



The New Mexico

Faceters Guild

January/February 2003



The Official Newsletter of the New Mexico Faceters Guild

NMFG

Show and Tell



Scott Wilson faceted a very impressive large octagonal, dark blue fluorite that he collected last year from the Blanchard mine at Bingham, New Mexico.



Pat Kirkpatrick faceted this lovely large rose quartz with a cross in the culet.



Steve Attaway carved a beautiful large piece of opal from Australia into a heartshape, a heart within a heart.

Cover: Scott Sucher faceted the triangular rhodochrosite. Bryan Lees' Colorado rhodochrosite mineral specimens were photographed by Steve Attaway at Tucson.

The

New Mexico Faceters Guild

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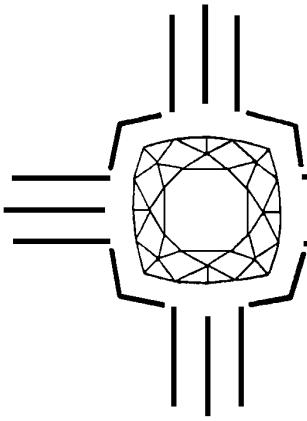
Purpose of the Guild: *The purpose of the New Mexico Faceters Guild is to bring together persons who are interested in faceting or faceted stones. We promote the art and science of faceting and provide a means of education and improvement in faceting skills. Finally, we provide a means of communication 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 are held the second Thursday of oddnumbered 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.

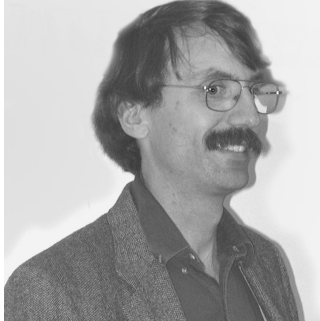
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The next meeting of the New Mexico Faceters Guild will be March 13, 2003.



The New Mexico Facetor

Volume 23, No. 1, January/February, 2003



NMFG President Scott Wilson

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The Prez Sez:

by Scott R. Wilson, Ph.D

Observations from Tucson

The Tucson show was, once again, a great learning experience. The highlight of the show was, without a doubt, the New Mexico Faceters Guild dinner at El Parador Restaurant, eagerly attended by numerous celebrities to the point of requiring overflow seating. Fred Ward and his wife, Charlotte supplied great conversation and information about the state of gems and the gemology business, and they kept at least half of the room entertained. The other half of the room was in continual celebration of some witty quip from John and Donna Rhoads. Two Lapidary Journal editors were present, along with one certain Guild member, Brian Cowger, who traveled from very far away to attend the dinner.

Conversation was lively and boisterous right up until the salsa band cranked up, when Marc Price provided great entertainment with his slinky latin dance steps. A very enjoyable evening! Many thanks go to Steve and Nancy Attaway for organizing and subsidizing the bash.

Interesting new faceting materials appeared at Tucson. One was a deep red eudialyte, found in Siberia, that generally occurs in massive form. It occasionally is found in clear, gemmy pieces that cut spectacular deep red gems. However, eudialyte faceting rough was a rare find.

Another new material was the scarlet red feldspar seen cut at a few booths. Information about this gem from the Congo is very sketchy, but we will see more of it over the year. This gem was noted at a single obscure dealer at last year's show. Its visibility seems to be expanding.

Quality faceting rough was in short supply, compared to years past. Prices were extreme, with rough selling at the same dollars per carat this year as it was selling dollars per gram at last year's show. There was a vast flood of cut stones available everywhere you looked. The addition of even more dealers this year required several more tents.

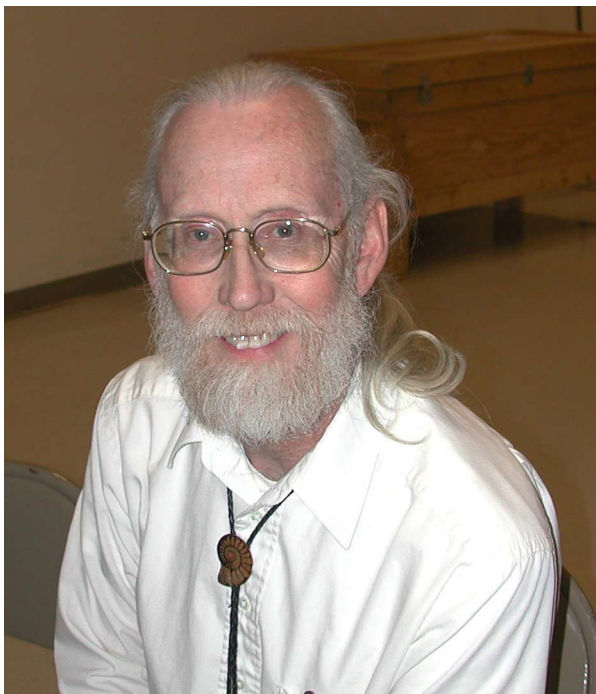
The general conclusion reached by consensus, later verified by assorted dealers, was that the "end of the hose is clogged". Sales were way down for finished goods. Diminished sales result in less demand from cutting houses for stones, a reduced demand for rough, and less demand for the mined materials. We have been fortunate over the years to place a small stream of rough into the hands of amateur cutters. With

that stream dwindling, however, we may be in for some thin years until the market for finished goods improves and the “hose” flows freely again.

The greatest activity in terms of concentration of people was found at the “retail/wholesale show” at the Holidome, which resembled the general mayhem seen at a “blue light special” sale. Shows with higher quality goods generally saw reduced attendance, consistent with the state of the economy.

There was quite a bit of consolidation occurring at the shows. Many dealers I spoke with said that they will not be returning to Tucson next year. Reasons included: 1) that sales were so far down that it is now not profitable to be a dealer at the show; 2) the ever-expanding and increasing assessment of fees of all sorts by show promoters and the City of Tucson; 3) a lack of new buyers; and 4) low traffic, in general. I would suspect that several of the shows next year at Tucson will occupy a fraction of the space they did during this year’s show.

I would, once again, like to thank the Attaways for orchestrating the top event of the show (some of our celebrities attended our dinner instead of the GIA awards dinner). I look forward to Tucson next year!



Facetor, Marcus Price at the Guild meeting in January. Photo by Steve Attaway.

Minutes of the NMFG Meeting

January 9, 2003

by Nancy L. Attaway

President Scott Wilson called the meeting to order at 7:15 p.m. and welcomed all members and guests.

Old Business

President Scott Wilson declared the December workshop and Christmas Party a huge success. The Guild gave **Ina Swantner** a big round of applause for being such a grand hostess. We all shared the fun.

New Business

President Scott Wilson said that he would host the next Guild **workshop** on **February 22** at his home. He remarked that those who were planning to attend the shows in Tucson to bring a “show and tell” for the workshop. **Workshop Moderator, Ernie Hawes** said that the morning session would focus upon cleanliness in the faceting area. Cleanliness affects machine accuracy, and that, subsequently, affects cutting accuracy.

The following meeting dates have been scheduled for 2003: January 9, March 13, May 8, July 10, September 11, and November 13. The March and May meetings will meet in the Annex across the street from the main entrance to the museum, due to scheduling conflicts for the main meeting room. Six workshops will be held in 2003.

President Scott Wilson announced also that dues were due and to pay **Guild Treasurer, Ina Swantner**.

The Guild membership agreed to keep the dues for 2003 at \$20 for those receiving the newsletter by e-mail only. For those wanting a hard copy of the newsletters for 2003, dues will be raised to \$30.

The Guild Library has been moved to the home of Scott Wilson in Corrales. The library will now be available during workshops. Please contact Scott for any publications that the library may have. A complete list of books and publications will soon be compiled.

Show and Tell

The Show and Tell Case tonight held many faceted stones and jewelry rendered by Guild members. **Moderator, Steve Attaway** asked members who own video equipment to help show the items in the Show and Tell

case to the audience using a monitor. We will also ask the museum for a passive projector to use.

Elaine Weisman displayed a 20-inch long beaded “stone chain” necklace that incorporated glass beads, pearls, and labradorite beads. The three-dimensional peyote-stitched necklace featured sterling silver tubes that were cast and a large reform of sterling silver at the bottom also cast. A signature of Elaine’s unique jewelry is her unusual combination of beads, pearls, gemstones, and cast or handwrought precious metals.

