

THE MIDWEST FACETER

2071 West Reid Road
Flint, Michigan 48507

January, 2007

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2006

MEETING JANUARY 13, Marshall, N

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FROM THE PRESIDENT

A new year of the Midwest Faceters Guild has begun and we have lots to do.

There are currently three committee chairs sitting vacant. We need someone for Education, Seminar and Show. Education consists of lining up speakers for our meetings. Seminar is the series of classes done in August at the Mott Community College. Tyler Miller has volunteered to be the legs for the person who takes on this job. I'm certain you are all familiar with the duties of the Show Chair.

Our bulletin is published five times a year. I am requesting that all officers and committee chairs contribute to each of the bulletins. The bulletin is a reflection of the Guild and as leaders of the Guild it is imperative that we let our members know what is taking place.

Our first meeting will take place on January 13. At that meeting I will be using a consent agenda. Consent agenda items come from the reports published in the bulletin. It is used to reduce the amount of time taken up with old business.

At our January 13 meeting, we will be discussing our upcoming show. The 2007 show will be at the Marshall Activity Center in Marshall, Michigan. I have toured this facility and know that you will all be very pleased with the location (right off the expressway) and the layout. Our show will also move from November to April 14 and 15, with April 13 as the set-up day. We have someone lining up vendors and another person lining up demonstrators. That's not enough to make this show happen.

We need you. That's right, you, our members, to make this show a success. We need volunteers. I am asking for two hours of your time on either Saturday or Sunday. The raffle and membership information tables will be combined into one and we will need volunteers to staff this area. Don't want to do it alone? Bring a friend. We also need volunteers to man the admission table. Once again, don't want to do it alone? Bring a friend. We are also in need to people who are willing to run errands, make certain our vendors are happy (getting them coffee, etc.).

Take that step into the unknown. Volunteer. I know you're busy. I'm busy. The show will be after Easter and because April 15 is on a Sunday, you have until Monday at 12 midnight to file your taxes. Don't want to stay overnight? Just come for a day. We need maximum participation from our members. Approximately 20 members from a group of over 100 showed up for the October meeting and look what happened. You ended up with me!

I do have a membership list and a cell phone I'm told I don't use enough. Please don't make me use them. Take some time out of your busy schedule and come to the January 13 meeting. Help make our show and the other activities we have a big success. As a membership, we should be able to accomplish great things.

Cindy Root
President

OUR January 13, 2007 MEETING LOCATION

The meeting scheduled for Saturday, January 13th will start at 11:00 am at the Marshall Activity Center, 15325 West Michigan Avenue, Marshall, Michigan. This is where we will be holding our 2007 Annual Show scheduled for April, 2007. It will give us all a chance to see our new home for our show. Afterwards, we will adjourn to the Moonraker Restaurant.

The Marshall Chamber of Commerce has a terrific website if you want to visit it before our meeting. It is

www.marshallmi.org/events

Calling all other Newsletter Editors:

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**REMINDER: PAY YOU DUES IF
YOU HAVEN'T DONE SO YET.**

Opal

From
Wikipedia, the
free
encyclopedia



General

Category	<u>Mineraloid</u>
Chemical formula	<u>Hydrated silica.</u> $\text{SiO}_2 \cdot n\text{H}_2\text{O}$

Identification

Color	White, black, red, orange, most of the full spectrum, colorless, <u>iridescent</u> . Very infrequently of a singular color
Crystal habit	Irregular veins, in masses, in nodules
Crystal system	Amorphous
Cleavage	None
Fracture	<u>Conchoidal</u> to uneven
Mohs Scale hardness	5.5 - 6.6
Luster	Vitreous to resinous
Refractive index	1.44 - 1.46
Pleochroism	None
Streak	White
Specific	2.1 - 2.3

gravity

The mineraloid **opal** is amorphous $\text{SiO}_2 \cdot n\text{H}_2\text{O}$; hydrated silicon dioxide, the water content sometimes being as high as 20% but is usually between three and ten percent. Opal ranges from colorless through white, milky blue, gray, red, yellow, green, brown and black. Common opal is truly amorphous, but *precious opal* does have a structural element. The word *opal* comes from the Sanskrit *upala*, the Greek *opallios*, and the Latin *opalus*, meaning "precious stone."

Opal is a mineraloid gel which is deposited at relatively low temperature and may occur in the fissures of almost any kind of rock, being most commonly found with limonite, sandstone, rhyolite, and basalt.

Opal is one of the mineraloids that can form or replace fossils. The resulting fossils, though not of any extra scientific interest, appeal to collectors.

