The Southeast Federation of Mineralogical Societies, Inc.

July/August 2004

WILDACRES LAPIDARY SCHOOL OPENINGS August and September 2004

Wildacres is a beautiful mountaintop resort just off the Blue Ridge Parkway near Little Switzerland, North Carolina. This resort is subsidized by the Blumenthal Foundation to provide a retreat for the arts and humanities. The Southeast Federation of Mineralogical Societies has a contract to have 3 weeks each year to offer lapidary courses to its members. Where can you get 6 days of room, board, expert instruction and a variety of fun activities for only \$260?

A few classes are full, but there are still numerous openings to attend Wildacres classes in August or September. The sooner your application is received the better the chance for you to get in the class you want.

In the August 23 to 29, 2004 sessions, we have openings in Beading and Design, Beginning Chainmaking, Intermediate Faceting, Gem Appreciation, Glass Bead Making, Lost Wax Casting, Beginning Precious Metal Clay, Raku Pottery and Intermediate Wirecraft. In the September 13 to 19, 2004 sessions, we have openings in Lost Wax Casting, Faceting and Intarsia, Gem Appreciation, Precious Metal Clay, Level 2, Raku Pottery, Seed Beading, Advanced Silversmithing, Beginning Silversmithing, and Stained Glass.

Information and applications can be found in this issue of the <u>Lodestar</u> or at the web site: <u>www.amfed.org/sfms</u> You may also contact us at <u>wwetzel@earthlink.net</u> or at 864.306.6749.

Thank you, Bill and Kerri Wetzel, Wildacres Registrars



CORRECTIONS TO THE 2004 SFMS DIRECTORY

Table of Contents, Column 2, under Mississippi: The Gulf Coast Gem & Mineral Society should be listed as "MS Gulf Coast Gem & Mineral Society" instead of MI.

Page 1, SFMS Officers, 2nd Vice President: Ann Monroe's zip code should be

30582 instead of the listed 30282.

Page 6: Editor of the Mobile Rock & Gem Society is now Jennifer Thorman-Stuckey, 8323 Old Rice Road, Eight Mile, AL 36613.

Page 9: There is a new Club which was the result of a merger between two existing clubs. The new club is "The Imperial Bone Valley, Gem, Mineral & Fossil Club". The Imperial Polk County Club no longer exists under that name. For those of you who are on the application mailing list, a copy of the SFMS club application will be dispatched via regular mail.

Page 20: The new editor of The Mississippi Gem & Mineral Society is: James Monk, 301 West Northside Drive, Apt. 316, Clinton, MS 39056.

from Leo Morris, SFMS Membership Secretary and various submittals to the editor

Rock Collecting Essentials



What makes up a simple collecting kit? A good start would be a geologist's hammer, heavy cloth or leather



gloves, chisel, magnifying loop or glass, pocket knife (to check hardness), newspaper (to wrap samples), and a heavy army surplus pack.



Do not forget a pad and pencil to record information on your samples since information like collecting location is sometimes very important to identification. A canteen is also a good idea since you are usually out a long time, away from your vehicle.

from "Paul's Pickin's" in <u>SCFMS Newsletter</u> (3-4/04)

SFMS CONSTITUTION AND BYLAWS

Some have been approved and some rejected and some have been withdrawn. It is still, however, in need of improvement. I hope to provide a quick summary of this process. The Executive Board or any club or society in good standing may submit a proposal. It must be in the exact form (word for word) that it is to appear in the document. For instance: The section to be revised must be in the exact words that now appear in the document and the new version exactly as it is desired to be included in the revised version. Or in the case of a new item, it must state the Article and Section where it is to be added. Included with any proposal must be the reason it is submitted. It must be in the hands of the Constitution and Bylaws committee at least 60 days before the Annual Meeting. The Constitution and Bylaws committee then reviews the proposal and works with the proposer to help determine if it violates or contradicts some other part of the document. The committee then has the final version printed in the Lodestar and submitted to the President and Secretary for placing on the Annual Meeting agenda. If approved it becomes valid immediately and is included in the document as soon as practical. The Constitution and Bylaws as it now exists may be viewed on our web page:

http://www.amfed.org/sfms/constitution-bylaws.html then click on Adobe Acrobat PDF.

I can be reached by e-mail:

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Submitted 6-27-04 by Red Walker C&BL Chair

ADVENTURES IN SILVER CASTING AT THE WILLIAM HOLLAND LAPIDARY SCHOOL

by Constance Barrow, Keysville, GA. Augusta (Georgia) Gem and Mineral Society

Thanks to the Augusta Gem and Mineral Society's scholarship program, I recently attended William Holland School of Lapidary Arts in Young Harris, Georgia. The class I chose was lost wax casting. For those readers who have not had "the William Holland experience" - I must first heartily recommend it.