Pat Kirkpatrick, the father of Laura Kirkpatrick, displayed his first stone, a large rose quartz octagon. The gem featured the “Faith Pattern”, a facet arrangement in the culet area that exhibited a cross. Taken to the pre-polish level and left unpolished, the cross is visible from the table. (This culet facet arrangement is also done with other similar patterns, such as stars.) This gemstone was an excellent example of a faceter’s first stone. Pat also showed a tablet with a faceted crown with no pavilion rendered in ribbon agate. Pat said that he polished the rose quartz on a ceramic lap with 100K diamond and Crystal-lube, and he polished the ribbon agate on a Last lap with 50K diamond. Very well done!

Larry Plunkett displayed a bright orange Nigerian spessartite garnet that he cut in the “Barion Oval”, one of his favorite faceting diagrams. Larry remarked that the stone required him to work around some inclusions within the final 10x8mm oval gemstone. He polished the spessartite garnet on a tin/lead lap with diamond.

Dylan Houtman displayed many very interesting gemstones, as he usually does. He cut a white petalite, a yellow scapolite, and a golden zircon all in the “Zircon Round” design. He cut a pearshape light yellow/green orthoclase and had finished the large emerald cut light smoky quartz that exhibited the brown chevron phantoms. Dylan cut a small dark emerald in a marquise with blunted ends and a small tanzanite in his “Eye Cut” pattern. He cut a small light green tourmaline in an interesting emerald cut that showed the short sides flared out instead of straight and a “Barrel Cut” table. He cut a small chrome zoisite shield and several Australian opal cabochons. Dylan polished his gemstones on a tin/lead lap with diamond and cerium oxide.

Scott Wilson displayed a remarkable large 15mm blue octagonal fluorite that he cut. He found the fluorite rough at the famous fluorite mine in Bingham, New Mexico. Scott preformed the rough on a 600-grit lap, went to a 1,200-grit lap, then a lap with 1800 grit, and rendered the pre-polish on a 3,000-grit lap. He carefully polished the stone on a pink wax lap with linde A.

Scott remarked that the wax lap tended to round the facets. He said that the facets on the cleavage planes were harder to polish. Scott cold-dopped the rough.

Carsten Brandt displayed a large smoky quartz octagon with a large piece of smoky quartz rough.

Nancy Attaway displayed four bright green Pakistani peridots, a large emerald cut, two matching smaller emerald cuts slated for earrings, and a square. Nancy remarked that the rough had depth problems that she worked around by adjusting the arrangement of the pavilion and culet facets and shallowed the pavilion and culet angles. She polished the peridots on a corian lap with 60K diamond and polished the corner facets of the crown on a ceramic lap with 60K diamond.

Steve Attaway displayed eight lovely Australian opal pendants. Steve carved all of the opals and handwrought seven of the pendants in 14Kt gold with cast bails. The opals included black crystal opals, semi-black crystal opals, green crystal opals, and blue crystal opals, all solid. Seven of the opals were carved in large ovals, accented by tourmalines and sapphires in the bails. Steve rendered the eighth pendant in 18Kt gold, which held a gorgeous, solid black opal with deep blue and green hues from Lightning Ridge. Steve carved this black opal in a kiteshape and accented the gem with a sapphire in the bail. Steve remarked that he cut the opals on a 220-grit wheel, a 600-grit wheel, a 1,200-grit wheel, and polished them with a horse-hair brush using the excellent polishing compound from Mountain Mist in West Virginia (www.mtmist.org) (mtmist@aol.com).

Refreshments

Elaine Price, Laura Kirkpatrick, and Nancy Attaway brought refreshments to the November meeting, plus gourmet coffee. Thank you all very much. **Elaine Weisman** and **Scott Wilson** volunteered to bring refreshments to the March meeting.

Future Programs

Vice-President/Programs Paul Hlava scheduled a panel discussion for the March meeting. The discussion will address the subject of gem rough orientation. The panel members will include **Ernie Hawes, Scott Wilson, Steve Attaway, and Paul Hlava**. Bring any gem rough that you have questions about how to dop for color and/or carat weight. Ask questions on how to work around or eliminate inclusions and how to dop gem rough that contains cleavage, like topaz. With Paul’s mineralogical and gemological knowledge, he can explain the A axis and the C axis and how these relate to the color of a faceted gem. Pick the brains of

Ernie, Scott, and Steve, with their expertise on gem cutting. Ask about faceting angles and faceting diagrams.



Program Speaker

by Nancy Attaway

Ernie Hawes discussed the travel adventure to China and Thailand that his wife and he had taken in September, 2002. Ernie and Becky had chosen the Grand Circle Travel Group tour for nearly a month-long look at China and Thailand. A slide presentation with books, picture postcards, and travel brochures of noted places accompanied Ernie's interesting dialog. Ernie and his wife, Becky, collected newspapers from China that were written in English to research a trip there. He believed that a lot of knowledge about a country could be gained by reading its newspapers.

It seemed to Ernie that China was strongly promoting its tourism industry. He stated that China was encouraging free enterprise, and that its cities were becoming more westernized. Ernie remarked that even though you may not like the Chinese government, he found the Chinese people to be hard-working and nice.

The tour began its Chinese adventure in the capital city of Beijing (Peking). The Forbidden Palace and Tiananmen Square marked the first stops along the way. Ernie's slides showed magnificent palace buildings and grounds thronged with Chinese people, as well as some foreign tourists. One slide showed the Temple of Heaven, a circular building. Ernie said that no one was allowed inside it nor inside any of the buildings that comprised the Forbidden Palace. Tiananmen Square encompassed a very large area with enormous buildings on all sides. Loud speakers installed on high posts blasted out music. Ernie and Becky climbed the seventy-five very steep steps to the top of the Beijing Bell Tower to photograph the sites from a higher perspective. One of his slides showed the 25-ton bronze bell, the largest bell in the world.

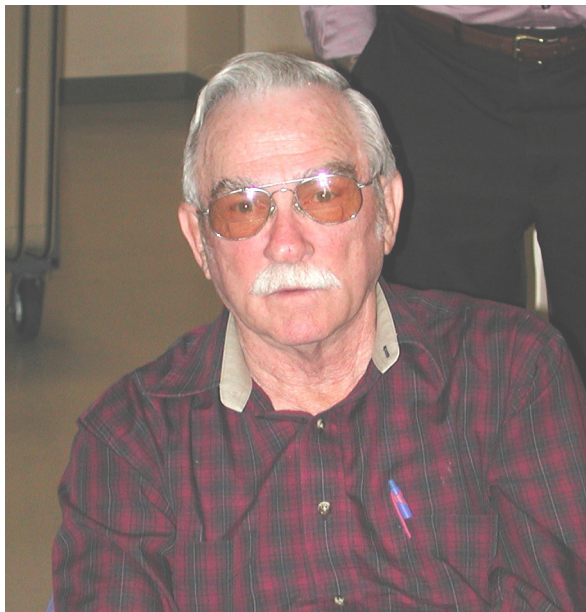
Another of Ernie's slides showed large statues of lions. The lion holding a ball was Po, a male. The one with a paw upon a cub was a female. Other statues were of a turtle-like mythical creature and a large bird, a crane. The crane is a symbol of longevity and is often depicted in Chinese art.

Daytime temperatures hovered around 85 degrees with a humidity of 95 percent. A haze from industrial pollution and coal burning hung in the air.

Ernie said that the tour included seventy people, broken into two groups of thirty-five each. Two tour guides accompanied each tour group on one bus.



New faceter, Pat Kirkpatrick at the Guild meeting in January. Photo by Steve Attaway.



Faceter, Richard Griffith at the Guild meeting in January. Photo by Steve Attaway.

Ernie said that the ceramic artwork he viewed was very ornate and elaborate. One slide showed a huge carving of a square rendered in white jade that contained a circle of green jade with a hole in the circle. The Chinese consider jade the stone of heaven. The hole in the circle represents the threshold into heaven.

Ernie saw that there was no trash or litter on the grounds. He said that the people he saw cleaning used old-fashioned handmade brooms to sweep the refuse.

Ernie noticed that the Chinese people were very family oriented, and that several generations lived in one household. He said that crowds of Chinese people visited many of the same places seen on the tour.

The tour group was invited to the homes of several Chinese families for tea. The visit provided a look into the homes of the Chinese and gave a glimpse into their culture. Ernie had noticed a meandering alleyway near his hotel where stalls had been erected and folks were selling wares. He was told that a free market area was established there that allowed people to run their own businesses. People were allowed to keep the profits and did not have to pay any taxes to the government.

