Nabataean to Arabic: Calligraphy and script development among the pre-Islamic Arabs
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INTRODUCTION

This paper is divided into two parts. The first is concerned with the Syriac and Nabataean traditions of calligraphy. Most of the Syriac examples referred to and all of the Nabataean ones are from the pre-Islamic period and in the context of the theme of 'The Role of the Book in the Civilizations of the Near East' the purpose is to provide a wider contextual background for the study of the Islamic manuscript tradition and to show that calligraphy was well established in the Middle East before the Islamic period. The second part is specifically concerned with the emergence of the Arabic script and develops further some of the published remarks of other scholars. The connection between the two topics is closer than might at first appear.

I. BACKGROUND

To begin at the end, note should be made first of the profound influence of Islamic manuscript decoration on the latest and finest of the illustrated Syriac manuscripts. British Library Add MS 7170, a Gospel lectionary produced in the early 13th century A.D. at Deir Mar Mattai near Mosul, is a prime example[1]. In this and other manuscripts of the period, the influence of contemporary Muslim schools of decoration in Iraq is widely acknowledged[2]. Of slightly later date is a decorated introductory page from a MS originally in Qaraqoš, now in Mosul, where even those untrained in Islamic art can see a remarkable Islamic influence[3]. Still in this late period, it may be noted that these same influences are found in architectural decoration, including calligraphic decoration, such as the decoration of the interior of Deir Mar Behnam, also near Mosul. There are Christian and Muslim monuments of this region at this time, 12th-13th centuries A.D., which may have been executed by the same artisans. Thus we may note the similarity of Deir Mar Behnam decoration to that of the Imām 'Awn al-Dīn mausoleum in Mosul dated 1248 A.D.

Outstanding examples of Islamic influence of this type are, however, limited so far as Syriac manuscripts are concerned to the sphere of illustrations, since fine Syriac calligraphy, without accompanying illuminations, was already well established long before the Islamic period. The earliest dated Syriac manuscript, British Library Add MS 12150 (see Plate I) of 411 A.D. which was produced at Edessa, already bears witness to a well-developed calligraphic tradition, with decorativeness a prime concern[4]. We are fortunate in having a whole series of such manuscripts, approximately or precisely dated, including BL Add 14451 (450-470 A.D.), 14425 (463-4 A.D. — the earliest dated biblical MS, produced at Amida, the later Diyarbakir), 14542 (509 A.D.) and 14478 (621-622 A.D., perhaps from Nisibis, modern Nusaybin). All of these manuscripts use the familiar *estrangelā* script. The earliest dated manuscripts in the *sertā* script, which bears more resemblance to Arabic, though both *estrangelā* and *sertā* are systematically ligatured, come from a later date, the eighth century A.D. BL Add 14548 (see Plate II), dated 790 A.D., provides a good example. Again even the untrained eye can see remarkable points of contact with the Arabic script, perhaps most obviously the *'ālap* in the form of a simple vertical line. The *estrangelā 'ālap* is much more complicated and not at all like the Arabic form. To this I shall return.

We should, perhaps, state the obvious, that in general terms it is likely that Syriac calligraphy had some influence on Arabic calligraphy, given that extensive examples of Syriac calligraphy were circulating in all the main centres of culture in the Middle East during the period of the development of Arabic calligraphic art, just as it is certain that the Syriac tradition was profoundly influenced by Arabic calligraphy and especially manuscript decoration. However, this a separate question from that of the *origin* of the Arabic script. Attention will be directed to this question shortly, but it may be as well to note also another possible influence on the Arabic script (though it is unlikely to be at its origin). This is the distinctive Christian Palestinian Aramaic script, recently renamed 'Melkite'/'Byzantine'[5].

This exhausts the relevant material on manuscript, but there is also another source for early calligraphy in the stone-carved scripts. Of these Palmyrene and Nabataean are well known. Palmyrene has a strong

Plate I. BL Add MS 12150, f. 154r. Written in Edessa in 411 A.D., this is the earliest dated Syriac literary manuscript. The script is a fine and mature *esṭrangelā* showing clear calligraphic intent. (This plate shows part of a work of Titus of Bosra). Slightly reduced.

