TRADING OF JADEITE-JADE IN MANDALAY, MYANMAR
But watch out for dyed jadeite.

By Tay Thye Sun & Tay Kun Ming
Far East Gemological Laboratory, Singapore

Mandalay jade market is a fascinating place for jade collectors, jade dealers and gemologists. The jade market is full of jade of many kinds, natural or treated one like dyed colours, rough to polished cabochon materials, and imitations too. The market is situated between 42/41 and 88/87 street and trading starts in the morning at about 8am and finish just before noon time. Rough jade could be found along the sides of the streets (Fig. 1) to semi-cut one within the market place. Large quantities of commercial quality cabochon of any sizes (Fig. 2), all colours and quality and also jade bangle (Fig. 3) are on sales. For better quality jadeite materials, usually need to make appointment with big time jade dealers. Otherwise, if one is interested in just commercial to medium quality, Mandalay jade market has everything to offer.

Our Mogok gem dealers warned us that buying jade in Mandalay market has to be very careful as recently superficial dyed green and lavender jade bangles are plentiful. Our suspicious was confirmed. Not just the lower quality material, but medium quality material were dyed too. Dyed could be seen with naked eye, but some dyed were very fine i.e. very fine dyed in between crystal grains structure or in fine fissures (Fig. 4). Asked the dealers why dyed jade bangles? He said it is a common practice and otherwise it is hard to sell. The dealers even claimed he could wash it away using detergent but of course, since it is dyed, there is no point going further. We learned a good lesson.

Acknowledgement: Thanks to Ma Gyan and Ngi Ngi Aung for the good advice.

References:
IDENTIFICATION OF NATURAL, TREATED, SYNTHETIC AND TREATED-SYNTHETIC YELLOW SAPPHIRE BY FEATHER TYPE INCLUSIONS

By Jayshree Panjikar

Pangem Testing Laboratory, Pune, PANGEMTECH – Panjikar Gem Research & Tech Institute, Pune, India

The natural yellow sapphires have a wide variety of internal features indicative of their natural origin: silk, feathers, various patterns of healed feathers, feathers around crystalline inclusions, feathers made of crystalline-line inclusions, feathers with liquid films, feathers with two phase inclusions, and growth structures.

Treated yellow sapphires reveal several diagnostic internal features. Most notably, these consist of distinctive “expanded feathers” as well as “beaded feathers.” The beryllium treated yellow sapphires contain disc shaped feathers (disc-shaped feathers). Some have thick bulbous type flux feathers. Synthetic samples and synthetic treated samples have some very specific inclusions, besides flux feathers, twisted feathers, wispy-feathers, some of the flux feathers contained groups of pinpoint inclusions. Treated synthetic yellow sapphires have remnants of gas bubbles that are indicative of the artificial growth process.

Natural yellow sapphires have characteristic feather-like or fingerprint inclusions, which are defined as follows:

1. Feathers made up of very fine acicular liquid droplets.
2. Crystals embedded in feathers. (3) Feathers with liquid film present along side, (4) Feathers that have interconnecting channels and, (5) another type feathers with negative crystals. (6) Multiple feathers with crystal, (7) healed feathers with angular expansions.

Treated yellow sapphires have: (8) expanded feathers, typical (9) beaded feathers due to borax, (10) bulbous type feathers, and (11) flux feathers. It was observed the beryllium treated yellow sapphires often showed, due to high temperatures involved, (12) disc shaped decrystallization-feathers around central crystal, and (13) fern shaped re-crystallization of inclusions in feathers. In the treated synthetic yellow sapphires one can notice the (14) twisted feathers, and (15) induced flux feathers. Apart from these there are 3 other types of feathers which are common for treated and synthetic treated yellow sapphires.

Internal features (with magnification) especially the varied feather-type inclusions play an important role as useful diagnostic indicators for gemmologists with basic equipment.

References: