

ACCREDITED GEMOLOGISTS ASSOCIATION



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NEWSLETTER

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CURRENT NOTES AND NEWS - Joel E. Arem, Ph.D., FGA, Editor

The current wave of interest in gemstones continues strong. There are scattered reports of a slight dip in overall buying, and also a slight softening in the diamond market (except for the best grades). But more and more investors are turning to alternative investment vehicles and are taking a very hard look at gemstones.

The demand for better quality colored stones has pulled a tremendous amount of fine material "out of the woodwork". A notable example is the case of precious topaz. There has, for several years, been a growing shortage of large, dark stones, especially ones of the very rare reddish-orange color. Recently I was treated to a look at a lot of about 15 stones ranging in size up to more than 20 carats. The color was a magnificent deep red-orange. These stones were cut from old rough, which had been hoarded until the owners felt the price of the finished stones would be high enough to "make a killing". I saw comparable rough (perhaps the same???) in Belo Horizonte last April. It is vital to remember that the appearance of such a lot is a very rare occurrence. I.E., there is NOT very much available in the first place. And in the second place, their availability does not reflect current production of the topaz mines. Sooner or later the American market will become educated to the true scarcity of fine colored gemstones. By that time, however, prices will be astronomical and the only place to buy such gems will be out of estates.

Rubies continue to get scarcer, and the price for Thai goods is up about 40% in the past 9 months. Larger, finer stones are VERY hard to come by. Many dealers have found that the only way to get better stones is to have a representative take up residence in Bangkok in order to be on hand at any moment stones become available. Green garnets and tourmalines seem to be in good supply. Some extremely dark kunzites are turning up, some of very large size (over 100 carats); these seem to be stones from an old Brazilian locality, no longer in production. Large peridots have risen dramatically in price and stones of better quality over 50 carats (Burmese) are wholesaling for over \$100 per carat. Burned sapphires of magnificent color are all over the market. These are Ceylon stones, and range in size up to about 30 carats. A characteristic is very strong color zoning. Other than this and the typical fine color, there really is no detection test available yet. All we have to go by is the presence of vast numbers of fine blue sapphires from Ceylon, in a quantity and quality unlike anything seen in past years, and the knowledge that techniques for producing such stones by a heating process have been developed. The marketplace accepts the material at quoted prices, in much the same way as it accepted treated blue topaz.

The articles in this issue are, I think, particularly timely and relate directly to what is happening in the marketplace. The stage is being set for a revolution in the field of gemological instrumentation. One recent development is a "colorscope" for accurate reproduction and referencing of gemstone colors. This has been extensively publicized in the various trade journals and the GIA will undoubtedly release literature on the machine very soon. Another development, to be reported on in the next Newsletter, is the release to the American market of perhaps the finest line of gemological instruments in the world, manufactured by Eickhorst of Hamburg, Germany. His diamond photometer may well replace visual grading of diamonds, as it offers much greater speed, reliability and the ability to split any given color grade into perhaps as many as 20 subdivisions. The Eickhorst horizontal microscope offers unparalleled viewing of gemstone inclusions, as well as instant versatility as a polariscope and refractometer. The latter feature is a new development suggested by the writer, and will allow determination of the R.I. of any transparent stone, of any cut, set or unset, in a matter of 1 or 2 minutes, without upper R.I. limit.

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TO DEVELOP AND PROMOTE PROFESSIONAL STANDARDS
IN THE PRACTICE OF GEMOLOGY

The details of this instrument will be extensively reported in the AGA Newsletter.

A major conference on Gemstones as Investments will be held at the Century Plaza Hotel on June 17-20, in Los Angeles. Attendees and lecturers include Konrad Wild, President of the Idar-Oberstein Bourse and Chaim Danielli, Director General of the Israel Diamond Manufacturers Association. Inquiries should be directed to Bernard Cirlin, at (805) 497-4800.

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EXPLORATION

The article at the right is from the S. African Mining Journal, Dec. 1, 1978.