Plate II. BL Add MS 14548, f. 40r. Dated 790 A.D., this is one of the earliest dated Syriac manuscripts in *serṭā* script. (This plate shows part of a work of Gregory of Nazianzen).

decorative aspect in its lapidary script, but this script is essentially non-ligatured and even in its rarely attested cursive form it is quite remote from the Arabic script.

Turning to Nabataean, with which the rest of this paper will be principally concerned, we again unfortunately lack extensive MSS, though stone calligraphy plays a prominent role. As has been noted by J. Starcky[6], it is evident that the highly developed ligatures and curvatures of the stone-carved Nabataean script reflect a mature tradition of writing on papyrus[7], unfortunately rarely preserved. There are, however, a few papyri, and more unpublished, of a practical nature in Nabataean. The best known is the Nabataean contract of 90-100 A.D. (the date is not

entirely certain) from the Dead Sea published by J. Starcky[8]. Enough survives to make this one of the most important pieces of evidence in the study of the history of the Nabataean script. Another important piece of evidence is a Greek document from the same area which is dated 125 A.D. and bears a brief Nabataean note[9]. There are also several dipinti from a temple at Ramm in southern Jordan, one of which is dated 147 A.D.[10]. These represent a Nabataean cursive style of writing which contrasts sharply with the more familiar formal Nabataean texts, of which there are a few examples from Petra (see Figs. 1 and 2) and many examples especially from Madā'in Ṣāliḥ, the Nabataean outpost in the Ḥijāz. These are all dated to the 1st century A.D. and show a decorative, calligraphic tendency, though not all are successful in producing 'beautiful writing'. The letter *'ālap* provides an example, with its elaborate, three-stroke, decorative X-form. There is also a large corpus of Nabataean graffiti and minor inscriptions, many of which are dated, like the Raqūš inscription of Madā'in Ṣāliḥ, dated 267/8 A.D. (which is, in fact, the earliest dated *Arabic* text)[11]. Better known to Arabists is the somewhat later Namāra inscription, also in Arabic, though the script is Nabataean. The latest dated Nabataean inscription is of 355/6 A.D. Note may be made of the use of diacritics in the latter and in the Raqūš text (see below).

II. ORIGINS OF THE ARABIC SCRIPT

The development of the Nabataean script in the 2nd, 3rd and 4th centuries A.D. is usually seen as a progression from forms derived from earlier Aramaic towards forms out of which the early (western cursive[12]) Arabic script developed[13], though we should note the view of J. Starcky[14], based partly on the observation that the Nabataean script, unlike the Syriac *and* Arabic scripts, is essentially suspended from an upper line, that the origin of the Arabic script is to be sought in a Laḥmid form of the Syriac script. This view has met with little support[15]. The Nabataean origin of the Arabic script is now almost universally accepted. However, while there is some truth in the simple idea of a straight line of development from the 1st century A.D. Nabataean formal to the early Arabic — some of the cursive features occur even in these early inscriptions —, the whole truth is more complicated.

