

the
New Mexico

Facetor

May/June 2005



The Official Newsletter of the New Mexico Faceters Guild

NMFG *Show and Tell*



Gorgeous pink necklace by **Elaine Weisman**. Center inset shows a close-up of the rose carving in the clasp.



Beautiful rose quartz from Colorado, found and cut by Wes Owen.



Barion oval cut from synthetic alexandrite by Carsten Brandt.

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

Newsletter Editors:

Carsten Brandt

Newsletter Production:

Ernie Hawes' Guild laser Printer

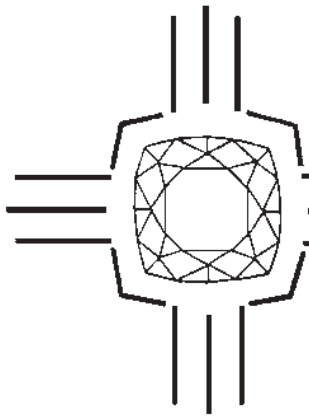
Purpose of the Guild: The purpose of the New Mexico Faceters Guild is to bring together persons who are interested in faceting or faceted stones. We promote the art and science of faceting and provide a means of education and improvement in faceting skills. Finally, we provide a means of communication 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 *New Mexico Faceter* is copyrighted © 2005 by The New Mexico Faceters Guild. Permission to copy or reproduce material originating in this newsletter is freely given so long as credit is given the author and the source. Authors retain all reprint rights and/or copyrights to their articles. Newsletters will be exchanged with other guilds at no cost.

The next meeting of the New Mexico Faceters Guild will be July 11, 2005.



The New Mexico Facetor

Volume 25, No. 3, May/June, 2005



NMFG President Dylan Houtman

In This Issue:

The Prez Sez by Dylan Houtman.....	3
Minutes of the NMFG Meeting.....	4
Program Speaker.....	7
Facet Designer's Workshop.....	9
Faceting Designs.....	10
In the News.....	12
Email Addresses.....	14
Membership Application.....	16



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 everyone, as I was moving into a new home in May I was unable to prepare a "Prez Sez" article for the last issue of the newsletter, and I would like to express my appreciation to Carsten Brandt for writing an "Ed Sez" article in it's place. Although I am mostly settled in now this little ditty is still a little behind schedule. I have cut more than half of the rough I purchased in Tucson. All of them have been an excellent learning experience: the small mandarin orange Spessartine garnets have all been very clean and cut very beautiful stones, an excellent buy. The Kornerupine, a beautiful pale blue with a touch of green, was easy to cut and polish. It may be a little bit of an exaggeration, but the red Spinel look just like top notch rubies, although they didn't have the dispersion the other colors of Spinel I have cut though previously, which is a bit of an disappointment. The almost mandarin orange Grossular garnet I bought as Spessartite, were still a great buy. A nice green and clean enough to reflect light off the pavilion Emerald, cut into a modified Flasher Cut. The color change Turkish Diaspore was more challenging than I expected, but produced a nice stone anyway. A fantastic experience all around!

At the last workshop I was able to complete a small Dolomite, $\text{CaMg}(\text{CO}_3)$, although I was unable to get it off the dop at the workshop. It is a very bright stone with more dispersion than I expected; I hope that using my cut-corner montringle design helped. I am looking forward to cutting some larger pieces of Dolomite in the near future. I received an intriguing suggestion for cutting other soft and otherwise difficult materials, basically silicon-carbide sandpaper, although Mylar backing would be best I am going to try wet-dry sandpaper first. I hope the cohesion of water between a master-lap and the sandpaper will work as well as it does with the Ultra-laps. I intend to try it on some Apophyllite. In a future Prez Sez I will fill everyone in on my success or failure.

Happy cutting to all,
Dylan



Minutes of the NMFG Meeting

May 9 2005

by Nancy L. Attaway

President **Dylan Houtman** called the meeting to order at 7:20pm and welcomed members and visitors. He then asked everyone to introduce themselves to the group. Two new people had recently joined the Guild.

