

CORNERSTONE

ACCREDITED GEMOLOGISTS ASSOCIATION



DECEMBER 1991

TABLE OF CONTENTS

AGA Board Directory	2
President's Corner, by Cortney Balzan	3
Letters from the Editors	4
A Letter from the AGTA	5
Colored Diamond Grading - Steve Hofer at Tucson, by James Krol	6
Thoughts on Gemstone Treatment and Disclosure, by Craig Lynch	12
Ted Themelis at Tucson 1991, compiled by Dana Richardson	13
Estimating the Value of Cut Opals, by Paul Downing	18
The Committee is Working Out the Details, Anonymous	23
Lifetime Achievement Award Recipients	24
AGA Tucson 1991 Dinner/Dance	26
AGA Laboratory Grown/Synthetic Gemstone Exhibit, by Donald Palmieri	28
Software Showcase a Success, by Thom Underwood	30
A Letter from the GIA	32
AGA Poster/Booth at GIA Symposium a Success, by Thom Underwood	33
Certified Laboratory Program - A Report to Members, by Anne Hawken	34
Standards and Disclosure Committee Report, by C. R. "Cap" Beesley	37
Gemologist Gary R. Grelick Honored by Sri Lanka	37
Education and Certification Committee Report, by Donald Palmieri	38
A Reaction to the Proposed "SI3" Clarity Grade, by Cortney Balzan	45
Treasurer's Reports, by Dana Richardson	46
AGA Historical Report, by Antoinette Matlins and Tomiko Butler	48
Book Reviews, by James Jolliff	50
Lewis Bannon Retires	51
AGA Certified Laboratory Directory	52
AGA Supplier Members	55
AGA Member Directory, December 1991	56
12th Annual AGA International Gemological Tucson Conference 1992	68
Membership Application	70



BOARD OF DIRECTORS

President	CORTNEY BALZAN	(415) 454-8553
1 ST Vice President	DONALD A. PALMIERI	(412) 344-5500
2 ND Vice President	B. YOUNG M ^C QUEEN	(904) 737-2520
Secretary	LEO J. SCHMIED	(615) 588-8417
Treasurer	DANA LYNN RICHARDSON	(801) 581-9900

REGIONAL GOVERNORS

Region 1	CRAIG A. LYNCH	(602) 843-1973
Region 2	JAMES KROL	(313) 644-8828
Region 3	JAMES V. JOLLIFF	(301) 261-8271
Region 4	THOMAS SEGUIN	(813) 756-8787
Region 5	ANNE A. HAWKEN	(512) 328-9411
Region 6	MONA MILLER	(503) 297-8688

COMMITTEE CHAIRS

Certified Laboratory	ANNE A. HAWKEN	(512) 328-9411
Admissions & Membership	THOMAS SEGUIN	(813) 756-8787
Constitution & By-Laws	JAMES V. JOLLIFF	(301) 261-8270
Education & Accreditation	DONALD A. PALMIERI	(412) 344-0300
Ethics & Grievances	DAVID ATLAS	(215) 922-1926
Historian	CORTNEY BALZAN	(415) 454-8553
Publications	DARLENE JOHNSON	(415) 454-C925
Software Review	THOM UNDERWOOD	(619) 291-8852
Standards & Disclosure	C.R. "CAP" BEESLEY	(212) 704-0727



PRESIDENT'S CORNER

By: Cortney Balzan

I want to thank everyone for their hard work during my first term as AGA President. I did not anticipate a second term, but will continue to work with the Board, Regional Governors, and Chairpersons. Congratulations to the newly elected officers. They will be participating in meeting AGA's needs more than ever.

THE COMMITTEES HAVE BEEN HARD AT WORK

The AGA is a volunteer driven organization whose success depends upon the steady and creative involvement of many individuals. The **Software Committee** is now a standing committee in our structure. Started in the beginning of my first term, this committee has made great strides in two years because of its chairperson and the committee members who volunteer their precious time. Meeting deadlines for their quarterly column in the management section of *JCK Magazine* is a labor of love. Thom Underwood was sent to GIA's International Symposium as a representative from AGA. This labor of love meant that Thom did not see any of the other Symposium events (for which he will never forgive me), instead he represented AGA very professionally.

Anne Hawken is Chairperson for the new **Certified Gem Laboratory** program. This program will follow in Software's footsteps, with its activities regularly reported in trade magazines and journals. Anne has spent many hours improving the lab program, which will set high standards in keeping the practicing member gemologists in touch with current issues.

These newer committees will provide high quality programs for our membership and the industry. They are there to help you professionally.

Committees have worked together to follow AGA's objective since its founding - to encourage and provide continuing education and studies on gem and jewelry issues both large and small. The committees are positioned to carry out this founding objective by keeping members updated on the technological, economical and social influences that are changing our industry.

In the early days of AGA, during the mid-1970s, our members were activists. They wanted and needed continuing education because they were concerned and professional gemologists. In the early 1980s, the AGA philosophy led to the Master Gemologist Appraiser program (MGA). Gemology combined with appraising concepts and theory. We new activists needed to know more and couldn't wait for the industry to meet our needs. This program is now with the American Society of Appraisers (ASA) and focuses mainly on appraising.

Now I want to bring AGA back to the science of gemology. We must all help in this endeavor, including the Board, Governors, and Committees. The **Education Committee** will administer this program with direct input from the **Certified Gem Laboratory and Standards and Disclosures** committees, whose chairpersons will act as advisors. The focus will be on education, examination, equipment, ethics and experience. While the ASA's Master Gemologist Appraiser program concentrates on the Valuation Sciences with only a secondary interest in gemology, the AGA's Certified Master Gemologist program will concentrate on the Gemological Sciences, with only a secondary interest in valuation.

Elsewhere in this issue you will find the story of why and how AGA came to be and a look at its early history . . . including an application from 1976 and the original Articles of Incorporation. This information was assembled by Antoinette Matlins assisted by Tomiko Butler. The objectives and concerns of AGA at the beginning are still with us today.

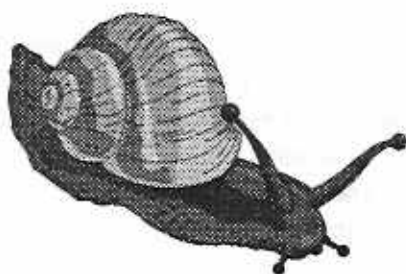
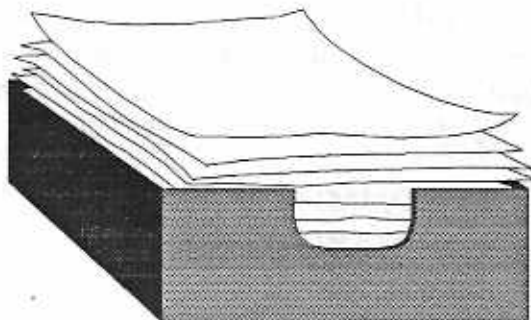


A LETTER FROM THE EDITOR

My apology to all for the Cornerstone being so late this year. A lot has been happening within the industry and with the AGA. Board members have been busy with the upgrading of AGA, the GIA symposium, and the organizing of AGA's Tucson '92 conference. My special thanks to our president, Cortney Balzan, chairman of the Certified Laboratory, Anne Hawken, chairman of the Education Committee, Donald Palmieri, and our new secretary, Leo Schmied, for their continuous support and help. In this issue you will find out for yourselves the changes that have been made for the benefit of AGA members. Their dedication is to be admired.

Thank you,

Darlene Johnson



AND THE ASSOCIATE EDITOR . . .

I apologize for the delays also. Let me give heartfelt thanks to Anne Hawken and Donald Palmieri - the only two contributors to this magazine who sent camera ready copy without gross spelling or grammatical errors. They were also nearly the only ones to provide copies on computer diskette as requested. We are planning to present new publication guidelines at Tucson 1992 that should help alleviate many of the problems experienced this year. Meanwhile, thank you sincerely for your patience. This seems to be a fine issue and I hope you find it to be worth the wait.

Sincerely,

Larry Phillips

A LETTER FROM THE AGTA

Dear AGA Members,

The American Gem Trade Association needs your support and assistance in protecting the consumer's confidence in the jewelry industry. Our association of wholesale colored gemstone suppliers in North America has implemented a Random Testing Program to spot-check emission levels of both loose and mounted irradiated Blue Topaz in the U.S. market.

We invite you to work with us in this very important program by:

- testing any existing inventory of loose or mounted irradiated Blue Topaz.
- supplying samples of either loose or mounted irradiated topaz to AGTA for testing. (AGTA is working with IRT Corporation in San Diego, a facility licensed by the NRC to test and release neutron-treated Blue Topaz.)
- urging your colleagues, suppliers, and clients who deal in this product to be sure they are in compliance with NRC (Nuclear Regulatory Commission) regulations.
- suggesting any individuals, companies, or other industry groups to AGTA who you feel would benefit from receiving packets of information regarding the Random Testing Program.

Please note the insert in this issue of Cornerstone which announces AGTA's Random Testing Program and provides an update on the current status of the irradiated topaz situation. If you have any questions regarding how to get involved with AGTA's Random Testing Program, please call Debbie Hiss, AGTA's Director of Information, at (206) 624-8553.

181 World Trade Center • 2050 Stemmons Expressway • Dallas, Texas 75207
P.O. Box 581043 • Dallas, Texas 75258
214-742-4387 • 800-972-1162 • 214-742-7334



COLORED DIAMOND GRADING

A Review of a Program Presented by Mr. Steve Hofer at Tucson, 1991 by JAMES R. KROL, G.G., A.S.A

Mr. Steve Hofer, President of Colored Diamond Laboratory Services Ltd., presented a program to the Accredited Gemologist Association at the February Tucson Gem and Jewelry Show entitled, "What Is Involved in a Natural Colored Diamond Laboratory Report."

He reviewed five points to consider:

1. Description of the color
2. Grading of the clarity
3. Grading of the cut
4. Grading of the color
5. Interpretation of the color origin

In the laboratory, these five items are determined through the use of a trained eye and scientific grading equipment. He states, "When it comes to analyzing the color of a natural colored diamond, the human eye and the brain will never be replaced by an instrument. However, when combined with a modern color measuring instrument, the eye and brain have access to a color storage and retrieval system which surpasses even the most dedicated human color memory."

Once the physical characteristics of a natural colored diamond are determined, the report will function as a tool for expressing a verbal communication at the retail, wholesale, and consumer trade:

1. The color description must be accurate, precise, and repeatable.
2. The color description must relate to what the eye sees in the face-up position.
3. There needs to be a relationship between current color terms and compatibility with other color systems. (e.g. Munsell, C-Lab, O.S.A., C.I.E., etc.)
4. The level at which a stone is considered a fancy grade must be defined for each individual color.
5. Certain grades, such as intense "fancy yellow" or fancy pink are too broad and need sub-division.
6. The report must be determined what effect the cut has on the face-up position.

Color experts have developed a universal language for determining color. This is based on an accurate analysis with a colorimeter. This branch of science is called Colorimetry. Scientists have estimated that there are over 5 million different colors in the world. It is estimated that natural colored diamonds occur in approximately 1 million colors, of which the human eye can only see approximately 250,000 of these colors. With so many different colors, grading natural colored diamonds by eye is very difficult. However, it is not a problem if colors are arranged in an orderly color system and measured with a colorimeter. A universal color language system has been developed by colored scientists and is in use in science and industry. This system incorporates both the verbal and numerical system.

Mr. Hofer next discussed the steps in completing a colored diamond report in his laboratory. The first question is "Where do we begin to understand color?" Describe the color of a diamond by using words that express the colors you see with your eyes. Express it in a way that someone else can understand. For example, a stone that is light red may be called "rose." The name rose is part of a universal system of naming colors, referred to as a common color name. Rose is very appropriate at the consumer level. If used properly, it can create a positive image in the sale of a natural colored diamond. Very often diamond professionals need to communicate with greater accuracy. To do this, they use general color names like red, blue, greenish yellow, etc.



(Colored Diamonds, Continued)

In the diamond industry, we use such terms as canary, champagne, and cognac. Mr. Hofer states, "the common color names should be exploited more in the trade to promote diamond sales." However, keep in mind that this is the least precise way of describing color. For example, everyone's opinion differs on what is "grass green."

In the colored diamond trade, there are twelve main colors in which natural diamond occurs. These are pink, red, orange, brown, yellow, olive, green, blue, purple, gray, black, and white. In addition, each has its own color modifiers. Therefore, natural colored diamonds can occur in a wide range of color combinations. On a laboratory report, an "X" is placed on the color variety scale to rapidly designate the main color variety for the reader. The next step is to determine the strength of modifying colors. To illustrate this point, slides were used to show color variety and its modifiers.

Mr. Hofer has developed six levels of color communication:

1. Common name
2. Primary color (color variety)
3. Secondary color (color modifier)
4. Lightness level
5. Saturation level
6. Numerical color notation (CIE LAB)

The majority of natural colored diamond transactions in today's marketplace involve color descriptions at levels one, two, and three. Level four and five represent its lightness and saturation, and level six number notations (see Figure One). Any pure color that has been modified by the addition of black, white or gray is said to have a color tone. A color tone is synonymous with any slight gradation of a color - as is a light tone of blue or a dark tone of black. When you describe color tone, you are actually telling someone two things about color:

1. How light or dark the color is
2. How saturated the color is

FIGURE ONE

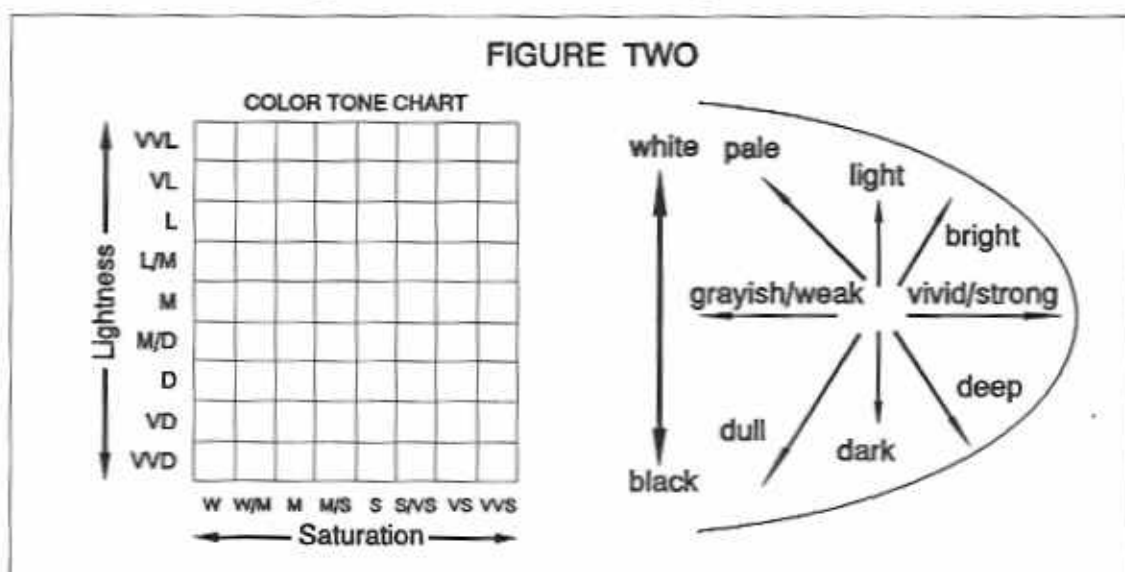
Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
'Rose'	Pink	Pink purple	Pink purple med-dark	Pink purple med-dark moderate	$L^*=43.0$ $a^*=21.1$ $b^*=-0.8$ $c^*=21.1$
Common Name	Variety	Variety Modifier	Variety Modifier Lightness	Variety Modifier Lightness Saturation	Numerical Color Notation



(Colored Diamonds, Continued)

With a colorimeter, lightness and saturation can be measured separately. But most people cannot distinguish this with their eyes. To illustrate color tone, a chart has been established (see Figure Two). To separate the opposing pairs of terms, the lightness scale runs from white at the top, through various shades of gray in the middle, to black at the bottom. The saturation scale from left to right goes from grayish/weak to vivid/strong as seen in the diagram. Most people see color tone as being weak or strong, but do not realize that a color tone can be in one of four tonal directions; pale, bright, dull, or deep.

- Pale color = light with weak saturation
- Bright color = light with strong saturation
- Dull color = dark with weak saturation
- Deep color = dark with strong saturation



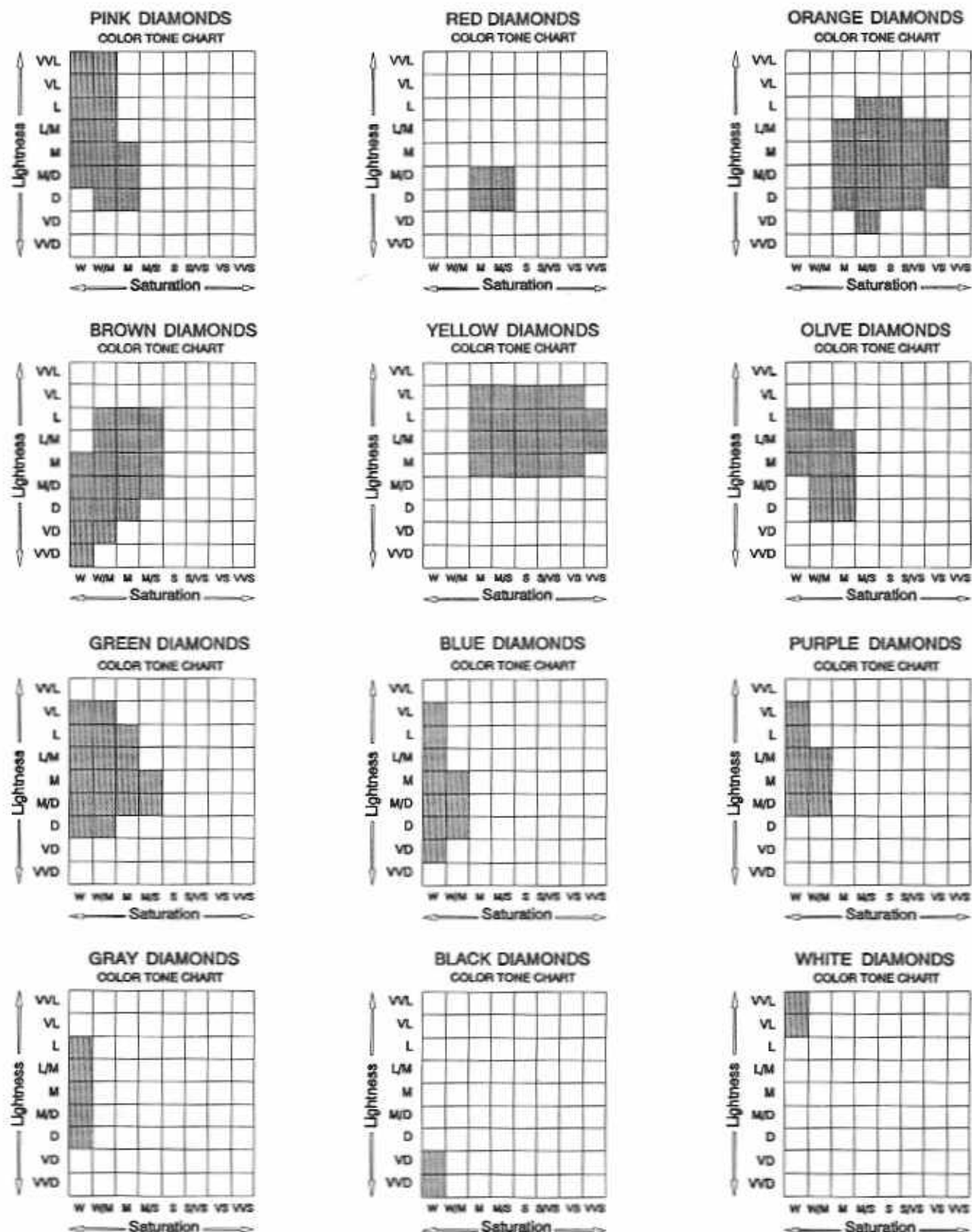
To begin the process of color description, the stone is measured with a colorimeter and then examined under a "daylight" light source. As an example, fancy yellow diamonds will have a tonal color range which varies from very light to medium. Thus, the body color of a yellow diamond has little variation on the vertical scale which is the lightness scale. However, on the horizontal scale, the saturation can range from weak to very, very strong.

Using color measurement techniques, the lightness and saturation of a diamond's body color can be measured and then graphically shown on a color chart with an (X) in the appropriate box (see Figure Three).

One obvious advantage to the use of color charts in the laboratory is standardization. In other words, a standard method has been developed for evaluation of lightness and saturation with proven accuracy by application of numerical as well as verbal cues. The "best" color for each diamond variety is a matter of personal preference. The color tone chart is merely designed to provide a convenient scale for comparing visual differences in lightness and in saturation from one diamond to the next.

FIGURE THREE COLOR TONE REFERENCE CHARTS

COPYRIGHT © COLORED DIAMOND LABORATORY SERVICES, INC. 1990



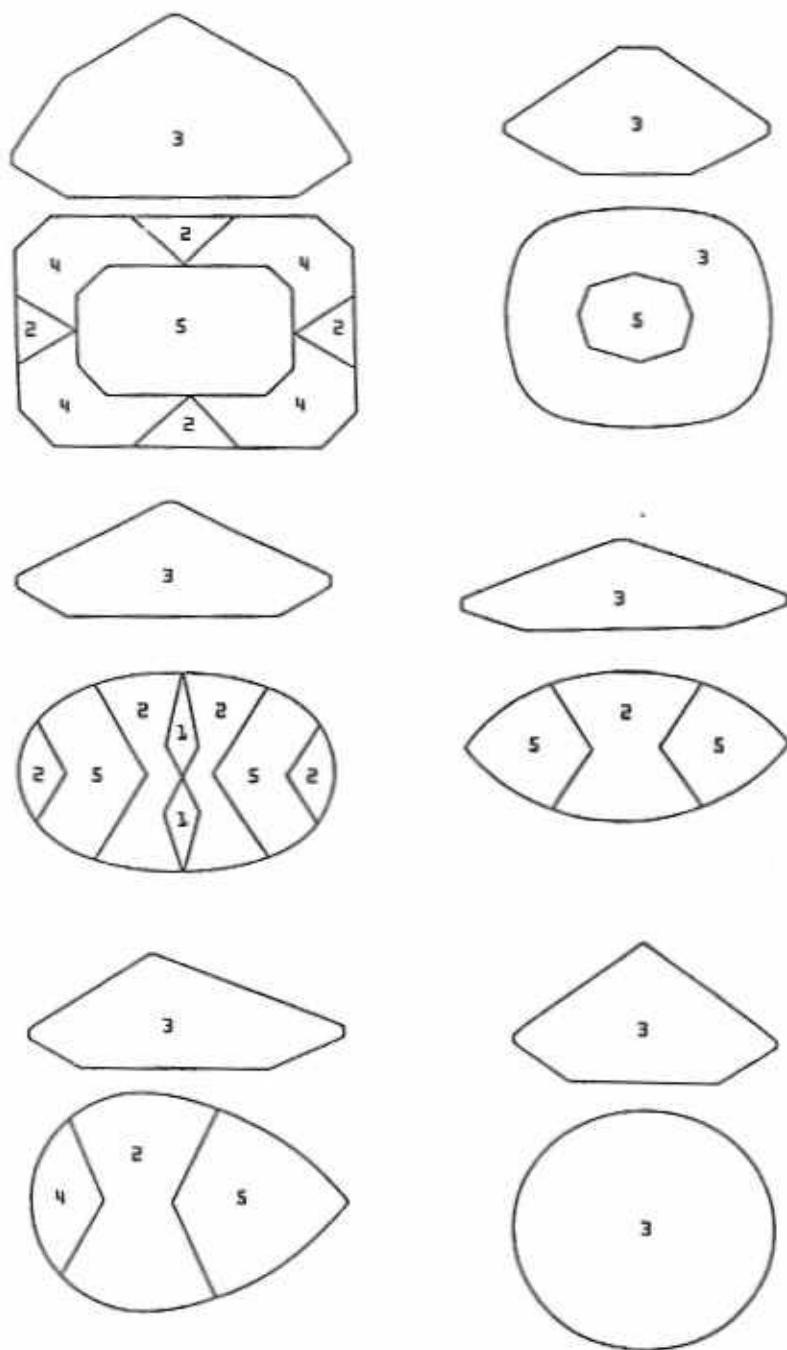
(Colored Diamonds, Continued)

FIGURE FOUR

The second item to consider is clarity. Clarity grading of a natural colored diamond is similar to the clarity grading of colorless diamonds. Fancy colored diamonds with nearly visible inclusions will generally hold their value. In the diamond business, there are three broad divisions of clarity grading: Flawless, F1., I.F., Eye-Clean, VVS, VS, SI, and Imperfect I-1, I-2, I-3. In the colored diamond trade, clarity grades (such as VS-1 or VS-2, etc.) are not defined because color is more of a factor in determining value than clarity.

The third area Mr. Hofer discussed was the cutting grade. In a "white" diamond, the jeweler must concern himself with specular or mirror-like reflections. But in a natural colored diamond, the determination of color is the most important consideration. However, the combined effect of the cut will influence the color of the stone. The cut of the stone can weaken the color, strengthen the color, or have no effect on the color of the stone. To evaluate this, Mr. Hofer has developed a visual test called the *Rapid Color Method*. This approach has several steps. First, turn the stone on its side and examine the body color of the stone in a white diamond tray. Second, fix that color in your color memory and assign an arbitrary color number of say, 3. Then flip the stone up, examine it in the table position, and store this color in your memory.

If the face-up color matches the strength of the side profile color, label it a 3. If it is slightly weaker, assign a 2, notable weaker 1. By the same token, if it is slightly stronger, assign a 4, notable stronger a 5. As you become more familiar with looking at face-up color, you will see color strength patterns across the stone much like a mosaic pattern (see Figure Four).



(Colored Diamonds, Continued)

Thus, through the use of simple diagrams, we can illustrate how the color in the face-up position occupies distinct areas that can be perceptually grouped according to similar hues and/or degrees of brightness. The rapid visual comparison method relates this to the measured body color. When completed, it will be a two-dimensional line drawing of color mosaics across the stone.

The fourth step is to establish the color grade. The color grade represents the relative strength of the diamond as perceived in the face-up position. It is classified in four color grade divisions:

1. Faint Grade - essentially no color seen in the face-up direction.
2. Very Light Grade - slight color seen near the points or ends in the face-up direction.
3. Light Grade - having a pale color overall in the face-up direction.
4. Fancy Grade - having a strong color that is obvious to the eye in the face-up direction.

The last is color origin. This represents a written conclusion based on the interpretation of testing equipment, knowledge, and related observation about color and color treatments of diamonds, as known at the time of examination. A microscope, spectroscope, or ultra-violet visible infra-red spectrophotometry may be used to determine color origin. But, the green diamond presents a special challenge to color origin. A natural green diamond and a treated green diamond will have similar physical characteristics. Use of the comment "Origin of color currently undeterminable" may apply. However, as new data is gathered on known natural green diamonds, the size on the undeterminable group is slowly diminishing.

In conclusion, Mr. Hofer's diamond grading approach has enabled the salesperson, the jeweler, the gemologist or the diamond cutter to develop a knowledgeable level of communicating color to clients.



Mr. Donald Palmieri



Mr. Steve Hofer



Mr. John King of GIA



Thoughts on Gemstone Treatment and Disclosure

by Craig A. Lynch

Dror Yehuda's talk at AGA's Tucson Conference was very informative to the many conference attendees who had not yet seen the diamond or emerald treatment first hand. Dror had been scheduled to go into considerable detail about the emerald treatment invented in Israel by his father, Zvi Yehuda. As the treatment facility is in Israel, the treatment identification research has been slowed or stopped because of the Persian Gulf war. (One SCUD fell two houses away from Dror's family residence - damaging the Yehuda home.) In Tucson, Dror continued his efforts to educate the jewelry industry, just as he had done throughout 1990 in several AGA mini-conferences. We are grateful to *Diascience* for their time and their openness.

The Educational Responsibility of Gemstone Treatment Manufacturers

Clearly, any treatment company that spends significant time and money to educate its client industry is not negligent in its legal responsibility, but there is still legitimate concern for the ultimate consumer. An unscrupulous, uneducated or unaware dealer two or three transactions down the road may fail to inform

the consumer. Remember Philadelphia five years ago. What responsibility does the treatment company have to the ultimate consumer? The United States deals with different markets very differently. Guns and prescription drugs are good examples. When you buy a gun, neither the seller nor the manufacturer usually educates you about its potential dangers at the point of sale. Gun manufacturers do spend money on independent consumer education groups such as the NRA, and many sponsor their own educational associations and promotions. In the prescription drug industry, the pharmacist may not educate the consumer unless directly asked. The physician usually explains the proper use and general cautions. Here, the product's manufacturer educates only its immediate clients (the physicians) and does very little to educate the consumer directly.

Each year many people die from the misuse of guns and prescription drugs, yet the manufacturers are seldom found negligent. It seems that if a product has been carefully tested, approved, and put into the market place with guidelines for its proper use, this ends the manufacturer's responsibility.

This appears realistic and reasonable - but not in the jewelry industry, where the manufacturer often takes the brunt of the bad press that occurs when a consumer is taken advantage of, causing a full-blown expose of deep diffusion sapphire treatments or Yehuda diamonds. This kind of publicity harms the jeweler, the jewelry industry and the manufacturers and dealers of treated stones. It's not fair, or even reasonable, but it has happened in other industries (the Tylenol scare, for example), and the jewelry industry may not have the initial public credibility of a pharmaceutical company.

What can be done? I believe we must continue the education of our industry as a gemological association. The AGA should work with the treatment companies in an unbiased manner, neither promoting nor denigrating the treatment and sale of treated stones. Secondly, we should strongly encourage the treatment companies to educate the ultimate consumer.

The Effect of Advancing Technology

The tremendous technology that is moving upon us will only result in more and more gem treatments. Five, ten, or fifteen years from now, difficult to detect treatments will be common place. Can we gemologists keep up with the increasing requirements for practical knowledge and expensive high-tech equipment? Two or three new treatments a year are bad enough, but what if we have five to ten new treatments a year for several years in a row?

Will new technology complicate the market? For example, if new treatments gain public acceptance, we may have to separate gemstones prior to the new technology from those assumed to be treated. Clearly, as our jewelry industry evolves, a gemologist's job will need to become more specialized. Mankind has always worn gemstones and jewelry and probably always will. Technology has ebbs and flows. Right now, we must respond to a tidal wave of new ideas and techniques.

Dror Yehuda and Capp Beesley



Topics Presented by Ted Themelis at the AGA Tucson Conference

Compiled By Dana Richardson



Ted Themelis

As always, Ted Themelis proved a fascinating and informative speaker - bringing to his audience a variety of topics of which he has first hand knowledge. Ted combines an endless amount of energy and expertise with a distinctive accent and a dose of dry humor that may go to our heads if we're not on our toes. I very much enjoyed listening to Ted. As always, I learned a great deal of upfront information as well as a bit of the behind-the-scenes scoop. Here, to the best of my ability, I have tried to capture the essence of Ted's discussion.

A Study of Two New Entries into the Emerald Synthetics Market and a Comparison with the Earth-Grown (Natural) Varieties

I. Russian Hydrothermal Laboratory-Grown Emerald

The hydrothermal process most closely resembles the way emerald grows in nature. The Solviet Siberian facility is growing emerald using both flux and hydrothermal methods.

The hydrothermal specimens are grown from thin plates of beryl in an autoclave and yield crystals up to twelve inches in length. These have a light green color with a light blue overcast resembling natural emerald from the Ural Chivor and Zambian areas. The stones range from flawless to included, with excellent uniformity. (Mr. Themelis has never observed any color zoning in these specimens.)

The specific gravity of hydrothermally grown emeralds is much higher than that of flux grown emeralds. The latter will show red through the emerald filter, but use caution as some Chivor material shows red as well. Identification is best accomplished by examination under magnification. Look for the following inclusions:

- ▶ very tiny two-phase liquid inclusions requiring high magnification
- ▶ strong dichroism
- ▶ metal inclusions from the lining of the autoclave
- ▶ veils and fingerprints resembling those found in natural emerald
- ▶ chevron effect
- ▶ colorless phenakite crystals
- ▶ liquid inclusions

The stones used in this study were 0.60 carats and under.



(Themelis Continued)

INCLUSION COMPARISON			
	NATURAL	BIRON/KIMBERLY	RUSSIAN HYDROTHERMAL
2-PHASE	X		
FINGERPRINT	X	TINY	ABUNDANT
LIQUID AND GAS	X	X	X
ROUND FILM	ROUND PATTERN		
NAIL HEAD SPICULE	NO	X	
SPIRO	X	X	X
GUEST CRYSTALS			
GOLD		X	
PLATINUM		NO	NO
PHENAKITE		X	X
SEED PLATES		RARE	RARE
GROWTH		"BACKBONE" PARALLEL UNDULATING	"BACKBONE" PARALLEL UNDULATING

COMPARISON CHART				
	NATURAL	CHATHAM FLUX	BIRON/KIMBERLY HYDROTHERMAL	RUSSIAN HYDROTHERMAL
URAL/CHIVOR	GREEN/BLUE	GREEN/BLUE	GREEN/BLUE	GREEN/BLUE
MUZO	GREEN/YELLOW	GREEN/YELLOW	-	GREEN/YELLOW
REFRACTIVE INDEX (o-ray)	1.58	1.565	1.572	1.579
(e-ray)	1.57	1.560	1.568	1.573
BIREFRINGENCE	0.005 - 0.008	0.005	0.004 - 0.006	0.006
CHELSEA FILTER	INERT/RED*	RED	INERT	INERT
ULTRAVIOLET S/W L/W	INERT/RED INERT/RED	RED/INERT RED/INERT	INERT INERT	INERT INERT

*SOME FINE CHIVOR MAY SHOW RED



(Themelis Continued)

RUSSIAN HYDROTHERMAL GROWN EMERALD

- GROWN AT NOVOSIBIRSK, USSR
 - PROCESS: AUTOCLAVE (HIGH PRESSURE/TEMPERATURE); SEVERAL CYCLES
 - COLOR: GREEN/BLUE (i.e. URALS, CHIVOR)
 - CLARITY: VERY CLEANISH TO NAKED EYE
- COMMERCIAL CLASSIFICATION:
- FLAWLESS
 - MODERATELY INCLUDED
 - INCLUDED
- SIZE: ROUGH CRYSTALS TO 12 INCHES LONG; PRISM, COLUMNAR CUT TO 20 CARAT FINE COLOR/CLARITY

RUSSIAN - INCLUSIONS

- PARALLEL GROWTH PATTERN (BACKBONE, CHEVRON PATTERN)
- FREE OF COLOR ZONING
- MINUTE SOLID INCLUSIONS (GUEST CRYSTALS) DUE TO AUTOCLAVE LINING
- HEXAGONAL PLATINUM PLATELETS ARE NOT OBSERVED IN RUSSIAN HYDROTHERMAL
- COLORLESS PHENAKITE CRYSTALS
- LIQUID/GAS (2 - PHASE), VEILS, FINGERPRINTS

II. The Byron "Kimberley" Hydrothermal Synthetic Emerald

This West Australian company has renamed its laboratory-grown emerald "Kimberley" in hopes that this new name will have a positive marketing affect. Mr. Themelis studied thirty-three stones ranging from several points up to two carats. He is told there will be stones on the market weighing up to six carats. These emeralds are very transparent, with a green to yellowish color resembling the color of natural material from the Muzo region. The spectrum is identical to that of natural emerald. The refractive index of 1.572 was typical of the specimens tested. Inclusions include:

- ▶ wispy veils
- ▶ iron stains
- ▶ fingerprints in a parallel growth pattern
- ▶ phenakite crystals
- ▶ two-phase nail head inclusions-spicules
- ▶ gold or gold-based inclusions-scattered (may be isolated or in groups - no large crystals, just small grains)
- ▶ spiral helix growth pattern inclusions (natural Muzo emerald may also exhibit this)
- ▶ heat wave inclusions

INCLUSIONS

- 2-PHASE
 - A) FINGERPRINTS
 - B) NAIL-HEAD SPICULE
 - C) SPIRO (HEKIX PATTERN)
- NO COLOR ZONING
- NO PLATINUM; GOLD BASED INCLUDED GUEST CRYSTALS
- PHENAKITE CRYSTALS
- NO SEED PLATES SEEN
- BACKBONE, CHEVRON PATTERN



KIMBERLY - HYDRO

- KIMBERLY - BIRON - POOL
- HYDRO - GROWN IN W. AUSTRALIA
- VERY TRANSPARENT
- CLARITY: VERY CLEAN TO FLAWLESS
- LARGEST SIZE 5.73CT (INVENTORY)
- COLOR: GREEN/YELLOWISH
- DICHROSCOPE SHOWS:

(C-AXIS): GREEN AND YELLOW/GREEN
(a/b-AXIS): AQUA BLUE AND GREEN/YELLOW

REFRACTIVE INDEX

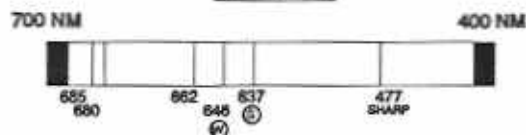
- LOWER THAN NATURAL EMERALDS

BIRON/KIMBERLY $n_o = 1.568$
 $n_o = 1.572$

BIREFRINGENCE = 0.004 - 0.005

- SPECIFIC GRAVITY HEAVIER THAN CHATHAM (FLUX)

SPECTRUM



Two New Sources for Sapphire and Ruby

I. Brazilian Corundum

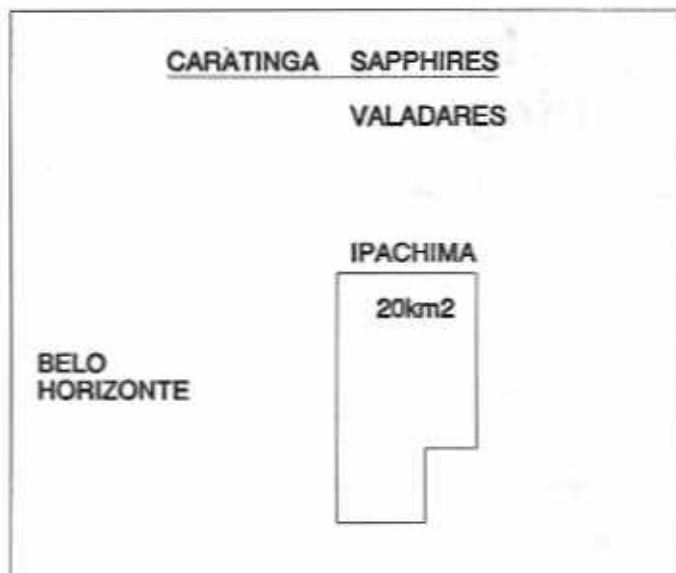
These are mostly industrial quality stones, although some rough suitable for cutting cabochons is found occasionally. The area of occurrence is small, comprising only about twenty square kilometers of the Malacacheta/Caratinga region. These corundums may show twinning, core colors and color change, and may typically exhibit a lilac bluish background. Typical inclusions are:

- ▶ iron stains (may be removed by hydrofluoric acid)
- ▶ tourmaline crystals
- ▶ quartz crystals
- ▶ a brownish diesel effect
- ▶ titanium silk
- ▶ unpredictable zoning
- ▶ long tourmaline crystals and negative crystals very similar to those found in Columbian emerald, but more rounded

BRAZILIAN SAPPHIRES

- 1) MINAS GERIAS — [MALACACHETA
CARATINGA
- 2) MATTO GROSSO — [COSIM-JAURU
OTHER LOCALITIES
- 3) PARA (RUBY) - RIO GURUPI
- 4) BAHIA GREEN (@ ANAGE)
BLUE (@ SALOBRO RIVER)
RUBIES (CAPIM OROSO)
RUBIES (VICTORIA DA CONQUISTA)
RUBIES (RIO DE CONTAS)
- 5) SANTA CATARINA NON-GEM (JUNK)
- 6) OTHER
ESP. SANTOS (CORUNDUM)
SIERRA DOS ORGAOS (DARK-OPAQUE)

(Themelis Continued)



II. Vietnamese Rubies

Several of these stones were passed around at Ted's AGA Tucson seminar - including one absolutely gorgeous one that was between 1½ and 2 carats. The color is reminiscent of Burmese in the lighter tones, and some would call it fine pink sapphire. Whatever the comparison, it is beautiful material, though rumored to be very expensive at this time.

COLOR CLASSIFICATION

		FLUORESCENT	INCANDESCENT
TYPE - 1	C-AXIS OTHER	BLUE YELLOW/GREEN	VIOLET - BLUE SALMON/PINK
TYPE - 2	C-AXIS OTHER	BLUE/VIOLET - BLUE YELLOW/GREEN	VIOLET - BLUE M - YELLOW GREEN
TYPE - 3	C-AXIS OTHER	BLUE LIGHT BLUE	PURPLISH SALMON/PINK
TYPE - 4	C-AXIS OTHER	VIOLET OR BL/LILAC YELLOW/GREEN	PURPLE - LILAC SALMON PINK

RUBIES FROM VIET - NAM

- LUC MINING AREA
- 60% JUNK
- 30% USABLE RED - MOSTLY CABS
- 8% GOOD RED
- 2% FINE GEM COLOR
- CLARITY VARIES
- SIZES TO 10+ CARAT ROUGH
- H/T: IMPROVES COLOR, BY MELTING THE SILK

HEAT TREATMENT

-
- COLOR - CHANGE - EFFECT
 - SILKY - MILKY
 - CORE - COLORS
 - IRON - OXIDE STAINS





Majestic Gems & Carvings

ESTIMATING THE VALUE OF CUT OPALS

by
Paul B. Downing, Ph.D

Author: *Opal Cutting Made Easy, Opal Adventures, Opal: Identification & Value*

Basis of Talk Presented at the American Gemologists Association meetings Tucson, February 11, 1991

The problem of valuing cut opals is considered the most difficult of all colored stone appraisals. My goal during my investigation of opal valuing has been to develop a set of objective criteria which allow each valuer to identify the characteristics of a stone in a consistent manner. These criteria must be visual so that each valuer can see the distinctions and use them in a manner which produces results consistent with those of any other valuer. Also, the visual criteria must be reproducible so that they can be in the possession of many valuers simultaneously.

This search for visual criteria has resulted in a series of pictures which define **type, pattern, fire color and inclusions**. Diagrams and data have been produced to define cut and shape. Base color is assessed using a set of opals similar to those in the Lightning Ridge Miner's Association grading system. These stones are comparable to the GIA Tone Scale. A printed scale of background color has been produced. Semi-crystal and crystal backgrounds are judged using a black cross on a white circle surrounded by black. All of these visual criteria are presented in my forthcoming book **Opal: Identification and Value**.

The one visual criteria not available in this book is a standard for the degree of brightness of a stone. To solve this problem I have selected a set of opals representing three levels of brightness. These brightness levels generally follow those previously available in the American Opal Society's *Opal Evaluation Kit*. By comparing each opal to the standard set I have produced, it is possible to reproduce this brightness standard.

The result of this effort is a set of visual criteria which is accessible to any valuer. With this system, valuers can consistently determine all the characteristics that create value in opal. (See my article *Valuing Cut Opal*, AGA Cornerstone, July 1990, p. 12-19, for a discussion of these characteristics.) If my goal has been met, each valuer would assess a particular stone in identical fashion.

Using these characteristics, it is then possible to generate a consistent estimate of the market value of that opal. Using *The Guide* as the source of values for cut opals, a procedure has been developed to estimate value. This simple step-by-step process proceeds as follows:

STEP ONE: Determine the type of the opal; solid, boulder, doublet, or triplet. For simplicity, the remainder of this discussion will deal only with solid stones.

STEP TWO: Determine base color using the visual criteria presented in *Opal: Identification and Value* (Tone Scale and Cross).

STEP THREE: Determine the brightness of fire in the stone using the Brightness Criteria Stone Set.

STEP FOUR: Determine the pattern of fire assessing the dominant pattern only.

STEP FIVE: Determine the fire color.

STEP SIX: Assess directionality.

STEP SEVEN: Assess cut.



STEP EIGHT: Determine the extent of inclusions.

STEP NINE: Determine consistency of pattern and brightness.

STEP TEN: Determine shape.

STEP ELEVEN: Determine size in carats.

These eleven steps will provide a relatively complete description of the opal to be valued. To estimate value the following steps are required.

STEP TWELVE: Identify the relevant chart in *The Guide* for the type of opal to be valued.

STEP THIRTEEN: Select the base quality of the opal by the relationship between brightness and quality listed below:

BRIGHTNESS	QUALITY
1	Less than Commercial
2	Commercial
3	Good
4	Fine
5	Extra Fine

STEP FOURTEEN: Calculate the mid-point of the range in *The Guide* for the quality and carat weight of the opal to be valued. For example, *The Guide* lists a Good quality crystal opal of 2 to 4 carats as valued between \$100 & \$275 per carat. The mid-point would be \$187.50 per carat.

STEP FIFTEEN: Calculate the additions or subtractions from this value using Table 1. Using the relevant characteristics of the opal to be valued, add the appropriate value additions together.

STEP SIXTEEN: Multiply the value addition times the mid-point value determined in Step Fourteen. Then add (or subtract) the result to that mid-point to determine your estimate of the value of the opal per carat.

STEP SEVENTEEN: This is intended only as a guide to value. Assess the overall attractiveness of the opal under different lights and orientations to obtain a general sense of whether the value seems appropriate. Adjust the value up or down depending upon your judgment of this stone.

Perhaps an example will make this process clearer. Suppose you wish to value a semi-crystal stone with a intensity of 3. It has the following characteristics:

PATTERN:	Flashfire	=	.00
FIRE COLOR:	Orange Green	=	+ .05
DIRECTIONALITY:	Somewhat directional	=	-.05
CUT:	Medium dome	=	.00
INCLUSIONS:	None	=	.00
CONSISTENCY:	Consistent	=	.00
SHAPE:	Standard Oval (10x8)	=	+ .10
SIZE:	1.50 carats	=	.00
Total Addition:		=	+ .10

The mid-point of the range for semi-crystal as of the 4/90 issue of *The Guide* is \$60.00 per carat (a Good stone, brightness level 3, of 1 to 2 carats). Thus, the estimated value is $\$60.00 \times .10 + \$60.00 = \$66.00$ per carat.

THE SOURCE OF THESE WEIGHTS

It is inevitable that others will quibble with one or more of the weights presented in this table. I cannot prove they are correct and indeed I expect to change them from time to time based upon changes in the market. But I believe they are an accurate representation of the current market. To test this idea, I have systematically evaluated the cut stones in my



stock using these weights. I find these estimated values consistent with, but generally about 20% higher than, my wholesale prices for white, semi-crystal and crystal stones. On the other hand, they are consistent with but about 20% lower than my prices for black opals. This relates to the rapid upward movement of black opal prices in the last year.

CONCLUSION

The system for valuing opals presented here has the advantage of employing visual and reproducible criteria to consistently determine opal characteristics. No other valuing system now available provides criteria that are visual and reproducible. I believe that it is an absolute requirement for consistent valuing of opals that visual and reproducible criteria exist and are used by all professional valuers. Without such criteria one valuer's assessment of a stone will never be consistent with that of another. In fact, I will go even further. Without these visual criteria a single valuer is likely to evaluate the characteristics of the same opal differently at different times. This does not mean that the valuer is incompetent. Rather, it means that it is virtually impossible that any individual can keep these criteria firmly and unwaveringly in their mind and eye without consistent recalibration using the visual criteria.

As a case in point, let me tell you about my experience with the *Brightness Criteria Stone Set*. An individual has a stone to evaluate. I suggest that they use the *Brightness Criteria Stone Set* to determine the brightness of the fire in their stone. Inevitably the individual will expect the stone to be a match or brighter than the level 4 stones in the set (the brightest in the set.) Comparing the stones their face falls as they move the stone down to level 3 or even level 2 before finding a match. Nobody can remember brightness. I learned this a long time ago. All good opal buyers carry some calibration criteria with them on buying trips.

I do not wish to suggest that this is the best and most accurate method of determining opal characteristics and value that could ever be produced. I am convinced, however, that it is far better than any alternative method currently available.

The book *Opal: Identification and Value*, along with the *Brightness Criteria Stone Set* will be available, hopefully by summer 1991. Please contact:

Paul B. Downing, Ph.D
MAJESTIC GEMS & CARVINGS, INC.
P. O. BOX 14229
TALLAHASSEE, FL 32317-4229
(904) 385-3732 - FAX (904) 385-8736
TOLL FREE - (800) 468-0324

Copyright 1991 by Paul B. Downing. All rights reserved. No part of this paper may be used or reproduced in any manner whatsoever without written permission of the author.



TABLE 1

Characteristics	Description	Value Addition or Subtraction	
		All Other Stones	Semi-Black & Black
Pattern	Pinfire	-.05	-.05
	Flashfire	.00	.00
	Broad Flashfire	.00	.00
	Harlequin	+.20	+.20
	Rare Patterns	+.00 to +.20	+.00 to +.20
Fire Color	Blue only	-.50	-.50
	Green only	-.10	-.20
	Blue Green	-.05	-.10
	Green Blue	.00	-.10
	Green Orange	.00	+.10
	Orange Green	+.05	+.15
	Red only	+.05	+.25
	Orange Red	+.10	+.30
	Multicolor	+.10	+.30
	Red multicolor	+.20	+.40
Red Blue multicolor	+.25	+.50	
Directionality	Highly directional	-.30	-.30
	Very directional	-.20	-.20
	Somewhat directional	-.05	-.05
	Slightly directional	.00	.00
	Not directional	+.10	+.10
Cut (Dome)	Flat dome	-.10	-.10
	Medium dome	.00	.00
	High dome	+.10	+.20
	Poor cut or finish	-.10 to -.50	-.10 to -.50
Inclusions	Badly included	-.20 to -.50	-.20 to -.50
	Slightly included	-.15	-.15
	Not included	.00	.00
	Cracked	No value as jewelry	No value as jewelry
Consistency of Brightness and Pattern	Major dull spot	-.20	-.20
	Minor dull spot	-.10	-.10
	Undesirable pattern mix	-.20	-.20
	Consistent	.00	.00
Shape	Standard Oval	+.10	.00
	Other standard shapes	.00	-.20
	Free size Oval	.00	.00
	Baroque shapes	-.20	-.30
Size	.50 carat to .99 carat	-.20	-.30
	.00 carat to .49 carat	-.30	-.50



Ten Questions About Opals

- All other things being equal (Quality and Size) rank the following opal types by value (#1 being the highest):

_____	Fire Opal
_____	Precious Opal
_____	Black Opal
_____	Crystal Opal
_____	Boulder Opal
- What causes play-of-color in opals?

- If properly mounted, opals are suitable for wearing in rings. True or False?
- Opals from some locations are more prone to crazing than others. True or False?
- Name the five major attributes that affect the value of opals:

- Describe how opal jewelry should be cleaned:

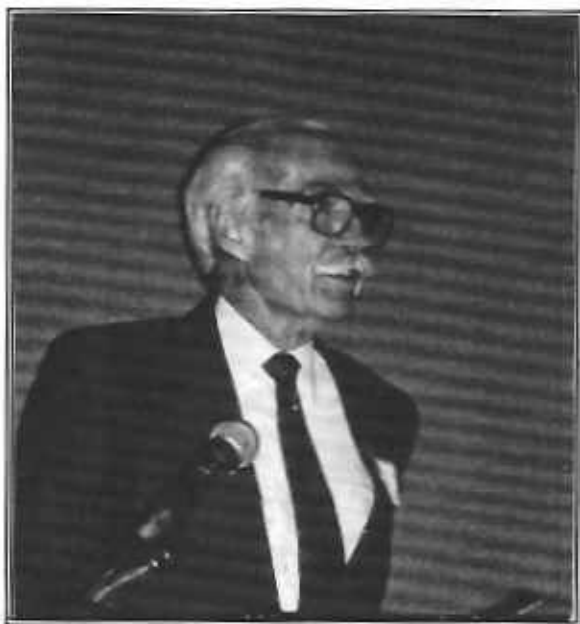
- Opal has a _____ fracture.
- Split faces refer to what kind of opal? _____
- Slocum stone is a synthetic or an imitation?
- Boulder opal should be valued by the carat weight, not the piece. True or False?

PLEASE SEND YOUR ANSWERS TO AGA HEADQUARTERS

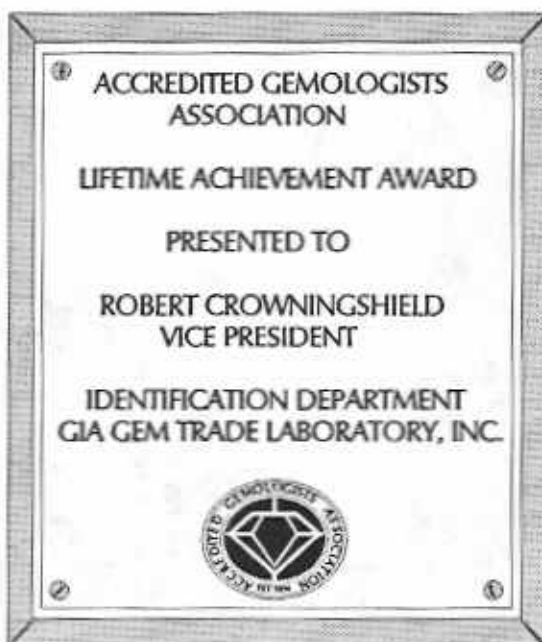




**The committee is
working out the details**



Robert Crowningshield



The following lists just a few of the highlights and breakthroughs with which Robert Crowningshield has been associated.
(Periodical reference is to *Gems & Gemology*)

- 1957 "Bombarded" Yellow Diamonds "5290", Winter 1957-58
- 1962 Biwa Tissue Nucleated Cultured Pearls, Winter 1962
- 1967 Tanzanite, Fall 1967
- 1968 Tsavorite, Winter 1968
- 1970 Cultured Black Pearls Natural Color, Spring 1970
- 1971 General Electric Synthetic Diamonds, Summer 1971
- 1972 Synthetic Quartz, Spring 1972
- 1981 Speaker 50 year Anniversary GIA Symposium
- 1983 Paparadscha Documentation, Spring 1983
- 1986 Synthetic Amethyst, Fall 1986
- 1989 Hope Diamond Documentation, Summer 1989
- 1989 November, Keynote Speaker at Gemological Association Awards Ceremony in London for FGA

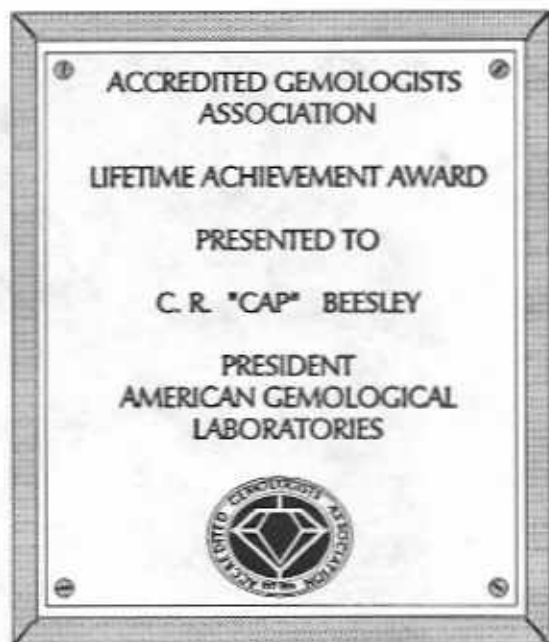
The list goes on into the 1990's. Robert was a scheduled speaker at the 60 year Anniversary *GIA Symposium, Facing the Future*. Robert has participated in AGA Tucson and National Conferences.

Listening to Robert informally, one gets the sense of what a Career Gemologist is about. Utilizing the skills acquired through time, Robert didn't always have the luxury of modern day equipment when identifying and evaluating gemstones. Mr. Crowningshield, the Accredited Gemologists Association appreciates your lifelong contribution to Gemology.





C. R. "Cap" Beesley



Prior to Cap's involvement in the Gem Sciences, he spent several years in the chemical and plastics industries. He was a member of the team at the Allied Chemical Research facility that explored the development of new co-polymers. He also served as Director of Operations for Quantum Industries, developing advanced coating technologies for the manufacturer of thin layer chromatographic plates. Cap studied chemistry at Northeastern Christian, geology at Villanova and mineralogy at Columbia University. Under Dr. Ralph Holmes, the Chairman of Columbia's graduate school of Geology and Mineralogy, Cap developed his boyhood interest in gems and minerals and was eventually introduced to Bob Crowningshield.

Cap spent nine years on the GIA staff, actively contributing to the development of this organization. He taught gemstone and setting classes and established the six month resident program in New York. Cap developed the first computerized diamond grading process and the first comprehensive colored stone grading vocabulary, presented at the AGS Conclave in Minneapolis in 1975.

His active interest in instrumentation has also resulted in two U.S. patents. In 1976-77, he formed Analytics Research and Development Corporation and American Gemological Laboratories. AGL now enjoys an international reputation for its country of origin documentation and has been responsible for a number of industry firsts in its fourteen year existence:

1. An internationally used colored stone grading system used in over 35 countries.
2. Establishing the criteria for the detection of heat enhanced corundum.
3. Color/Scan, the first patented, portable color communication system.
4. The first to consistently state enhancement of gemstones on its laboratory reports,
5. Implementing the first nationwide consumer protection service, Gemline Recovery.

Cap has conducted training programs from Australia to Switzerland, published numerous articles, and appeared on television here and in Japan. He has provided consulting services to third world governments and U.S. governmental agencies. For five years he has traveled the world as a Gem Sciences specialist to the United Nations. Cap was the primary architect of the Gemstone Enhancement Guidelines, and is co-founder of Gemcore, an international Gem Science Research and Education organization.



AGA TUCSON 1991 DINNER DANCE



Robert Crowningshield and Kathryn Bonanno
Enjoy a Dance



Cap and Joan Beesley do the Tucson Two-Step

AGA TUCSON 1991 DINNER DANCE

AGA Secretary, Leo Schmied
Leads the Band . . . ➡
The Blues are His First Love!



AGA "Vice" President,
Donald Palmieri and ➡
his much better half, Pam

← Dror says to Candy,
"I think I finally got it!"



AGA LAB GROWN/SYNTHETIC EXHIBIT DEBUTS AT AGTA SHOW-CONVENTION CENTER

By Don Palmieri

It was around May of 1990 when Courtney and I were putting the '91 Tucson itinerary together, and ideas were flying around the table. We wanted to cram as much education into a limited space and very limited time frame as we could. Talking along the lines of our "hands on" educational theme, we felt it would be very helpful to somehow exhibit a complete range of laboratory grown synthetics for study purposes at the show. The logistics posed several problems but with perseverance and help from Judith Osmer, Tom Chatham and the cooperation of AGTA, we were able to introduce a lab grown, synthetic stones display and mini program at the Convention Center. The exhibit was open for two days and many passers-by came in to investigate, usually staying longer than they expected. It isn't often that one can peer tirelessly into a gem-filled showcase in Tucson without being asked to buy something. The exhibit was a Tucson first, but not the last. Through our charter of continued education, we plan to expand the lab grown synthetics and imitations exhibit.



Donald Palmieri

In addition to the exhibit, Tom Chatham, president of Chatham Created Gems, and Judith Osmer, president of J. O. Crystal Co. (Ramaura Rubies) gave talks on the history and current state of crystal creation and culturing. Both talks were educational, entertaining and in a relaxed open forum with audience participation. The program was further enhanced with questions and comments from spectator, Dr. Fred Pough. With the ensuing discussions among the three, Chatham, Osmer and Pough, the rest of us felt like we were eavesdropping in a rare scientific discussion. All in all, the program was delightful. Both Chatham and Osmer have been regular contributors to AGA and the gemological and jewelry world for many years. They are to be commended for their candor with and support of the gemological community. Watch for a special Tucson announcement concerning Judy and Tom.



Thomas Chatham



Judith Osmer



SOFTWARE SHOWCASE A SUCCESS IN TUCSON

by Thom Underwood G.G., A.S.A.

The Accredited Gemologists Associations' Software Review committee (AGA-SRC) sponsored the second annual Software Showcase in Tucson in 1991. The purpose of the showcase was to provide a forum where AGA members and other members of the jewelry industry could see and get hands on experience with software written for the jewelry industry. The show was held on Wednesday, February 13th at the Tucson convention center and space was generously provided by the American Gem Trade Association.



THOM UNDERWOOD AND AUSTRALIAN SOFTWARE DEVELOPER GORDON STRAIGHT

Ten different producers with software products ranging from inventory and customer management to gems management and appraising were involved in the forum. Software shown was written for the IBM/DOS environments and included the following companies: Card 'N' Tag, D.A.T.A. Inc., Gemological Research Corp., Gemprint Computer Systems Ltd., JewelWorks/MAC, Polygon, Quantum Leap, Retail Science, Seiko Instruments USA Inc., and World Gems Software.



The show attracted a broad range of interested parties, from experienced computer experts to those who had never touched a computer before. It was apparent that computerization is a hot topic in our industry. The "power users" got to talk with the programmers while those new to computers got to touch the keyboards and "mice" and begin the exciting journey into computerdom. The producers had the opportunity to show the value of their products to the industry.

The AGA-SRC is currently working on the 1992 Software Showcase. We are hoping to present a two day show with an even greater number of producers included along with morning seminars and panel discussions of issues around computerization. Don't miss it. Better yet, if you want to help organize and participate, call Thom Underwood, at 619-291-8852.





