

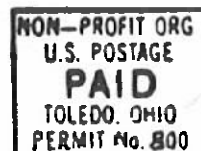
THE MIDWEST FACETER



VOLUME 11, NUMBER 4
OCTOBER, 1990

AN EDUCATIONAL PUBLICATION OF THE MIDWEST FACETERS GUILD

THE MIDWEST FACETER
807 Moran
Lincoln Park, Mi.
48146



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THE MIDWEST FACETERS GUILD

ORGANIZED July 14, 1979

INCORPORATED 1979

BECAME A NON-PROFIT EDUCATIONAL ORGANIZATION - JULY 7, 1982

PURPOSES

1. To promote education and recreation.
2. To develop "the art of faceting".
3. To exchange information related to faceting.
4. To provide meetings for those of like interests.
5. To promote achievement in individuals.

This Directory is published for the convenience of the members of the MIDWEST FACETERS GUILD. Information contained herein is strictly confidential and may not be used for any commercial enterprise or mailing list.

All names listed in this directory are the members in good standing as outlined in the BY-LAWS of the MIDWEST FACETERS GUILD.

MEMBER OF: Midwest Federation of Mineralogical and Geological Societies and
The American Federation of Mineralogical Societies.

OFFICIAL PUBLICATION: THE MIDWEST FACETER

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How to order your MIDWEST FACETERS GUILD badge:

Send exact name you wish on the Badge
Along with \$5.75 and mail to:

A- FRAME AWARDS
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MEMBERSHIP INFORMATION for MIDWEST FACETERS GUILD

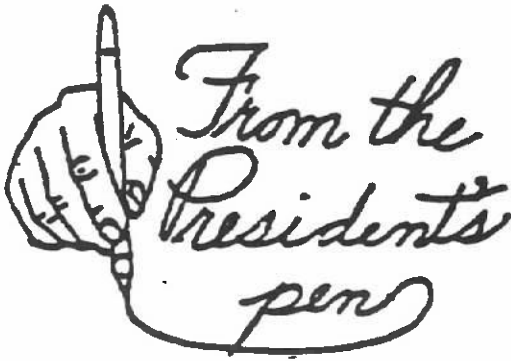
Please use the application blank below to join or renew your membership in the Midwest Faceters Guild. Dues are \$5.00 per year, payable for the next year beginning Oct. 1st. Non-payment of dues by April 1st will cause your name to be dropped from the rolls. After Jan. 1st, a red mark will appear on the label of those members who have not renewed their membership.

NAME: _____ ADDRESS: _____
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☐ New membership ☐ Renewal membership

While it is not mandatory, dues should be paid by check when possible and mailed to the membership chairmen at:

William H. Gardiner
MFG Membership Chairman
4518 Sandstone Drive
Williamston, MI 48895



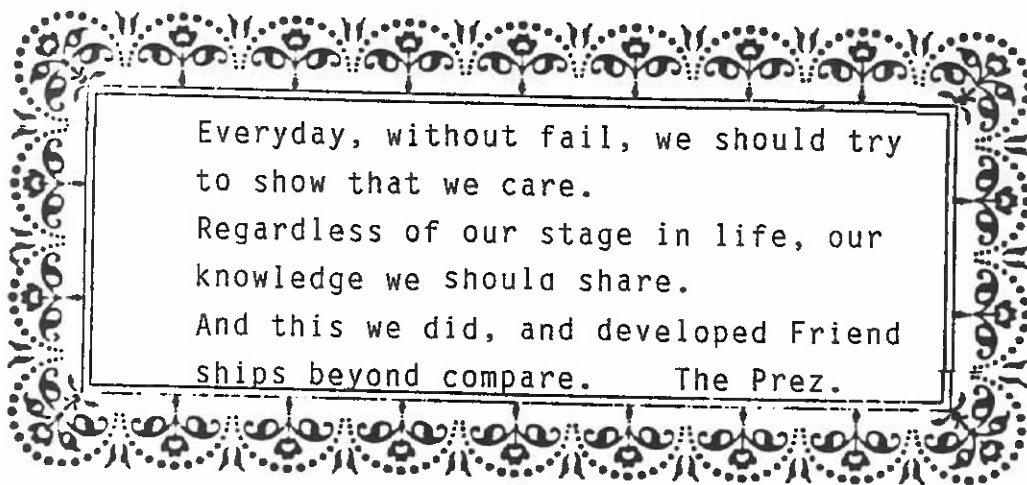
FACETING - FRIENDS

FACTS - FUN

WOW !!!!! The Midwest Facetors Guild presented their first Seminar. It was truly a great success. I only hope it will be remembered as our "FIRST ANNUAL SEMINAR." I say this because I firmly believe this is what we should be doing. Our Guild is dedicated to promoting faceting, and to be teaching others about our hobby, and about faceting.

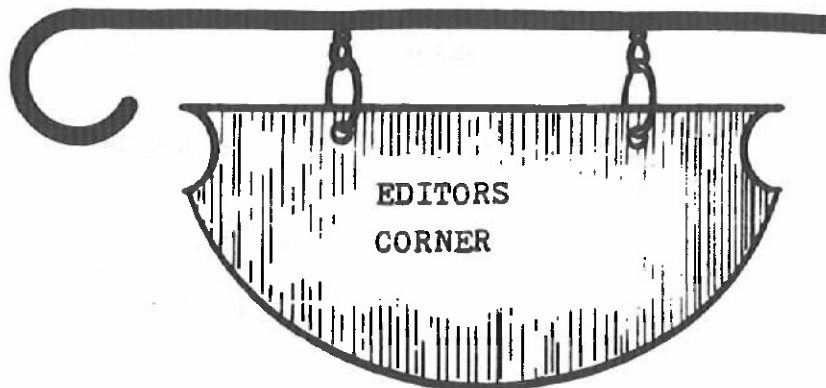
We had thirty six facetors cutting during the Seminar. We had nine instructors, bless them. The classes were separated into three groups. Class One cut round type gemstones. These were people who had not cut, or had cut a very few gems. Class Two learned to use the "Offset." They also were introduced to the CAM method of cutting. Class Three learned to Design and Facet their very own gemstone. Everyone indicated the Seminar to be a great success.

For every successful event, there has to be some very dedicated effort on someones part. I would like to give 10,000 ATTABOYS to Dorothy Loyd and Kathleen Myers. They were responsible for originating the Seminar. Next, 10,000 ATTABOYS to the instructors. Clarence and Hazel Morgan, Bill McVety, Tom



Gibbs, Bill Schell, Dick Fairless, Kathleen and Ed Myers and Myself. A special THANKS to popular Arizona Rice for the Keynote speech at the Saturday night dinner. Thanks everyone!

The Prez.



For those of you who did not attend our Seminar in August it was a huge success with 45 members present. look for a repeat of this event since so many members really enjoyed this program.

First in issue we present a Cut Corner Barion Triangle diagram by Sid Word via: The Texas Facetor.

Also, from the Texas Facetor an article by Fred W. Van Sant entitled Notes on Judging. Followed by an application for membership in the U.S.A. Competition Faceters.

Also from the Texas Facetor is a diagram by Fred Van Sant of a Cushion Diamond Shape with an interesting oval table.

From the New Mexico Factors Guild is an article by M.A.(Al) Hueblen, GG, on cutting collector gemstones, namely Wulfenite for who ever is ready for a challenge.