A reliable picture of the development of the script can only be based on clearly dated texts and we are fortunate in having over twenty such dated texts of the period between the Roman annexation of the Nabataean state (105/6 A.D.) and the emergence of the Arabic script. These enable us to see the forms developing (see Table I and Key)[16]. These inscriptions are stone-carved, mostly fairly informal graffiti, though some, like the Rawwāfa bilingual, are formal. A first glance appears to confirm the simple version of the development: the later texts show more cursive forms which approximate to the Arabic forms. However, there remains the difficulty, which has generally been ignored, that texts like the Namāra inscription, which is in Arabic, and the latest Nabataean graffiti still have a script-form which is quite far removed from Arabic. Also there are still chronological and geographical gaps in the tentative picture which can be presented. These difficulties cannot be finally removed until more evidence of papyri of the 2nd to 6th centuries A.D. is available. But meanwhile the likely solution to the problem of the apparent gap between the Namāra and late Nabataean scripts on the one hand and the earliest (western cursive) Arabic on the other can be seen in the fact that the more cursive forms close to early Arabic *already existed* in the 1st and early 2nd centuries A.D. They are found in the Nabataean papyri and dipinti referred to earlier and presumably continued in use (see Table II and Key). In the light of these forms the later graffiti are seen in a new context. It seems, in fact, that the stone-carved texts represent a much more conservative tradition, a continuation of the monumental tradition found on the 1st century A.D. tombs, while on papyrus there was developing a cursive script which led directly into the formation of the early Arabic script. Gradually the cursive influenced the stone-carved inscriptions more and more. But it is not the Nabataean graffiti that led to the Arabic script: that came rather from the Nabataean cursive, which has largely perished with the perishable material on which it was written.

In this context comment may be made on the following letter forms (see Table III):

(i) The vertical stroke *'ālap/'alif* does not appear in the graffiti, etc., but already existed in the early cursive — it is thus not an obstacle to the derivation of the Arabic script from cursive Nabataean.

(ii) The distinctive form of final *he/hā'* as ∝ is found in the stone inscriptions and gaffiti dated 211/2, 305+ and 328/9 A.D. It is not, however, a late development. It existed in the early cursive.

(iii) *waw/wāw* can be seen to move steadily in the graffiti from ۹ to ﻭ, but ﻭ is already established in the early cursive.

(iv) *ṭēt/ṭā'* is found as ⱷ in the early cursive, but this form is only approximately represented in the few graffiti in which the letter occurs (from 218/9 A.D. and 265/6 A.D.).

(v) *yōd/yā'* was given a cursive form from an early date.

(vi) *mīm* begings to appear in the graffiti as a circle, -Ọ, (from 225/6, 265/6 and 305/6 A.D.), but this form is already established in the early cursive.

(vii) *'ē/'ayn* was given a cursive form at an early date and is already hooked as ﻉ by the later first century A.D.

(viii) We may note that the closure of the top loop of *pē/fā'* seems relatively late, though the closed loop is found in earlier texts, for example in a recently published formal inscription from Egypt of 37/36 B.C.[17]

(ix) *šīn* gradually loses its tail (for example in inscriptions of 305/7 A.D.), but is already found as 𐤔 𐤌 in the early cursive.

(x) The form of *taw/tā'* as 𐤕, which is one step towards the Arabic form, is found clearly in a graffito of 306/7 A.D., but already existed in the early cursive.

Some texts of late date are fairly formal and there are texts dated earlier in which forms more akin to Arabic forms are already in evidence. The Raqūš inscription, for example (Table I, col. 19), was probably meant to be formal and so avoids the cursive style.

DIACRITICS

The earliest Nabataean cursive is hard to read because of an assimilatory tendency[18]. *d* and *r* are hard to distinguish even in the formal script. Ligatured combinations create further confusions (e.g., *th* and *dnh*). In Arabic script this led to a full system of diacritics, but the use of diacritics, clear at least on *d* in the Raqūš text and in the latest dated Nabataean text, referred to above (Table I, col.24), is worthy of note. It may be found once in an earlier text[19], though as interpreted by Jaussen and Savignac it is used there inconsistently[20]. The diacritic on *d* is not found in the papyri, etc. Overall there is considerable variability in the early stages of the use of diacritics.

Diactritics begin to appear in the Palmyrene-Syriac-North Mesopotamian tradition at an early date. The Garni inscription from Soviet Armenia, dated to the early 2nd century A.D. has the diacritic on *r*[21]. The earliest clear Palmyrene instance is dated to 160 A.D.[22]. The system used was quite different from that in Nabataean: ultimately the point above *r* distinguished it from *d*, which had a corresponding point below. This is the usage reflected in the first Syriac manuscripts, as in the manuscript of 411 A.D. (Plate I) referred to earlier. How far it goes back in Syriac is uncertain. Though A.C. Klugkist[23] finds it under *d* in

the Serrīn inscription of 73 A.D., this is not confirmed by examination of the copies, etc.[24]. According to J.B. Segal[25], diacritics do not appear in Syriac until later. They are, however found in the Syriac incantation bowls, which are of uncertain date, possibly as early as the 4th century A.D.[26]

Diacritics appear in the earliest examples of Arabic script on papyrus, for example in two papyri dated 643 A.D.[27]. As in Nabataean script there was some initial uncertainty in usage. Arabic sources acknowledge the influence of Syriac in this, as N. Abbott notes without apparently being aware of Nabataean diacritics. A.F.L. Beeston[28] similarly, while adhering to the view that the Arabic script followed on directly from the Namāra script, discounts a Nabataean origin of the diacritics on the ground that diacritics do not exist in Nabataean (and Palmyrene). In fact such diacritics *do* occur and we may suspect that the concept of diacritics came to the Arabs with the Nabataean script, even if the later orderly usage of them developed under Syriac influence (in the 8th century A.D.).

CONCLUSIONS

From these considerations come the following conclusions which should form part of the discussion of the early Arabic script and the calligraphic tradition:

a) There was a strong tradition of calligraphy before it was taken up and developed under Islam.

b) While much of our Nabataean material is lapidary, there is sufficient evidence to make it clear that there was from the 1st century A.D. onwards a cursive script used on perishable materials which was very close to the later Arabic script and proves conclusively the Nabataean origins of the Arabic script.

c) In the centuries before Islam Nabataean graffiti show the influence of the cursive script but are frequently more heavily influenced by the formal, lapidary style. Hence even late inscriptions on stone retain early, non-cursive forms.

d) Diacritics began to be used for Nabataean at an early date and their use spread widely. The earliest dated Arabic text, using the Nabataean script, already makes use of diacritics, though systematisation of diacritics may owe much to Syriac influence.

Figure 1. *CIS* II, no. 354, a dedicatory inscription dated 20/21 A.D. from a rock-cut cult-room in Petra connected with the cult of the divinised king, ʿObodat.

Fig. 2. *CIS* II, no. 350, the undated inscription on the façade of the Turkmāniye tomb at Petra. This is the longest inscription at Petra and is undoubtedly 1st century A.D. in date.

[Table I]

I	1	2	3	4	5	6	7	8
Dates A.D.	107/8	108/9	124	125/6	126/7	147/8(?)	150/1	166/9
ʾ								
b								
g								
d								
h								
w								
z								
ḥ								
ṭ								
y								
k								
l								
m								
n								
s								
ʿ								
p								
ṣ								
q								
r								
š								
t								

I cont.	9	10	11	12	13	14	15	16
Dates A.D.	190/1	204/5	211/2(?)	218/9	222/3	225/6	231/2	265/6
ʾ								
b								
g								
d								
h								
w								
z								
ḥ								
ṭ								
y								
k								
l								
m								
n								
s								
ʿ								
p								
ṣ								
q								
r								
š								
t								

I cont.	17	18	19	20	21	22	23	24
Dates A.D.	266/7	267/8	267/8	c. 270	305 + (?)	306/7	328/9	355/6
'								
b								
g								
d								
h								
w								
z								
ḥ								
ṭ								
y								
k								
l								ʾ = l'
m								
n								
s								
'								
p								
ṣ								
q								
r						ʾ = br		ʾ = br
š								
t								

[Table II]

II	A	B	C	D(1)	D(2)	E(1)	E(2)
Dates A.D.	4/5	72/3	90/100	125		146/7	
ʾ							
b							
g							
d							
h							
w							
z							
ḥ							
ṭ							
y							
k							
l							
m							
n							
s							
ʿ							
p							
ṣ							
q							
r							
š							
t							

Note (column C, row r): ν = br

[Table III]

III	A-B Monumental 1st. cent.	C-E Cursive 1st/2nd cent.	11	16	17-18	21-22	23
Dates A.D.			211/2	265/6	266/8	305/7	328/9
'							
h							
w							
ṭ							
y							
m							
'							
p							
š							
t							

Table I. Nabataean Texts Dated after the Roman Annexation: chart showing letter-forms (x beside a letter indicates a final form)

Key:

1. ʿĀvedāt; A. Negev *IEJ* 13 (1963) pp. 117-119, No. 11, pl. 17B.