Anne Hawken and Leo Schmied



David Atlas and Young McQueen



FACING
THE
FUTURE



INTERNATIONAL
GEMOLOGICAL
SYMPOSIUM

LOS ANGELES
CALIFORNIA
JUNE 20-24

1991

A LETTER FROM THE GIA:

August 19, 1991

Mr. Cortney Balzan, President
Accredited Gemologists Association
915 Lootens
San Rafael, CA 94901

Dear Cortney:

We can't close our files on the 1991 International Gemological Symposium without extending our most sincere appreciation of your special interest and support of this event as a member of the Symposium's "Gem and Jewelry Industry Liaison Committee."

It provided ongoing encouragement to everyone at the Gemological Institute of America that worked on the planning and organization of the Symposium to know that we had the backing and support of such a group of important and influential individuals.

The real reward for all of us was to see the very large attendance, and to hear the many favorable comments regarding the Symposium and the related events.

Now we must move on to other endeavors for the betterment and benefit of the gem and jewelry industry, and we welcome your continued involvement and support.

Sincerely,

*Hope that you
are as successful
as we were with
your help!!*

D. Vincent Manson, Ph.D.
General Chairman
1991 International Gemological Symposium

Robert B. Westover
Chairman
Jewelry Industry Liaison



AGA POSTER AT GIA SYMPOSIUM A GREAT SUCCESS

Most of you have probably heard by now that the GIA Symposium was a well attended success. Gemologists from every part of the globe listened to lectures on topics as diverse as they themselves were.

The AGA Poster (actually a complete booth) was prepared by the Software Review Committee and was titled "Computerization for the Jewelry Industry." The poster was designed to present computerization issues for all segments of the industry and had billboards, several computers and prepared handouts. A selection of software for every part of the jewelry industry was installed on the computers. The software was provided by producers interested in supporting the AGA and its computer projects. This provided viewers with an opportunity for a "hands on" experience with software designed specifically for their industry.

The AGA booth was one of only a few booths that were staffed full time. There was almost uninterrupted interest even during scheduled lectures. Many of the Symposium attendees stopped by and discussed computerization issues that confront their businesses and looked at possible solutions. As a consequence, interest in the AGA and its varied activities was kindled. AGA fliers and membership directories were distributed.



Anne Hawken and Kirk Root



Thom Underwood Explains Benefits



Don Palmieri and Pam - Relaxing



Joe Tenhagen and Tom Sequin



AGA-Certified Gem Laboratory Program: Report to Membership

Professional, Active, Opportunity, Advance... sounds great; what is it? In mid-1990, President Courtney Balzan reasoned that the AGA Gem Laboratory Program could become of true service to the AGA membership. What should the AGA-Certified Gem Laboratory be? A *Professional Designation* of the highest standards, known and respected for competence and ethics throughout the industry. *Active Participation* in GemTech and GemScience R&D groups, information networks of leading professionals. *Opportunity* to develop new methods and technologies in gem science, and publish results. *Advance Notice* of gem science and technology reports which affect your practice, before journal publication. Well...we're not quite there yet, but we're on our way.

As many of you know from long hours in conference together, the AGA Lab Program has undergone extensive study and restructuring this year. I am very pleased to introduce the new Lab Program Administrative Committee: Ian Campbell, FGA, CG (Republic of South Africa), James Krol, GG, ASA, and Leo J. Schmied, GG, ASA. These program members, along with other consultants from AGA at large, have been at work since last fall. All hope you will be pleased with the results of our efforts. The outline below will give an idea of our priorities.

Laboratory Program Goals 1990-91

1. Program Restructuring
 - A. Administrative Committee
 1. Program Development
 2. Laboratory Standards and Review Process
 - B. Committee Workbook
 1. Master Plan for Program Administration
 2. Laboratory Product Index
 - C. Lab Application Publication and Review
 - D. Liaison Efforts
 1. Ethics: implementation of additional standards for Lab Program
 2. Standards & Disclosure: professional development
 3. Constitution; Publications; Public Relations

2. Research and Development
 - A. GemTech R&D
 1. Equipment Review Protocol (now studying GemSet™)
 2. *Product Review* Publication
 - B. GemScience R&D
 1. Research Projects (now studying Yehuda-treated emerald)
 2. *Gem Science Update* Publication
 - C. *LabFlash* Publication
advance news from R&D Groups; timely notes on issues of importance to Lab Program members



3. Lab Program Promotion
 - A. AGA Publications
 1. Membership Directory
 2. *Cornerstone* articles
 3. Q & A contributions
 - B. Trade Publications
Product Review and *Gem Science Update*, as per Board permission to release
 - C. Membership Recruitment
 1. Renewals to new laboratory standards and qualifications
 2. New member outreach

The Year in Review

In time for a February Report to the Board, the Lab Program had initiated work on (1) A-D and (2) A-B, about half the outlined objectives. A newly revised application for Certified Laboratory status, the result of careful review of laboratory standards and applicant qualifications, was released at Tucson. The Farnsworth/Munsell Color Vision Test was administered at Tucson as well, and the Board accepted the Committee's Equipment Testing and Review Protocols. These Protocols lay a framework for the thoughtful and impartial review of gem tools.

In April, the Board voted to confirm the Committee's recommendation that the name of the AGA Accredited Gem Laboratory certificate be changed to AGA-Certified Gem Laboratory. This move further distinguishes our approved Gem Labs from those of other organizations, and makes our initials (AGA-CGL) less confusing for computer communications purposes. At that time, renewing and expired Labs were contacted with Program updates and new applications - many of you included. We are pleased to present in this issue of *Cornerstone* a new directory of AGA-Certified Gem Laboratories. The now current standards stress the need for today's Gem Laboratory owner to be proficient in evaluation - identification and grading of gem materials - and maintain exemplary ethical compliance and fiduciary responsibility.

Standards & the Future

As we must maintain the highest level of gem technology available to the independent practitioner, equipment standards have been revised. Independent identification and grading labs are threatened with obsolescence. As gem enhancement detection becomes ever more difficult, we must embrace advancing technology and gem science. Development of new laboratory tools in response to actual need becomes a priority for the 90's. Several equipment suppliers concede that the last fifty years of gemology have seen little development beyond repackaging of existing tools. The Lab Program intends to carry this dialogue forward into development of new methods and equipment; work in GemTech and GemScience R&D propels this goal.



Research and Development

The GemTech R&D group is pursuing the impartial testing and review of new equipment and products offered to the working gem lab. This group is now examining GemSet™ color communication system to determine its utility, production consistency and accuracy claims. A *Product Review* will be made available to the AGA membership when results are known. Proposed future projects include testing inter-grader reliability, and Color Master™ color grade reproducibility (internal reliability).

A very exciting project, for me personally, is that of GemScience R&D. We are analyzing an AGA sample Yehuda-treated emerald in conjunction with the Bureau of Economic Geology-Mineral Studies Laboratory of the University of Texas here in Austin. (Please see "Yehuda Emerald Update", this issue). Just as GemTech investigations can induce suppliers to develop improved gem lab tools, we should look beyond the limits of individual independent labs for the advancement of gem science. I advocate joining with academic mineralogy and geology, and the very fine scientific laboratories at their disposal, for both a broader and a more concentrated effort in gem material analyses. This networking can be expected to yield results in methodology for detection of new treatments, and distinctions of natural materials. Other R&D topics of future interest may include an inquiry about advanced diamond grading standards internationally.

The Software Review Committee has set us a fine example of effective review and publication, and we hope to perform as well. GemTech plans to publish *Product Reviews*, and GemScience to publish *Gem Science Updates*, both to be available to the full AGA membership. Our Lab Program news alert, *LabFlash*, recently released slides of inclusions in Yehuda-treated emerald to members.

Work with Other Committees

Your Gem Lab Program is working to integrate these efforts with those of other Committees, and considers many AGA members at large to be important contributors to this program. Ethics is obviously of grave concern to us as we attempt to raise these requirements in consultation with the Ethics and Grievance Committee, chaired by David Atlas. Guidance from Standards and Disclosure is essential to our obtaining the vanguard of gemological practice. Coordination of educational standards with those of the Education Committee remains an objective.

I anticipate that with another year's hard work, your Lab Program will provide a dedicated core of *Professionals, Active in Advance* science and technology, enlisting your contribution to our expanding field. *Opportunity* awaits you. Please join us.

Anne Hawken, Chair
AGA-Certified Gem Laboratory Program



STANDARDS AND DISCLOSURE COMMITTEE REPORT

by C. R. "Cap" Beesley

The current focus of the Standards and Disclosure Group is to establish the reproducible tolerances for all the elements that are part of the reports prepared for consumer use. Currently, the general public has no awareness that the parameters of their documents, from quality factors to value estimates, have a reasonable set of plus and minus limits that reflect the reality of grading procedures and value judgements.

Part of the proposal to correct this situation includes constructing a comprehensive diamond grading exercise in order to establish the tolerances for documents prepared by A.G.A. members. A comprehensive set of stones will be circulated to all those willing to participate in this independent grading exercise and the anonymous results will be distributed to all members prior to establishing tolerance recommendations.

The long-term plan will be to identify acceptable limits for each parameter of our reporting formats in order to better serve the general public and those relying on gemological documentation.

GEMOLOGIST GARY R. GRELICK HONORED BY SRI LANKA

BUFFALO, NEW YORK – Gary R. Grelick of Bomi Gemstone Importers has received the annual achievement award from the nation of Sri Lanka. The gemologist was honored for his expertise and for career contributions to the international jewelry business. Co-sponsored by the Ratnapura Gem Dealers, the carved and gilded ceremonial vase award was presented in April in Colombo, Sri Lanka.

Mr. Grelick and his father, Robert A. Grelick, are partners in Bomi, with headquarters in Buffalo, New York. The company has export offices in Hong Kong, Thailand, Israel, and Sri Lanka.

Gary Grelick is a graduate gemologist with degrees from the Gemological Institute of America. He is the author of the reference book, "Diamond, Ruby, Emerald, and Sapphire Facets," now in its fifth printing.

We are saddened to report the passing of
AGA member **Mr. Robert Vogel**, who we are
told died on November 26, 1991 from AIDS.



ACCREDITED GEMOLOGISTS ASSOCIATION

Donald A. Palmieri, GG, ASA, MGA

Vice President, AGA/Director of Education and Certification

650 Washington Road

Pittsburgh, PA 15228

(412) 344-0300

EDUCATION AND CERTIFICATION COMMITTEE

Chairman DONALD A PALMIERI

GG, ASA, MGA, Appraiser, Author, Publisher, Jeweler, Educator

Members C R "CAP" BEESLEY

GG, ASA, MGA, Gem Sciences Specialist, Author, Gem Locality Explorer, Educator

MICHELE HALLIER

GG, FGA, CGA, ASA, MGA, Appraiser, Jeweler, Author, Educator

ALFREDO J MOLINA

GG, FGA, CGA, ASA, MGA Appraiser, Jeweler, Author, Educator

RICHARD A SOUZA

MS Geologist, Educator, Author, Mineral Specialist and Dealer

TED THEMELIS

Scientist, Author, Gem Instrument Inventor, Gem Treatment Specialist

Purpose (1) Develop and support regional and national gemological programs specifically focusing on new scientific and industrial developments effecting gems and gem materials, precious metals and jewelry related issues.

(2) Develop and maintain a national educational program for practicing gemologists to maintain a high level of current gem testing and identification information and skill.

(3) Develop and administrate a gemological certification program to offer a masters title for those gemologists who excel in their knowledge and practice of gemology.

(4) Publish any pertinent information to support AGA's educational programs, and to protect by copyright any individual's original works being offered to AGA for exclusive use in any of its manuals or other educational periodicals.

CURRENT AND UPCOMING PROGRAMS

Certified Master Gemologist "CMG"

This program began development in mid 1990 and was authorized by the AGA Board in September of the same year. The program will be operated by the AGA Education and Certification Committee and will function as a stand alone, self-funded program under the auspices of the AGA Board of Directors. The program has no AGA funding and will be completely self-supporting.

The purpose is to identify and certify those gemologists who possess a high degree of integrity and superior gemological knowledge coupled with the desire to explore new information with a vigorous quest for excellence in gemological practice.

The "CMG" certification will be backed by ongoing educational programs to help any and all AGA members achieve this "masters degree" of gemology. This program is not affiliated with any college or university at this time, however the possibility has not been ruled out. The published manuals, theses and other educational reports developed by the committee will be available for sale to the industry.



Requirements for Certified Master Gemologists "CMG" Program:

1. AGA MEMBER . . . Accredited Gemologists Association member in good standing and adherence to the Code of Professional Practice of the AGA.
2. GEMOLOGICAL DESIGNATION . . . Accepted designations are: Graduate Gemologist, Gemological Institute of America (GG); Fellow of the Gemological Association of Great Britain (FGA). Other designations accepted by Board vote.
3. AGA-CERTIFIED GEM LABORATORY . . . Certification status is awarded to a named individual, is not issued in the name of a company, and is not transferable. Every reasonable effort is made to ensure that AGA-Certified Gem Laboratories conform to the highest standards of independent professional practice in gem science and technology. Laboratory standards are reviewed annually by the Gem Laboratory Program Committee, and Certification criteria are subject to revision at that time. Status as an AGA-Certified Gem Laboratory is limited to a two year period, and may be renewed by reapplication. For further information, please call 415/454-8553 or 512/328-9411. Application Fees (June 1991) \$75.00.
4. COLOR VISION TEST . . . Results of the Farnsworth/Munsell 100 Hue Test, and the Farnsworth Dichotomous Test for Color Blindness to indicate average or above color vision; re-testing required minimally at five (5) year intervals. Color Vision Test available through AGA-CGL Committee (fee approximately \$25.00).
5. PEER REVIEW . . . Ethics and competence review to be conducted, at the discretion of the Laboratory Certification Committee, with any or all professional and personal references supplied by applicant. If current information is available at time of "CMG" application, it will be forwarded to the Education and Certification Committee.
6. EQUIPMENT STANDARDS . . . Minimal required equipment, appropriate to an independent gemological identification and grading laboratory, operative on laboratory premises, as per current application.

Current requirements:

- (1) Binocular Microscope (min 45X/light & dark field/zoom)
- (2) Diamond Color Grading Light Source (daylight balanced)
- (3) Master Diamond Set (minimum .25 ct./minimum 5 diamonds)
- (4) Diamond Scale (accurate to .005 ct.)
- (5) Millimeter measuring device (accurate to 1 mm w/high setting attachment)
- (6) Diamond Proportion Analyzer
- (7) Ultraviolet Light Source (LW/SW)
- (8) Thermal Conductivity Probe
- (9) Colored Stone Grading System (must be correlated to GIA Colored Stone Grading system)
- (10) Refractometer w/polarizing filter
- (11) Illuminator Polaroscope (w/optic condensing sphere)
- (12) Spectroscope
- (13) Specific Gravity Liquid Set
- (14) Fiber Optic Illuminator
- (15) Monochromatic Light Source
- (16) Chelsea Filter/Table Gauge/Hot Point Needle/Dichroscope
- (17) Pennyweight or Gram Scale (accurate to .10 DWT or .1 gram)
- (18) Precious Metal Testing Capability
- (19) Photographic equipment



7. **APPLICANT'S AFFIDAVIT** . . . Sworn affidavit authorizing laboratory inspection and gemological practice review, accepting terms of revocation, and acknowledging Code of Ethics, as per application.
8. **ANNUAL CONTINUING GEMOLOGICAL EDUCATION/PROFESSIONAL DEVELOPMENT** . . .AGA Conference sponsorship or attendance; course work in gem, jewelry, or professional practice with professional societies, organizations or trade schools; course work in gemology, mineralogy, geology, chemistry, optics, lapidary or metal arts with a college or university; publications or other educational contributions to the programs of AGA, other professional societies or organizations, trade schools or trade press. An annual synopsis of gemological events, discoveries and revisions will be provided through the publications committee for all AGA members. "CMGs" will be provided a questionnaire based on the material, and a passing grade will be required for annual recertification. In addition, a completion of fifteen (15) continuing educational units (CEU) are required annually.
9. **"CMG" TESTING AND CERTIFICATION** . . .The three testing components for final certification will be as follows:
- (1) Thesis on an approved gemological topic: Thesis may be an in-depth report on a gem species, instrumentation, gem treatments, historical review of gem subject, identification techniques, etc. Although thesis will be reviewed and graded on content, it should be comprised of a minimum of twenty (20) double-spaced typewritten pages. Final review of shorter reports will consider topic, timely relevance and completeness of presentation. Thesis should be copyrighted by the author. Author/CMG candidate authorizes AGA to use, distribute, copy and sell copies through its education committee, providing authorship is prominently displayed. A royalty contract similar to universities will be executed simultaneously with application.
- (2) AGA Ethics, Standards and Procedures Test: A written test will be administered simultaneously with the practical test to ensure all CMGs thoroughly understand the AGA code of ethics, and the "CMG" standards and procedures for all gemologically related reports to be performed. Copies are available from AGA headquarters or by contacting the Education & Certification Committee at (412) 344-0300.
- (3) CMG Practical Test: Five items of jewelry will be examined, identified including gem I.D. and treatments, metal analysis, weight estimation, and graded for quality. They will be described in an acceptable report form by each candidate and must achieve a passing grade. Test sites will be available in Tucson, Pittsburgh, Phoenix, New York, San Francisco, Austin TX, Switzerland, and more sites to be named as the program progresses.
10. **PRELIMINARY AND SPECIFIC COSTS** . . .

Preliminary and Related Costs:

AGA Membership Dues	\$100.00/year
AGA Certified Gem Laboratory	\$ 75.00/2 years
Farnsworth/Munsell 100 Hue Test and	
Farnsworth Dichotomous Test for Color Blindness	\$ 25.00/2 years

Specific Costs

CMG Application, Thesis Acceptance & Thesis Review	\$200.00/one time
CMG Written & Practical Test	\$200.00/one time
Annual CMG "CEUs" Review and Annual Update	\$100.00/year
Test (Questionnaire)	



Optional Offerings

Costs of CMG Manual and Educational Materials:

Manuals, thesis copies and educational programs are elective purchases on the part of all "CMG" candidates. All proceeds from materials, manuals and programs produced by the Education and Certification Committee (except the AGA International Conference in Tucson each year) will be used to support the entire educational effort and maintain the "CMG" program.

UPCOMING EDUCATIONAL OFFERINGS

• **HANDS ON GRADING & VALUATION**

Opal, Pearl & Designer Gemstones
Speakers...Downing, Edwards & Homer

• **VALUATION TECHNIQUES & DETERMINATIONS**

Speakers...Palmieri & Drucker

SUNDAY, OCTOBER 6, 1991

9:00 am - 5:00 pm

NORTHWEST ATLANTA HILTON
ATLANTA GA

Contact...Tom Seguin (813) 756-8787

COST ... AGA MEMBER \$85, NON-AGA \$100

• **AGA/GIA ADVANCED DIAMOND AND COLORED STONE GRADING COURSE**

"Hands On Educational Certificate Course"
Instructors...Sue Johnson & Jim Lucey of GIA

MONDAY-WEDNESDAY, FEBRUARY 3, 4, & 5, 1992

8:00 am - 7:00 pm

HOTEL PARK TUCSON
TUCSON AZ

Contact...Don Palmieri (412) 344-0300

COST ... AGA MEMBER \$450, NON-AGA \$500 (Luncheon included each day)
Maximum Capacity ... 50 persons (full equipment provided)

This advanced educational certificate program, designed by the Education and Certification Committee and contracted with Gemological Institute of America will be a first of its kind. The course is for seasoned professionals and gemologists only! Fifteen hours will be devoted specifically to clarity and color grading of diamonds, and fifteen hours to colored stone grading; specifically hue, tone and saturation; brilliancy, window and extinction; and clarity grading. The instructors are two of GIA's best. Sue Johnson, Director of Education,



and Jim Lucey, Education Projects Officer, will co-teach and conduct testing for this special AGA course. GIA is producing special course certificates which will be presented to all who successfully complete this compact, advanced course. This course will be one of the most intensive three-day programs offered through GIA. There will be a maximum of fifty (50) persons permitted to take this course. GIA will furnish each participant with a microscope for the diamond session and every two participants with a ColorMaster. In order to get this much advanced education you would need to take the one week GIA programs in diamonds and colored stones for a total of ten (10) business days at a cost of approximately \$1,200 for tuition alone. Since most of us need only a stiff refresher on both diamond and colored stone grading (specifically diamond clarity grading!) we can eliminate the time it takes an instructor to explain this information to a group where some individuals may be hearing it for the first time. This is the type of hands-on training and education we have been promising; meaningful — take it back and use it right away — education. We are paying a hefty sum to GIA to teach this program for us. We are signing a contract that allows us to cancel 30 days prior to the program's start. We are also obligated to pay a significant portion of the cost up front since we are tying up two traveling vans of equipment and two of their top administrative educators. It is for this reason that we are announcing the program this early and can offer it first to AGA members exclusively until September 15, 1991 only. As of September 16, 1991, enrollment will open to the industry. Enrollment will be accepted to the first fifty (50) qualified persons sending in a non-refundable deposit of 50% of the applicable member or non-member fee by check. Those wishing to pay by Visa, MC or American Express will be charged the full non-refundable fee at the time of application. (Deposits will be refunded for cancellations only if maximum capacity is achieved.) If a sufficient number of participants are not enrolled by January 3, 1992, the course will be canceled and all deposits will be refunded in full immediately. If you are a serious appraiser, lab grader or jeweler, this class will pay dividends in many ways. Just knowing you are current with GIA grading practices is worth twice the price of admission. In addition, we've blocked rooms and suites at special rates at the Hotel Park Tucson, AGA's renewed headquarters. Waste no time! You don't want to miss this golden opportunity.