Also via the New Mexico Facetor is a Cushion Cut diagram by Steve Attaway.

From Meet Points is a very amusing article that all of us can relate to by John D. Birrell.

Lastly a table of recommended polishes that might prove useful to many of our members.

ANNUAL HOMECOMING MEETING

Date: OCTOBER 6, 1990

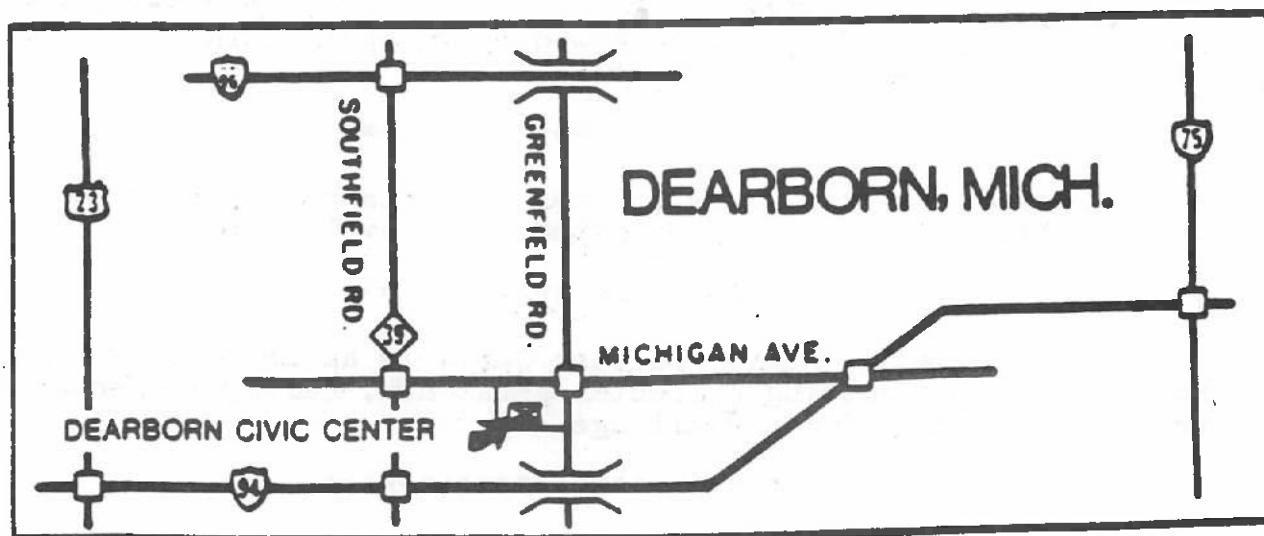
Place: DEARBORN CIVIC CENTER, See map below.

Time: 10:00 Board Meeting etc.

1:00 General Meeting and Program

DON'T MISS OUT PLAN TO ATTEND THIS ANNUAL HOMECOMING MEETING OF THE MIDWEST FACETERS GUILD. FIND OUT AND CONTRIBUTE TO OUR PLANS AND DIRECTION FOR THE COMING YEAR.

BRING A FRIEND, SHARE OUR HOBBY AND LET US CONTINUE TO GROW.

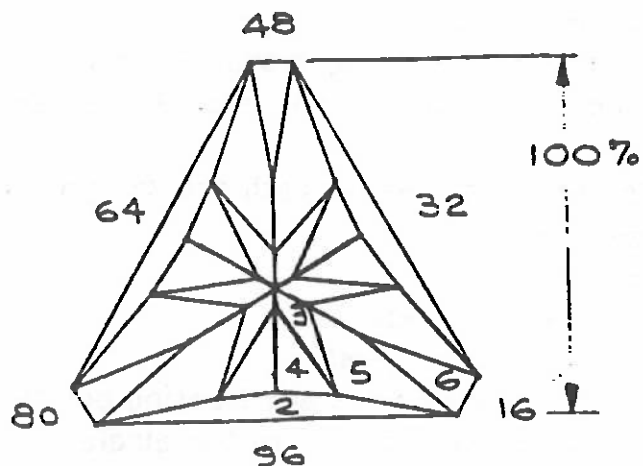


DON'T FORGET, MARK YOUR CALENDAR FOR OCTOBER 6, 1990

WE NEED YOUR SUPPORT!

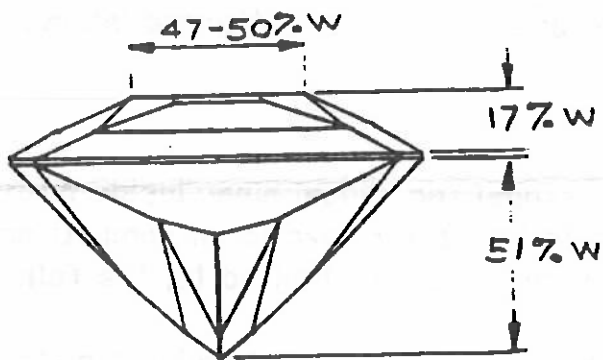
CUT CORNER BARION TRIANGLE

SID WORD APRIL 1990



This design was developed to replace a lost morganite. It needed to be a 12 mm stone. The sunstone trial stone finished 10.7 mm. The step 4, crown facets, are the result of a miss-index. I kept them because they keep the corners bright.

Adjust step C 6 for meets.

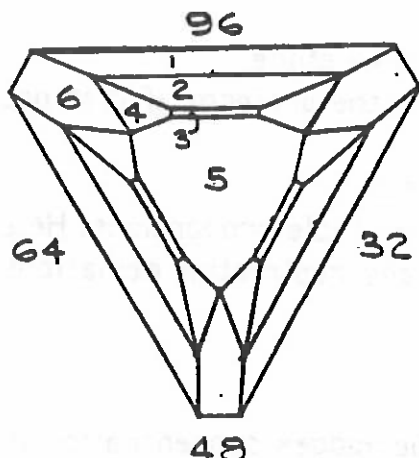


PAVILION STEP ANGLE INDEX

STEP	ANGLE	INDEX
1	90°	96-32-64, 16-48-80.
2	70°	96-32-64.
3	44°	6-90, 26-38, 58-70.
4	46°	3-93, 29-35, 61-67.
5	42°	12-20, 44-52, 76-84.
6	43°	16-48-80.

CROWN STEP ANGLE INDEX

STEP	ANGLE	INDEX
1	50°	96-32-64.
2	38°	96-32-64.
3	25°	96-32-64.
4	25°	4-92, 28-36, 60-68.
5	0°	ANY - TABLE
6	24.7°(+ or -)	16-48-80.



NOTES ON JUDGING by Fred W. Van Sant

TERMS:

The terms girdle, facet, crown, and pavilion need no defining.

"Girdle Plane" is the geometric plane which separates the crown and pavilion of a stone whose girdle width is zero.

"Stone Axis" is the imaginary line through the stone, along which, or parallel to which, the stone is normally viewed, and is at 90 degrees to the girdle plane.

"L/W" is the ratio of Length divided by Width, where both are defined by dimension arrows on the design diagram.

A "Line" is the junction of two facets.

A "Floating Point" is the junction of three facets.

A "Meet Point" is the junction of four or more facets.

A "Floating Facet" is one where all bounding points are floating points.

"Table" is the uppermost facet on the crown, parallel to the girdle plane.