Ernie and Becky rode a rickshaw through some streets to observe the people. They noticed a group of men on one corner playing a Chinese version of chess.

Ernie and Becky visited a cloisonne factory, where colorful enamels and glazes in elaborate designs were applied to copper pots and vases. The application of all enamels and glazes was accomplished during one firing. Each piece is air-cooled. Artisans carve directly on the metal pots and vases. Pieces ranged in size from small, hand-held items to human-size vases. The work was expensive. One large vase could fetch \$20,000.

The tour visited the royal Summer Palace located north of Beijing. The beautiful palace grounds were expansive with fabulous, unusual trees and man-made lakes. The covered walkways ran 1,000 meters long. The hilly, green area was elaborately decorated with many sculptures of eroded limestone. One such sculpture depicted a ship sailing upon ocean waves.

A trip to the Beijing Opera provided an opportunity to see world-class performances. Events lasted both half a day and all day. Performers, dressed in richly decorated costumes, used expansive hand and body gestures in their character portrayals. The tour also saw the performers apply their make-up backstage.

The tour stopped at the Ming Tombs, located in the mountainous countryside outside Beijing. Many stately willow trees dotted the land. Dolomitic limestone

served as the entrance of the building that encompassed three doorways carved in marble. The middle entrance had been for the emperor. Ernie and Becky were told that a lot of gold jewelry had been excavated from there. The bodies of the empresses were found to have been covered by gowns of transparent silk and embroidered with gold and silver thread. The tomb included large statues of animals, camels, and elephants, as well as a few mythical beasts.

Ernie and Becky visited the Great Wall of China near Badoling, a town outside Beijing. Considered to be one of the great wonders of the world, the Great Wall of China runs north to northwest around Beijing for well over 6,000 kilometers. Construction for the wall was first begun in 7th century B.C. as an earthen-work to guard the agricultural south from the nomadic tribes of the north. Viewing the expansive Great Wall involves many steep climbs and long, strenuous hikes. Ernie and Becky managed to hike to the third tower. The Great Wall of China had been constructed through a steep mountainous region with near-vertical hillsides.

Ernie and Becky traveled to Shanghai, a major coastal hub on the East China Sea. Ernie said that Shanghai appeared to be the most modern city of China. The building of the famous Peking Opera House, with its enormous crystal chandelier, overlooks the harbor. The magnificent Peking Opera House was designed by the world-renowned architect, I.M. Pei. Shanghai is a world-class banking and business center and is home to buildings as tall as ninety-seven stories. Ernie stated that Shanghai contains far more high-rise buildings than anyplace in the world (2,100 and growing).

Ernie and Becky visited a silk factory at Suzhou, a forty-five minute train ride northwest of Shanghai. The Chinese built a railroad in the area. They also built a grand canal about five hundred years ago that connected several major bodies of water, thus providing a means for trade across much of China. Ernie said that Chinese farmers grow silk worms in their homes in large trays stacked high. The silk worms eat mulberry leaves that the farmers gather. When the worms reach the stage that marks the time for them to spin their cocoons, most of the worms spin a cocoon just for one worm. However, a few worms pair up and spin a cocoon for two worms. Ernie was told that the higher quality silk was obtained from single-worm cocoons.

Ernie explained that, in silk rug making, each thread is quickly double-knotted and woven into rugs. He said that the silk rugs with a deep pile last a long time. Ernie and Becky saw several antique silk rugs in very good condition that were for sale at the factory, as

well as some very beautiful new ones. Weavers often use hundreds of threads per inch in their elaborate designs. While they work at first from a paper pattern, with repetition, the weavers learn one or a few rug designs well enough by heart after some years. Large silk often rugs run from \$5,000 to \$20,000 and more.

Ernie was informed that the Chinese men retire at the age of sixty. Chinese women retire between fifty and fifty-five years of age. Also, Everyone in China drinks bottled water. Hot tea is very popular and is served all day, Many flavors and types are available.

Ernie visited the mansion of a famous ship captain. The sturdy wall construction used weathered chunks of rock. A tile roof covered the mansion, and the roof corners exhibited an elaborate design of a dragon. It was thought that the dragon symbol protects the household from evil. The limestone used in the construction was brought from a place 3,000 miles away to the site.

Ernie and Becky wanted to view the dramatic and historic area of the Three Gorges Dam project before the dam was completed and the area flooded. A five-day cruise on the Yangtze River from Luhan to Chongqing provided them with many breath-taking views that will be completely covered by water in a few years. The Three Gorges Dam project across the Yangtze River is slated to be the world's largest hydropower station and dam ever constructed. The locks of the dam will have five levels when done. Upon completion, the dam will have a 1.2-mile span of concrete and a 370-mile long reservoir 525 feet deep. As a result, the river will rise 575 feet. Cities and towns along the water's edge were having their houses torn down and were rebuilding them on the higher ground above the dam site. Over 2 million people have been and are still being relocated, many to far away places. The dam project aims to control the flooding of the Chang Jing River Valley and provide power to a very large section of China.

The tour also stopped at Xi'an to see the life-like terra cotta warriors discovered at the excavation site. Over 6,100 of these statues have been unearthed, and seven more large rooms have been found that contain more fascinating artifacts. Ernie and Becky also saw the beautiful Pagoda of the Wild Goose at Xi'an.

Ernie and Becky also wanted to visit China's famous Tower Karst area in Guilin. A boat trip provided a wonderful passage through the towering karst (limestone) mountains. Ernie and Becky also saw the lovely Temple of the Sun and Moon in Guilin.

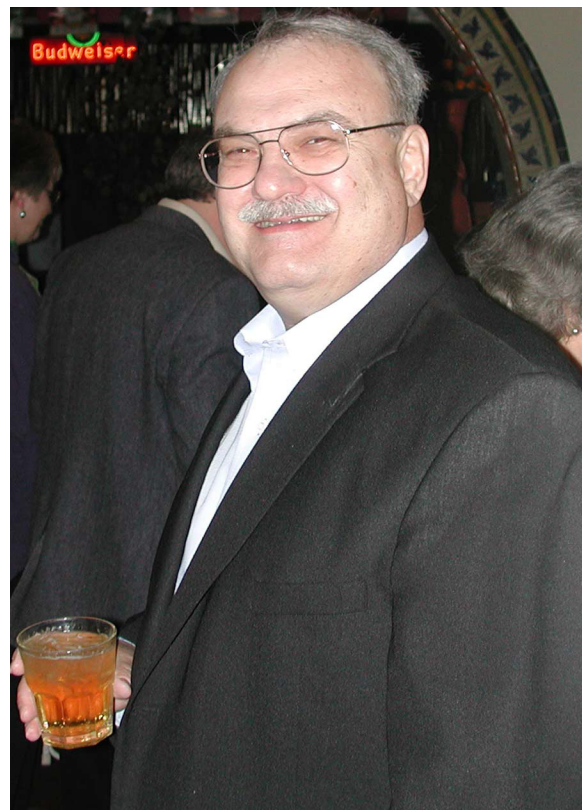
The China portion of the journey for Ernie and Becky ended at Hong Kong and Kowloon. With space

at a premium, birds there are a popular pet. Some people even bet on which birds sing the loudest.

Following the main tour, about half of the group flew to Bangkok, Thailand for a five-day visit. Ernie was surprised to see 7-11 Stores nearly everywhere. Ernie and Becky visited the Royal Palace in Bangkok and saw several noted Buddhist temples. He said that Thailand is home to well over 4,000 Buddhist temples.

Thailand is also famous for its teak wood carvings. Ernie and Becky watched as woodcarvers traced drawings on sections or pieces of teak before using their hand tools to carve the design. They were told that two carvers would need nine months to finish a large and elaborate carving in teak. Both Ernie and Becky were struck by how many flowers grew in Thailand, including pointsettias and orchids, and they remarked at how beautiful and fragrant the flowers all were.

The journey to famous sites in China and Thailand was a dream come true for Ernie and Becky. They recommend their adventure and plan to enjoy many happy memories from their Asian excursion.



Facetor, Brian Cowger, at the party for the New Mexico Faceters Guild at El Parador in Tucson. Photo by Steve Attaway.



