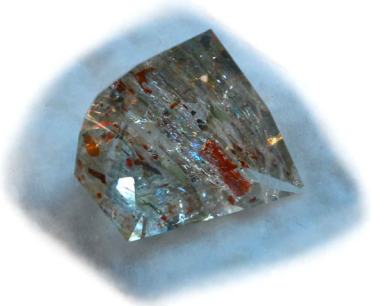
the New Mexico Facetor

November/December 2004

The Official Newsletter of the New Mexico Faceters Guild

NMFG
Show and Tell



Above, two very different, but equally stunning Masai sunstones by **Nancy Attaway**. Below an exquisite rubellite, which she re-cut from a Barion to a round Flasher-cut.

A lovely collection of Arizona peridot, cut by **Dylan Houtman**.

To the left is a gorgeous gold pendant designed and cast by **Steve Attaway**, set with numerous diamonds and a large aquamarine tablet cut by **Nancy** (Steve carved the beautiful hummingbird in reverse intaglio).

On the cover: Tavernier Blue diamond replica by **Scott Sucher**.

The New Mexico Faceters Guild

Guild Officers 2004-2005

President: Dylan Houtman
Vice President/Programs: Ernie Hawes
Secretary/Treasurer: Bill and Ina Swantner
Guild Gemologist: Edna Anthony
Guild Mineralogist: Paul Hlava
Workshop Chairman: Ernie Hawes

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Purpose of the Guild: The purpose of the New Mexico Faceters Guild is to bring together persons who are interested in faceting or faceted stones. We promote the art and science of faceting and provide a means of education and improvement in faceting skills. Finally, we provide a means of communication between those persons involved in or interested in faceting as a hobby.

Guild Membership: Dues are $20.00 per calendar year (January through December) for newsletter issues sent by e-mail. Hard copies of newsletter issues sent by US mail are $30. Please see the membership application/renewal form on the last page of the newsletter.

Meetings: The Guild meets now on the second Monday of odd numbered months at 7:00 p.m. at the New Mexico Museum of Natural History, 1801 Mountain Road N.W., Albuquerque, NM. Workshops are generally held in even-numbered months. Date, time, and place are given in newsletter. Also, any change in guild meeting times or dates will be listed in the newsletter.

The next meeting of the New Mexico Faceters Guild will be January, 2005.

The New Mexico Facetor

Volume 24, No. 6, November/December, 2004

NMFG President Dylan Houtman

In This Issue:

New Mexico Faceters Guild Official Website

We invite everyone to visit our website at: www.attawaygems.com/NMFG for interesting and informative articles on gemstones and faceting techniques.

The Prez Sez:
by Dylan Houtman

Hello and Happy New Year everyone!

I hope all had a Merry Christmas. Many thanks to Ina and Bill Swantner for graciously opening their home for a faceting workshop and Christmas party to the guild members. If everyone enjoyed themselves as much as I, it was a grand success.

I am looking forward to an adventure in February; the gem and mineral show in Tucson, Arizona. This will be my first time and I am very excited to learn and see all that I can about the shows and the Tucson area. After seeing the treasures brought back by everyone the last couple of years I am looking forward to finding a couple of nice pieces for myself.

I have just finished cutting a stone that anyone, who enjoys the dispersion of light in a stone, should try cutting. The material is Sphene, aka Titanite, $CaTiSiO_5$. It's not terribly soft (a little brittle though) and cuts and polishes very well. I used my montringle cut to test the cut's ability to disperse light. I also wanted to see how a high refractive index material would act with the 46.36 degree pavilion mains that I prefer to use with this cut. There was a distinct directional hardness, probably the side of the stone that was parallel with a cleavage plane. I tried polishing with a cerium oxide ultralap and ruined my pre-polish, I then switched to a 50K diamond ultralap which gave an excellent polish. Linde-A on a lead-tin or maybe even a Batt lap would probably work also. The cut stone was a lemon-lime green and dispersed light beautifully in the sunlight. The deep angles of the pavilion mains didn't seem to have an adverse effect, so I am going to cut a standard round brilliant with the same deep pavilion and shallow crown angles. As easy to cut and polish as this stone is, I feel everyone would enjoy adding this material to their repertoire of stones.