"Culet" is the lowermost point or line on the pavilion.

A "Set" is a group of facets having the same size, shape, and elevation above or below the girdle plane, and occurring at patterned intervals around the stone.

INFORMING THE COMPETITOR:

To have a fair competition, no competitor should have 'inside information'. The only way to be sure of this is to make known to all competitors all aspects of the competition, including, but not limited to, the following:

- + The date, time, and place of the competition, and deadline for stone entries.
- + The classes open and the qualifications for entry.
- + The type of lighting and optical device (s) to be used in judging.
- + The methods of scoring, and a copy of the score sheet to be used.
- + An official diagram of each stone for the class entered. This diagram should be computed by two separate qualified persons, and show:
 1. The type of material to be cut.
 2. The size range allowed for the finished stone.
 3. One or more valid methods of making the preform, if it is not a meet-point method cut.
 4. The angles and indexing for the facets.
 5. The stone proportions, including L/W, Table proportions, Height proportions, girdle thickness, and any restricting deviations for these proportions.

THE PHYSICAL SET-UP FOR JUDGING.

- + The judging area should be set up so the judges concentration is not upset by outside conversation, noise, or changing lights.

- + The area under and around the judging tables should be of such floor covering that stones dropped on the floor will not be damaged in any way.
- + Each judges' post should have a 12" square of clean, soft cloth, the specified lighting and optical device(s) for stone viewing, alcohol and clean wiping tissue, and a supply of dop holders and Bostick for holding and examining the stones. NO METALIC HOLDER OR DEVICE SHOULD EVER TOUCH THE STONE.

THE JUDGING PROCESS:

- + A Head Judge should be responsible for the training of the judges, the set-up of the judging area and the judging stations, and the judging process.
- + All stones in a given class should be judged by the same judge or set of judges, and all judges in a class should judge all stones within that class.
- + Each judge within a class should use the lighting and optical device, or measuring device, previously specified to the competitor.
- + A sheet containing the crown and pavilion plan views should be provided to each judge for each stone he judges. For each stone the judge should map on the diagram sheet all the flaws for which he takes off points, using marking symbols set up by the head judge, so that 1) he will not take off points twice for the same flaw, and 2) he can find the flaw later to show it to the head judge or to the competitor. A "home facet" will be indicated on one girdle facet by marking with a felt-tipped ink marker, to align the stone with the diagram on the sheet. The diagram sheet will be given to the competitor along with his score sheet after judging is finished.
- + Aspects of the stone for which points are taken off should be demonstrable. The judge should be able to locate the fault and show it to a second party.
- + If two or more judges do a stone, they should not discuss the stone nor look at each others score sheet or diagram.
- + If two or more score sheets for the same stone have scores which are too far apart, the head judge may ask them to rescore the stone, or he may stop the judging of that class to find out the cause.
- + If judging is stoped to re-train the judges, or to give them additional instructions, then all stones previously judged in that class should be re-judged (Proper prior training of judges should eliminate this need).
- + If two or more stones in the same class have scores close together, and in winning range, they should be re-judged in rapid succession. The reason for this is that one of the stones may have been judged in the morning when the judges were fresh, and the other in the afternoon when they were fatigued.
- + The head judge should call a five or ten-minute break once an hour, to prevent eye-strain and fatigue from long sitting. All judges while on break should refrain from discussing any aspect of the competition.

JUDGING CATEGORIES:

In general, the categories and points allotted should be set up and described in a manner such that points will not be deducted in two or more different categories for the same flaw. If points are taken off for pits in a facet, that should not be the reason for deductions under the category of polish. Each category should set forth those specific flaws for which points may be deducted. To achieve this aim it is better to keep the number of categories small rather than large; too many categories induces confusion in the judges and increases the chance of double deductions.

NATURAL FLAWS:

1. **Within The Stone:** The extent of allowable size and severity of natural flaws depends largely on the type of material specified for the class. It should be stated in the instructions given to the entrant. The amount of points removed for different kinds of flaws and their locations within the finished stone should be outlined.
2. **Flaws Which Break The Surface:** These should have points taken off, because it is up to the faceter to see that he orients the rough material so that this does not happen. If he cannot so orient the material and get a stone within the size specified, he should cut another stone.

FACETING FLAWS:

Size-Shape Consistency: This category refers only to the consistency of size and shape of facets within a Set. Remove points only for facets out of size or shape.

Alignment of Crown and Pavilion Facets: Take off points only for lack of alignment across the girdle.

Girdle Thickness: Take off points if the girdle is of greater or lesser thickness than specified in millimeters on the stone diagram. If no such limits are so specified then no points may be taken off. Remove points also if the girdle is not uniformly thick where it should be.

Flatness of Facets: Take off points for facets which are rounded or show a break line.

Meet Points: Take off points for facets which fall short of the intended meet point or which overrun the meet point.

Chips, Scratches, Pits: Each one is subject to point deduction.

Lines: Lines, or ridges between facets, should be straight and sharp. Deduct only if there is rounding across the line. If the line itself is not straight, then look to the facets on each side of the line for rounding. If the line is chipped mark off under Chips.

Polish: If material has pulled out during polishing take points off under Pits only. The main reason for point deduction here is incomplete polish, or if the polishing process itself has produced grooving. If anything on the facet looks at all like a scratch deduct it under Scratches.

Stone Proportions: Deduct points if the stone's length, width, or height are outside the tolerance limits stated on the diagram.

Culet Angles: Deduct points if the angles of the culet facets are outside the tolerance limits stated on the diagram.

Note: The judges must be prepared to have an objective way of measuring culet angles. Commonly, in cutting the cutter will get a small chip on the culet point, and to get rid of it will recut the culet facets at a lower angle, causing loss of brilliance. To make a category called "General Appearance" to catch this is laziness on the part of judges. It is also laziness to judge a girdle's thickness subjectively when there are comparators to be had for a reasonable price. If tolerance limits for a stone's length, width, height, culet angle, girdle thickness, etc. are not stated on the design sheet or in the instructions, and an objective way of determining these is not planned, then they should not be made part of the scoring of the stone.

IN MEMOREY

I just recieved a letter from Robert Morris informing us of the death of Warren Morrison of Watertown Wis, in a traffic accident on October 8, 1989. The letter was delayed because it was sent to the membership chairman instead of the editor. since most of us are not close geographical there was a considerable delay.

Mr. Morrison was a contributor of many articles to this newsletter. Warren also turned out laps, dopping fixtures and many other aspects of our hobby. He will be missed by all of us in THE MIDWEST FACETERS GUILD.

WE ARE sorry for the delay and express our grief and pray for our fellow faceter and friend.

APPLICATION FOR MEMBERSHIP
U.S.A. COMPETITION FACETERS
P. O. BOX 56504
HAYWARD, CA. 94545

I would like to join your group which sponsors and encourages Competition.

I am a faceter yes _____ No _____ an interested sponsor _____

I compete in the following level of competition:

Junior _____ Novice _____ Intermediate _____ advanced _____ master _____

My normal scores are in excess of 70 _____ 80 _____ 90 _____ 95 _____ 97 up _____

Name _____ amateur _____ Pro _____

Address _____ All information is confidential

City/State/ zip _____ I prefer not to have information

Business Name is any _____ Published _____

Business address _____

Phone # Area _____ # _____

Business # area _____ # _____

I have a case _____ 12 stones? _____ 20 or more? _____ Educational _____

Other _____ Speaker? _____ Writer? _____ Teacher? _____

Would you write for a Newsletter to assist in education? _____ Teach New students if sent to you? _____ Speak? _____ Charge? \$ _____ Plus expense? _____

are you a Judge? _____

Would you like to know about competition in other countries? _____ Would you like a set of the Australian International Faceting Rules (\$2.50 per set). Please enclose your check.

