each inside corner. Usual men (White, Black, Red); players sit at the inside corners. K starts on the added quadrilateral, Q on the kite-shaped quadrilateral immediately in front of it, BNR to each side, 8xP in front. Bishops start on same-coloured squares but the nature of the board allows them to change colour in certain circumstances. Play as orthochess, including castling, e.p. etc. Rules adopted by l'Echiquier de Paris. (*Règle des Echecs à Trois Joueurs*, Paris, 1837)

Waidders Three-Handed Chess (S. Waidders, 1837). 126-cell board obtained by applying the same treatment to three 8x8 boards (there is now no central triangle but a point where 6 irregular quadrilaterals meet). Board chequered in the usual way; the six kite-shaped quadrilaterals may be considered as either white or black or ignored. Players sit along the sides, usual array. Pieces on crossing a boundary line may change direction. The forces of a mated player are frozen until

released. A player wins by mating the other two. (Verney, also *Wiener Schachzeitung*, 1912) [In using the spelling 'Waidders', I am following Wellisch in *WSz*. He cites a work *Das Schachspiel in seinem ganzen Umfange*, Wien, 1837, and adds 'pseud. für Vincenz Lunzer'.]

Demonchy's Three-Handed Chess (Antoine Demonchy, 1882). Three 8x8 boards arranged in a triangle, corners touching. Arguably not three-handed chess but an arrangement for three players to play orthochess against two opponents. (Verney)

Self's Three-Handed Chess (Henry J. Self, 1895). 144-cell board obtained by taking three 8x4 half-boards and joining their sides by corridors of 4x4 quadrilaterals, the central triangular area not being used. In his *New and Improved Game of Chess for Three Players*, Self claims that 'In my game the pieces of any one of the players have not the slightest advantage so far as position goes over either of the remaining players'. To encourage aggressive play and 'to compensate the player delivering mate who may have had to sacrifice material to achieve this end would then find himself at a disadvantage with the remaining player' Self allows the player delivering the first mate to claim back any piece lost, which is replaced on its original square, or if occupied, on the nearest square, one on the board edge taking preference. Rules otherwise as in other three-handed games. Queens and rooks have enhanced power, knights best used for defence.

Three-Player Chess (Proprietary game, Carter Hall; Robert Zubrin, 1971). Board and placements identical to that of, and apparently pre-dating, Dreier-Schach below. (Copy of U.S. patent 3,652,091, also proprietor's publicity material)

Dreier-Schach (Proprietary game, Schmidt Spiele, 1970s). 96-cell board obtained by surrounding a central point with 6 quadrilateral kites having successive angles of 60, 90, 120, and 90 degrees, and then dividing each kite 4x4 into 16 quadrilaterals. The resulting board is hexagonal in shape with eight quadrilateral cells along each side, and every point apart from the centre is the meeting point of four cells. Normal arrays along three of the sides (Qs on left of Ks). Play as orthochess with promotion on back rank of either of adversaries. (Manuscript notes presumably deriving from a set in David's game collection)

Interface (Proprietary game, Ken Mobert, 1972). Board as for Waider's game above. The six kite-shaped cells are coloured red and are called 'transit points'. A player who delivers mate takes over his victim's forces. What gives the game its spice is forming shifting alliances and 'a taste for treachery' (*Time*, 8 January 1973)

Yalta [Spindler] (Pierre-Eric Spindler, 1975). Board design logically identical to that of Three-Player Chess and Dreier-Schach, but lines not passing through the centre are replaced by graceful arcs. A line piece crossing the centre point may change direction; thus a B moving from a corner square has a choice of three directions when reaching the centre. Pawns promote on baseline of either adversary. Player delivering mate assumes control of the mated player's pieces after removing king from the game. If a player is stalemated, his forces are withdrawn from the game. Last player wins. (Author's booklet *Prototypie : Dossier*, Impensé Radical, Paris)

Trio-Chess (Proprietary game, Van der Laken; G. J. Buijtendorp, 1979). Gracefully curved board logically identical to that of Three-Player Chess and Dreier-Schach except

that a triangular island in the middle splits the central files. A rook on a player's a3 can go right across to h3, but a rook on a4 can go no further than d4; a rook on d1 can go up to d4 and then carry on into the next player's part of the board. (*Schaakbulletin*, June 1979)

Third-World Chess (Proprietary game, D. F. Thompson and Co, 1981). Three-handed orthochess using three 8x4 boards. (*World Game Review* 10)

Three-Man Chess (George Dekle Sr, 1984). Board and set-up identical to Three-Player Chess and Dreier-Schach. On reaching the 5th rank, a pawn becomes an Arrow pawn and may move one square orthogonally and capture one square diagonally, both in any direction, but may not re-enter its home territory (one-third of board). Queens and bishops change square colours when crossing the centre. First to checkmate wins. If one player stalemated, forces may not move (but can be captured) until and if released from stalemate. (Author's rules sheets)

Allegiance Chess (Proprietary game, Metaco Inc; John Doering and Ralph Placencia III, 1984). Triangular board, 43 rectangles a side (three ranks of 9, then one each successively of 7, 5, 3, 1 centred), 12 kite-shaped cells linking the boards, and a central triangular cell. Regular array for each side, the i-file being left vacant. Orthochess, but castling not mentioned. Pieces change direction when traversing linking cells (bishops do not change colour). A mated player's men are removed from the board. (Publisher's rules booklet)

Neutral Zone Chess (Proprietary game, G & M Mind Games, 1985). Board is three 8x5 areas touching at corners with a triangular central area known as the neutral zone which it is necessary to transit to enter an opponent's field. Movement is regular except in the neutral zone where it is modified. Pieces move freely in and out of the zone (two moves); those of a mated or stalemated player are removed from play. (Proprietor's rules pamphlet)

Trischa (Proprietary game, Dieter Kopp, 1988). Three-handed chess. The board design

is essentially the same as that for Three-Player Chess and Dreier-Schach except that in Trischa the hexagonal shape has been changed to that of a star. White and Black have orthodox set-ups; the third side, Piebald, can place the K on either side of the Q. Pawns promote on the first rank of either adversary but only to a piece already lost. The first player to mate one of his opponents wins the game. A French game that appears to have an identical board and set-up was illustrated in the Dutch magazine *Elsevier* in 1976. Euwe was one of the players. (Author's rules pamphlet)

Ches3 (Proprietary game, Connection The Problem Solvers; Khia Rasmussin, 1990s). Board and set-up identical to Three-Player Chess and Dreier-Schach. First player to checkmate wins. The game attracted a lot of interest from the media, but little from players. (Proprietor's publicity material)

37.4 Circular boards

Three-Handed Round Chess (George Verney, 1884). 96-cell circular board consisting of 4 rings (files) and 24 sectors (ranks); three arrays PPPP, QBNR, KBNR, PPPP at regular intervals round the board (kings and queens on the inside ring, all queens on white squares). Pawns move only one square; no promotion; castling permitted (0-0 only). Two players cannot combine to mate the third. The pieces of a mated player are frozen; they are released into play if the mate is lifted. A player must mate both opponents to win. (*Chess Eccentricities*, also *Les Jeux d'Echecs Non-orthodoxes*)

Tri-Chez (Proprietary game, Donald Gebhart, 1970) is the three-player version of Chez (see chapter 38), played on a 96-cell circular board (24 sectors).

Tri-Chess [Preston] (Steve Preston, 1981). Three-handed game on circular board divided into eight concentric ranks and 24 files radiating from the centre. Each player has the usual eight pieces arranged RNBKQBNR from the centre, flanked by two rows each of eight pawns which move clockwise or anticlockwise as appropriate. A pawn

III-Color (Peter-René Töttger, 1992). Layout as for Demonchy's game above, but a player moving a man into his opponent's territory may choose on which of his opponent's half-boards to put it. The game ends when one K is mated: the mating player scores 2 points, the mated player 0 and the third player 1. (Inventor's rules booklet)

Three-Handed Xiangqi, also known as **The Game of the Three Kingdoms** and **San-Guo-Qi**. Xiangqi for three players; the game represents the War of the Three Kingdoms (AD 221-264). A number of board designs have been reported; all feature three normal half-boards set up in triangular formation, but the paths between them differ. Each side may have two extra pieces known as Banners or bannermen, which move two steps orthogonally then one diagonally. When one player is mated his general is removed and the mating player takes over his forces.

promotes on entering any square occupied in the initial position by an opponent's man. Two players cannot combine to checkmate the third. The pieces of a mated player are frozen or alternatively may be removed at once from the board. Another version has each player with two full complements of pieces facing in two directions and playing two games simultaneously, one against each of the other players. This is Demonchy's game above transferred to a round board. (Inventor's rules pamphlet)

Geo Chess (Proprietary game, Lordin Games; Rick French, 1992). Circular board of 30 sectors (files) and 8 concentric rings (ranks), giving basically 240 cells, but three pairs of adjacent cells in the inner ring are combined as double 'power cells' and so are the pairs in the outer ring that are midway between them. Additionally, there is a double-size 'king's square' adjacent to each inner-ring power cell. Each player has two sets of chessmen less one king; one set is set up on the inner ring, queen on the power cell, king on the king's square, the other (less king) is set up around the far outer-ring power cell. Rules as for orthochess; object is to eliminate other two players.

37.5 Boards in three dimensions

Strix (Proprietary game, David Priestley assisted by Jonathan Moody, 1986). The inventor's intention was to develop a true three-dimensional chess game (not a 3-D version of a 2-D game) that was original and also aesthetically pleasing. Three 7x7 chequered boards are joined at right angles to one another and mounted on an inverted tripod. The centre of each square is drilled to accommodate rods which are in three colours representing owls (hence the name), kites and ravens. The three black squares that form the junction of the boards are known collectively as the nest and the object of the game is to get one's owl into the nest. Strix is a three-player game (there are two-player versions), each player having three pieces (rods), one of each bird. The pieces are colour-tipped to denote ownership. The owl moves like a king with an alternative, long-range move known as 'wheeling', while the kites and ravens move like queens over one or more board faces. Owls and kites capture by displacement,

ravens by 'mobbing' (sandwiching) a victim; a raven plays either an active or passive role in mobbing. The main restriction on movement is that a piece cannot move to a square where its shaft is touching that of another piece. Strategy and tactics are difficult to visualize without a set. (Information from proprietor's rules booklet)

Triplex (Proprietary game, Peter-René Töttger, 1996). Three-player game on three transparent 8x4 half-boards set up on edge with little shelves for the men, files horizontal, ranks vertical. They are joined along the 4th rank, each board separated by 120 degrees (thus a Y shape seen from above). Usual array on each half-board; a player moving beyond his own half-board may choose which enemy half-board he moves to, but he may not move directly from the half-board of one opponent to that of the other. First player to deliver a mate wins. (Inventor's rule sheets) [Text revised]

37.6 Boards without rotational symmetry

Triple Chess [Marinelli] (Filippo Marinelli, 1722). Standard 8x8 board with three 8x3 extensions; usual array in each extension (Qs to left of Ks). Pawns promote on back ranks, hence black pawns have a shorter distance to travel but are penalized by having to march between two armies. White and red pawns do not promote in black territory, where they may be immobilized. Checkmate and stalemate can only be given by pieces of one colour. The forces of an eliminated player are static but may be captured, though not the king. A player must neutralise both opponents to win. The game is unbalanced but it was enthusiastically endorsed by Prince Eugen of Savoy. (*Triple Chess*, 1826) [I presume this to have been a translation of Marinelli's *Il Giuoco degli Scacchi fra tre* of 1722.]

