

AGA Update

 ACCREDITED GEMOLOGISTS ASSOCIATION

DEC. 1990

LETTER FROM PRESIDENT

Not since the historic climate which inspired the founding of the Accredited Gemologists Association (A.G.A.) sixteen years ago has gemological industry been at such crossroads. Dramatic technological, economical, social influences are changing our industry as we know it. I feel strongly that the magnitude of these issues must be discussed from many perspectives by all levels of our gem and jewelry community.

In our changing community the importance of education is critical. The need for exchanging ideas with dialogue between different industry leaders is a critical need. The A.G.A. objective since our founding is to encourage and provide continuing education and study on gem and jewelry issues both large and small.

The A.G.A. has never been better positioned to provide high quality of programs to our membership and industry. Our present Board, Governors and Chairs have just completed an intensive three to five year Strategic Plan at our Mid-Term Board Meeting in Virginia to examine and re-define programming, membership and development goals.

To provide direction to these objectives to meet our goals, we have recommended that the A.G.A. focus on the following issues:

- * Strengthen the Funding Base and continue to pursue fiscal stability.
- * Expand the membership base and increase representation and involvement with/for our members.
- * Devote more energy to represent our various regions and their communities properly.
- * Increase cultivation of corporate industry ties for better programming.
- * Work more actively at projecting A.G.A.'s image in the community. (including upgrading publications, logo and support material).

The Board noted when passing the above recommendations that an increased effort in fundraising will be necessary to achieve these goals. With the continued support of you and other interested individuals, we intend to build on the A.G.A.'s current success in providing timely programs on issues of the day with our expert speakers and panelists.

Many of our members are unaware that their basic dues only cover a small percentage of what it costs to put on our various programs; publish Updates, Cornerstone, and the Q&A; update our video library tapes and the everyday administrative costs.

Gifts from individuals who can make contributions over the standard membership level will enable us to offer membership at subsidized rates so our audiences truly represent a cross-section of our gemological and jewelry community. The value of our programs are not only in the quality of our speakers but in the dialogue between people of various gem/jewelry backgrounds and the exchange of different viewpoints.

In the upcoming year, A.G.A. has been asked to put on more hands on conferences. Our association is volunteered based with members taking the time and in many instances

continued next page

Inside This Issue

Editor's Message	3
Yehuda Mini-Conference	4
SF Hands-on Conf.	8
AGA Tuscon Agenda	10
D.C.-Miami Mini-Conf.	12
ICA Lab Alert	15
Phalaborwa	18

Letter From President

cont. from previous page

donating money, to put on hands-on conferences or seminars. We will increase our educational efforts some four times next year compared to this year. This is an amazing feat given the quality of hands-conferences by a volunteer non-profit association.

Just as the gem and jewelry industry needs an educated and involved citizenry to participate in the current exciting and interesting changes, the A.G.A. needs the commitment and support of those of you who make our work possible. The times call for the involvement of all of us. I urge you to join me in assisting the A.G.A. in its important efforts and contribute to our Annual Fund. Help us help you and our industry become more educated and professional in an emerging industry where society still looks at us as tradesmen.

Thank you for your past, present and future considerations.

Sincerely,

Cortney G. Balzan President

NEW PRESIDENTIAL APPOINTMENTS

Please welcome new presidential appointments made after Tucson '90.

Donald A. Palmieri, 1st Vice President, Chair Education and Accreditation.

James Jolliff, Regional Governor, Region 111, Chair Constitution & Bylaws.

James Kroll, Regional Governor, Region 11, Member Accredited Laboratory Committee.

William Benedict, Public Relations

Ann Hawkins, Chair Accredited Laboratory Committee

Leo Schmeid, Member Accredited Laboratory Committee

In case you have a question directed to these appointees, please give them a call. They are along with yourselves, part of the changing AGA and would enjoy hearing from you. In case you want to participate in a committee, call your appropriate chairperson for a Tucson '91 get-together.



AGA Annual Donation Fund

Your tax deductible donation will go a long way in helping AGA help you. Remember, our membership fees cover only a small amount of our operations. Thank you for your consideration. Happy Holidays

\$25

\$50

\$75

\$100

\$500

Payable to AGA Headquarters
915 Lootens Place
San Rafael, CA 94901

A Message from your New Editor

Hello! This being my initial effort working with all of you through this publication, I would like to establish what I see as our common goal, to make the AGA and this publications the best that the can be. (Sounds kind of like a commercial for the army, doesn't it?)

Seriously though, in the past I have worked very closely with your president, Cortney Balzan. I have submitted articles for review, provided information that I have gathered from AGA members, and assisted with numerous AGA conferences. These opportunities have allowed me to meet with many of you and discuss topics of concern and to become involved with the every day workings of AGA.

AGA, as a dynamic organization, is constantly evolving. This evolution has taken it, as an organization, to the forefront of myriad new technologies in the gem industry. I plan to use this column as a vehicle whereby you, the members, can voice your concerns and your ideas.

AGA is providing forums through conferences and publications. By doing this, AGA updates its members on advances in our industry, provides avenues for the exchange of information between its members, and keeps the general public aware of what we are doing.

At the Washington board meeting held in September, plans for the future of AGA were made. We will be conducting studies on treatments, adopting a formal position on gem-

stone investments, providing access to treated stones through hands on conferences, in conjunction with our video tapes which are available to you as AGA members.

Remember though, we are only as good as you, our members, help us to become. The more active you are with AGA, the more we can accomplish.

I sincerely welcome this opportunity to be your editor and look forward to speaking with each and every one of you. Write and tell me what interests you.

Thank you,

Darlene Johnson

A Rose is a Rose...

October 12, 1990

Ms. Darlene Johnson, Editor Cornerstone Magazine
915 Lootens Place San Rafael, CA. 94901

Dear Ms. Johnson:

I've stared at the letter you sent from Mr. Rose for two weeks now. I shake my head every time I read it.

Mr. Rose evidentially has decided to disagree with the Federal Trade Commission's decision to publicly equate the term "synthetic" with "Created", "Laboratory Grown" and "Man-Made" (see Facts for Consumers brochure, by the Federal Trade Commission, attached). I'm guessing, but it appears his decision was based on an assumption that a "production facility" equates to machine made, not a laboratory.

I don't have a copy of "Conde Nast Traveller" magazine that Mr. Rose referred to, but I can assure you and Mr. Rose that Ms. Matlins (a friend of mine), does not equate Chatham Created Emerald "under the heading of false advertising". To write so would be libelous.

Chatham does not practice false advertising. Recent court decision in our favor proclaim our diligence in retribution, as well as the court's support for our value and integrity.

It appears to me that Mr. Rose lacks the proper education to be in the appraisal business. Where and when was anyone taught that our stones are referred to as "imposters"? Yes, appraiser do need my expert advice if this is the way they think.

I think Mr. Rose needs a brush up on gemology and appraising terminology. Alas, it should be all too obvious....a rose is a rose....grown in the wild or in a production facility.

Yours truly,

Thomas H. Chatham President

Misleading Language

August 6, 1990

Ms. Darlene Johnson, Editor Cornerstone Magazine
915 Lootens Place San Rafael, CA 94901

Dear Ms. Johnson:

This letter is simply feedback to Mr. Chatham's article on page 42 of the latest Cornerstone magazine.

I will not support the phrase "laboratory grown" to describe synthetics. I shall continue to use the words "synthetic" and "imposter". The stones are developed in a laboratory but they are grown in a production facility.

You might wish to look at Conde Nast Traveller, May 1990, page 197, where Mrs. Antoinette Matlins places Mr. Chatham's emerald under the heading of false advertising and gives the true description as "synthetic".

There is a market for the synthetics and impostors but I re-fuse to use misleading language which detracts from the sale of the natural products. The appraisal sector can do without Mr. Chatham's advice. It impresses me as being highly un-ethical and unsuitable for appraising.

This is one members' opinion.

Respectfully,

Charles L. Rose

HANDS ON MINI-CONFERENCE

with DROR YEHUDA

ON YEHUDA TREATMENTS

More than 200 gemologists/appraisers and retailers attended a two city A.G.A. Mini-Conference on Yehuda Treatments with featured speaker Dror Yehuda and guests.

The hands-on events allowed the audience to first get a perspective of the Yehuda Treatments before viewing and discussing the stones.

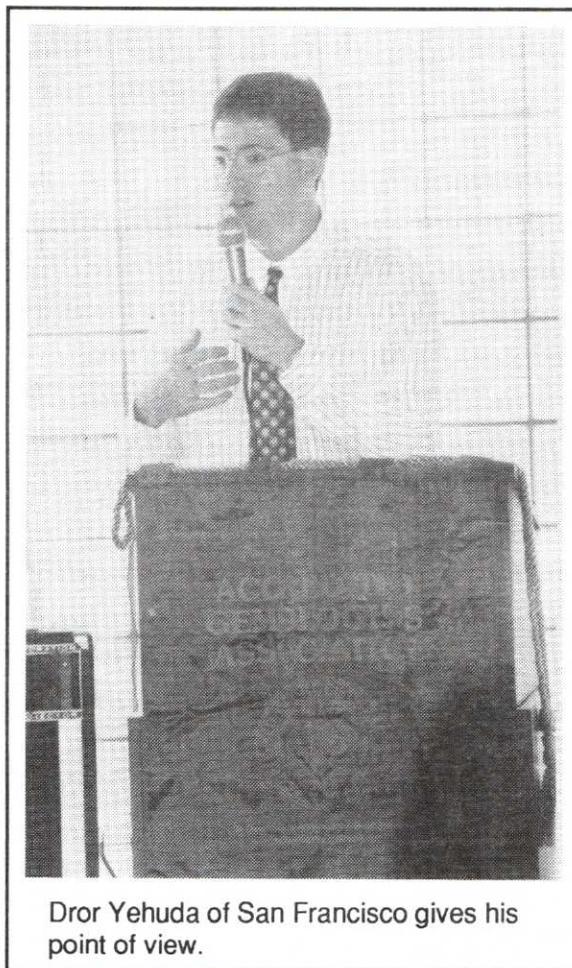
Dror Yehuda started the morning event with background on his family business. His grandfather was the first family member to learn the diamond trade as a cleaver (though in Israel this is normally handed down from father to son—basically a closed tradition which outsiders find difficult to enter without help). Dror's grandfather had this help and persuaded a friend to teach him the trade.

While working on a method to separate diamond powder from the grease and debris which accumulate during the cutting process, Zvi Yehuda, the cleaver's son and a young teenager saw the problems his father had and solved them rather quickly. The tradition was started from father to son, where it stands today in the Yehuda Family.

Dror's father, now 50, is the inventor of the family, and gives his son Dror, 28, part of the business in the service end.

Dror's father Zvi was on his way to inventing many advances that would make him famous. In 1969, Zvi Yehuda was the first to use laser drilling in Israel (perhaps the first in the world). There were others working on this process in other parts of the world, placing into dispute who was actually the first.

Before 1970, Zvi was irradiating tens of thousands of carats for the Belgians. In 1978, he invented the colorimeter, which color grades diamonds. In those days, the T.V. sized machine weighed 50 pounds. This machine is hand held and diamonds that are colorless and in the cape series. It is not



Dror Yehuda of San Francisco gives his point of view.

suitable for brownish or fluorescent diamonds. In its memory bank is approximately 2000 diamonds graded by G. I. A. So you have 2000 comparison graphs to chart your given diamond.

The machine is effective because 90% of the world diamonds are in the cape series. A brown diamond will measure as D in color because it has no memory for this. DeBeers has purchased five machines for their own purposes. In the Diamond Exchange Shimshon Building in Ramat Gan, Zvi Yehuda Ltd which makes the Colorimeter, has his offices.

Most recently, Zvi has invented a method to see inside the rough through the skin and clarity grade or map it as Dror explains without polishing it. He has prepared for Nasa, special kind of diamonds Infrared Windows. The list goes on and will continue to do so. Dror explains that people bring their problems or ideas to his father who tries to find solutions for them. He is always thinking of some invention.

Yehuda started out to make diamonds look their best in 1982. In the beginning he had a disclosure document. No one really wanted to sign this document exposing the fact of treatment. Business was slow in Israel for this until 1987 to the beginning of 1988.

There was limited information on filled diamonds until Dror Yehuda moved to New York City and two offices were opened for the treatment business. At the end of 1988, Dialase represented the service end while Diascience represented the selling end. In New York City, hundreds of diamonds were treated monthly. Information was still scarce at this time.

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YEHUDA MINI-CONFERENCE

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The process is to fill fractures in suitable stones. Fractures can't be too far apart. Consequently, they can't fill holes. The process is stable except for excessive heating on or around the filled areas. The Gemological Institute of America and the American Gemological Laboratory have completed tests and issued articles on this.

Dror mainly treats the imperfect material. One out of a hundred may go from SI to VS quality. He has improved the process 8 times and will continue to improve the nature of the treatment. Color is improving. Previously, it was noted that color was downgraded two grades. Presently, stones may go one grade down and sometimes they stay the same. Smaller stones look better.

Originally, the "flash" color change was from orange to blue when tilting the stone. The most recent change in color is blue to purple. Dror states, "Sometimes I can control the amount of color."

The jeweler should be able to tell the difference with a loupe, in most cases. Mounted goods may be more difficult, but if one is not sure, like anything else, one should go out and find out. It is not always possible, but one should deal with an honest supplier, otherwise disclosure can be a problem. In any case, 95% detection can be made in mounted goods.

Dror grades and sells the treated diamonds as he sees them, then deducts 25% off the regular price or approximately 50% off of Rapaport. Most of Dror's grades are in the SI2 to I1 clarity. Treatment prices are \$150.00 for 1.00 carat and \$100.00 for under one carat. Ninety-nine percent are stones over .25 carats and 90% for stones over .50 carats.



Phoenix Conference.



Nebula Lumi Loupe, supplier member, A.G.A., at the San Francisco Conference.

Smaller stones are not cost effective

Heat might ruin treatment but won't undo it. You may see a greenish or yellowish color gletz from heating, not a whitish color gletz. You may see sweating at the surface but this is at high magnification. The pictures you see from G. I. A. are at 50x.

Damaged stones can be returned for retreating. Out of tens of thousands of treated stones, only seven have been returned for treatment. Stones sometimes are sent in for retreatment but they are not Yehuda stones. Many people mistake the natural rainbow for Yehuda treatment and send them in.

Certain acids and soaking can reverse the process overnight. Some acids will take three days to remove the treatment. Recutting may effect the treatment but this is rarely encountered. Dror doesn't like to treat natural colored diamonds because clarity isn't the main value. Treatment may bring the value down.

Concerning disclosure, the jeweler who wants to cheat he will. Disclosure may use the letter F for filled diamonds. Dror recommends writing fill diamonds, enhanced diamonds or Yehuda treated diamonds.

The newest gemstone treatment is with emeralds. This process has been gleamed from a 2,000 year old oil process.

cont. page 7

QUESTIONS AND ANSWERS

The following is a sampling of questions asked of Dror Yehuda and his responses at the San Francisco/Phoenix Conference. The first set of questions was from the general audience, the second set from a panel. Panel members were: Thomas Chatham, Chatham Created Gems; Barbara Reilley, Western Editor, Jewelers Circular Keystone; Gary Roskin, Gemological Institute of America, Executive Director, GIA AA; Diana Chatham, Womens Jewelry Association; Elena Berenblatt, Senior Editor, National Jeweler. For more information, please call headquarters at (415) 454-8553. Video tapes are available for \$50.00 a set.

QUESTIONS FROM THE AUDIENCE:

What is G.I.A.'s official stance on grading your diamonds?

They don't grade our diamonds presently. A.G.L. and E.G.L. presently grade our stones and in time I would think G.I.A. will also.

What type of fill do you use? Is it lead-containing glass-like material as previously stated in Gems & Gemology or a compound of lead, chlorine, and oxygen, with a bismuth, and possibly boron?

A good guess but not right.

Can you put identification marks on your emerald?

We are thinking about it.

Does your process have a patent?

This is difficult but we are in the process.

You say your diamond process is tougher after treatment.

The cleavage planes are the fragile areas where you can see the gletz. This is the area where treatment can occur. Our treatment makes this area tougher. You can drop a diamond with these cleavage and some may crack. This won't happen in most cases. I don't know how much tougher but it is stronger.

With rough prices going up, how does this affect your business?

Good. As diamond prices go up we have seen rejection goods go up 50-100% for treatment.

QUESTIONS FROM THE PANEL:

T. CHATHAM: What is your definition of permanence since in some cases it can change?

The material is stable and permanent and we disclose the

nature of the stone.

REILLY: You can reverse the diamond treatment-is there residue filler left in the fracture?

Pressure, acids and heat will completely reverse the treatment. Heat alone will not reverse the process.

ROSKIN: G.I.A. has completed spectroscopic analysis on the diamond after reversal of treatment. No trace elements were found.

BERENBLATT: Can your treatment repair broken emeralds?

My father has repaired two halves of a broken diamond that were separated with our treatment just as an experiment. I assume we could do the same with emeralds.

BERENBLATT: Are your emeralds commercially done or are you testing the market?

They are commercially done.

D. CHATHAM: Is there a "flash" in yours? Or is there a blue-green sign inside?

There is no color enhancement. The treatment may show on the outer rim of the fractures.

ROSKIN: Can you leave a tell-tale sign in emeralds for I.D.?

We are working on this, but presently I'm not sure what we will use.

T. CHATHAM: Is the emerald process different than the diamond process?

Completely different. The process takes 4-8 weeks.

T. CHATHAM: Is your emerald better or stronger than emeralds without fractures?

My emeralds are stronger and better after treatment but maybe not stronger than naturally clean emeralds without fractures.

T. CHATHAM: When does your treated emerald cross the line and you use other nomenclature?

It is still natural after treatment since it does come up from the ground naturally.

T. CHATHAM: Natural rough emeralds crumbles. You treat the rough. At what point can you call this other than natural?

If the natural is not touched at all it is natural. Otherwise, it is natural but treated.

cont. page 20

YEHUDA MINI-CONFERENCE

cont. from page 5

Yehuda's process makes emeralds more wearable and durable. It makes the appearance more alive with more transparency.

We can treat the rough. Larger rough pieces can be polished. Sizes may now found up to 12.00 carats where before the rough would crumble apart. You now have a larger, brighter, more transparent and durable emerald than from the traditional oiled stones.

Treatment is in Israel only and takes 6-8 weeks. The process is about a year old. Thousands of carats have been treated and there is a waiting list. This process takes much longer than with diamonds.

The Yehudas take a few hundred carats plus for treatment at one time. The cleaner the stone the better treatment results. The Yehudas do not like to treat real junky stones. All emeralds can be treated. The color is not affected but treatment makes the stones brighter and more transparent. The Yehudas can't reverse the treatment in emeralds

The price for treated emeralds should go up per carat. It is a better stone. With diamond treatment there is a discounted price. The opposite is true with our treated emeralds.

Many thanks for the use of lumi-loupes and field kits for identification and evaluation donated by Nebula. The mega loupe with built-in lighting allowed for easy detection. The portable color grading kit allowed for treated stones to be placed on a white grading plate with adjustable overhead lighting source, reaching one inch over the stone and closer.

Gemological Products Corporation in Santa Monica provided the GemPro Microscope—ideal for viewing the treated



Craig Lynch & Dror Yehuda at the Phoenix Conference.

emerald. Frei & Borel supplied desktop overhead diamond and colored grading lights along with other gemological supplies.

Our supplier members are available to you for your gemological needs.

—Cortney Balzan



Otto Frei, supplier member at the S. F. Conference.

CORRECTION....

The article on page 25 of the July Cornerstone was written by W. Galia, Dipl. Min. and submitted by John Allaman of Sarasota Instruments Kruss Instruments are available from: Kruss Optronik 220 Alsterdorfer Str. 2000 Hamburg 60 West Germany Phone: (0 40) 51 80 08

In the July Cornerstone the article on the Bonanno Family, we stated that Karen Bonanno Wright was moving to Tempe, Arizona. Karen will be staying in the Washington area, and will not be moving to Arizona. Sorry Arizona.

AGA PRESENTS HANDS-ON San Francisco Conference SERIES

On February 23, 1991, AGA proudly presents the first of its San Francisco Educational Conference Series to be held at the San Francisco Diamond and Jewelry Mart. This will be held in the same time frame as the Spring Pacific Jewelry Show.

In a concerted effort to protect San Francisco Mart tenants and patrons against what has become a pervasive problem in the jewelry industry nationwide, the San Francisco Diamond and Jewelry Mart (SFDJM), in conjunction with the Accredited Gemologists Association (AGA) is launching the first of a four-part series of educational conferences aimed at "self-policing" in the areas of trademarking, underkarating, gold-testing and certification. The AGA will ADDRESS KEY FEDERAL TRADE COMMISSION AND JEWELRY INDUSTRY GUIDELINES, LAWS AND ETHICS.

These issues, now of great concern to jewelry retailers, wholesalers, appraisers and manufacturers alike, especially after the I.P.I. Gold controversy which recently hit the San Francisco Bay Area will be addressed by industry experts from the Jewelers Vigilance Committee (JVC), Federal Trade Commission (FTC), U.S. Attorney's office, San Francisco District Attorney's Office, Seiko Instruments, San Francisco Metallurgical Laboratory, Inc. and Manufacturing Jewelers (MJSA), Matt Runci.

This conference will clarify the RULES OF GAME con-

cont. page 12



Dror Yehuda and Harold Appflebaum discuss the state of the diamond market.

San Francisco DIAMOND & JEWELRY MART
999 Brannan Street
San Francisco California 94903

May 21, 1990

Mr. Cortney Balzan
President AGA
915 Looatens
San Rafael, CA 94901

Dear Cortney,

On behalf of the owners, tenants and management of the San Francisco Diamond & Jewelry Mart, I'd like to express our appreciation of the AGA for the ongoing seminars to be held at our facility.

We look forward to continued cooperation with the AGA and hope that we will produce successful seminars in conjunction with you and your members in the future.

Sincerely Yours,

Emily P. Searls

NEW AGA MEMBERS

✓ **Thomas James Terpilak**
Metro Gem Consultants
4550 Montgomery Ave.
Bethesda, Maryland 20814
301-654-0838

✓ **Gerrold B. Root**
Root Jewelers
1117 North 19th St.
Arlington, Virginia 22209
703-522-4881

✓ **Dr. Thomas H. Ginley**
700 Old Gulph Rd.
Bryn Mawr, Penn. 09010
215-877-1111

✓ **Robert E. Billi**
508 Lincoln Highway East
North Huntingdon Penn. 15642
412-864-1066

✓ **Michael Morris Mitchell**
Ben Cooper & Co.
201 Grunby St. Suite 402
Norfolk Va. 23510
804-420-5806

? **Carletta Johnston**
Hatcher Ass.
18401 S.W. 130th Ave.
Miami Florida 33177
305-2320014

? **Monique Jeannine**
Greenwald Ass.
117 N.E. First Ave. Suite 917
Miami Fl. 33132

✓ **Elizabeth J. Castle**
Atelier Jewelers Inc.
3209 N. Ocean Blvd.
Fort Lauderdale, F. 33508
305-561-0848

✓ **Annelise DelMonico**
Diamond Appraisers of Florida
25400 U.S. 19 North-#193
Clearwater Fl. 34623
813-797-5311

? **Tammy H. Welton**
Fantasia Jewels
19501 Biscayne Blvd.
#893 Aventura, Fl. 33180
305-935-3309

✓ **Matthew P. Green**
Gold & Things of Elegance
5210 Coconut Creek Pkwy
Margate Fl. 33063
305-971-4653

✓ **Charles R. Stuart**
Highlands Jewelers
3750 U.S. 27N. #1A
Sebring Fl. 33870
813-385-7365

PRESIDENT DIRECTS AGA FACELIFT

With the advent of new faces in AGA, president Cortney Balzan directs a facelift to meet member needs by Tucson '91. Many changes were voted unanimously at the Virginia Mid-Term Board Meeting. Summary of decisions carried out during meeting.

- 1) Form a committee to change and update the constitution: edit and submit for approval of new constitution prior to Tucson '91.
- 2) Amendment to constitution to allow regional governor to run for a second term.
- 3) Add two more regions to better serve our members regionally.
- 4) Purchase IBM compatible software for more efficient information network between Directors, Governors, Chairs and Members. Phase out old equipment that is not compatible.
- 5) Abolish AGA NET until new computer programs are in place.
- 6) Restructure Education and Accredited Laboratory Programs with the highest standards for increased member benefits.
- 7) Accept a new focus and direction for AGA. One focus of hands-on gemological education and gemological accreditation.

Software Showcase Tucson 1991

The Accredited Gemologists Association (AGA) in conjunction with their annual Gemological Conference is once again sponsoring the Software Showcase.

Our goal is to provide the opportunity for all people attending the Tucson Show to experience the breadth of products available in the market today, to provide you, the producer a location to display your product, and to improve the jewelry industries understanding, acceptance, and use of these products in their day to day business environment.

Last years response to the Software Showcase at the 1990 Tucson Gem and Mineral Show was very impressive. For the 1991 Tucson show, the American Gem Trade Association (AGTA) has been most generous to offer a room located at the Tucson Convention Center so that we will be more centrally located.

The upcoming Showcase will feature longer hours and the invitation is extended to all software and hardware producers with jewelry industry related products. At a nominal cost of \$25, each producer will be provided a table to set up their computer and accessories as well as several chairs.

The Showcase date is Wednesday, February 13, 1991 and the time is 10:00 to 5:00. The location is the Tucson Convention Center.

If you are interested in participating in the Software Showcase please call Thom Underwood, at 619-291-8852. We require that your application be received no later than January 10th.

AGA TUCSON 1991 AGENDA

DOUBLETREE HOTEL

Sunday, February 10, to Wednesday, February 13, 1991

Sunday, 2/10/91

	Charge	
	<u>Mem</u>	<u>Non-Mem</u>
	N/C	—

9:00am-12:30pm	Executive Board Meeting (Continental Breakfast served)		
12:30pm-7:00pm	Open (no scheduled events)		
7:00pm-11:00pm	Dinner Dance Honoring Cap Beeseley & Robert Crowningshield	\$25	\$30

Monday, 2/11/91

(Morning Session)			
9:00am-10:30am	Fancy Color Diamonds Panel Hofer/GIA/Palmieri	\$60	\$75
10:45-12:00pm	Identification/Grading/Value		
12:00pm -1:00pm	Luncheon speaker (included w/package)	\$25	\$30
(Afternoon session)			
1:00pm - 2:00pm	Hydrothermal Russian Lab Grown Synthetic Emerald (Talk/Hands On) Ted Themelis & Sapphires from Brazil, Rubies from Vietnam and other new mining finds.		
2:00pm - 3:00pm	Fracture Filled Emerald (Talk/Hands On) Dror Yehuda		
3:15pm - 4:00pm	Fracture Filled Diamonds, New and older methods. Most recent changes in technology in the filling com- position; myths and reality. Dror Yehuda		
4:15pm - 5:00pm	Hands On Viewing of Fracture Filled Diamonds Old and New filled diamonds. Current changes and advancements.		
5:00pm - 6:00pm	OPEN(No scheduled events)		
(Evening session)			
6:00pm - 7:30pm	Classification and Grading of Opals Paul Downing		
7:45pm - 8:30pm	AGA Membership Meeting Members are advised to submit questions on the various discussion topics and bring specimens you may have questions on.		

CONVENTION CENTER (AGA ROOM)

TUESDAY, 2/12/91

(Morning Session)			
9:00am - 12:00pm	Video Presentation of 9/16/90 Treatment Panel Hands On Stations...All treatment for Diamonds, Rubies, Sapphires & Emeralds.	\$60	\$75
10am -12:00pm	Synthetic growers to join hands-on session with product exhibits and I.D. tips.		
11am - 12:00pm	Thomas Chatham slide show, historical perspective, past & present, marketplace of synthetic /created gemstones.		
12pm - 1:00pm	Open (No scheduled events)		

DOUBLETREE HOTEL

Tuesday Evening

6:00pm - 10pm

AGA FLEA MARKET

Members can bring any books, publications, gems, jewelry, gemological equipment, computer equipment, computer programs, etc. to sell or trade. Buyers need not be AGA Members.

FREE

FREE

CONVENTION CENTER (AGA ROOM)

Wednesday 2/13/91

10:00am-5:00pm Computer Software Review
Synthetic/Lab Grown Exhibit

FREE

FREE

Saturday 2/9/91 though Wednesday 2/13/91

9:00am - 12:pm Munsell 100 Hue Test at the AGA Booth in the Convention Center

Schedule of events and fees

Members

Non-members

Sunday:	AGA Dinner Dance	\$25 (Incl. pkg. #1 & 2)	\$30 (Incl pkg #1 & 2)
Monday:	Morning Session (FCD)	\$60	\$75
Monday:	Luncheon	\$25 (Incl. pkg. #1 & 2)	\$30 (Incl pkg #1 & 2)
Monday:	Afternoon & Evening Sessions	\$80	\$95
Tuesday:	Morning Session (Treatments)	\$60	\$75
Tuesday:	Afternoon Session/Videos (Popcorn \$1)	\$5/Admission	\$10/Admission
Tuesday:	Evening Session/AGA Flea Market	Free	Free
Wednesday:	All Day Computer Review	Free	Free
Wednesday:	All Day Synthetic/Lab Grown Exh.	Free	Free

Packages:

#1	Sunday & Monday AM & PM Session Only (Luncheon & Dinner included)	\$160	\$185
#2	Sunday-Tuesday Complete Package (Luncheon & Dinner included)	\$195 Save \$60	\$245 Save \$60

200 412-344-5500

To reserve a space for the AGA FLEA MARKET CALL: Donald Palmieri **412-344-6676**

To reserve a time frame for the Munsell Test CALL: Darlene Johnson **415-454-8553** or Ann Hawken **512-328-9411**

To make reservations for the AGA Dinner Dance CALL: Darlene Johnson **415-454-8553** or **415-454-0925**.

AGA members that will be attending Tucson 91 are asked if they could give a couple of hours of their time to help us at the AGA booth at the convention center. Support is needed to man the booth and answer questions regarding AGA. Last year the response was almost nil, and the same people were there day after day. Please call AGA headquarters, and ask for Darlene Johnson (**415-454-8553**) if you are willing to volunteer your time. The deadline to make reservations for AGA's Tucson '91 is **January 10th 1990**.

For hotel reservations call Tina at **800-972-1163**

✂ **CLIP AND MAIL**

SEND TO:
AGA HEADQUARTERS
915LOOTENS PL.
SAN RAFAEL, CA 94901

OR CALL 415-454-8553

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MC # _____

WASHINGTON, D.C. MIAMI A.G.A. MINI-CONFERENCES

September 16th and October 21st marked AGA's fourth and fifth educational conference of 1990. These two successful conferences followed Tucson, San Francisco and Phoenix "Hands-On" format.

These conferences are molding the future of AGA "Hands-On" practical education programs reaching the professional gemologist and jeweler throughout the country. In his opening remarks at the Washington Conference, speaker Robert Crowningshield, Vice President of GIA/New York, called this conference "One of the Most Aggressive Programs He Has Ever Been Involved In."

The conference included the subjects of color and clarity treatments to diamonds, corundum (ruby and sapphire) and emeralds. Three panels dealt with market effects of treated gemstones. They were: IDENTIFICATION, Robert Crowningshield (GIA), Douglas Jaffe (AGL), and Ted Themelis (Gem Lab).

GRADING, Robert Crowningshield (GIA), Douglas Jaffe (AGL) and Donald Palmieri, (AGA).

VALUE EFFECT, Hertz Hasenfeld (Diamond Manufacturer), Owen Bordelon (Gem Dealer/AGTA Treasurer) and Kathryn Bonanno (Habsburg, Feldman Auction House).

IN Miami, C.R. Beesley, (AGL), Dror Yehuda (Diascience), Joseph Tenhagen (ASA), John Allaman (Sarasota Instruments), and Martin Bell (Rio Grande) were added speakers and/or station leaders.

The second session allowed all speakers to man the hands-on stations along with with other senior AGA members, to demonstrate all the treatments discussed. Conference participants were given a few hours to view the following treated stones with appropriate instruments for detection.

For Diamonds: Laser drilling, fracture filling (Yehuda Method) and irradiation to alter color. For Rubies: Heat treatment and

fracture filling. For Sapphires: Diffusion (shallow and the newer deep diffusion), heat treatment and fracture filling. For Emeralds: Oil deposition, colored oil deposition and fracture filling (Yehuda Method). Irradiation: Several radiation detectors were displayed indicating the presence or level of radiation in various blue topaz, zircons and colored diamonds.

The two conferences showed a few hundred participants the various methods of practical identification, evaluation and valuation.

In Washington, D.C., the last session covered the recurring problem of GEM INVESTMENTS. This session made Front Page of National Jewelers. For a recap see their October 16, 1990 issue.

The highly distinguished panel discussed the pro and Cons (mostly the latter) of consumers investing in gems and jewels. The panelists were: Robert Friedman (Investigating Attorney, Federal Trade Commission); Joel Windman (Jewelers Vigilance Committee)...his remarks read in his absence; Hertz Hasenfeld (V.P. Hasenfeld Stein, DeBeers Sightholder); Owen Bordelon (Gem Dealer, Attorney, Treasurer AGTA); and Gary Shuler, (V.P. Midwest Representative for Sotheby's Auction House).

The panel generally agreed that the consumer has little chance of making money at gem investing without a thorough knowledge of the investment including its "CASH LIQUIDATION VALUE" at the time of purchase.

The panel further agreed that "CONNOISSEURSHIP" was a recommended ingredient toward any contemplation of investment! The audience participation was educational as well. AGA members like Leo Schmied came well equipped with complaints from consumers in his area, Knoxville, Tennessee, who had invested in "gems" through telephone scam artists. All the gems being brought in had GIA I.D. reports and various "gemologists" inflated appraisal reports.

The FTC and JVC have requested that anyone who has information (documentation preferred) send it to their respective offices for further investigation.

"IT'S AN INDUSTRY PROBLEM THAT CAN BEST BE DEALT WITH FROM WITHIN THE GEMS AND JEWELRY INDUSTRY", said Robert Friedman, FTC. "THESE SCAMS ARTISTS ARE HARD TO LOCATE AND HARDER TO PROSECUTE. THEY MOVE QUICKLY AND CHANGE COMPANY NAMES AND LOCATIONS FREQUENTLY."

The Washington Conference was organized by Chairperson Donald Palmieri and Regional Governor, James Jolliff. The Miami Conference was put together by Regional Governor, Thomas Sequin and William Horvath. (Special thanks to G.I.A. Alumni Association for their coordination and help within Florida).

AGA had the Washington, DC Area Conference professionally videotaped and is offering edited versions to cable stations across the country to enlighten consumers on "Gem Scams". For copies of this tape please call AGA Education Director, Donald Palmieri at 412/344-5500.

HANDS-ON San Francisco Conference SERIES

cont. from page 8

cerning FTC Guidelines pertaining to our industry. Questions pertaining to the National Stamping Act and Karating with both a "K" and "C" will be explained by the JVC along with other guidelines pertinent to our daily activities. The most recent case studies will be discussed by Federal and State Legal Offices.

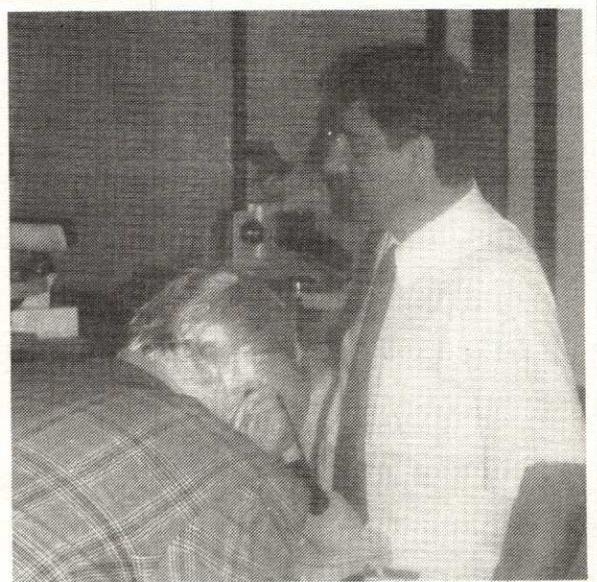
Legal Forms and advice pertaining trademarking and karating with a "K" and "C" will be present. Hands-on gold testing equipment that is non-destructive along with a visit to a metallurgical laboratory showing fire assaying.

You will be reading about legal cases in the trade magazines concerning these issues between now and the conference. Space will be limited so make your plans now to attend this most important hands-on conference. For more information, please call headquarters.

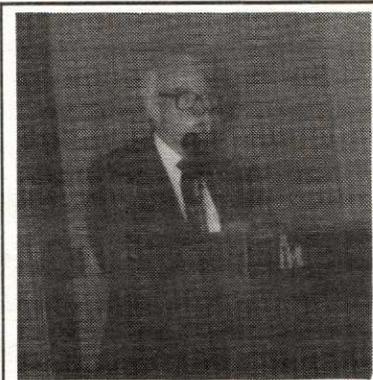
WASHINGTON, D.C. MIAMI A.G.A. MINI-CONFERENCES



Cap, Courtney and a member discuss diffusion sapphires



Ted Temelis shows the oiling process from start to finish.



Robert Crowningshield, Vice President of G.I.A., explains the latest sights and treatments in the G.I.A. New York Laboratory.



Miami attendees take notes.



David Atlas, Chairman of the Ethics Grievances Committee, relaxes with conversation.



Tony Bonanno, one of the founding fathers of A.G.A., still takes part in teaching others.

LET THE BUYER BEWARE

The early 1980's were banner years for those who sought to sell gemstones as part of a client's investment portfolio. "Wholesale" diamond companies sprang up from all over the country and new gem stone dealers saturated the industry. Many people jumped on the band wagon and diversified their portfolio's with gemstone investments only to learn five or ten years later that the company who sold them their "investment" was no longer in business to honor their buy back policy. Even the gemological laboratory that produced the professional looking certificate no longer exists. Many of these people, with certificates in hand, have taken their packaged "investment" from one jewelry store to another just to find that they are unable to retrieve their initial investment, not to mention any increase.

These investment schemes are again on the rise. The public is being enticed by advertising by companies who supposedly sell gemstones to the public at "wholesale" prices, accompanied by certificates, and offer buy back policies. In May of 1980, I opened Tucson's first independent gemological laboratory, right in the middle of the investment scams. I felt strongly at the time, that the gemstone investments were going to be a source of trouble for a lot of people and I advised my clients as such. Naturally, I feel that gemstones have a very important part of our lives and can be called "investments" in one's character. I believe that gems can be a great source of pride and appreciation. They fill our need for beauty, their durability turns them into heirlooms giving the wearer a form of immortality. They have been used as barter, and have been the reason lives were spared. They symbolize success, love, time and rarity. However, they are not a good portfolio investment.

The ACCREDITED GEMOLOGISTS ASSOCIATION has recently published the following release to all of its members: During the annual board meeting held in Tucson Arizona at the Doubletree Hotel, the board held discussions regarding AGA'S stand on issues of gemstone investments by the general public. By unanimous vote, the board decided to make a firm stand against the sale of gemstones to the general public purely for investment purposes. Further, the board wishes to discourage members from knowingly taking part in any activities to promote the sale, certification or appraisal of gems to be sold purely for investment purposes to the general public. Therefore: IT IS AGAINST AGA POLICY TO KNOWINGLY PROMOTE, CERTIFY, APPRAISE, OR SELL GEMSTONES TO THE GENERAL PUBLIC PURELY FOR INVESTMENT PURPOSES.

The AGA is an international non-profit organization dedicated to professional standards of education, research, identification, and evaluation of gem material and jewelry. I am glad to be part of an ethical organization such as the AGA. In the early 1980's I did not speak up publicly on this investment issue, even though I advised clients accordingly.

BENEDICT NEW PUBLIC RELATIONS DIRECTOR

William Benedict has graciously accepted the position of being in charge of Public Relations for AGA. He will be in contact with the press, and jewelry magazines throughout the United States.

While some people are born with jewelry and gems in their genes, T. William Benedict, G.G., of Chapel Hill North Carolina, is working on his fourth career. Bill graduated from the U.S. Naval Academy in 1941 and served throughout the war on destroyers and submarines. After demobilization, he left the Navy to work in private industry - first for the Singer Company in various management capacities and later for Barnes Engineering, a leader in high tech infrared technology, as director of manufacturing.

In the course of his work at Barnes, he became interested in crystal optics and began faceting gemstones. For a while he repaired and recut damaged stones, but after he received his G.G. in 1980, he devoted most of his time to appraisals.

He continued his interest and education in appraisals and gemology and as an early member of AGA, was in the first group to qualify for the designation "Master Gemologist Appraiser". and quickly established his Accredited Gemological Laboratory.

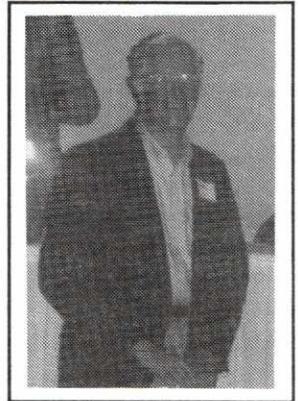
In addition to being active in AGA and the GIA Alumni Association, Bill has been president of the Connecticut Chapter of the American Society of Appraisers and is now Secretary of the Piedmont (North Carolina) Chapter. In AGA, he was Regional Governor for New England for several years and recently accepted the Chair of the Public Relations Committee.

Bill continues to learn about his profession. In addition to AGA-Tucson and ASA International Conferences, he has twice taken the summer seminar offered by the University of Maine under the direction of Dr. Joseph Sataloff, a well known collector and expert in period jewelry.

Early on, Bill and his wife Laura, qualified themselves to appraise silver, and this past spring taught an eleven week course on "The History and Lore of Silver" to an adult learning group in Chapel Hill where he is often asked to speak on jewelry, gemstones and the art of appraising.

Now, after nearly thirty years in the jewelry business here in Tucson, I feel very much a consumer advocate. I offer my advise to anyone who is seeking it. Let The Buyer Beware is a strong statement and has held true in many a court case. It is up to you the consumer to find out as much as you can about the places you put your hard earned dollars. Keep in mind that honest, knowledgeable help is available for the asking.

—B. J. Caldwell



INTERNATIONAL COLOURED GEMSTONE ASSOCIATION (ICA) PERIOD: 19 MARCH-16 JULY 1990 LABORATORY ALERT UPDATES (EXTRACTS)

No. 33. HENN, U., BANK, H. Deutsche Stiftung Edelstein Forschung, Idar Oberstein (W. Germany). Tourmaline-tourmaline doublets: First such specimens encountered in 1988—since then several times. Some tourmaline-tourmaline doublets show cat's eye effect. One kind, of 2 layers, were "broken at the bounding plane between the transparent and the fibrous layer and assembled by using an adhesive subsequently."

The second kind consists of two parts of 2 different crystals—one transparent and one fibrous, which are cemented together. Others: Bi-coloured doublets where different colours are assembled to give such an appearance—one kind from the same crystal (obviously trying to improve the overall result) and the other kind using two unrelated crystals. IDENTIFICATION: Normal procedure—check for joint lines and characteristic associated phenomena under magnification.

No. 35. YACAR, Y. General Manager, Gemmological Institute for Precious Stones and Diamonds Ltd. (Ramat-Gan, Israel). Bluish-green apatite rough as emerald: Such stones found in a parcel of emeralds which was bought in Kenya and said to have arrived from Madagascar (Malagasy). Similar in outward appearance and colour to emeralds (bluish-green). Gemmological tests backed by scanning electron microscope examination proved true identity, the latter confirming chloro-phosphate of calcium content.

No. 37. BROWN, G. Allgem services, Brisbane, Queensland, Australia. Diffusion Coated Synthetic Sapphire. (Ed. Note: A warning that simply being bought 'at source' in the Far east does not automatically mean natural or untreated origin).

Two suites of jewellery were bought by an Australian tourist in Sprinagar, the capital Kashmir. Only U.S.\$35.00 was paid for a complete suite of imitation padparadscha sapphire jewellery which turned out to be diffusion treated Verneuil cored yellow sapphire, and U.S.\$30.00 for a second suite of ostensibly blue sapphire which turned out to be diffusion treated, almost colorless, verneuil synthetic sap-

phire cored material. Normal gemmological tests identified the materials for what they really were. However, as Brown says—one must wonder at the economics upon which the production of diffusion coated synthetic corundum is based and at the naivete of some tourists!

An interesting article in respect of the wide held beliefs by the man-in-the-street that a gem must be natural simply because it was obtained or purchased in the Far East—especially off the beaten track.

POIROT, JEAN PAUL, Service Public du Controle des Diamants, Perles Fines, et Pierres Precieuses, Chambre de Commerce et D'Industrie de Paris. this confirmed the receipt of green fluorite (as emeralds from Madagascar (Malagasy)—this particular material showed red under the Chelsea filter, which apparently caused the original mis-identification. Gemmological tests proved fluorite (fluorspar), and confirmation was made by X-ray diffraction. US\$30,000.00 was paid for the piece! Poirot suggests the use of a portable ultraviolet light (like a 'mineral light' to help detect oil treatment and other possible anomalies (fluorspar fluoresces—this should immediately cause doubt).

No. 38. HUDDLESTONE, R.V. Gemmological Consultants Ltd. London. Fraudulent impregnation and colouration of a parcel of emeralds. About 200 stones (33 carats) of mixed sizes and shapes of emerald involving apparently very good colour. Tests showed green coloured oil treatment. Further tests indicated badly fractured material which appears to have been resin-bonded (possibly epoxy). Ultrasonic cleaning only removed part of this filling. The stones were bought through Karachi. The client observed the preforming and polishing in Karachi at regular intervals, but later returned to find the stones fully polished (not observed). The stones were thereafter dipped in what was thought to be a green coloured oily substance (room temperature) thought to be a vegetable based. In due course the cutting fees were paid, a receipt given, the stones put into a stone paper, and innocently brought to London for sale to the trade. Impregnation and dye-coloured oiling are fraudulent on three counts: 1. colour is improved, but not permanent 2. clarity/fracturing is improved 3. carat weight is increased, but not permanent

NOMINATING COMMITTEE FOR 1991

The Accredited Gemologist Association has picked the nominating committee for the 1991 Board Elections.

Heading the committee is James Jolliff, Master Gemologist, and an AGA regional governor. The rest of the nominating committee consists of Theresa B. Kienstra, Dana Richardson, B. Young McQueen, and Antoinette Matlins.

These people have taken the time and made an effort to submit the names that they think will best serve AGA for the next two years.

AGA'S Q & A

Young McQueen has taken on the task of putting out Q & A. You have received the first issue, sent in September 1990. To keep publishing this periodical we need AGA members to respond with questions you need answers to. ASK AND YOU SHALL RECEIVE!

Send questions to:

AGA's Q & A, 5613 University Blvd., West Jacksonville, Florida 32216

SAPPHIRES FROM BRAZIL

Abstract, Gem quality sapphires from Brazil have been discovered in an alluvial deposit located southeast of the State of Minas Gerais (by request of the mine owners, the exact locality is not disclosed yet). Blue pinkish and color change is in abundance in the general area. Most stones are small; fully transparent and clean stones - to 0.5 cts - have been cut.

The sapphires are recovered via open pit and trenches mining schemes. Currently, all efforts are focused on mining these sapphires. At the present time, over 100 kilos of these sapphires have been accumulated. Marketing these stones has not yet been implemented.

The Brazilian sapphires are characterized by pronounced dichroism and intense color change effect. Physical and gemological properties are analogous with similar-appearing sapphires from various localities (Tanzania, Colombia, ect). Distinct characteristics on the Brazilian sapphires are currently in the recording process.

Inclusions include solid guest crystals (currently at the identification process), and other characteristic inclusions. Heat-treatment cycles performed by Ted Themelis, provided valuable data as to the behavior of the color-change effect when these sapphires were subjected to elevated temperatures under a variety of atmospheric conditions. Several geochemical analyses were performed and some observations on the material have been concluded.

Book Review

Opal Adventures

Plenty of photographs, some in blazing color, and Paul Downing's personable adventures with opal, make this a pleasant, very folksy volume. Downing is a professional in the field, beginning from his graduate student days in 1963 cutting opals through his numerous buying trips abroad and his writing of the excellent guide to cutting opal, *Opal Cutting Made Easy*. He teaches opal cutting classes. He thinks opal. He breathes opal. He will go to an opal heaven, and he writes about opal with a connoisseur's eye and a lover's enthusiasm.

These are his exploits in Australia (with a glossary in back) and they give a fine look and feel of the Australian opal fields. A talk with a retired miner: "Sitting there, we were taken back in time. Back to the days when the fields were open and hostile, but promising. Try to visualize a time tunnel going back to the early days on the very harsh, hot opal fields." Confessions of an opaholic: "Each opal has uniqueness. It has harmony, and trying its little heart out reflecting back that beautiful light just for us, it surely has love too." The history of opal mines in Australia, how to find opal, mining in various parts of Australia, an opal buying trip, fortunes won and lost, recollections of a buyer. "It is estimated that over 90 percent of the world's jewelry opal comes from Australia." But some come from America. Downing tell us what to do to dig for it in our own back yard. 234 pages of sheer adoration, and professionalism. A volume rare as opal. *Majestic Gem's and Carvings* \$19.95

GUI: *User Friendly and Fun*

If you have recently read the financial section of your local paper, watched the news on television or (God forbid) read computer magazines, you have been barraged with the term GUI.

GUI is not an acronym for Generally Unappreciated and Irritated. GUI stands for Graphic User Interface. What's that, you say? Well, it's not a new dance or even a slang term you would hear on the boardwalk in Venice, California.

A Graphic User Interface makes your computer screen friendlier to look at and use. It gives you symbols and menus which allows you to point and click with your mouse instead of groping around your keyboard.

Microsoft Corporation, one of the biggest players in the PC software market, has recently introduced Windows 3.0. While 3.0 may not be the final solution or convince you to hug your computer, it will make your interaction with the old PC

much more ...well, friendlier. No more C:\ prompt! No more mysterious commands! Just point and shoot!!! Windows now gives you buttons, icons, pull down menus, multi-tasking and more. The different PC programs written with Windows in mind will have a similar "feel" with GUI, making them easier to learn and use.

So what, you say! Recent studies have found that it is easier and takes less time to learn a program with GUI. Which is why so many people find MacIntosh such a user friendly computer despite its limitations. Furthermore, GUI increases productivity more than non-GUI programs. To translate—it increases your bottom line.

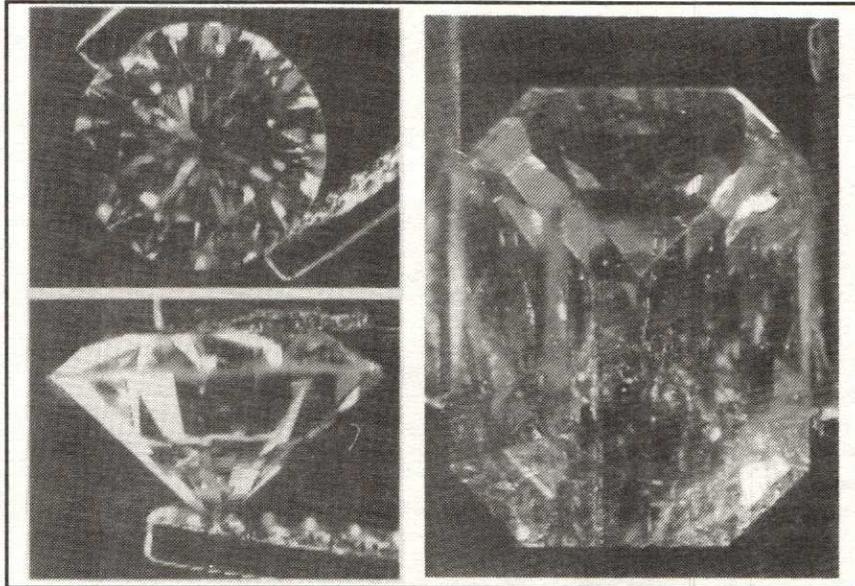
GUI is not new to the world of computers. MacIntosh users probably wonder what all the fuss is about, having always lived, loved and worked with GUI. The advantages of

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THE YEHUDA EMERALD

Yehuda treatment for green emeralds is a clarity treatment whose principles have been gleaned from the 2000 years old oil treatment. Our treatment is durable under regular cleaning and cutting procedures. A Yehuda treated green emerald may be placed into an ultrasonic machine, steamed, boiled and recut without being damaged. Moreover the emerald can be treated in the rough before it is cut. Thus we supply the marketplace with a better product. It is well known that a vast majority of green emeralds are oil-treated, however, since the Yehuda treatment produces a far superior product the Yehuda treated green emeralds are appraised with a higher value. The higher value is due to the better quality!

Although the Yehuda treatments may be relatively new to some, and their sophistication beyond that of other methods, one must bear in mind the uniqueness and quality of its products. In today's competitive market it is the demand for quality merchandise that determine prices and not the theories and hypothesis of those who fear high-tech and changes.



—Dror Yehuda Diascience Corp. New York

GUI

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the PC combined with the GUI concept may be hard to beat, and easy to embrace.

While GUI still has "bugs" to work out and although it will be some time before we see all the programs we PC-users love with a GUI interface, it's something to keep an eye on. The software industry seems to be embracing the concept as an idea whose time has come. I, for one, look forward to the day when we will see friendlier and more flexible PC programs to help us with the many facets of the jewelry industry. Using GUI may help us with the many facets of the jewelry industry. Using GUI may help us spend more time evaluating that stone, or making that sale and less time struggling with the old PC.

—Thom Underwood

APPRAISING YEHUDA DIAMONDS AND EMERALDS

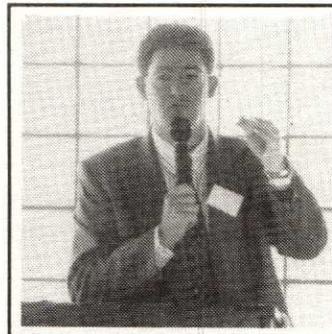
The value of oiled green emerald is based upon several factors including color, cut weight, country of origin, make and clarity. The clarity used to determine the price of the emerald is that achieved by treatment! The color of an artificially colored blue diamond is based upon clarity, cut, weight, make and color. The color that is considered for evaluation is the color produced by treatment!

The value of numerous other treated gem stones is based upon the same factors. The evaluation of any gem stone is determined by its state at the time of the appraisal. The fact

the stone has been treated or that the treatment may be reversed is a factor taken into consideration. However one never appraises the gem stone upon its appearances prior to the treatment nor takes into account the cost of the treatment. Therefore it is clear that the same rules should be applied when appraising a YEHUDA TREATED DIAMOND. The yehuda treatment is only one of hundreds of treatment and does not differ from any of them in concept, although it may be the most advanced and sophisticated one.

Currently, I am the largest supplier of YEHUDA TREATED DIAMONDS. In my experience, since the development of the YEHUDA TREAT-

MENT, nine years ago, the market demand has determined that the value of these stones is approximately 20% below market price or about 40%-50% off the wholesale diamond price list. (Rappaport) Retail values have followed suite.



—Dror Yehuda

The Phalaborwa Complex

This extremely large open cast mine is located at the North Eastern transvaal town of Phalaborwa and is still actively mined by the Palabora Mining Company Limited and Foskor (Phosphate Development Company Pty Ltd). The mine was visited by the author in mid 1988 and this short report shows the incredibly large variety of minerals localised

in one comparatively small place—enough to apparently keep the mine working for about the next 20 years or so. The ore is extracted at the rate of 93,000 tons per day and a hill once stood where a deep hole now exists. The bottom at that date was only 25 feet above sea level (and will obviously be slightly below it now). Phalaborwa is virtually 550 Kilometres as the crow flies west of the Mocambique Indian Ocean shore line. In 1988 it was approximately 375

metres (1220 ft) deep—and remember, the hill was removed first! The width at the top is an approximate 1,060 kilometres. Some idea of the size of this man-made excavation can be judged by figures 1 & 2. The arrow points to an earth moving 'grab', well down the working. This bit of machinery is in itself enormous, and in Figure 2 the author is standing in its jaws. Figure 3 is the author looking for small crystals of apatite at nearly sea level! The visit was arranged by the South African Micromount Society—a society that does much useful work in identifying microscopically small minerals from numerous localities. We, as gemologists, usually see such sizes as inclusions—so the educational value of examining such small entities outside a host stone is very high and can indirectly help from a gemological point of view.

The principal minerals mined there are copper (in particular), uranium and zirconium. However, 83 minerals have been identified. A number of by products are manufactured virtually on sight as well. Twenty-five of the species found are common names to gemologists and include apatite, biotite, calcite, chalcedony, diopside, fluor spar, labradorite, marcasite, orthoclase, quartz, serpentine, sphene, spinel and zircon among others. Crystals are characteristically micro-sized, but can be in abundance such as the apatite I saw at the very low levels presently worked. Being a phosphate, this

depth of discovery is interesting). Forms vary considerably and cover categories of crystalline aggregates, massive crystals, earthy, etc. Occurrences range from very common through common to moderately common, sparse, rare and very rare where fewer than 50 specimens only are known to exist. Some sizes are so-called cabinet size, thumbnail or more often micromount.

Methods of separation of the principal minerals are either by floatation, magnetic separation, or gravity techniques in the case of the uranium and zirconium.

John Gliddon, the general mine superintendant (July 1988) has been totally connected with mining operation practically all along and in fact a new discovery—gliddonite—was named after him.

The annual wet season can present certain problems at the bottom levels (November-March

in particular) and pumping is done at the affected localities at 400 litres per second through 400mm diameter pipes—a four stage process to move it out of the mine.

Working in the 'pit' in summer means coping with temperatures of 40°C plus, and in winter in the mid-upper 20°C.