Sponsor; Would you be willing to donate to the competitors who enter competition Internationally? _____ Trophy _____ Cash Prize? _____ Expenses _____ Other _____ Merchandise? _____

May we use your name in our advertising? _____

This is a non profit organization(pending) in the State of California, application pending as a California Corporation. Charter members if member joining within the first 6 months. Dues or Donations \$25.00 per year, which includes a Newsletter, and voting privileges of one vote per member. Enclosed is check for \$ _____ Dues or a Donation of \$ _____ to help stimulate Learning by Competition.

Please Mail Check to:

Marian E. Alden

22372 Ralston Ct.

Hayward, Ca., 94541

A circular diagram with 12 radial lines and concentric circles, labeled with numbers 1 through 120. The numbers are arranged in a complex, repeating pattern, likely representing a calendar or a system of measurement.

APPLIED GEMOLOGY
By M.A. (Al) Huebler, GG
(Guild Gemologist, New Mexico
Faceters Guild and
Member, Australian Faceters'
Guild)

**SOME MORE ON THE
COLLECTOR-ITEM GEMSTONES;
"Or From Little Oaks Do Large
Acorns Grow."**

As I sit here and start this June column tonight, I am elated. The object of my exuberance, which I now face, eyeball-to-eyeball as I write, is what may be the largest, faceted New Mexico dolomite! Time will tell. It weighs in at a full 6.90 carats and is a bright round brilliant with a faceted girdle measurement (flat-to-flat) of 12.0 mm. The material, a calcium magnesium carbonate, is nearly colorless, fully transparent, and has a slight pinkish cast due to a small amount of pink-colored dendritic-type inclusions. (NOTE: Dolomite is not, in chemical composition, far removed from common limestone, which usually consists of only calcium carbonate. When a very specific percentage of magnesium is also present, we have dolomite. In geology, the synonym for dolomite is "Magnesian Limestone.")

Arem's Color Encyclopedia of Gemstones, both the first and the current second editions, state under Dolomite Stone Sizes, "Facetable dolomite from New Mexico reaches a size of about 5 carats cut." In the first edition, Color Plate 19 shows an elongated, hexagon step-cut New Mexico dolomite of about 2 carats, and it does not appear to be very bright!

The material came to me last fall from our Ernie Hawes, and to him from our Roswell member Howie Whiting. I was to attempt to cut this rare crystal "on shares." The material, found about fifteen years ago, comes from private land in Eastern New Mexico and the specific location could not be made known to me. It was one of three or so crystals found at that time. As Howie tells me, the resulting gemstone is to be

added to the permanent faceted-stone collection of the New Mexico School of Mines in Socorro. You may see it there, in time. More on this at a future date.

My small round-brilliant stone, satellited from this crystal, is also a beauty, has a girdle diameter of 5.41 mm and is 0.65 cts. I cut it first, as a means of experimentation and planning for the big one. The material is quite soft, 3.5 to 4 and this varies with crystal direction. Cleavage is perfect in one direction (rhombohedral) and utmost care must be taken in cutting orientation. The S.G. (or density) is quite heavy, running as high as 2.93. The material is heat sensitive and must be carefully cold dopped.

Crystal dividing (sawing) is done very slowly, using a sharp diamond blade (0.004 Pro-Slicer) running in honing oil. Saw from both sides of the cut or material will cleave as the blade finishes and breaks out of the cut. The larger of the two satellite rough pieces was returned to Ernie for his future cutting. I would expect a two-carat stone from Ernie's piece! I try to remember to weigh a piece of rough before I chop it up, and I did so this time also. But for the life of me, I can not, at this time, find this info! I will, when I come across it at a later date, publish it in a future column.

The 6.90-carat stone had the pavilion roughed out using a 170/200 grit new Glass Lap (of the current redesigned style), and all facet placement (pavilion and crown) was done with a somewhat worn 600-grit Crystalite lap. All cutting was done with oil, not water. It took this rough Glass Lap, used very carefully and at a medium-slow speed, to make initial headway. Nothing else wanted to remove material at a reasonable rate. All polishing was on a Last Lap (run rather slowly - about 75 or 80 RPM) using 50K diamond spray. Final polish of the table was on an Epoxylon Lap, run very slow (again at less than 100 RPM), using Lapstar Dia-Al 50. All sawing, cutting and polishing stages must be done with "TLC."

Refractive Index is, for this hexagonal, doubly-refractive material, low as is the case with quartz. Therefore, the critical angle is high - 42 degrees. This produces a crown mains angle of 42°, and 43° for the pavilion mains. The R.I., as I tested for it on the finished large stone, is (average) 1.523 for the extraordinary ray, and (average) 1.680 for the ordinary ray. I cut the table of the large stone about perpendicular to the crystal's "C" axis. This is also the single-refractive optic axis, so the stone is bright and crisp. (No fuzzy, doubled rear facet junctions are to be seen through the table.) This orientation was selected, mainly, to avoid the cleavage plane directions.

Wulfenite:

As many of you know, wulfenite was the 1990 Tucson Theme Mineral. Because the crystals form in a rather thin, flat blade (tablet-like) configuration, only very small, low carat-weight collector-item gemstones can be cut from this material. The table always has to be parallel to one flat surface of the crystal tablet. This really limits the overall depth of the resulting stone (table-to-culet depth). With a hardness of only 2.5 to 3, a distinct cleavage plane in one direction and a strong tendency toward brittleness, this material is not found in many collections! This material is a complex lead molybdenum oxide, is very dense, with an S.G. of 6.5 to 7.0, and is found in Arizona and New Mexico, as well as other Western States, and in Old Mexico. The R.I. is 2.30 to 2.40 - very high!