Alberti's Chess for Three (J. J. Alberti, 1829). Essentially as Marinelli. Castling not forbidden but 'not in use'. Beaten player can advise either of remaining combatants (advice which, under the circumstances, might go unheeded). (Alberti, *Leichtfasslicher*, 1829)

Tressau's Three-Handed Chess (L. Tressau, 1840). Board and set-up identical to Marinelli. The game is similar with only minor rule changes. (Verney)

Tesche's Three-Handed Chess (Walter Tesche, 1843). Curious board and array, designed to give the players equal chances: from the top, 8x2, 10x4, 12x2, 8x2, ranks centred, c1 black. Normal Black array at the bottom (c-j files), Kf1, Qg1 (Q on own colour). White and Red arrays at the sides, Qs on rank 7, Ks on rank 6; pieces at the extreme ends of the ranks, pawns next to them except on rank 4 (KN) where the pawn is set forward one square. The board is described by the inventor, with no great geometrical accuracy, as an equilateral triangle with the apex removed. The vacant squares in the White and Red arrays arise from the need to avoid Black's exposure to immediate attack from his opponents' KBs. Pawns promote only to a piece already lost. If there is none when a pawn reaches the end rank, it remains immobile and immune from capture until a

piece becomes available when it is promoted. The pieces of a player whose king is mated or stalemated are frozen and cannot be captured, nor can a king stand next to a frozen king. A player released from mate/stalemate resumes play. Survival determines the winner. (Neumann, *Das Schachspiel und seine Abarten*, 1867)

Kager's Three-Handed Chess (Hermann Kager, 1846). Same board as Marinelli's game; the array differs only in that the positions of the kings and queens are reversed. Pawns move one square at a time and promote either on row farthest from them or on back row of either adversary. A player who mates both opponents wins, but curiously if he mates one opponent and is mated by the other, then the latter and the first-mated player (!) win the game, an invitation, when faced by a strong player, to be mated by the weaker one. (Verney)

International (V. Z. Kesselman, 1925). Socio-political game based on chess. Board 8x8; 32 men of which 16 large, 16 small. Three players: one plays the large black pieces, another the small, and the third the red pieces (large and small). The black forces (pieces) are imperialist powers, represented by lethal weapons, who pursue a war for booty (capture); the red forces (pawns) are the enslaved classes, casting off their chains. The eight types of men are: (Black): Chemical weapons (C), Small arms (S), Mechanical weapons (M). (Red): The People (P), First Proletarian Leader (F), Leader of Proletariat (L), Political Activist (A), Kulaks (K - not at that time a class enemy). Some pieces have familiar moves: Proletarian leader = K; Mechanical weapons = Q; Small Arms = 3-2 leaper; etc. Initial array: large pieces/black (a1-h1) MMSCCSMM; large pieces/red (a2-h2) FAAPKAAL; small pieces similar a8-h8 and a7-h7. At the start of the game the people are enslaved under their ruling classes. As soon as activists and leaders come into contact with peoples, the revolution is begun. At the end of the game the International is declared, and auxiliary pieces (red and black) are counted to determine the winner(s). (Kesselman, *Igra 'Internatsional'*, Leningrad 1925)

Mad Threeparty Chess (V. R. Parton, 1971). Three-player game on a 10x10 board. Each player has a standard set of pieces and an extra king but no pawns. The sets are distinctly coloured and one king of each set is marked, for example by a star. The board starts empty. Players take it in turns to place a man on any vacant square. Kings are placed last and must not be placed in check. Play in rotation with each player attacking the star king of the player on the right and the unmarked king of the player on the left. A player is forbidden to check a king that he is not attacking. First player to mate a king wins. (*Chesshyre Cat Playeth Looking Glass Chessys*)

Triscacia (V. R. Parton, 1974). Three-handed chess on 8x8 board. Each player has three pawns plus usual pieces. Blue Kd1, rest of blue pieces at player's discretion in area a1-a3-h3-h1 (24 squares); Green Kb7 and pieces within area a4-a8-d8-d4 (20 squares); Red Kg7 and pieces within e4-e8-h8-h4 (20 squares). Each player places a man in turn. Pawns do not move but can be captured; if queen is lost, a pawn is simultaneously crowned Q. Rotation of play is B, G, R. The first player to administer checkmate is the winner. An interesting feature of the game is that only Blue may attack the Green king, only Green the Red king and only Red the Blue king. The game is also recommended for the 10x10 board. (*Chessery for Duffer and Master*)

Chess For Three (Burt Hochberg, 1975). 8x8 board, normal array. Player A moves White's first, player B Black's first, C White's second, A Black's second, and so on. 'Useful if one player is weaker than the other two.' (*Chess Life*, December 1975)

Megachess [McWilliams] (Proprietary game, Mega Games Inc; Danny McWilliams, 1986). Three-player game with curious board and unbalanced array. Board 6x2, 8x2, 10x2, 12x2, 14x2, 10x3 (ranks centred), c1 white; White array on files d-k at the bottom, Qg1 (own colour), Kh1, other players at the sides of ranks 5-12, kings on rank 9 (no pawn advanced as in Tesche's game). Pieces move as in orthochess; pawns move orthogonally one square at a time in any direction and

capture diagonally, again in any direction. Pawns have initial two-square option, castling normal but no e.p. Promotion is on any square occupied by a piece of either opponent in the array. When two players have been mated, the survivor is the winner. Three options, one of

which must be agreed beforehand, determine the fate of the remaining men of the first player to be eliminated. Any stalemate draws the game for all three players. Endorsed by Yasser Seirawan, Walter Browne and other masters.

37.7 Games in which the players have different roles

Umpire Chess (origins unknown). Two players and an umpire. The umpire composes a variant and secretly writes down the rules. If a player makes an illegal move he loses his turn. (*British Chess Magazine*, February 1990)

[The games in the corresponding section of the next chapter are also playable by three. Games of the 'Kriegspiel' family, where the umpire has a purely administrative role, are considered as two-player games.]

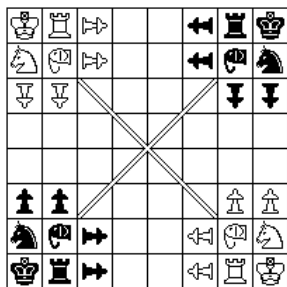
Chapter 38

Games for four or more

[This final chapter covers all-play-all games for four or more. Many of the four-player games could also be played as partnership games, and their appearance here rather than in chapter 36 is likely to reflect the slant of their publicity material rather than their intrinsic nature. Please note that a game described as for (say) '2-4 players' does not normally have a separate mention in the appropriate two-player chapter.]

38.1 Games based on capturing the king, square or rectangular board

Game Of The Four Seasons. Attributed to 'wise men of the past', the game is described in the Alfonso manuscript of 1283. Each player represents a season, an element, a humour and a colour: Spring, Air, Blood, Green; Summer, Fire, Cholera, Red; Autumn, Earth, Melancholy, Black; Winter, Water, Phlegm, White.



Board 8x8 with an X across the central group of 16 squares (does not affect play), a1 reddish brown, h1 yellow; each player has K, R, Alfil (leaps two squares diagonally), N, 4 x P; Green Kh1, Rg1, Nh2, Ag2, Pf1/f2/g3/h3, others similarly by reflection (White Ka1/Rb1, Black Ka8/Rb8, Red Kh8/Rg8). Play is clockwise, starting with Green. Pawns move parallel to nearest side, and promote to fers (moves one square diagonally). Each player attacks succeeding player and defends against preceding player. Murray states that a player delivering mate appropriates the forces of the mated player and Faidutti that the king of a mated player is also annexed as a non-royal piece, whereas Verney says that a mated player's forces are frozen. Faidutti further states that whereas a player can capture any

man, he can only be checked (and mated) by the preceding player, checks by other players having no effect. The survivor wins. The game can also be played with a die to determine the man to be moved. [Text revised. I have taken the colours from the illustration in the delightful book *Libro de Ajedrez, Dados y Tables de Alfonso X El Sabio* (Madrid, 1977), where it is Plate 17. The plate actually has Black and White at the bottom of the page, but it appears from a comparison with other plates in the book that we are looking at the board as from the side. It is curious that the four arrays do not follow each other by rotation, but the illustration is quite clear. David wrote in the first edition that van der Linde gave the earlier date of 1031, but I have not seen this anywhere else and find it difficult to credit. The Madrid book (page 8) refers to 'la era de 1321 (año 1283)', which I take to reflect a reckoning according to a different calendar, but whether '1031' started as 1321 and got garbled somewhere along the line, or whether there was some other explanation, I do not know.]

Seven-Handed Xiangqi (13th century). An old form of xiangqi based on the Warring States period (403-221 BC). Each of the seven kingdoms has an army of 17 men, arrayed 7-5-3-1-1 from the edge of a 19x19 board, and in addition there is a single central piece symbolizing the powerless king (chou) of the period, who is immobile and immune from capture. Each side includes a General that moves like an orthochess Q, a Diplomat or Liaison Officer which has similar movement but cannot capture or be captured, and an

Adjutant-General (moves as B). A state (player) is eliminated when its general is captured or it loses more than half its complement. When less than seven play, alliances are made. Before the game starts the leader of an alliance must take an oath: 'If either of the states under my command is lost, it will be through my own carelessness'. The imbalance in the array must reflect on the play (assuming that the game was ever played), and can perhaps be attributed to the fact that a weiqi board rather than a bespoke board was used. The existence of pieces moving as Q and B at least two centuries before their introduction into orthochess is a phenomenon few will credit. (Leventhal, *Chess of China*)

Diplomatic Chess (Mark Larzelere, 1974). An attempt to marry Diplomacy and orthochess. Four players, board 8x8, orthodox K-side array rotated round the board (KBNR on e1-h1, a4-a1, etc, with 4xP in front). Each side's pawns move ahead, one square at a time, and promote on the 8th rank. Play follows Diplomacy procedure. For each move 'season' there is a negotiation period when simultaneous orders are written, and these are then resolved according to a predetermined procedure (for example, all P moves are adjudicated first). Object is to capture opponents' Ks. The units of a player whose K is captured are removed from play. When the game is reduced to two players orthochess rules apply and the aim is checkmate. (Inventor's rule sheet)

Galactic Chess (Matthew Duggan, 1982). Four players, board 12x12 arranged cornerwise. Each player has 16 men: 1 x King, Queen, 2 x Rook, Archbishop (B+N), Knight (which may also by agreement move one square orthogonally), 8 x Pawn. Pawn moves one square orthogonally, captures one square diagonally, but may not move behind its start square nor reenter the array quadrant; two-square first-move option, no e.p. A pawn reaching a square behind an opponent's pawn chevron promotes to any piece. Array: K, NN, RQR, PAAP, PPP, PP, P. A reusable missile (disc) is placed under each piece (not K) and the centre pawn of the fifth row. A missile is fired in the manner of the host piece, which does not move. An abandoned missile cannot

move, be taken or be crossed. Kings must be captured to win. (Inventor's rules pamphlet)

Sceptre 1027 A.D. (Proprietary game, Horizon Games Inc; Sam Soranno & Dave Cross, 1987). Chess in the Dark Ages. Players 2-4; chequered board 24x24 built up from nine 8x8 boards overlaid with terrain features. Usual chessmen which move normally over open ground except that knight's move is extended to three squares in any direction. Restrictions and prohibitions when encountering other features (e.g., king prohibited from crossing river or entering castle ruin; bishop moves one square at a time through forest). (Proprietor's publicity material, also reviews in *Games*, *World Game Review*, and *Die Pöppel-Revue*)

IQ96 (Proprietary game, Lyckplay AB, 1990). Players 2-6; teams if desired. Board 24x18; each player picks a base (4x4 squares coloured overlay) and set of pieces (16) of same colour. A base may be placed anywhere on the board, coincident with the board chequering, provided it is at least five squares from any base already laid. A player's pieces are disposed freely on the 16 base squares. The pieces are Soldiers, Lieutenants, Captains, a General and a President. The first three move as B, R and Q respectively but to a maximum of five squares; the General moves as a queen and the president up to three squares in any direction but must stay in the base. Capture by displacement. If a player's president is captured it is removed from play and the capturing player takes over the player's turn but must move a captured piece on that turn, not one of his own. Object is to eliminate everyone else. If six play, there are 96 men on the board initially, hence the name (also because game is advertised as suitable for ages 6-96 perhaps?) A well-known games player pointed out that it is 'an IQ less than average'. (Proprietor's rules brochure)

Superchess [Bajon] (Michael Bajon, 1991). A four-player version of Bajon's New Chess (see chapter 15). Board 11x11; same men x 4; no castling; pawn-two allowed at any time.