2. Madeba; J.T. Milik, *Syria* 35 (1958) p. 244, fig. 2, pl. xixb (letter-forms from Milik's reconstruction).

3. Ḥawrān; E. Littmann, *Semitic Inscriptions. A. Nabataean Inscriptions from the Southern Haurân* (Publications of the Princeton University Archaeological Expeditions to Syria in 1904-5 and 1909, Division IV), 1914, pp. 24-27, No. 27, fig., pl.

4. Madāʾin Ṣāliḥ; *JS* I No. 159, pl. xxviii.

5. ʿĀvedāt; A. Negev, *IEJ* 13 (1963) pp. 119-120, No. 12, pl. 18B.

6. Boṣrā; R. Savignac, F.M. Abel, *RB* 2 (1905) pp. 592-596, pl., with better readings of *RES* 676 (not all letters clear).

7. Sinai; *CIS* II (i) No. 1325, pl. xcii.

8. Rawwāfa; F. Altheim, R. Stiehl, *Die Araber in der alten Welt* V/2, 1969, pls. 2-5 (in conjunction with J.T. Milik, *Bulletin of the University of London Institute of Archaeology* 10 (1971) pp. 54-6, pls. 26-30).

9. Sinai; *CIS* II (i) No. 964, pl. lxxv, with J. Euting, *Sinaïtische Inschriften*, 1891, No. 463, pl. 26.

10. ʿĀvedāt; A. Jaussen, R. Savignac, H. Vincent, *RB* 2 (1905) pp. 238-241, No. 2, fig.

11. Sinai; *CIS* II (i) No. 963, pl. lxxv (date uncertain, cf. *RES* 128; C. Clermont-Ganneau, *Recueil d'archéologie orientale* IV, 1901, pp. 184-186; A. Negev, *IEJ* 17 (1967) pp. 252-253).

12. Sinai; *CIS* II (ii) No. 2666, pl. xxxviii (in conjunction with A. Negev, *IEJ* 27 (1977) pp. 222-3, pl. 31E) (Negev has a later date in *IEJ* 17 (1967) p. 253).

13. Sinai; A. Negev, *IEJ* 31 (1981) p. 69, No. 9, pl. 10A.

14. al-Jawf; J.T. Milik, J. Starcky, in F.V. Winnett, W.L. Reed, *Ancient Records from North Arabia*, 1970, pp. 145-146, No. 17, pl. 26.

15. Sinai; *CIS* II (ii) No. 1491, pl. i.

16. Egypt; E. Littmann, *BSOAS* 15 (1953) p. 16, No. 46a, and pl. v (note confusion with No. 24a — see Littmann, *BSOAS* 16 (1954) p. 245.)

17. Sinai; A. Negev, *IEJ* 17 (1967) pp. 250-251, fig. 1, pl. 48A.

18. Sinai; A. Negev, *IEJ* 17 (1967) pp. 251-252, fig. 3, pl. 48B.

19. Madāʾin Ṣāliḥ; *JS* I No. 17 — New copy, but cf. *JS* I, pls. ix and xxv.

20. Umm al-Jimāl; *CIS* II (i) No. 192, pl. xxv and E. Littmann, *Florilegium Melchior de Vogüé*, 1909, p. 386, fig. 6 (date inferred).

21. al-ʿUlā; *CIS* II (i) No. 333, pls. xliv, xxxix (date unclear, cf. J. Euting, *Nabatäische Inschriften aus Arabien*, 1885, pp. 71-72, No. 30).