Old Business:

Ernie Hawes reported that a Guild workshop was held May 7 at the home of **Jeff Jaramillo** in Los Lunas that was attended by about a dozen members. During the morning session, he explained how the computer program GemCad can help make a preform, as well as show how a faceting diagram will come into view on a stone. Ernie stated that Robert Strickland's GemCad is an excellent program with which to design a faceting diagram. It also explains the steps of a faceting design as it is being cut by showing how the facets look when cut in their proper sequence. After Ernie's presentation, Guild members cut their stones until lunch and cut stones all afternoon. Jeff's wife prepared lunch and a dessert for the group. Ernie also said that he had developed a new faceting design that resembles a fat pear. He will likely name the new cut the "Lily Pad Pear", as its shape appears much like a lily pad.

New Business:

Ernie Hawes asked where and when the next Guild workshop might be. He will ask Jeff Jaramillo, who was not present at tonight's meeting, if he can host a workshop in June. **Nancy Attaway** said that she cannot hold a workshop until the end of June, as Steve and she are in the Colorado Springs Show in mid June.

Newsletter Editor **Carsten Brandt** reported on the Guild newsletter, the New Mexico Facetor. He

said that he has the March/April 2005 issue just about ready for distribution. There was a question from Ernie Hawes whether the publisher had actually printed the November/December 2004 issue. He also asked when she will print the January/February 2005 issue. Nancy Attaway volunteered to contact the publisher.

Refreshments:

Betty Annis, Becky Hawes, and Linda Vayna provided home-baked refreshments, brownies and cookies, along with dried fruit and nuts. Gourmet coffee was also served. Thank you all very much. New member **Jenny Baker, Deb Owen, and Nancy Attaway** volunteered to bring refreshments to the meeting in July.

Show and Tell:

The Show and Tell Case tonight displayed unique jewelry and new gemstones cut by our members. Moderator **Steve Attaway** generated interesting comments about the work shown.

Elaine Weisman displayed a beautiful necklace that celebrated the shade of pink. Elaine said that she incorporated everything that she could think of that was pink gem material. Her woven necklace included pink pearls, pink tourmaline beads, and pink glass beads accented by sterling silver beads. She hung at the bottom of the necklace a fine silver shadow box pendant that held a pink cobalt calcite specimen. Elaine soldered patterned silver on the back of the box. She attached a piece of antique Venetian glass in the shape of a rose to decorate the clasp, along with a pink glass drop dangling from the rose. Elaine is noted for her woven necklaces that incorporate many types of gem material with an interesting pendant hanging at the bottom.

Dylan Houtman displayed a beautiful large Cambodian blue zircon that he cut in a pearshape. He showed a small round Tanzanian sunstone that contained hematite and copper inclusions and a

cushion square orange garnet that was supposed to be a spessartite garnet, but that he thought was a grossular garnet. He also showed a lovely cushion square blue sapphire that originally had a coating of a darker shade of blue in the rough. When he cut the gem, the coating was removed. Paul Hlava remarked that the dealer at Tucson, where Dylan purchased the gem rough, had acted fraudulently when the gem rough was not disclosed as diffusion-treated.

Wes Owen displayed several obsidian Apache Tears, glass, and rose quartz that he had cut. He showed stones from brown glass and leaded glass that had turned purple by the sun. Wes remarked that he has faceted only gem material that he has found and has not had to purchase any yet. He said that he and his family have found cut-able material, like obsidian and peridot, in places in New Mexico and also rose quartz in Colorado's Royal Gorge area. Steve and Nancy Attaway asked Wes what he noticed when working with obsidian. Wes said that obsidian was sometimes troublesome to facet, and that pieces could break off when cutting the material. He said to be careful when addressing the cupped sections of a piece of obsidian to the cutting lap so a section does not break off the dop.

John Owen displayed several stones that he had shown at the last meeting that he faceted, including several obsidians and a large and lovely round pink cubic zirconia.



Program Speaker

by Carsten Brandt

Liz Huffman gave a presentation on "Basic Ring Construction - Step by Step". She has always been interested in arts and crafts and has worked in many different mediums: sketching, painting, wood- and leather-working, and finally silversmithing. She has developed her skills through metal-working

workshops, three semesters of smithing in college and over 30 years of experience and her hobby now pays for itself. Her jewelry can be found at shows and in galleries, and she makes customs pieces.

Safety:

- Always wear eye protection. You only one pair of eyes and you can't buy replacements!
- Wear finger protection during polishing and grinding.
- Never add water to acid, always add acid to water.
- Have good ventilation during soldering
- Learn how to use your equipment safely before using it alone.