Happy Faceting All,
Dylan

Minutes of the NMFG Meeting

November 8, 2004

by Nancy Attaway

President **Dylan Houtman** called the meeting to order at 7:05 pm and welcomed members and guests to the November meeting. He then asked everyone to introduce themselves to the group.

Old Business:

Ernie Hawes reported that no workshop was held in October. Ernie then announced that a workshop is scheduled the afternoon of December 11 at 1:00 pm, before the Christmas Party, at the home of **Bill** and **Ina Swantner.**

New Business:

The Christmas Party will be hosted by **Bill** and **Ina Swantner** at their home on Saturday December 11. Happy Hour will begin around 4:30 pm, and dinner will be served at 5:30 pm. Please RSVP with Ina and coordinate your side dishes and desserts with her. Also, please bring gifts for the rousing gift exchange held after dessert. Thanks.

President **Dylan Houtman** reported that he received the room rent bill for 2005 from the Director of the Natural History Museum. The fee had doubled from $30 per year for six meetings to $60 per year for six meetings. The membership agreed that the assessed fee still remained a bargain and voted to pay the bill from the Guild Treasury.

Refreshments:

Linda Vayna baked yummy chocolate brownies, and **Nancy Attaway** baked a rich pumpkin cake for tonight's meeting refreshments, plus gourmet coffee. Thank you very much. **Carsten Brandt** and **Linda Vayna** volunteered to bring refreshments to the meeting in January, 2005.

Show and Tell:

The Show and Tell Case was filled tonight with glittering gemstones of many types.

Dylan Houtman displayed 35 gemstones that he recently cut. Dylan is a remarkably active facetor, and his competency is seen in the interesting gem material that he successfully cuts. Dylan cut a lavender spinel kiteshape from Burma, a blue sapphire kiteshape from Madagascar, and a ruby kiteshape from Burma. He cut eight peridots from Arizona, four ovals, two triangles, an emerald-cut, and a round. He cut a marquise sapphire from Tanzania that showed blue and yellow body colors. He cut a round pink tourmaline, a Barion emerald-cut scapolite from Mexico, a large triangular labradorite from Mexico, and three small emerald-cut pink spinels with Barion-style pavilions. Dylan also cut a triangular cabochon hemimorphite, four black opal freeform cabochons from Lightning Ridge, Australia, two oval cabochon blue sapphires, one greenish-black star round cabochon sapphire, and nine freeform cabochon opals from Australia.

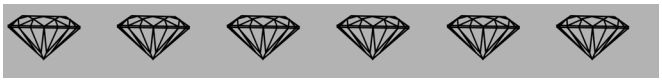
Scott Sucher, tonight's guest speaker, displayed the lovely replica of the Hope Diamond that he rendered years ago in C-ox blue colored cubic zirconia. Through months of library research and painstaking mathematical plotting, Scott duplicated sixteen fabulous replicas of the world's famous diamonds in cubic zirconia. His dazzling work was accomplished in the 1980's before the availability of computer programs like GemCad. Lapidary Journal published several of his replica diagrams.

Nancy Attaway displayed 12 gemstones that she recently faceted. She had cut the rest of the parcel of deep blue and cobalt violet-blue tourmalines from Nigeria. Nancy showed a large pearshape cobalt blue-violet tourmaline, two Flasher-cut round deep blue tourmalines, a deep blue-violet triangular

tourmaline, a Flasher-cut round greenish-blue tourmaline, an emerald-cut greenish-blue tourmaline, and a smaller emerald-cut blue tourmaline. Nancy remarked that she had shallowed angles for the pavilions, culets, and crowns on the blue tourmalines to allow more sparkle and lighten the color depth. Nancy also re-cut a large square Barion liddicoatite rubellite tourmaline from Nigeria (the first liddicoatite that she had cut a few years ago) into a large Flasher-cut round. She did this because she had faceted the square gem at quartz angles that diminished the gem's brilliance, and she wanted to eliminate an inclusion on one corner. Nancy also cut three large chrome diopsides from Russia, a square brilliant and two Flasher-cut rounds, as well as a small pearshape iolite.

The December, 2004 issue of Lapidary Journal featured Nancy's deep pink liddicoatite tourmaline that was faceted in her "Cushion Triangle for Liddicoatite" faceting design. This makes three original faceting designs that she has had published in Lapidary Journal during 2004.