TUCSON (Continued)

1992 AGA INTERNATIONAL EDUCATIONAL CONFERENCE

- AGA/CMG TRANSPARENT GEMSTONES COURSE
"Hands On Identification & Grading and Reference Manual"
Instructors...Beesley, Hallier, Molina, Palmieri & Themelis

THURSDAY & FRIDAY, FEBRUARY 6-7, 1992

Thursday 9:00 am - 6:00 pm, Friday 9:00 am - 5:00 pm (Luncheon included both days)

HOTEL PARK TUCSON
TUCSON AZ

Contact...Don Palmieri (412) 344-0300, 650 Washington Road, Pittsburgh PA 15228

or

AGA Headquarters (415) 454-8553, 915 Loozens, San Rafael CA 94901

COST ... Two-Day Program plus AGA Dinner Dance, February 8 at Doubletree Hotel
AGA MEMBERS \$275.00, NON-AGA \$300.00
(Includes AGA/CMG Gemstone Manual Volume I)



1992 will mark AGA's first offering of the "Certified Master Gemologist" educational and certification program. It's been in the planning and production stages since its inception in mid-1990. The educational portion is being offered as the entire 1992 AGA Educational Conference to all who want serious hands-on training in I.D. and grading. This program consists of two intensive days of lecture and hands-on training for diamonds, corundum, beryl, chrysoberyl, garnet, spinel, topaz, tourmaline, quartz, spodumene, peridot and zoisite. The first day the participants will be provided with a detailed manual covering all of the varieties of transparent, faceted gemstones of the species named above. The education committee (Beesley, Hallier, Molina, Palmieri and Themelis) will form a panel to provide all the information concerning identification, synthetic I.D., detection of all treatments for color and clarity and country of origin references which participants will record in their manuals. Full uninterrupted participation is very important. Frequent breaks (refreshments provided) will be taken and a luncheon will be provided to expedite service so that all participants will be ready to resume together. At the end of the first day each participant will have a priceless up-to-date reference manual on the latest detections and identification information for transparent, faceted gemstones, far and away the major portion of our respective businesses. Incidentally, this manual provides most of the information necessary to pass the "CMG" practical test. GIA has agreed to let AGA use the instruments (two complete traveling classrooms worth) for our hands-on detection, identification and grading on Friday, February 7th. We will occupy over 5,000 square feet of ballroom space for Friday's hands-on program. Seasoned gemologists, AGA board members and committee members will be stationed at various areas to help participants view diamonds and gemstones set up in instruments to demonstrate identification characteristics, treatment detection and grading of all the gemstones and their synthetics listed. By the end of this whirlwind program each participant should be well prepared, if they wish, to take the "CMG" practical test the following day (Saturday, February 8) at the Tucson Convention Center. The annual membership luncheon will be provided on Friday with a luncheon speaker to be named at a later date.

It is the hope of the Education and Certification Committee that we have answered a void in Tucson education. There is much to choose from. We have tried to pack more bang for your buck. If you choose both programs, you can be assured of five days of the most intensive, practical information and training you've ever received. When it's finished you can enjoy the Tucson Gem Show (AGTA begins Saturday, February 8) from the beginning without interruption. That would be a first for AGA conference attendees. We hope you are as excited about Tucson '92 as we are.

We have also made special arrangements for rooms and suites at the Hotel Park Tucson. For those of you who have never stayed at this hotel, we think you'll be very pleased. We have blocked out 35 rooms and 35 suites from February 2 through February 9th. Of course anyone who is in the hotel by the 9th can stay as long as you wish. January 9, 1992 is the reservation cutoff for AGA blocked rooms and special rates.

All reservations must be made by the participants directly through the hotel at (800) 257-7275. You must identify yourself as an AGA member in order to get the special discounted rate.

Net rates for AGA members:

Rooms	\$100 Single
	\$110 Double
Suites	\$110 Single
	\$120 Double

CALL NOW TO RESERVE ... (800) 257-7275

Included in this rate is a full American buffet breakfast served daily in the Garden Room, poolside. Your early conference reservations to this office or AGA headquarters will be greatly appreciated. Maximum number of participants is 100.



• **CMG PRACTICAL TEST**

SATURDAY, FEBRUARY 8, 1992
8:00 am - 1:00 pm

TUCSON CONVENTION CENTER
TUCSON AZ

Contact...*Don Palmieri (412) 344-0300, 650 Washington Road, Pittsburgh PA 15228*

COST ... \$200, Application Deadline January 3, 1992

This will be our first practical test for the "CMG" program. AGA membership is required to sit for the test. Certification will be awarded to successful candidates who have met all the "CMG" criteria previously detailed. Any AGA gemologist member may challenge the test without participating in the educational program, although the course material is highly advised. Test fees are non-refundable. GIA has agreed in our contract to continue to allow AGA to use the needed gemological equipment for this test day. The equipment will be moved Friday PM from the Park Tucson to the convention center. The test will begin at 8:00 AM Saturday February 8. All candidates will be advised of the precise location. The "AGA Ethics, Standards and Procedures Test" will be given upon completion of the practical test. Candidates can work at their own speed. Testing will conclude promptly at 1:00 PM. Applicant/Candidates will be furnished with a study guide for the written test. Candidates will complete a report on five items of jewelry containing diamonds and/or gemstones. All metal testing, gemstone identification and grading will be performed on site. All instruments and equipment, necessary to perform pertinent tests will be furnished. Any special instruments not provided by GIA, or special reference materials needed must be brought by candidate. To accommodate "CMG" candidates in attendance at Tucson who have not fulfilled the other CMG requirements, you will be permitted to take these tests first. However, you must fulfill all other requirements within the following ten (10) months (by year end) or retest again in 1993 or beyond.

Your comments and suggestions concerning these programs will be useful and appreciated. Please let us hear from you. **SIGN UP TODAY!!**

Write to... **DONALD A PALMIERI**
CHAIRMAN, EDUCATION AND CERTIFICATION
650 WASHINGTON ROAD
PITTSBURGH PA 15228
PHONE (412) 344-0300
FAX (412) 344-4910



A REACTION TO THE PROPOSED TRANSITIONAL "SI3" CLARITY GRADE

By Courtney Balzon

I read the article *Clarity Grading - "SI3"*, by David Atlas in the last two *AGA'S Q & A* publications with interest. As diamond graders, David and I have discussed this topic for years. David has shocked gemologists (some with many years of diamond grading experience) at hands-on *AGA* conferences by displaying his grading report and the actual diamond for comparison.

The *GIA Gem Trade Laboratory (GTL)* and industry practice differ in clarity quality determinations in regard to large stones with eye-visible inclusions. Industry standards are less stringent than the *GTL* in most cases and more stringent in other cases. The clarity grade determination factors as taught by the *GIA* are size, number, location, nature, and color. The basic tools for grading are a 10X loupe and microscope, with standard grading lighting or its equivalent. A change in any one of these factors can change the clarity grade. *CONSISTENCY* also differs between industry practice and *GTL*.

My personal experience with "SI3" stems from consulting to the jewelry trade. Setting up quality control departments for proper merchandising allows for interaction between buyers and sellers. Hundreds to thousands of carats are graded monthly. When buyers order SI stones in either solitaire or cluster pieces they often receive some I1 diamonds. It is difficult for sellers to meet price points and select diamonds that fit the SI clarity grades 100% of the time. Some manufacturers who sell in volume explain that their parcels are mixed and may contain both "SI3" and I1 stones. This mixture can show up in cluster diamond pieces, and may contain eye visible inclusions. Consistency is necessary for proper merchandising. In stones under 1.00 carat, we prefer not to see inclusions when viewing some 15 to 20 inches from the standard light source. We find the eye visible clarity problem with over 90% of vendors or sellers.

The problem David Atlas addresses is in the larger stones, where eye-visible inclusions may be certificated as SI1 or SI2 by the *GTL*. Our *GIA* training tells us that eye-visible clarity characteristics warrant an imperfect grade. This is what beginning gemologists in our lab use as a reference when they first start identifying and evaluating, but the experienced gemologist understands that eye-visible clarity characteristics do not always necessitate an I1 clarity grade in larger stones. With time and experience, we become more consistent. We aren't prepared to grade larger stones immediately after basic training. We aren't experienced enough to go immediately into the marketplace and issue diamond reports, especially on larger stones. I believe this is also true with graders just starting out in the *GTL*. With time and experience, they become more proficient, but this process can take years.

In stones over 1.00 carat, and especially those from 2.00 to 5.00 carats and higher, slight to eye-noticeable or eye-visible inclusions may still be graded as SI. We don't see these stones in basic training to gain insight on proper grading. When Martin Rapoport gave his *AGA* seminars, he stated that, in his reports, diamonds with eye visible inclusions are graded I1 at best. These are diamonds without *GIA* certificates, however.

In our laboratory, the apprentice gets to view the larger stones but does not assign a grade. For example, they may view a few minute inclusions (non-reflecting), colorless or near-colorless with no immediate durability problems (cleavage concerns). There may be an eye visible inclusion underneath the table. In this case, the apprentice is likely to immediately assign an I1 clarity grade. The apprentice reasons that since the inclusion could be seen without magnification when viewed in the overhead grading light from 2 to 6 inches. It is difficult for this gemologist to assign an SI clarity grade at first. With time and experience, grading habits change. The apprentice has no industry practice references, so eye-visible is I1. If the inclusions in this diamond were somewhat different, the grade would change. If the inclusions were near the culet or block and reflecting, or if the inclusion under the table creates durability or cleavage concerns, or if either can be viewed in the overhead grading light from a distance of 15 inches or so, the clarity grade should be I1 or lower. Diamonds that have *GTL* certificates and are brought into our lab for appraisal are shown to the apprentice. With larger stones, this is a valuable reference. We allow the apprentice ample time to review both the certificate and the stone.

The grading discrepancy holds true for experienced graders who cannot look at enough larger diamonds, especially in the transitional grades. The grader should compare actual stones and *GTL* reports for experience in the SI2/I1 clarity grades. We don't see sufficient large stone, I1 *GTL* reports for reference in our laboratory - unless they have high color grades. This is a problem. You can't grade what you haven't seen consistently, and transitional grades are tough.

David Atlas is a concerned gemologist who understands diamond clarity grading and the hypothetical "SI3" dilemma. He realizes the differences between industry and *GTL* application of the grading standards. In reaction to his article, I felt we should not add a 12th clarity grade, but make greater efforts to understand the relationship of grade to inclusion size, nature, location, number, and color in all diamond sizes and shapes. The need for continuing education in this area is critical. Our Board of Governors will continue to work with the *GIA's* Director of Education so that *AGA's* continuing education program can help bridge this information gap for its membership.



TREASURERS REPORT

Accredited Gemologist Association, Inc.
A Membership Organization
Statements of Revenues and Expenses
For the Year Ending December 31, 1990
By: Dana Richardson-Treasurer

REVENUES

Membership Dues	\$ 15,725.00
Conference Fees	\$ 16,630.00
Accredited Lab Fees	\$ 100.00
Supplier Member Dues	\$ 350.00
Trail Membership Fees	\$ 750.00
(in Assoc. with Conferences)	
TOTAL:	\$ 33,555.75

EXPENSES

Conference Expenses	\$ 19,977.44
Publications	\$ 11,155.85
Professional Fees	\$ 325.00
Treasurers Office	\$ 147.42
Presidents Office and Phone Expense	\$ 2,629.26
Public Relations	\$ 116.60
Mailings, Fax and Fed Ex	\$ 535.92
Membership Committee & Member Benefits	\$ 1,090.08
Midterm Board Meeting	\$ 3,222.07
Misc. Expenses	\$ 536.67
Bank Card Discounts	\$ 51.26
TOTAL:	\$ 39,787.57

EXCESS (DEFICIT) OF REVENUES OVER EXPENSES .. (\$ 6,231.82)



**TREASURERS OFFICE
 HALF-YEARLY REPORT, FIRST AND
 SECOND QUARTERS**

JANUARY 1991 TO JUNE 30, 1991

Beginning Balance	\$ 1,210.73
Ending Balance	\$ 9,081.15

DEPOSITS

Renewal Dues	\$ 13,970.00
New Member Dues	\$ 1,685.00
Tucson Conference and Dinner Dance	\$ 6,140.00
Accredited Lab Fees	\$ 350.00
Software Review	\$ 50.00
Misc. Income (Donations)	\$ 45.00
Supplier Member Dues	\$ 350.00
Color Test Fees	\$ 150.00
Balance from Florida Conference	\$ 457.26

Total Deposits (Approx.) \$ 23,197.26

PAID OUTS

Washington Conference Speakers	\$ 2,305.40
Printing Costs and postage	\$ 3,067.42
Phone	\$ 2,308.63
Washington Conference Video Expense	\$ 491.93
AGTA Booth Fee, Tucson	\$ 300.00
Tucson Conference Expense	\$ 5,262.68
GIA Symposium Fee (AGA Booth)	\$ 645.00
Deposit for writing AGA brochure	\$ 175.00

Total Paid Outs (Approx.) \$ 14,556.06

This gives you a general idea of where we are at and what we are doing.
 The figures are not exact, but will be updated for the yearly report.



THE ACCREDITED GEMOLOGISTS ASSOCIATION: WHY AND HOW IT CAME TO BE — A LOOK AT ITS EARLY HISTORY

by Antoinette Matlins, May 1991

assisted by Tomiko Butler (one of the founders)

One evening in 1974, Sonja Schwartzman and Tomiko Butler, two students enrolled in Columbia School of Gemology in Washington, D.C., were discussing a situation that worried them both. The result of their discussion was an idea. An idea that would lead to the birth of the Accredited Gemologists Association.

Sonja and Tomiko were top gemology students. They were worried, however, about what would happen after they finished their course. As students under the tutelage of one of the country's leading gemologists, Antonio (Tony) Bonanno, they were kept abreast of what was going on in the field. They had access to virtually every type of important gemstone material to examine first-hand, as well as imitations (old and new) and synthetics. And they had learned the subject well. But Bonanno had also taught them something else; something equally important. He stressed with his students the fact that new technological developments would significantly alter the field; that with new technology would come new materials and new treatments. He emphasized that it would be a challenge to keep up-to-date and on top of what was going on, but a challenge each of them had a responsibility to meet. And this was what was bothering Sonja and Tomiko. This "challenge" presented a problem. Once they had completed their course, how would they keep up-to-date? Where would they have an opportunity to see the latest developments, new synthetics, or new treatments?

Sonja and Tomiko were worried that their knowledge would soon be obsolete if there weren't some way to keep current. It seemed to them that there was a need for some type of continuing education for graduate students in the field, especially for those like themselves who were interested in gemology more as a avocation than as a study group? It seemed to them that this would be a great way to keep updated.

Excited about the idea, they went to Bonanno to see what he thought and to get his inputs and ideas. He agreed it was an excellent idea, but felt it should not be limited to the amateur. He thought such a group would be equally valuable for the professional. The more they talked, the more convinced they became that there was a need for such a group, and that others would be interested in joining them at informal gatherings. Bonanno believed such get-togethers would provide an excellent opportunity to share knowledge, personal experiences, look at new gemstone substances, observe new treatments, see new equipment, and so on.

After giving considerable thought to the best way to start such a group, Sonja and Tomiko met again with Bonanno on January 31, 1975, to set the wheels in motion. They decided at this meeting to form an organization of American Alumni of FGAs. The goals were simple and clear — to keep abreast of the latest developments in gemology: learn about new gemstones, work together on research projects, discuss new equipment and procedures in gem testing, discuss new books, and exchange ideas in general. Notification about the intent to form such a group was sent to the Gemmological Association in London, and approval was granted. And so, the "AGA" was formed — an organization of Alumni of the Gemmological Association.

Clearly then, as its name suggested, full membership in AGA required an FGA diploma. One could also be a "student affiliate" member if enrolled in the Diploma course (from the Gemmological Association of Great Britain). As the group grew, however, it became clear that expanding membership to include those holding the Graduate Gemologist (GG) Diploma from the Gemological Institute of America (GIA) would further enhance its goals.



GIA, recognized as the world's most important teaching organization, was training many more gemologists in the U.S. than any other group. Expanding membership to recognize Graduate Gemologists and have them actively involved in AGA activities would serve to broaden the base of talented, committed gemologists with whom to share and learn. Membership requirements were thus amended to include the GG, and the name changed to "Accredited Gemologists Association."

The first formal notice of the Accredited Gemologists Association (AGA) appeared in the October 1975 issue of the Journal of Gemmology. The first officers were elected in this same month: President - Jim Rosenheim (GG); First VP - Theresa Zook (FGA); Second VP - Janet Post (GG); Corresponding Secretary - Sonja Schwartzman (FGA); Recording Sec'y - Dale Farringer (GG); Treasurer - Robert Daube (GG). Antonio Bonanno (FGA, Founder of Columbia School of Gemology and National Gem Appraising Laboratory) was asked to serve as Gemological Advisor; Joel Arem, (Ph.D., staff mineralogist, Smithsonian Institute) served as Mineralogical Advisor. (See first solicitation written and sent to FGAs and GGs in 1975).

By 1976 the AGA had adopted a set of By-Laws. More importantly, the organization took a strong stand in the area of ethical conduct for professional gemologists, adopting the position that professional gemologists should be governed by a code of ethics. The AGA drafted its first "Code of Professional Conduct" which was adopted on February 18, 1976. All existing members at that time, and all future candidates for membership were required to read and accept the code (acceptance acknowledged by signing).

With the drafting of the "Code of Professional Conduct" the goal of the organization was expanded to include a focus on upgrading professional standards and conduct. And this has been a major focus of the group since that time.

The first AGA NEWSLETTER was published in July of 1976, with Joel Arem serving as editor. This has evolved into today's Cornerstone.

The organization was INCORPORATED June 10, 1977. From then to the present, the AGA has continued to grow and evolve, but its focus remains sharp: a commitment to providing continuing education and upgrading professional standards and conduct. The AGA continues to fill the need that led to its creation . . .

a need that is even greater today than at its founding. And it provides an important voice in the gem and jewelry industry . . . a voice that grows louder, and more "brilliant" with each passing year!



TONY BONNANO - FOUNDING FATHER



BOOK REVIEWS BY JAMES V. JOLLIFF, A.S.A., M.G.A

Gold - History and Genesis of Deposits

by Robert W. Boyle

Published by Van Nostrand Reinhold \$57.95

"Gold - History and Genesis of Deposits" is a difficult book to review since it is partially the writings of its author and partially a compendium of writings by various knowledgeable individuals in the field of geology. In fact, one section is reprinted in German with no English translation provided.

In essence, this reviewer considers the book to be a gold primer that ties together ancient and modern writings and theories of gold origin. It is not a book to be enjoyed by the casual reader, but more of a text book. It opens with a general introduction to the history of gold and then provides a background chapter about the geochemistry of the element and a discussion of various auriferous deposits. The following chapters address various ancient and modern theories of gold genesis, types of deposits in several geographical regions, and economics of gold and gold mining.

This book serves as a collection of the landmark papers written on the history and genesis of deposits of the most noble of metals. Each classic paper, or abstract thereof, is accompanied by an appropriate introduction and concluding commentary intended to give historical perspective and emphasize their importance in the growth of ideas relating to the history of gold and the origins of its deposits. Sufficient references are given at the end of each chapter to enable further pursuit of a given subject should the reader desire.

Although an excellent compendium, the book is, alas, not for the casual reader, appraiser, or gemologist. It should, however, serve as an excellent library reference and a valuable desk reference for the economic geologist.



Gemstones and Their Origins

by Peter C. Keller

Published by Van Nostrand Reinhold \$49.95

"Gemstones and Their Origin" is not, as the title might indicate, another major rewrite of "Gems" by Webster. In fact, the gemological content is negligible. It is a travelogue that takes the reader to several locales where the major gemstones of the world are found and briefly discusses the processes by which they were formed and the mining techniques used to obtain them for future fashioning. In addition, there are discussions about associated history, geology and production, where applicable. There are also subsections on the more famous gemstones from these specific locals.