Faceters Guild Workshop

by Nancy L. Attaway

The New Mexico Faceters Guild held a faceters workshop February 22 at the home of **Scott Wilson** in Corrales. The workshop began at 9:00am and continued until 4:00pm, with a hour's break for lunch. **Mod-erator Ernie Hawes** was also assisted by **Merrill O. Murphy, Scott Wilson, and Nancy Attaway.**

Ernie Hawes began a classroom discussion on cleanliness in the faceting area. He explained how cleanliness affects gemcutting accuracy. Ernie stated that three key aspects were essential to accurate cutting. The first key aspect was having good eyesight. Ernie said that hand-held loupes and head-mounted magnifiers or optivisors were the tools most used by faceters to enhance close-up vision. He mentioned that some faceters and jewelers used binocular microscopes for faceting and stone setting. Many competition faceters often used binocular microscopes.

The second key aspect was to insure that your faceting machine was properly aligned. Laps should be true and not wavy. Ernie said to clean both platen and spindle of any swarf and dirt that accumulates during faceting. He said that thin laps deflect and recommended steel laps for being true and flat. Ernie reminded faceters to clean their laps periodically with water and Lava soap. He said to always dry laps before storing them for later use. He said that vinegar cleans laps that have been calcified from hard water (water with high concentrations of calcium carbonate). Nancy Attaway said that she regularly cleans her machine after a prolonged use, especially after coarse grinding several stones. Ernie said to clean the machine after using any sloppy polishing compound, like watery linde A or watery cerium oxide. Both Ernie and Nancy advised faceters to wash their hands after the pre-polish and before polishing to avoid contaminating the polishing laps.

The third key aspect was to check the cleanliness of the machined parts. Ernie told faceters to use a Q-tip with alcohol to clean inside the quill. He reminded faceters to regularly lubricate the mast and the place where the mast base slides on the plate of the faceting machine. When switching out the toothed gears on a faceting machine (those gears that number 64, 72, 80, 96, and 120 used for different faceting diagrams and faceting shapes), Ernie said to be sure that those two

lines on the quill make one line. If the two lines on the quill are not aligned to make one line, then the facet alignment will become skewed.

Ernie recommended using a good micrometer for or a good set of calipers to check width, height, and depth of the stone as it is faceted. He also advised faceters to use calipers to check the dop width and arrange the dops in matched pairs for faceting the pavilion and crown. A deviation in width may affect the alignment of the stone after the transfer. This mis-alignment will be seen in the crown facets, where rows of facets may become skewed and table facet tilted.

Ernie discussed having a soft stop on the machine, versus a hard stop, and he said that a soft stop is more accurate. He said that some faceters attach their faceting machine to an extra thick metallic plate for enhanced stability. Ernie talked about the various dial indicators available for faceting machines. He mentioned the Beil-Wooley dial indicator that uses an electric contact to notate a measurement on a meter. He said that Facette makes the best dial indicator, a strain gauge, but that it is expensive. He said that Facetron now makes a good one that is attached to the back of the machine. Send your machine to Facetron to have it done at the factory. Ernie cautioned faceters to be aware of flexing the mast and the match needle, as this causes a slight change in the degree index reading.

Lunch included two kinds of pizza, chips, salsa, and dip, Linda Vanya's amaretto muffins, and Nancy Attaway's pineapple upsidedown cake. Thank you all for the homebaked goods. We also thank Scott Wilson for his gracious hospitality for hosting the workshop.

After lunch, **Carsten Brandt** finished polishing the pavilion of his cushion cut triangular Mexican fire opal. He would periodically take the dopped stone into the sunlight to closely inspect his polish. **Steve and Linda Vayna** worked on refining their emerald cut preforms in green synthetic gems. With help from Ernie and Nancy, they better understood how the preform promotes proper placements of meetpoints in the design. Ernie also helped **Elaine Weisman** work on a round design on a piece of clear quartz.

Steve Attaway brought his stationary carving machine with arbor and brought one of his hand-held carving machines. Members enjoyed watching Steve carve opal and several pieces of deep blue Namibian chalcedony. Steve also preformed pieces of rough for folks for dopping. We all also enjoyed watching many large flocks of sandhill cranes fly over Scott's home on

their northward journey along the Rio Grande River.
Thanks to all who participated in the Guild workshop.

Nancy Attaway with Paul Hlava at the New Mexico Faceters Guild party at El Parador in Tucson. Paul Hlava serves as the Guild Vice-President/Programs and as the Guild Mineralogist. Photo by Steve Attaway.



Nancy Attaway is flanked on her left by Tammy Honaman, Assistant Editor of Lapidary Journal and on her right by Merle White, Editor of Lapidary Journal at the New Mexico Faceters Guild party at El Parador in Tucson. Photo by Steve Attaway.



In the News

More New Treated Topazes

Source: *JCK February, 2003*

Leslie & Company of San Diego, California offers for sale two new colors in treated topaz, "Royal Red" Topaz and "Bali Bi-Colored" Topaz. The company produced its first color-enhanced topaz, "Evergreen" Topaz, in 1998. Three colors were introduced afterwards: "Glacier Blue" Topaz, "Teal" Topaz, and "Champagne" Topaz. According to Leslie & Company, these diffusion-treated topazes can withstand normal wear, bench-repair techniques, and ultrasonic cleaning.

Randy Willis, President of Precious Designs, Inc. of Charlotte, North Carolina, is now promoting a topaz treatment called "titanium vapor deposition". Titanium gives topaz a rainbow appearance strongly accented in purplish red and green hues. This is different from the blue overtone seen in "Aqua Aura" topaz and quartz that is treated with pure gold. "Aqua Aura" topaz and quartz first appeared in the early 1990's. The gold adheres to the stone through an electronic bonding and gives the gem an iridescent appearance with blue hues. The titanium vapor deposition enhanced topaz, called "Mystic Fire" topaz, begins with colorless Brazilian topaz that is cut in Thailand and treated in the US. The gem's coating will be removed if the stone is buffed.

Gem Industry Analysis on Bulk Diffusion

Source: *GIA Insider on the Web 2/14/03*

An international assembly held during an AGTA conference in Tucson confirmed that the controversial treatment of yellow, orange, and blue sapphires and of rubies involves bulk (lattice) diffusion. The color is altered by the addition of elements, such as beryllium and lithium. New FTC guidelines require disclosure at every level of the trade on this corundum diffusion treatment. Recutting and repolishing may affect, change, or diminish the color of these treated stones.

The Gubelin Gem Lab in Lucerne, Switzerland reported a treated blue sapphire that recently appeared on the market, where the gems showed a very good blue color that penetrated through the entire stone. The Identification Services for the GIA Gem Trade Laboratory revealed the presence of bulk diffusion treated rubies on the market, where the gems appeared much

like red spinels. Crystal Chemistry of Brush Prairie, Washington stated that detection remains difficult for sapphires where treatment penetrates the entire stone. The only reliable test is secondary ion mass spectrometry that identifies trace elements (used in the treatment) not generally found in untreated gem material. The treatment issue is most serious in smaller goods because no one checks them. The Gubelin Gem Laboratory and GIA's Gem Trade Laboratory included a chart of commercially available gem treatments in the Winter 2002 issue of *Gems and Gemology*. The chart gives an update on gem treatments seen in the gem market. The issue contained an article on synthetic yellow diamonds, "Gemesis Laboratory-Created Diamonds", in Sarasota, Florida.