Steve Attaway displayed the custom pendant that he cast in 14Kt. yellow gold that held the large shield-cut aquamarine tablet faceted by Nancy. Steve had carved a hummingbird hovering over flowers in reverse intaglio, and he accented the pendant with small diamonds along the bottom and also in the bail.



Program Speaker

by Nancy Attaway

Scott Sucher, Steve Attaway, and Nancy Attaway discussed some aspects of their ground-breaking work accomplished in 2004 for the Smithsonian Institution surrounding the Hope diamond. Scott provided a spirited narration, while Steve operated the computer and showed several accompanying images on the projector screen. Nancy related several stories connected to this series of events that unfolded.

A telephone call from Los Angeles in January provided the starting point for a very remarkable project that would encompass the Hope diamond. Nancy Attaway received this call from a representative of the Discovery Channel who was looking to contact Scott Sucher, a facetor of diamond replicas. Scott had faceted sixteen replicas in cubic zirconia of the world's famous diamonds about twenty-five years ago. Lapidary Journal published several of Scott's faceting diagrams, and he became known as a noted facetor of famous diamond replicas. Once Nancy provided Scott's phone number to the Discovery Channel's television director, Scott received a most interesting telephone call that led to an exciting research project with the Smithsonian Institution.

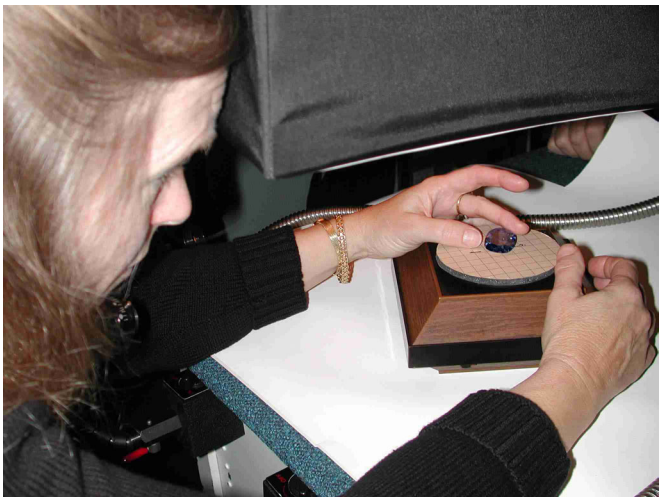
The Discovery Channel had initially approached the Smithsonian for an idea for their program. The director was referred to Dr. Jeffrey Post, Curator of the Smithsonian's gem and mineral collection. After hearing the format of the program, Jeff pitched the idea of making a virtual modeling of the cutting history of the Hope diamond that would answer the questions about the diamond's relationship to the French Blue diamond and other pertinent inquiries. The director loved the idea and began his search for Scott Sucher.

The television director for the Discovery Channel planned to shoot a program on the Hope diamond, and he wanted Scott's research to positively connect the Hope diamond to the French Blue diamond, the diamond that had been cut from the Tavernier Blue diamond. Scott stated that this task would require several very specialized computer programs, with which he was unfamiliar. He suggested Steve Attaway build a geometric model using a variety of computer programs. Scott, Steve and Nancy Attaway formed a research team for this fascinating and challenging project. Smithsonian Curator, Dr. Jeffrey Post graciously offered his assistance.

The television director intended to record some of the segments of his program in the home of Steve and Nancy Attaway over the summer and fall. He

wanted to show Scott and Steve discussing the project and gathering information from old texts to study the historical drawings of the Hope diamond, the French Blue diamond, and the Tavernier diamond. The director planned to film Steve showing Scott the computer images (generated from the software programs used) to establish as accurately as possible the models of these historic diamonds. He wanted to film Scott cutting the Tavernier diamond replica and Nancy cutting the French Blue diamond replica, and he wanted to obtain interviews with Scott, Steve, and Jeff. The director also hoped to include film footage inside the vault of the Smithsonian that would depict Scott taking pictures of the unset Hope diamond, temporarily removed from its Cartier platinum and diamond necklace setting.