Feudal Chess [Calkovits and Knight] (Proprietary game, Scorpion Games; Mike

Calkovits and Jeff Knight, 1993). Four players, all-play-all. Board 9x9 (a1 black); each player has usual 16 men arranged in 4x4 corner Ka1; Qb2; Ra2,b1; Bb3,c1; Na3,c2; Pa4,b4,c3,c4,d1,d2,d3,d4. Arrays of other players similar. Pawns move ahead one square, capture on diagonal (Pd4 moves to d5 or e4, captures on c5, e3 or e5); promote on baseline of opponent diagonally opposite. Object is to capture opponents' Ks and to be sole survivor. The men of a player whose K is captured are removed from the board. Pawns worth twice orthochess value according to inventors. [Information presumably deriving from a set in David's game collection]

Bastardo (R. Finelli and others, 1996). Four players; board 8x8; each player has 1 x K, R, B, N, 4 x P arranged in a corner: Ka1, Rb1, Na2, Ba3, Ps d1, c2, b3, a4; others similar. A number of variants are offered. (*Eteroscacco* 78)

Diplomacy Chess (João Neto, 1996). Four-player game on 8x8 board, standard array. Simultaneous movement: if two pieces are ordered to the same square, the stronger captures the weaker; if of equal strength, neither moves. The inventor suggests playing it as a progressive game. (*Eteroscacco* 75)

Yonin Shogi, also known as **Four-Handed Shogi** (Proprietary game, Kitami Hovendo; Ota Mitsuyasu, 1993). Standard 9x9 shogi board; each side has nine men, 1 x K, R, 2 x G, S, 3 x P; SGKGS centred on back line, PRP centred in front of them, P in front of R. All-

play-all or partnership. Players move in turn clockwise. Moves and play, including capturing, re-entering, promotion etc., as in shogi. A check must be answered immediately, any intervening players thereby losing their turn. A mated king is turned over and henceforth acts as a block. The checkmating player takes over the defeated player's pieces, including any in hand. In all-play-all, the game continues until two players remain when the game is decided on point count. In a partnership game, the first mate decides. (Rules leaflet 'Four-Handed Shogi' by George Hodges)

Card Chess [10x10] (Proprietary game, Cardchess International, 2002). Board 10x10; each player has 16 cards representing usual 16 pieces. Players (2, 3 or 4) shuffle their cards and place them unseen and face-down on the eight central squares of the two ranks in front of them. A move consists of turning over an own card and then moving a face-up piece according to usual chess rules. Face-down cards play no part and can be landed on or crossed. A face-down card that is covered cannot be exposed. A version called the memory game has all cards shuffled initially and then laid out in a predetermined pattern. A turn is as in the above game except that if the card turned over belongs to an opponent it is put back face-down. An interesting feature is that you can turn over a card that might favour you (e.g., one that is a knight's move away from the opponent's queen). The player whose king is turned over first is usually at a disadvantage. (*Variant Chess* 44)

38.2 Games based on capturing the king, hexagonal board

Hex Chess [Kirkpatrick] (Ronald Kirkpatrick, 1970). Players 2-6. Hexagonal board composed of 150 equilateral triangles alternately coloured light and dark. Each player has 16 men: 1 x K, 2 x Q, R, B, N, 7 x P. Orthogonal movement (called basal) is parallel to the bases of triangles (six directions); diagonal movement (called pexal) is through apexes of triangles (also six directions). In both cases, the colours of the triangles alternate, so a bishop, for example, changes its cell colour when moving an odd number of triangles. A knight always moves to

a triangle of the opposite colour. In the board centre the piece has a total of 15 possible moves, omitting the three opposite-coloured triangles with which it shares a side. Pawns move one pexal at a time (or two initially) and capture diagonally (i.e., one basal then one pexal) or immediately ahead (a further pexal). Promotion is at any board boundary to the highest-ranking piece previously lost. Castling under orthochess conditions involves K and R changing places. The last player who can legally move his king wins. The array utilises the two rows of triangles nearest each player,

omitting the corners; baseline NRBQKQBRN, with the pawns in front. A feature of the game is that a checkmated player may continue to participate but cannot threaten the pieces of the player who checkmated him, overcoming the objection of elimination of players in multi-player variants. [Text revised.]

Cross Chess [Dekle] (George Dekle Sr, 1982). Untested multi-player game. Six hexes a side of quasi-hexagonal board. (*World Game Review* 10)

Chexx (Proprietary game, Gene-Sys Co; William S. Glazier and Talbot Uehlinger, 1983). Regular 169-cell hexagonal board, central cell coloured. Players 2-6 with orthochess sets. Regular moves adapted to hex board. Pawns have toothpicks stuck through them to indicate direction of movement and promote in centre cell. 'People are going to think chess mundane after this,' comments one of the inventors, 'it's going to open up chess to everyone'. (Cutting from the *Hartford Courant* or an associated paper, 24 July 1983)

38.3 Games based on capturing the king, circular board

Chez (Proprietary game, Donald Gebhart, 1970). 128-cell circular board consisting of 4 rings (files) and 32 sectors (ranks); four arrays PPPP, QBNR, KBNR, PPPP at regular intervals round the board (kings on the inside ring) but men are renamed Bank (K), Commander (Q), Air Force (Rs), Navy (Bs), Marines (Ns), Army (Ps). Object: to capture opposing players' banks. Capture by displacement, including banks; no check, checkmate, double pawn move, e.p. or castling. Pawns promote on either left-hand or right-hand opponent's baseline. Play is clockwise. A player whose bank is captured retires from the game and his forces are removed from the board. The last surviving player is the winner. **Imperial Chess [Gebhart]** (Gebhart, 1970) is the same but the aim is checkmate. A player whose king is in check must respond at once, but cannot capture other than with his king if he is playing out of turn. Normal turn sequence is

Shaolin Sovereign Chess (R. Planesi, 1996). 2, 3, or 6 players, normal men, hex-based board with lateral rook move. For two players, 69-cell laterally symmetric board of 11 ranks with lengths 8, 7, 6, 5, 6, 5, 6, 5, 6, 7, 8; RNBQKNBR on rank 1, wing pawns only on rank 2, 6xP on rank 3 (two bishops only at outset). Pieces as Glinski; pawn moves one step as R (two-step initial option, e.p. permitted), captures one step as B. Additionally, a pawn within a defined central 31-cell area (not more than an N-move from the centre) can move and capture one single space in any direction (though not to leave the area backwards), and if it can occupy the central hex the player can enter a third bishop on the cell which his K occupied at the start (it must be empty). The three-player version uses a 94-cell board with rotational symmetry (take a 127-cell hexagon and remove 4 cells from one end of each of three diameters, the adjoining 3 cells from the two adjacent rows, and the three remaining outside corners), the six-player version a 271-cell hexagon. (Originator's rules brochure) [Text editorial]

then resumed, continuing with player on left of checking player. Castling permitted under usual rules. (Proprietor's rules leaflet)

Astro Chess (Proprietary game, Seira Enterprises; Joe L. Wilkins, 1974). A fusion of chess and astrology. Players 2-4; multi-coloured circular board (6 concentric ranks = orbits; 216 spaces); each player has 18 pieces (equivalent chess piece in parentheses): Moon (K), Sun (Q), 2 x Venus (R), 2 x Mercury (B). Six planets are in pairs: Mars & Pluto, Jupiter & Neptune, Saturn & Uranus. All move like a K but only capture diagonally; the last two pairs have limited jump moves in addition. There are six nodes (P). A node moves 1, 2 or 3 spaces initially in the same orbit but in either direction, thereafter one space; captures one space diagonally. Object of the game is to eclipse opponents' moons (a moon under attack is 'in aspect', when checkmated it is 'in eclipse'). (Proprietor's rules booklet)

38.4 Games based on capturing the king, board with extensions

Grosses Königs-Spiel (Christoph Weickhmann, 1664). The first modern multi-player chess game. In his *Neu-erfundenes Grosses Königs-Spiel*, Weickhmann illustrated boards for two, four, six and eight players, respectively of 195, 217, 415 and 697 spaces (small circles linked by orthogonal and diagonal lines). The two-player board is a simple 13x15 rectangle; the four-player a 7x7 square with 7x6 extensions; the six-player a hexagon of complicated internal structure with 7x7 extensions; the eight-player a 19x19 square with two 7x6 extensions at each corner. The 14 different playing pieces represented various civil and military ranks. In the four-player and eight-player games, each player had 30 pieces composed of 1 x King, Marshal, Colonel, Major, 2 x Adjutant, Chancellor, Chaplain, Counsellor, Courier, Herald, Knight, 3 x Pikeman, Light Infantry, 6 x Soldier; in the two-player game, a full double set less only the second king and one pikeman (58 men a side). A respected book with fine engravings but forgettable games. [Text revised]

Demonchy's Four-Handed Chess (A. Demonchy, 1856). Extensions 8x2; Qs on left of Ks; all-play-all. King of mated player is removed from board. Alternatively, all the mated player's men are removed. Surviving player wins (partnerships also suggested). (Verney)

Tri-King Chess (Yun Gee, 1946). Four-handed game on 8x8 board with 8x4 extensions; each player occupying an extension with usual array. The central (8x8) board, called a 'diamond bridge', is crossed in one move to enter any of the three other fields. (Personal communication citing a patent D-173-066-152)

Panzyk's Four-Handed Chess (L. Panzyk, 1984). All-play-all game sponsored by Chess in Friendship, Lübbenau. Extensions 8x3; Qs on left of Ks; no check or checkmate: pieces of player whose king is captured are inert but can be taken. Another off-beat German game, credited to 'a Berlin doctor' (G. Lutze?), has 8x3 with royalty facing like-royalty in the initial position and mated kings removed from

the board. (*Nost-algia* 282/3)

Chessnuts (Proprietary game, Halcyon; James McCord, 1986). A collection of seven four-handed variants played on a 128-square board (central 8x8, four 8x2 extensions); pieces as orthochess. All the games are named after various kinds of nut. Five games are for individual play, two for partnerships. Objectives vary but are mostly royal survival. In two games the aim is to score the most points by capturing enemy pieces (K=12, Q=9, etc). A novel feature of some games is that loss of the king does not eliminate the player. (*World Game Review* 7)

Plex (Proprietary game, Wickett Works; John Wickett, 1987). Multi-player (2-6) chess on a 229-cell hex board in the shape of a six-pointed star (169-cell regular hexagon with two extra 5-cell chevrons at each vertex). Cut-throat possible, but two-player or two-team recommended. (*Games*, June/July 1989)

Vendetta Chess (Proprietary game, Deak, 1987). Four-player chess on 8x8 board with 8x4 extensions. Usual array but with kings facing queens. In partnership play, aim is to capture both opponents' kings; in all-play-all, last surviving player wins. (Proprietor's publicity material)

Dikel Checkmates (Proprietary game, Arthur Rogers, early 1990s). Four-player game (usual men) on 10x10 board with four 8x2 extensions. A checkmated player's men are removed from play. Survivor wins. (*Variant Chess* 24)

Bishops (EJW Consulting, 1991). Four-player game. Board 8x8 with four 8x2 extensions; usual set-up. Players must mate player on their left (can be supported by the other players). Off-beat rules. (*Nost-algia* 373)

Chessy-Quattro (Proprietary game, Design Studio M. Hofer; Martin Hofer, 1991). A compendium of games for 2-4 players: Chessy-Classico (four versions), Centro, Castello, Vario. Four boards all 8x8 with 8x2 extensions on each side (128 squares) but with

different markings and coloured squares. Chessmen are standard (four sets) and there are four dice with piece symbols (two types). Men move as in orthochess; games from standard four-handed to strategy/chance variants. (Manuscript notes presumably deriving from a set in David's game collection)

Imperial Chess [Scorpion] (Proprietary game, Scorpion Games; Mike Calkovits and Jeff Knight, 1993). Four-handed all-play-all. Board 8x8 with four 8x4 extensions. Usual array in each extension, kings facing kings. Pawn behaviour normal except that a P which captures into an extension then moves towards the back rank of that extension. Promotion on any back rank; castling, e.p. normal. No checking; a player whose K is captured is out of the game, and his men are removed. Last survivor wins. Players can make pacts during play but are not bound by them. (Manuscript notes presumably deriving from a set in David's game collection)

Bosworth (Proprietary game, Out-of-the-Box Games, Mark Osterhaus, 1998). Board 6x6 with corner squares removed. Each player (2 or 4) has a set of 16 cards distinctively coloured representing the usual chessmen. The four squares facing each player are his field camp (thus a 4x4 central area). To start, each player puts four pawns face up in his camp,

shuffles the remaining 12 cards and takes the top four into hand. When a square is vacated in the camp, a card from hand must immediately be played, face up, onto it and a replacement card drawn from those remaining. Usual chess moves except that there is no pawn promotion and the king can be captured like any other piece. The men of a player whose king is captured are removed from play and the victor takes his queen as a reward. Aim is to be the last king left on Bosworth Field. The game is accelerated mayhem, entertaining rather than demanding. (*Variant Chess* 30)

Chess Empire (Proprietary game, Empire Chess LLC, 2003). Board 14x14 plus four 14x3 extensions. Four players (two or three possible) each having 28 men: 1 x K, Q, 4 x R, N, 2 x B, Spy (leaps two squares orthogonally or diagonally), 14 x P. Play is orthodox but Ps can always move 2 squares. Arrays in extensions, baseline SRRNNBQKBNNRRS. (Proprietor's publicity leaflet)

Schach4, originally known as **SchachRevolution** (Proprietary game, Michael Stetter, 2005). Board 8x8 with 8x3 extensions; 2-4 players sitting in the corners; array (a4-d4-d1 and so on round) BRQNKBR fronted by PPPNPPPP. All-play-all or team play in various combinations. (Proprietor's publicity leaflet)

38.5 Games based on capturing the king, planar board of other or unknown shape

Doppel-Schach (Proprietary game, Leonore Sienkiewicz, 1938). For '3, 4 to 8 or still more' players. The army of a mated king is either removed from the board or added to partner's forces. Play without a partner is also possible. (Proprietor's publicity leaflet) [It seems odd to start by talking about 3 players and then to give precedence to playing with a partner, but this is what the leaflet says.]

