



## SPECIAL REPORT COLOURED STONES



## The challenge of ensuring ethical supply lines passing through multiple countries and legal systems

By Charles Abouchar, President  
CIBJO Coloured Stone Commission

**T**he world of coloured stones, or should I say the world of precious stones and jewellery, is changing rapidly. We at CIBJO are doing our level best to follow these changes and, as we have always done, create internationally accepted rules to ensure that the new and

changing conditions they have created are universally understood and addressed.

Ethical and social responsibility practices have become issues of cardinal importance in the coloured gemstone trade, with awareness particularly high in the retail markets of the Western world.

We appreciate the need for accurate and verifiable information at all levels. End-consumers do not want to be



*Charles Abouchar, President of the CIBJO Coloured Stone Commission.*

the final stop in an unethical supply chain, and thus demand full disclosure of the provenance of the material used in the jewellery they buy. And largely, again in the Western world, countries have developed laws and regulations that address many of social and environmental issues. If we reside or operate in one of those countries we are obliged to follow these laws.

But in a supply chain that traverses multiple borders, social and environmental laws and regulations are unevenly created and enforced, with standards tending to be more lax in some of the countries where we source and manufacture our products.

We fully support the idea of working in the direction of progress. But properly verifying the precise source of each coloured gemstones can be complicated and often impossible. Such obstacles are exacerbated because, in the absence of uniform standards, not all buyers and sellers in the supply chain are abiding by the same rules.

There are measures that can be taken to ensure that a coloured gemstone is ethically sourced and traceable, from the moment it is cut, and then as it moves along the supply chain. But to work within such a system, you are currently obliged to limit what and where you buy to only those goods and dealers who can demonstrably comply with proper standards. This is limiting and can be discriminatory, particularly in a sector where the overwhelming majority of goods are artisanally mined. It inevitably comes at cost, and makes it more difficult to operate competitively in the market.

The issue of ethical sourcing and everything that goes along with it is a very complex subject, and I am not sure if this is properly appreciated by the outsiders who are often driving the agenda.

It does not mean that we should relinquish the goal of operating in an ethically responsible environment, but rather we should appreciate that progress is achieved incrementally, and that continuous improvement for the foreseeable future is the better alternative to absolute perfection.

CIBJO has done a great deal of groundwork in this area,



and I strongly recommend that all members of the coloured gemstone trade read and learn its [Responsible Sourcing Blue Book](#). It provides a baseline from which to begin, and implementation can be assisted using the accompanying [CIBJO Responsible Sourcing Toolkit](#).

### What's in a name?

Another issue for our trade is the increasing number of colour descriptors for gemstones. It is a problem, because in reality these words and terms are applied with no scientific basis. To adopt them, a laboratory simply uses whatever colour range it wants.

For the classical and historical names such as Royal Blue, Pigeon Blood and Padparadscha, some laboratories have tried to harmonize their criteria. In the case of Padparadscha, for example, the Laboratory Manual Harmonisation Committee (LMHC) has published Information Sheet (IS 4) (LMHC 2023)<sup>1</sup>, setting a formal standard. But, like with all our Blue Books, this is essentially a guideline, and nobody is obliged to follow it.

The fact is that the trade is happy to have these names, and some laboratories, by using fancy terms, are creating a market for the goods they describe. And nobody seems to be too concerned about the end-clients, who are getting lost and sometime cheated, since they may be paying extra, simply for a descriptor added to a stone.

Such names do not really mean anything, as long as they are not governed by internationally recognized standards.

### Researching colour instability in treated sapphires

Another issue related to gem labs concerns the methodology of testing. In the past several years there has been attention focused on colour stability in yellow, orange and Padparadscha coloured sapphires.

This issue has become increasingly important as the irradiation of coloured stones is now widespread, and for some of these treated stones the colour is not stable.

For yellow, orange and Padparadscha coloured sapphires, we have a scientific explanation for the instability. Laboratories refer to unstable colour centers in the irradiated stones, and research is still ongoing.

To control and test the stability of the colour in these stones, the laboratories expose the stones to a strong light over a period of several (usually three) hours (Krzemnicki

<sup>1</sup> LMHC (2024), «LMHC Information Sheet # 4 - Padparadscha», (updated 2023) <[https://www.lmhc-gemmology.org/wp-content/uploads/06/2023/LMHC-Information-Sheet\\_4\\_V2023\\_10.pdf](https://www.lmhc-gemmology.org/wp-content/uploads/06/2023/LMHC-Information-Sheet_4_V2023_10.pdf)>





2019)<sup>2</sup>. But the method and time of exposure is still based on individual laboratory experience and not on a harmonized testing method.

LMHC has decided to look into this and establish an Information Sheet, which should be made public in the coming few months. This will be very helpful for the trade, for only by such testing standards the confidence of the market and consumers in such stones can be maintained.

### New research leading to the invalidation of old gem reports

Over the past several decades the incidence of gemstones being treated has increased and professionalised. Today we have different players in the market trying all possible ways of new and old treatments, and the laboratories are working very hard as to keep up.

As always, most of the people treating stones choose not to disclose the new methods, at the very least for as long as the laboratories have not worked out methods for detecting them. The consequence of this “race” is that the result of some reports may suddenly change, once the new scientific evidence for the treatment is available to the laboratories.

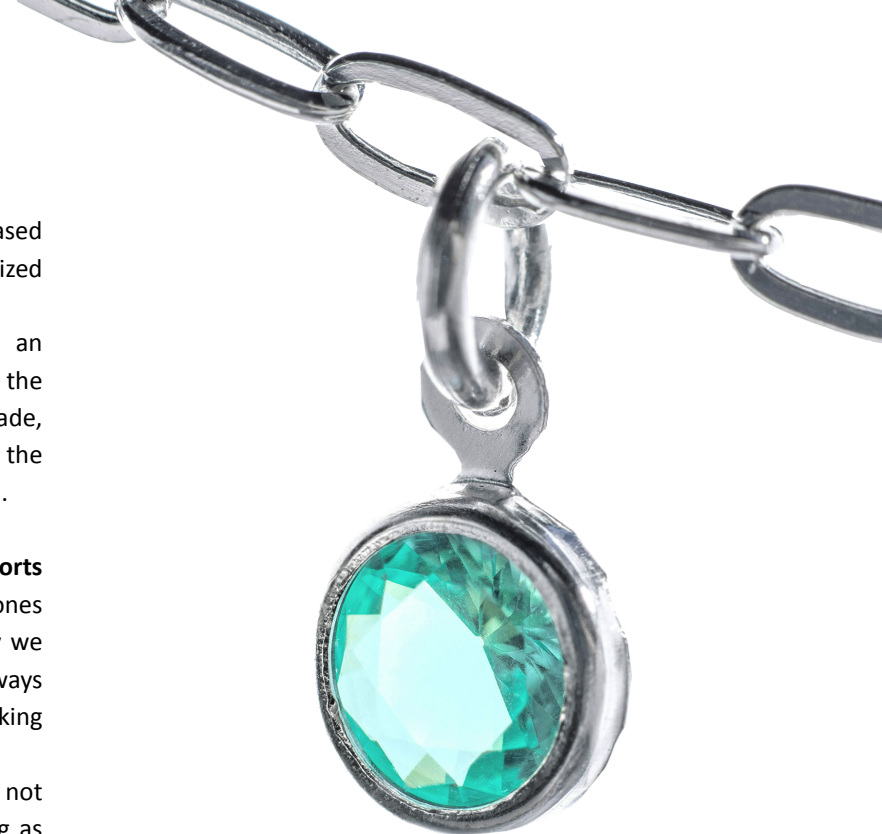
In the recent past we have seen this with the low temperature treatments of rubies and other corundum varieties. But we will see more in the near future, meaning that additional reports will no longer be valid. Research being conducted at present into irradiation treatments will have this result, in my opinion.

### A final word about origin reports

In conclusion, I would like to offer a comment on

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<sup>2</sup> Krzemnicki, M.S., Cartier, L.E. (2019), «Padparadscha-Like Fancy Sapphires with Unstable Colors: Coloration Mechanisms and Disclosure», InColor, Winter.



inconsistencies in reports being issued by laboratories about the origin of gemstones.

We have seen in the past several years stones that have been brought to auction with two or three reports, each providing a different origin. These are discrepancies that clearly do not serve the cause of consumer confidence.

In my opinion, the solution to this problem is that under the neutral umbrella of CIBJO we will establish a database for all reference collections, so that every lab will have access to the information required to pinpoint the origin of stones.

Maybe such a proposal is still just a pipedream that is impossible to achieve. On the other hand, with good will it is something that we can do for the benefit of our entire industry and our consumers.



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