Scott Sucher related his unique experience photographing the Hope diamond taken out of its jewelry setting last spring. In the Blue Room of the Smithsonian, which encompasses the vault, Scott met Stephen Clarke, a jeweler who has worked many times with the Smithsonian. Stephen was born in England and classically trained in the jewelry arts in Germany. He was the one called upon to remove the Hope diamond from its setting, re-setting the gem later. According to Jeff Post, the Hope diamond has only been removed from its setting for study six times since the Smithsonian acquired the diamond. Scott's experience marked the seventh time. Scott's excitement was palpable as he described the experience of actually holding the Hope diamond in his hands. He remarked that an audience of notable members in the gem and jewelry industry had been invited to witness the event. The photography involved shooting a great number of frames of the Hope diamond, placed on a special grid pattern for measurement. The photo information was later inserted into Steve's computer. Steve used the software PhotoModeler to reconstruct the facet intersections of the Hope diamond. The PhotoModeler software solves for the location of points in three-dimensional space using common points marked in the different photos. The software first solves for the location of the camera locations and then determines the "best" fit in three-dimensional space for the points marked on the photos. In all, over 30 photos were used, with over 300 points used to mark the intersections of the facets.



Nancy Attaway helps adjust the Hope diamond for the Smithsonian's photomodeling project, December 14, 2004.

For several months in the spring and summer, Scott, Steve, and Nancy spent many hours around the computer to replicate as accurately as possible models of the Tavernier diamond and the French Blue diamond. The team searched extensively for pictures and written descriptions of these historic diamonds. A great deal was learned from books, such as *Tavernier's Travels in India*. These books and other publications provided the carat weights and measurements of the two diamonds. A limited number of sketches were available that showed the diamonds from top, bottom, and side views. Using this information, the team used GemCad and SolidWorks to reconstruct what they believed to be fairly accurate models of the stones. The models satisfy all the known constraints of weight, length and width dimensions, and facet projections for the top and bottom views of the stone.

Replicas of the Tavernier diamond and French Blue diamond were to be faceted from a dark blue cubic zirconia provided by the Discovery Channel. The replicas were subsequently given to the Smithsonian. These replicas will be displayed near

the Hope diamond and will add more information to the historic references of the Hope diamond.

Steve orchestrated the computer programs of SolidWorks, Photomodeler, and Robert Strickland's GemCad to create accurate faceting diagrams of the Tavernier Blue diamond and the French Blue diamond. The model and faceting diagram for the French Blue diamond proved more difficult to render, due to the limited availability of actual text and drawings depicting this diamond. Historical accounts document the fact that the French Blue diamond was cut from the Tavernier Blue diamond. The drawings of the French Blue diamond depicted the diamond in a jewelry model that was to be set into the Order of the Golden Fleece for the King of France. One drawing showed how the diamond cutter had fashioned a most elegant outline that displayed a remarkable arrangement of seven equal facets around the culet facet in the pavilion that revealed a seven-rayed star when viewed through the table facet.

Close-up of the above photograph to show more detail of the Hope diamond and stage setup.

A colorful history envelops the Hope diamond, a gem shrouded in mystery and myth as well as in documented facts. History informs us that Jean-Baptiste Tavernier was the gem merchant who, in 1668, sold King Louis XIV of France a parcel of diamonds that included a large blue diamond of 112 3/16 carats. Tavernier had purchased the diamond during his travels to India. The beautiful violet blue diamond was tabular in shape. Facets had been cut merely to remove the rough edges of the diamond's crystal structure. In those days, East Indian nobility valued large diamonds for their heft and sheer size, and such diamonds were fashioned to enhance their large appearance. Diamonds were not cut for brilliance and sparkle back then; that concept emerged later.

History further records that, in 1673, King Louis XIV of France ordered his court jeweler, Sieur Pitau, to re-cut the tabular blue diamond into an exquisite heart-shape that, after re-cutting, weighed 67 1/8 carats. (The heart shape of the French Blue diamond is what we would now call a shield shape.) The French Blue diamond was to be set at the bottom of the plaque for the tricolor "Order of the Golden Fleece" by Andres Jacquemin, another court jeweler. It was to be worn only by the French King. "The Order of the Golden Fleece" was an ornate item of jewelry worn only by European royalty. Historical references then tell us that sometime during September 11 through 17, 1792, the royal French Blue diamond was stolen. The diamond had been placed on the second floor of the Garde Meuble, a government warehouse/museum in Paris, and was snatched sometime during the week-long looting of the French crown jewels. Rumors circulated that the diamond had been smuggled to England and re-cut.

