

APRIL 1991

# THE ROCKFINDER



Margaret Heinek  
Michiana Gem & Mineral Society  
7091 E. East Park Ln.  
New Carlisle, IN 46552

**FIRST CLASS MAIL**

LARSON, JOYCE  
144 Spruce Drive  
Westville, IN 46391

Midwest Federation  
Convention  
Hosted by The Michiana Gem & Mineral Society  
August 30-Sept. 1, 1991  
South Bend, IN

MICHIANA GEM AND MINERAL SOCIETY

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Scholarship	
Display.....Mary Miller	451 S. Illinois, South Bend, IN 46619
Publicity....Dawn Cytacki	1606 East Madison St., South Bend, IN 46617
Membership...Members and Board of Directors	

The MICHIANA GEM AND MINERAL SOCIETY, a non-profit organization, is affiliated with the MIDWEST FEDERATION OF MINERALOGICAL AND GEOLOGICAL SOCIETIES and with the AMERICAN FEDERATION OF MINERALOGICAL SOCIETIES.

Regular meetings

Time: 2: PM EST	Place: Westminster Presbyterian Church
Fourth Sunday of each month	1501 W. Cleveland Road
June- Field trip meeting	South Bend, Indiana
July- No meeting	West of St. Joseph River
August- Annual club picnic	
December- Date to be announced- Christmas party	

Dues

Individual	\$ 6.50 per year
Family	10.00 per year
Junior	2.00 per year

Rockfinder Staff

Editor and Co-Editor...	
Joyce Larson	144 Spruce Drive, Westville, IN 46351
Margaret Heinek	7091 E. East Park Ln, New Carlisle
Staff.....Bob Heinek	
Club Members	

All contributions for publication should be in the hands of the editor by the 10th of each month.

Permission is hereby granted to reprint, at any time, items published in the ROCKFINDER, provided due recognition is given.

*WJ WJ*

# THE ROCKFINDER

VOLUME 31

NUMBER 4

APRIL 1991

PUBLISHED BY: MICHIANA GEM AND MINERAL SOCIETY - SOUTH BEND, IN

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### REGULAR MEETING

SUNDAY, APRIL 28, 1991

TIME: DOORS OPEN 1:30  
MEETING 2:00

PLACE: WESTMINSTER PRESBYTERIAN CHURCH  
1501 W. CLEVELAND RD.  
WEST OF THE ST. JOSEPH RIVER  
SOUTH BEND, IN

PROGRAM: WE WILL CUT OUT "VESTS".  
SLIDE PROGRAM

HOSPITALITY: Ed Miller  
Marsha Miller  
Phyllis Smallwood

### DIAMOND - BIRTHSTONE FOR APRIL

The diamond is the birthstone for April. A diamond is a pure or nearly pure form of carbon, crystallized in the isometric system, of extreme hardness. When used as a precious stone, it has great brilliancy. Only a small percentage of all diamonds are the high quality used in jewelry. The rest are industrial quality which is the life blood of manufacturing. Diamonds come in several colors; yellow, blue, green, red, black, grey, and the familiar clear colorless. A red one has been donated to the Smithsonian. Most often we think of the diamond as the brilliant white stone we see used in jewelry.

(via Fulton County Rock Hounders, 4/90)



*6-24/23  
Diamond  
Tour of  
Fairgrounds*

### COMING EVENTS

Troy, Ohio May 11 & 12  
Miami Cty. Fairgrounds  
County Road 25-A

Dearborn, MI May 17, 18 & 19  
Dearborn Civic Center  
Michigan & Greenfield

Wheaton, Illinois May 25, 26 & 27  
DuPage County Fairgrounds  
2015 W. Manchester Road

MARGARET'S COLUMN

It is time to get out your scissors, thread and sewing machines. We would like to have vests for all of our club members, so lets get things going.

I will have the material for several vests at the meeting, with patterns, so come prepared to cut them out. The material for each vest will be \$2.00.

Bob and I were called by George Fowler, son of our deceased member Cliff Fowler, to get his father's rocks for the club. We were happy to see the geodes and other rocks that will be so good for the club's auction, Kiddies wheel and others that will or could be used for door prizes. Some of the items will be used as displays at our show. Thank you George. Cliff's dues were paid for 1991 and George asked if he could be a member in his father's place. So add George's name to the roster: George Fowler, 625 N Mason, Mishawaka, IN. 46544.

Bob and I gave programs at two schools a week ago Thursday at Hudson Twp. and Olive Twp., 4th and 5th grades. We had a tape on the the Lechuguilla Cave in New Mexico, obtained from the Midwest Fed. Film Library. The youngsters seemed to really enjoy it. Too bad our club does not have a place to store a TV and a VCR.

I would like to call the member's attention to the club's fine library books and to Paul Godollei who spends much time and effort in displaying the books and repacking them after each meeting.

I just heard that happiness is the result of being too busy to be miserable. So lets get busy and plan our displays for the Aug-Sept show. WE NEED TO HAVE MANY DISPLAYS!!!!!!

Margaret



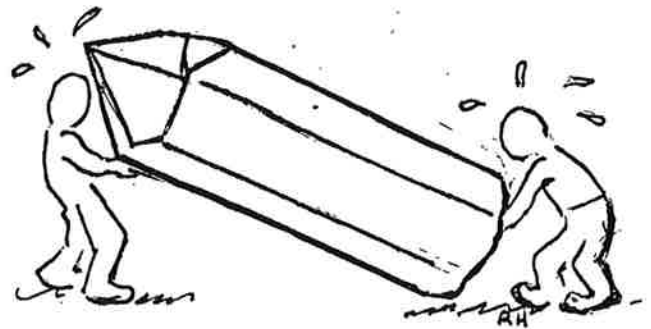
MEGA-CRYSTAL

Possibly the largest double-terminated crystal yet known was found in the African territory of Namibia recently by a Tucson, Arizona based wholesale gem business dealer.

Zee Haaz, who travels the world seeking rare gems for his business, uncovered a 17,622-pound eight-foot-long quartz crystal about 35 feet underground, surrounded by smaller crystals. He rescued the gem from quartz miners about to blow it up and moved it with a crane brought in through 50 miles of bush country. He named it "Ovombo" after a tribe in the area.

Both positive and negative charges come off each point of double-terminated crystals, so they are called generators. This one is so large that if anyone can figure out how to tap its energy, it might possibly be the most powerful crystal on earth, according to Haag.

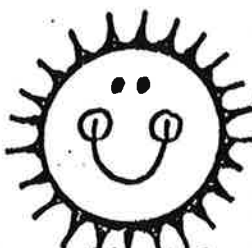
--from THE BURRO EXPRESS, via Ommi, and others



\* \* \* \* \*

Paul Revere's silver shop was not heated. So, his helpers and Apprentices all donned winter underwear in the fall and, as was the custom, wore it continuously till warm weather. Over the winter, silver dust accumulated in the fabric. So, in the spring, the heavy underwear was burned (for other reasons too) and the silver was reclaimed. From this came the term "Long John Silver". (from Osage Hills Gemsand Rock Rustler's News)

# SUNSHINE REPORT



May, June,  
July,  
August  
- WOW -  
only four months un-  
til our really **BIG**  
**SHOW**. Are we ready?



Almost!! All the main ingredients are in, now it is time to add the final touches.



I am still stressing the importance of wearing our **CLUB VESTS** at the show. We need to be identified as the host club for a wide variety of reasons. President Heinek has the pattern, the material is cheap, and new club patches will be available soon. Ask for the pattern at the April meeting.

How about your display..... have you started preparing it? Have you even thought about it? The next four months can really fly by.



Work sheets will be available at the April, May meetings and at our annual picnic in August. PLEASE be thinking about which day(s) you can work and the time(s).

Participate, this is your club, your federation and **YOUR HOBBY!!!**



Our junior membership is growing. Applause to Joyce Larson our Editor, for keeping our juniors active and involved. She has them on a very interesting project.

It is too bad Catherine McHugh couldn't be at the March meeting to see her program. Bob and I really enjoyed giving it for her. Catherine plans on attending the April meeting. It was great to see Clarence Finley and Dewey & Nina Hassler last month. Due to distance, weather, illness, or sno-birding many members have a difficult time making the winter meetings. We had a very good turnout for the March meeting. Addie & Fred Niebauer, and Marie & Bill Crull should be back from "wintering" shortly, welcome back!



I do not have any sad or bad news to share, (thank goodness).

The good news are birthdays and anniversaries.

## BIRTHDAYS

### APRIL



- 3 - Ed Miller
- 5 - Stan Kile
- 8 - Janet Landato
- 16- Jim Russell
- 21- Jim McHugh
- 28- Bill Crull
- 30- Ossie Kytta

## ANNIVERSARIES



- 12- Stuart & Katy Biek
- 16- Fred & Addie Niebauer

### BEST WISHES TO ALL

Keep Smilin'

*Kathy*

### CHANGE OF ADDRESS:

NELVIN CHESNUT  
4029 RIVER ROCK WAY  
WOODSTOCK  
GA 30188-5928

\*\*\*\*\*

Remember to bring your scissors to cut out your vests. Then take them home to sew, in time to wear at our Labor Day Week End Convention.

Be proud of being a member of the Michiana Society and wear a vest.



## MINUTES OF MEETING

March 24, 1991

Margaret Heinek, President, called the meeting to order at 2 p.m. Members who had not yet picked up their rosters were urged to do so.

There was one new member, B. J. Burkhardt, a junior. There were also four guests, Linda Stodden, the mother of junior member Derek Stodden; and Joyce Minnick with her sons Matthew and Paul.

A motion was made and seconded for the acceptance of the February minutes. It was so ordered.

Margaret announced that the Chamber of Commerce is sending out some of the literature for the next show, and that the price of postage for the Rockfinder is getting very high.

Kathy Miller reported that Catherine McHugh has suffered another set-back to her health, but that a quick improvement is hoped for. The club was also informed of the serious condition of Mary Miller's mother, who has suffered an insulin reaction.

Irene Ungurait passed around a paper asking that members sign for host and hostess duties, especially for the May meeting.

Gordon Dobecki reported that he had been to the show in Elmhurst, Illinois, and among other things had heard a good talk on faceting. Paul Godelli briefly explained a chart he had brought showing fossils he had picked up in Maryland, and referred the members to his current Rockfinder article. Paul also said that there are several new books available in the club library. Joe Fashbaugh displayed a large and perfect eurypterid fossil which he had personally collected, and explained how the collecting had been done.

Members were reminded that patterns for club vests are available to all who want them.

Margaret reported on a problem that had arisen with insurance for the next show because she was informed

that each dealer would need separate insurance. The matter has been resolved without each dealer having to be separately insured.

Notre Dame is offering free baseball tickets if the group will attend as a group; nothing was decided.

The Junior Achievement is asking for a donation -- \$25 was voted.

Correspondence from the Century Center concerned a wedding reception which might have caused a conflict, and the adjustment of prices on our agenda and our contract with them, which did not agree. Both matters have been cleared up.

Margaret showed examples of the table prizes for the awards banquet; an exquisite 2 1/2 inch doll standing in a silk flower, made by the Heineks.

Members were urged to attend the Midwest Federation luncheon and meeting April 28 at a cost of \$15.20 for two.

A leader was sought for a field trip in June; none forthcoming during the meeting.

Because a new design is needed, club pins have not been ordered. Patches will not change except for letters.

Kathy Miller, in Hungarian costume, showed the slides of Catherine McHugh's Eastern European trip which Catherine had planned to show. The members greatly enjoyed the slides, but would have loved more of Catherine's personal commentary. Everybody's favorite: the slide of Catherine chained to the rack in a torture chamber.

Sister M. Georgia  
Secretary pro tem

\*\*\*\*\*

Nothing is so contagious as enthusiasm; it moves stones, it charms brutes. Enthusiasm is the genius of sincerity and truth accomplishes no victories without it.

--Bulwer-Lytton

## The Feldspar Group

One of the most important mineral groups to yield quality gemstones is the feldspar group, and the eastern part of the United States has some of the richest deposits of gem-bearing feldspars known to exist.

The feldspars are all aluminous silicates, with the addition of potassium, sodium or calcium as essential elements. Some authorities claim it is the most important mineral group known; all the varieties taken together comprising over 60 per cent of the earth's crust.

One of the feldspars, orthoclase, crystallizes in the monoclinic system, while all others are triclinic. Otherwise, all feldspars have similar properties. All have good cleavages parallel to the base and side pinacoids, meeting at or close to ninety degrees; all have a hardness of 6, and the specific gravity ranges from 2.55 to 2.75.

The right angle cleavage is responsible for the name of the monoclinic feldspar, orthoclase, from the Greek words meaning "right" and "cleave." Orthoclase is a potassium aluminum silicate; usually white. Gem quality orthoclase shows in a play of color is known as moonstone, although properly called sanidine, and is found as phenocrysts in rhyolites and other acidic extrusive igneous rocks.

A triclinic potash feldspar with exactly the same chemical composition as orthoclase is microcline. It is difficult to distinguish between the two feldspars, since the difference in cleavage is minute, being but half a degree.

Most microcline is white but an important green variety is amazonite. Graphic granite is also microcline intergrown with quartz.

The feldspar group in which sodium or calcium are essential elements is known as plagioclase. The series ranges from pure albite where only sodium is present with the aluminum silicate, through successive stages where calcium replaces the sodium, until at the end of the series is anorthite, with calcium replacing all of the sodium.

The plagioclase series is commonly divided into six minerals with the classification based upon the ratio of the pure albite molecule (Ab) and the pure anorthite (An) molecule. Albite is the most widespread of the plagioclase feldspars, frequently occurring with orthoclase in granite, rhyolite, syenite and trachyte. It may also occur in veins, often in tubular, platy masses, and is then called clevelandite. Albite can also show a play of colors, and is then also called moonstone.

Oligoclase contains from 70 to 90 per cent Ab and from 10 to 30 per cent An, and is an essential constituent of the intermediate igneous rocks. Inclusions of hematite are present in oligoclase in some localities giving the mineral sparkle, the resulting mineral known as sunstone.

The next plagioclase, andesine, contains from 50 to 70 per cent Ab, and is so named because of its abundance in the Andes mountain range.

Labradorite, with from 50 to 70 per cent An, is the sole essential constituent of the rock anorthosite and is also abundant in other varieties of basic igneous rocks including gabbro and basalt. The cleavage faces of labradorite often show a beautiful iridescent play of colors.

The last minerals in the series are bytownite with 70 to 90 per cent An, and pure anorthite, and are relatively rare minerals. They may occur, however, in conjunction with labradorite in basic rocks.

A curious feature of many halite crystals is the hopper-like opening that penetrates the faces.

Sodalite is a member of the feldspathoid group of minerals.

Clear green crystals of kyanite are found in Yancey County, North Carolina.

The earliest recorded minerals used as gems is quartz used approximately 100,000 B.C.

Gem mining is the oldest type of mining and before the age of metals man used 18 or more stones for decorative purposes.

This was taken from a paper published in 1963

## Oatmeal and kisses

Oatmeal and kisses mean  
Mother to me

Both were a part of my  
childhood, you see.

Each morning at breakfast,  
there would be a big bowl

And Mom would say "Eat it  
— it'll keep out the cold."

Whenever the family was  
sick or got hurt

She'd kiss away the  
soreness and wash away the  
dirt.

Her kisses were tender and  
sweet on my face,

And I'd lovingly hug her as  
we shared an embrace.

Oatmeal and kisses — the  
best part of my youth

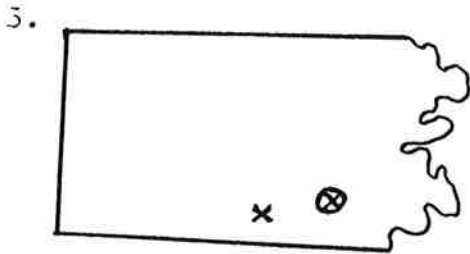
The best kind of medicine  
and that's God's sure enough  
truth.

