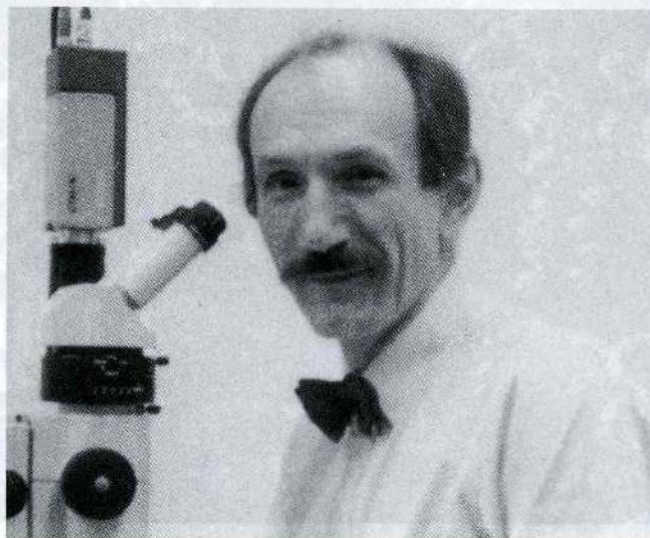


## Filled emeralds: please face reality

Viewpoint by Dr H. A. Hanni of the SSEF Swiss Gemmological Institute. This article first appeared in the *ICA Gazette* published by the International Colored Gemstone Association in April 1993



included in the category of what is called oiled emeralds, without an individual disclosure of every stone treated in this particular way.

I favour a general disclosure of this widely used enhancement process, which has been performed for many years with varying substances.

Although I have worked in a gemmological laboratory for more than 12 years, I have never met an emerald of more than one carat which did not possess fine fissures or fractures. Needless to say, all fractures contained

I would again like to explain the ideas which led me and others to a

general acceptance that emeralds with fractures filled with epoxy resins be

continued on page 78

# BEN YONA LTD.



## Cutters and Exporters of Precious Stones Specializing in Emeralds and Diamonds

OFFICE: 52 Bezalel St., Noam Building, 5th floor, P.O.B. 3106 Ramat Gan 52521, Israel

Telephone: 03-7511320, Int. Phone: 6314

Fax: 03-7527906

LAPIDARY: 11 Bezalel St., Ramat Gan, Israel

### Filled emeralds

from page 76

foreign substances such as oil, resins, fats, paraffins, or epoxy resins.

I agree that the extent of the treatments and the result of the treatments can widely vary, but the question here is quite different.

- How can you identify the substances present in all the fractures in all the fine emerald and all the greenish crumbling stuff which is also emerald all around the world?
- Who is doing this identification job and where are the police forces to punish those who do not disclose?
- Where are the gemmology classes on how to identify fracture fillings and where are the thousands of trained gemmologists

who can identify these fillings?

- Where is the equipment for this identification job?
- Who will pay the expense of checking every single emerald in the world?
- Who has ever kept guard next to an emerald crystal from the moment it leaves the parent rock until it is set as a faceted gemstone in a piece of jewellery?
- How can you make a guarantee for all the hands that the stone has passed through before it finally reaches you? And all the hands it will pass through after it leaves your possession?

At every stage of the journey from the mine to the jeweller, emeralds are immersed in different liquids, for cleaning, for

judging, for enhancing. Every owner wants the stone to look better than the price that was paid for it.

This means that with each change of hands there is the potential for fracture filling. Can you imagine what a cocktail of oils, resins, epoxies and other substances accumulates in the openings of the fractures? Even a good chemist is not in a position to identify such a small amount of such a complex material. And if the filling can be identified what should we call it? Shall we say the fractures contain Opticon from the mine, plus petrol from the saw, plus lap oil from the cutting wheel and polishing compound, and oil from the last oiling performed after cutting, plus the substance from the very last oiling, say, canada balsam resin,

before the stone is set?

I feel that the term oiling as used in the trade acquired a new meaning long ago. It no longer means filling fractures with oil, it now refers to filling the fractures with any comparable colourless, fracture-filling material which enhances the appearance of the stone.

Please face reality! All cut emeralds are treated stones! They may be treated with different substances to different extents but they are all treated. It may be that you do not know or do not wish to know, but if you use a microscope and look with trained eyes into emeralds you will find the fractures filled with something every time. And it really does not matter what the filling is, as long as the stones are

continued on page 80

## Manufacturers of High Quality Emeralds!



Please visit us at the September Hong Kong Jewelry and Watch Fair, September 20-24, Booth no: E-13, Level 5

Specialists in small and calibrated sizes from Sandwana and Brazilian mines

### GREEN GEMS

Hong Kong  
8/F Flat B Ashley Mansion  
10-14 Ashley Road  
Kowloon  
Tel: (852) 375 0093/94  
Fax: (852) 730 2300

Japan  
Green Gems (Japan) Co Ltd  
Queen Heights# 1001 10/F  
5-23-8 Asakusa Bashi Taito-ku Tokyo  
Tel: (813) 582 09494  
Fax: (813) 582 09848

Thailand  
Emerald Collection Co Ltd  
4/F, 114/2 Soi Promote  
2 Mahaesak Road Bangkok  
Tel: (662) 235 8256, (662) 237 5078  
Fax: (662) 237 5078

### Filled emeralds

from page 78

not repaired or glued together.

It is hypocritical to speak about the good old days when everyone used oil. For many years, the so-called oil used has often been a natural resin such as Canada balsam or cedarwood oil. Natural resins were used because nothing better existed.

In article in the *ICA Gazette*, the writer Dharmendra Tank said "... such material must be designated as treated, since a foreign material has been introduced into a natural stone." Traditional fillers are also foreign substances in the emeralds! What emeralds are you going to sell if not treated ones?

I would like to offer to investigate the fracture filling of ten emeralds

which Mr Tank selects randomly from his lots. We will perform a free analysis and I am sure he will be surprised by the results.

The SSEF Swiss Gemmological Institute has decided to accept all organic fillings in gemstones, including epoxy resin, as the normal case. A comment on the back of our test report says: "For enhancement of gemstones, fissures are often filled with colourless substances." In this way, the consumer is informed of this common trade practice.

If, in an uncommon case, an emerald has no fissures or no filling, we would honour this exceptional case by the phrase "no indication of fracture filling" on the front side of the test report.

I have not yet seen an



ICA/Bart Curten

Rough and cut peridot from Ethiopia. Rough supplied by Karl August Cullman, Idar-Oberstein, Germany and cut stones owned by Mincraft Co, Sri Lanka

invoice from the trade in which the manner and extent of treatment was indicated, either for emeralds or for other gemstones with fracture filling such as tourmalines which are filled with hot paraffin in a vacuum.

Therefore I cannot assume that the community of gemstone dealers is going to change its habits so dramatically.

These are the reasons why colourless fracture filling has been widely accepted in emeralds.



**Importers, Exporters,  
Manufacturers of  
Emerald, Ruby, Sapphire,  
Diamond, Cab, Cut, Beeds**

### **Real Stones Co., Ltd.**

The Executive House 7th Floor Suite No. 46,  
410 Surawong Road, Bangkok 10500  
Tel: 235-1090, 237-4169, 235-2286  
Fax: (662) 236-2688, 235-1206-9 Ext. 46

*Hong Kong Office*

#### **Royal Stones**

14 G Star Mansion Menden Row, Kowloon  
Tel: 7225380, Fax: (852) 3110771

Please visit us at the  
June Hong Kong Jewelry and Watch Fair,  
Hong Kong Convention & Exhibition Centre,  
June 3-6, Booth no: I-23