Multiplayer Chess (Ralph Betza, date unknown). Any number can play. Each player has a half-board and the usual array (men must be distinctive). Orthochess but kings are captured, not mated. The turn player sets his half-board against any other, and makes a legal orthochess move. Subsequently, a player

on turn may move on any half-board where he has a man. A player capturing a K takes over the loser's army and also his turn. Last survivor wins. Described by the inventor as 'working very well'. (Inventor's rule sheet)

Four-Zone Chess (Proprietary game, Four Zone Games; M. P. Elliott, 1981). Four-player game. Board is made up of four zones each of 29 chequered squares plus 12 yellow squares that separate the zones. Each player has 1 x K, 2 x R, B, N, 6 x P, also a Q which cannot be brought into play until a pawn is advanced to the centre square, which also serves as a barrier. Men behave as in chess, but pawns outside their zones move and take in any direction. Object is to checkmate all

opponents. The forces of a mated player are removed from the game. In a partnership game, the first mate decides. Where three or more are engaged, a player unable to move on turn loses. When reduced to two the normal rules relating to stalemate, perpetual check etc., apply. (Proprietor's publicity material)

Shahmot (Proprietary game, Britton Enterprises; Tony Britton, 1982). Two- or four-player game on tessellated board of 116 squares. The game for two has an extra queen and two extra pawns a side; the game for four has six pawns and two queens but no rooks. (Manuscript notes presumably deriving from a set in David's game collection)

Superchess [Jacobson] (Proprietary game, Green Island Games Inc; Rolf W. Jacobson, 1989). Four-handed game (also for 2 or 3 players). Novel board of 148 squares: 14x14, less eight squares (typically a1-a3, b1-b3, c1-c2) at each corner, less the central 4x4. Usual chessmen (four sets distinguished by colour) but the players sit cornerwise and there is an extra pawn a side. A number of alternative arrays are offered, one of which has (c3) K, (a4-d4-d1) RBNQNBR, (a5-e5-e1) 9xP, other sides by reflection. An unusual and attractive feature for a four-player game is that rival pawns meet head-on as in orthochess. A number of scenarios are given; for example, first checkmate decides game, a mated player's men are frozen, the men change sides, etc. An enlarged game, Superchess II, uses a modified board of 176 squares with an extra knight and three extra pawns a side. (Proprietor's publicity material)

Königsritter (Proprietary game, Albert Buttner 1993). Four-player game with curious features. Unorthodox board and array. Red, White, and Yellow are attackers, Black, whose prospects appear dim, is a defender. Black has a normal half-board with his normal array. There is then a four-square waist, followed by a 6x10 area with two 6x2 extensions at the near end, and each extension, and the far end of the board, has an extra square abutting the two middle squares. These areas are occupied in order by Red (to Black's left), White (at the far end), and Yellow. The extra square hosts a

Königsritter, which moves and captures as a Q but as a K when in check (and can be checkmated); the rest of the array is RNBBNR with 6xP in front. Pawns move initially one or two squares forward, thereafter one square forwards or sideways. Attackers' Ps promote on Black's back rank, Defender's Ps on any attacker's back rank. Promotion is to a piece already captured. The object of an attacker is to mate the black king. Black's lame aim is to repulse the attackers. In the a three-player version, the Black and White men are played by the same player; in a two-player version, so are Red and Yellow. (Proprietor's rules sheets) [Text revised. The game seems to make little sense, since the attackers acting in concert can quickly overwhelm the defence, but I suspect that it is really an all-play-all among the attackers with a victory for the defender if they fight themselves to a standstill.]

Multischach (Udo Sprute, 1997). A series of chess games for any number of players from two (orthochess) upwards, based on boards which are generalizations of those used for Three-Player Chess and Dreier-Schach (chapter 37) and Doubles Chess (chapter 35). Suppose n players; then the board is a polygon with $2n$ sides made up from $2n$ kite-shaped quadrilaterals each divided 4x4 into 16 quadrilaterals. Boards are illustrated up to Siebenerschach (14 sides, 224 cells). (Inventor's definition booklet) [Text editorial]

Tile Chess (Proprietary game, Steve Jackson Games; Jason Wittman and Hilary Moon Murphy, 1999). Up to six players. Each player has a set of chess men in the form of 16 cardboard tiles. Players take it in turns to place a tile on the table, in any order except that the kings must be placed last. Each tile after the first must be placed orthogonally or diagonally adjacent to an existing tile. When all tiles are placed, players move as usual. A turn may consist of the repositioning of a tile or a capture, but at all times the tiles must remain connected. Pawns move one step at a time but may capture either forwards or backwards. Pieces move normally and can also jump over friendly pieces. Object is to capture the opponent's king or to be the last survivor. (*Variant Chess* 36) [Text editorial]

38.6 Games based on capturing the king, three-dimensional board

Chess³ (Proprietary game, Innovative Dimensions Corp; Robert Baldwin, 1975). 2-6 players; three normal boards joined three-dimensionally along the edges leading from one of their white corners (playing area on the outside), bent back along their long black diagonals, and rejoined at the far white corners; 3 x normal array arranged cyclically around each cluster of white corners. (Manufacturer's publicity material) [Text revised]

Taliesin, also known as **The Wizard's Game** (Proprietary game, Wildone Ltd/Taliesin PLC; Ron Astle, 1982). Described as the world's most expensive game (about \$800,000 a set in gold and platinum but somewhat less for popular versions). Design Centre (London) award. Game for 2-8 players. Board is circular and on three levels with a 'black hole' in the middle to allow passage between the boards. Rules vary slightly according to numbers playing: Aesir rules (2 players), Traveller's rules (3-4 players) and Wizard's Circle rules (5-8 players). There is also a single board version, played to Druid's rules. There is an odd mix of pieces: a Life Force (which moves like a king and whose loss decides the game), Taliesin (moves like a queen), King Arthur, Centurion, Henge (all move like a rook but

with differing limitations on vertical movement); White Goddess, Shogun, Warlord (moves like a bishop, with similar vertical movement restrictions) and the Fighting Piece (moves like a king). The game was energetically marketed with the help of some doubtful mythology: 'Played according to ancient Druidic rules, Taliesin introduces the player to a fast-moving attacking game which influenced the martial arts centuries ago'. The claim that 'Taliesin is unlike anything else in the world or any other' is probably true. (Proprietor's publicity material)

Es (Proprietary game, Hartmut Hoppe, 1986). A complicated game for 2 to 20 players featuring six chessboards formed together as a cube with magnetic men. Play proper is on the top board; the other boards are deployment areas where there is movement but no capturing. Each player has 3 x king, queen, 6 x rook, bishop, 15 x pawn, the bulk of which are initially accommodated on the deployment boards. Pawns move and capture as kings but not backwards. A player loses when his last king is mated or when he has lost all his pawns and queens. (Proprietor's rules pamphlet) [The participation of 20 players scarcely seems practicable, but the words 'für 2 bis 20 Spieler' (sic) are in the source.]

38.7 Annihilation games

Jeu du Tournoi (Edward Loysel, 1855). Presented at the Universal Exhibition, Paris 1855. Two or four players; board 6x6 for two, 9x9 for four. Pieces have romantic names but mundane moves. The weakest, Page (one step orthogonally) and Dwarf (ditto diagonally) promote, the latter to Chief Constable (king move or two steps orthogonally). All men have numerical values and capture by displacement. Object is to annihilate the opposition when the margin of victory is calculated by totalling the point value of the winner's remaining men. A spinner determined the piece moved, so skill was at a discount. (Loysel, *Nouveau Jeu du Tournoi*)

Chameleon (Proprietary game, VSK; Wolfgang Grosskopf, date unclear). Players

2-4; 8x8 board with squares in four colours and with moveable borders. Pieces are cubes in four different woods; each player has four pieces of the same wood. Each piece depicts four symbols, each symbol in a different colour corresponding to the four board colours. A set of four pieces therefore has every combination of symbol and colour. The symbols are Beetle, Butterfly, Caterpillar and Chameleon which correspond to B, N, R, Q respectively. Array (4 players) is a1/b1/c1/d1, h1/h2/h3/h4, h8/g8/f8/e8, a8/a7/a6/a5. All pieces start as butterflies (knights). On completion of a move, the piece is rotated to show the square colour uppermost. The piece then equates to the symbol on that colour. Players are eliminated on losing all their pieces; last player left wins. When an edge file

or rank becomes vacant the border is moved in, thus as play proceeds the board contracts. [Information presumably deriving from a set in David's game collection]

Cirondo (Proprietary game, Cirondo Games Co; Angus Wright, 2002). Two or four players; circular board of 8 concentric rings (ranks) divided into 32 sectors (files), central area also used. In the two-player game, each

player has 16 moons, 16 planets and four solar systems (moons and planets are halved in number for the four-player game). Moons are pawns but without the two-step move, the planets are bishops, whilst the solar systems, which are placed initially in the central area known as the Void, are queens which only come into play when pawns are promoted. The aim is to reduce the opposition to a single piece. (*Variant Chess* 44)

38.8 Games to reach a goal in the opponent's territory

Remy (Proprietary game, Butehorn Spiele, 1979). Players 2-4; board 4x4; men in four colours. All men are identical in appearance. They move as P, N, B or R according to the squares on which they stand which are influenced by dice rolls. Object is to get own men across board to Remy square. Capture is by displacement and compulsory but men on start or Remy squares are safe from capture. Captured men are returned to start squares. (Photocopy of manufacturer's rules pamphlet)

Escort (Proprietary game, Stephen Agassiz, 1994). Board 18x18 (four-player game) with central area 12x12 (two-player game); each player has 1x K, 2 x Q, R, B, 8 x P based on one of the corners, array K, QQ, RPR, BPPB, P PPPP. K can move up to three squares in any

direction; Q, R, B orthodox but not more than four squares. Pawns move sideways or forward, including diagonally forward, up to three squares on their first move, thereafter up to two squares. Capture by leaping as in draughts (checkers) with further captures if available. The king is non-royal; aim is to be the first to get it into the diametrically opposite corner. Pawn promotion not mentioned. (*Variant Chess* 20)

Mutabor (Proprietary game, Dr. F. Hein Spiele, F. Hein, 1995). Game for 2-4 players; 52 individual tiles assembled at random giving millions of possible boards. Each player has four tokens which move as Q/R/B/N/K according to the square they stand on. Win by occupying opponent's base. (*Fairplay* 32)

38.9 Games to reach a goal in neutral territory

Moncrieff's Game (J. A. Moncrieff, 1899). A four-player extravaganza requiring four chessboards representing Europe, Asia, Africa and America, with positions for artillery between the boards and four central squares representing a city, the purpose of the game being to capture or 'checkmate' the city. Each player had 26 men in a wood (walnut, mahogany, ebony and boxwood) representing each of the four continents. The forces were made up of a king (which moved like a queen), 12 infantry pieces composed of 2 generals (rooks), 2 colonels (bishops), 2 captains (knights) and 6 men (pawns), together with 8 cavalymen and 5 artillerymen. 'It will be seen,' declares the applicant, 'that this game, while resembling chess, possesses an advantage over chess, seeing that it embraces all the moves in chess and a considerable

number additional'. (U.K. patent 10,857 of 1899)

Mock Chess [Hudd-Smith] (A. E. Hudd-Smith, 1947). Curious board of 129 linked cells (squares and circles). Each side has one K, Q, B, Lord Mayor (moves one cell orthogonally), Judge (as B) and 5 x policeman (as N: some spaces barred to policemen). Object is to occupy centre cell for one turn with principal piece. Order of seniority: K-Q-LM-B-J; thus if K and Q lost, LM is principal piece etc. (Hudd-Smith, *Transportation Games*, British Library shelfmark 7919 b.18)

Yalta [Hegedus] (Alexandra Hegedus, early 1950s). Four players (no partnerships); board 16x16 with an 8x2 extension in the middle of

each side, but the middle 8x8 is absent apart from the central 2x2. Normal array in each extension (K/Q placings at the option of the player), and each player also disposes of 15 loose squares (8 white, 7 black or vice versa). Pieces move normally but there is no castling. Pawns move one square orthogonally (forwards, sideways, backwards) and capture diagonally forward. Promotion rules are unrecorded but probably superfluous. The object is to advance the king to one of the four central squares. To do this it is necessary to lay a path of squares from the existing board across the void to the centre. Every time he checks a king a player lays five squares in the void area, always respecting the alternate colour sequence linking the board to the centre. After three checks his tiles are exhausted. On every subsequent check he either takes a square from any of the other players or plays a square so taken into the void.