Oh how I'd love to go  
backward in time

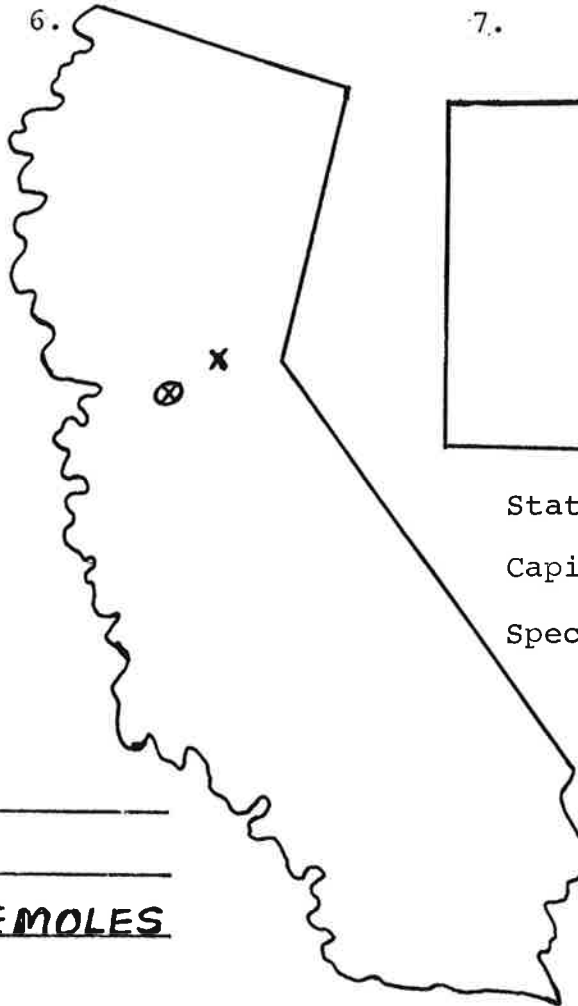
And share oatmeal and  
kisses with that mother of  
mine.

But she's up in heaven —  
probably passing a bowl

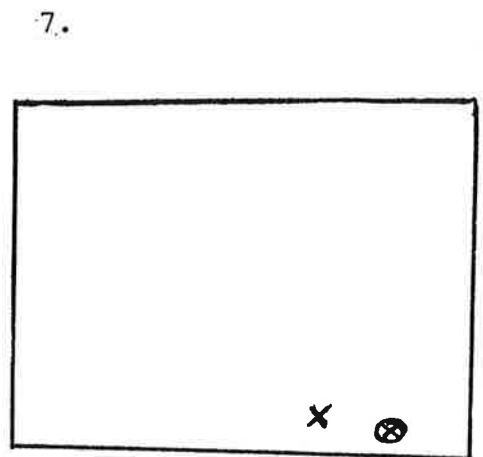
And telling an angel, "It's  
good for your soul."



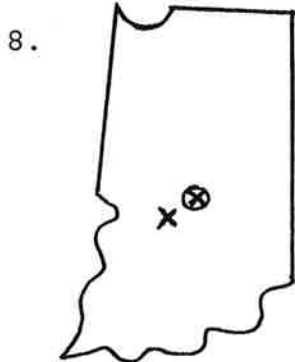
State \_\_\_\_\_  
 Capital \_\_\_\_\_  
 Specimen TALES



State \_\_\_\_\_  
 Capital \_\_\_\_\_  
 Speci- NITEMOLES  
 men



State \_\_\_\_\_  
 Capital \_\_\_\_\_  
 Specimen SNODSNEAT



State \_\_\_\_\_  
 Capital \_\_\_\_\_  
 Specimen TEENNIPERS

Juniors: It's time to get Mom and Dad involved in your collection. Have you thought about how you will display your collection? At some of the shows that I have attended, special tables were set up for the young rockhounds and they were given egg-cartons to put samples in. I thought that might be one way you might consider displaying your collection. You should be keeping track also, of the names and states these samples come from. I will bring a large box to our meeting and you might want to take a look at it to see if you would like one. The place I work uses a lot of film that is shipped in these boxes, and they'll be free to you. We just toss them out. So let me know if you would like this type of box. You can even decorate it if you want.

If it's a rock more than ten inches in diameter, it's called a BOULDER. If it's a rock less than two inches in diameter, it's called a PEBBLE. If it's a rock between two inches and ten inches, it's called a COBBLE. If you stub your toe on it, it's called SOMETHING ELSE!  
 (via The Prospector & The Pica Pick)



## Health Warning:

## ROCK DUST TOXICITY

When grinding and polishing, don't breathe the dust of rocks. Some materials are toxic. Tiger eye is not some kind of harmless agate - it's quartz with asbestos fiber inclusions.

The asbestos makes it shimmer and shine, but the airborne fibers are carcinogenic. Malachite is also poisonous as a microscopic dust particle. If you breathe it, mild to very serious respiratory problems can develop.

The most horrible story I ever heard was from the Bedford, Indiana, fossil show in June 1988. I was fascinated with the beautiful slabs of Waldron Shale from Cincinnati, Ohio. They were covered with groups of trilobites or clusters of crinoid flower top and stem. In many pieces, whole groups of crinoids were shown intertwined and arranged exactly as they fossilized hundreds of millions of years ago. The dealers who sold these specimens would sit and tell stories about fossil collecting and preparing them for sale. I sat with them and listened with much interest.

The one dealer told about an artist who got hooked on the beauty and the aesthetics of the crinoid fossil. He worked the "Dremel" tool like a sculptor, scraping, chiseling and grinding away at the Waldron Shale with a passion. He was not content just to expose the flowers and stems but also the branchlets and columns and even the "hold fast" bulb. He strived for more and more detail, allowing the stem to be completely exposed all around, only connecting it to the slab by the flower top at one end and the bulb at the other end. Stems and branchlets touching one another stood out in excellent bas-relief.

Then the final step, micro-sand-blasting for the fine detail work. Like a surgeon he worked the micro-blaster to expose and reveal more and more detail. There was only one problem - the container box that the specimen was isolated in to prevent dust from entering the environment and contaminating the air and the shield on the sandblaster prevented close examination as he worked. His compulsive personality combined with artistic license to break the rules for the sake of being creative was a deadly combination.

He was obsessed with perfection. Working without a shield made it easier and more exciting. The hundred million year old sea lilies revealed them-

selves before his eyes. By the skill of his hands he restored the delicate grace they once possessed.

He finished some fine slabs. They were purchased by museums and private collectors who were lucky enough to grab them up before he died at the young age of 25 of asphyxiation and septic shock!!

The moral? Wear a mask when you are cutting and grinding. You can never be too careful.

- Olin Banks, SFMS Safety Chairman, in Lode-star, May 1990, via Arrowhead News, Sept. 1990

## Tip: Use Mineral Oil

Mineral oil is an excellent cleaner for selenite crystals. It seems to loosen the little tiny particles left after washing in water and it brightens them too. It has several other uses: It is fine for preserving borax crystals from hydration changes; it makes varascite a deeper green, and improves the appearance of fluorites and calcites.

- Rocky Review via Pegmatite, Sept. 1990

## STROMATOLITES

Stromatolites are fossil formations that can be seen with the naked eye; that is, without magnification, and they are of ancient lineage. They are layered mounds, roughly circular in shape, laying on a base of old limestone, and are formed of this limestone, bound together by the activities of colonial cyanobacteria, more popularly known as blue-green algae.

These formations, the stromatolites, lay on some of the oldest limestones known on earth; and they were made by a blue-green algae, and are the earliest megafossils known.

And, believe it or not, in a present-day bay - the western Australian Shark Bay - where the water is so salty and predators cannot survive, the blue-green algae is still building stromatolites, just as they did two billion years ago.

An account of this is found in "Thread of Life," a Smithsonian book by Roger Lewin. The other information is found in "A Trip Through Time," by Cooper, Miller and Patterson.