Precious opal

Precious opal shows a variable interplay of internal colours and does have an internal structure. At the micro scale precious opal is composed of hexagonal or cubic closely packed silica spheres some 150 to 300 nm in diameter. These ordered silica spheres produce the internal colors by causing the interference and diffraction of light passing through the microstructure of opal (Klein and Hurlbut, 1985, p. 444). In addition, microfractures may be filled with secondary silica and form thin lamellae inside the opal during solidification. The term opalescence is commonly and erroneously used to describe this unique and beautiful phenomenon, which is correctly termed *play of color*. Contrarily, *opalescence* is correctly applied to the milky, turbid appearance of

common or *potch* opal. Potch does not show a play of color.

The veins of opal displaying the play of color are often quite thin, and this has given rise to unusual methods of preparing the stone as a gem.

An opal *doublet* is a thin layer of colorful material, backed by a black mineral, such as ironstone, basalt or obsidian. The darker backing emphasizes the play of color, and results in a more attractive display than a lighter potch. Given the texture of opals, they can be quite difficult to polish to a reasonable lustre. The *triplet* cut backs the colored material with a dark backing, and then has a cap of clear quartz (rock crystal) on top, which takes a high polish, and acts as a protective layer for the comparatively delicate opal.

Common opal

Besides the gemstone varieties that show a play of color, there are other kinds of common opal such as the milk opal, milky bluish to greenish; resin opal, honey-yellow with a resinous lustre; wood opal, caused by the replacement of the organic material in wood with opal; menilite brown or grey; hyalite, a colorless glass-clear opal sometimes called Muller's Glass; geyserite, (siliceous sinter) deposited around hot springs or geysers; and diatomite or diatomaceous earth, the accumulations of diatom shells or tests.

Other varieties of opal

Fire opal is a translucent to semi-opaque stone that is generally yellow to bright orange and sometimes nearly red and displays pleochroism at certain angles.

Peruvian opal (also called blue opal) is a semi-opaque to opaque blue-green stone found in Peru which is often cut to include the matrix in the more opaque stones. It does not display pleochroism.

Boulder opal carving of a walrus, showing flashes of colour from the exposed opal. The carving is 9 cm (3.5 inches) long.

Sources of opal

Australia produces around 97% of the world's opal. 90% is called 'light opal' or white and crystal opal. White makes up 60% and all the opal fields produce white opal; Crystal opal or pure hydrated silica makes up 30%; 8% is black and only 2% is boulder opal.

The town of Coober Pedy in South Australia is a major source of opal. Common, water, jelly, and fire opal are found mostly in Mexico and Mesoamerica. Another Australian town, Lightning Ridge in New South Wales, is the main source of black opal, opal containing a predominantly dark background (dark-gray to blue-black displaying the *play of color*).

Boulder opal is found sporadically in western Queensland, from Kynuna in the north, to Yowah and Koroit in the south.

A source of white base opal in the United States is Spencer, Idaho. A high percentage of the opal found there occurs in thin layers. As a result, most of the production goes into the making of doublets and triplets.

Synthetic opal

As well as occurring naturally, opals of all varieties have been synthesized experimentally and commercially. The discovery of the *ordered sphere* structure of precious opal led to its synthesis by Pierre Gilson in 1974 (Klein and Hurlbut, 1985, p.528). The resulting material is distinguishable from natural opal by its regularity; under magnification, the patches of colour are seen to be arranged in a "lizard skin" or "chicken wire" pattern. Synthetics are further distinguished from naturals by the former's lack of fluorescence under UV light. Synthetics are also generally lower in density and are often

highly porous; some may even stick to the tongue.

Two notable producers of synthetic opal are the companies Kyocera and Inamori of Japan. Most so-called synthetics, however, are more correctly termed *imitations*, as they contain substances not found in natural opal (e.g., plastic stabilizers). The imitation opals seen in vintage jewellery are often "Slocum Stone" consisting of laminated glass with bits of foil interspersed.

Opals in popular culture

The opal is the official gemstone of South Australia and the Commonwealth of Australia, and the country's women's national team in basketball is nicknamed *The Opals*.

Opal is the official birthstone of the month of October.

The state gem stone for Nevada is precious black opal, which is named for the true black opal found in Virgin Valley, Humboldt County, Nevada.

See also



Wikisource has original text related to this article:

EB1911:Opal

FROM: en.wikipedia.org/wiki/Opal

Notes About Our Show

During our last show several members were discussing our show location, and what we should do about moving it to another location. One location seemed to be a favorite over the other locations that entered into the conversation, and that was Marshall, Michigan.