Australian Ruby Find

Hillrise Properties, a Melbourne-based property investment company, has discovered a large ruby field at Amalindum Station, northeast of Alice Springs in central Australia. This is the first discovery of rubies in Australia; Hillrise has said that it is potentially among the top three ruby discoveries in the world. Exploratory work at the station has reportedly indicated a massive field of corundum, from which rubies and sapphires are cut; samples have been extensively tested in West Germany and Asia. Whilst the gemstones found so far are excellent, it seems that the field could yield still better specimens.

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Ted Brockie, a Canadian AGA member, sent me the article at the right regarding another AGA member. This is out of the Canadian Gemologist, Vol. 11, No. 4

LLOYD DAVID ALLINGHAM G.G., P.C.G.A.

30 October 1929 – 23 November 1978

It is with profound regret that we report the passing of this outstanding member of the Canadian Gemmological Association. Professionally, Lloyd was Chief Draftsman and Customer Contact for Messrs Schwindt & Company Limited, of Burlington, Ontario. Privately, he was a gemmologist of the first rank who exhibited a profound grasp of all aspects of the subject. He gave of himself willingly whenever needed and devoted the greater part of his time to the promotion of gemmology as a specialized branch of the science of mineralogy. Personally, he overcame much physical pain and suffering and cheerfully continued his labours for both the C.G.A. and the fledgling Canadian Professional Jewellery Appraisers Association, where he served on the Steering Committee.

The loss of Lloyd Allingham will be felt by both Associations and by his many personal friends. His untimely end, at the age of forty-nine, is a loss not only to the science of gemmology in Canada, but to the gemmological world, generally. We offer sincere condolences to the wife and family of our good and kind friend, who is sadly missed by us all.

D.S.M. Field

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EXCHANGE COLUMN: The following is a list of books being sought by AGA member Joseph Gill (c/o J. & S.S. DeYoung, Inc., 373 Washington St., Boston, Mass. 02108). Anyone who has a copy available should contact Mr. Gill directly.

- Berman, O., PHYSICAL PROPERTIES OF DIAMOND, Oxford, 1965
 Boyle, Robert, AN ESSAY ABOUT THE ORIGIN AND VIRTUES OF GEMS, London, 1672
 Bruckmann, U.F.B., A TREATISE ON PRECIOUS STONES, 1775
 Cipriani, DRAWINGS OF 100 GEMS IN THE MARLBOROUGH COLLECTION, 2 Vols 1780 & 1791
 Claremont, Leopold, CEYLON, THE ISLAND OF GEMS, early 1900's London
 Davenport, Cyril, JEWELLERY, London, 1905
 Evans, Joan, ENGLISH JEWELLERY FROM THE FIFTH CENTURY A.D. TO 1800, London, 1921
 Evans, Joan, ENGLISH POSIES AND POSY RINGS, London, 1931
 Evans, Joan, MAGICAL JEWELS OF THE MIDDLE AGES AND THE RENAISSANCE, London, 1922
 Hertz, B., CATALOGUE OF MR. HOPE'S COLLECTION OF PEARLS & PRECIOUS STONES, London, 1839
 HISTORY OF JEWELS, London, 1671

EAST AFRICAN GROSSULAR OR HESSONITE?-A STUDY by W. Taylor, Gemologist

The fine quality grossular garnets introduced recently from E. Africa certainly rank as among the most significant of gem discoveries of recent years. "Tsavorite", for example, has become a Godsend to the jeweler during the emerald shortage. The colorless and pastel colored grossulars are gaining rapidly in popularity among gem collectors and connoisseurs. For the most part, these garnets offer few problems to the alert gemologist in terms of identification. One of the most important exceptions, however, concerns the deep orange East African grossulars.

These orange grossulars range in color from virtually colorless to peach, through medium peach, medium orange and finally a deep golden orange or amber color. Light peach and orange grossulars present no problem, as they can be classed with the "pastel grossulars" when marketed or evaluated. Unfortunately, however, the very rarest and richest colors of the orange African grossulars overlap in both color and property ranges the corresponding characteristics of those grossulars traditionally known as "hessonites".