Preparation of the Bezel Ring Setting

Wrap the bezel wire around the stone to determine how much is needed; mark the bezel and cut to size with the tin snips. Check that the stone



Wrapping bezel wire around stone.

will fit snugly into the bezel wire. Next, line up the ends of the bezel wire for a butt joint. If they don't fit perfectly, make adjustments with a file (double check fit if any filing is necessary). Place the bezel onto a soldering pad and apply flux to the bezel and place one or two small snippets of solder on the joint.



Check bezel fit prior to soldering.



Align bezel ends for butt joint.



Apply flux to joint

The flux will prevent the silver from oxidizing during the soldering. The solder won't flow on oxidized areas (also make sure the silver is free of grease or other dirt as solder does not flow well on dirty areas). Note: silver solder usually is available in three types: Soft, medium and hard. The difference is that the soft solder melts at the lowest temperature and the hard solder at the highest. It is important to plan the project so that subsequent solder steps don't melt the solder from a previous step. First slowly heat the

bezel to let any flux moisture evaporate; if the flux is heated too fast, the solder snippets will move away from the joint. Now heat the whole bezel ring evenly to bring the wire close to the soldering temperature and then hold the torch onto the joint to melt the solder. The solder will flow to the hottest part of the bezel, so it may be helpful to heat the joint from the inside (if the solder pieces are on the outside of the joint). Once the solder has flowed nicely into the joint and has hardened a bit, dip the bezel ring into water to cool it and then into pickle to remove excess flux and fire scale. Small pieces can be quenched directly in the pickle, but it is safer to quench in a water jar as the quenching process can make some liquid splash out of its container. Pickle is a weak sulfuric acid (~5%). While it is just a weak acid, it is best kept away from skin and eyes - and it will put holes into your clothes; which you won't notice until the next time they are washed. Also never put iron into the pickle jar (unless you want everything in it coated with copper).



Soldering of bezel.



Checking the fit of stone in soldered bezel.

Now check again that the stone fits into the bezel. Align the bottom of the bezel with the bottom of the stone and place onto the silver sheet. Mark a rectangular section for the base plate of the stone mounting, slightly larger than the diameter of the bezel and cut the silver sheet. The silver may be



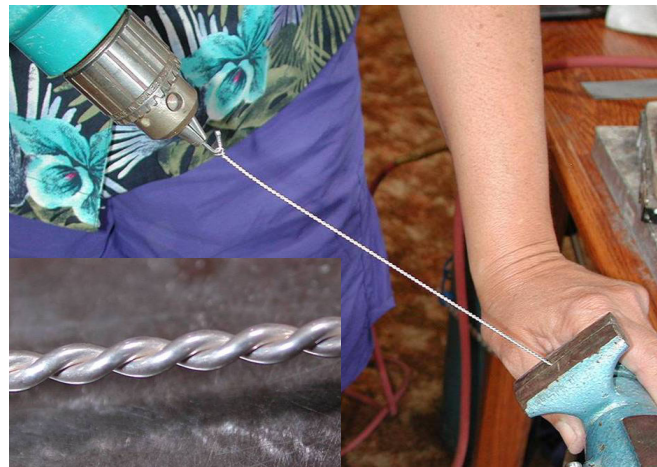
Sizing of silver sheet for the base plate of the setting.

slightly bent from the cutting process, especially if tin snips are used. In this case use a non-marring hammer to flatten the section of silver sheet. Remove the stone from the bezel carefully so that the bezel shape is not disturbed. Next flux the base plate and the bezel ring, place on the solder pad and align the bezel ring onto the base plate. Now solder the bezel to base plate, followed again by quenching the piece and pickling to remove used flux and fire scale.



Soldering of bezel to base plate.

For decoration around the bezel, twist two pieces of wire. Take a drill with a bent nail fold a length of wire into half over the nail and secure the loose ends into a vise. The drill will quickly twist the wire to form a decorative double coil.



Twisting of wire for decoration. Inset shows the twisted wire in detail.

Bend the twisted wire around the bezel, mark and cut to length. Line up the cut piece of twisted wire for a butt joint and follow the same procedure used for soldering the bezel ring: flux and place on soldering pad, put a snippet or two of solder onto the joint, solder, quench and pickle. Next check the fit around the bezel and solder the twisted loop around the bezel onto the base plate (Don't forget to flux the pieces prior to soldering). This solder step will need more solder than the previous steps. The solder can be applied by several snippets placed around the joint between the twist ring and base plate and bezel, or wire solder can be fed while moving the torch around the twist wire. Be careful not to apply too much solder when using the wire feeding method. Also have a soldering pick handy to hold down the twisted wire if it lifts from the base plate during soldering. Quench and pickle as before to remove remaining flux and fire scale.

Now saw the excess silver from the base plate by following the outline of the twisted wire. Next grind the edges of the base plate smooth. Wear leather finger cots (or cut off fingers from an old pair of

gardening gloves) to keep your fingers safe from the grinding process. Even if you are careful not to grind into your skin, the silver will get very hot and the gloves prevent burns as well.



Soldering of twisted wire around bezel.



Trimming off the excess silver sheet from the base plate.



Finished stone setting.

Ring Construction

Using a ring gauge ruler, measure out a length of half round wire for the ring shank. Cut the length with a saw and bend the wire around a ring mandrill with a non-marring hammer. The ends of the wire that will be soldered to the underside of the base plate will need to be filed flat.



Forming of the ring shank.



Ring shank after filing ends flat to properly fit the setting/

Now pre-polish the setting to save some work once the ring is assembled; at this point is much easier to reach the underside of the base plate. Apply a small amount of polishing compound and wear finger and eye protection. Polishing heats the silver very quickly. Hold the piece firmly, but also in such a manner that you won't hurt your hands if the buffing wheel grabs and pull the piece out of your grasp.



Polishing of setting prior to soldering to ring shank.

Clean any polishing compound off the setting (warm soapy water and an old toothbrush work well). Flux the shank and setting. Place the setting upside down on the soldering pad and align the shank on top of the base plate. Place a snippet of solder (use the lowest melting solder you have to prevent the rest of the setting from falling apart) inside each end of the shank onto the base plate and solder the shank to the setting. After quenching and pickling, buff the ring. Use a felt ring buff for the inside of the ring shank, the buffing wheel for the outside of the ring shank and setting.



Soldering and polishing of the ring prior to setting the stone.

Stone Setting

Put a thin layer of sawdust into the bezel setting. This is to create a cushioning bed for the stone and to prevent it from cracking and to align the stone's height in the setting. Place the stone into the setting and check that its height is correct and that it fits

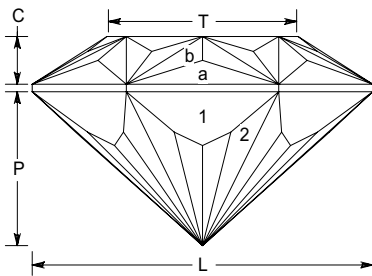
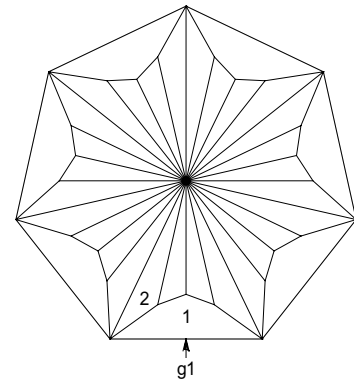
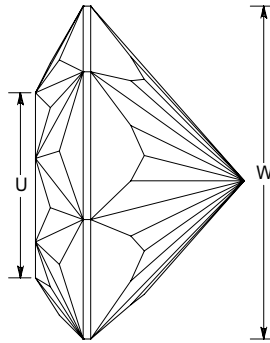
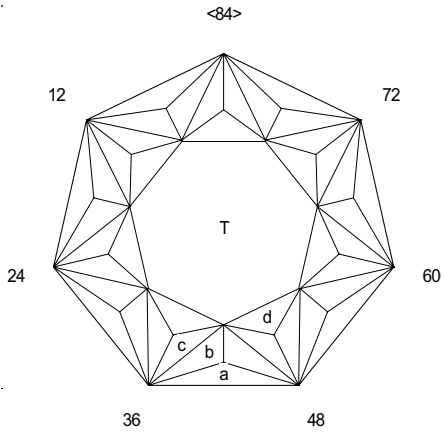
well. Once it sits well in the setting, begin to push the bezel towards the stone. First tack the stone in on four sides. Begin on the tighter corners and then the wide corners. This helps with securing the stone at the right alignment. Now start going around the stone with the bezel pusher, again starting on the tighter sides working towards the wider sides. Once the stone is secure, go around in circles to tighten the bezel all around the stone.



Sawdust is used in the setting to cushion the stone and align for the proper height of the stone in the setting.



A bezel pusher is used to form the bezel around the stone.



Bright Star

By Ernie Hawes

Variation of Fred Van Sant's Star Cut FVS202

Angles for R.I. = 1.540

78 + 7 girdles = 85 facets

7-fold, mirror-image symmetry

84 index

$L/W = 1.026$ $T/W = 0.568$ $U/W = 0.554$

$P/W = 0.460$ $C/W = 0.144$

$Vol./W^3 = 0.214$

Brightness: $COS = 76.7\%$ $ISO = 82.1\%$

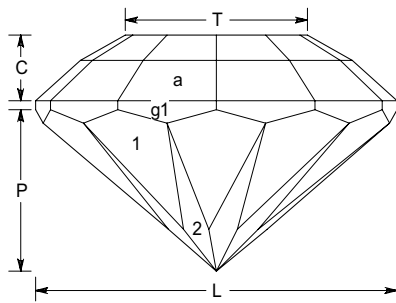
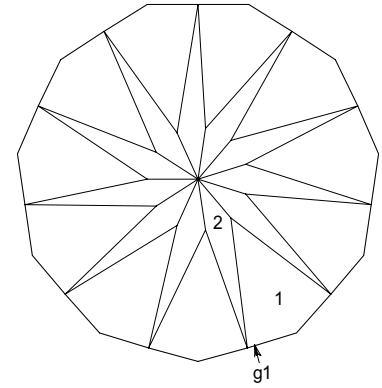
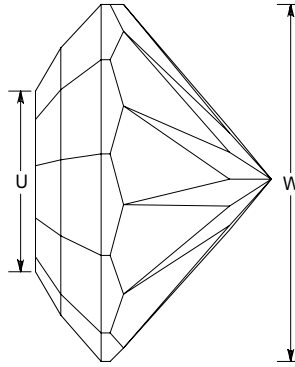
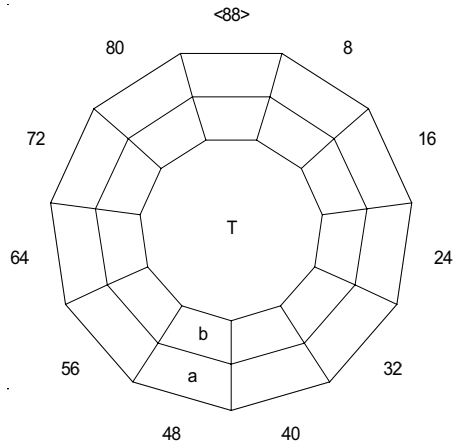


PAVILION

g1	90.00°	06-18-30-42- 54-66-78
1	50.50°	06-18-30-42- 54-66-78
2	41.50°	02-04-08-10- 14-16-20-22- 26-28-32-34- 38-40-44-46- 50-52-56-58- 62-64-68-70- 74-76-80-82

CROWN

a	44.50°	06-18-30-42- 54-66-78
b	33.85°	04-08-16-20- 28-32-40-44- 52-56-64-68- 76-80
c	30.75°	02-10-14-22- 26-34-38-46- 50-58-62-70- 74-82
d	25.00°	84-12-24-36- 48-60-72
T	00.00°	Table



Easy Spiral 88

By Ernie Hawes

Angles for R.I. = 1.720

45 + 11 girdles = 56 facets

11-fold radial symmetry

88 index

$L/W = 1.010$ $T/W = 0.510$ $U/W = 0.505$

$P/W = 0.449$ $C/W = 0.183$

$Vol./W^3 = 0.236$

Brightness: COS = 81.2 % ISO = 90.7 %



PAVILION

g1	90.00°	88-08-16-24- 32-40-48-56- 64-72-80
1	42.00°	04-12-20-28- 36-44-52-60- 68-76-84
2	40.40°	06-14-22-30- 38-46-54-62- 70-78-86

CROWN

a	42.00°	88-08-16-24- 32-40-48-56- 64-72-80
b	31.00°	88-08-16-24- 32-40-48-56- 64-72-80
T	00.00°	Table

Finishing Touches

Use a chamois stick to buff the bezel and a polish cloth to give the ring a final buff. Engrave a logo (and date if you wish) on the back, or stamp your logo into the ring shank. Finally, place a quality mark on the ring: 925 for sterling silver in this case. For presentation the ring can now be put into a ring jewelry box.