Dr. Keller takes the reader on a verbal and pictorial trip from Sri Lanka to Australia, Columbia, Brazil, Thailand, Burma, Egypt, and back to Australia. Subjects vary from a generalized discussion of the many gem quality materials found in the gravels of Sri Lanka and the pegmatites of Brazil to specific discussions of the diamonds and opals of Australia, the emeralds of Columbia, the rubies of Thailand and Burma, the jadeite deposits of Burma, and peridot from Egypt. Obviously all gemstones and gemstone localities are not discussed in this 144 page book.

The book is liberally sprinkled with wonderful scenic photographs by P. Horree, Peter C. Keller, Keith Proctor, Edward Gubelin and Peter Bancroft as well as the usual exquisite photographs of many well formed crystals and cut gemstones we have all come to expect from Harold and Erica VanPelt. In addition, the book contains pictorial diagrams of the ideal processes for the formation of the gemstones. It sets forth various types of geological mapping showing rock units, structure, and distribution of gemstones as deposited by water on the earth's surface and formed by igneous-hydrothermal processes at very high temperatures and pressures at great depth. This book should serve as a welcome addition to the gemologist's, geologist's, collector's, or gem lover's library.



(Book Reviews by James Jolliff, Continued)

The Jade Kingdom

by Paul E. Desantels

Published by Van Nostrand Reinhold \$37.95

The "Jade Kingdom" provides the layman with an easily understood tutorial on that majestic and mystical gemstone. Paul Desantels explains the types of jade and jade substitutes in an easily understood manner, including nephrite, jadeite, chloromelanite, and the suggested substitutes such as bowenite serpentine or amazonite.

In taking this trip through the Jade Kingdom one is introduced to the various locals where jade is found including Burma, China, Central and South America, New Zealand, South Central Asia, India, Japan, Russia, Canada, and the United States of America. The trip is interspersed with vignettes about the myths, legends, and social aspects of the countries involved.

The descriptions of the origin and meanings of the symbolic carvings found on Chinese jade were of considerable import to this reviewer - in particular the detailed discussion of the "pah sien" or "eight immortals" of Chinese mythology. Of equal import was the short but beautifully colored photographic section containing everything from thin slices of jade seen under polarized light to delicate carvings both ancient and modern. The book also contains a short section about jade testing using hardness, specific gravity, refractive index and X-ray diffraction techniques and a section about ancient and modern cutting and carving techniques.

The "Jade Kingdom" is not a major theoretical dissertation on the jade family and was never billed as such by the author or publisher. It is, however, an excellent synopsis of the subject and should be of interest to gemologists, collectors, and the public - a welcome addition to anyone's library.

AGA MEMBER RETIRES

Mr. Lewis A. Bannon of Labannon Inc. in Baton Rouge, Louisiana retired the first of this year after fifteen years of involvement in the gems and jewelry industry.

Mr. Bannon retired as an oil company research chemist/executive with fourteen patents in 1963. He became a rock hound during his travels to Mexico where he spent six months of each year, starting in 1968. He spent the summers of '70 and '71 learning to make jewelry in San Miquele de Allende, Mexico. From a lapidary he met there he learned the art of cutting and polishing cabochons, which he continued to do for several years after returning home.

Mr. Bannon became curious about the "ultimate stone" in 1971 when someone asked him to buy a one carat "perfect" blue white diamond for them. After several weeks of confusion trying to learn about diamonds from local "jewelers", he decided to take GIA's diamond course. Lewis got his Diamond Certificate in 1972 and eased into the diamond business as more and more of his friends asked him to buy diamonds for them. Meanwhile, he took the Colored Stone courses and got his gemologist diploma in 1974. By then he had a complete laboratory. Mr. Bannon received his GG in 1979 and then took the British course as a review and got his FGA in 1980. He was one to the first to complete GIA's Colored Stone Grading Course in June of 1984.

Lewis took GIA's South African trip to the diamond mines with Bob Earnest in 1973. He took the GIA Australian trip with Chuck Freyer to the opal mines and later the South American trip, the European and Russian trips, and numerous other gem trips with other groups until the entire globe had been covered.

At the age of 77 he is in excellent health and active. He intends to maintain his gem laboratory and dabble in gemology as a hobby - just as he started out fifteen years ago, never intending to get into the business.



AGA-CERTIFIED GEM LABORATORY DIRECTORY

DECEMBER 1991

THIS IS OUR LATEST EDITION of the *AGA-Certified Gem Laboratory Directory*. We welcome several new and returning members. It is our hope that you will find this directory useful for networking, and that you will refer others to your fellow Certified Gem Labs when appropriate. Perhaps we may all meet in person at the AGA Conference or dinner.



Certification status is conferred upon a named individual, and not a company or group. Every reasonable effort is made to ensure that AGA-CGLs conform to the highest standards of independent professional practice in gem science and technology.

Inquiries regarding certification status, credentials, or professional and ethical practices may be directed to the AGA-Certified Gem Laboratory Program Committee.

Lab Committee Members

Anne Hawken, Chair, 512/328-9411
Leo J. Schmied, 615/588-8417
James Krol, 313/644-8828
Ian Campbell, International
Member

David Atlas, GG, CG, ASA
Master Gemologist Appraiser
D. Atlas & Co., Inc.
732 Sansom Street
Philadelphia, PA 19106
USA
215/922-1926
800/441-1312 FAX: 215/922-4725

Cortney G. Balzan, GG, ASA
Master Gemologist Appraiser
Balzan Gem Lab
915 Lootens Place
San Rafael, CA 94901
USA
415/454-8553

T. William Benedict, GG, ASA
Master Gemologist Appraiser
NC Gemological Laboratory
107 Hunter's Ridge Road
Chapel Hill, NC 27514
USA
919/929-9179

Howard N. Biffer, GG, ASA
Master Gemologist Appraiser
Lourdes Gemological Laboratory
Route 6 & Hill Blvd.
Jefferson Valley, NY 10535
USA
914/245-4676

Antonio C. Bonanno, FGA, PG, ASA
Master Gemologist Appraiser
National Gem Appraising Laboratory, Inc.
8600 Fenton Street
Silver Spring, MD 20910
USA
301/588-7770

Jelks H. Cabaniss, GG, ASA
Master Gemologist Appraiser
Fauquier Gemological Laboratory
P O Box 525
Marshall, VA 22115
USA
703/364-1959



AGA-CERTIFIED GEM LABORATORY DIRECTORY

DECEMBER 1991

B. J. Caldwell, GG, ASA

Master Gemologist Appraiser
B. J. Caldwell Jewelers-Appraisers
7225 North Oracle Road, Suite 104
Tucson, AZ 85704
USA
602/742-3687

Ian Campbell, FGA, CG

ICSL-Independent Coloured Stones
Laboratory
P O Box 1354
Randburg 2125
Johannesburg
RSA-Republic of South Africa
011/787-3326

Alan G. Davis, GG, ASA

Master Gemologist Appraiser
GemTrust Gemstone Trade Laboratory
2511 Ponce de Leon Blvd.
Coral Gables, FL 33134
USA
305/567-9434

Ricki K. Goodden, GG

Frank Goodden Co, Inc.
1102 Grand Avenue, Suite 221
Kansas City, MO 64106
USA
816/421-0281

Anne Hawken, GG, ISA, ASA

Anne Hawken Gem Laboratory
6034 West Courtyard Dr., Suite 305
Austin, TX 78730
USA
512/328-9411 FAX: 512/343-2612

Jeffrey Hurwitz, GG, ASA

Master Gemologist Appraiser
Colonial Jewelers
9 West Patrick Street
Frederick, MD 21701
USA
301/663-9252
800/762-4938

James Jolliff, GG, FGA, FCGmA

CAPP-ISA, ASA
Master Gemologist Appraiser
PO Box 6558
Annapolis, MD 21401-0558
301/261-8270

Therese S. Kienstra, GG, ASA

Kienstra Gemological Services, Inc.
8000 Bonhomme, Suite 309
St. Louis, MO 63105-3515
USA
314/862-4005

Andrew Y. Kim, GG, ASA

Master Gemologist Appraiser
International Gem Trade Laboratory
650 So. Hill Street, Suite 229
Los Angeles, CA 90014
USA
213/688-7837

James Krol, GG, ASA

Master Gemologist Appraiser
Birmingham Gem Service
251 Merrill Street
Birmingham, MI 48011
USA
313/644-8828

Joseph A. Mackley, GG, ASA

Master Gemologist Appraiser
Mackley & Co, Inc.
8906 Kingston Pike,
Wedgewood Suite 214
Knoxville, TN 37923
USA
615/693-3097

James J. Martin, GG

Crownique
1800 Second St., Suite 725
Sarasota, FL 34236
USA
813/951-0020



AGA-CERTIFIED GEM LABORATORY DIRECTORY
DECEMBER 1991

Larry Phillips, GG, ISA, ASA
Master Gemologist Appraiser
Phillips & Associates
3916 Juan Tabo NE
Albuquerque, NM 87111
USA
505/299-7999

Leo J. Schmied, GG, ASA
Master Gemologist Appraiser
Jewelry Appraisal Services
7347 Kingston Pike
Knoxville, TN 37919
USA
615/588-8417

Thomas Seguin, GG, ASA
Master Gemologist Appraiser
Suncoast Accredited Gemological
Laboratory
6221 14th Street West, Suite 105
Bradenton, FL 34207
USA
813/756-8787

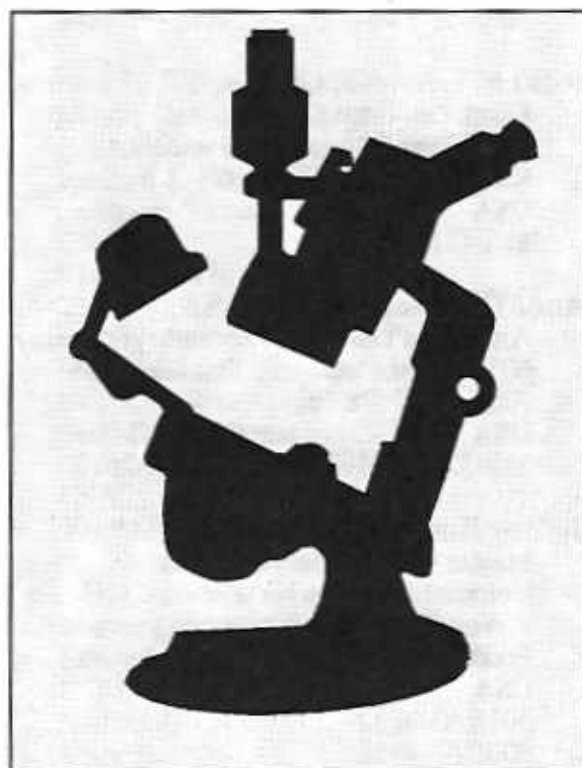
Nancy Stacy, GG, ISA, ASA
Master Gemologist Appraiser
Jewels by Stacy
712 Bancroft Road, Suite 436
Walnut Creek, CA 94598
USA
510/939-4367

James S. Seaman, GG, ASA
Master Gemologist Appraiser
Midwest Gem Laboratory
of Wisconsin, Inc.
405 N. Eastmoor Avenue
Brookfield, WI 53005
USA
414/784-9017

Thom Underwood, GG, ASA
Master Gemologist Appraiser
San Diego Gemological Lab
3957 Goldfinch Street
San Diego, CA 92103
USA
619/291-8852

Sharon Wakefield, GG
Northwest Gemological Laboratory
P O Box 8243
Boise, ID 83707
USA
208/362-2275

Christine W. York, GG, ASA
Master Gemologist Appraiser
York Antiques and Appraisal Service
3104 Eldoe, Suite 202
Houston, TX 77027
USA
713/960-9766



Supplier Members

Longhill Partners, Inc.

Antoinette Leonard Matlins
P.O. Box 276
South Woodstock, VT 05071
802/457-4000

Sarasota Instruments

John Allaman
1960 Main Street
Sarasota, Florida 34236
813/366-4646

Majestic Gems and Carvings

Paul Downing
3412 Monitor Ln.
Tallahassee, FL 32312
904/385-3732

D. Atlas and Co., Inc.

David S. Atlas, G.G., C.G.
732 Sansom Street
Philadelphia, PA 19106
215/922-1926

Diascience Group

Isaac Landerer
580 5th Ave., Ste. 401
New York, NY 10036
212/221-5985

File-A-Gem, Inc.

120 West 11th Street, Box 539
Baxter, KS 66713
316/856-3800

Otto Frei & Jules Borel Co.

126 2nd St., P.O. Box 796
Oakland, CA 94604
800/772-3456

Gemological Appraisal Assoc.

Donald A. Palmieri, G.G.
666 Washington Road, Ste. 304
Pittsburgh, PA 15228
412/344-5500

Polygon Network, Inc.

Jacque Voorhees
P.O. Box 1885, 121 Dillon Mall
Dillon, CO 80435
800/221-4435

Rapaport Diamonds, Inc.

Martin Rapaport
15 West 47th Street
New York, NY 10036
800/223-2373



**John Allaman of Sarasota Instruments
and
Martin Bell of Rio Grande Albuquerque
discuss scientific advancements**



AGA Membership List 1991

Mr. Lloyd Aaron, GG, ASA

Master Gemologist Appraiser
Burt's Jewelers
1706 NE Miami Garden Dr.
North Miami, FL 33179
305 947 8386

Mrs. Pamela J. Abramson, GG, FGA, ASA

Master Gemologist Appraiser
P. J. Abramson, Inc.
170 East Morse Blvd.
Winter Park, FL 32789
407 644 3383

Mr. Darold C. Allen, GG

Gemological Lab of LA
607 South Hill St. #505
Los Angeles, CA 90014
213 623 3773

Mr. Richard M. Allen

P.O. Box 21871
Seattle, WA 98111

Mr. Henry Ancinec, GG

2743 Norwalk
Hamtramck, MI 48212
313 875 0673

Mr. Jay E. Anderson, GG

6025 Victor
Dallas, TX 75214

Mrs. Suzanne M. Anderson, GG

Ind. Jew. and Gem Appraisers
8950 Villa La Jolla Dr., Ste. 2200
La Jolla, CA 92037
619 457 2090

Mr. Luiz Angelo, GG

LeDoux
Av. Atlantica, 1936-CL
Rio de Janeiro, Brazil
021 235 5879

Mrs. Anne Arnaud

4725 N. Goldenrod Rd. #D
Winter Park, FL 32792-9036

Mr. David Ascher, GG

USGS
14081 Yorba St.
Tustin, CA 92680
714 838 8747

Mr. David S. Atlas, GG, ASA, CG

Master Gemologist Appraiser
D. Atlas & Co.
732 Samson St.
Philadelphia, PA 19106
212 922 1926 Fax: 215 922 4725

Mr. John Baghsarian, Jr., GG

26 Ruset Lane
Farmingdale, NJ 07727-1134
201 542 5444

Mr. J. Michael Baker, GG

Nigerobe Inc.
405 Town Center Blvd
Ridgeland, MS 39157-4803
601 968 4460

Mr. Cortney G. Balzan, GG, ASA

Master Gemologist Appraiser
Balzan Gem Lab
915 Lootens Place
San Rafael, CA 94901
415 454 8553

Mr. Lewis A. Bannon, GG

3255 Murphy Lane
Baton Rouge, LA 70809

Mrs. Sylvan J. Baranov, GEM

1200 Third Ave. #1102
San Diego, CA 92101
619 231 9335

Mr. Rodney P. Baril, GG

45 Myron St.
West Warwick, RI 02893

Mr. Austin J. Barker, GG

36 First Street
Bonita Springs, FL 33923
813 495 0499

Mrs. Alice M. Barlow, GG, FGA

Earth Resources
10 College Avenue #111
Appleton, WI 54911
414 735 0202

Mrs. Elaine Barnes, GG

Leesburg Jewel Brokers
P.O. Box 587
Leesburg, VA 22075
703 777 1966



AGA Membership List 1991

Mr. Ronald L. Base, GG, ASA

Master Gemologist Appraiser
P.O. Box 1585
Upland, CA 91785
714 982 7304

Mr. C. R. (Cap) Beesley, GG, ASA

Master Gemologist Appraiser
American Gemological Laboratories
580 Fifth Avenue
New York, NY 10036
212 704 0727

Mr. Burton Belenke, GG, FGA

House of Diamonds
18705 Biscayne Blvd.
Aventura, FL 33180
305 371 2721

Mr. T. William Benedict, GG, ASA

Master Gemologist Appraiser
NC Gemological Lab
107 Hunter's Ridge Rd.
Chapel Hill, NC 27514
919 929 9179

Mr. Merle Berk

Lapidary Journal
60 Chester Avenue, #201
Devon, PA 19333
215 293 1112

Mr. Howard N. Biffer, GG

Lourdes Gemological Laboratory
Route 6 and Hill Blvd.
Jefferson Valley, NY 10535
914 245 4676

Mr. Paul D. Bischof, GG

Earth Treasures
Circle Plaza Shopping Center
Eatontown, NJ 07724
908 542 5444

Mr. Antonio C. Bonanno, FGA, ASA, PG

National Gem Appraising Lab. Inc.
8600 Fenton Street
Silver Springs, MD 20910
301 588 7770

Mrs. Kathryn L. Bonanno, FGA, PG

Hapsberg Feldman Fine Art
36 E. 75th
New York, NY 10021
212 570 4040 Fax: 212 570 4624

Mr. Kenneth E. Bonanno, FGA

Bonanno's Antiques
619 Caroline Street
Fredericksburg, VA 22401
703 373 3331

Mr. Bobbye F. Bonds

P.O. Box 5
Magnolia, AR 71753

Mr. Gregory Borrelli

San Rafael Loan
846 4th St.
San Rafael, CA 94901
415 453 4081

Mr. Peter Bradley, GG, ASA

Master Gemologist Appraiser
Peter Bradley, Inc.
1861 Whitecap Circle
North Ft. Meyers, FL 33903-5043
813 482 7550

Mrs. Marilyn Brooks

P.O. Box 1075
Del Mar, CA 92014

Mr. Michael M. Brown, GEM

1201 S. Baldwin Ave.
Arcadia, CA 91006
818 446 4681

Mr. Jack Burgess, Jr.