After talking with several dealers they indicated that they would prefer a spring show rather than a late fall. They felt that most of the people had already spent most of their money on large items for Christmas, and our location that we had was not ideal due to a suppressed local economy.

On 29 November I took a day off from work and Barbara and I went to Marshall to see what was available there. We first stopped at a local eatery for breakfast, then went to the Marshall Chamber of Commerce. We explained who we were and why we were there. They were very helpful giving us a list of seven places that could possibly be what we were looking for. As it turned out only two places had the space that we would require. They were the Marshall Activity Center (MAC) and the Calhoun County Fairground. The Fairground had three Buildings that they could offer us, all were pole barns which had adequate space but had no heat or air, two of which were infested with Bats. The MAC had everything that we were looking for, and more. It was well maintained, clean, and the owners were willing to work with us to meet our needs. We had a board meeting scheduled at Marshall for December 2nd. The staff at the MAC was more than willing to allow us to have our meeting there and give us a tour of the building.

The MAC is located at Exit 36, of I69, just 2 miles South of I94

The board meeting concluded that we should: (A). Secure the MAC and place a deposit. (B). Move the show to the Spring – March or April. April 13-15 was decided to be the ideal time for our show, and (C). Join The Marshall Chamber of Commerce.

Preparations are underway to get the ball rolling for our show. Dave Root has volunteered to send out the contracts to the Dealers and Ernie Aughenbaugh has volunteered to undertake coordination for the demonstrators. Cindy Root, our new President is making up the flyer and as soon as it is ready we will have it printed and distribution will begin.

Respectfully Submitted.

Tyler Miller
Past President

Midwest Faceters Guild January Meeting

The January Meeting for the Midwest Faceters Guild will be held on January 13, 2007 in Marshall Michigan.

We will be meeting at the Marshall Activities Center (MAC) at 11 AM and will view the MAC, this will give the membership a look at our new show location. At 12 noon we will move to the Marshall Moonraker restaurant where we will have lunch and our general membership meeting and get plans in motion for our **New Show Time and Location**. Map is included, M1 is Marshall Moonraker Restaurant and M2 is the MAC.

The MAC is easy to find and is located at Exit 36 on I-69. From the North, Exit 36 (W. Michigan Ave.) Turn Right on W. Michigan Ave., Turn Right (Second Driveway into the MAC parking lot. From the South, Exit 36 on I-69. Turn left on W. Michigan Ave, cross over I-69 and turn Right at second driveway into the MAC parking lot.

It is extremely important that all members attend this meeting. Plans will be made for our upcoming show April 14 and 15, 2007.

We expect to have a full complement of dealers. David Root is working very hard to ensure that we will have enough dealers and in the right mix of merchandise available.

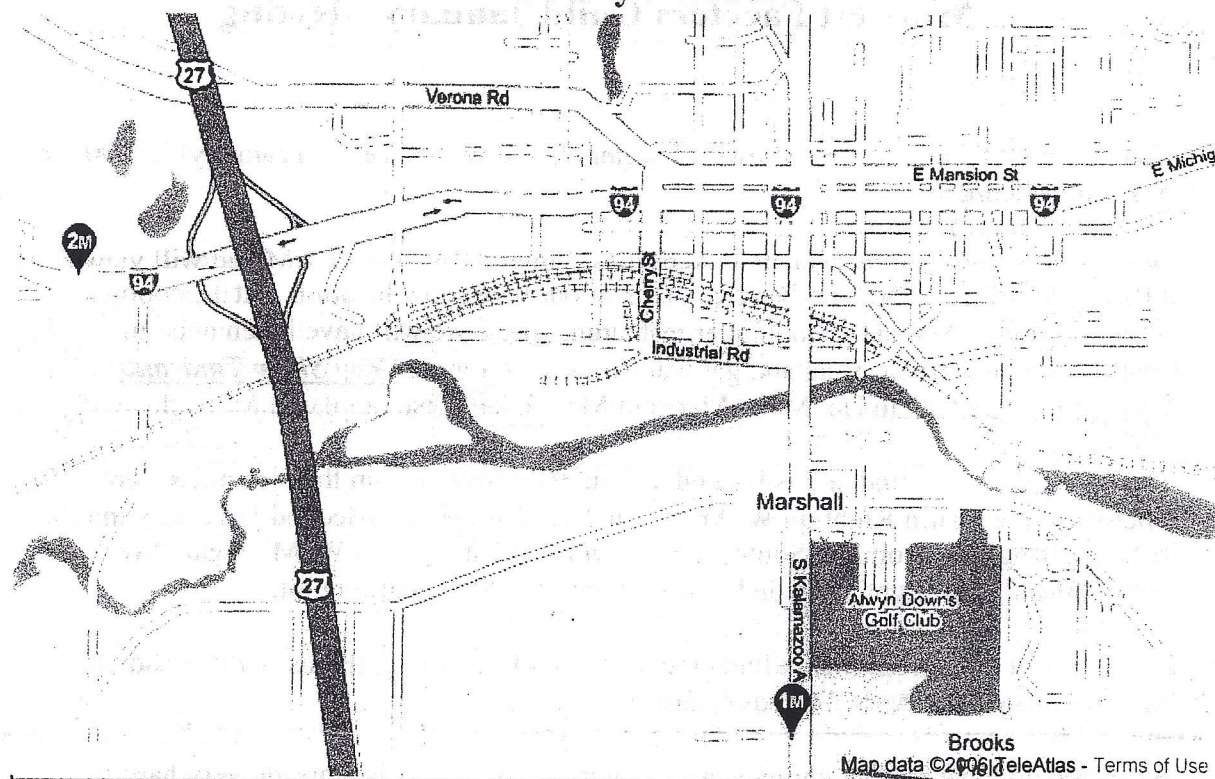
The Midwest Faceters Guild is now a member of the Marshall Michigan Chamber of Commerce. We are now on their website and our show is on their calendar.