Many thanks to Liz for her wonderful presentation, and thanks to Paul Hlava for the fantastic pictures (resized by Greg Poulter).



The finished ring.

Ring Recipe

Materials:

- 22 gauge silver sheet
- 8 gauge half round wire
- 20 gauge round wire
- 28 gauge, 1/8 wide, fine silver bezel
- Gemstone (Australian Boulder Opal Cabochon in this demonstration)

Tools:

- Ring Mandrel
- Jewelry saw
- Non-marring
- Pliers
- Files
- Bezel pusher
- Tin snips
- Acetylene torch

- Grinding and buffing wheel

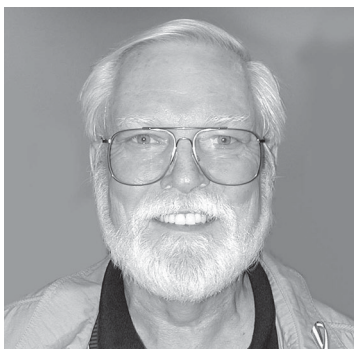
Other Items

- Soldering flux
- Pickle
- Solder snippets
- Water
- Buffing compound



Facet Designer's Workshop

The not so common indices



By *Ernie Hawes*

As we go into our 25th year as a guild, and my 25th year writing this column, coming up with something new each issue becomes more and more difficult. I try to have designs that have not been published before and to discuss information that will be interesting to a broad audience. I'm not sure that I always succeed, but I try. The biggest problem is getting other folks to submit new designs. I truly appreciate Dylan Houtman's and Nancy Attaway's contributions. It's not easy coming up with something new, as I'm sure Dylan and Nancy will agree, so it really helps to get the creations of other folks. If you have ideas about topics you'd like for me to discuss in this column, please let me know. And if you have ideas for new designs, I'd really like to talk with you. Now, on with this issue's topic and designs.

The Other Indices

Most designs are created for either a 96 or 64 index. Other commonly used index gears are the 72, 80 and 120. Less common index gears are the 32, 56, 77, 84, 88, 99, and 110. Several faceting machine manufacturers make an 84 index and two or three make the 88. The others are rare indeed. Since these other index gears are less commonly owned by faceters, it follows that far fewer designs are created for them. However, it's my opinion that if more designs were available for the less common gears, more faceters would acquire them. I would also like to remind folks that any faceter interested in selling their stones will likely find their best market

to be in the unusual shapes and designs which are frequently created for the less common gears. So having these index gears becomes an asset well worth the additional expense. With that said, it should come as no surprise that the designs for this issue use two of the less common gears.

The first design is actually a variation on one of Fred Van Sant's Star Cut patterns. FVS-202 is a very attractive design that Fred created for relatively high RI materials, most probably corundum. Fred used the 84 index for his design. In fact, of the 12 designs for the 84 index in the DataVue database, 9 are Fred's. More have been created since the last entry in the database, but I thought it was interesting that Fred seemed to be intrigued with this index. For my variation, I wanted to see if I could come up with something that would be reasonably attractive for quartz, or some of the materials a little above the quartz RI. Also, I didn't want to just change angles, so I experimented a bit with the pavilion facets. Considering that there are a significant number of main facets, the result I came up with will probably work best for fairly large stones, 15 mm or larger. The crown is different only in the angles. I call this variation *Bright Star*.

For the second design I decided to use the 88 index and for the RI I chose spinel, a material that used to be very common among faceters who cut synthetic gems. Since CZ became cheap, spinel, at least the synthetic variety, has fallen out of favor with many faceters. This is too bad, for a couple of reasons. First of all, a lot of us old timers have a considerable cache of synthetic spinel in our rough collection. Secondly, spinel is available in a variety of really beautiful colors unavailable in CZ or corundum. For the purists among us, natural spinel is ideal for this design, even in fairly small stones. Of course, the angles are OK for several other materials, not just spinel. I call the design *Easy Spiral 88* and recommend it for any cutter, from beginner to advanced. You'll notice that it's a mixed cut, with step facets on the crown and brilliant style facets on the pavilion. I learned a long time ago that mixing facet types this way can really add to the

scintillation and this design is no exception. I think the odd number of facets in each row also adds to the overall scintillation. It's a fun design that cuts quickly and could well be a "money cut" in natural materials.

