



November Presentation - The Optics of Bling



The November demo by Tim Thomas is the “Introduction to Gemstone Optics,” or “Optics of Bling,” and will cover the basic elements of gemstone optical performance. Colored gems absorb light at various wavelengths to produce

the color we see, or disperse it to produce the flashes observed in faceted diamonds. The type of light, such as indoor or outdoor lighting, as well as how the stone was cut can make a substantial difference in the beauty of the gemstone. The presentation will cover gemstone sample orientation for spectroscopic purposes,

Continued on page 3

Important Dates

- Nov. CMAG Meeting - 11/20/18
- Edmonds Arts Fest App Opens - 11/20/18
- Dec. Newsletter Deadline - 12/11/18
- Dec. Holiday Party - 12/18/18
- Winter Design Challenge Due - 3/15/19



CMAG Holiday Party and “Giving Warmth” Drive

CMAG has had a tremendously successful year and it’s time to celebrate our work and our members! We’d like to invite you to the soon-to-be-annual CMAG Holiday Party (held in place of our usual meeting that month). Many thanks to Carli Schultz for hosting this year’s event at her home at 7370 SW 140th Ave Beaverton OR 97008, from 7 pm to 9:30 on Tuesday, December 18th. Significant others are welcome to the festivities.



begins with A-M, please bring something sweet. If your last name begins with N-Z, please bring something savory. This is also a BOYB event so bring something you enjoy if you’d like to drink or share. A limited selection of non-alcoholic items will be available. We’ll also have a “Giving Warmth”

donations box for clean, new or like-new hats, mittens, gloves and coats, or brand-new socks. These will be donated to a local shelter in CMAG’s name. Participating in the drive isn’t required, of course, but we hope you can help!

Table of Contents

- October, 2018.....1
- November Presentation - The Optics of Bling.....1
- CMAG Holiday Party and “Giving Warmth” Drive.....1
- “Where Do You Get Your Stones?”.....2
- Member Questions.....3
- Cool Tricks for Your Flex Shaft.....4
- For Your Library - Must-Read Books.....5
- Guild Business.....5
- Member Benefits.....6
- CMAG, Social Media, & You!.....6
- Member Work - Barbara Covey - Seed Rings.....6
- Newsletter Information.....6
- CMAG Board of Directors.....6
- Contact Us.....6



“Where Do You Get Your Stones?”

I get asked this question frequently, by my students and customers, and the real answer is, “Wherever I can!” I’ve bought pearls in Munich, Germany, and in backwater Tennessee. Opals in New Zealand and, well, pretty much anywhere I can lay hands on them. I buy unusual cuts from small stone cutters doing private shows and, for practice or for new student work, I’ll buy bulk stones from online dealers (though the latter only after having gotten to know their work in person).

I have a few stonecutters with whom I’ve dealt for long enough that they’ll send me work on spec – I tell them what they’re looking for and they’ll either send photos for me to pick from or select a batch and ship them out to me. In the latter case, I return what doesn’t interest me and pay for what does. This usually takes building a trust with a given cutter, and not everyone will do that unless you have a storefront.

But I like to be hands-on when selecting stones, so the majority, I buy at gem shows. Be careful when attending – I recommend you set a budget and bring only that much in cash.

Also note that shows generally have a large retail area and a smaller wholesale area. If you have a tax ID you can get in to the wholesale section but plan on doing some cautious shopping – not all the wholesale deals are better than what’s in retail, and they’re often, surprisingly, worse, especially on findings and chains and the like. What the wholesale section WILL provide is a less crowded environment and more likelihood of

striking a deal with the vendor if you’re buying big. You can always haggle on prices.

In the retail section, there are often a few low-grade bulk gemstone dealers. Two of my favorites are BestInGems.com and Gems4Less.com. These vendors sell faceted and cabbed stones in small lots for very good prices. They are packaged by size, but buyers beware – they’re almost never well calibrated. They also have a lot of flaws and inclusions, so take your time and pick over the bargain bins cautiously. Even in the retail section, it’s a good idea to ask if they have wholesale pricing (quietly, so no other customers can hear).

Also, pick your shows wisely – there’s a distinct difference between Gem shows, Mineral Shows, and Bead shows. They all have a place in our industry, but some of them may disappoint if you go in thinking you’ll find something else. Gem shows tend to focus on cut stones, with some rough cut and specialty specimen mineral dealers also present. Mineral shows tend to be more of a 50/50 mix in this area, usually with a spectacular representation of raw minerals and fossils. Both of the above will have some bead vendors, usually stone beads and pearl strands, and a few findings vendors. Bead shows will have very few cut gem dealers and row upon row of strung beads as well as piecemeal beads. They will often have non-precious finding vendors in droves, too.