The first player is determined by lot after which the turn passes anti-clockwise. On a turn, a player makes eight moves, one with each of eight men (or all men if he has eight or less remaining). If he checks an opposing king and in consequence lays one or five squares or takes a square from an opponent, he forfeits one move. A player may also, at the cost of a move, slide the two ranks on which his men were arrayed at the start of the game four squares to the left or right (i.e., to the board end). A check must be answered immediately but does not count against the eight-move entitlement when the checked player's proper turn comes round. A mated king is simply returned to its start square whilst the player delivering mate is awarded two 'checks'. A piece moving from the main board to the central area must first move to a perimeter square within it. Subsequently it can move freely within the area though only over squares that have already been placed. Movement to or over an unfilled square is never allowed. An elaborate game of unplumbed merit. (*Les Jeux d'Echecs Non-orthodoxes*)

Crown Chess [Adams] (Proprietary game, John Adams Toys, 1974). 2-4 players; circular board of 32 cells (8 radiating sectors of 4); each side has 1 x Prince, 2 x Baron, 2 x

Viscount. There is a crown which a prince seizes to become king; reach a perimeter cell to win. All pieces move as a K in chess but in addition a prince moves any distance on a rank, likewise a baron (but clockwise only), and a viscount (counter-clockwise only). The king alone can capture (though not a prince, which cannot be forced to move) and as a result the game can get blocked. (Bell, *Discovering Chess*, also *Games and Puzzles* 30)

Steeple Chess (Proprietary game, Ravensburger; Alex Randolph, 1976). A race game for 2-4 players. Each player has three tokens which circuit the four-track board by means of chess moves, the roll of a die determining which chessman dictates the manner of movement. A choice of moves is available to a player rolling the king. There are two permanent obstacles and one movable which a knight alone can jump, thereby justifying the punning title. The first player to get all three of his tokens across the line is the winner. Little skill but a lot of fun. (Copy of proprietor's rules leaflet)

Nimmar (Proprietary game, Nimmar; Eldon MacCuspic, 1984). Game for 2-4 players; 11x11 board on six levels arranged like a regular low-elevation step-pyramid (apex at f6). Each side has 16 men; 1 President (moves like K); 2 Senators (Q); 2 Temples (move like B, or like R on same level only); 2 Dukes (2 squares in any direction, including knight's move); 9 Admirals (1 or 2 squares on rank or file, 1 vertically or 1 diagonally; captures only 1 square diagonally onto next higher plane; no backward movement). The pieces represent the different divisions of power within society as defined by Bertrand Russell, respectively corporate, governmental, religious, monarchical and military. Win either by getting President to f6 or eliminating Presidents of other players. In the multi-player game, the pieces of an eliminated player stay on the board. They serve as blocks but may be captured by any player. Array: a5-a1-e1 ADTSPrSTDA, b5-b2-e2 7xA, other corners similarly. (Proprietor's publicity material)

Centrepoint (Proprietary game, Checkray Ltd, 1987). Circular playing area of 229 cells,

handsome playing pieces. Each player (2-4) has 19 men: 1 x Standard, General, 4 x Archer, Lance, Runners, 5 x Scout. The object is to get the standard, which moves like a king, from the perimeter to the centre point. Runners (pawns) promote to any captured piece, including a standard. Loss of the standard and all runners loses the game. (Proprietor's publicity material)

Centrum (David Douglas, 1987). Four players (all-play-all); board 16x16 with a small red circle (Centrum) in the middle of the board divided into quadrants by the central squares. Each player has a fleet of 15 pieces (chess equivalents in parentheses): 1 x Commandship (K), 1 x Starship (Q), 2 x Battlecruiser (R), 2 x Fighter (B), 2 x Death Star, 7 x Scout. Death Stars make two moves like a king (may reoccupy start square); scouts move as king but may only take diagonally. Object is to be first to occupy centrum with commandship (K). If checkmated, player's fleet is removed from game. A Scout can occupy Centrum but for one move only. Pieces set up diagonally in the corners of the board (left to right): C, BF, FStB, SDDS, SSSS. (Notes presumably deriving from a set in David's game collection)

Battlefield (Proprietary game, Stracheck; Serge Brochet, 1989). Four players (alliances allowed). Board 16x16; array squares are respectively e1/e2-11/12, o5/p5-o12/p12, e15/16-115/16, a5/b5-a12/b12. The dark array squares of each side are colour-distinguished and the four central squares bear the same four colours. The object is to get the king to the central square of the player's start colour. Usual men but in addition there are 24 neutral pawns which start life in the board corners, can only be repositioned when a queen lands on a central square, and can never be captured, hence serve as blocks even to knights. If a king is mated it is removed from the board and the remaining men of the player immobilized. (Proprietor's rules booklet, jointly with Cavalcade below)

Cavalcade (Proprietary game, Stracheck; Serge Brochet, 1989). Race game, 2-4 players. Each player has two tokens. The four-track board circuit is chequered black and white,

with red squares (about 10% of the total) acting as barriers. A player on turn may decline to move, or elect to move his two tokens once each, or one token once, or one token twice. A chess die is rolled, the piece shown determining the manner of movement. If an opponent's token is captured, it is returned to the start. (Proprietor's rules pamphlet)

Cosmic Chess (Proprietary game, MMH Imports, 1990). Players 2-4; board 17x17 with Earth as central square and 44 regularly-disposed squares designated 'astroids' which act as barriers to movement. Six pieces a side (chess equivalents in brackets): 1 x Command Ship (K), Juggernaut (Q), 2 x Megatank (R), Starfighter (B). Object is to 'neutralise' (mate) opponent's command ship(s) or occupy earth with own CS. Pieces start at board edges. A handicap system (Warp) allows a weaker player to move his CS two or three spaces once in a game, though not if in Red Alert (check). (Proprietor's rules leaflet)

Winchester (Proprietary game, Rostherne Games; David Watts, 1990). A race game for 2-5 players. Each player has up to five tokens which are raced round a four-track circuit by chess moves. There are 24 obstacles whose positions on the circuit are predetermined by dice rolls, and hence change for each game. Only knights can jump obstacles. A chess die is rolled on each round, all players moving one token in turn in the manner of the piece rolled. If a 'capture' is made, the tokens concerned change places - a novel touch. There is a scoring system based on the order in which tokens cross the finishing line. The player with the most points is the winner. **Chessington** was a related race game from the same stable. [Information presumably taken from sets in David's games collection]

Chummy (Proprietary game, DLJ Manufacturing, 1991). Players 2 or 4; board circular, centre cell highlighted; usual 16 men per player. Win is by taking opponent's king(s) or using own king to capture and control central cell. The game name is an awesome acronym: Challenging Highly Unusual Minds Mainly Yours. (Advertisement in *Chess Life*, November 1991)

Quattro-Schach (Proprietary game, Meteor, date of origin unknown). Four players. Playing area 8x8 with four 8x3 extensions, set-up as for Verney's Four-Handed Chess. In a corner by each player is a further 3x3 square, three squares in each of the opponents' colours. Also, the central four squares of the board are in the players' colours. The winner is the sole survivor or the player who gets his K to the centre square of his own colour. A captured man is placed on the square of

appropriate colour on the capturer's 3x3 board. If all nine squares are occupied, they are removed and the player receives a card marked 2. This allows the king to move two squares at a time, passing through check if desired. If the same player now captures two each of his opponents' men he gets a card with a 3 which entitles the king to move three squares at a time. (Information presumably deriving from a set in David's game collection)

38.10 Point-scoring games

Astro (Proprietary game, Weltraum Brettspiele; Rudolf Lauterbach, 1976). Four players. Board 76 squares, each illustrated with a constellation. Pieces (7 a side) are meteors, planets and stars (14 different); unique moves and captures. (Proprietor's rules booklet)

Quadular (Proprietary game, HPH Development; Nelson Hart, 1985). Players 2-4; board 7x7 with a 13-square extension on each side (rows of 5, 5, 3 squares) and a large triangular 'throne' giving access to each square in the last row. The three rows constitute a player's Domain. Each side has the usual eight pieces plus a Prince and five pawns: king on the throne, then QBPr, RNBNR, 5xP. The arrays rotate round the board.

The prince moves like a queen but only 1 or 2 squares. On entering an opponent's domain, a prince is crowned (plastic top-knot) and is promoted to queen; however, if her consort is checkmated, the queen at once undergoes a second sex-change, this time to king. Pawns normal but promote in an opponent's domain only to R, B, N. A scoring system designed to eliminate draws gives K=15, CPr=13, Q=7, Pr=5, R=5, B=3, N=3, P=1. (Proprietor's publicity leaflet, also *Die Pöppel-Revue* 1989).

Four-Man Chess (Proprietary game, Quest Board Games, 1987). Four players; board 16x16; each side has 1 x K, Q, 2 x R, 4 x B, N, 9 x P (21) assembled initially in the board corners. Each piece is given a points value and the object is to be the player with the most

points at the end. A player giving checkmate takes the remaining men of that side. The knight can make multiple captures, like a draughtsman. (Proprietor's rules leaflet)

Quatréchec (Proprietary game, Action Sociale Missionnaire, 1993). Board 14x14. An orthochess array in the middle of each side (kings opposite kings) belies an unusual objective: to get as many men as possible to the end rank opposite. A man reaching the end rank is at once removed from play and retained by the player, scoring points appropriately: K=30, P=6, N=5, B=4, R=3, Q=2. The normal rules concerning check apply but kings can be captured. A player whose K is checkmated or captured continues to play but a player unable to move is eliminated together with any men remaining to him. The game ends when there is but one player left, when his remaining men are assumed to have attained the end rank. The player with the most points wins. (Proprietor's rules pamphlet)

Martian Chess (Proprietary game, Looney Industries; Andrew Looney, 1999). Players 2 or 4, partnerships possible. Board 8x8; each player has 9 men in the form of cones, three each representing queens, drones and pawns; queens on a1/a2/b1, drones a3/b2/c1, pawns b3/c3/c2, and similarly in the other corners. As in Monochrome Chess (chapter 33), all men are the same colour; you only control pieces in your quadrant. Play and objectives as in Monochrome Chess, with point values Q=3, D=2, P=1. (*Variant Chess* 39)

38.11 Games in which the players have different roles

Eureka, also known as **Induction Chess [Richardson]** (Ian Richardson, 1989). Three or more players. One player (the Ruler) writes down a not-too-difficult secret rule (e.g., play a pawn every third move). He then plays out a game as both White and Black. When another player believes he has discovered the rule, he calls out 'Eureka!' and takes over one side. After five more moves, another player is entitled to cry 'Eureka!' and so on. A player who takes over and subsequently plays an illegal move drops out and scores 0; otherwise, there are points for guessing the rule correctly and for winning the game, and a separate schedule by which points are awarded to the Ruler. Inspired by Robert Abbott's induction card game Eleusis. (*Variant Chess 3*)

Penultima (M. Greene and A. Chalcraft, 1994). Game for up to 8; 2 players, the rest

38.12 Divinatory games

Enochian Chess. Name derived from the Old Testament prophet Enoch 'who walked with God and was not'. The system from which the game emerged dates back to the Angelic language formulated by Dr John Dee in the 16th century (Dee, who at one time was engaged in espionage, was allegedly the original '007', being so referred to by Queen Elizabeth on account of the shape of his spectacles). Enochian Chess, primarily a divinatory game, was practised by initiates of the Golden Dawn, including W. B. Yeats (who was a keen player) and Aleister Crowley (who was not: he preferred chess) (*Games Monthly*, November 1988). The instructions for Enochian Chess, outlined in volume 4 of Regardie's definitive work on the Order, were never codified, hence subsequent attempts to evolve a game system.

