
PADPARADSCHA: WHAT'S IN A NAME?

By Robert Crowningshield

For over 100 years, reference has been made to a unique sapphire, the color of a lotus blossom, the padparadscha. Yet the precise hue represented by this rare stone has been a subject of discussion, and often controversy, ever since the term was first introduced. In an effort to establish some grounds for a common understanding, the author reviews the historical references to the padparadscha sapphire, examines the modern usage of the term, and states GIA's current interpretation of the trade name padparadscha.

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Some years ago the Gem Trade Laboratory in New York was asked to identify a natural, rather intense pinkish orange sapphire as "natural sapphire, variety padparadscha" and we obliged. After all, it seemed to fit the description for the term which appears in GIA's own correspondence course, and we had seen such stones only rarely.

Then one day about five years ago we were asked to call a dark brownish orange stone "variety padparadscha" at the insistence of a jeweler's customer, who was buying it in an expensive ring. The jeweler, who had originally purchased the stone as an "African padparadscha," lost the sale when the laboratory report merely stated "natural brownish orange sapphire." From this point on, we agreed that we would no longer use the term *padparadscha* on our reports, especially since other definitions were found to be different from that given in GIA's courses.

The experience prompted us to do some research into the history, derivations, and general understanding of the term in the trade. The results of this investigation are summarized here.

HISTORY

Just how the romantic term *padparadscha* came about, when it was first used, and by whom is an interesting study in itself. Many have never questioned that the term was derived through the German language from *padmaragaya* (*padma* = lotus, *raga* = color), the yellow-pink Oriental lotus (*nelumbo nucifera*), which is illustrated in figure 1. However, some in-depth library research has come up with conflicting, but interesting, results.

The earliest reference to the term in gemological literature is found in Keferstein (1849). On page 13 of *Mineralogia Polyglotta*, under "Our Ruby," he states that the term *padmaraga* in Sanscrit refers to lotus color or

rose red. On the next page, Keferstein notes that the term also appears in Bengali: *padmaraga* and *padmaragmani*, "mani" being the suffix for stone. It is interesting to note that this earliest description of the padparadscha color is for some variant of red, probably toward pink, and not for orange, which seems to be a strictly modern development. (Holland [1898] also uses the term *padmaraga* for the finest color ruby.) Embrey and Fuller (1980) state the following for the first references to the term, the ones most commonly cited.

Padparadschah, A.K. Coomaraswamy, Administration Reports, Ceylon, for 1904, part 4 Mineralogical Survey, 1905, p. E16 (*Padmaragaya*). M. Bauer, *Edelsteinkunde Leipzig*, 2nd Edit. 1909, p. 363 (*patparachan*). R. Brauns, *Kunstliche Schmucksteine, Handwörterbuch der Naturwissenschaften*, 1913, vol. 8, p. 968 (*Padparadschah*). German corruptions (with other variations) of the Sinhalese *padmaragaya*, from *padma*, lotus and *raga*, colour. A trade name for reddish-yellow gem corundum, now used more especially for the artificially produced material.

Here we see at the turn of the century the derivation of the term from the Sinhalese word *padmaragaya*, again meaning lotus color, but now pertaining to a reddish yellow gem, rather than simply red.

It is appropriate to note at this point that a healthy lotus blossom is, when about to open, a beautiful rosy red color. As the flower opens, one sees that the tips of each petal are pink shading into yellow, with the future seed pod in the center a bright yellow. Completely open flowers fade considerably so that the tips of each petal are pale pink shading into white. Possibly the early descriptions of lotus color vary because the blossoms vary. However, early descriptions do not mention orange, though reddish-yellow is mentioned.

In 1909, Max Bauer, the dean of gemological writers, used the term *patparachan* for "reddish yellow" gem corundum.* In his 1932 edition, by which time synthetic corundum of this color was plentiful, Bauer spells the term *padparadscha*, the spelling we continue to use today, and describes it as "orange to reddish yellow."

The meaning of the term *padparadscha* continued to be a cause for confusion, however. An entry in G. F. Herbert Smith's 1940 and earlier



Figure 1. The Oriental lotus (*Nelumbo nucifera*) from which the term padparadscha was adopted. Photo © Miguel Rodríguez.

editions of his text *Gemstones* illustrates this frustration: "Padparadschah, padparadscha or other corrupt form of the Sinhalese word, *padmaragaya* (lotus-color), has been introduced for the yellowish aurora-red gem material from Ceylon, but has become more commonly used for the synthetic material of similar tint. There is no real need for this fantastic term, and it may be hoped that it will pass into disuse."