It might be suggested that the term "hessonite" applies equally to both materials. It should be noted, however, that the marketplace makes a clear distinction.

Dealers acquainted with the new E. African material seem well aware of the superior beauty and greater scarcity of the orange African stones. They keep these gems well separated from their true "hessonites" in price and prominence.

Fine quality E. African grossulars of deep orange color, in excess of 1 carat in size, usually command premiums of \$200 to \$300 per carats, with exceptional gems ranging even higher. The fact that "traditional" hessonites are current available at prices from \$10 to \$50 per carat underscores the importance of making a proper determination between these two materials. It is for this reason that we recently began recording properties of all the orange grossulars we encountered. Our objectives were to determine a range of these properties, and then to see how this range compared to the properties of "traditional hessonites".

To date, during our study, we have been able to examine 30 orange E. African grossulars, with a total weight of 53.51 carats. During the course of the study we were also fortunate enough to acquire an exquisite 5.38 carat specimen. The color is the finest orange-amber hue. The stone is cut as a pear shape brilliant, with horizontally split bezels on the pavilion and horizontally split mains on the crown. The culet angle was maintained at 42° and the crown mains were cut to approx. 40° to produce an exceptionally brilliant gem. No inclusions were visible at 10 x.

We have encountered only three other orange E. African grossulars in excess of 5 carats, and each of these would have required recutting to lower weights to remove "culet windows". (Ed. note - I recently acquired a superb antique oval cut grossular of the finest amber-orange color, weighing 14.78 carats, flawless to the naked eye. From what I can gather this may be one of the largest 3 or 5 stones of its kind in existence from E. Africa. Stones over 5 carats are considered very scarce indeed)

We were able to examine only a limited number of E. African orange grossulars, because of their true scarcity and the limited number of stones available to our study. Therefore, we wish to emphasize that the results reported herein cannot be considered definitive, but rather are indicative of general trends.

The specific gravity of the E. African stones ranged from 3.605 to 3.620, with an average of 3.611. Interestingly, the density of the gems seems to be related to the depth of color; the deepset orange stones have a density of 3.62. Refractive indexes range from 1.738 to 1.748 with an average of 1.741. Again, this seems to be related to color. In gems of similar size the R.I. seems to increase with depth of color.

In LW ultraviolet we found a slight yellow-orange fluorescence in the lighter colored orange grossulars. As the depth of color increases the reaction of the stones decreases. Medium and deep orange stones are totally inert.

The absorption spectrum is indistinct and not diagnostic.

The microscope yields useful information as well. We found many of the E. African grossulars to be free of inclusions, even at 30X.

GROSSULAR (continued)

When inclusions were observed, they consisted of long, innocuous, very thin (definitely NOT stubby) and very straight needles. These needles were never seen to be abundant in any gemstone. Needles were never seen in the large numbers commonly observed in pyrope, almandine and rhodolite, for example. There is a major distinction between E. African grossulars and all the hessonites we have examined. The included prisms, granular structure and "heatwave" or syrupy effect usually found in hessonites are totally absent in the E. African brown grossulars.

When properties are compared we find that the normal S.G. of hessonite and the gravity we found in E. African grossulars are the same. The range for hessonite, however, has been pegged at 3.57 to 3.73. The range of S.G. we encountered in the orange E. African grossulars was much narrower (3.605 to 3.620). Perhaps this is due to the small number of gems we were able to examine, or perhaps it is related to a higher purity in the E. African material. Another factor may be the possible relationship between density and color. Traditional hessonites range to very deep brown hues unlike anything we have encountered in the E. African orange grossulars. (We have found the S.G. of the dark brown hessonites we've encountered to be at the high end of the range, near 3.7).