I have attached a map showing the locations of the MAC and the Moonraker restaurant which I downloaded from the Marshall Chamber of Commerce website.

Flyers will be available at the Meeting please be sure to pick up some and distribute them in your area.

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Itinerary Builder



Marshall Area Chamber of Commerce
 424 E. Michigan Ave. · Marshall, MI 49068
 1-800-877-5163 or 269-781-5163

MAP LEGEND



Attraction



Event



Member



No Map Location

[Print Itinerary](#)

MEMBERS

Marshall Moonraker [remove](#)

Location: 11401 17 Mile Road

Contact: 269 789-0058

Marshall Activity Center [remove](#)

Location: 15325 W. Michigan Ave.

Contact: 269 781-7091

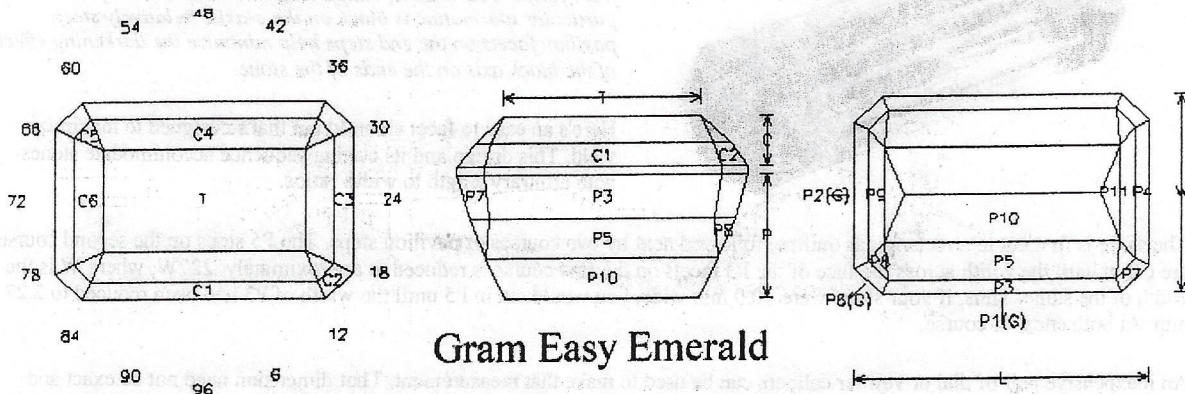
US 27 and I-69 are the same road. The I-94 signs on the map are for business I-94.

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Gram Easy Emerald by Jeff R. Graham

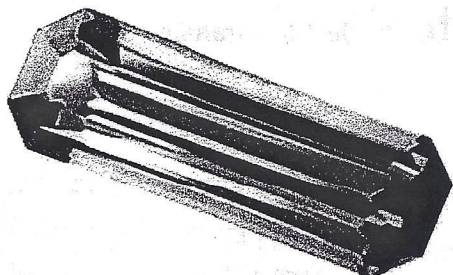


Gram Easy Emerald

Gram Easy Emerald - designed by Jeff R. Graham jeff@faceters.com ©1999	
Angles for R.I. = 1.56	37 facets + 8 facets on girdle = 45
2-fold, mirror-image symmetry	96 index
$L/W = 1.500$ $T/W = 1.020$ $T/L = 0.680$ $P/W = 0.622$	$H/W = (P+C)/W + 0.02 = 0.894$ $P/H = 0.695$ $C/H = 0.283$
$C/W = 0.253$	
$Vol./W^3 = 0.824$	Brightness at 0 degrees tilt for R.I. = 1.56 $COS = 68.4$ ISO = 75.4