Enochian Chess [Nichols] (Proprietary game, Aztral Games; Steve Nichols, 1982). The divinatory game, played with a die, uses four 8x8 boards, every square divided into four regular triangles, coloured red (fire), blue (water), yellow (air), black (earth), each colour dominating one of the boards (112 triangles out of 264). The basic game, known as **Astral**

'spectators'. The spectators allocate rules to the pieces which they keep secret. When a move is made, the appropriate spectator allows the move, modifies it or disallows it. The aim remains checkmate. (*Variant Chess 28*)

According to Pritchard (Jaime Poniachik, 1998). A game for a convivial evening. Any number can play. One player selects the name of a variant from the *Encyclopedia*, and the others, if none of them recognises it, have to think up rules to fit the name. They then compare the result with the rules as given, and perhaps they find that they have invented something new. (Letter to David from the inventor: 'Last night we played with a group of friends a cheerful new Chess Variant...') [Text editorial. David seemed uncertain whether this should go in, but it was shaped as a compliment and I am happy to take the responsibility.]

Chess, is for 2-4 players and uses a single 8x8 board with 36 men, nine on each side (K, Q, R, B, N, 4xP). The pieces, which represent the operation of the spirit, are Egyptian gods and are linked to the elements: K = Osiris, Q = Isis (Water), R = Nephthys (Earth), B = Aroueris (Air), N = Horus (Fire). The pawns are the four sons of Horus which assume the elements of the pieces they stand in front of and have their base coloured accordingly (e.g. NP = fire = red). The Q leaps two squares in any direction. Pawns move straight ahead, one square at a time and capture normally. (Strictly, men are not moved but 'rayed'.) The four sides (players) correspond to the four elements. In the array, the K (Osiris) shares the corner square with the piece whose element is that of the player. The game has a small cult following in Europe and America. The publisher cautions that 'the full understanding of Enochian Chess requires a working knowledge of Hermetic Magic to the level of Adeptus Minor', regrettably beyond the scope of this book. The retail price of £50 (1988) was '...designed to discourage under-16s from buying the game'. (Proprietor's publicity material)

Enochian Chess [Barr and Eschner] (Anreas Barr and M. D. Eschner, 1983). Another interpretation of the game, described in considerable detail in the book *Das Henoehische Schachspiel*. In its basic form, this is a four-handed partnership game similar to the game above. However, the array is regular: K and B share the corner square, followed by Q, N and R in that order, with the pawns in front. A die can be used to determine the man moved, the actual move being 'the personal choice of the player and his spirit': 1 = K or P 2 = N 3 = B 4 = Q 5 = R 6 = P. Moves of Q and P as above; pawns promote to 'pieces they serve' (i.e., file they stand on). Play follows general rules of Four-handed Chess: the army of a mated player is frozen, and both partners' kings must be mated to win.

I-Ching Chess (Mario Sanchez, 1978). In his book *I-Ching Xadrez* (1983), the author links the ancient Chinese divination system based on the concept of yin and yang with chess. Briefly, the I-Ching identifies eight trigrams, which are all possible combinations of three

unbroken (Yang) or broken (Yin) lines set one above the other. (Trigrams can be determined by tossing a coin three times, substituting heads for Yang and tails for Yin.) The trigrams, which are associated with elements expressed in pairs, are equated to the player's eight pieces: K heaven, Q earth, KR mountain, QR lake, KB fire, QB water, KN thunder, QN wind. The 64 hexagrams of the I-Ching (corresponding in number to the squares of the chessboard) represent all possible combinations of two trigrams. Eight hexagrams are composed of two identical trigrams and therefore only represent one piece, but the remaining 48 hexagrams combine two pieces; thus No. 56, known as Lu (the Wanderer) is composed of Mountain and Fire and hence relates to both KR and KB. Each hexagram of the I-Ching carries a philosophical dissertation which the enquirer must interpret. The system enables a game of chess to be used for divination purposes or the I-Ching can be interrogated, normally by drawing three cards (hexagrams) and interpreting each in turn, to determine play.

38.13 Games of unclear nature

Astronomical Chess. A game mentioned in two Arabic manuscripts, and thought by Murray to be possibly identical with the game Los Escaques mentioned in the Alfonso manuscript (seven men move at different

speeds around a circular board, and points are won from another player by landing at certain positions relative to him). It would appear to have nothing to do with what we now understand as chess. [Text revised]

Appendix
Notes on principal sources
Index

Appendix

[There were several entries in of the first edition which contained general information rather than of descriptions of particular games. There has been no place for these in the main body of the book, and so they are grouped here. I have divided them into Practicalities, People, Organizations, Publications, and Miscellanea.]

Practicalities

Designing a variant. In the geometric universe that chess inhabits, there are many fascinating possibilities for new pieces and innovative board designs that go beyond the basics of the royal game to create a new 'flavour' for the play. However, most designs are not marketable because designers tend to underestimate the subtlety of what makes a good chess variant

Two of the secrets of variant design are elegance and balance. An elegant game combines a minimum of rules with a maximum of strategy. Chess itself is a simple game to learn, but its resulting strategy is profound. Any good chess variant should have similar elegance. Many inventors assume that making a game more complicated will make it better, but usually the opposite is true. The eternal challenges of regular chess do not arise from its complexity but from the subtle balances of different elements in the game. A good player has to do more than calculate variations; he must know how to judge the relative value of many competing strategic factors - for master players, the decision is often based on intuition. But in a variant with many extra pieces subtle distinctions of balance tend to become much less important - what does it matter if one gambits a pawn when each player has three queens? The endgame in which the pawn advantage becomes important will rarely be reached.

Another form of balance in chess worth analyzing is the battle between knights and bishops. Which is the better? The answer depends totally on the position. When a designer changes the parameters of board size, piece powers etc., the relative balance between

the pieces quickly changes, and must be reconstituted in some way to prevent the game from being too straightforward. So any good variant should have a similar myriad of strategical balances of this kind to keep the game intriguing.

Obviously, the design must have no technical flaws such as forced wins or draws. Many designs submitted to manufacturers permit a player to set up an impenetrable defence after which he cannot lose - these games are 'busted'. A similar problem is the unwinnable endgame. A personal favourite is the proprietary game Choiss which plays well except that all endgames tend to be draws due to the 'holes' in the board. In fact, in quite a lot of situations it isn't possible to win even with K+Q v K.

For three-player and four-player variants there is an additional design consideration. Because each player has more than one opponent, there is a strong tendency toward slow, defensive play that the designer must counter. Consider a standard three-player game. Player A attacks Player B and wins a Q for a R - but against player C, player A is a rook down. Attacks tend to benefit the uninvolved player. Within the games industry, this problem is considered to be a main reason why multi-player chess games have never been commercially successful despite dozens of clever attempts. In fact, due to their reputation as poor sellers, retailers will often decline to stock a multi-player game however good it may be. The first inventor to solve this problem in an elegant way, and without an excess of new rules, will be the first to succeed with this natural idea (Tom Braunlich).

Taxonomy. A number of attempts going back to at least 1908 (Maack), none wholly successful, have been made to classify chess variants.

George Dekle distinguishes ten general groupings: Ancestral Chess (chaturanga, shatranj, medieval), Oriental Chess (Xiangqi, Sittuyin etc), Shogi and variants, Decimal Chess (10x10, 10x8 etc) with added pieces, Enlarged Chess (boards larger than 8x8 but of dimensions other than decimal), Micro Chess (boards smaller than 8x8), Group Chess (multi-player games), Fairy Chess (orthochess

‘with a twist’), Not-Quite Chess (borderline games like Cheskers, Racing Kings, Ultima).

Marco Fabbri lists seven main categories, each broken down into sub-categories: Board, Initial position, Basic Movement rules, New Pieces, Capture rules, Check and checkmate, Number of players.

The most ambitious attempt at a taxonomy is that of Michael Keller (*World Game Review* 10) in which categories and sub-categories are examined, with examples, in considerable detail:

- (1) Fixed initial position: (a) Equal armies; (b) Unequal armies.
- (2) Variable initial position: (a) Free/random selection; (b) Delayed deployment; (c) Secret deployment; (d) Creation and removal of units during play; (e) Variable units; (f) Choice of forces.
- (3) Historical and regional games: (a) Shatranj family; (b) Regional great chesses; (c) Shogi family; (d) Other Asian chesses; (e) Literary chesses.
- (4) Modified pawns and promotion: (a) Modified pawns; (b) Modified promotion.
- (5) Modified kings.
- (6) Combined pieces: (a) Pieces with added knight power; (b) Pieces with differing capturing moves.
- (7) Other new pieces: (a) Leapers; (b) Riders; (c) Hoppers; (d) Chess/draughts combinations; (e) Miscellaneous pieces.
- (8) Plane boards: (a) Great Chess; (b) Minichess; (c) Irregular boards; (d) Infinite boards.
- (9) Multi-dimensional boards: (a) Three-dimensional; (b) Multiple boards; (c) Four or more dimensions.
- (10) Non-planar boards: (a) Cylindrical; (b) Round; (c) Rebound.
- (11) Mosaic: (a) Hexagonal; (b) Triangular; (c) Other tilings.
- (12) Boards modifying movement: (a) Restricted movement; (b) Increased/altered movement.
- (13) Miscellaneous board modifications: (a) Boards with moving parts; (b) Boards altered during play; (c) Special effects on selected squares.
- (14) More than one move per turn: (a) Fixed-length series; (b) Variable-length series; (c) Progressive.
- (15) Movement limitations: (a) Limited choice of moves; (b) Other movement restrictions; (c) Dice chess.
- (16) Multiple units per square: (a) Units functioning independently; (b) Combining units.
- (17) New types of movement: (a) Relay; (b) Teleportation; (c) Crossings; (d) Castling; (e) Miscellaneous.
- (18) Movement of enemy and neutral units: (a) Enemy units; (b) Neutral units.
- (19) Miscellaneous movement modifications: (a) Modifications of earlier moves; (b) Hidden movement; (c) Simultaneous movement; (d) Periodical rule changes.
- (20) Right to capture: (a) Limitations of right; (b) Extensions of right.
- (21) New methods of capture: (a) Coordination; (b) Rifle; (c) Custodian; (d) Capricorn; (e) Dynamo; (f) Miscellaneous; (g) Mixed.
- (22) Disposition of captives: (a) Conversion; (b) Repositioning; (c) Immobilization; (d) Demotion.
- (23) Side effects of capture: (a) Effects on capturing unit; (b) Other side effects.
- (24) Modifications of objective: (a) Capture of all opposing units; (b) Loss of all own units; (c) Multiple targets; (d) Multirex; (e) Modified check; (f) Other objectives.
- (25) Modification of number of players: (a) Three-handed; (b) Four-handed; (c) More than four; (d) Team.

[Readers will please *not* put forward the classification adopted in this book as an alternative taxonomy, whether with approval or otherwise. The aim was not to attempt an

academic classification of games, but merely to divide a given set of material into reasonably homogeneous and digestible chunks. The requirement is very different.]

People

Boyer, Joseph (1895-1961). Describing himself as a chess militant and a Marxist, Boyer was a ceaseless campaigner for variant chess. He was the author of two minor classics, *Les Jeux d'Échecs Non Orthodoxes* (1951) and *Nouveaux Jeux d'Échecs Non Orthodoxes* (1954). His other works included *Les Jeux de Dames Non Orthodoxes* (jointly with V. R. Parton). He also wrote verse. Boyer organized over a score of international correspondence tournaments of variant chess and was the prime mover in the Centre d'Étude des Jeux de Combinaison in Paris.