Refractive index, not unexpectedly, also offers little help in comparing the "traditional hessonite" and the E. African material. The "book" range for brown hessonite has been given as 1.74 to 1.75. We have personally encountered brown hessonites, however, that gave readings of 1.755. The fact that E. African orange grossulars may be encountered in a range at least as low as 1.738 may be helpful in some separations. Usually, though, as previously mentioned, the low R.I.-s seem to occur in the lighter shades of orange where the issue of hessonite vs. orange grossular may be less important.

Turning to gem dealers for advice, one hears of a "greater clarity and superior brilliance" in the E. African material. This may be due to the absence of the "heat wave" effect and fewer inclusions. Generally, the color of the E. African stones is more orange and less brown.

The results of our study to date would suggest that the "heat wave" or syrupy effect might be considered definitive of "hessonite". The lack of this effect, together with the absence of stubby prism inclusions and a granular structure should be considered indicative of the E. African grossulars. The observation of long, sparse needle-like inclusions and a low brown component in the color might be considered confirmatory. Magnification of at least 30X is considered necessary for such evaluations.

Again, we wish to emphasize that the number of gems we've examined has been too small to make absolute statements. We would appreciate comments from anyone who has experience with these garnets and can add information.

Also, we reluctantly favor the adoption of a "coined name" (such as "tsavorite" in the case of the green stones) for the orange E. African grossulars, so that they may be more easily distinguished from the traditional "hessonites" on the marketplace. "Orange tsavorite" may seem to be an outrageous misapplication of trade names. However, such a designation would serve to effectively indicate the unique origin and true nature of the very rare and exceptionally beautiful E. African orange grossular garnets.

Ed. Note- The above information is a welcome addition to the available information on garnets. As mentioned in a previous Newsletter, there is a very complex and significant relationship between calcium garnets, idocrase and diopside. It is my belief that intricacies of crystal structure and crystal chemistry involving these mineral species account for observed microscopic effects in grossular. This will be examined in great detail in a later issue of the Newsletter.

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The following note was submitted by AGA member Barry Fixler, GG:

Last week I appraised a 1.25 carat diamond. When I first viewed the stone through a 10X loupe it appeared colorless. When viewed through another angle, however, it appeared yellow. A closer look revealed a large yellow spot or blob in the center of the stone. This blob fluoresced bright yellowish green in LW ultraviolet. The rest of the stone was inert. Can any AGA member come up with an explanation for this phenomenon??

THE PITFALLS OF GEMSTONE CUTTING CENTERS by James L. Semmes, Jr., CG and David Brackna

As cutters of precious gemstone materials, we are constantly hearing tales of woe and deceit from individuals who use the services of overseas gemstone cutting centers. These individuals are importers of colored gemstones, and purchase in lots of thousands of carats of rough, and must then use the services of a cutting center to fashion their rough into finished goods. We have also been told horrifying tales by private individuals who send their rough overseas for cutting, and are surprised and dismayed when they receive the finished goods. The purpose of this article is to describe the pitfalls of buying rough and having it cut by some of these cutting centers, and how to avoid these pitfalls if you must absolutely use the services of such organizations. The information presented here is based on discussions with many importers who have been in the business for many years. These people are professionals, and if they fear the use of these cutting centers, so should you as a private individual or small importer of gems. No firm will be specifically named, since the authors have no direct experience with such overseas shops. The tales we have been told are warning enough to BEWARE.

Of all the cutters and cutting centers in the world, the Germans enjoy perhaps the worst reputation among those importers that we talked to at length. All showed a strong sense of distrust for the German cutting shops, and many have stopped buying or having material cut at these centers. Complaints most often heard were about delays in completing work, switching inferior for good rough, skimming of rough, overpricing on cutting services, and price-switching on quotations for cutting of rough material. One importer told me how he delivered 1,000 carats of rough tanzanite to a favorite cutter of his for fashioning into rounds and ovals. He had figured an overall yield of about 30% from rough to finished goods, and he had mailed 615 carats to the cutter. At the time of delivery, he had been quoted a firm price of \$3.50 per carat for cutting costs, a price he felt fair due to the nature of the material. About 7 months later he received notice that his goods were ready, and that the price for cutting had been raised to \$7.00 per carat, and he should mail a check for \$700 against payment. He figured right away that 100 carats had been finished, so he sent payment, terribly angry over the long delay, increase in costs and that only 100 carats had been cut. He then sat back and waited for more finished gems to arrive. You guessed it - no more stones were shipped. He had paid the bill, had no recourse, and had been cleanly scalped. The sad part is that the importer told me that he had used this very fine, old firm for over 18 years!