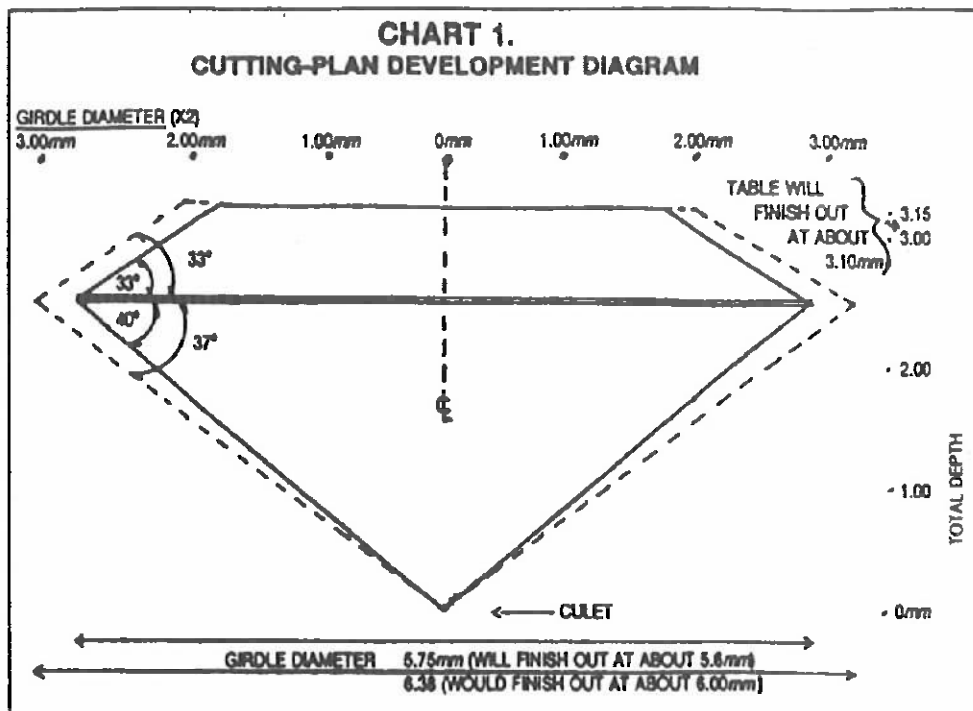
The most notable crystals range in colors of green, yellow, orange, and red. It is also found as gray, black and, in its rarest color, bluish. For the faceter, the orange-red color crystals of the famous Red Cloud mine in the Trigo Mountains of western Arizona (north of Yuma) are of prime interest. These crystals, depending upon thickness, occasionally yield a round brilliant stone of about 2-mm girdle diameter. Once in a while, a stone of up to 4 mm can be squeezed out. I have also seen very small trap-cut rectangles of wulfenite. While at the Tucson show in February, I was

able to purchase a single beautiful Red Cloud Mine crystal for \$30.00. Also a yellowish-orange crystal for \$10.00.

This latter crystal is from the New Gerónimo Mine in La Paz Co., Arizona.

The Red Cloud xtal will cut two small stones, after I divide the crystal (carefully) with a jeweler's saw - with a fine blade. Work slowly; remember, the material is very brittle! The crystal tablet is 3.15 mm thick. Fortunately, with the high R.I., the critical angle will be low; so the pavilion and crown mains angles will be low. This will result in maximum possible girdle diameter, while staying within the limits of the critical angle. So, let's see what Vargas sez about this? OK, Vargas sez crown mains should be 33 degrees and the pavilion mains 40 degrees. Confirming this, Sinkankas sez crown angles 30 to 40 degrees and pavilion angles 37 to 40 degrees. I like that! The pavilion mains are the important ones here, as the stone will be bright even with a low crown because of the high R.I. So, on a little piece of graph paper, let's plot both 37 and 40-degree pavilion mains and a 33-degree crown. We'll compare them, then see what girdle diameter will result. Remember, we only have 3.15 mm of overall depth for our stone due to the thickness limit of the crystal tablet! See Chart 1.

Our calculations and graphic plotting tell us that with 40-degree pavilion mains we can expect round-brilliant stones (about two out of my crystal) having a girdle diameter of about 5.60 mm. (See Table A.) Using the 37-degree main gives us about a 6.00-mm girdle diameter. These girdle diameters allow for a medium-thin girdle thickness (relative to stone size) and removal of a minor amount of material to cut in and polish the table - after all else is cut and polished. I believe that I will play it safe and opt for the 40-degree pavilion mains (and resulting slightly smaller stones). This will also give me room to maneuver a tiny bit if anything goes wrong en route during cutting or polishing - such as pitting or air pockets, etc. After all, a 5.6-mm



wulfenite is nothing to sniff about!!! Remember, Arem sez that a 4-mm diameter Red Cloud wulfenite is BIG!! (NOTE: If a person has a computer, design programs are available for quickly testing, configuring and controlling these angle and diameter limits, and the resulting percentages of the overall girdle diameter, which is usually considered to be the 100-percent reference value.)

A Few Techniques for Taming a Wulfenite:

Because wulfenite is so brittle, it should be cut with a fine, sharp diamond lap (1200 grit) at medium speed, on a smooth-running master lap. Check often for pitting while cutting and polishing (reverse lap direction, if necessary). Pre-polish on smooth tin with Linde A. Some say polish on a wax lap with tin oxide. Others say wax with Linde A. Yet others stand by a Mylar disk and with Linde A. Some of my "Rowdy Friends" say cut on a sharp 600 lap and go directly to wax-lap polishing, using "wet" Linde B. I will go with my rowdy friends as this info is most current and they have produced the largest wulfenites that I know of! Also, they get unruly and snarly if one does not get in line!! One of these really

BIG wulfenites is in the range of five carats!!!

TABLE A
Round Brilliant Wulfenite
Selected Proportion Values
(all approximate)

Total Depth of Stone (table to culet) (allows 0.05 mm for table cut-in & polish)	3.10 mm
Crown Height	0.68 mm
Pavilion Depth (no culet facet used)	2.38 mm
Girdle Thickness (1% of girdle dia.)	0.06 mm
Table Diameter (measured corner-to-corner) (percent of girdle diameter - see NOTE, below)	64.7 %
Girdle Diameter (100% reference value)	5.60 mm
Crown Mains Angle	33°
Pavilion Mains Angle	40°

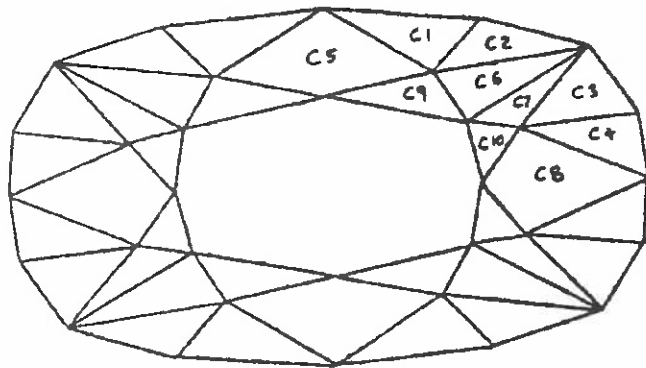
NOTE: Table is large (spread to large diameter). This is called "Swindled" in the diamond trade, but it reduces crown height requirements and results in a larger appearing stone, since it forces the girdle to a larger diameter.

Rough initial thickness is 3.15 mm, and the rough size does not limit or constrain girdle diameter requirements.