Pavilion			
P1(G)	90.00	96-48	Establish width
P2(G)	90.00	24-72	Establish length
P3	72.00	96-48	Cut to equal depth, establish pavilion side girdle line
P4	72.00	24-72	Cut to meet girdle
P5	46.00	96-48	Cut until width of P3 = .227W
P6(G)	90.00	12-36-60-84	Cut through girdle, to meet P3,P5
P7	72.00	12-36-60-84	Cut to meet girdle
P8	58.50	12-36-60-84	Cut to meet P3,P5,P7
P9	68.00	24-72	Cut to meet P8,P7,P4
P10	41.00	96-48	Cut to meet P9, P8
P11	64.00	24-72	Cut to meet P10, P9, P8
Crown			
C1	52.00	96-48	Establish crown side girdle line
C2	52.00	12-36-60-84	Cut to meet girdle
C3	52.00	24-72	Cut to meet girdle
C4	42.00	96-48	Cut until width of C1 = .145W

C5	42.00	12-36-60-84	Cut to meet C4
C6	42.00	24-72	Cut to meet C5
T	0.00	Table	Cut table into meet C5



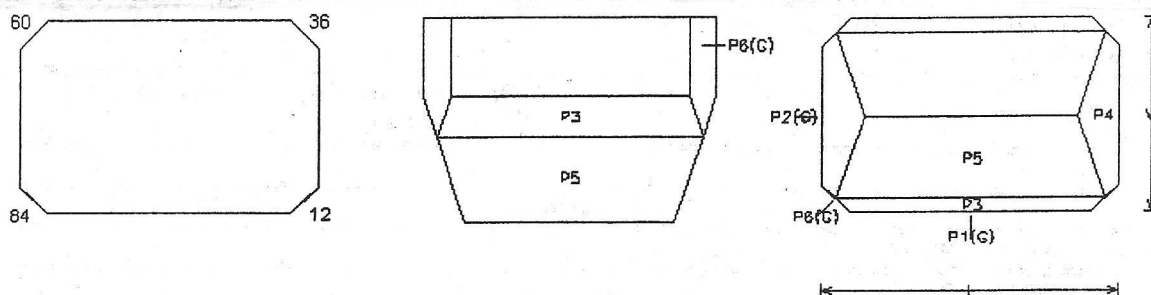
Easy Emerald - Cutting Remarks

Shown at left is an 8.8 x 25.3 mm, 13.6 carat Easy Emerald I cut from yellow Tourmaline, with a length to width ratio of 2.9:1. This particular tourmaline is black on the c-axis. Relatively steep pavilion facets on the end steps help minimize the darkening effect of the black axis on the ends of the stone.

Here's an easy to facet emerald cut that's designed to maximize yield. This design and its cutting sequence accommodate stones with arbitrary length to width ratios.

The stone is first cut to a rectangular outline, followed next by two courses of pavilion steps. The P5 steps on the second course are cut in until the width across the face of the P3 facets on the first course is reduced to approximately $.227W$, where W is the width of the stone. Thus, if your stone were 10.0 mm wide, you would cut in P5 until the width of P3 had been reduced to 2.27 mm. At both ends, of course.

An inexpensive pair of dial or vernier calipers can be used to make that measurement. That dimension need not be exact and could even be determined by calibrated eyeball, but the closer the width of P3 is to $.227W$, the closer your corners will come to matching the relative proportions shown in the three-views. The width of the corners (12,36,60,84) is established by cutting the P6(G) facets through the girdle to meetpoints at the bottom of the first step. The lower portion of P6(G) is subsequently overcut at 72° by P7, creating the pavilion girdle line on the corners.



The wider you leave P3, the wider and deeper the corners facets will be. The yellow tourmaline was cut with the width of P3 approximately equal to $.300W$. Note how its table is cut through the C4,C5,C6 meetpoints with the effect of adding embellishing bevels at the table corners and making it larger.

The pavilion ends (24,72) are relatively steep to help keep from darkening or mixing muddy colors on the c-axis and to improve yield. For darker materials you could tangent ratio the crown to reduce its depth but in most cases I would rather have the dispersion of the deeper crown.

The P3 outer pavilion facets light up when you rock the stone and the P5 and P10 inside blink on and off, giving the classic "emerald" look that I prefer.

Enjoy cutting your "Easy Emerald"... Drop me an email to let me know your results and what you've cut, or feel free to inquire if you have any questions or need some help regarding this design.