173 Widedon Lndg.
Hilton, NY 14468

Mr. Jelks H Cabaniss, GG, ASA

Master Gemologist Appraiser
Fauquier Gem Lab
P.O. Box 525
Marshall, VA 22115
703 364 1959

Miss Brenda J. Caldwell, GG, ASA

Master Gemologist Appraiser
7225 North Oracle Rd., Ste.105-B
Tucson, AZ 85704
602 742 3687

Mr. O. Dee Callaway

2070 Chain Bridge Rd, #170
Tysons Corner, VA 22180

Mr. Edgar Cambere, GG

P.O. Box Seven Lakes 31169
West End, NC 27376
919 673 3156



AGA Membership List 1991

Mr. Ian C. C. Campbell, FGA, CG
ICSL
P.O. Box 1354
Randburg 2125
Johannesburg, South Africa
011 27 11 787 3326

Miss Virginia Carter, GG
J. O. Crystal Co.
P.O. Box 7000-381
Redondo Beach, CA 90277
213 437 0736

Mrs. Elizabeth J. Castle
Atelier Jewelers, Inc.
3209 N. Ocean Blvd.
Fort Lauderdale, FL 33308

Mr. Neil H. Cohen, GG, ASA
Master Gemologist Appraiser
345 N. Main St #102
West Hartford, CT 06117
203 232 2247

Mr. Stanley P. Cohen, GG
Chas Cohen Mfg Jewelers
4747 S. Hulen St.
Fort Worth, TX 76132
817 292 4367

Mr. Thomas A. Constantine, GG
Gemstone Services
28829 Chagrim
Cleveland, OH 44122
216 467 3143

Mrs. Marianita Eileen Cox
P.O. Box 28
Cutter, CA 95982

Mrs. Sharon Dampitz, GG
DuPage Jewelry Appraisals
654 Ogden Avenue
Downers Grove, IL 60515
312 852 7274

Mr. John J. Daunt, III, GG, ASA
Master Gemologist Appraiser
Gemstone Corp of America
7507 S. Tamiami Trail
Sarasota, FL 34231
813 921 4214

Mr. Alan G. Davis, GG, ASA
Master Gemologist Appraiser
GemTrust Gemstone Trade Laboratory
2511 Ponce DeLeon Blvd #321
Coral Gables, FL 33134
305 567 9434

Mrs. Mary Lou Davis, GG, CG
2543 Avenida San Valle
Tucson, AZ 85715
602 885 4855

Mr. Max Davis, GG, CG
5800 Monroe St. #F
Sylvania, OH 43560
419 885 5077

Mr. Robert G. Davis
Jewellery By da Vis
8119 Springfield Village Drive
Springfield, VA 22152
703 451 8119

Mrs. Karen DeLoach, GG
Gemological Services
P.O. Box 2354
Lakeland, FL 33806
813 686 0036

Ms. Annaleise Del Monico
214 Earl St.
Tarpon Springs, FL 34689

Mrs. Mary J. Desmarteau, GG, CG
Wetzel Jewelers
9009 Peperetree Circle
Wichita, KS 67226
316 267 0191

Mr. William Dougherty
The Gem Lab
P.O. Box 20870
Alexandria, VA 22320

Mr. Richard F. Driscoll, GEM
Driscoll Appraisal Service
1218 11th St, NW
Washington, DC 20001
202 293 2323

Mr. Steven M. Drouillard, GG
1317 South Marion
Denver, CO 80210



AGA Membership List 1991

Mr. Richard B. Drucker, GG
Gemworld International, Inc.
5 North Wabash, #1500
Chicago, IL 60602
312 263 3342

Mrs. Margaret Dufficy, FGA, AG
270 Channing Way
San Rafael, CA 94903

Mrs. Margaret A. Easling, GG
Gem Quest Jewelers and Gallery
P.O. Box 268
Ojai, CA 93023
805 646 3836

Mr. Chris Evans, GG
Evans and Son
250 S. Beach St.
Daytona Beach, FL 32014
904 255 5922

Mr. Jim F. Ferguson, GG
% L. B. Mayville
1293 NW Wall Street, #1120
Bend, Oregon 97701

Mrs. Janet Marie Flaherty
15748 Kadota
Sylmar, CA 91342

Mrs. Karen J. Ford, FGA, ASA
Master Gemologist Appraiser
National Gem Appraising Lab.
P. O. Box 797
State College, PA 16804-0797

Mrs. Constance Foster, GG
P.O. Box 2125
Santa Fe, NM 87504

Mr. Roland N Gibbs, CG
Precious Stones Trading Co.
P.O. Box 284
Henderson, KY 42420
502 826 0655

Mr. Roy Giles, GG, FGA, FGAA
1st Fl, 300 Georgia St 200
Sydney, Australia,
02 221 6086

Dr. Thomas H. Ginley, Jr.
700 Old Gulph Road
Bryn Mawr, PA 19110

Mr. Mark C. Ginsburg, GG, ASA
Master Gemologist Appraiser
Ginsberg Jewelers
110 East Washington St
Iowa City, IA 52240
319 351 1700

Mrs. Ruth G. Gold, GG
P.O. Box 2151
Anaheim, CA 92804
714 533 9421

Mr. Rickl K. Goodden, GG
Frank Goodden Co, Inc.
1102 Grand Avenue #221
Kansas City, MO 64106
816 421 0281

Mr. Thomas Goodwin, GG
12432 Rebecca Lane
Santa Ana, CA 92705
714 838 8913

Mr. Tom Gorman
J.C. Keppie Company
800 Penn Avenue, 6th Floor
Pittsburgh, PA 15222
800 245 4284

Mr. Mathew Green
5210 Coconut Creek Parkway
Margate, FL 33063

Mrs. Melissa Green
510 Tarragon Drive
San Rafael, CA 94903
415 472 1317

Mrs. Monique J. Greenwald
117 NE 1st Ave #917
Miami, FL 33131

Mr. Gary R. Grelich, GG
Bomi Gemstone Importers
225 Ellicott Square Bldg
Buffalo, NY 14203
716 856 4108

Mr. Bruno Hahmann Kaeher
PLO Box 151714 Calle 9-02
Guatamala City, Guatamala,

Mr. David W. Hall, GG
Gemological Trading Corp.
1425 4th Ave
Seattle, WA 98101
206 625 0105



AGA Membership List 1991

Mr. Michele Hallier, GG, ASA
Master Gemologist Appraiser
Al Molina Fine Jewelers
1205 East Missouri
Phoenix, AZ 85014
602 277 9780

Mr. Larry Hancock
P.O. Box 238
Gray, ME 04039

Ms. Patty Harper
119 N. Second Street
Killeen, TX 76541

Mr. Christina Harrington
P.O. Box 25542
Seattle, WA 98125
206 682 5548

Mr. Louis L. Harris, GG
Louis Harris Appraisal Service
3829 West Greenleaf
Lincolnwood, IL 60645
312 675 4361

Mr. Jack Hasson
Jewels by Hasson
Oakbrook Sq. 11618 US1
N. Palm Beach, FL 33408
407 627 3862

Mrs. Anne B. Hawken
Anne Hawken & Associates
P.O. Box 160906
Austin, TX 78716
512 328 9411

Mrs. Sarah G. Hendrixson, GG
6908 Bonnie Ridge Drive
Baltimore, MD 21209
301 796 2393

Mr. Henry Ho, GG
Jewelry Realty Limited
1027 Ploenchit Road, 5th Floor
Bangkok 10330 Thailand, 2549132-5

Mrs. Kay George Hoch, GG
Gem Labs of Alaska
208 Wendell St.
Fairbanks, AK 99701
907 452 5848

Mr. Ronald H. Hodgson, GG
Vestris Gem Services
1081 Boca Ciega Isle
St Petersburg Beach, FL 33706
813 360 0244

Mr. Homer L. Holland, GG, CGA
P.O. Box B
Selma, AL 36702
205 872 3527

Mrs. Deborah Holmes, Managing Editor
Jewelers Circular Keystone
Chilton Way
Radnor, PA 19089
215 964 4474

Mr. William C. Horvath, GG, ASA
Master Gemologist Appraiser
2455 E. Sunrise Blvd. #608
Ft. Lauderdale, FL 33304
305 563 2901

Ms. Margaret A. Howard
12504 Parkland Place
Oklahoma City, OK 73142

Mr. Henry F. Howell, GEM
Howells Jewelers Ltd.
9616 Nichols Rd.
Oklahoma City, OK 73120
405 755 6220

Mrs. Marti Waugh Hubbard
5901 N. Placita del Conde
Tucson, AZ 85718

Mr. Richard Huntington, ASA
Master Gemologist Appraiser
3661 Maryland Pkwy 19N
Las Vegas, NV 89109
705 732 1977

Mr. Jeffrey I. Hurwitz, GG, ASA
Master Gemologist Appraiser
9 West Patrick Street
Frederick, MD 21701
301 663 9252

Mr. David H. Jackson, GG
Address Unknown
Poway, CA

Mr. Bruce Jaffe
730 N. LaSalle
Chicago, IL 60610
312 266 8282



AGA Membership List 1991

Mrs. Terrie H. Jensen, GG

P.O. Box 1904
San Mateo, CA 94907
415 579 7900

Mrs. Darlene Johnson

Balzan Gem Lab
915 Lootens Place
San Rafael, CA 94901
415 454 8553 Fax: 415 453 5340

Ms. Susan B. Johnson

GIA
1660 Stewart Street
Santa Monica, CA 90404
800 421 7250

Mrs. Carletta Johnston-Hatcher

18401 SW 130 Ave.
Miami, FL 33177

Mr. James Jolliff

GG, FGA, FCGMA, CAPP-ISA, ASA
Master Gemologist Appraiser
P.O. Box 6558
Annapolis, MD 21401-0558
301 261 8270

Mr. Jeffrey Bruce Kaiser, GG

6060 Sunny Beach Road
Grand Rapids, MN 55744
218 326 5206

Mr. Elie Kassab

Prestige Jewelers
901 SW Taylor
Portland, OR 97205

Mr. S. D. "Jack" Kelsey, GG, ASA

Master Gemologist Appraiser
Route 3, Box 529
Banner Elk, NC 28604

Ms. Therese B. Kienstra, GG

Kienstra Gemological Services, Inc.
8000 Bonthomme, #309
St. Louis, MO 63105
314 862 4005

Mr. Andrew Y. Kim, GG, ASA

Master Gemologist Appraiser
International Gem Trade Laboratory
650 S. Hill St. #229
Los Angeles, CA 90014
213 688 7837

Mr. George P. Klein, ASA

Master Gemologist Appraiser
116 1/2 Palafox Place
Pensacola, FL 32501
904 434 1016

Mr. Gene E. Knoske, GG, FGA

Knoske Gem Laboratory
P.O. Box 492
Pewaukee, WI 53072-0464
414 272 4642

Mr. James Korzep

3140 Eucalyptus Ct.
Kissimmee, FL 34749
407 933 2411

Davia Kramer

Jewelry Appraisal Laboratory
P.O. Box 2348
Rockville, MD 20850

Mrs. Pansy Kraus, GG, FGA

P.O. Box 600908
San Diego, CA 92160
619 286 0415

Mr. James Krol, GG, ASA

Master Gemologist Appraiser
Birmingham Gem Service
251 Merrill St.
Birmingham, MI 48011
313 644 8828

Mr. John P. Kuehn, GEM

316 High Street
Morgantown, WV 26505
304 296 6891

Mr. Edward G. Kuhlman

252 Watch Hill Rd.
Fort Mitchell, KY 41011
606 341 4223

Mr. Stewart M. Kuper, GG

Ambassador Dia Brookers & App.
4668 East Speedway
Tucson, AZ 85711
602 327 8800

Mr. Bernard Laves, GG

Bernold's Jewelers
5228 Burnet Road
Austin, TX 78756
512 452 6491



AGA Membership List 1991

Mr. Daniel Nathan Lee, CG
120 South State Street
Clarks Summit, PA 18411
717 586 3385

Mr. Robert S. Lefevre, Jr., GG
Lynnhaven Gems
3700 Shore Drive #105
Virginia Beach, VA 23455
804 460 4367

Mrs. Clare Leonardo, GG
Temptations Jewelry and Gifts
349 West Commercial St.
East Rochester, NY 14445
716 586 6111

Mrs. Gail B. Levine, GG
Timeless, Inc.
P.O. Box 7683
Rego Park, NY 11374
718 897 7305

Mr. David Levison, GG, ASA
Master Gemologist Appraiser
22 NW 1st Street #101
Miami, FL 33128
305 371 6437

Mrs. Marion D. Levy
1406 Winston Place
Decatur, GA 30033
404 633 6440

Mr. Richard T. Liddicoat, GG, FGA, CG
Gemological Institute of Amer
1660 Stewart Street
Santa Monica, CA 90404
213 829 2991

Mrs. Jeane Litchfield, GG, FGA
Litchfield & Co.
100 East Andrews Drive #203
Atlanta, GA 30305
404 233 6991

Mrs. Lynn Loube, ASA
Master Gemologist Appraiser
1255 N. Hampshire Ave. NW #527
Washington, DC 20036
202 659 4299

Mrs. Elaine J. Luartes, GG
Athena Antiques
617 Shenandoah Drive
Brentwood, TN 37027
615 377 3442

Mr. Craig A. Lynch, GG
Quellet & Lynch
3730 Michigan Ave.
Glendale, AZ 85308
602 377 3442

Mr. Joseph A. Mackley, GG, ASA
Master Gemologist Appraiser
Mackley & Co., Inc.
8906 Kingston Pike
Wedgewood Suite #214
Knoxville, TN 37923
615 693 3097

Mr. William R. Mann, GG
4111 Rocky Mount Drive
Temple Hills, MD 20748
301 894 5071

Mr. James J. Martin, GG
Crowntique
1800 Second Street, Ste. 725
Sarasota, FL 34236
813 951 0020

Mr. William A. Mathis, GG
5050 Poplar Avenue #634
Memphis, TN 38157
901 767 4367

Mrs. Antoinette Matlins
Longhill Partners, Inc.
P.O. Box 276
South Woodstock, VT 05071
802 457 4000

Mrs. Karen McDonald, GG
Carats & Crystals
580 Cypress #N4
Pismo Beach, CA 93449
805 773 0110

Mrs. Marilyn McGeehon, Managing Editor
National Jeweler
1515 Broadway
New York, NY 10036
212 869 1300

Mr. Phillip R. McPharlin, GG
LaMar Diamonds
18822 Beach Blvd #210A
Huntington Beach, CA 92648
714 840 1371



AGA Membership List 1991

Mr. B. Young McQueen, GG, FGA, ASA
Master Gemologist Appraiser
Antares & Company
5613 University Blvd. W.
Jacksonville, FL 32216
904 737 8316

Mrs. Deborah O. Merck, GG
109 Lake Drive
Williamsburg, VA 23185
804 220 3776

Mrs. Anna M. Miller, GG, ASA
Master Gemologist Appraiser
A. M. Miller & Assoc.
P.O. Box 1844
Pearland, TX 77588
713 485 1606

Ms. Mona Miller, GG
Pacific Gemological Lab.
8888 SW Canyon Rd. #201
Portland, OR 97225
503 297 8688

Mr. Stuart M. Mintzer, GG
1918 Sunrise Blvd.
Ft. Lauderdale, FL 33304

Mrs. Isabelle Michel
170 Fulton St #2
New Milford, NJ 07646-2641

Mr. Michael Morris Mitchell
Ben Cooper & Co.
201 Gramby St. #40
Norfolk, VA 23510-1805

Mr. William G. Mitchell
Address Unknown
Jackson, MS

Mr. Alfredo Molina, GG, ASA
Master Gemologist Appraiser
Al Molina Fine Jewelers
1205 East Missouri
Phoenix, AZ 85014
602 277 9780

Mr. Raymond Moran, GG
870 Wren Avenue
Miami Springs, FL 33143

Mr. Elisha R. Morgan, GG
Morgan, Nelson & Assoc.
47 Central St.
Woodstock, VT 05091
802 457 5700

Mr. Jean Fran Moyersoan, GG, FGA
Ubige, SPRL
26/08 Ave. Gen de Gaulle B1050
Brussels, Belgium,
(02) 648 0711

Mr. Michael Mulkern, GG, FGA
Southern Cross Gem Lab
5644 Westheimer #280
Houston, TX 77056
713 469 9120

Mr. Eugene Murray, IV
The Gem Room, Inc.
3100 Loprna Road, #101
Birmingham, AL 35216
205 823 4367

Mrs. Gail J. Nelson, GG
Morgan, Nelson & Associates
47 Central St.
Woodstock, VT 05091
802 457 5700

Mrs. Renee Newman, GG
501 N. Stoneman #B
Alhambra, CA 91801
818 282 3781

Mr. James O'Sullivan, GG
Jaylyn Gemologists & Goldsmiths
30 SE 4th St
Boca Raton, FL 33432
407 391 0013

Miss Judith A. Osmer, GG
J. O. Crystal Company
P.O. Box 7000-381
Redondo Beach, CA 90277
213 437 0736

Mrs. Sandra Marie Overland
6515 W. Shaw Butte Dr.
Glendale, AZ 85304

Mr. Donald A. Palmieri, GG, ASA
Master Gemologist Appraiser
G.A.A.
666 Washington Rd. #304
Pittsburgh, PA 15228
412 344 5500



AGA Membership List 1991

Mrs. Deborah R. Parvka, GG
4333 Chippewa
Jacksonville, FL 32210
904 389 9725

Mrs. Vivian J. Patterson, GG
GEM Jewelry
150 West Bay Area Blvd.
Webster, TX 77598
713 338 6676

Mr. W. Wade Petersilie
Creative Gold, Inc.
121 E. Pikes Peak #223A
Colorado Springs, CO 80103
719 634 5244

Mr. Larry Phillips, GG, ISA, ASA
Master Gemologist Appraiser
Phillips & Associates
3916 Juan Tabo NE, #45
Albuquerque, NM 87111
505 299 7999

Mrs. Elizabeth Cressey Plummer, GG
Best Products
4145 W. Pyracantha Circle
Tucson, AZ 85741
602 744 1645

Mrs. Janet F. Post, GG
72 South Palm Avenue
Sarasota, FL 34236
813 364 8809

Mr. Robert L. Praska, GG, CG
Gem Profiles
416 West Santa Ana
Fresno, CA 93705
209 229 7361

Mr. Martin Rappaport, President
Rappaport Diamond Report
15 West 47th Street
New York, NY 10036
800 223 2373

Mr. Ronald C. Redding, GG
1202 David Drive
Pelham, AL 35124
205 323 7785

Mrs. Barbara Reilly, Western Editor
Jewelers Circular Keystone

Mr. Steven Reiner, GG
706 Main Street
Houston, TX 77002
713 227 3907

Mr. John F. Reusch, GG
427 Est Mitchell St.
Petoskey, MI 49770
616 347 2403

Ms. Dana Lynn Richardson, GG, ASA
Master Gemologist Appraiser
Spectrum Gems
1615 South Foothill Drive
Salt Lake City, UT 84108
801 581 9900

Mr. John S. Roberts
2101 Ridgeview Place
Escondido, CA 92025

Mrs. Marcie R. Roe, GG
1340 Pegram Street
Alexandria, VA 22304
703 751 1493

Mr. Jerrold B. Root
1117 N 19th St.
Arlington, VA 32209

Mr. C. Kirk Root GG, ASA
Master Gemologist Appraiser
4307 Andalucia Drive
Austin, TX 78759
512 338 0360

Mr. Charles Rose, GG
1971 Brierbrook
Germantown, TN 38138-3907
901 754 1934

Mr. David Rosen
Sydney Rosen Co.
714 Sansom St.
Philadelphia, PA 19106
215 922 3500

Mr. Robert Rosenblatt GG FGA ASA FCGA
Master Gemologist Appraiser
Rosenblatt's
1400 Foothill Dr. #150
Salt Lake City, UT 84108
801 583 8655



AGA Membership List 1991

Mr. Irwin H. Rubin, GEM

401 Bellevue Ave.
Newport, RI 02840
401 846 8262

Mr. Arthur D. Russ, GG

225-14-88th Avenue
Queens Village, NY 11427
718 464 6951

Mr. Frank L. Salveson, GG

4522 Wildwood Drive
Crystal Lake, IL 60014
815 459 1906

Mr. Sindi J. Schloss

I.G.A.S.
4160 North Scottsdale Road
Scottsdale, AZ 85251
605 947 5866

Mr. Leo J. Schmied, GG

Master Gemologist Appraiser
Jewelry Appraisal Services
7347 Kingston Pike
Knoxville, TN 37919
615 588 8417

Mr. Helmut J. Schoffer, GG

P.O. Box 941
Aspen, CO 81612
303 925 5955

Mr. James S. Seaman, GG, ASA

Master Gemologist Appraiser
Midwest Gem Lab of Wis. Inc.
405 N. Eastmoor Ave.
Brookfield, WI 53005
414 784 9017

Mr. Neil C. Segal, GG, NJA

P.O. Box 1356 Hillcrest 3650
Republic of South Africa
South Africa

Mr. Thomas Seguin, GG, ASA

Master Gemologist Appraiser
Suncoast Accredited Gem. Lab
6221 14th St. W #105
Bradenton, FL 34207
813 756 8787

Mr. Elroy J. Sell GG, ISA

Gem Experience
910 Gladys
Addison, IL 60101
708 833 6629

Mrs. Norma Sexton, Managing Editor

Modern Jeweler
7950 College Blvd.
Overland Park, KS 66210
913 451 2200

Mrs. Barbara Shaieb, GG

Grunewald & Adams
3565 E. Calle Alarcon
Tucson, AZ 85716
602 327 5747

Mr. Corey Shaughnessy

14429 N. 6th Place
Phoenix, AZ 85022

Mr. James E. Shigley

GIA
1660 Stewart Street
Santa Monica, CA 90404
800 421 7250

Mrs. Evelyn W. Sinderholm, GG

17455 Port Marnock
Poway, CA 92064

Mr. Donald G. Sinon

118 West Lincolnway
Cheyenne, WY 82001

Mr. Ben H. Smith, FGA

The Gem Mart
P.O. Box 1448
Wilmington, NC 28402
919 762 1479

Mrs. Judith R. Snow

Snow's Jewelers, Inc.
219 Miracle Mile
Coral Gables, FL
305 661 4650

Mrs. Traci K. Solovey

1475 Chain Bridge Rd.
McLean, VA 22101
703 356 0138

Mr. Tom Stacey

Colored Stone Magazine
60 Chester Avenue, #201
Devon, PA 19333
215 293 1112



AGA Membership List 1991

Mrs. Nancy Stacy, GG, ISA, ASA
Master Gemologist Appraiser
Jewels by Stacy
712 Bancroft Rd. #436
Walnut Creek, CA 94598
510 939 4367

Mr. Stuart Stanuelli, III, GG
2001 Kirby Drive
Houston, TX 77019
713 524 6166

Mr. Allen Standen
10417 Doering Lane
Austin, TX 78750
512 471 1534

Mrs. Ann J. Steinberg, GG
P.O. Box 4665
Springfield, MO 65808

Mrs. Karen L. Sternberg, GG
3320 Ardley Ct.
Falls Church, VA 22041
703 671 2592

Mr. Laurence S. Stevens
1805 Shankin Drive
Walled Lake, MI 48088
313 669 7109

Mr. Robert F. Strogonoff, GG
Oceanside Jewelers
560 Highway A1A
Satellite Beach, FL 32937
407 777 7628