1.75 Cushion Cut

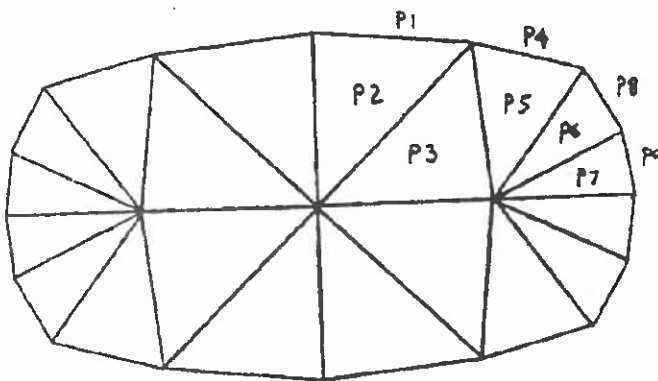
By Steve Attaway

Index 64, Angles for Quartz



Crown

Step	Angle	Sequence	Comments
C1	41.8°	63-01-31-33	
C2	38.1°	61-03-29-35	Meet C1 & P1
C3	26.1°	54-10-22-42	Meet C2 & P4
C4	23.1°	49-15-17-47	Meet C3 & P8
C5	37.0°	64-32	Meet C1 & P1
C6	29.3°	59-37-05-27	Meet C1, C2, C5
C7	25.6°	55-09-23-41	Meet C2 & C3
C8	22.2°	16-48	Meet C4 & P9
C9	21.0°	62-02-30-34	Meet C1, C2, C5, C6
C10	17.85°	50-14-18-46	Meet C3, C4, C7, C8
Table	0.0°	Any setting	



Pavilion

Step	Angle	Setting	Comments
P1	90°	63-01-31-33	Fix width
P2	43°	63-01-31-33	Cut to centerpoint
P3	41°	62-02-30-34	Meet P2 at centerpoint
P4	90°	61-03-29-35	Meet P1, P2, P3
P5	42°	61-03-29-35	Meet P1, P2, P3, P4
P6	43.2°	54-10-22-42	Meet P3 & P5
P7	44.5°	49-15-17-47	Meet P3, P5, P6
P8	90°	54-10-22-42	Meet P4, P5, P6
P9	90°	49-15-17-47	Meet P6, P7, P8

Length/Width = 1.75

Depth/Width = 0.67

Cut Pavilion First

"OOPS!"

Or: 'HAVE YOU EVER...?'

It has often been said that "a man of genius makes no mistakes - his errors are the portals of discovery." In plain English, we learn from our mistakes. Or do we?

The following observations flow from the pen of a "most scholarly (but humble)" faceter who feels by now he has made every conceivable error in judgement and technique in creating a faceted masterpiece, only to find one more route to disaster.

So, now I ask you, HAVE YOU EVER:

before starting a stone, not bothered to study the diagram so as to previsualize the meet points and facets, and then discover some nasty surprises?

before starting your stone, not bothered to check the correctness of the numerical indexing sequence?

not taken the trouble to consider the stone depth-to-diameter proportions and then find you have insufficient material to finish the crown?

had a stone come off, knowing all the time that "something" had told you that your dopping method wasn't quite perfect and this time you didn't get away with it?

when dopping, had an errant drop of wax drop on your hand causing a 3rd degree burn?

when starting a new stone, failed to double-check that you are using the correct gear and, especially, that your cheater is in the neutral position?

not yet gotten around to developing a method that will prevent you from reading the wrong line, angle or index setting on your diagram sheet - with disastrous results?

failed to double check that your machine settings correspond to the right line of the faceting instructions before putting your stone to the lap?

been mesmerized by your spinning lap, especially when rough grinding, and caught yourself just in time before falling asleep?

slipped off the edge of your 6" lap into that abyss between lap and splash pan, wrecking or dislodging your stone?

heard that "thunderous roar" when you misindexed by one notch - especially when you are finishing off the crown and have established the proper girdle width?

having reversed your lap, come too close to the centre nut and had the quill ripped out of your hands?

having visually checked the facet you were about to work on, failed to "touch check" it and went ahead only to find you were looking at the wrong facet?

when "something" told you to have a look, you did and were glad you did rather than cut off too much?

when one "something" told you to look, but another "something" said "not quite yet", and you believed the wrong little voice?

after a brief interruption (phone call, etc.) you return to your machine and that voice tells you to "touch check" the facet, but you couldn't be bothered - and then found you should have?

put a little extra pressure on the stone to speed up the cutting, overground the facet or even knocked it off the dop?

unwittingly turned your cheater the wrong way thereby compounding the error you're trying to fix?

Cont'd on next page...

"Oops!" cont'd...

having listened to lovely music on the radio which was suddenly replaced by the news, distracting you momentarily and then brought a meet point in too far?

wondered why, after an excellent pre-polish sequence, the table will not polish in the center, or in the corners, or you have trouble with a small scratch or a bit of haze but, after two or three hours of frustration, you finally get it?

reached for a lap, forgot to double check it, heard that "awful roar" and paid the penalty?

having just barely avoided several "near" mistakes, failed to realize that this is just "not your day" and you carried on and suffered accordingly?

having enjoyed two to three hours at your machine and anticipating another 1/2 hour or so should finish it, pressed on only to find in a momentary lapse in concentration (fatigue) that your stone has self-destructed?

when your spouse calls you in for dinner NOW, you reply "just five more facets" and, feeling guilty, on the very last facet you hurry just a bit too much and "whammo!"?

knowingly made a significant faceting error but let it go? Then you showed your masterpiece to a colleague who "looped" it but said nothing - but you know that he knows, and he knows that you know?

blundered badly on an almost-finished stone, felt that no-one would know the difference but then realized that YOU would know, struggled and re-cut the gem? And then enjoyed the feeling that "you really ARE a faceter"?

having finished a stone, removed it from the dop and, while admiring your masterpiece, discovered you has missed polishing one facet?

WELL I HAVE!! -- Philosophically speaking, the bottom line seems to be, "To err is human; to compromise is unforgivable." Faceting can be a humbling experience.

JOHN D. BIRRELL - "Chief Oopster"

.....
 10,000 A T T A B O Y S
 TO BILL GARDINER OF A & B JEWELS AND TOOLS FOR ALL THE
 HELP WITH TOOLS AND MATERIALS FOR THE SEMINAR.
 FROM ALL THE TEACHERS.

HEAT TREATING AQUAMARINE

Some have experimented with heat treating of aquamarine to drive out the greenish color and intensify the blue. This can be done with a ceramic kiln or burnout oven. At 800 degrees F the green disappears leaving a bright and stable blue. Imbed the aquamarine crystals in sand in a ceramic jar and then raise the temperature slowly over a period of 3 hours. Turn off the kiln when at 800 degrees and let it cool for 12 hours.

Via Earth Science News via The Palomar Gem et al --- PEGMATITE -
 SAN DIEGO, June, 1990, P. 51.

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FROM: STRATA GEMS:

The following appeared in the July 1989 issue of the Golden Spike News.
 HOW OFTEN have you heard someone say, "I just can't get a really good polish on . . .
 I must be doing something wrong".????????? The list of stones and polishes may just
 help solve that problem, and help you enjoy our hobby more. The list is from The
 Puget Sounder, 9/88, Via Hidden Treasures & Rock Rustler's News & Carlton Co. News.