Another importer told me a similar story about the Germans, but this time a different firm. He had left a small order of 600 carats of blue topaz for cutting, and a price of \$2.75 per carat was quoted. Five months later he received a letter stating that his goods were ready - but at \$8.75 per carat, and to send a check for payment. The final yield was only 175 carats of cut gems. He had to pay the price to receive the material.

These are two cases of German cutters clipping importers. We could cite many more tales. The point is, where clipping, skimming and price gouging have occurred once, they will occur again. We recognize that inflation accounts for a rise in prices. But when individuals are quoted a firm price in advance, and then clipped, this is simply unethical and fraudulent.

Importers also have grim tales about Brazilian cutters. It seems that the Brazilian government will not allow rough material to leave the country, so buyers of rough must have it cut there or not at all. Several American buyers have told me stories of ripoffs, and how they occur. It might happen like this.

You are a buyer, and purchase a lot of 100 carats of nice quality aquamarine rough. You take it to a cutter for finishing, pay for the rough and cutting in advance, then leave the country. Several months later you receive your finished parcel, and immediately realize that you have been shorted. End of story. One American noted that he had seen one parcel of precious topaz sold to four different buyers. Another way you are shorted financially is that when you deliver your parcel for cutting you are quoted a price of \$.50 per carat for cutting, very inexpensive rates indeed. But when you get less material than you should get from your rough, the actual net cost of cutting becomes much higher. Quotes based on actual case histories average out to \$3.25 per carat for cutting, or 6 times the originally quoted price. A German friend, a legitimate dealer in gemstones and not a cutter, told me that he anticipated that the average buyer of rough pays for 3 to 4 other buyers' cutting costs, and all these mushroomed. When asked what he intended to do in the future, he answered: "Bear the cost, what else?".

PITFALLS OF CUTTING CENTERS - continued

Hong Kong, Thailand and Japan all have similar stories of ripoffs, the major complaint being skimming of rough and poor cutting. One importer told me he could stand the skimming if the cutting wasn't so miserable. When we asked why he chose Asia for cutting, he said that the German and Brazilian ripoffs were worse than the Asian ones, and he could get material recut for less money in the U.S. than he could bear losing to the Asians, Germans and Brazilians. Cutting quality was another major complaint, as previously mentioned. Deep pavilions, thin crowns and scattered facets were all mentioned by importers. In the final analysis, it seems a shame that these importers choose to go to one area in lieu of another simply because they will be cheated less.

Africa is relatively unknown to this analysis because most buyers that we talked to purchased finished goods there, and did not buy rough and leave it for cutting. They mentioned that the native cutters were trained by the Japanese, and that the cutting was quite acceptable. Some of the stones that we were allowed to see had thick pavilions, thin crowns and were "fisheyes", but we did have to admit that the cutting was better than the Asian variety.

We have no immediate answers to the problem of foreign cutting. We foresee many readers smiling and saying that they would never be "taken to the cleaners". Be advised that the importers we talked to have years of experience and are professional buyers and sellers of gemstones who have been in the business for years. These ripoffs are recent and have occurred to many more individuals than we are able to report about, due to space and time. We are able to suggest the following precautions to those of you who might be willing to use foreign cutting centers.

1. Send a small lot of materials for cutting
2. Grind a flat spot on all rough sent for cutting, draw the shape desired on the flat spot using a template, and photograph the results. Send the photo with the parcel, and retain one for your records.
3. Weigh each stone sent for cutting, and figure a 30% yield of finished stones.
4. Insist on payment AFTER the stones are received.