Cabinet sized specimens have been found in analcite, antigorite (serpentine), apatite, baddeleyite, biotite, bornite, celestite, chalcedony, diopside, magnesite, magnetite, microcline, olivine, orthoclase, pectolite, phlogopite, quartz, scolecite, stilbite, and others less common to the gemological world (unless as included matter in gem host material).

References:

- 1 South African Micromount Locality Data Sheet No. ML10, pages 1,2.
- 2 Mineral resources of the Republic of South Africa (5th edition).
- 3 Hanekom H.J., van Staden, C.M.v H., Smit, P.J. Pike, D.R. The Geology of the Phalaborwa Igneous Complex, Geological survey, Dept. of mines, Republic of South Africa, Memoire No. 54, 1965.
- 4 Compilers of the S.A. Micromount Locality Sheet, Ref. 1. above are Siegfried Weinert and John Gliddon. Date: 12 Dec. 1988.



Fig. 1

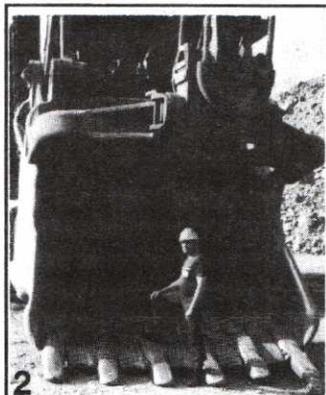


Fig. 2

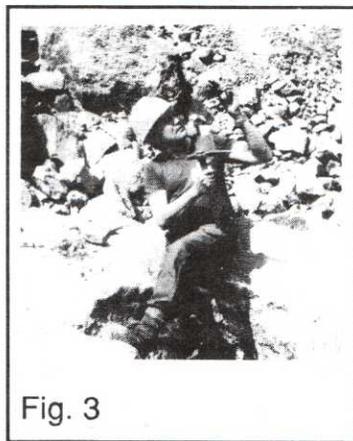


Fig. 3

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A.G.A. STANDARDS AND DISCLOSURE COMMITTEE REPORT

Pivotal to the basic operation of any responsible industry, is the formulation and implementation of consistent reference standards. Paralleling the issue of consistent quality designations is the all-important concern of disclosing relevant facts to information users that impact on their buying decisions. To date, AGA'S involvement in the standard and disclosure arena has been through the consultation and technical direction provided by myself and Bob Crowningshield in formulating the enhancement guidelines that were endorsed by most of the major U.S. jewelry organizations.

Currently, it is the intention of AGA to expand the function of the Standards and Disclosure Committee to address several current issues that require our immediate attention. The first area that will be considered, with the approval of the organization, concerns establishing a comprehensive set of guidelines for laboratory grown/synthetic nomenclature and a clearly delineated system for communicating information about manufactured materials.

As part of a new proposed set of guidelines, AGL has already suggested the term Laboratory Grown (synthetic) as an alternative description to standard "synthetic" terminology. This term has already achieved widespread acceptance by both the trade press and producers. In addition, the Federal Trade Commission and the latest version of the Gemstone Enhancement Guide have incorporated Laboratory Grown in the list of acceptable alternatives to synthetic. This issue will be addressed in greater detail at a later date. An entire terminology package for manufactured gemstone products has been developed and our committee will focus its energy on refining the proposed guidelines.

The second major issue concerns current diamond grad-

ing standards and the disclosure of acceptable grading tolerances. Part of this program will focus on establishing C.I.E. (mathematical color references for diamond master sets, in order to bring diamond color standards in line with other color sensitive industries that have conformed to reference guidelines set by the National Institute of Standards and Technology.

If you are interested in participating in this committee effort, please contact me at the following address as soon as possible.

C.R. Beesley, Chairman Standards & Disclosure Committee C/O A.G.L. (American Gemological Laboratories) 580 Fifth Avenue, Suite 1211 New York, New York 10036

Q: *Would you sell Yehuda-treated diamonds?*

John Michaels, CEO, Michaels Jewelers, Waterbury, Conn.: "If we sold them, it would have to be with a disclosure. Presently, we don't buy them to sell. If we bought one and weren't made aware of the treatment we'd send it back. Before selling them, we would have to plan on how to market them. It's an alternative that needs consideration."

Wayne McDermitt, Owner, Trenton Jewelers, Trenton, Mich.: "We haven't run into any, and we don't sell them. We try, under any circumstance, not to sell anything below a nice, I-1 stone, and from what I've heard, even though they're enhanced, they're not above that level. I'm also worried that they could be easily damaged in the repair process."

Patricia Evans, General Manager, Crown Jewelers, Nassau, Bahamas: "Very few customers have been asking about them, only a couple who want a big stone without a big price. I haven't had enough requests to make me interested in them. But if diamond prices keep going up, enhanced diamonds will become more popular."

Solly Refael, President, Daniele Trissi, White Plains, N.Y.: "I'll wait to see if the treatment is accepted, and I don't see any reason why it won't be. Generally, I have a mixed reaction. A customer's ability to resell such a stone is extremely limited. Anything that can make a diamond more aesthetic gives people more pleasure."

Gary Sachs, General Manager, Diamond Jewelers, Mehtuen, Mass.: "We just had a couple of stones treated. One case followed our educating a customer on the treatment and his subsequent requesting of it. The customer's 1-carat stone had a nick in the table. After the treatment, it looked 25% better. In the other case, we experimented with a stone we owned. It could be a hot sell. Of course, disclosure is the bottom line."

—National Jeweler
September 1990 Issue

Phalaborwa

cont. from prev. page

Mr. Ian C.C. Campbell, FGA, is Editor of *The South African Gemmologist*. Many thanks for his contributions. Information on receiving this publication can be sent to the Gemological Association of South Africa, P.O. BOX 4216, Johannesburg, South Africa, 2000.

Articles relating to Gemmology are welcome and authors are requested to please contact Mr. Ian Campbell. There are three issues annually (February, June, and October). Articles could preferably be forwarded in each case by mid December, April or August respectively.

Many of you are doing interesting work in gemology. Many of you contribute on a regular basis as Ian Campbell, others are welcomed to submit articles to our publications. This is a members oriented association for and by members predominately. Help us support you by supporting us with your updates.

Q & A - Yehuda Conf.

cont. from page 10

T. CHATHAM: If it is in a physical state that the rough would fall apart before treatment, where would you draw the line? Is it fair to call it a treated emerald? Is this what we can tell or represent to the consumer? Is the public getting what they think? The government states you have to use the correct nomenclature.

How is this different than stabilized turquoise? At what point is it assembled? You say that a broken diamond can be fused together. Is this described as a doublet? Is this an assembled stone?

If I fuse or put a broken diamond together, I will tell you such.

T. CHATHAM: The problem arises when these stones travel through the mass distribution process where improper I.D. allows for stones not to be disclosed until they make their way back into the labs or the industry.

In a sense I give people the tools to commit fraud. They can sell my diamonds and not disclose.

T. CHATHAM: You mentioned why G.I.A. was trying to figure out what the diamond fill material is. If you give them information on how they can detect materials, then others will be better equipped to identify materials before problems occur. Gemologists will be better equipped to represent your stones properly. Instead, in many cases, we all have to work backwards and find out what the process is. Then we can disclose what it is properly. Eventually this will come.

I help others wherever possible. You can use a loupe and detect my filled diamonds. I worked with G.I.A., giving them stones and information. They have more equipment than the average laboratory. I help Cortney (Balzan, AGA president) out with seminars all over the U.S., answering and dealing with hands-on diamond identification. I help whenever I can.

AGA Update

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PRESIDENT DIRECTS AGA FACELIFT

With the advent of new faces in AGA, president Cortney Balzan directs a facelift to meet member needs by Tucson '91. Many changes were voted unanimously at the Virginia Mid-Term Board Meeting. Summary of decisions carried out during meeting.

- 1) Form a committee to change and update the constitution: edit and submit for approval of new constitution prior to Tucson '91.
- 2) Amendment to constitution to allow regional governor to run for a second term.
- 3) Add two more regions to better serve our members regionally.
- 4) Purchase IBM compatible software for more efficient information network between Directors, Governors, Chairs and Members. Phase out old equipment that is not compatible.
- 5) Abolish AGA NET until new computer programs are in place.
- 6) Restructure Education and Accredited Laboratory Programs with the highest standards for increased member benefits.
- 7) Accept a new focus and direction for AGA. One focus of hands-on gemological education and gemological accreditation.