Antwerp's Diamond Center Reports Robbery

Sources: *CBS News on the Web 2/18/03; Diamond News; and JCK on the Web 2/18/03*

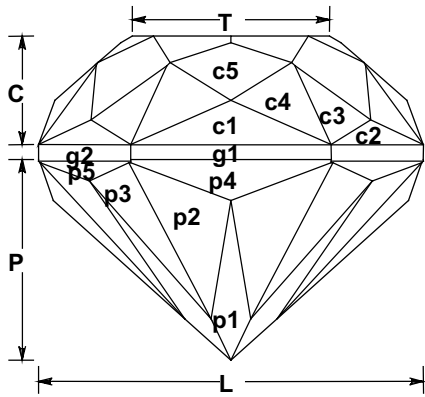
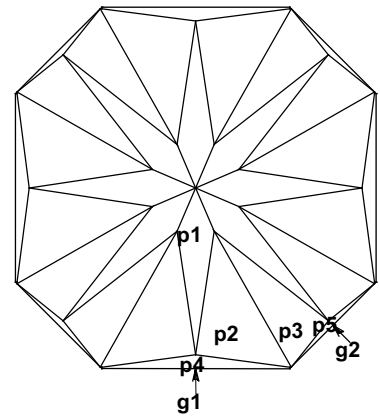
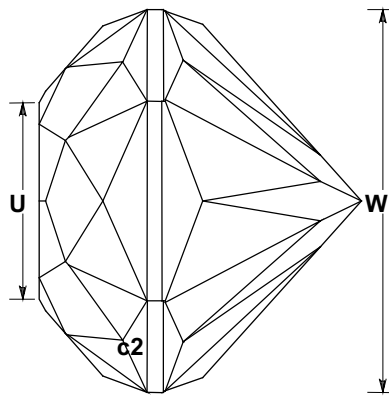
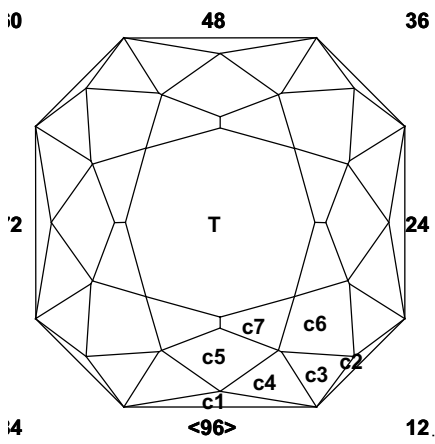
Reading like a high-budget Hollywood action script, thieves cleared out 123 of the 160 vaults in the maximum-security cellars of Antwerp's Diamond Center over the weekend. The robbery, dubbed the biggest heist ever in the world's diamond-cutting capital, was only discovered Monday, February 17. The magnitude of the theft was estimated at hundreds of millions of dollars and may even be in the billions of dollars. Surveillance cameras had been installed nearly everywhere, rooms housing vaults required special passes to enter, high tech security systems were in place, and armed guards stood at their posts around the clock. Since there was no sign of any forced entry, and no alarms anywhere were set off, police suspect an inside job. Antwerp had rested upon its security-conscious reputation. In a place noted for its tight security, this robbery will hurt the industry and may even damage Antwerp's image as a secure diamond center.

Previously, the largest theft in Antwerp occurred in 1994, when thieves cleaned out five vaults in the Diamond Center for a loss of \$4.55 million. Expect to see more business being directed towards cutting centers in New York, Tel Aviv, and Mumbai, India.

Seven-Kilo Diamond Crystal Stolen

Source: *Pravda on the Web, 2/22/03*

Thieves wrenched iron bars, broke into Diotoma company of Moscow, forced into the safe, and stole a 7-kilo diamond crystal, a 2-kilo topaz, and 28 cut diamonds, worth about 16 million rubles (\$500,000).



Cut Corner Brilliant By Dylan Houtman

Angles for R.I. = 1.58

73 facets + 8 facets on girdle = 81

4-fold, mirror-image symmetry

96 index

$L/W = 1.000$ $T/W = 0.509$ $T/L = 0.509$

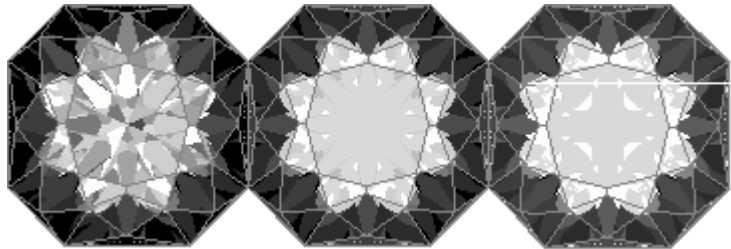
$P/W = 0.522$ $C/W = 0.280$

$H/W = (P+C)/W + 0.02 = 0.821$

$P/H = 0.635$ $C/H = 0.340$

$Vol./W^3 = 0.373$

Average Brightness: COS = 46.6 % ISO = 52.4 %

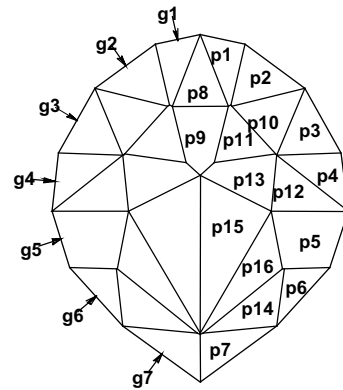
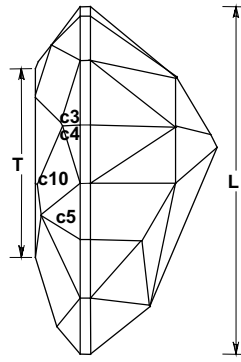
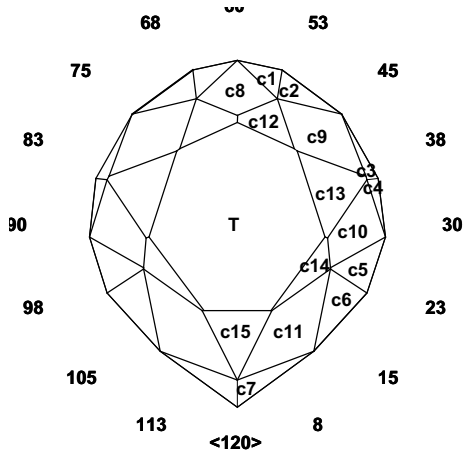


PAVILION

p1	42.00	96-12-24-36-48-60-72-84
g1	90.00	96-24-48-72
p2	44.15	04-20-28-44-52-68-76-92
p3	43.25	09-15-33-39-57-63-81-87
g2	90.00	12-36-60-84
p4	70.00	96-24-48-72
p5	70.00	12-36-60-84

CROWN

c1	70.00	96-24-48-72
c2	70.00	12-36-60-84
c3	49.00	09-15-33-39-57-63-81-87
c4	51.00	03-21-27-45-51-69-75-93
c5	41.00	96-24-48-72
c6	43.00	12-36-60-84
c7	28.00	04-20-28-44-52-68-76-92
T	00.00	Table



Jackie's Ruby

By Dylan Houtman

Angles for R.I. = 1.76

59 facets + 14 facets on girdle = 73

1-fold, mirror-image symmetry

120 index

$L/W = 1.171$ $T/W = 0.635$ $T/L = 0.542$

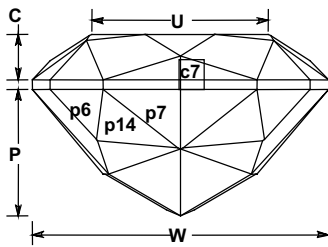
$P/W = 0.430$ $C/W = 0.148$

$H/W = (P+C)/W + 0.02 = 0.598$

$P/H = 0.719$ $C/H = 0.248$

$Vol./W^3 = 0.271$

Average Brightness: COS = 38.8 % ISO = 54.8 %



PAVILION

g1	90.00	056-064
g2	90.00	048-072
g3	90.00	040-080
g4	90.00	032-088
g5	90.00	024-096
g6	90.00	016-104
g7	90.00	012-108
p1	54.00	056-064
p2	56.00	048-072
p3	55.80	040-080
p4	52.40	032-088
p5	49.00	024-096
p6	56.40	016-104
p7	57.00	012-108
p8	50.90	060
p9	30.00	060
p10	52.25	044-076
p11	34.00	044-076
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p14	52.80	014-106
p15	30.00	014-106
p16	34.65	015-105

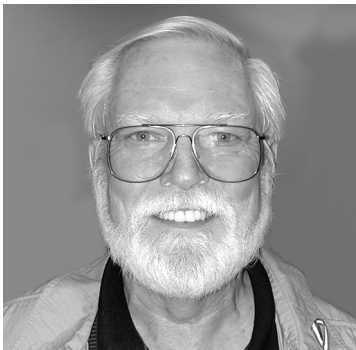
CROWN

c1	45.00	056-064
c2	48.00	048-072
c3	60.00	040-080
c4	57.00	032-088
c5	42.30	024-096
c6	41.50	016-104
c7	46.00	012-108
c8	37.00	060
c9	37.00	044-076
c10	37.00	028-092
c11	37.00	014-106
c12	22.00	052-068
c13	24.00	036-084
c14	14.00	018-102
c15	17.00	120
T	00.00	Table



Facet Designer's Workshop

By Ernie Hawes



Sometimes, a compromise is good.