These suggestions might serve some use, to keep skimming to a manageable level, and to keep you from being overcharged. The BEST suggestion we have is to find an available American cutter, and deal with him. We do NOT mean to imply that all foreign cutters are dishonest, but after all it is your money and your gem materials that you are sending off in the mails to a cutter you may not know. If you deal with an American cutter who is local you have more control over your material, you speak the same language, and you use the same currency. It's your gem rough and you must make the final decision. But it is a decision you should make with the greatest of care.

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Ed. Note - I have had personal experience using German cutters (with good results, fortunately, though this was 5 years ago) and very extensively with U.S. cutters. My overwhelming conclusion is that American cutting is by far the best in the world today, and at the lowest cost. When I sent material to Germany in 1974 the cost was from \$1.25 to \$2.00 per carat, based on finished weight, and I got everything back I expected. Today quotes are as high as \$5-6 per carat for the same work. I can still get cutting done in the U.S. for \$2 per carat, the workmanship is better, I have no customs problems, and the work is usually done in 2 weeks, sometimes less. I have had such esoteric stones cut as cerussite, wulfenite, labradorite, rhodochrosite and cuprite, all with exceptional results. Many faceter-hobbyists have perfected their skills and discovered that there was precious little in the way of available rough material. So they decided to sell their skills and work on other peoples' material, sometimes trading cutting work for rough!

Brackna and Semmes are top professional cutters and AGA members should direct comments and questions to them, either through the AGA office or directly to Semmes, who is an AGA member (see membership list).

FUN WITH DIAMOND CERTIFICATES by Kurt W. Arens, GG

The tremendous increase in the demand for certified diamonds over the last few years has added a new dimension to the travails of the working gemologist. For the unwary it holds the potential for some expensive problems, as the following scenarios will attest.

1. A prominent New York manufacturer sells a 1.07 ct. F-color VVS₂ stone to a volume investment buyer over the phone, strictly on the basis of a relatively recent GIA certificate. When the stone arrives the gemologist notices a small nick on the pavilion with an accompanying cleavage extending into the stone and is visible through the table at 10X. This is not on the plot and would render the stone, at best, as VS₁. When questioned the supplier implies that the buyer caused the damage but grudgingly agrees to repair the stone. However, the stone loses a few points and must be recertified. This costs the buyer both time and money, not to mention the loss of weight.
2. A diamond owner takes his stone to the Gem Trade Lab in Los Angeles to have it checked. The stone had been certified by the New York GIA lab as a 1.64 carat F-color, I.F., in May 1977. In L.A. they find a tiny pinpoint which, admittedly, is located in a very hard to detect place but is definitely visible at 10X. The owner of the stone returns it to the now suspect diamond investment company with its "shifty gemologist" and gets a refund. The investment company is now left holding the bag with a very expensive 1.64 VVS₁-F, and the GIA shrugs its shoulders and states eloquently: "We regret the error.."
3. A private party approaches a gemologist with a 1976 GIA certified 1.09 carat VVS₂-G stone and offers it for sale. The gemologist, who is constantly buying stones and having them certified, tells the disillusioned diamond owner that due to the current squeeze on clarity grading standards, his particular stone would have trouble making VS₁ of sent in for recertification. The gemologist offers an unsuitable price, which squelches any interest the diamond owner may have had in diamonds as a legitimate hedge against inflation.

These three (TRUE) incidents happened to me, but are by no means unique, as I am sure many of you who are reading this can attest. There are many problems dealing with certificates. The cutters in New York, who always catch on fast, send stones to the labs as many times as necessary to get the grade they feel they should get for their stone. Consequently, the stones they sell carry the highest possible grades, increasing the chance that they will be bumped down later. Of course, they don't send for recertification any stones that come back overgraded, and there are plenty of those, to be sure. It is these latter stones that are especially dangerous to the buyer of certified stones. I have seen too many diamonds that, upon recertification, came back 2 color grades lower. A decrease of one color grade is almost commonplace. Since there is no real yardstick in clarity grading, a clarity grade can often be out of line. But - who can say?