The mystery continued to unfold. History related that, in 1804, the French Assembly under Napoleon adopted an amnesty law that forgave all crimes committed in time of war after the passage of twenty years, a type of "statute of limitations". Interestingly enough, a memorandum dated September 19, 1812 documented a 45.5-carat oval blue diamond in London. The document was drafted, written, and illustrated by John Francillion, who was a partner in the firm of Cripps and Francillion, Jewelers, in London. He was suspected to have been the man who re-cut or was involved in the re-cutting of the French Blue diamond to yield the Hope diamond. The belief has been that the French Blue diamond was re-cut into the Hope diamond to conceal the crime.

In uncovering many details previously hidden about the Hope diamond, the team's research revealed the truth about several theories, proving some and disproving others. However, the team is unable to disclose any further facts, as the television program has not yet been aired. After the program has been shown on national television, the team hopes that several very interesting articles about their research will appear in such publications as The Smithsonian Magazine, GIA's Gems & Gemology, and Lapidary Journal. Scott and Nancy plan to reveal their faceting diagrams of the Tavernier diamond and the French Blue diamond sometime this year. For those faceters who cut replicas of world-famous diamonds, these faceting designs will be of particular interest. In addition, Ernie Hawes designed for the Smithsonian a "virtual" re-cutting diagram of the Hope diamond on his computer. Ernie's diagram changes the flat culet facet into an arrangement of facets that meet at a culet point. He accomplished this "virtual" re-cutting of the Hope diamond with minimal loss of carat weight.

The excitement continued. Jeff Post cordially invited Steve and Nancy Attaway to re-photograph the Hope diamond removed from its setting. While the original photos were adequate for the project, some of the very fine details along the girdle were indistinct. Steve and Nancy shot an array of photographs of the Hope diamond inside the Smithsonian's vault to further ascertain the details of the complex girdle facet arrangement. Curator Jeff Post coordinated the event, with Smithsonian Collection Manager/Gemologist, Russell Feather assisting. We really enjoyed meeting Russell Feather, a noted author of numerous articles on gemology and inclusions in gemstones. Russell's informative reports have appeared in such publications as GIA's Gems & Gemology and Lapidary Journal. On the evening of December 14, jeweler Stephen Clarke removed the Hope diamond from its Cartier jewelry setting, marking the eighth time that this has been done. Smithsonian photographer, Carl Hansen photographed Steve and Nancy shooting pictures of the Hope diamond, with Jeff Post peering over Steve's shoulder. Carl's Hasselblad 50 mega-pixel camera allowed us to create much more accurate photos than Steve's three mega-pixel Nikon 990.

Both Steve and Nancy shared the honor of holding the Hope diamond, an experience neither will ever forget. The audience that gathered to witness the event will not forget it, either. The image of the Hope diamond glowing like a burning ember of coal as it phosphoresced red in the dark, having been hit with a short-wave ultraviolet light, astonished us all. What a night!

The program was to have aired on national television December 18, 2004, then it was moved to January 6, 2005. The last date that we heard was February 10, 2005. We are still unsure of the actual date.

Scott, Steve, and Nancy wish to express their gratitude to the Smithsonian Institution and to Dr. Jeffrey Post, in particular. Curator Jeff Post was instrumental in coordinating the photography shoots inside the Smithsonian with the Hope diamond. His efforts to secure the permission required to work inside the Smithsonian allowed our study of the Hope diamond to begin, evolve, and eventually reveal new data. We thank him for the graciousness that he extended to us and for the expertise that he gave to the project.

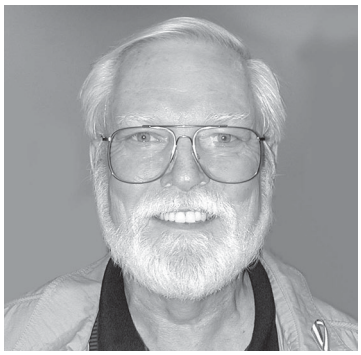
Replica of the Hope diamond, cut by Scott Sucher.

Additional historical information about the Hope diamond and reading suggestions can be found on this website by the Smithsonian: http://www.si.edu/resource/faq/nmnh/hope.htm.

