

## On the words used as names for ruby and sapphire

*L.A.Lytvynov*

Institute for Single Crystals, STC "Institute for Single Crystals", National  
Academy of Sciences of Ukraine, 60 Lenin Ave., 61001 Kharkiv, Ukraine

*Received January 23, 2011*

Names of ruby and sapphire change in different cultures during thousand years. Often and often these names tot followed of mineralogical terms. The present article will be a guide in a diverse world of sapphire and ruby.

За тысячелетия использования рубина и сапфира в разных культурах названия кристаллов изменялись. Однако минералогические названия должны однозначно относиться к строго определенным объектам. Статья позволит читателям ориентироваться в многочисленных терминах, относящихся к рубину и сапфиру.

When mineralogists could not differentiate red gems such as ruby, spinel, pyrope and almandine, they were called by a common name. In the East, most widely spread name for red gems was *lal*, in the Western countries there were used the words *anthrax*, *anphrax* ("small piece of coal" in Greek; by the way, the same origin has the word "anthracite"), *carbuncle* (*carbo*, or "spark" in Latin), or *carbunculus* (*carbun* in Russian). Later *anthrax* and *carbuncle* were used only with respect to garnet, whereas *lal* denoted only red spinel.

In Europe, a variety of corundum crystals were considered to be different kinds of minerals till 18th century, though in the East they were known under a common name much earlier. In 1794 Grevill introduced the word *corundum* formed from *kauruntaka* or *kuruvinda* i.e. "hard gem" in Sanskrit. For ruby Sanskrit gives two superlative names – *ratnaraj* and *ratnanajaka* – which mean "King of gems" and "first among gems", respectively.

The Persian *yakund* – purple-red gem – transformed into the old Russian *Yakut* (*якут*), *Yagut* (*ягут*), *Ouakinф* (*оуакинфъ*), *Iakinф* (*иакинф*), *Akif* (*акиф*), *Akunt* (*акунт*) and then into *Yahut* (*яхут*), *Yahont* (*яхонт*). In 15-17 centuries the word *Yahont* "яхонт" was obviously used for all corundum crystals, for ruby used name – *Yahont chervlenyi* (*яхонт червленый, червчатый*), for sapphire – *Yahont Lazorevuy* (*яхонт лазоревый*). Afterwards this name was applied only in connection with ruby.

In some languages the words which denote "red" have the common root or similar sounding with the word "ruby": *raha* in Sanskrire, *rot* in German, *rouge* in French, *rubrum* and later forms *rubinus*, *rubens* in Latin. This explains the origin of the name of the mineral ruby [1, 2, 6, 7].

The same root is contained in the name used for pinkish-red tourmaline *rubellite* (*rubillus* means reddish in Latin); the mineralogical name for orange-red spinel is *rubicell*, i.e. "small ruby".

Many red gems were called rubies by mistake, but often this word was used with the purpose of advertising, or to claim not so expensive gems as popular and precious rubies. The name of a gem may reflect its geography, i.e. the deposit, state or country. "Cape rubies" are high-quality pyropes. During "diamond fever" which flared up after the opening of diamond mines, they were mistakenly taken for rubies.

Very often the trade names of "rubies" do not coincide with the corresponding mineralogical terms (Table 1) [3-5].