Unfortunately, Smith's hope has not been realized. In recent years, possibly due to the influence of gem investment houses, requests for the Gem Trade Laboratory to use the term on reports have increased. Perhaps if the synthetic sapphire had never been produced and if Sri Lanka (Ceylon) were still the only source of these very rare colors of sapphire, the term would not be the problem that it has become. With the discovery of fancy-colored sapphires in East Africa (figure 2), especially Tanzania, there has arisen the desire on the part of dealers to use the term as a variety of sapphire because it is passingly familiar everywhere. Thus it seems that rather than eliminating *padparadscha* from the language, the trade is fostering its use.

*Prior to 1909, Bauer along with most gemological writers followed the common practice of using the term Oriental, to indicate that a gem under discussion was in fact corundum, in conjunction with the name of a common stone or other material to indicate color. Thus his "Oriental amethyst" is purple sapphire and "Oriental hyacinth" is orange sapphire.



Figure 2. East African sapphires (3.96–6.54 ct) similar to those that have been referred to in the trade as “African padparadscha.” Photo by Tino Hammid.

Had the term been used consistently only for reddish yellow natural gem sapphires (after first establishing what that color is!), it might have graduated from being a trade name to a bona fide variety name alongside ruby, amethyst, emerald, and alexandrite. As we see in table 1, however, later writers have attributed the name to a bewildering description of colors. Significantly, the popular perception of the color as reddish yellow shifted dramatically when Kunz (1915) quoted Claremont’s 1913 description of what he calls padparasham: “It is a most rare and delicate orange-pink hue, the various specimens showing many different blendings of the pink and orange.”

MODERN USAGE OF THE TERM

In our own time, the red-orange and brown-orange to yellowish orange stones from Tanzania, as well as orange, orange-yellow, and orange-brown heat-treated or surface-diffused natural sapphires (see Nassau, 1981, p. 129), have further complicated the nomenclature. Meanwhile, in addition to the flame-fusion synthetic material introduced by a number of manufacturers some years ago, Kyocera International, Inc., of Kyoto, Japan, is now marketing a nearly pure orange synthetic sapphire (method of synthesis unknown) under the name “Inamori grown padparadscha” (figure 3). Chatham Created Gems, Inc., has made and plans to offer a flux-grown orange-colored synthetic sapphire as “Created padparadscha” (illustrated in Kane, 1982, p. 141). Similarly, it is probably

within the capability of others to manufacture orange to orange-red flux-grown synthetic stones. This would probably tempt the use of the term for marketing them.

Some purists insist that the term must be reserved exclusively for Sri Lankan sapphires of a delicate pinkish orange color. Others, citing the definitions of some authors (again, see table 1) which state merely orange, or, in some cases, brownish orange, as well as orange-red, have upset purists by merchandising fancy-colored sapphires from East Africa under the term *African padparadscha*.

Although the majority of definitions cited here mention orange as a requirement for using the term, the modifiers make it virtually impossible to visualize any one color as “right.” For instance, “light, bright orange,” “yellowish aurora-red,” “intense, medium slightly reddish orange,” and “somewhat brownish orange,” are a few of the variations. “Salmon pink” further muddies the water. Perhaps one reason for the wide range of descriptions is the extreme rarity of fine orange-toned stones from Sri Lanka, with the result that many authors have not had the chance to experience a wide range of these stones or have based their observations on the rather more common, but still rare, synthetic stones. At one time the reason given for the scarcity of fine natural padparadscha sapphires was that they are so valued in the Orient (where saffron is a holy color in many places) that they never reach the West. It would appear, however, that just plain rarity may be the real reason.

TABLE 1. A chronological listing of the use of the term *padparadscha* in the available literature.