Facet Designer's Workshop

By Ernie Hawes

Experimenting With Old Designs



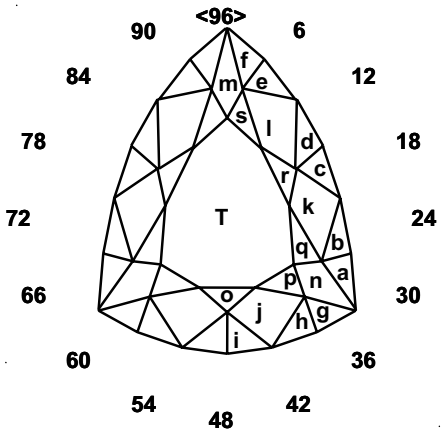
From time to time I like to review designs that I've previously created and see what ideas I can come up with for something different. Sometimes I'm successful and sometimes what I come up with just doesn't work. I suppose if they always worked out it wouldn't be experimenting, and experimenting is fun. Frustrating sometimes, but always fun. The two designs for this issue are both the result of experimenting with earlier designs.

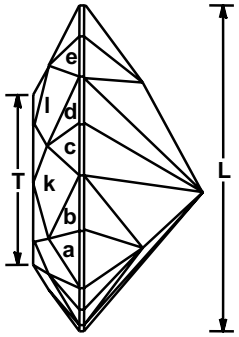
Several years ago I developed a series of five cushion triangle designs that were very similar and all carried the name Tri-Star. Tri-Star 1, and Tri-Star 2 were published in the May/June 1999 issue of ***The New Mexico Facetor***. The other three remain unpublished. During the time I was working on the Tri-Star series, I had also started work on a long triangular cushion pattern that was based on the same design concepts. I've essentially completed that design and have worked out a cutting sequence that is essentially meetpoint. For the time being, I'm calling the design ***Long Cushion Triangle***. (If someone can give me a better name, I'd appreciate it. I'm awful about naming a design.)

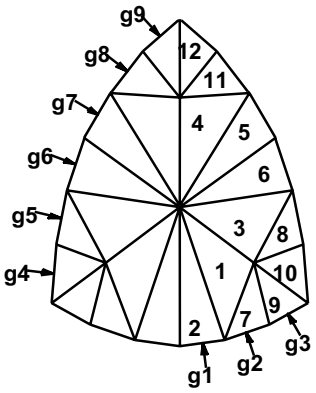
The crown of this design is rather traditional with girdle, main and star facets. The pavilion departs from the traditional brilliant style considerably, but I feel makes for a brighter and more scintillating design than is typical of most pear or elongated triangle designs. While I have indicated that the angles are for corundum, they work almost as well all the way down to quartz. I especially like the graceful shape of this design and believe it would work well for both pendants and earrings.

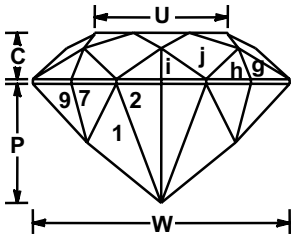
The second design is based on the ***Himalaya Triangle*** which was published in our newsletter in the May/June 2003 issue. As you can see, I've replaced the square corners with rounded ones and elongated the design into a pear shape. The cutting sequence for this design is also essentially meetpoint. Quite a few years ago I named another pear shape design ***Pendelite***. Thinking about that, I decided to call this one ***Pendabrite***. The word, pendeloque, is not often used with designs, although it is the older, more traditional name for pear shape designs. My play on words in combining the first part of pendeloque with the above suffixes perhaps is too "cutesy" for some, but once again, I have to beg forgiveness for being poor in coming up with names for my designs.

Both of these designs have a number of facets that are given in hundredths of a degree. To cut these facets, start a little above the indicated angle and ease in to the meet. Faceters who've been cutting for many years understand this technique and have used it long before the advent of machines with tenth of a degree verniers or hundredth of a degree digital protractors. It takes practice to get perfect meets on designs like these, so I recommend them for more experienced cutters. And while it may take more time to cut them, I believe the result will be very rewarding.