Parton, Vernon Rylands (1897-1974). An active campaigner for variant chess, Parton published nine monographs on his ideas, the contents of which however tended to overlap. Parton followed his father's footsteps into a teaching career which ill-health soon forced him to leave. His interests were wide and he was a great believer in Esperanto. He will be remembered in particular for Alice Chess, unquestionably his most imaginative game.

[In the first edition, David also mentioned the following:

Organizations

NOST (Knights of the Square Table). U.S. social postal chess organization formed in 1960 by Bob Lauzon and Jim France. Chess variants formed a prominent part of its activities. NOST held an annual convention and at its peak enjoyed an active membership of several hundred. The club succumbed to Internet competition.

AISE. The Associazione Italiana Scacchi Eterodossi (AISE) had its roots in the burgeoning interest shown in variant chess by the Florence Chess Circle, with the active participation of orthochess masters Castaldi, Porreca and Scafarelli, in the years following World War II. In 1971, the Associazione

Betza, Ralph. Inventor and researcher of chess variants.

Castelli, Alessandro. President of AISE and editor of *Eteroscacco*.

Cohen, Philip M. Contributor to *Nost-algia* whose column *Olla Podrida* was for long time a source of chess variants.

Dawson, Thomas R. Problemist; acknowledged as the father of Fairy Chess.

Jelliss, George. Problemist and founder of *Variant Chess*.

Keller, Michael. Founder, editor and publisher of *World Game Review*.

Klüver, Hans. Problemist and variant enthusiast.

Murray, H. J. R. Chess historian and author.

Schmittberger, R. Wayne. Variant enthusiast and inventor; formerly editor of *Games* magazine.

Wood, Baruch H. Journalist; founder, editor, and publisher of *Chess*.

The singling out of Parton for a detailed entry was curious - he now seems merely a prolific and largely indisciplined inventor no more worthy of note than a dozen others - but this was the text as I received it.]

Scacchistica Italiana Giacotori per Corrispondenza (ASIGC) was founded, Armando Silli taking a leading role, and this actively involved itself with the variant ideas of Roberto Salvadori and Roberto Magari. In 1975 AISE was formed as an affiliated organization of ASIGC. The following year the first national tournament of Progressive Chess took place at La Spezia. The official organ of AISE, *Eteroscacco*, first appeared in the Spring of 1978, and the next year AISE seceded from ASIGC to become an independent body. The lead taken by AISE in organizing national and international events and in encouraging research into popular variants firmly established Italy as

a leading nation in the field of variant chess. AISE, like NOST, was a casualty of the Internet.

Publications

Nost-algia. The magazine of NOST. Chess variants featured prominently, notably in Philip Cohen's *Olla Podrida* pages.

Eteroscacco. The official organ of AISE. It began life in October 1976 as *E.Sc.I* (Eterodossia Scacchistica Italiana), a fanzine edited by Armando Silli, which ceased publication in December 1977. *Eteroscacco* itself appeared regularly from 1978 until it closed with the December 1999 issue, shortly before the effective demise of AISE in 2000. It was a prestigious journal devoted to chess variants. [It was resurrected in 2006 as an Internet publication.]

Yoga-Schach. Publication launched by Klaus Burchkhardt in 1982 linking yoga and chess.

Variant Chess. U.K. magazine founded by George Jelliss in 1990, and subsequently edited by Peter Wood. Since 1996 it has been published by the British Chess Variants Society. The current editor (2007) is John Beasley.

[*Variant Chess*, unlike *Eteroscacco* and *Nost-algia*, is still going strong, though

Miscellanea

Chess Variant Pages. Internet site devoted to chess variants. Begun as a website created by Hans Bodlaender in January, 1995. Initially consisted largely of selected variants including several historic chess games. Interest in the site increased and viewers contributed new variants; these prompted Bodlaender to introduce graphics. In the following years the website grew rapidly in popularity and in the Spring of 1997 David Howe joined as joint editor. Subsequently, four additional editors were established to meet the increased demand: John William Brown, Tom Cook, Pavel Tikhomirov and Vu Vo. The site remained at Hans Bodlaender's personal webspace at Utrecht University but it was clear that the interest would soon outgrow its

British Chess Variants Society. Founded in 1996. The society publishes the magazine *Variant Chess*, and maintains a web site.

whether it will outlive the present production team remains to be seen. Increasingly, magazine editors are coming to prefer the simpler and less expensive procedure of publishing on the Internet. But there is a downside: Internet material is basically transitory, and there are no libraries of legal deposit such as there are for conventional material. To cite just one example among many, the web site maintained by the late Stan Goldovski vanished without notice after his untimely death and took all his Losing Chess material with it, though his friends were able to reinstate most of it using copies they had downloaded. Nor do computer-readable archives have more than a temporary life, and even if they are kept they have to be transferred to new media at regular intervals. The backup discs I made when writing a book in 1989 could not be read on any computer commercially available today, because the format in which they were written is long out of date and drives capable of reading them are no longer manufactured. Yet I have been to the British Library and studied a book printed more than five hundred years ago, and a manuscript written more than seven hundred.]

current home. In consequence, a new location was found and a domain name for the site obtained. Later, some editors left and four new editors joined the team: Fergus Duniho, Jean-Louis Cazaux, Ben Good and Peter Aronson.

Rules for variants were developed and published and competitions introduced, the first two for Progressive Fischerandom Chess. Competitions to design variants followed, many stipulating the number of board squares. Besides these, the site gained an encyclopedia of pieces (the Piececlopedia), sample games, several Java applets, numerous files for playing variants with the proprietary *Zillions of Games* program, and a versatile game playing system known as Game Courier. Created by Fergus Duniho, the system can be

used to play almost any variant.

New editors with specific responsibilities joined the team: Tony Quintanilla (new web page publishing), Ed Friedlander (Java applets for playing on a web browser) and Antoine Fourrière (new games for the Game Courier). The Chess Variant Pages remains a non-commercial website run by hobbyists for hobbyists. Its editorial staff of volunteers implement the aims of the site which are to educate people about chess variants, encourage game play, and to provide a place for free discussion. Facilities for publishing documents are also provided with a wide selection of fonts and layouts. The popularity of Chess Variant Pages is evident, with almost a quarter of a million page views and nearly 100,000 visitors a month. At the time of writing, the number of web pages has grown to well over 4,000 with an active discussion board and gaming system.

[Some of this will be out of date even before it appears in print, but I have retained it because users of the pages may like to read the story of its creation and early development.]

Fairy Chess. Term sometimes given to variant games but more usually to problems and tasks in which the board, men or rules are changed in order to express an idea or theme impossible in orthochess. The name, which has resisted attempts to change it, was coined by Henry Tate of Melbourne in 1914.

Heterochess Olympiads. The first Heterochess Olympiad by correspondence was organized by AISE in 1988. Variants played, nominated by the participating teams, were Chessgi, Circe Progressive, Marseillais, Mutation, Italian Progressive, Progressive Take-all, Avalanche, and Losing Chess. Eight teams from six countries took part, the first three places being occupied, as expected, by Italy. Results (game points in brackets): Italy (I) 7 (78), Italy (III) 6 (72.5), Italy (II) 5 (80), England 4 (49.5), Canada 3 (59.5), U.S.A. 2 (47), Czechoslovakia 1 (34.5), New Zealand 0 (18). An album containing all the games of the event was published by AISE in 1992. The second Olympiad was started in 1993. Eight teams took part: Bohemia-Moravia-Slovakia (combined team equivalent to the former Czechoslovakia), England, Esperanto(!), Italy

(two teams), North America, Poland, and Ukraine. Italy (I) were the winners, with England second and Ukraine third. A third Olympiad was completed in October 2000.

Kriegsspiel, Kriegspiel. Literally ‘war game’; generic term given to table-top games, originally of Prussian origin, played on a map or other representation of terrain. Drawing, consciously or unconsciously, on the chess model, these games had as their aim the training of officers in military strategy, and in this respect differed from those variants which adopted military names for the pieces but whose object was to ‘improve’, or at least rationalise, the game of chess. Kriegsspiels required large playing areas and a profusion of pieces, whereas military chess games did not differ significantly from orthochess in board size or the number of pieces employed.

Some consider Weickmann’s Grosses Königs-Spiel (1664) to be the forerunner of kriegsspiels. Certainly the inventors of the early kriegsspiels acknowledged their indebtedness to chess. Thus Helwig, Master of Pages to the Duke of Brunswick who instructed him to evolve a game for the training of young men in the art of war, described how, in developing his Military Chess (1780), the first game to introduce terrain features on a board, ‘I should achieve my objective in the quickest way if I took for its basis the game of chess ... my idea was to adopt the game to my own game’, adding that ‘chess players were the first to welcome my invention’ (Brace). Giacometti, whose enlarged board included a river, described his Jeu de la Guerre as a new game of chess, whilst Firmas-Périés, closely following the ideas of Helwig, declared his Jeu de Stratégie an attempt to make chess, in its context as a wargame, more realistic (and bigger: by some 2,500-odd squares). Von Pillsach kept the link alive with Siege Chess (1820) which, whilst using terrain features, retained the distinctive four-handed board (8x8 with four 8x3 extensions) introduced by K.E.G. in Dessau in 1784. Interestingly, an early ‘blind’ kriegsspiel had the two players deploying their forces on maps, an umpire keeping them informed about the proximity of enemy forces; a procedure introduced as a chess novelty a half-century later (Faidutti). As time passed, these war

games became more and more sophisticated and were officially incorporated into military training in several countries. In the latter half of the 19th century simplified kriegsspiels, restored to their role as games, began to appear on the market. A present-day survivor, *Stratego* (formerly *L'Attaque*), has a history approaching 100 years.

Following World War II the adult wargame, which may take account of a host of peripheral factors such as leadership, morale and weather, began to make its appearance through specialist games companies like Avalon Hill and S.P.I. It can safely be said that there is no link between chess and modern wargames.

Patents. Patent applications, whether or not approved, are a rich source of variants which may or may not have been subsequently marketed. The surge of chess-type games began over a century ago and continues unabated.

Primrose Dames (U.K. patent 20,874 of 1899) was the creation of Lewis Waterman, a noted games' inventor. Board 16x16, each side having 16 dames (bishops), 6 knights and 4 members (kings). The object was to get all of one's members into the 'house' (eight central squares, g-j/8-9). Members did not capture, and if captured were returned to their start squares. The same year saw *Moncrieff's Game* (U.K. patent 10,857) a four-player extravaganza requiring four chessboards representing Europe, Asia, Africa and America) with positions for artillery between the boards and four central squares representing a city, the purpose of the game being to capture or 'checkmate' the city. Each player had 26 men in a wood (walnut, mahogany, ebony and boxwood) representing each of the four continents. The forces were made up of a king (which moved like a queen), 12 infantry pieces composed of 2 generals (rooks), 2 colonels (bishops), 2 captains (knights) and 6 men (pawns), together with 8 cavalrymen and 5 artillerymen. 'It will be seen,' declares the applicant, 'that this game, while resembling chess, possesses an advantage over chess, seeing that it embraces all the moves in chess and a considerable number additional'. In sharp contrast was U.K. patent 514 of 1890, *Burglar and Policemen*, a simple game played on a 5x5 board. All the

pieces were knights. One side was the *Burglar* (initially on c3) and the other the *Policemen* (on a1,c1,e1,a5,c5,e5). The burglar moved first; no capturing; the burglar lost if he could not move. (How did he win?) A forerunner of several such games.

Wuterich's Game (Emil Wuterich, patent 1239 of 1899), if marketed, is unlikely to have found much favour. Board 9x9 with a further rank of five squares positioned centrally at either end. Each side had 26 pieces corresponding to the letters of the alphabet. The vowels were arranged on the extra rank (l. to r.) IAEUO, respectively a N, Q, B, K and R. The consonants were arrayed in the order B-L and M-W (l. to r.) on the next two ranks, with XYZ spaced evenly in front. Consonants moved one square forwards or sideways and could only capture straight ahead. The game was won by checkmate or the king (U) gaining the back rank of the enemy's camp and there, with pieces of either colour, spelling out a pre-arranged five-letter word which, of course, had to contain a U, an improbable achievement against modest opposition. A player forming a word of four or more letters orthogonally or diagonally, the men being of either colour, could claim back a captured man.