An interesting phenomenon caused primarily by the surge in demand for investment diamonds has been the tightening of clarity standards since the beginning of the year. This was very noticeable when too many of my VVS₂ gems started coming back VS₁. It happened for several reasons. One is that the difference in price between adjacent clarity grades matters (dollarwise) much more now than it did a few years ago. To avoid embarrassment and irate customers, the GIA (and the AGL) appear to be making sure that clarities will not have a chance of being bumped down later. Also, the relatively inexperienced graders at the GIA (not all, of course) must feel the pressure of grading accurately, resulting in the relative safety of being over-strict.

In my opinion, 5-10% of pre-1978 VVS₁-s would be VVS₂ today because of tightening standards, with a greater percentage of VVS₂ stones now being graded as VS₁. VS₂ seems to be holding its ground. Perhaps you have noticed or suspected this also.

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DIAMOND CERTIFICATES - continued

Please remember that it is much easier to get a grade out of the New York GIA lab than either the SM or LA labs. Ask any cutter. This is so prevalent that without being able to view the stones, an LA certified stone will bring more than an old NY certified stone any day. If this sounds ridiculous - welcome to the club.

If you don't know your seller you may want to check a certified "E" stone by telephone with the issuing lab, especially when the color looks to you like an F. How easy it would be to change an F to an E on a certificate!

I have not yet paid more for a high F than a low F, but when given the choice of certified stones I, of course, always take the higher color. With the prices of diamonds these days I am surprised that we have not started using terms like F+ and F-. The cutters are very aware of this. When I receive a stone that is slightly under the market, I have often found it to be on the very low side of its color grade. I realize that I am going nearly beyond the range of human perception, but I feel that it is the wave of the future. Sooner or later, I believe, all stones will be recertified on a foolproof photometer and my clients will be much happier with E-s that don't magically turn into F-s.

Having the opportunity over the past few years to check thousands of certified stones, and constantly being able to test my grading accuracy by getting certificates on stones I have graded, I can testify that the standard for diamond grading is not really a "standard" in the true sense of the word. Despite some statements to the contrary, there is still a one-grade tolerance in grading. This is almost never mentioned in the gemstone investment community.

The certificates and those who issue them, of course, are not at fault for the problems that have arisen. It is the over-reliance on the certificate by the user which is at fault. It is often better to buy on approval at a slightly higher cost than to rely solely on accurate certificates. But, in the long run, as long as you, the gemologist, know what is going on and are able to protect your clients, you will be one step ahead of the pack.

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Ed. Note- Many gemologists are painfully aware of the points ably made by Kurt in this article. At the New York Gemstone Investment Conference in January the comment was clearly made that the diamond grading system must be "fine-tuned". That is, the difference in price between an E and F color in a 2 carat round is so high that it is absurd not to have finer distinctions in color. Photometers, such as the one designed by Eickhorst, are available and can split color grades accurately and reliably. This is, as pointed out by Kurt, unquestionably the "wave of the future". It is a development whose time has come, due to the pressures of the marketplace. I personally feel that visual color grading is obsolete as of 1979 and will go the way of slide rules. A photometer costs about \$5,000. If you are BUYING diamonds, and using a "seat of the pants" approach for grading to know what to offer for a stone, a difference of one color grade in one stone (in your favor) can easily pay for the machine! If you are appraising diamonds, such a machine is essential for accuracy and savings of time (color grading takes about 30 seconds with a photometer; the results are reliable and reproducible).

Of course, there is no such panacea with clarity grading; this may be a visual operation forever. It is also very subjective, as we all know. Cutting quality could be instrumentalized as a one-step total-return-of-light assessment. This could also be done with the Eickhorst photometer. It is very clear that diamond grading is still in its infancy, and much more needs to be done to keep the gemological side abreast of the marketplace.

I am accumulating material for a "big issue" of the Newsletter devoted to the biggest bugaboo of all: APPRAISALS. Any comments along these lines would be welcomed from all AGA members, to make the issue more complete and representative of the views of the gemological community.