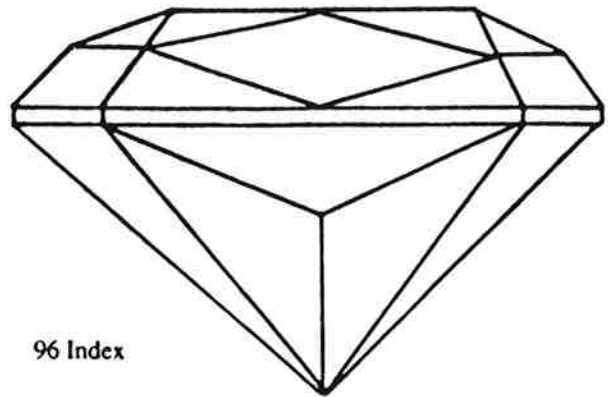
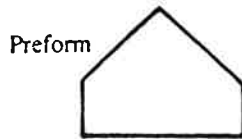
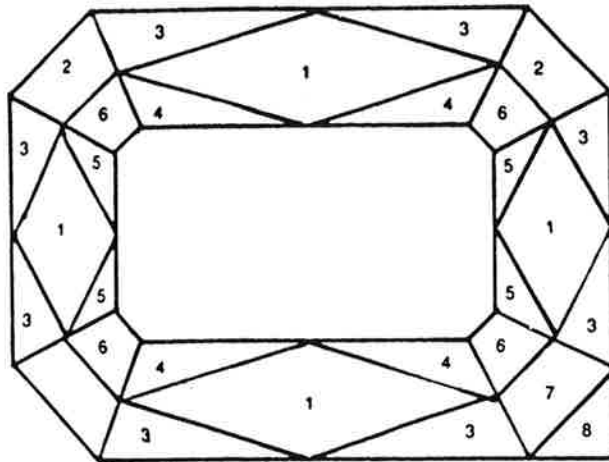
- Mineralog via Sooner  
Rockologist, Nov. 1990

Intermediate Level

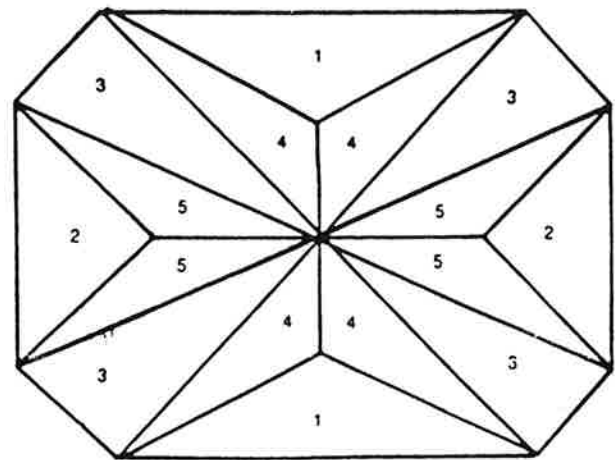
# Radiant Emerald

A brilliant departure from a popular cut.

BY SHELDON M. KORD



96 Index



Angles for synthetic materials

CROWN					
1	36	48	96	24	72
2	40	12	36	60	84 **
3	46	95	1	47	49 23 25 71 73
4	31	95	1	47	49
5	31 1/2	23	25	71	73
6	31 1/2	12	36	60	84
7	47 1/2	12	36	60	84
8	90	12	36	60	84
** Temporary cut					

PAVILION		
1	50	96 48
2	38	24 72
3	35	12 36 60 84 **
4	38 1/2	4 92 44 52
5	35	69 75 21 27
** Adjust to meet at culet		

The radiant emerald cut is a departure from the parallel facets of the popular emerald cut. The resulting brilliance of this design will, no doubt, keep it in demand. One of its key advantages is the elimination of the bow-tie effect. The point culet sets up multiple reflections much like those found in a standard round brilliant. The completed gem is both brilliant and stately.

Start by making a preform and cut it into a barn-like shape with a 45° roof. Dop the preform onto a "V" dop to cut and polish the table of the crown. After polishing the table of the crown, realign the gem against a face

plate in the transfer block. Heat and press the table against the face plate. Size the gem to the desired size and cut the sides at 90°.

Follow the order of cutting by following the chart of angles and indexes. Step 2 is a temporary cut used to center the third cut. In cutting steps 3, 4, and 5, the cheater is used to help "throw" the facets either right or left. Polish in the same order as in the cutting.

The cutting of the pavilion is not difficult. Follow the chart with a final recut, if needed, or step 3 to reach a point culet. ♦

From South Central Federation