At first, you may be surprised by the rather sparse accommodations. The facilities are dorm-like with no television, radio, clocks, or other distractions allowing plenty of time to talk, reflect, play board games, work on puzzles, and enjoy the view of the mountains. If you think you would be bored without an electronic babysitter, though, think again. With classes running from 9:00 in the morning until 5:00 P.M., an auction night, a tailgate selling night, rock hound stories to listen to on the porch, and a "Show and Tell" night; there is plenty to do to keep you busy.

The food is good and plentiful, served cafeteria style with special attention to dietary requirements.

The teacher, John Iacullo, came from Snellville, Georgia, to teach this class. Like all the instructors at William Holland, John came to share his love of lapidary work without any financial compensation. When we arrived at the orientation on Sunday evening, John had already dragged in and set up all of the equipment we needed to make our castings.



Instructor John lacullo mixing investment for the class. (Photograph by Constance Barrow.)

THE ABC's of Lost Wax Casting

For those of you unfamiliar with the process of lost wax casting, I would like to review the process and share with you what I have learned. For those of you familiar with casting, I have also included several tips which may be helpful.

First, before taking casting class, consider taking a class in beginning silver. Although not required, casting requires a basic knowledge of how to cut and polish metal pieces and it is a little difficult to figure these processes out on your own. John was a wonderful and patient teacher and did help in these areas, but ignorance of basic benchwork slows the class down and diverts the teacher's attention from the task at hand.

Casting pieces of metal from wax requires specific equipment and supplies not found in the average home. These items include a vacuum pump, a kiln, a special type of plaster called "investment" and two types of wax.

The first piece of jewelry you will probably cast is a premade wax form. Available from the instructor and



Flask bases, wax models and cast pendant with metal "button" and sprue still attached. (Photograph by Constance Barrow.)

commercial catalogs, these detailed pieces allow you to learn how to attach a piece of wax called a sprue. The sprue wax melts at a lower temperature than the model and serves as the pipeline for the molten metal.

Tips: Sprues should be smooth and attached where they will cause the least damage. It is important to have a sufficient number of sprues to get metal to all parts of the model quickly. Don't forget to weigh your work at this time and make a note, it is vital in calculating the amount of metal you will need later.

After connecting the sprue to the model, the wax is attached to base and fitted with a water-tight section of pipe called a flask. A mix of plaster-like material is poured over the wax model. Both the mix and the investment covered piece must be subjected to a vacuum to remove air bubbles which can disfigure the finished piece.

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ADVENTURES IN SILVER CASTING

(Continued from page 6)

Tips: The investment should have the consistency of pancake batter. During the vacuum process t h e investment should be rocked on the platform to release trapped bubbles. Don't forget to label each flask as you make them - a ring and a pendant look when the same covered investment.

The flasks are dried and then heated in a kiln for several hours. John, our instructor, got up at 3 A.M. in the morning to insure that our



Applying a vacuum to a flask with investment and wax model with sprue. (Photograph by Constance Barrow.)

molds would be ready. It is hard to imagine that kind of dedication from a person who is paid nothing (not even travel expenses) anywhere but at William Holland!

In the kiln, the bases are removed and the wax flows out creating a mold for the metal. Using the correct wax is important because the sprue wax melts first, allowing the other wax to flow out freely where it is eventually vaporized by the intense heat.

While the molds are still warm, bits of metal are heated in a crucible with a torch. The molten metal (with a pinch of flux) is poured into the mold which is atop a vacuum



Heating metal in a crucible with a blow torch. (Photograph by Constance Barrow.)

pump. The investment is porous enough to allow the vacuum to pull the metal inside. Using the weight of the wax model and multiplying by the specific gravity of the metal, you can calculate the amount that needs to be melted.

Tips: Garage sales are excellent sources for silver and gold. Look for broken chains and precious metals mixed in with "junk" jewelry.

After the metal has cooled a bit, the flask is dunked in a bucket of water. The dramatic difference in temperature causes the investment to shatter (hopefully), destroying the mold, and dropping the cast piece to the bottom of the bucket with a satisfying "clunk". If allowed to cool too long, the investment must be scraped away from the cast piece. Either way, the wax model and the mold are destroyed by this process and are "lost." This creates a one-of-a-kind casting, which is why the process is called "lost wax."

Finally, the sprue and the "button" (the blob of metal left on top from pouring) are cut off. The sprue cuts are smoothed and the "masterpiece" is cleaned and polished.

Tips: Mark crucibles and cleaning solutions for gold or silver to avoid cross-contamination. Take only one flask out of the kiln at a time and use a timer to let it cool only a few minutes. When in doubt, melt more metal than you think you will need. It is better to have too much rather than not enough.

Learning to cast metal was a fun and educational experience. One last thing I did learn is that no matter how much you plan, sometimes the pieces will still not come out right. "That is why they call it investment," John had quipped when asked about the plaster-like molding material. "Just like investments with money, sometimes you win and sometimes you loose it all." One thing is for sure, taking classes like casting at William Holland School of Lapidary Arts is a great "investment" of your time!