Color	Reference	Color	Reference
1. Reddish yellow ^a ("padmaragaya")	Coomaraswamy, 1904	22. Orange ^a	Gübelin, 1968
2. Reddish yellow ^a	Bauer, 1909	23. Reddish to somewhat brownish-orange ^a	Sinkankas, 1968
3. Reddish yellow ^a ("padparadschah")	Brauns, 1913	24. Orangy yellow to orange ^a	Parsons, 1969
4. Rare and delicate orange-pink ^a	Kunz, 1915; after Claremont, 1913	25. Orange (more orange than pink) ^a	Feasey, 1970
5. Orange-yellow ^b	Michel, 1928	26. Orange ^a	CIBJO, 1970
6. Orange to reddish yellow ^a	Bauer, 1932	27. Gorgeous orange ^a	Desautels, 1971
7. Light bright orange ^a	Gravender, 1933	28. Rare orange-red ^c	Mason and Packer, 1973
8. Salmon pink ^b	Spencer, 1936	29. Subtle pink-orange ^c	Arem, 1973
9. Orange to orange-red with tints of brown ^a	Juergens, 1939	30. Intense orangy pink (p. 33) ^a	Bank, 1973
10. Yellowish aurora red (p. 222) ^c Peculiar reddish yellow (p. 143) ^b	Smith, 1940	31. Light orangy yellow to yellow ^c	Shipley, 1974
11. Orange ^b	Kraus and Slawson, 1947	32. Slightly reddish orange ^a	Liddicoat, 1975 (and earlier editions)
12. Peculiar orange-pink ^c	Webster, 1947	33. Orange ^a	Webster, 1975
13. Golden red (p. 103) ^c Orange (p. 252) ^c	Pearl, 1948	34. Touch of pink in its orange ^a (as opposed to Tanzanian stones so labeled)	McNeil, 1976
14. Rare orange ^a	Foshag, 1950	35. Pinkish orange ^a	Anderson, 1976
15. Tangerine colored ^a Orange to pinkish orange ^b	McNeil, 1950	36. Orange pink ^a	Schumann, 1977
16. Reddish yellow (p. 115) ^a Orange (p. 124) ^a	Schlossmacher, 1954	37. Yellow with totally reflected tones of pink ^a	Arem, 1977
17. Reddish yellow ^c	Weinstein, 1958	38. Rare orange-yellow to orange ^a	Hurlbut and Switzer, 1979
18. Yellow-orange or tangerine (p. 357) ^a Orange-tangerine (p. 804) ^a	Cavenago-Bignami Moneta, 1959	39. Orange ^b	Nassau, 1980
19. Orange ^a	Weber, 1959	40. Tangerine colored ^a	Chernush, 1980
20. Orange ^a	Baerwald and Mahoney, 1960	41. Pinkish orange ("an unnecessary term") ^c	Newman, 1981
21. Orange (p. 180) ^b Peculiar brownish orange (p. 305) ^b	Anderson, 1964	42. Intense, medium slightly reddish orange ^a	GIA Colored Stones course, 1983

^aRefers to natural sapphires.^bRefers to synthetic sapphires.^cRefers to both natural and synthetic sapphires.**IMPORTANT EXAMPLES OF STONES LABELED PADPARADSCHA**

A few collections of precious stones on public view have one or more sapphires that the curators have labeled padparadscha. An 11.95-ct stone from the Hixon Collection at the Los Angeles County Museum of Natural History is labeled "Pink padparadscha—a bi-colored sap-

phire." Another stone in this collection, weighing 6.51-ct, is labeled "Padparadscha sapphire." Another stone nearby, of 16.36 ct, is called simply "Orange sapphire." (All three of these stones are illustrated in the Spring 1977 issue of *Gems & Gemology*, pp. 270–271.) Not in the Hixon Collection but part of the museum's general collection is a rather flat pinkish orange sapphire in a



Figure 3. A synthetic sapphire marketed by Kyocera International, Inc., in Kyoto, Japan, as "Inamori grown padparadscha." This stone weighs 1.05 ct. Photo by Tino Hammid.



Figure 5. The large orange sapphire (precise weight, 100.18 ct) in the Morgan Collection at the American Museum of Natural History in New York. Photo by Tino Hammid.



Figure 4. This approximately 14-ct stone, donated to the Los Angeles County Museum of Natural History in 1955 as a "padparadscha sapphire," was only recently determined to be a Verneuil synthetic. Photo by Mike Havstad.

ring which many people feel is "true" padparadscha color (figure 4). However, while we were preparing a photo for this article the stone was determined to be a Verneuil synthetic.

Figure 5 is the 100-ct orange sapphire in the Morgan Collection of gems at the American Museum of Natural History in New York City. This stone is perhaps the largest and finest orange Sri Lankan sapphire on public display anywhere. It has been used locally in New York as the "master padparadscha" by some gem dealers and collectors. It is a superb stone—the outstanding gem in its display case featuring numerous other fancy-color sapphires. It is oval in shape with a mod-

erate "bow tie." In the "bow tie" area the color appears yellowish orange, while the ends appear intense reddish orange. This Morgan sapphire was the standard that one collector used years ago as a guide in selecting a 40-ct stone that he considered the "crown jewel" and most valuable stone in his collection. Unfortunately, when his estate was critically examined, the stone was found to be synthetic. However, not every knowledgeable collector and dealer considers the Morgan stone to be a "true" padparadscha. One astute collector complained that it was too orange at the ends and yellow in the middle with none of the tantalizing pinkish orange he looks for. Figure 6 is a 30-ct pinkish orange natural sapphire that most qualified dealers and many observers at GIA and the GIA Gem Trade Lab have agreed satisfies their understanding of the term.