RECOMMENDED POLISHES

via Pebble Pusher
May 1989

CHO=Cerium Oxide

TO=Tin Oxide

LA=Linde-A

DIA=Diamond

CHO=Chrome Oxide

	CHO	TO	LA	DIA	CHO		CHO	TO	LA	DIA	CHO
ACTINOLITE		X				LABRADORITE		X			X
AGATE	X	X				LAPIS LAZULI		X	X		X
ALABASTER		X				LINESTONE	X	X	X		X
AMAZONITE		X				LAPIDOLITE					X
AMBER		X				MALACHITE		X	X		X
AMBLYGONITE		X				MOONSTONE		X			
ANDALUCITE		X				NEPHRITE		X	X		X
APATITE			X		X	OBSIDIAN		X			X
AVENTURINE		X				ONYX	X	X			X
AZURITE		X			X	OPAL	X	X			
APOPHYLLITE					X	PERIDOT		X	X	X	
ARAGONITE					X	PETRIFIED WOOD	X	X	X		X
AXINITE	X					PHENACITE		X			
BARITE					X	POLLUCITE	X				
BENITOITE	X					QUARTZ	X	X			
BERYL	X	X		X		RHODOCHROSITE		X	X		X
BLOODSTONE			X			RHODONITE	X		X		X
BRAZILIANITE		X				RUBY				X	
CALCITE		X			X	RUTILE			X		
CASSITERITE		X				SAPPHIRE				X	
CELESTITE					X	SCAPOLITE	X				
CEROSSITE					X	SCHEELITE					X
CHRYSOBERYL				X		SERPENTINE		X	X		X
CORAL		X				SMITHSONITE		X			
CORUNDUM				X		SODALITE	X				
DANBURITE		X				SOSOLITE	X				
DATOLITE		X				SPINEL		X	X	X	
DIOPSIDE					X	SPHALERITE					X
DIOPTASE	X					SPODUMENE		X			
DIORITE	X	X	X		X	SUNSTONE		X			
ENSTATITE		X				THOMPSONITE	X				
EPIDOTE		X				TIGER-EYE	X	X	X		
EUCLASE		X				TITANITE (SPHENE)		X			
FELDSPAR	X	X				TOPAZ		X	X	X	
FLUORITE		X			X	TOURMALINE		X	X	X	
GARNET	X	X	X	X	X	TURQUOISE	X	X	X		
GOLDSTONE	X	X				UNIKITE	X				
HEMATITE	X					VARICITE	X	X	X		
HICKORYITE			X			VESUVIANITE	X				
HOWLITE	X	X	X		X	WILLIAMSITE			X		
HYPERSTHENE		X				WONDERSTONE		X	X		
JADITE	X	X	X		X	WULFENITE					X
JASPER	X	X	X		X	ZIRCON		X			
KYANITE		X				ZIOSITE	X				

SECRETARY'S MINUTES

President, Bill Horton called the June 2, 1990 meeting of the Midwest Faceters Guild to order at 12:00 sharp in The Toledo Museum of Art, Toledo, Ohio.

Due to the absence of the Secretary, Bill asked for volunteers to write the minutes - no one came forward - so I said I could sign my name, so I got the job.

Treasurer, Elery Holt gave his report and it was approved as read and filed for audit.

We had 42 sign the register. Many new faces were present. Bill Gardiner announced the membership list was up to date and will be going out to the members soon.

Warren Morrison from Watertown, WI was killed in an auto accident recently. He was an active voice in our group and we express our Sympathy to his family.

The AFM Group meeting in Idaho has recently rewritten the Eighth Edition of the Rules. As we are all members it was of interest to learn of the changes pertaining to faceting competition.

Show chairman for the 1991 Show was discussed, but undecided, so the issue was tabled until the next meeting.

Evansville will host the upcoming Federation Show and our members were asked who will bring displays. Elery Holt and Bill Horton were the only ones at the present time.

The Crown Point Faceters have invited us to come there for a meeting and it was decided that it will be in June or August of next year.

Bill Horton discussed the Buddy System and suggested the new inquiries be handed out to members for exchange of ideas, etc.

It was decided that we will sponsor any interested Junior Faceter, until they attain the age of 16. The first year dues will be free. Doris and Lester Medlen will sponsor a new twelve year old member.

Notice was made clear that all

remaining stones that are being cut for the Field Museum must be finished so they can be displayed at the Toledo Show on September 7 through the 9th.

Plans for the great Faceters Seminar to be held August 24 through 26th were discussed. Every Faceter is asked to do their part to participate to make it a successful endeavor. It was decided that a fee of \$30.00 to cover the expenses. Any profit that is made will go into the MIDWEST FACERS GUILD SCHOLARSHIP set up in memory of David C. Miller.

Machine availability will be assigned to the first 12 members to register and express the need of a machine. Others that are able should bring their own machine. There will be a special bulletin mailed with details and a pre-registration form. We will have early supper and be prepared to start registration at 5:30 to 7:00 PM on Friday. You will receive orientation and class assignments when registering. See complete schedule in special bulletin.

Bernard Bush requested volunteers to help demonstrate at the Midwest Federation Convention in Evansville, Indiana. We will have a booth consisting of eight tables and will need at least one person demonstrating at all times. If you are going to the Convention and can possibly bring your faceter, please try to spend a couple of hours as a demo.

Tom Gibbs suggested that we secure the Hall for our 1991 Show.

Tom received a request for persons to do small lot faceting, such as 3 or 4 stones, from a firm in New Jersey. If interested please contact Tom Gibbs for details.

Virginia Steel with the Crown Point Faceters will host a meeting in Michigan City in June or August of 1991.

Tom Gibbs made a motion, "To Adjourn." Elery Holt seconded the motion and the meeting adjourned at 1:40 PM.

A tour of the "Romance of Taj Mahal" was enjoyed by all those attending.

Respectfully submitted,
Dorothy Loyd, Secretary, Pro-Tem.

MIDWEST FEDERATION CONVENTION

The July 20, 1990 Council Meeting began with the Invocation by Clint Heckart; the Pledge of Allegiance led by Mary Hanning, followed by a welcome by Don Lambert, President of the Evansville Lapidary Society and Co-Host of Convention. He expressed his deep appreciation to all the local papers, TV and Radio Stations for all the excellent coverage they provided. He gave a short history of the Society and stated that anyone wishing to see their Club house would be given a guided tour.

The Past Presidents and Honorary Members were introduced.

The minutes were mailed to all Officers, Committees, clubs, etc., and stand approved as printed.

Treasurer, Kitty Starbuck was absent, but a copy of the Financial Report was given to all those present and was approved and filed for audit.

Officers of the Endowment Fund are Larry Costigan, Chairman; Bill Cook, Financial Manager; Ben Moulton, Treasurer; Mary Hanning, Secretary; assisted by Norm Brown and Margaret Heinek.

Certificates for recognition of supporting the Endowment Fund will be mailed by mid-September for Clubs with 100% to 2100%. Stickers will be mailed in the future to be added to the certificate for each 100% contributed. A complete Endowment Fund report will be printed along with the Treasurer's report. Lloyd Brown of Wisconsin will be presented a check for \$3,008.30 that was collected from many Clubs in honor of the Golden Jubilee.

State Directors introduced their assistants as they gave their reports.

Joyce Hanschu reporting for Marge Collins, stated the new slide programs that are now available through the Midwest film Library are: "Our Changing Land" by Jenny Smith; "Did you Ever Pick Up a Rock?" by Shirley Greenburg; "Crystals"; and Oklahoma Dessert Roses". Joyce

thanked everyone that loaned specimens for Ventura, CA as they had rocks from all the Midwest States.

Joyce Hanschu is still compiling information on museums, gem & mineral shops, libraries, publications, etc. which will be used by the Education Committee when contacted for information on our hobby. She is still looking for new information on our hobby, in any part of the Midwest.

Bulletin Aids Chairman, Kathy Miller thanked Bob Miller and Catherine McHugh for all their help and encouraged Delegates to take home the new Score Sheets for the Bulletin Editor's Contest as they are all new. Kathy very proudly announced that of the American Federation Awards 40 of them went to members of the Midwest Federation. The Bulletin Editors' Workshop was attended by 40 persons.