H. Stranders's patent 7840 of 1891 had players starting with squares as well as pieces, the board being formed as play proceeded, a player having the option of placing a square next to a square already played together with a man, or putting a man on a square already played. The idea anticipated several proprietary games of recent vintage. *Krona* (U.K. patent 3022/1894) had a 9x9 board with 8 Esquires, 8 Knights and a Prince a side arranged in two ranks. Object was to get the Prince (who was immune from capture) to the central square. Esquires moved and captured as pawns but no two-square jump or promotion, knights as fers (one square diagonally) and prince as king. Just after the turn of the century Adolph Muller's hexagonal board appeared (patent 3214 of 1902). It was intended for general games use without chess being specifically mentioned. Chess games making use of playing cards or the alphabet were not uncommon whilst variants using military and naval nomenclature proliferated. Thus T. F. Gaynor (patent 20002 of 1914) has units of the Services moving as chessmen on

the 8x8 board which is divided into the sea (files a-d) and land (files e-h). (Lasker had patented a wargame on an 11x11 board in 1901.) Airships and captive balloons made their appearance in U.K. patent 9366 of 1913 (G. Paulus).

It is impossible to cover, even in outline, all chess variants that have been patented, but a summary of those filed in a few countries in a recent decade (the 1970s) will give some feel for the sort of ideas inventors consider worthy of the considerable expense involved. David Akers (U.S. patent 3909000 of 1974) came up with a game played on a vertical cylinder of unspecified dimensions with the usual pieces in normal array sandwiched between two lines of pawns.

Casimir Strozewski (U.S. 4045030 of 1976) entered a three-coloured hexagonal 9x9 board with the hexes along axes of 90 degrees or 45 degrees to each other and an extra bishop and pawn a side.

New set designs (cubic, stacking, royalty etc) are in evidence and one sees football (for example, French patent 2443854 of 1978), dice and other familiar deviations. Useful (if available, which is unlikely) for variant enthusiasts are the pieces described in French patent 2435269 of 1979 (W. O. Schoendorf) which covers a 10x8 board game and illustrates a knight with a mitre on its head. A West German application for the same game shows a bishop with a knight's head. The use of dual pieces in variants has since become quite common. Board designs are another popular field of endeavour. One such (U.S. patent 3761093 of 1971 filed by Fred Migliore) has indicia on the squares, each indicium representing a conventional chessman. All pieces are of the same design, their moves governed by the squares they stand on. A round board of 64 spaces, unusually arranged to have eight concentric circles of cells, was filed (U.S. patent 3775554 of 1971) by someone called Capablanca. Another board, in the shape of a nautilus, has no less than 192 spaces (David Hitchcock, U.S. patent 3851883 of 1973).

Variants for three and four players are much in evidence, particularly the former. Three-player games tend to be played either on tricorn boards having 96 spaces (Netherlands patent 2401677, G. van der Laken, is one of

several examples), or on hexagonal boards, these latter in a number of different designs of which a West German patent of 1974 (with subsequent applications in France and the U.S.), in the names of A. Treugut and J. Bottcher, is but one example. The inventors introduced an extra piece, the Cardinal, moving like a queen. The cardinal represented the 'social-political' element; it could neither take nor be taken, serving merely as a block. A mated player, whose pieces were otherwise immobilized, could continue to move his cardinal with the advantage that no player was obliged to drop out. Alternative hexagonal-shaped boards were put forward for this game: the cells were either triangles (106), distorted squares (121) or hexes (151). Interestingly, the first chess variant filed in Germany (1881) was for a three-player game. Chiu-Hua Chang of Taiwan has a four-player game (U.S. patent 4067578 of 1976) on a 192-square board divided into areas representing countries, a diminution of Moncrieff's game. By contrast, Karl Whitney Jr. (U.S. 3843130 of 1973) crowds four sets of chessmen plus eight additional pieces onto a board of 136 squares.

Space games have perennial fascination for inventors. Two such (both U.S.) are 3937471 of 1974 (Gerald Brenman) which has two 8x8 boards one above the other, the lower board with the standard array whilst the upper board has 'at least one additional piece and pawn'; and 3767201 of 1971 (James Harper), basically a vertical arrangement of seven boards successively of 4, 16, 36, 64, 36, 16, 4 squares.

[Several of these seemed worthy of entries in the body of the book and I have put them there, but to have removed them from the present text would have spoilt its structure and I have let them remain here as well.]

Variants In Fiction. Writers, and particularly writers of fantasy and science fiction, are given to inventing strategy games, many arguably chess variants. The seminal game is surely Jetan, described at length by Edgar Rice Burroughs in his novel *The Chessmen of Mars* (1922) and perfectly playable. Most of the best-known SF writers have indulged at one time or another - Alan Burt Akers, Isaac Asimov, Lord Dunsany (Green Idol Chess), Gerard Klein, John Norman, Lewis Padgett

(*The Fairy Chessmen*), A. E. Van Vogt. H. G. Wells sets about describing a game between God and Satan in *The Undying Fire*: ‘But the chess they play is not the ingenious little game invented in India; it is on an altogether different scale ...’ An account of a game, Pole Chess, in which board and pieces are made of ice, is given by Piers Anthony in his *Robot Adept*. The usual pieces are transformed into Goblins (Ps), Dragons (Rs), Trolls (Bs), Griffins (Ns), Ogress (Q), and Demon (K) ‘But this was Pole Chess, so there was one additional set of pieces: the poles. When all the other pieces were set up, the white and black poles stood to either side, just off the board, centred’. A pole could move directly to any empty square; it could not be captured and served only as a block. ‘Some players swore that Pole Chess was the best variant ever; others condemned it as a decadent offshoot’. Further on, Anthony describes ‘Huffdraw’, ‘A device that had come into play in the last few centuries because too many tournaments were being stymied by frequent draws. There were several applications, depending on the type of draw that was threatened. But the basic

element was the removal of “dead” pieces; those that hadn’t moved in some time’. Another candidate is Klin Zha from the series *Star Trek*, a strategy game of multi-movement though without any obvious chess link (Leonard Loyd, 1989). A variant only in the sense of time control is described by Thomas Harris in his modern classic, *The Silence of the Lambs* : ‘Two men sat at a laboratory table playing chess. If they noticed the enormous rhinoceros beetle slowly making its way across the board, weaving among the chessmen, they gave no sign ... Then the beetle crossed the edge of the board. “Time, Roden,” the lean one said instantly. The pudgy one moved his bishop and immediately turned the beetle around and started it trudging back the other way. “If the beetle juts cuts across the corner, is time up then?” Starling asked. “Of course time’s up then,” the pudgy one said loudly without looking up.” Of course it’s up then. How do you play? Do you make him cross the whole board? Who do you play against, a sloth?’”

[Again, several of these appear in the body of the book, but I have left them here as well.]

Notes on principal sources

[The first edition included a bibliography listing every book or other source of which David had made significant use, but in these days of on-line library catalogues and Internet search engines I see little point in repeating this; many a source contributed only to one or two items, and the title given in the text should allow a future researcher to locate it in the catalogue of any library which holds it. I have therefore restricted myself to brief notes on the most important sources. The text that follows is my own.]

Books and pamphlets

Books which are largely or wholly restricted to their authors' own inventions are not included.

Boyer, *Les Jeux d'Échecs Non-orthodoxes* (Paris, 1951), *Nouveaux Jeux d'Échecs Non-orthodoxes* (Paris, 1954), and *Nouveaux Jeux d'Échecs Intéressants* (1957). The first two were 100-page books, formally published; the last was a typewritten pamphlet of probably limited circulation and there may or may not have been legal deposit copies, but there are copies in the libraries of the British Chess Variants Society and the British Chess Problem Society. The BCPS copy is annotated 'recd Feb 15 '57' in the handwriting of C. E. Kemp (a problemist and friend of T. R. Dawson).

Cazaux, *Guide des Echecs Exotiques et Insolites* (Chiron, Paris, 2000).

Faidutti, *En Marge du Jeu d'Échecs* (Lille, 1990). Published by Lille University. A 'histoire de l'histoire du jeu d'échecs en Europe' according to David in *Variant Chess* 50. 'The text, which is illustrated, covers the period from the Alfonso ms to about 1900, although Capablanca chess earns a diagram. A few non-chess games get a mention, like hnefatafl, tablut and rythmomachia. The text is supported by an impressive 17-page bibliography.'

Falkener, *Games Ancient and Oriental and how to play them* (Longmans, London, 1892)

Forbes, *A History of Chess* (Allen, London, 1860). Forbes's work was to be attacked by van der Linde and his theories carry little

credibility today, but on at least one occasion it appears to have been van der Linde who was wrong (see Murray, footnote to page 242). This said, some of the dating on which he relied was later discredited, and some of his conjectures now seem far-fetched. There was a reprint by Moravian Chess (Olomouc, Czech Republic) in 2005.

Gizykci, *A History of Chess* (Abbey, London, 1972). An English edition of *Z szachami przez wieki i kraje* (Sport i turystyka, Warszawa, 1960), misleadingly titled; the original Polish title translates more naturally as 'With chess through the ages and around the world', and this gives a much clearer picture of the book's contents. It does contain a historical chapter, largely derivative but containing one or two items not conveniently available elsewhere, but its main concern is with appearances of chess in art, literature, theatre, and film.

Gollon, *Chess Variations, Ancient, Regional, and Modern* (Charles E. Tuttle, Rutland, Vermont, 1968).

Hooper and Whyld, *The Oxford Companion to Chess* (Oxford University Press, 1984, second edition 1992).

Murray, *A History of Chess* (Clarendon Press, Oxford, 1913). There have been several reprints. Still the standard reference, at least for games in the Indian-Persian-Arabic tradition, though a massive international effort to update it is reported to be in progress.

Books and pamphlets (continued)

Stone, *Chess Variants* (1982 with a later edition). A typewritten pamphlet apparently produced for a postal chess club.

van der Linde, *Geschichte und Literatur des*

Schachspiels (Berlin, 1874). There was a reprint by Olms, Zürich, in 1981.

Verney, *Chess Eccentricities* (Longmans, London, 1885).

Periodicals devoted to or specializing in chess variants

There has been intermittent variant material in mainstream chess magazines such as *The British Chess Magazine* and *Chess*, but I presume these to be sufficiently well known not to need comment. The following periodicals have been more specialized.

Chessics. A problem magazine published by George Jelliss from 1976 to 1989, and the predecessor of *Variante Chess*.

Chess Spectrum Newsletter. An apparently short-lived publication of which David held the first two issues (16 pages). It appears that there were no more.

Eteroscalco. See Appendix.

The Fairy Chess Review. A problem magazine which was edited by T. R. Dawson from 1930 until his death in 1952 (for the first six years as *The Problemist Fairy Chess Supplement*) and then continued until 1958 in other hands.

Other sources

Chess Variants Pages. See Appendix.

Personal communication. Many entries in this book are based on letters from correspondents, and it is my intention, before returning David's Encyclopedia files to his family, to make copies of these and to deposit them with the Musée Suisse du Jeu, rue du Château, La Tour-de-Peilz, Switzerland (between Vevey and Montreux) so that they can be held in the Ken Whyld Library and made available to future researchers. This is of course a breach of copyright, and if any copyright holder or his

Games and Puzzles. A magazine edited by David himself, which ran from 1972 to 1981.

Neue Chess. A series of articles produced in association with *J'Adoube* (the bulletin of the Cincinnati Chess Federation).

Nost-algia. See Appendix.

Variante Chess. See Appendix.

World Game Review. A general games magazine edited by Michael Keller.

Ye Faerie Chessman. Two pamphlets edited by Don Miller and issued with issues 8 and 9 of *The Gamesman*.

or her representative objects I will refrain from copying the relevant item (or, if the copy has already been made and despatched, I will ask the Director to withhold it from use until the copyright has elapsed). However, I don't think these letters contain anything sensitive (I have only the letters and extracts that David put into his Encyclopedia files, I don't have his private correspondence files), and I assume that in making the information available to David for the *Encyclopedia* his correspondents will have wished it also to be made available to future writers on the subject.

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