We continue in this issue with more original designs by Dylan Houtman. Dylan's first design is called simply "Cut Corner Brilliant", and the second is "Jackie's Ruby". The "Cut Corner Brilliant" is a fairly straightforward interpretation of a cut corner square shape, while "Jackie's Ruby" is an interesting variation on a pear shape. Both designs have some unique characteristics that I will discuss in this article.

Dylan designed the "Cut Corner Brilliant" for morganite, hence, the angles for 1.58. However, the design would be suitable for either quartz or beryl gems. The crown angles are a bit higher than what the authorities recommend, which probably accounts for the apparent light leakage in the periphery of the Gem-Ray model of the design. However, in the actual cut stone of a light colored morganite, the effect allows the gem to have the appearance of a more saturated color without an overly adverse effect on brilliance. Thus, the COS and ISO brightness percentages may not be as high as we would normally like to see, but the actual result is still an attractive stone, perhaps even more attractive than it would have been had recommended angles been used. Another by-product of this is greater weight retention, which, in a fairly valuable stone, is a worthy goal to reach. In other words, I would say that Dylan achieved a decent compromise and has a beautiful stone to show for it.

"Jackie's Ruby", as the name implies, was designed for a very nice but oddly shaped and somewhat thin piece of ruby that Dylan was able to get at an

exceptionally good price. Dylan wanted to get the largest stone possible from the rough, and, thus, some compromise was necessary. To achieve a larger diameter and maximize weight, a fat pear shape, with pavilion angles below the critical angle for corundum, was decided upon. Color saturation was good and made up somewhat for the loss of brilliance. This same compromise is often made with the typically thin Yogo sapphires. If you have seen one of these rare gems, then you know that the compromise still results in a beautiful gem.

While Dylan has created other designs by actually cutting and making notes of the angles and index settings, the designs in this and in the last issue of the newsletter are his first efforts at facet design using GemCad. Dylan has more faceting ideas to come, and I, for one, cannot wait to see what he designs next.



The Next Faceters Workshop

The next faceters workshop will be scheduled for **April 19**, starting at 9:00am until 4:00pm, at the home of Scott Wilson in Corrales. See you there!



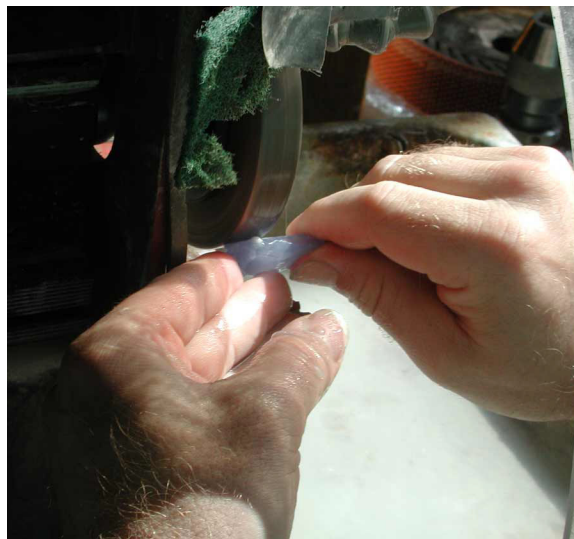
Linda Vayna facets an emerald cut gem at the Guild Workshop in January. Photo by Nancy Attaway.



Photos from Workshop



Steve Attaway demonstrates his carving techniques at the Guild Workshop in January. Photo by Nancy Attaway.



Steve Attaway's hands carve a Namibian chalcedony at the Guild Workshop. Photo by Nancy Attaway.



Workshop Moderator, Ernie Hawes demonstrates proper hand position. Photo by Nancy.



Faceting Guru, Merrill O. Murphy provided comments and gave some advise at the Guild Workshop in January. Photo by Nancy Attaway.



Steve Vayna checks a facet alignment on his emerald cut stone at the Guild Workshop in January. Photo by Nancy Attaway.



Elaine Weisman checks a facet on her round quartz at the Guild Workshop in January. Photo by Nancy Attaway.



Workshop Moderator, Ernie Hawes demonstrates a faceting technique at the Guild Workshop in January. Steve Vayna is on the far lower left, Merrill O. Murphy is on the left, Carsten Brandt is at the center, and Elaine Weisman is on the far right. Photo by Nancy Attaway.



A Dealer's Perspective from the 2003 Tucson Show

by Steve Green <steve@briolettes.com>

February 2003 was proving to be a very trying time for the world, and the Tucson Show was not immuned from the world's events. Sellers and buyers alike came to Tucson with a reserved, cautious attitude, as heads of state pounded their podiums around the world. Tucson, normally a Mecca for the gem, mineral, and jewelry trade, lacked many foreign buyers at this year's show. As the US hit a "Code Orange" alert status, and ratings-hungry newscasters asked the question, "France and Germany, friend or foe?", who could blame them from staying away from Tucson?

Not only were world events responsible for the reserved attitude of show attendees, the politics of Tucson was also a cause. Many of the shows at Tucson are held far away from the central core of the show. Poorly-posted directions (or lack of), difficult access, impossible parking, shows with exceedingly long durations, and the selling of goods totally unrelated to the jewelry industry all hurt the event. In general, there is little or no cooperation between the different show promoters, which only adds to the confusion. I was also told by "THE" major Tucson show magazine that their employees had all been banned from the GLDA Show. It seems that GLDA management felt that they were not being adequately covered by the magazine and decided to deny them entry to the show.

In spite of all this, Tucson remains king of the worldwide gem and jewelry shows. The things that make Tucson weak also make it strong. The multitude of promoters, the variety of goods, the assortment of people, the maze of booths, all add to one of the biggest free trade gem, mineral, and jewelry gatherings this planet has to offer. Tucson is both exhilarating and exhausting simultaneously; organized chaos. The following are a few significant new gem and mineral items found at this year's show that I feel are worth mentioning.

The first one was a very beautiful, richly saturated, magenta raspberry-red variety of beryl. The rough crystal pieces I saw were of a stacked tabular crystallization and were translucent, not transparent, in the 10 to 50 gram size range. Originating in Madagascar, a country renown for fine morganite, it is thought that the material may be different enough from normal morganite to

possibly represent a completely new mineral. I saw two stones that were cut into cats-eye cabochons in the 3-4 carat range. Both gems were of exceptional color. One exhibited a good eye, and the other showed a "killer" top quality eye. That stone was a true gem of unique and exceptional quality. I also heard rumors that this new material is yielding some transparent clean areas suitable for faceted stones. This is definitely a very interesting gem variety to keep your eye on.

This new "red" beryl from Madagascar is very different from the red beryl (bixbite), found exclusively in the rhyolite cavities in both the Thomas Mountains and in the Wah Wah Mountains of Utah. The Madagascan richly-saturated, magenta/raspberry-red material is not at all like the red beryls from Utah. It exhibits much more of a fuchsia or magenta hue. I have seen a couple of XF morganites that emerged from Madagascar in pre-1985 that looked like the very best pink imperial topazes from Ouro Preto, Brazil. This new Madagascar beryl material is similar to that color, except it is many times more saturated. The size of the new material was ten times larger than any red beryl ever found in Utah. Some of the pieces I saw were as large as a walnut in the rough, approximately 50 grams by my estimation.

The crystallization was also totally different from hexagonal prisms of the Utah red beryl with the elongated C-axis. The new Madagascan material that I saw was composed of oscillating stacks of tabular hexagonal crystals with a shorter C-axis predominantly associated with morganite. The shorter C-axis crystals were bound together with their center lines offset (oscillating) to look like a stack of flat hexagonal blocks stacked unevenly along a wavy central axis. Seeing this new material would make it immediately obvious that it is not "red Beryl" in the classic sense, but it is something entirely new and never seen before in the mainstream gem circles. I think that this is pretty exciting.

Another notable gem item seen at this year's Tucson show was the major amount of Russian demantoid garnet recently discovered. It seems that the original alluvial deposits mined in the days of the Czars has been rediscovered and mined in a more efficient way. Pala International had the bulk of the material, but many other dealers displayed significant quantities and stones from these new mining efforts. Most of the stones were of sub-carat sizes. I also viewed many stones over 1 carat and stones up to 10 carats. The best stone that I found was in the 4-carat size range. These stones have been heated to improve the color from olive-chrome green to pure chrome green. This is unusual for garnet, which is normally not treated in any

way, but, then again, demantoid is an unusual garnet. Many of the stones were rudimentary cut and in need of better lapidary work, probably due to the haste to get them to the Tucson market. Hopefully, the attention to cutting will improve in the future.