A free copy of the "Directory" is mailed out to the person that is listed to receive mail from the Federation. Delegates were asked to remind those filling out the Club information to make sure the proper name and address is correct. Nellie Claxton was extended a big Thank You for seeing that the directory was completed.

John Boland expressed the importance of Individuals writing letters of approval or disapproval to their legislators in regards to the new collecting laws that are effecting the hobbyist.

Reports were made by the Chairmen of the Permanent Committees.

Florence Anderson requested more Clubs be encouraged to participate for the "Merit Awards". She suggested each Club appoint a Chairman to collect information on the Community Services performed by the Members and when possible have it documented with pictures, newspaper clippings, Thank you letters, etc.

A Chairman is needed for the Micromount Committee.

Harold Rice, State Director of Michigan read the By-Laws in regards to elections, indicating the Officers of the Federation should be selected throughout the Mid-

(next page, please)

MIDWEST CONVENTION (cont'd)

west and brought it to the attention of the delegates that the officers are being selected from a concentrated area instead of all the states in the Federation. He suggested the By-Laws and Constitution be modified to prevent more than one officer from any one Club and that only one member of a family be allowed to have a voting position on the Board. No discussion or action was taken on the suggestion.

Chairman, Mary Boland will help any Club get started in the field of Paleontology, all they have to do is ask.

Uniform Rules Chairman, Anne Cook said the 7th Edition of the Uniform Rules will still be used in 1991 as the Faceting Committee were not ready to submit their changes for competition. There were ten competitive cases submitted and three trophies will be awarded at the Banquet. Mrs. Cook suggested Clubs start preparing their cases now so there will be many more exhibits next year in South Bend. A book on exhibiting has been published by the Eastern Federation that will help newcomers understand what the game of exhibiting is all about.

Ben Moulton, Chairman of the Nominating Committee presented the slate of officers for 1991. In the absence of any signed petitions for additional nominations, Paul Clifford made a motion, "That the nominations be closed and the slate of officers be elected by acclamation." Bill Cook seconded the motion and it carried unanimously. Officers are: President, Margaret Heinek; First VicePresident - Harold McClure; Second Vice President - Kathy Miller; Secretary - Jean Reynolds; Treasurer - Kitty Starbuck.

Ballots were cast for the election of two persons to the Nominating Committee for a period of three years.

The AFMS Credit Card will be issued free for the first year with 18% interest. The second year the fees would be \$20 for the Silver Card and \$40 For the Gold Card. Diane Dare read the letter of introduction for using the card that

would be carried by Transnational. The tax situation was unclear as it stated it would not effect our tax status, but everything we made would be taxable and there was no guarantee that the list of those using the card would not be used on a commercial mailing list. Midwest and California Federations voted against establishing the Credit Card. After discussion Mary Manning made a motion, "To recommend that when the Midwest Federation is contacted that we refuse to participate, other than to furnish information to Clubs that the card is available". Motion was seconded and carried.

The 1991 Midwest Federation Convention will be held in South Bend, Indiana-August 30 thru September 1. Show packets will be available after January. The 1992 the combined AFMS and MWF National Show will be hosted by Brunswick High School Geology Club in Strongsville, Ohio. It will be the first time the convention has been held in a high school and the first time a Junior Club has hosted a convention. Paul Clifford made a motion, "To authorize the Central Committee to select the 1993 site for the Convention." Motion was seconded and carried.

Paul Clifford announced the Cleveland Museum of Natural History would be showing its Gem Fire Display through February 17, 1991. It will not be shown again for about twenty years. Clubs may make special arrangements for viewing the display.

The Advisory Committee, consisting of all Past Presidents, selected Calvin and Harriet George to be elected as Honorary Members in the Midwest Federation. They were voted in unanimously by the Council.

Holotype Chairman, Cecilia Duluk asked Clubs for their input into the feasibility of making a video program on the Midwest Fossil and Mineral Finders Honor Roll.

NEW BUSINESS:

Publicity Guidelines for delegates to use for local newspapers were available.

It was discussed about having Clubs pay the postage when they order multicopies of the Directory as this is becoming an enormous expense.

The Fall Executive Meeting will be in

(next page please)

MIDWEST CONVENTION (cont'd)

Stow, Ohio on October 27th.

Diane Dare is President-Elect for AFMS.

The Smithsonian has a new Hall of Gems and Minerals.

Earth Science Videos for Club programs was made by Neil Reeder, 638 E. Statler, Piqua, OHIO.

The two elected to the Nominating Committee for a three year term were John Washburn and Lloyd Brown. A motion was made and seconded that the ballots be destroyed.

Diane Dare extended her sincerest "Thank You" to everyone that contributed in anyway to the planning or working the Convention.

Russell Kemp expressed "Thanks" to Evansville Lapidary Society for Hosting the Convention.

Russell Kemp served as Master of Ceremonies for the Awards Banquet.

Chloetta Glassford, Evansville Lapidary Society, welcomed everyone and Mary Jo Friend gave the Invocation. Bernard Podolsky was speaker of the evening.

All American Awards were presented to: First Place - Earth Science Club; of Northern Illinois; Second Place - Lincoln Orbit Earth Science; Third Place- Calumet Gem & Mineral Society; and Fourth Place - Wisconsin Geological Society.

BILL HORTON received the Midwest First Place Trophy and Certificate for "Education Thru Sharing"; Second Place Randy Phillips of Neville Public Museum Geological Society; Third Place- Barbara Anderson of Neville Public Museum Geological Society. In the American

Federation BILL HORTON received the First Place Trophy and Barbara Anderson received Second Place.

The Midwest Scholarship Honorary Award was presented to Doris and Russell Kemp. They selected the University of Missouri at Raleigh and a AFMS grant of \$2000 for two years was presented to John Matthew Gains and David Russell Erickson. So far 261 Scholars have received grants in 27 years.

Rules Chairman, Anne Cook reported the Midwest brought home three of the National trophies. Robert Miller of Michiana Gem & Mineral Society received 100% in Carving; Mineralogical Society of Cleveland in Society Division and Anne and Bill Cook in Miniature Minerals. Trophies presented in the Midwest Federation were: Thomas White of Independence Gem & Mineral Society for Cabachons and Bernard J. Sopczak for Jewelry With or Without Stones.

Past President's Placque was presented to Glen Hanning by Ben Moulton.

The new Officers were installed by Diane Dare.

Margaret Heinek stated that the Midwest Federation has been the largest contributor to the AFMS Endowment Fund and members of the MWF have received more awards than any other federation.

Glen Hanning presented the gavel to Margaret Heinek and wished her a very successful year. The gavel was originally made by William Louie and was donated to the Executive Committee in 1961 by Earl McHenry. The gavel is made of Wyoming Jade, with a Rosewood Handle and a bronze placque engraved with "In Memory of Gus Brown".

Thus the closing of the Golden Jubilee of the Midwest Federation.

ances Bush, Delegate.

SLATE OF OFFICERS FOR 1991

President -----BILL HORTON
Secretary -----FRANCES BUSH

Vice President -----ARTHUR KALINSKI
Treasurer -----ELERY HOLT

Anyone wishing to run for Office? We don't know your thoughts. Tried calling a few of you and received no answer. We have a lot of good material out there, don't let it go to waste. If you would like to join the ranks of an officer, please send your name and the office you would like to run for. Nominations will be accepted from the floor. Please have permission from the person.

BERNARD BUSH, CHAIRMAN.