Mr. Dee Jay Strobe
P.O. Box 190
Mt. Holly, VA 22524

Mr. Charles Stuart
3204 Duffer Rd.
Sebring, FL 33872

Dr. Gary A. Svec
P.O. Box 1824
Cedar Rapids, IA 52406
319 365 1173

Mr. Tomas E. Tashey, Jr., GG FGA
Independent Gemological Laboratories
550 South Hill Street, Ste. 131
Los Angeles, CA 90013
213 622 2387

Mr. William A. Taylor, GEM
W. Taylor Finest Faceted Gems
113 Martin St.
Indian Harbor Beach, FL 32937
407 773 4885

Mr. R. H. Teel
Distinctive Jewelry
Fairmount Hotel
170 South Market
San Jose, CA 95113

Mr. Joseph W. Tenhagen, GG, FGA, ASA
Master Gemologist Appraiser
36 NE 1st St #419
Miami, FL 33132
205 374 2411

Mr. Thomas J. Terpilak
Metro Gem Consultants
4550 Montgomery Ave.
Bethesda, MD 20814

Mr. Michael Thompson, Senior Editor
Jewelers Circular Keystone
825 Seventh Avenue
New York, NY 10019
212 245 7555

Mr. Roger C. Trigg, GG
P.O. Box 23372 7735 Claremont
Republic of South Africa
South Africa

Mr. Thom Underwood, GG, ASA
Master Gemologist Appraiser
San Diego Gemological Lab
3957 Goldfinch St.
San Diego, CA 92103
619 291 8852 Fax: 619 291 0478

Mr. Robert E. Villi
508 Lincoln Hwy E.
North Huntingdon, PA 15642

Mr. Gary Voigt
27 Parkview Drive
Kalispell, MT 59901

Mrs. Linda Von Philip
2954 Bentley St.
Sarasota, FL 34239
813 954 4730



AGA Membership List 1991

Mr. Jacque Voohees

Polygon Network
P.O. Box 1885
Dillon, CO 80435

Mr. Gerald Wachs, GG

Paul Wachs
580 5th Avenue
New York, NY 10036
212 719 1003

Ms. Sharon Wakefield, GG

Northwest Gemological Laboratories
P.O. Box 8243
Boise, ID 83707
208 362 2275

Mrs. Amy Walker

P.O. Box 30549
Palm Beach Gardens, FL 33410

Mr. Paul M. Walker

The Greely Corp
9718 S. Dixie Highway #7
Miami, FL 33156
305 661 1072

Mr. David A. Weinstein

322 W. 104th St #4F
New York, NY 10025

Mrs. Tammy H. Welson

19501 Biscayne Blvd. #893
Aventura, FL 33180

Mr. Stephen Wesson

54 L Street
Salt Lake City, UT 84103
801 328 9107

Mrs. Consuelo M. White

The Clay Bezel Jewelers
216 E 5th St.
Port Angeles, WA 98362
206 452 7130

Mr. David O. Williamson

22949 Playview
St. Clair Shores, MI 48082
313 296 9114

Mrs. Joann Z. Wobby, GEM

Richard J. Wobby Jewelers
124 N. Main St.
Barre, VT 05641
802 476 4031

Mr. Charles Wolohan

904 Golden Beach Blvd.
Venice, FL 34285

Mr. Kevin Wood, GG

The Ringer Inc.
1514 S. 1100 E #A
Salt Lake City, UT 84105
801 466 1630

Mr. Frank A. Wright, GG, FGA

6052 Magnolia Ave.
Riverside, CA 92506-3599
714 683 7489

Mrs. Lise A. Wurm, GG, FGA

Sidney Daniels, Inc.
150 Post St #745
San Francisco, CA 94108
415 391 8600

Mrs. Christine York, GG, ASA

Master Gemologist Appraiser
York Antiques and Appraisal Service
3104 Eldoe #202
Houston, TX 77027
713 960 0988

Mrs. Margaret Yusko

P.O. Box 426
Central Square, NH 03222

Mr. Paul Zadok, GG

P.O. Box 5961-106
Sherman Oakes, CA 91413

Mrs. Jean A. Zamot, GG, ASA

Master Gemologist Appraiser
Gems, Etc.
15951 Carmania Drive
Whittier, CA 90603
213 943 0090

Mr. Charles A. Zawacki, GG, ASA

Master Gemologist Appraiser
5455 Foxhound Drive
Naples, FL 33942
813 643 1102

Mrs. Geraldine Mary Zwack

P.O. Box 57
APO San Francisco, CA 96346-0001

Mr. Michael Zwack

459 Tamarack Ct.
Dubuque, IA 52001



12TH ANNUAL AGA INTERNATIONAL GEMOLOGICAL TUCSON CONFERENCE
CONFERENCE - FEBRUARY 6 & 7, 1992 ♦ EDUCATIONAL OFFERINGS - FEBRUARY 3 TO 13, 1992

Mon-Wed 2/3 - 2/5: 8:00 am - 7:00 pm
(Hotel Park Tucson Theater)

**AGA/GIA ADVANCED DIAMOND AND
COLORED STONES GRADING COURSE**

Sue Johnson, Director of Education, GIA

Jim Lucy Education Projects Officer, GIA

COST: MEMBERS \$450, NON-MEMBERS \$50

MAXIMUM 50 PERSONS



Thurs-Fri 2/6 - 2/7: 8:00 am - 5:00 pm
(Hotel Park Tucson Theater & Ballroom)

AGA/CMG TRANSPARENT GEMSTONES

(Course includes AGA/CMG Gemstone Manual, Vol.1)

One Full Day of Hands-On I.D./Treatments/Grading

C.R. "Cap" Beesley, Chair, Standards & Disclosure

Michelle Hallier, AGA Education Committee

Alfredo J. Molina, AGA Education Committee

Donald A. Palmieri, Chair, Education & Certification

Ted Themelis, AGA Education Committee

COST: MEMBERS \$275, NON-MEMBERS \$300

MAXIMUM 100 PERSONS



Thursday, 2/6: 5:30 pm - 6:30 pm
(Hotel Park Tucson Theater)

AGA MEMBERSHIP MEETING

Cortney Balzan, AGA President



Saturday, 2/8: 8:00 am - 1:00 pm
(Hotel Park Tucson)

CMG PRACTICAL TEST

COST: \$200



Saturday, 2/8: 6:30 pm - 11:30 pm
(Hotel Park Tucson Ballroom)

AGA DINNER DANCE & AWARD CEREMONY

1992 Recipients:

Judith Osmar, President of J.O. Crystal

Thomas Chatham, President of Chatham Created Gems

INCLUDED WITH REGISTRATION OR \$30



Sat-Thurs 2/8 - 2/13: (AGTA Show Hours)
(Galleria at AGTA Show...Convention Center)

AGA/MUNSELL COLOR DISCRIMINATION

Tests at ½ Hour Intervals (Appointment Necessary)

Anne A. Hawken, Regional Gov., CGL Committee Chair

COST: MEMBERS \$20, NON-MEMBERS \$25



Sun-Mon 2/9 - 2/10: 11:00 am - 5:00 pm
(Convention Center Room #7 [Mariposa])

AGA/JCK CO-SPONSORS

**HANDS ON WITH INDUSTRY SOFTWARE
PROGRAMMERS**

Jewelry Industry Computer Software Showcase

Michael Thompson, Senior NY Editor, JCK Magazine

Thom Underwood, Chair, Software Review Committee

FREE



Sunday 2/9: 9:00 am - 11:00 am

(Convention Center Room #1 [Apache])

"COMPUTERIZE? EXPANDING THE PROFIT MARGIN"

Moderator: Michael Thompson (JCK)

FREE



Monday 2/10: 9:00 am - 11:00 am

(Convention Center Room #8 [Mojave])

**"COMPUTING! - TAKING THE MYSTERY
OUT OF THE BOX"**

Thom Underwood

FREE



Monday 2/10: 11:00 am - 1:00 pm

(Convention Center Room #8 [Mojave])

**HOW TO SURVIVE THE CHANGING
GEMSTONE MARKETS - A GLOBAL VIEW**

Martin Rapaport, Rapaport Diamond Report

FREE



Monday 2/10: 1:00 pm - 2:00 pm

(Convention Center Room #8 [Mojave])

**GEMSTONE STANDARDS
THE NATIONAL BUREAU OF STANDARDS
GEMSTONE STANDARDS COMMISSION**

Cap Beesley, American Gemological Laboratories

FREE



Monday 2/10: 2:00 pm - 2:45 pm

(Convention Center Room #1 [Apache])

**IDEAL LIGHTING FOR BUYING & SELLING
COLORED GEMSTONES**

Stephen Hofer, Colored Diamond Laboratory Services Inc.

FREE



Tuesday, 2/11: 10:30 am - 11:30 am

(Convention Center Room #1 [Apache])

OPAL MARKET REVIEW

Dr. Paul Downing, Downing Opal Co.

FREE



HOTEL RESERVATIONS & INFORMATION
HOTEL PARK TUCSON * 5151 E GRANT ROAD * TUCSON, ARIZONA 85712
(602) 323-6262 * 1-800-257-7275 * Fax: (602) 325-2989

We have made special arrangements for rooms and suites at Hotel Park Tucson. For those of you who have never stayed at this hotel, we think you'll be very pleased. We have blocked out 35 rooms and 35 suites from February 2nd through February 9th. Of course anyone who is in the hotel by the 9th can stay as long as you wish. January 9, 1992 is the reservation cutoff for AGA blocked rooms and special rates.

SPECIAL ROOM RATES:

ROOMS		SUITES	
SINGLE	\$100 + TAX	SINGLE	\$110 + TAX
DOUBLE	\$100 + TAX	DOUBLE	\$120 + TAX

Included in this rate is a full American Buffet Breakfast served daily in the Garden Room, poolside. All reservations must be made by the participants directly through the hotel at (800) 257-7275. You must identify yourself as an AGA member in order to get the special discounted rate.

CALL AND RESERVE YOUR ROOM TODAY ♦ PLEASE FILL OUT YOUR REGISTRATION ASAP
SEE YOU IN TUCSON!



REGISTRATION

Name _____ Firm Name _____

Address _____ City _____ State _____ Zip _____

Phone (____) _____ Fax (____) _____ Current Member? Yes No

FEES: Mon-Wed, 2/3-2/5: AGA/GIA Advanced Diamond and Colored Stones Grading Course (Certificate Included)
AGA MEMBERS \$450, NON-MEMBERS \$500 (DAILY LUNCHEON INCLUDED)

Thurs-Fri, 2/6-2/7: AGA Tucson Conference, Transparent Gemstones Course (Series 1) (Includes Luncheon)
AGA MEMBERS \$275, NON-MEMBERS \$300 (CMG TRANSPARENT GEMSTONES VOL. I INCLUDED, MAXIMUM 100 PERSONS)

Saturday, 2/8: AGA Certified Master Gemologist (CMG) Practical Test
(REQUEST BROCHURE AND APPLICATION IF INTERESTED) \$200

Saturday 2/8: AGA Dinner Dance & Award Ceremony
AGA MEMBERS \$30, NON-MEMBERS \$30 OR INCLUDED WITH CONFERENCE REGISTRATION

Sat-Thurs, 2/8-2/13: AGA Administered Munsell Color Vision Test
AGA MEMBERS \$20, NON-MEMBERS \$25 (CALL ANNE HAWKEN FOR AN APPOINTMENT, (512) 328-9411)

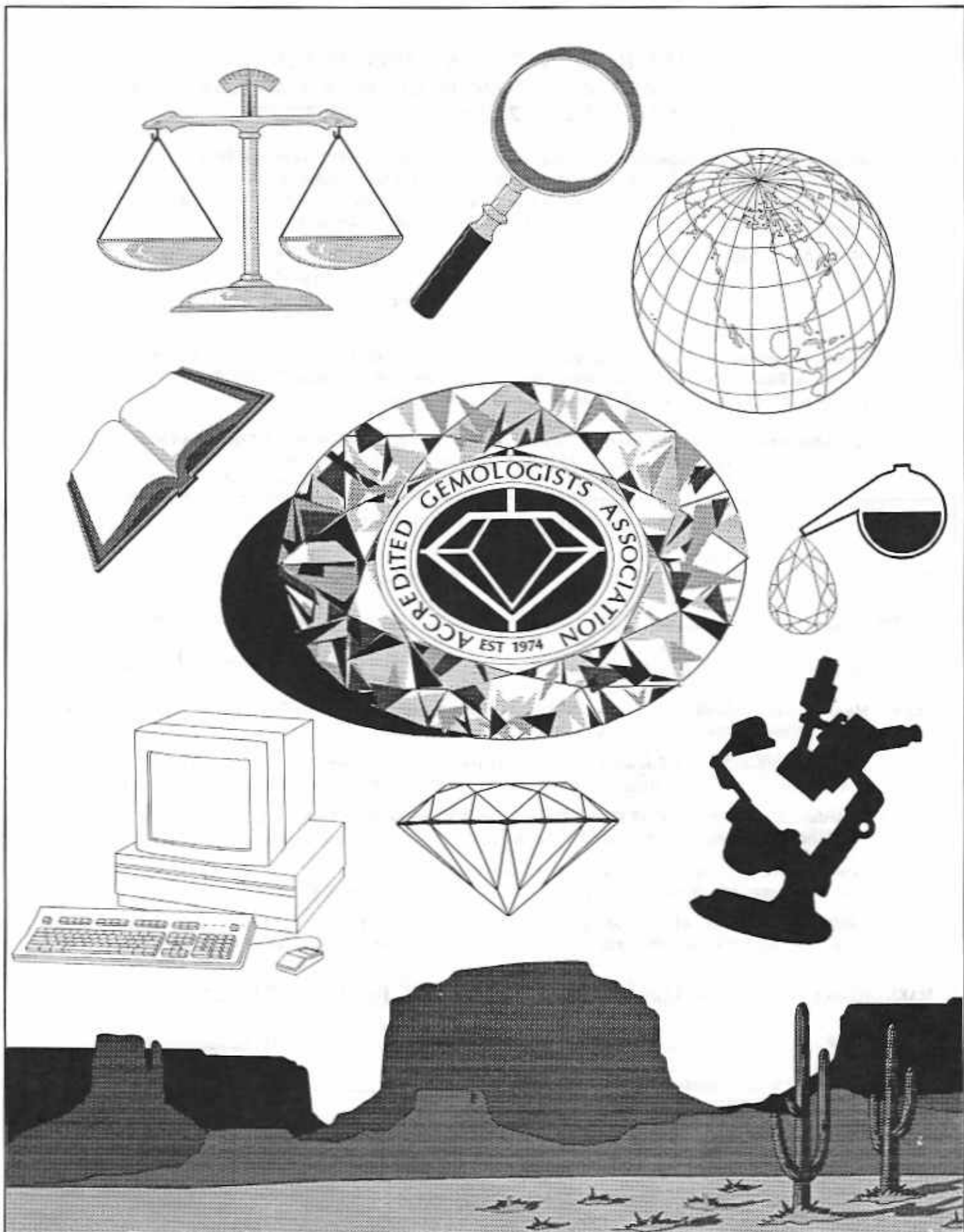
MAKE CHECK PAYABLE TO "AGA" OR USE DISCOVER, VISA, MASTER CARD, OR AMERICAN EXPRESS

Card # _____ Expiration Date _____ Total \$ _____

Signature _____

SEND OR FAX TO: Donald A. Palmieri, Vice President, Chair of Education & Certification
650 Washington Road, Pittsburgh, PA 15228
Phone: (412) 344-4910 ♦ Fax: (412) 344-4910





THE ACCREDITED GEMOLOGIST'S ASSOCIATION (A.G.A.) IS AN INTERNATIONAL NON-PROFIT ORGANIZATION DEDICATED TO PROFESSIONAL STANDARDS OF EDUCATION, RESEARCH, IDENTIFICATION AND EVALUATION OF GEM MATERIALS AND JEWELRY. ALL APPLICANTS FOR MEMBERSHIP ARE REQUIRED TO READ AND SIGNIFY THEIR ACCEPTANCE OF THE FOLLOWING CODE OF ETHICAL CONDUCT, AND INDICATE THEIR WILLINGNESS TO ADHERE TO THIS CODE.

I. PROFESSIONAL CONDUCT

- A. It is incumbent on every member to refrain from giving any counsel or making any report on any gem or article with which he is not thoroughly familiar, unless (1) the client is aware of those limitations and/or (2) he consults with another who is competent to assess and evaluate the gem or article.
- B. A client should be counseled of the need for periodic reassessment of the value of his items, because of continued price fluctuations in the market.
- C. Every member agrees to make every possible effort to keep abreast of new developments in the field of jewelry and gemology.
- D. Consultations in performing gemological duties, including any reports, are confidential and any disclosure should only be made after obtaining written approval from the client.
- E. The gemologist is in a position of trust and, due to his professional knowledge and training, must accept the special nature of the relationship with his client.
- F. It is unprofessional practice to give off-handed opinions, which tend to belittle the importance of careful inspection, testing and analysis.
- G. It is unethical practice for a member to suppress any facts, data or opinions which he may be called upon to give in a court of law, or to overemphasize any facts, data or opinions so as to unfairly influence a decision or bias a case for either party.
- H. It is unethical practice to serve more than one party with respect to the same situation unless all parties previously agree to this.
- I. It is unethical to reduce a previously quoted fee in order to supplant another gemologist or appraiser after the other's quotation for professional services has been revealed.
- J. A member of A.G.A., aware of the questionable conduct of another member, has an obligation to report the matter to the Grievance Committee for appropriate action.
- K. Any conduct, practice, self-laudatory advertising, or other questionable gemological practice using misleading or inaccurate claims and promises detrimental to the establishment of public confidence in gemological work is considered unprofessional.
- L. The gemologist should have no interest or contemplated future interest in the purchase of items reported on, in order to avoid any suspicion of bias. The full revelation of pertinent facts is mandatory.

II. GEM IDENTIFICATION AND APPRAISAL REPORTS:

- A. Should contain the results of a sufficient number of tests (e.g., R.I., S.G., U.V., examination with microscope, spectroscope) to establish the identity of the material in question, unambiguously.
- B. Should indicate (where feasible) special characteristics of the material examined, such as natural origin vs. synthetic or vice versa, or if material is dyed, assembled, reconstructed, irradiated, etc.
- C. Should utilize standardized grading criteria where available, and indicate the grading system used.
- D. Should avoid confusing terminology that tends to perpetuate incorrect gemstone names, or which can be misconstrued by layman as representing something other than that which is intended.
- E. Should be in writing only, with the gemologist retaining a copy of the report as a permanent record.
- F. Should indicate the purpose of the report (e.g., estate appraisal, replacement value, etc.).
- G. Should present a thorough qualitative and quantitative statement, including mention of special markings, hallmarks, age, historical significance, provenance, uniqueness, etc.
- H. Should present the truest possible value, along with a statement as to whether the stated value includes an increment for inflation and, if so, what the increment is.

III. FEES

- A. It is recommended that fees are to be computed on the basis of a per hour rate or on the basis of a charge per item. It is consistent with professional practice to have a minimum fee, or that consistent with the experience of the appraiser or gemologist doing the work.

I HEREBY AFFIRM WITH MY SIGNATURE THAT I ACCEPT THE ACCREDITED GEMOLOGIST ASSOCIATION CODE OF PROFESSIONAL CONDUCT TO BE VALID AND I AGREE TO USE IT AS A GUIDELINE IN PERFORMING GEMOLOGICAL ACTIVITIES. I UNDERSTAND THAT THE A.G.A. MAY TERMINATE MEMBERSHIP OF ANY INDIVIDUAL WHO IS FOUND TO BE PERFORMING GEMOLOGICAL WORK INCONSISTENT WITH THE STANDARDS OF PROFESSIONAL CONDUCT SET FORTH ABOVE. I UNDERSTAND THAT MEMBERSHIP IS GRANTED ONLY TO ELIGIBLE INDIVIDUALS WHO ARE DULY ELECTED BY A.G.A. AND DOES NOT EXTEND TO BUSINESS ASSOCIATES UNLESS THEY ARE INDIVIDUALLY ELECTED TO MEMBERSHIP.

(Professional seal or stamp may be shown below)

Signature _____

Date _____

Address _____

(NOTE: Keep one copy, sign and date the other and return to A.G.A. with any fees)



 ACCREDITED GEMOLOGISTS ASSOCIATION

Office of Publications
3916 Juan Tabo N.E., Suite #45
Albuquerque, New Mexico 87111
(505) 299-7999

International Headquarters
915 Lootens Place
San Rafael, California 94901
(415) 454-8553