The third item was fake strawberry quartz, seen in abundance and in big sizes. Large faceted bead strands, spheres, eggs, and rough chunks of very beautiful red-dish-bronze-pink colored transparent material were being sold at numerous shows under the name "strawberry and raspberry quartz". Being that I sell genuine strawberry quartz from Kazakhstan, I took particular note. Upon closer examination, the new material showed bubbles, swirls, and layering, all telltale evidence of glass, not natural quartz. I am sure that these unknowledgeable (unscrupulous?) dealers sold plenty of this material to unwitting customers. It is a shame to have a deception of this size so widespread and seen throughout the show. Hopefully, this situation will correct itself soon.

There was a faceted red andesine (feldspar) from Africa that was quite lovely. Dealers quoted me prices of \$250 per carat for stones of 5 carats. The color shows a very beautiful, rich red to red-orange hue of a very pure quality and smooth, even tone. The stones all appeared to be very clean, but I did not inspect them closely. I saw numerous dealers selling this gem and suspect that the price will come down with time. I did not locate any of the rough, which always makes me a little suspicious. I have no evidence of monkey business, but I still wonder if, perhaps, that the material may have been irradiated. I do not want to start any rumors, though. Time will time.

Lastly there seemed to be more rough gem-quality green tourmaline at a reasonable price on the market than noted in past years. The African dealers told me that it came from the Congo/Zaire. The material consisted of green pieces of pencil-diameter crystals, ranging from yellowish olive-green to a purer green with a slight touch of blue; nothing very blue, though. Much of it was very pleasing in color and should yield nice green stones in the 1-5 carat range.

As always, one of the best places to visit old friends and acquaintances was at Ronnie's and Zee's big party, with 2003 marking the event's twenty-third year. Open to all in the trade (just show your dealer's badge), the party was held again at the Cactus Moon. I run into people there who never make it to the GJX Show. It was great to see so many old friends there, people with whom I have shared experiences for the last 23 years in this gem biz.

In general, dealers (including myself) felt that the show was only so-so. This was nothing unexpected, considering the current world's political and economic situation. All in all, Tucson 2003 was a successful show. I wish I had sold more, so I could have bought more (A couple of kilos of green tourmaline rough would have been nice.) I am sure that my sentiment was shared by many people. I hope you all had a good and successful time there, too, those of you who went. For those who did not attend this year's Tucson Show, I hope this report is of interest. See you next year.

Steve Green, owner of Rough and Ready Gems
<http://www.briolettes.com>

We stock briolettes in over 50 different gem materials, and we offer precision ultrasonic drilling in all shaped holes from 0.015" to 0.200".

{Printed with Steve's permission.}



A New Beryl?

by Chris Johnston

The new Madagascan "morganite" has an extraordinarily high level of molecular cesium, sufficiently high that it may be a new species. Work is underway in a number of labs to try and determine if the new material is more than simply a "strange" morganite. There is a rare scandium analog of beryl called bazzite characterized by its intense deep blue color, far more reminiscent of sapphire than aquamarine. It is the fairly common presence of cesium and scandium in aquamarine that prevent it from being universally nuked. Both scandium and cesium produce very nasty isotopes when exposed to hard radiation. So, for there to be a cesium analog of beryl is not a big surprise, the cesium atom will fit nicely in the lattice. I agree completely with Steve Green that the material is not a red beryl equivalent, either in physical appearance or in crystallographic terms. I would only add that there were reports of crystals or crystal fragments in the 1/2kg range at Tucson. If it is a new species, then the discovery of a new gem of this caliber in 2003 is as startling as it is significant.

Chris Johnston {Printed with Chris' permission.}

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A Tucson 2003 Show Report

by Nancy L. Attaway

The always remarkable and ever-expanding February Tucson Show never ceases to amaze me with its vast assortment of gems, minerals, and jewelry selections offered for sale. Buyers stroll down aisle upon aisle, in one tent after another, to search for gemstones, jewelry, mineral specimens, fossils, decorator and gift items, tools of all kinds, and publications. This international marketplace for luxury goods is also a place to greet old friends, visit with many famous gem and jewelry artisans, and meet noted authors and magazine editors. I usually see and learn something new at Tucson.

This year, Steve and I arrived in Tucson just in time to meet Ernie Hawes and Larry and Glenda Plunkett before going to a meeting of the Old Pueblo Lapidary Club. Those Tucson faceters are a very lively and friendly group of folks, and many are active faceters. President Art Kavan, a noted competition faceter, welcomed everyone and announced the evening's activities. The meeting agenda included demonstrations of various faceting techniques and lapidary equipment, as well as laps and gem rough for sale. I greeted Bill Horton, David Arens, Jill Rowlands, and Glenn Klein, and I finally met Charles Moon. What fun it was.

The first thing that I like to see at Tucson is the award-winning gems and jewelry from the Spectrum Awards, the Cutting Edge Awards, and the Platinum Awards. The winning entries were displayed in cases located between the AGTA Show and the MJSA Show in the Convention Center. This year's winners were spectacular, and all exhibited world-class designs rendered beautifully in precious metals that showcased fabulous faceted and carved gem material. Wow!

At the AGTA Show, a representative of Chatham Created Gems, Inc. kindly showed me the latest products in Chatham created gems. The dark pink sapphires mounted in gold jewelry appeared much like natural pink sapphires. Chatham uses the Czochralski method of growing gems, as I was told that it produces better quality gem material but requires more time in doing so. Examples of their newly created crystalline opals exhibited a play of color seen in natural crystalline opals. I saw examples of Chatham-produced colored diamonds and tablets of apple green lab-grown jade.

The AGTA Show is always amazing. Where else can you walk up to vendors who display piles of dia-

monds and colored stones worth millions of dollars and select just one or two gems. Top quality goods is the norm at AGTA. Surprisingly, we always find some great bargains there, and this year was no exception.

Steve and I perused the MJSA Show and AGTA to discover what is new in CAD/CAM jewelry designing, rapid-prototyping, and three-axis milling. Steve also searched for the latest in carving and jewelers tools.

The GJX Show downtown has indeed become the hub of Tucson and seemed to be where most of the buyers shopped. The GJX tent housed dealers selling quality goods. Unlike other venues, GJX focuses more on rocks and gems. While we are always entertained by the eclectic merchandise seen for sale at some of the venues, we appreciate shows that stick to the basics.

At Tucson, Steve searched for big crystals of rhodochrosite to photograph with his digital camera. Steve and I compose a postcard invitation for the Albuquerque Gem and Mineral Club's annual show. One side of the postcard shows a color photograph of a particular mineral. This year's show theme is rhodochrosite. Steve located several fabulous rhodochrosite specimens from Colorado's Sweet Home mine in a large display case owned by Bryan Lees. Bryan Lees, who unearthed the Colorado rhodochrosites, also works the benitoite mine in San Benito County, California. The cordial representatives of his company were most gracious in allowing Steve to photograph rhodochrosite specimens to his heart's content. With several chosen rhodochrosite specimens and a remarkable kiteshape faceted rhodochrosite cut by Scott Sucher, look for a great postcard invitation to be sent in March.

The GLDA Show was held in the Radisson City Center that used to be the Holiday Inn Downtown. The upper starlight ballroom housed dealers from Idar Oberstein and the Dust Devils and was not to be missed. Several noted German carvers displayed exquisite carvings rendered from very high quality gem material of all types. Some of their gemstone carvings were positively stunning, with remarkable attention paid to detail, polish, and innovation. Through the mining and marketing efforts of the Dust Devils (Don, Terry, and Steve), sunstone has been placed on the gem map. They continue to unearth great gem material. Two Oregon sunstones, carved by Krista McMillan, recently won a second and a third place Cutting Edge Award.

Steve and I always make a point to attend Rio Grande's "Catalog in Motion" held at the Hilton. We can converse there with manufacturing representatives from various companies, including 3M and Durst, and

view the latest tool offerings, innovations, and software. These products can be found in Rio Grande's tool catalog and ordered at their show. One demonstration showed an approach to eliminate setting time in pave stone rings. The jeweler sets stones directly into wax pattern rings and casts the stones in place. This has already been done in India with ruby, sapphire, and diamond melee, and we saw it done with other colored stones, such as garnet, peridot, and cubic zirconia. We were told that few stones fall out or break. Besides visiting certain vendors, Steve likes to visit with Eddie Bell and discuss engineering possibilities.