22. al-ʿUlā; *JS* II No. 386, pls. lxxi, cxxi.

23. an-Namāra; R. Dussaud, F. Macler, *Rapport sur une mission scientifique dans les régions désertiques de la Syrie moyenne*, 1902, pp. 716-724, with facsimiles.

24. Madāʾin Ṣāliḥ; F. Altheim, R. Stiehl, *Die Araber in der alten Welt* V/1, 1968, pl. 54 (top).

Note also:

(i) a text dated 145/6 mentioned by J. Euting, *Sinaïtische Inschriften*, 1891, pp. xii, 32, referring to G.F. Grey, *Transactions of the Royal Society of Literature* 2 (1832) pp. 147f., No. 83, 2.

(ii) a text dated 226 referred to by J. Starcky, *Dictionnaire de la Bible. Supplément* 7, 1966, col. 936.

Table II. Script chart showing early monumental and cursive forms of Nabataean letters.

Key:

A. Madāʾin Ṣāliḥ; tomb inscription; *JS* I No. 1 — new copy.

B. Madāʾin Ṣāliḥ; tomb inscription; *JS* I No. 34 — new copy.

C. Naḥal Hever; contract; J. Starcky, *RB* 61 (1954) pp. 161-81, pls. i-iii.

D (1). Naḥal Hever; Nabataean note on Greek document; H.J. Polotsky, *EI* 8 (1967) pl. 10 (transliteration p. 48).

D (2). Forms in texts related to D (1) and derived from J. Naveh, *IEJ* 29 (1979) p. 115, fig. 1, col. 7 (cf. *BASOR* 198 (1970) p. 35, fig.)

E (1). Ramm; dated dipinto; R. Savignac, G. Horsfield, *RB* 44 (1935) pp. 265ff., pl. x.

E (2). Forms in undated texts closely related to E (1); Savignac, Horsfield, *loc. cit.*

Table III. Selected Forms Discussed in the Text, showing both early and late 'Arabic'-type forms.
Letters and numbers refer to columns of Tables I and II.

NOTES

[1] See illustrations in J. Leroy, *Les manuscripts syriaques à peintures*, 1964, Album, pls. 70-99.

[2] J. Leroy, *op. cit.*, pp. 300-301, 302-313; *The Christian Orient* (British Library Exhibition Catalogue), 1978, pp. 29-30.

[3] Leroy, *op. cit.*, p. 112, pl. 16, 1.

[4] The author warmly thanks Yasin H. Safadi of the British Library for help with the supply of photographs and for permission to reproduce Plates I and II.

The earliest dated Syriac administrative document is non-calligraphic and falls outside the area of our immediate conern. It is the Syriac bill of sale from Dura Europos: C.C. Torrey, *Zeitschrift für Semitistik und verwandte Gebiete* 10 (1935) pp. 33-45 (cf. C. Brockelmann, *ibid.*, p. 163); C. B. Welles, R.O. Fink, J.F. Gillian, *The Parchments and Papyri* (*The Excavations at Dura-Europos. Final Report V, Part I*), 1959, pp. 142-149, pls. LXIX, LXXI,; J. A. Goldstein, *JNES* 25 (1966) pp. 1-16.

[5] A. Desreumaux, 'La naissance d'une nouvelle écriture araméenne à l'époque byzantine', *Semitica* 37 (1987) pp. 95-107 (a paper delivered at the Bilād esh-Shām conference held in Amman, 1987); for dated examples of this script see W.H.P. Hatch, *An Album of Dated Syriac Manuscripts*, 1946, pls. cxcviii-cc.

[6] *Dictionnaire de la Bible, Supplément* 7, 1966, col. 931.

[7] On the earlier cursive see J. Naveh, *IEJ* 29 (1979) pp. 111-112, 115, fig. 1.

[8] *RB* 61 (1954) pp. 161-181; on dating see Starcky, *Dictionnaire de la Bible, Supplément* 7, 1966, col. 918.