Table 1. Trade names of "rubies" and the corresponding minerals

Trade mark/name	Mineral
Australian Ruby	pyrope
Adelaide Ruby	pyrope from a deposit in Adelaide environs (Australia)
Asteriated Ruby, Sternruby	asteriated/starry ruby
Almandine-ruby	almandine
American Ruby	pyrope
Ancona Ruby	pink quartz
Arizona Ruby	pyrope
Bohemian Ruby	Pyrope from northern Czechia near town Trjibenets
Brazilian Ruby	pink topaz, pink tourmaline
Barbarian Ruby	almandine
Rocky Mountain Ruby	pyrope
Garnet-Ruby	garnet
Wild Ruby	almandine
Elie Ruby	pyrope
Genevan ruby, Wyse Ruby	man-made (artificial) ruby
Alipur stone	Ruby of district Mansur (India)
Californian Ruby	pyrope
Kitel ruby	almandine from a deposit near a Karelian village Kitel in the vicinity of Ladoga
Kompostel Ruby	pink quartz (quartz colored with iron oxide)
Colorado Ruby	pyrope
Copper Ruby	cuprite
False Ruby	pinkish-red fluorite
Mont Blanc Ruby	pink quartz
Montana Ruby	pyrope
Balas-ruby	pinkish-red spinel with faint violet tint
Barklyite	red low-transparency corundum from Australia states Victoria and New South Wales
Ruby girasol	opalescent ruby, crystal with "cat-eye" effect
Pomegranate Ruby	red spinel
Ruby-garnet	
Cape ruby	pyrope win near Cape of Good Hope
Spinel-ruby	red spinel red spinel
Ruby Spinel	
Ruby Spar	rhodonite in the form of crystals (Ural)
Rainbow gem	American name of slightly opalesce artificial ruby
San Diego Ruby	red tourmaline
Siberian Ruby (Siberite)	pink, red, purple tourmaline from Ural
Cat-eye Ruby	ruby with "cat-eye" effect
Illam	local (Sri Lanca) name of raspberry-red ruby
Timur Ruby	red spinel
Fashoda Ruby	pyrope enriched with iron
Unripe Ruby	red zircon

In some cases an adjective may "spoil" a noun. Perfection does not need additional definitions. When an attribute is added to the word "ruby" one may suspect that this particular ruby is not genuine. However, there exist some exceptions. In France or in

those cantons of Switzerland where the French language is mainly used the terms "ruby rose" and "ruby sanguine" signify light-pink and light-red rubies. In ancient books one may find the term "ruby-balangus" which means pale red ruby. The attribute "oriental" is used to emphasize the value of a gem, since, as a rule, precious gems have been brought to Europe from the East. So, "oriental ruby" is a genuine one. (Remark, that in mediaeval lapidaries and modern literature definition "orient" not always characterized of mineral verity as in case with ruby).

As concerns the terms "oriental topaz", "oriental alexandrite", "oriental amethyst", "oriental emerald" "oriental diamond", they have nothing common with the names of the corresponding minerals, with the exception of their color. In fact, all of them are trade names of different kinds of corundum.

If the origin of rubies is not known exactly, they may be called Burmese (bright-red), Thai (dark with brown or violet tint), Ceylon (light with a color close to pink).

Nowadays, in many cases many artificial rubies are named after their producers. In particular:

*Ardon (Kashan) rubies* are violet-red (due to  $Ti^{3+}$  addition) crystals grown from the solution in the melt by Ardon Associated (Dallas) since 1968.

*Vereve rubies* are obtained by the method of zone melting at Juba Seikoska (Japan) since 1983.

*Jilson rubies* are grown onto a seed from the solution in the melt by firm Sent-Sulpis by Per Jilson (Switzerland) since 1975.

*Inamori rubies* are grown by the Czochralski method at Kioto Ceramic (Japan) since 1981,

*Lehleitner rubies* are grown from the melt by Dj.Lehleitner in Insbruk (Austria) since 1984,

*Knishka rubies* are grown in Austria by P.O.Knishka, the growth method is not known,

*Ramaura rubies* containing gallium impurity are grown from the solution in the melt in Regonda-beach (California) at the firm J.O.Crystals since 1983,

*Chatham rubies* are obtained by the hydrothermal method by Chatham Created Gems (San Francisco) since 1959.

The word *sapphire* originates in the Greek *ζαφειρος* (*sappheiros*, "blue gem"), which seems to be adopted from Hebrew (ספיר *Safir*). Sapphire belonging to a variety of corundum minerals, is a gem with different tints, mainly of blue color. The term "sapphire" was first mentioned in the Torah (IX century B.C.), the most ancient volume of the Pentateuch. During three milleniums its initial meaning and pronunciation were not essentially changed. At present this term is included in the world mineralogical classification. In his "Natural History" Pliny the Elder wrote about sapphire "sparkles by golden spots, azure in color, and sometimes, but seldom, may be purple".