Shows which are listed as “Gem & Jewelry”

Continued on page 3

Quick Tips: Shopping the big shows -

- Plan plenty of time – if you rush, you may make bad choices
- Go with a budget – do not bring your credit cards if you can’t stick to one
- Go with a needs list if you have one – get those items first THEN give yourself time to play
- Review the whole space at least once before purchasing anything – you may find more than one vendor with what you want and prices vary a great deal
- Take breaks – make a day of it and go for lunch before making big purchases
- Bring a sketch pad – if it’s gorgeous, unusual and pricy but doesn’t inspire you to sketch, it may be worth passing by in favor of something that does
- Take notes about every stone you buy – name of the material, vendor, price, weight – invariably, someone will ask “what’s that stone?” when you show it and you’ll have forgotten
- Go with friends who love rocks, too - Not only can they help you choose if you’re debating, they can help you just say no (or enable you to say yes)!



spectroscopy of gemstone materials, leading to how we calculate what the expected color will be based on the standard observer CIE L*a*b* (https://en.wikipedia.org/wiki/CIELAB_color_space) procedure. Knowing the color, the approximate optical path in the gem, and the absorption cross-section for the color centers in a gem, it is possible to approximate the chemical concentration of the color centers. Also discussed are total internal reflection, pleochroism, birefringence, and dispersion, along with pretty example photos.

About the presenter:

Tim Thomas has a bachelor of science degree in mechanical engineering from Portland State University, a master of science degree in electrical engineering from the Oregon Graduate Institute of Science and Technology, and is a graduate gemologist. Tim is director of engineering for Applied Materials at the laser facility in Hillsboro, Oregon, and prior to that was the technical director for optical systems at the Gemological Institute of America (GIA).

Fun and Funky Gemstone Resource Page:

A "round cut" isn't just a "round cut" when you start looking at variations on the faceting pattern. Check out traditional and not-so-traditional cuts and their patterns at: <http://www.facetdiagrams.org/>

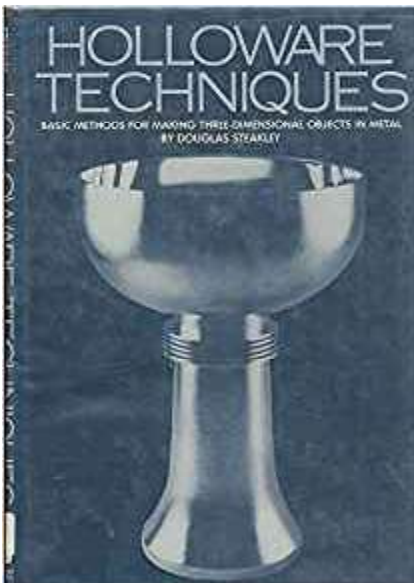
shows will often have more pre-made jewelry than stones, often much of it looking the same, from overseas manufacturers. I've had mixed luck at these, still finding good stones if I have the patience to search amongst the jewelry vendors.

The biggest "show," Tucson, AZ Gem and Mineral Show in late January, early February, is actually many shows in one. Entire sections of town have vendor areas – some wholesale only, some retail only, and some mixed. Apparently, close to 50,000 people attend the two week stretch of shows. I haven't dared go – I still need to be able to pay rent, and I know I don't have that kind of self-control!

If you've been to the Tucson shows and would like to write about the experience, or if you have a favorite local show you recommend, please email us at news@cmaguild.org.

Member Questions

Serin H asks: I'm looking for good books on raising vessels and/or hollow ware construction. I'm specifically looking for guides on hammering techniques and process. Any suggestions would be welcome, thank you!



A: John Cogswell answers: "Unfortunately, there have never been many 'Making Holloware' books. The one that comes to mind is:

Holloware Techniques by Douglas Steakley (<https://www.amazon.com/Holloware-Techniques-Douglas-Steakley/dp/0823023222>)" This book appears to be out of print, but there are used sellers on Amazon, AbeBooks, and GoodReads at a range of prices. Anyone have other recommendations for Serin?

Madeleine M. Asks: "In the UK, I used a sealant called Jade Oil to protect oxidized surfaces – not a lacquer; more like liquid Renaissance Wax. They don't sell it here and it can't be shipped. Does anyone know what an American equivalent might be?"

A: We got some suggestions at last month's meeting, but are hoping there are other ideas out there - send them in!