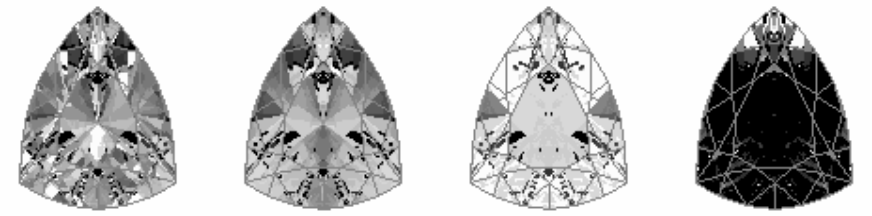




Long Cushion Triangle

By Ernie Hawes

Angles for R.I. = 1.760
61 + 18 girdles = 79 facets
1-fold, mirror-image symmetry
96 index
L/W = 1.272 T/W = 0.660 U/W = 0.519
P/W = 0.463 C/W = 0.180
Vol./W³ = 0.261



Random COS = 58.1 % ISO = 82.7 % Dispersion = 7.8 %
Scintillation = 48.8 %

PAVILION

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2	40.81°	46-50
3	46.15°	20-76
4	44.31°	15-81
5	45.25°	16-80
6	46.43°	19-77
g1	90.00°	46-50
7	43.17°	43-53
g2	90.00°	43-53
8	48.26°	21-75
9	44.24°	40-56
10	49.10°	23-73
g3	90.00°	40-56
g4	90.00°	23-73
g5	90.00°	21-75
g6	90.00°	19-77
g7	90.00°	16-80
11	45.45°	14-82
12	44.64°	11-85
g8	90.00°	14-82
g9	90.00°	11-85

CROWN

a	45.85°	23-73
b	45.35°	21-75
c	44.27°	19-77
d	42.59°	16-80
e	41.63°	14-82
f	40.59°	11-85
g	40.68°	40-56
h	40.23°	43-53
i	38.00°	46-50
j	36.31°	45-51
k	42.05°	20-76
l	39.61°	15-81
m	26.54°	96
n	31.61°	31-65
o	29.39°	48
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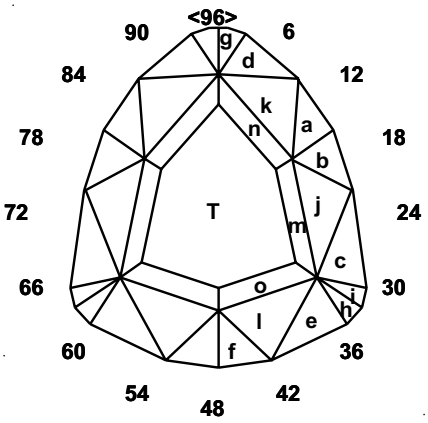
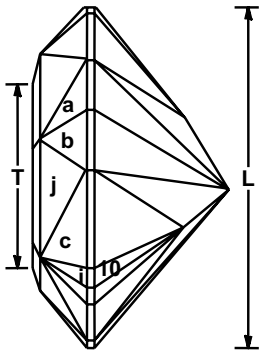
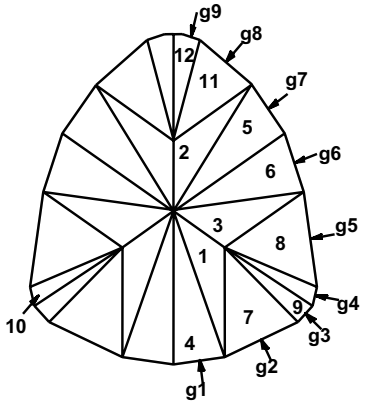
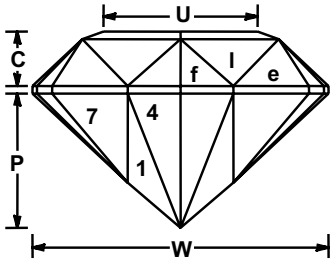




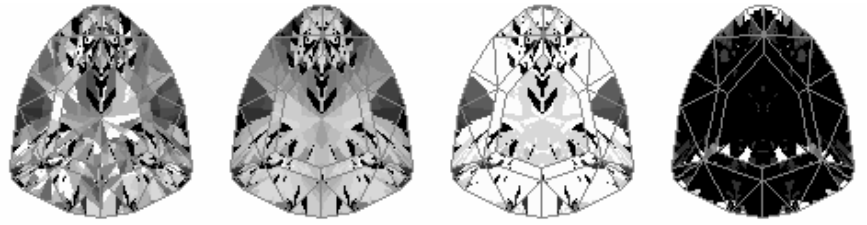




Pendabrite

By Ernie Hawes

Angles for R.I. = 1.620
55 + 18 girdles = 73 facets
1-fold radial symmetry
96 index
L/W = 1.149 T/W = 0.627 U/W = 0.517
P/W = 0.454 C/W = 0.186
Vol./W³ = 0.254