Though sapphire may have different color, the one considered "genuine" is the so-called "royal" sapphire of deep-blue color which has the highest value. No gem can be on a par with it in the beauty of color. Boris Godunov who was a great admirer of gems considered sapphire to possess a peculiar mysterious force and a variety of useful properties

In the market there exist numerous trade names of sapphire:

*Oriental aquamarine* – greenish-blue sapphire,

*Indigosapphire* – deep-blue sapphire,

*Luch (lynch) sapphire*, *Wassersaphyr* (Germany) – light-blue sapphire,

*Sappare* (France) – light-blue sapphire,

*Asteriated sapphire*, *Sternsapphire* – starry sapphire

*Asterit*, *Asterix* – crystal with radiative structure,

*Cateye* – sapphire with "cat-eye" effect,

*Sapphiregirasol* – opalescent sapphire, crystal with "cat-eye" effect,

*Sapphire* – *almandin* – reddish-violet sapphire,

*Purpursapphire* – purple sapphire,

*Oriental emerald* – green sapphire,

*Oriental chrysolite* – yellowish-green sapphire,

*Oriental (Konigtopaz, Royal, King) topaz* – yellow (yellowish-orange) sapphire,

*Oriental hyacinth* – sapphire of yellowish-amethyst color,

*Oriental amethyst, Amethyst -Sapphire* – violet sapphire,  
*Orient diamond, White sapphire, Ledo Frosen Fire, Merudut, Mr.Diamond, Diamonett, Diamonette, Diamonid, Bright-light* – leucosapphire used instead of diamond,  
*Chlorosapphire* – dark-green or bluish-green sapphire,  
*Indigo-sapphire* – blue sapphire,  
*Wattle* – yellowish-green Australian sapphire,  
*Alexandrite-sapphire* – sapphire which changes color like alexandrite (the artificial sapphire possessing such a feature is called *sintelit*),  
*Telesia* – royal-blue sapphire with silky-black glint.

Sapphire also has local and geographical names:

*Sapphire Australian* – deep-blue sapphire with milky-white glint, or greenish with dark and light strips,  
*Indian topaz* – yellow sapphire,  
*Pailin sapphire* – Cambodian sapphire with a color ranging from light- to deep-blue,  
*Kashmir blue* – Kashmirian sapphire with royal-blue color,  
*Siamese sapphire* – royal-blue Thai sapphire.

Other blue minerals are called sapphires for raising their value:

*Brazilian sapphire* – blue tourmaline,  
*Lux sapphire, aquatic sapphire, lynx sapphire* – cordierite, iolite,  
*Saphirin* – blue chalcedony,  
*Gold Sapphire* – lazurite with inclusions of rutile,  
*Meru Sapphire* – blue zoisite,  
*Sapphire Spinel* – blue spinel,  
*Tokay lux Sapphire* – Hungarian obsidian,  
*Uralian Sapphire* – blue tourmaline.

The author hopes that the present article will be a guide in a diverse world of sapphire and ruby.

### **References**

1. R.S.Mitchel, Mineral names. NY.1979. p.246.
2. B.F.Kulikov, V.V.Bukanov. Dictionary of gem-stones, Nedra, Leningrad, 1988, P.168 (in Russian)
3. P.G.Read, Dictionary of gemology, Butterworth scientific. London,1982,P286
4. B.F.Kulikov, Dictionary of gem-stones, Nedra, Leningrad, 1982, P.154 (in Russian)
5. W.Schumann, Edelstein und Schmucksteine, V.2. BLVVerlagsgesellschaft, Munchen,1981, P.262
6. S.Ahmetov, Talks about Gemmology, M.Molodaya gvardia,1989. P.239 (in Russian)
7. M.Fasmer, Etymology dictionary of Russian language,Progress,Moskow,V.3.1987 (in Russian)

## **Кілька слів про походження назви рубіну та сапфіру**

**Л.А.Литвинов**

За тисячоліття використання рубіна та сапфіра у різних культурах назування кристалів змінювались. Однак мінералогічні назви повинні відноситися до строго визначених об'єктів. Стаття дозволить читачам однозначно орієнтуватися у багатокількох термінах, що відносяться до рубіну та сапфіру.