Hopefully, your machine has 84 and 88 index gears available. If you haven't already acquired these gears, I hope that my designs, and others that use them, will be an incentive for you to do so.



In the News

Colorado's Sweet Home Mine Closed

Source: JCK May 2005

After 140 years of mining, the Sweet Home Mine at Alma, Colorado is now closed. Mineowner Bryan Lees announced the mine's closure last October, 2004. The Sweet Home Mine, the source of the world's finest transparent rhodochrosite mineral specimens, began as a silver mine in 1873, where the rhodochrosite was just a by-product of the silver ore production. When Bryan Lees purchased the mine in 1991, he searched the old mine records to determine where the rhodochrosite locations had occurred. An examination of the fluid inclusions in the rhodochrosite crystals in 1995 disclosed that the gemmy red material had been formed at a higher temperature than the lighter colored, less gemmy pink material. Further investigation revealed that the red material contained large amounts of arsenic, while the pink material held large amounts of antimony. Miners unearthed many fine rhodochrosite specimens, and also some world class specimens, when they searched the high temperature veins and sampled for arsenic and antimony.

Amethyst from Georgia, USA

Source: Gems & Gemology Spring 2005

An old amethyst deposit in Wilks County, Georgia has been revisited. High quality amethyst was unearthed from the subsurface deposit by a trackhoe last October, 2004. The amethyst material exhibits a deep purple hue and has good clarity, and some of the amethyst crystals show good

terminations. Terry Ledford, Jr. of Little Switzerland, North Carolina is currently marketing the material. {Nancy Attaway met one of the miners of this amethyst during the February, 2005 Tucson Show and faceted for him a large twelve-sided round Georgia amethyst from his deposit.}

More Aquamarine from Colorado's Mt. Antero *Source: Gems & Gemology Spring 2005 and Rock and Gem Magazine April, 2005*

A spectacular aquamarine crystal discovery was made last July, 2004 on Mt. Antero at about 12,500 feet elevation, unearthed from Diane's pocket on the Claire Mary Ellen Claim #1. The several gem quality aquamarine crystals recovered were found on matrix with smoky quartz and feldspar, along with dozens of well-formed loose aquamarine crystals. So far, five stones, ranging from two to four carats, have been faceted from the aquamarine fragments in the pocket. According to Bryan Lees, there is sufficient gem rough to cut several dozen stones. This discovery could yield Colorado's largest faceted aquamarine. (The weight of the current record holder is 18.95 carats.) Six high-quality matrix aquamarine specimens were found, with the longest measuring 16.5cm. Paul Cory of Iteco, Inc. in Ohio is marketing the faceted gems, and Bryan Lees of Collectors Edge Minerals is selling the mineral specimens.

Emeralds in China

Source: Gems & Gemology Spring 2005

Emeralds are now being mined from a new deposit in Xinjiang, China. Miners and mineral dealers from northern Pakistan, who have visited the mine or who have purchased gem rough from it, say that it is located in the Taxkorgan region in western Xinjiang Province, near the village of Dabdar, 120 km from the Khunjerab Pass. The pass sits at 15,800 feet elevation and lies on the border between northern Pakistan and China. Reports state that an open pit mining operation is in process.

Pearl Ingredients in Cosmetics

Source: Colored Stone May/June 2005

For centuries, Asian women used powder made from crushed freshwater pearls to maintain a youthful

appearance. Now, anti-aging cosmetics recently developed contain the nacre of a pearl-producing oyster, which contains the same essential amino acids that heal and maintain cells in the human body. Researchers claim that skin creams based on nacre can stimulate the metabolic activities of the genetic material in a cell to both promote and accelerate cell renewal. Mother-of-pearl, also called nacre, is composed of alternating layers of conchiolin and calcium carbonate crystals in the form of aragonite. Conchiolin is one of a category of proteins called keratin. Robert Wan Tahiti, the largest single producer of Tahitian cultured pearls, markets an anti-aging skin care line called Marutea, originally marketed as Aqua Perla. Its main ingredient is a mixture of active proteins found in nacre. Another anti-aging skin cream based on similar methods is produced by pearl giant Golay and Helena Rubinstein, an international cosmetics and skin care brand that is part of the L'Oreal group. Their product is called Life Pearl, which uses micronized pearl powder, nacre crushed to powder only a few microns wide and small enough to be absorbed directly into a cell.