December - Holiday Party instead of meeting!

January - Members' Directory How-To and Photo Shoot



Cool Tricks for Your Flex Shaft

Whether you've got a Dremel or a Foredom (<http://www.foredom.net/>) or some other brand of flex shaft, there are a ton of neat shortcuts and

tricks you can do with it to speed up or clean up your work. Some of them require add-ons, which only fit certain brands, but others are easy with any of them. If you DO go with Foredom, it's worth shopping around a bit – Foredom is great about not undercutting their distributors, so distributors often have sales on that beat Foredom's prices. The company, based out of Bethel, CT, is also amazing about customer service and has dozens of videos on the use and maintenance of their products.

Sharpening pin stems:

· If you make your own pin stems, it can be a pain to hand file a precision taper but with a flex shaft, it's easy. Put your pin wire as deeply into the hand piece as you can, leaving just the end that will be sharpened, plus a little bit more sticking out. Hold the hand piece in your off hand, roughly parallel to the floor. Grip a fine or extra file in your on-hand, resting on your bench pin. (When spinning, you want the spin to rotate away from you, since the goal is to have it cut against the direction of the file.) Firmly, but not so firmly as to bend the pin wire, draw the hand piece downward (towards yourself) along the file. With a

little practice, you'll discover the slight angle changes you need to gradate your filing down to the point. Best of all, because it's spinning, it gets evenly filed and tapered all around.

Cutting precision tabs for a tab setting:

· A student of mine passed on this tip she learned in one of Anne Havel's classes, and it was a bit of a "duh!" moment for me. Anne sets a lot of her enamel work in unusual tabbed bezels, but her tabs are always so neat and exactly the same size. It turns out; she creates a paired set of separating discs with some dividers between them that make the exact width gap she's looking for. She can then repeat the same sized cut over and over again. Not only that, but if you use the first cut as a guide for the second cut, and the second for the third, etc., you get a neatly serrated bezel wall all the way around. We're hoping to have Anne out for her torch-fire enameling class in September of 2020, so keep an eye out next year.

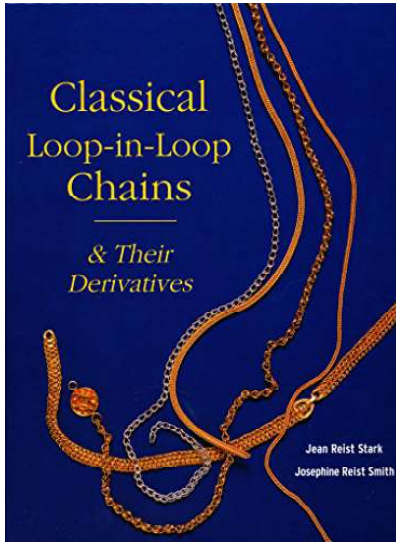
Foredom as a Drill Press:

· This one requires the purchase of Foredom's drill press add-on (this will also work with SOME, but not all, other flex shaft hand pieces - <https://www.foredom.net/pdp30drillpress.aspx>). It's designed for the H30 (most common) and H44 series hand pieces. Your hand piece gets slid into the device from above, using two small bolts that use an unusually sized hex wrench (so don't lose it – it's a pain to replace). You can adjust the platform (I use a small piece of

wood on top of the platform as well), and you can adjust the depth with the pair of nuts that are on the outer rod of the device – letting you repeat consistent holes. You use your usual foot pedal control and draw the handle downward at the appropriate speed and pressure for the type of bit you're using. Some tips: Remember to insert your hand piece with the chuck key gap facing outward, in case you want to change bits easily. Also, use either a Burr Life or wintergreen oil to keep your bits lubed when drilling.

Flex shaft as a Wax Lathe:

· Kate Wolf has designed a number of amazing tools that focus on improving your wax carving and lathe work. One of the best is an extension for the GRS Benchmate, which is the "Wolf Flex Shaft Adapter Collar for GRS" (<https://www.riogrande.com/product/wolf-flex-shaft-adapter-collar-for-grs/700897>). This, combined with the Matt Rod-Centering Tool (<https://www.riogrande.com/product/MattRodCenteringTool/700031>) and the associated steel collets let you set up solid wax rods for turning and detailing (not surprisingly, this is easiest with Kate's Carving Tools (<https://www.riogrande.com/product/wolf-wax-carving-tools-set-of-18/700321>)). If you want to up your wax working game, Kate is also an amazing instructor. While we may not be able to get her to Portland, she often teaches at Rio Grande's facilities...and you can't beat a nice sunny Albuquerque getaway in the doldrums of winter.