The party we held at El Parador Restaurant on Friday, February 7 for the New Mexico Faceters Guild, friends and special guests was a big success and a lot of fun. Those in attendance were Guild President Scott Wilson, his girlfriend, Kathy Luecki, his friend, Dan Williams, Guild members Ernie Hawes, Marc and Elaine Price, Steve and Nancy Attaway, Brian Cowger, Paul Hlava, and his friends Liz Sorroche, Barry and Bryony Carter. Special guests included noted gem book author and famous photographer, Fred Ward, his wife, Charlotte, Lapidary Journal Editor, Merle White and Assistant Editor, Tammy Honaman, with Merle's husband, John White, and award-winning faceter, John Rhoads and his wife, Donna. Thank you all for coming.

Steve and I noticed that this year's show had more finished goods for sale than ever, with the addition of more tents full of dealers. Some dealers exhibited a lot of merchandise, some dealers displayed a small inventory, and some dealers showed goods that we questioned were appropriate for the Tucson Show. We noted that prices for faceted tanzanite and prices for small diamonds were lower this year than last year, and that more of the faceted tanzanite and small diamond goods were sold nowadays by dealers from India.

Gem rough was hard to find, and the rough that we saw was marked at very high prices. We saw gem rough marked at prices as high or even higher than representative cut stones from the same parcel of rough. Steve and I generally estimate the cost per carat of a finished gemstone based upon the per gram price of the rough. It does not make sense to purchase gem rough when the price for the rough exceeds the price for a cut gemstone from the exact same species. It then becomes a better deal to purchase an already faceted stone (that may or may not need to be re-cut).

Recovery from gem rough varies. In general, we have found that we usually get about 1/5 recovery, more or less. A parcel of gem rough can show a quality mix. It may contain several fine quality, large pieces,

some medium grade pieces, and pieces that will be a challenge to facet and only allow a small carat yield (due to inclusions, off color hues, or the rough being flat shaped). Using this recovery ratio makes it easy to estimate the cost per carat of a rough stone based upon its cost in grams. Some folks can obtain a 50% recovery, as we have even done a few times ourselves. However, when purchasing a parcel of gem rough, the deal often has us buying the good pieces with the bad, which means that we average about 20% (to maybe 25%) total recovery on the parcel. This explains why we do not like to see gem rough marked at per carat prices. It is easier to calculate the yield of a parcel of gem rough when gem rough is marked at per gram prices.

Several dealers commented on the shortage of gem rough. We wonder if the current world tensions may be reducing the supply of rough. One thing is for sure, there is still a large demand for gem rough from the cutting houses. One dealer said that he was only allowed to bring a very small portion of his gem rough with him to sell at Tucson. He stated that his contract with a large cutting house consumed nearly all of his mine run. The owner of the ametrine mine, from whom we usually purchase rough, did not appear at Tucson.

One dealer stated that mining for amethyst in Uruguay has been impeded during the last three years, due to local politics and a difficulty with the mining operation. We were told that not much peridot has been mined from Pakistan lately. Also, one tool and lap dealer informed me that dyna laps were now hard to obtain, due to a change of company ownership and some problems encountered in the manufacturing.

Gemstone treatment continues to rattle the industry and confuse buyers. Diffusion treatment that changes off-color sapphires to salmon/pink hues threatens the price of padparadscha sapphires. One dealer at AGTA showed us a parcel of African sapphire rough, where a new type of diffusion treatment thoroughly colored each piece in bright party-colored hues. Remarkable.

Gold was at a five-year high at the show this year. We wondered if gemstones prices would be higher, too. When trying to "measure the market", it can be like the blind man trying to "measure an elephant". Depending upon to whom you talked at Tucson, you found quite different descriptions of the gem market. We met several people who remarked that last year was one of their best years. Others replied that they would be lucky to still be in business next year. One of the great things about the Tucson Show experience is that it is different almost every year and sometimes different every day.



Obituary: Thomas J. Cannon

by Nancy L. Attaway (some contents taken from the *Rio Rancho Observer*, February 12, 2003)

The New Mexico Faceters Guild is very sad to report the death of Thomas J. Cannon, who died February 5, 2003. Tom and his beloved wife, Eleanor, were two of the very early members of the New Mexico Faceters Guild. Both Tom and Eleanor were very active faceters. Tom Cannon was 89 years old at the time of his death and had been married to Eleanor for 64 years. He is survived by his wife, his sister Grace Tourje, his son Edward Cannon and wife Dianna Cannon, his daughter Jean Parker and husband Ken Parker, three grandchildren, and two great-children.

Tom Cannon was born in Youngstown, Ohio on December 15, 1913 and was the eldest of six siblings. Tom earned an industrial engineering degree from Ohio State University in 1935 and received his professional engineering certificate in 1950. His career led him to various positions in the engineering profession in the states of Missouri, Pennsylvania, and Alabama. He worked at many plant assignments in many engineering capabilities for Republic Steel in Youngstown, from where he retired in 1979.

Tom and Eleanor Cannon spent most of their retirement years living in Rio Rancho, New Mexico. Tom and Eleanor were very active in the New Mexico Faceters Guild. They were an awesome faceting couple at faceting demonstrations and created original designs for faceting, including the "Early Sun" design. Tom served as Guild Treasurer. Besides being avid colored gemstone faceters, Tom and Eleanor enjoyed hunting for rocks and minerals, camping in the wilds of New Mexico, and learning to operate their computer. Tom enjoyed the hobby of building model railroads. He also liked to fly airplanes and maintained a private pilot's license for most of his life. Tom enjoyed flying the planes of the flying club that he founded.

Tom and Eleanor Cannon were living at Valley View Retirement Center in Boise, Idaho to be nearer to their family. Tom was a true gentleman and one of the nicest people you could ever meet. In lieu of flowers, memorial contributions may be made to St. Luke's Health Foundation at 190 East Bannock Street in Boise, Idaho 83712.



Obituary: Rainy Peters

by Nancy L. Attaway

It is with a great sadness that the New Mexico Faceters Guild reports the death of Loraine "Rainy" Peters. Born on August 28, 1947, a lifetime resident of Albuquerque, Rainy died January 23, 2003. She is survived by her husband of 23 years, Gary Peters and is survived also by two sisters, C. Jeanette Shield and Mary Louise White. Rainy was the middle sister. Cremation has taken place, and a memorial service was held on January 30 at Christ Unity Church in Albuquerque. In lieu of flowers, memorial contributions may be made to the Animal Humane Association of New Mexico, Inc. at 615 Virginia SE in Albuquerque, New Mexico 87108.

Gary and Rainy Peters had been active in the New Mexico Faceters Guild for several years. Rainy served as one of the Guild's Special Event Coordinators. Gary and Rainy were very active in workshops, where Gary quickly learned faceting techniques. Rainy would record detailed notes on workshops, along with recommendations and remarks related to faceting.

Gary and Rainy Peters were award-winning jewelry designers, who had become very accomplished jewelers over the years. Gary and Rainy Peters earned both a first place award and an honorable mention in the "All That Glitters" Jewelry and Gemstone Competition in the year 2000, sponsored by the New Mexico Jewelers Association. The January, 2001 issue of *Lapidary Journal* included an article in the "Facets" section that described Gary and Rainy as "Talent Squared". The article stated that "For Gary and Rainy Peters, the secret to success is in a perfect pairing of talents that allows them to work together on every piece they create". Rainy was also quoted in the article as saying, "The input is wonderful. When one gets stuck, the other one can help out."

Rainy started the business by making sterling silver jewelry many years ago. Gary found that he enjoyed working with Rainy, and the couple decided to combine their efforts. Soon, gold replaced sterling silver in their hand-wrought jewelry pieces. Gary and Rainy had been making jewelry together well over twenty years. Their one-of-a-kind designs showcased Gary's excellent soldering and stone setting skills with Rainy's unique design concepts. With Gary's recent endeavor of learning to facet and carve gemstones, they could incorpo-

rate the faceted and carved gemstone combinations with carved drusy agates in their gold jewelry lines.

Besides her noted jewelry talent, Rainy Peters was an accomplished cook and specialty dessert maker. Her organizational skills, honed from an earlier career in real estate, kept Peters Design in order. Rainy was a very beautiful and wonderful lady who could light up a room just by entering it. The Guild has lost an active member, the jewelry business has lost a recognized talent, and we all have lost a very special lady.



Rainy Peters, born 1947 - died 2003