The French Blue and the Hope Diamond

Source: Lapidary Journal June 2005

The Hope Diamond has a French connection. The June 2005 issue of Lapidary Journal published a feature article on the French Blue Diamond as a precursor to the Hope Diamond. Author Nancy Attaway explained the history of the original Tavernier Blue Diamond that was cut into the French Blue Diamond and eventually recut into the diamond known as the Hope. She related the interesting story of her involvement, along with Stephen Attaway and Scott Sucher, in the televised Hope Diamond project for the Smithsonian Institution with Curator Jeff Post. Nancy and Stephen Attaway also presented their faceting diagram of the French Blue, the facet arrangement yielded from their research.

Diamond Synthesis in Alabama

Source: JCK June 2005

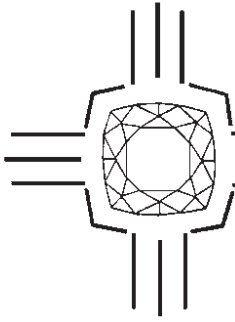
The University of Alabama at Birmingham claims it has discovered a new method for growing synthetic diamonds "100 to 200 times" faster than conventional

methods. The new method uses microwave plasma technology, states Dr. Yogesh Vohra, professor of physics at UAB, who holds the patent to the new technology. Dr. Vohra claims that his new device can grow diamonds weighing a carat or more in a matter of days. "With the addition of boron in the microwave plasma, a large blue diamond like the Hope Diamond can be grown in the laboratory". He also claims that his new method can grow several diamonds simultaneously. The patented process uses nitrogen in the growth process to create a yellow diamond that can be heated under high pressure to produce a pale yellow or nearly colorless diamond. He is currently working to grow white diamonds at a higher rate to eliminate the purification steps from the growth process. He is more interested in manufacturing diamonds for industrial applications, which has a greater market potential, than for jewelry.

More Diamonds Synthesized

Source: JCK on the Net 5/20/05

Researchers at the Geophysical Laboratory at the Carnegie Institute of Washington claim that they have created a breakthrough variation on chemical vapor deposition (CVD), the method used by Apollo Diamonds in Boston for manufacturing diamonds. Apollo states that they can grow large colorless diamonds but cannot manufacture them consistently. Dr. Russell Hemley of the Carnegie Institute reported to JCK that his team's new method could eventually allow diamonds to be mass-produced. He claims that they can make "a nice 2.5mm high gem quality diamond in one day". He added that "the sky may be the limit as far as size goes", and that "they believe that 300-carat diamonds are eventually possible with this approach". He currently has no plans to market their new diamond manufacturing method for jewelry applications. He states that "we are an academic group, and our interest is primarily scientific and technological applications, which generally requires higher quality material than is needed for jewelry".



The New Mexico Facetors Guild

Membership application or renewal form

Dues:

- 1 year membership, includes electronic copy of NMFG newsletter:.....\$20.00
- 1 year membership and mailed paper copy of newsletter.....\$30.00

Please print this page and send it along with a check for dues to:

NMFG
Ina Swantner
433 Live Oak Loop NE
Albuquerque, NM 87122-1406

Name: _____
 Address: _____
 City: _____
 State: _____
 Zip: _____
 e-mail: _____

Amount Enclosed: _____

Your e-mail address will be needed for you to receive the newsletter on-line.
 If you do not have e-mail or access to the web, you can receive a paper copy of the newsletter.



E-mail Addresses:

- | | |
|---|---|
| Edna Anthony eba@bwn.net | Kevin Schwebel.....kschwebel@zianet.com |
| Nancy and Steve Attaway.... attaway@highfiber.com | Jim Summers:commish1@worldnet.att.net |
| Carsten & Margaret Brandt...brandtmeister@comcast.net | Bill Swantner..... WSwantner@Comcast.net |
| Ernie Hawes..... erniehawes@msn.com | Herb and Maria Traulsen htraulsen@mycidco.com |
| Paul Hlava..... hpfl@qwest.net | Stephen and Linda Vayna Vayna@transatlantic.com |
| Dylan Houtman.....dhoutman9@aol.com | Elaine and Al Weisman almgicons@aol.com |
| Mariani Luigi ENVMA@IOL.IT | Scott Wilson..... swilson@copper.net |
| Gary Peters albpets@msn.com | |