[9] H.J. Polotsky, *EI* 8 (1967) pp. 46-49, pl. 10.

[10] R. Savignac, G. Horsfield, *RB* 44 (1935) pp. 265-268.

[11] J.F. Healey and G.R. Smith, *Atlal*, forthcoming; for the older publication of the text see meanwhile A. Jaussen, R. Savignac, *Mission archéologique en Arabie* I, 1909, Nabataean text 17; *JS* is the usual abbreviation for this work, the second volume of which was published in 1914.

[12] For early western cursive see Y.H. Safadi, *Islamic Calligraphy*, 1978, pp. 14-15 (with illustrations).

[13] See in general N. Abbott, *The Rise of the North Arabic Script*, 1939, especially pp. 1-5, pl. V; A. Grohmann, *Arabische Paläographie* II, 1971, pp. 7-33, table I.

[14] *Dictionnaire de la Bible, Supplément* 7, 1966, cols. 932-4.

[15] See J. Naveh, *Early History of the Alphabet*, 1982, pp. 160-1; Grohmann, *loc. cit.*; J. Sourdel-Thomine, *R.Ét.Islamiques* 34 (1966) pp. 151-7. Naveh, *BASOR* 198 (1970) p. 32, n. 3, puts the argument against Starcky in a nutshell.

[16] Table I is virtually exhaustive for this period, though note the two additional texts referred to at the end of the Key.

[17] R.N. Jones, P.C. Hammond, D.J. Johnson, Z.T. Fiema, *BASOR* 269 (1988) pp. 47-57. There are features of this text which suggest the cursive forms go back to a very early date. Note also the later inscription (25/35 A.D.) published by N.I. Khairy, *PEQ* 113 (1981) pp. 19-26, fig. 1, pl. III, script chart, fig. 2.

[18] See J. Naveh, *Early History of the Alphabet*, 1982, p. 161; *b-n, g-ḥ, z-r, y-t, p-q.*

[19] *JS* II No. 321, pl. cxviii, dated 106 A.D., before the fall of the Nabataean kingdom.

[20] Note may also be made of *JS* I No. 181, pl. xxix, which is undated. (Although in both ꝺ is interpreted as *r, d* would be expected in view of other Nabataean practice. Also not all the supposed instances of *r* in these texts are pointed. Indeed, the alternative hypothesis that *d* is intended is reinforced by the fact that it implies a consistent rather than an inconsistent usage. The personal names involved would on this argument be *nrdw* (*JS* II, No. 321) and *šwrdwm'* (*JS* I, No. 181). The matter remains uncertain).

[21] See J. Naveh, *IOS* 2 (1972) p. 279, fig. 3; *Early History of the Alphabet*, 1982, p. 140, fig. 124.

[22] *CIS* II No. 4171; less clear is *CIS* II No. 3959, dated 131 A.D. — J. Cantineau, *Grammaire du palmyrénien épigraphique*, 1935, p. 26.

[23] *Midden-Aramese Schriften in Syrië, Mesopotamië, Perzië en Aangrenzende Gebieden*, 1982, p. 42.

[24] H. Pognon, *Inscriptions sémitiques de la Syrie, de la Mésopotamie et de région de Mossoul*, 1907, pl. xiv and cf. p. 19; A. Maricq, *Syria* 39 (1962) pp. 88-100.

[25] *BSOAS* 16 (1954) p. 33.

[26] J.A. Montgomery, *Aramaic Incantation Texts from Nippur*, 1913, pp. 32-6. Klugkist, *op. cit.*, p. 57, fig. 23, has diacritics on incantation bowls going back to the 3rd century A.D.

[27] See N. Abbott, *op. cit.*, pp. 38-9, pl. v, listing coins from 640 A.D. and papyri of 643 and 650 A.D.; G. Endress in *Grundriss der arabischen Philologie* I, 1982, p. 175.

[28] *The Arabic Language Today*, 1970, p. 25.