CONCLUSION

It has been suggested that the GIA, in cooperation with other trade and educational organizations, should make an effort to standardize the term *padparadscha* with the aim of establishing criteria by which a true variety of corundum could be established.

Unfortunately, no tests that a gemologist can make are helpful. The stones from Sri Lanka that resemble the above-noted 30-ct stone fluoresce and have chromium absorption lines in the spectrum but no iron lines. Similar pinkish/brownish orange stones from East Africa have an iron line and weak chromium lines but have very weak to no fluorescence. Clearly, no set of chemical or physical constants exists to make the determi-

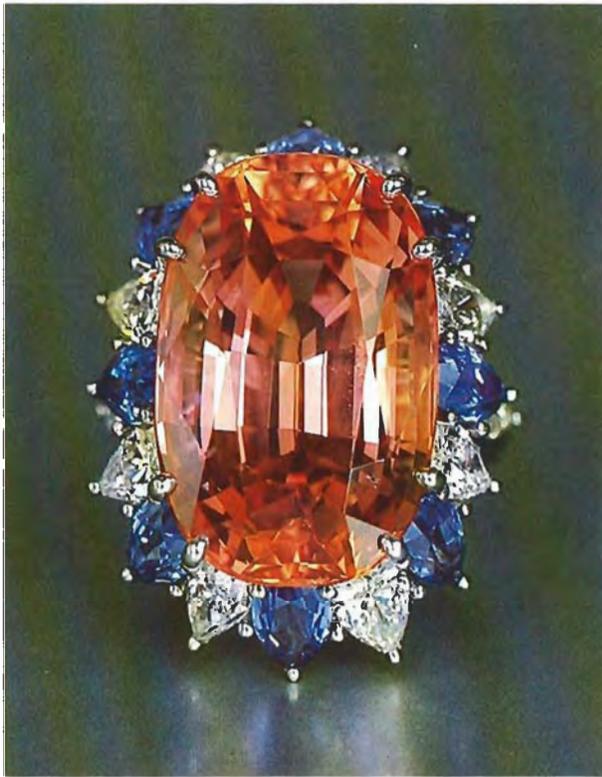


Figure 6. This 30-ct pinkish orange sapphire was believed by many observers from both GIA and the trade to agree with their perception of the term *padparadscha*. Photo by Tino Hammid.

nation. One half-joking suggestion is that if we are convinced of the derivation of the term as coming from the Sinhalese words meaning lotus color, we could have a master lotus blossom—or two. (A dying blossom would further allow the brown shades of sapphires to qualify!) However, we have no evidence that an orange variety of lotus exists.

In spite of the confusion in the literature regarding the descriptions of the term, knowledgeable veterans of the gem trade are in better agreement than this article so far indicates. For instance, all dealers who were shown the slide reproduced in figure 6 agreed that it was an excellent rendition of their understanding of the color of a *padparadscha*. All of those we spoke with who saw the spectacular 1126-ct pinkish orange sapphire crystal from Sri Lanka pictured in figure 7 also agreed that the color was aptly referred to as *padparadscha*.

It is clear that the term *padparadscha* was applied initially to fancy sapphires of a range of colors in stones found in what is now Sri Lanka.



Figure 7. The term *padparadscha* has also been applied—and many feel aptly—to this 1126-ct sapphire crystal found recently in the Ratnapura district of Sri Lanka. Photo © 1983 Tino Hammid.

If the term is to have merit today, it will have to be limited to those colors historically attributed to *padparadscha* and found as typical colors in Sri Lanka. It is GIA's opinion that this color range should be limited to light to medium tones of pinkish orange to orange-pink hues. Lacking delicacy, the dark brownish orange or even medium brownish orange tones of corundum from East Africa would not qualify under this definition. Deep orangy red sapphires, likewise, would not qualify as fitting the term *padparadscha*.

This new description will replace that given in the current GIA Colored Stone course when it is next revised. Because of the subjectivity of the term, however, the GIA Gem Trade Laboratory, Inc., will continue its policy of not using *padparadscha* on identification reports, treating it in the same manner as the trade grades Kashmir sapphire and Siberian amethyst.

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