If you're looking to add a classical element to your work and haven't tried making your own loop-in-loop chains yet, or if you've made some basic single and double loop-in-loops and want to get fancier, "Classical Loop-in-Loop Chains & Their Derivatives" by Jean Reist Stark and Josephine Reist Smith (Brynmorgen Press) is a great find. (<https://www.amazon.com/dp/B00KYXVTD0/ref=dp-kindle-redirect?encoding=UTF8&btkr=1>)

The book starts out with an introduction to making the base links required for such work – and honestly, making the links is the part that usually makes people fling their work across the room in frustration, so if you can get that down, the actual construction of the chains becomes somewhat meditative. They go into variations in technique for fine silver vs gold (most loop-in-loop work is done with fused links, because solder is often a hard spot in the loop that creates a bend or break point as they're joined together). This means you can use argentium, fine silver, or high karat gold, but sterling silver isn't advised.

After making the links, one of the hardest parts about loop-in-loop is the first few links. Everything seems to want to fall apart on you. Once you get a few "rows" in, it becomes much easier. The authors make sure there are nice, crisp drawings of those early links in each phase of connection. It behooves you to work a little larger on your first one or two projects so you can see that your links really do look like the pictures.

The book also includes sections about clasps, transitions (beads, etc.), and finishing your work and then goes on to detail a 30 different variations on single loop-in-loop, pinched loop, double, multidirectional, soldered, and woven variants. Interspersed are tips on how to do split/multi-threaded chains and size-progression chain.

If you're really struggling with your first few chains, it may be easier to take a class and see (and do) some hands-on work with someone else helping you. If you do, you'll get back to the book and realize "oh, NOW I get it!" and be able to pick up some additional variants quite readily. Jean Stark also sells a DVD that goes through the material (<http://www.jeanstark.com/dvd.html>) if you want extra help. Happy linking!



General Meeting (Monthly)

When: General CMAG member meetings are held the third Tuesday of each month, except December. Doors open at 6:45 pm, meetings begin at 7:15 pm, and adjourn by 9:15 pm.

Where: Room 30 at the Multnomah Arts Center, 7688 SW Capitol Highway Portland 97219.

What: Meetings consist of a general business and a short break with refreshments, followed by a program which may be a demonstration of a technique or tool, a slide presentation, a panel discussion, or other presentation of interest to CMAG members. The CMAG Library is open before the meeting and during the break for checking out books and magazines.

Who: Meetings are open to CMAG members and their guests.

Board Meeting

Board meetings are generally held prior to the General Meeting at 5:30 pm in Room 30 at the MAC (same room as the regular meeting). Members are encouraged to attend and contribute.



Member Benefits



For your bench. At your side.

RioGrande has determined that our classes, workshops, and demos qualify us for their "Rio 4 Schools" program, so if you come to a class or Tuesday demo, you can get a discount that will bump you up from standard pricing to Tier 1 (this won't do much for you if you're already a Rio Pro member, but may help on occasional small items).

Member Work - Barbara Covey - Seed Rings



CMAG, Social Media, & You!

CMAG is now on Instagram

To better promote our shows, workshops and members, CMAG now has an Instagram account. Follow us at <http://www.instagram.com/creativemetalartsguild> and if you would like to be featured, please send your image with a caption to news@cmaguild.org.

Did you know CMAG has a Facebook page? Check us out and Like us at:

Public Page: <https://www.facebook.com/CreativeMetalArtsGuild/>

Members Only Page: <https://www.facebook.com/groups/278905265453288/>

Gathering of the Guilds/CMAG Spring Show Page: <https://www.facebook.com/gatheringoftheguilds/>

CMAG Board of Directors

Rachel Morris, President
Kathleen Baker, Vice President
Marsha Sandman, Member-at-Large
Barbara Covey, Treasurer
Madeleine Moore, Secretary
Tai Vautier, Spring Show
Sharon Smith, Programs
Bob Woods, Webmaster
Terry Williams Brau, Librarian
Marcy Swanson, Refreshments



Contact Us

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Web: <http://cmaguild.org>

Newsletter Information

We're looking for news about you! Your shows, gallery openings, event reviews, workshops you've attended or upcoming classes you recommend, even photos of new works are all welcome. Include body text in an email and attach photos (ideally JPEG format) where available. Submit to: news@cmaguild.org

Upcoming Deadlines (the second Tuesday of each month):

- November Issue: 11/13/18
- December Issue: 12/11/18