Rockhound's Poem

by Adin Van Wine

Climbing over rocks and crags, Putting rocks in pockets and bags, Walking in mud, 'Til each foot weighs a ton, Getting wet and calling it fun.

Hiking miles through brush and vines, To hunt the dumps of abandoned mines.

Looking in holes and gravel pits,
Cracking big rocks into little bits,
Doing all this may take some guts,
But, these are the reasons
They call us nuts!!
from the Rock Rollers Club, Inc. via The Tektite (2/04)
and Rocky Mountain Federation News (3/04)

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The Southeast Federation of Mineralogical Societies, Inc.

July/August 2004

SFMS 2004 Wildacres Workshop at Wildacres Retreat, Little Switzerland, NC

2004 Workshop Dates

April......Monday, April 19 to Sunday, April 25, 2004 August....Monday, August 23 to Sunday, August 29, 2004 September.....Monday, Sept. 13 to Sunday, Sept. 19, 2004

Wildacres Retreat is a conference center dedicated in 1946 by I.D. Blumenthal and Madolyn Blumenthal of Charlotte, NC, to the improvement of human relations. It is situated on 1400 acres at an elevation of 3,300 feet atop a mountain called Pompey's Knob. It is in Little Switzerland, approximately half way between Asheville and Blowing Rock, NC just off the Blue Ridge Parkway.

There are two lodges, a dining hall, where meals are served family style, a library/auditorium building, mineral and lapidary shops plus a pottery studio.

Fees

Lodge Accommodations: \$260 per person, including meals. **Day Students:** \$115 per person, no meals are included.

Registration Procedures

Applications from members of SFMS clubs will be accepted first; however, members of other AFMS clubs may apply and will be scheduled following SFMS applicants.

Applications for the April session will be accepted beginning on February 16, 2004, and on May 3, 2004 for the August and September sessions. The postmark date on or after these dates determines the order of acceptance. First-time attendees have an extra priority.

Students under age 18 are welcome, but they must be accompanied by a responsible adult and must be approved by the workshop director and instructor.

Reservation Deposit

A deposit of 50% of the registration fee must accompany all applications. The full amount may be remitted with the application if the applicant wishes. (It is easier for the Registrar.) The balance is due 4 weeks before the workshop begins. No reminders will be sent.

Cancellation Policy

There is a \$25 nonrefundable charge to cover administrative costs. An additional \$25 charge will be assessed for cancellations made less than 4 weeks before a session begins. No refund will be returned for cancellations by the student within 7 days of the start of a session.

*Note: Advanced courses with prerequisites are designated with an asterisk in the course listing to the right.

Workshop Directors

Jerry and Deborah Miller 805 Roanoke Dr, Cary, NC 27513 Phone: 919-467-6613 Email: <u>jerry.miller@e-hps.com</u>

Workshop Registrars

Kerri and Bill Wetzel 5010 Sunset Drive, Easley, SC 29642 Phone: 864-306-6749 Email: wwetzel@earthlink.net

Session 1: April 19-25, 2004

| Cabochons | Gerald Burnham |
|------------------------------------|------------------------|
| Beginning Faceting and Intarsia | Tom Wilkie |
| Glass Bead Making | Marilyn Jobe |
| *Gold Fabrication | Dan Haga |
| Precious Metal Clay (1 & 2) | Ken and Mary Ann Devos |
| Raku Pottery | Sarah House |
| Seed Beading | Jo Harrison |
| Silversmithing, beginning | Allen Jewell |
| Wirecraft, beginning | Lisa Roberts |

Session 2: August 23-29, 2004

| Beading and Design, traditional | Addy DePietro |
|---------------------------------|------------------------|
| Chainmaking, beginning | Carole Boyle |
| *Faceting, intermediate | Ken Reed |
| Gem Appreciation | Ben Smith |
| Glass Bead Making | Marilyn Jobe |
| Lost-Wax Casting, beginning | Fred Sias |
| *Metalsmithing, advanced | Jeff Sheer |
| Opal cutting | Joe DePietro |
| Precious Metal Clay, beginning | Ken and Mary Ann Devos |
| Raku Pottery | Cindy McDowell |
| *Wirecraft, intermediate | Betty Baxter |

Session 3: September 13-19, 2004

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|--------------------------------|------------------------|
| Lost-wax Casting | John Iacullo |
| Faceting and Intarsia | Tom Wilke |
| Seed Beading | Kathy Morris |
| Gem Appreciation | Ben Smith |
| Opal cutting | Sara Lee Boyce |
| *Precious Metal Clay (Level 2) | Ken and Mary Ann Devos |
| Raku Pottery | Cindy McDowell |
| *Silversmithing, advanced | Dan Haga |
| Silversmithing, beginning | Cathy Cawthorne |
| Wirecraft, beginning | Lisa Roberts |
| Stained Glass | Julia Larson |