Random COS = 57.6 % ISO = 77.4 % Hints = 55.3 %
Scintillation = 44.7 %

PAVILION

1	39.90°	43-53
2	42.47°	13-83
3	44.57°	21.0-75.0
4	40.51°	46-50
5	43.89°	15.0-81.0
6	45.03°	19.0-77.0
g1	90.00°	46.0-50.0
g2	90.00°	41.0-55.0
7	41.45°	41-55
8	45.47°	22.0-74.0
9	40.06°	36-60
10	41.73°	27-69
g3	90.00°	36-60
g4	90.00°	27-69
g5	90.00°	22.0-74.0
g6	90.00°	19.0-77.0
g7	90.00°	15.0-81.0
11	43.08°	11.0-85.0
12	39.99°	04-92
g8	90.00°	11.0-85.0
g9	90.00°	04-92

CROWN

a	43.37°	15.0-81.0
b	44.53°	19.0-77.0
c	44.15°	22-74
d	43.40°	11-85
e	40.43°	41-55
f	39.65°	46.0-50.0
g	44.78°	04-92
h	40.90°	36-60
i	42.45°	27-69
j	41.08°	21.0-75.0
k	39.22°	13.0-83.0
l	36.00°	43-53
m	24.51°	21.0-75.0
n	23.02°	13.0-83.0
o	21.80°	43.0-53.0
T	00.00°	Table

In the News

Statistics Reveal Russia's Diamond Dominance

Source: Pravda online 12/24/04

The website of the Russian Finance Ministry recently released the national diamond statistics on the mining of diamonds, their import and export. Russia ranked first in the world on diamond production volume in 2003, ahead of Botswana. Russia had to declassify the diamond statistics in order to chair the Kimberly Process, where 50 countries, including Russia, carry out global control over diamond sales. Russia was the largest exporter of rough diamonds in 2003. Russia became the world's second biggest exporter of diamonds in 2003 after the European Union, as the largest trade centers that sell diamonds are located in Europe. Statistics showed that 86% of the Russian diamond export in 2003 went to Belgium and Great Britain. Russia also exported 9.28% of its diamonds to Israel in 2003. Russia's diamond monopoly, the company Alrosa, stated that it was pointless to classify the national diamond industry as secret because diamonds are not a strategic raw material in Russia.

The PolishPlus Process with MiracleMedia

Source: Ganoksin online 12/29/04

Writer Suzanne Wade, in association with AJM Magazine, described the trademarked PolishPlus Process with MiracleMedia as a revolutionary polishing process. After 25 years of research and development, Peter Richardson of Aurum Plus Resource and Development Co. in San Bernardino, California developed the new mass finishing technology to polish just about anything. Author and gemologist Richard Hughes of Pala International stated that Peter Richardson's tremendous breakthrough has applications not just in the gem and jewelry industry but in any industry where friction or polish is an issue. The PolishPlus Process with MiracleMedia is a dry mass media polishing system that uses a patent-protected submicron dry finishing media and special vibratory finishing machines with oscillatory motions of over 6,000 cycles per minute. Providing a typical final polish at the outset, the process continues through successive grits to below 0.02 micron. The oscillation adds a third dimension to the media's movement that allows the media particles to bombard the object being polished from multiple directions. The media is claimed to be long-lasting and safe to use with delicate objects. No water is used in the process.

The resulting polish is reportedly comparable to the finest finishes attained on supercomputer, space, and other high-tech components. The best recorded surface finish so far measured at 13.9 angstroms. The process can be used on gemstones as soft as amber and pearls and as hard as diamonds. It does wonders for opal. The process used on diamonds reduces the yellow appearance and gives the stones a higher color grading. In addition to gemstones, metals ranging from titanium to lead showed good results with the PolishPlus Process. It improved the polish on gold, platinum, brass, steel, and many exotic alloys and even reduced the friction on ball bearings.

Scott Sucher presenting his absolutely stunning collection of famous diamond replicas.

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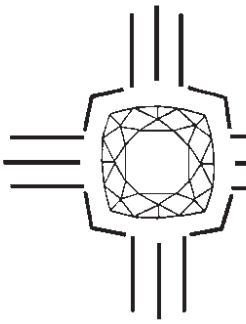

The New Mexico Facetors Guild

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