

This might stir some pleasant memories of our MSSC activities around Sept 1996!

WORKSHOP of the Microscopical Society of Southern California

**By: George G. Vitt, Jr., President,
Date: Saturday, 7 September 1996**

Location: Steve Craig's Lab, 28 persons attended.

This was **The Most Memorable Workshop** to date not only because **there were more people in attendance than at ANY previous workshop**, but also because of the excellent, interesting and instructive program and the refreshing new spirit of Renaissance that pervaded the group and every individual. The enthusiasm and optimism was universal and instantly apparent.

The workshop began promptly at 09:00 and was divided into four parts: 1. Round-table comments and Show & Tell; 2. Demonstration of the separation, cleaning, segregation and mounting of microfossils; 3. Video microscopy demonstration; 4. Items offered for sale.

Comments and Show & Tell:

Steve Craig, our Workshop Chairman, welcomed Donna Crandall and John de Haas, both of whom had not attended for quite some time. There was a rousing round of applause. Steve reported that both he and Tom McCormick (who is familiar with vacuum systems) had worked on the SEM at the Crossroads School, where we now hold our monthly meetings. Steve said that Mr. Joseph Wise, one of the professors at the School, welcomes our group with open arms and would like to see our activities integrated with those of the school, assuring us that we will have a meeting place in one of the large classrooms. Of great benefit will be the School's stock of scientific equipment and their fine library to which we will have access. Our books, which had heretofore been 'sitting around', will now have a special place in this library, and available to us at any time. From all indications, we will have an exciting future in our synergistic relationship with the Crossroads School where our meetings will be held as usual. Students from the School will participate and will, undoubtedly, join our group.

John de Haas, a former member who has not been in attendance for several years, attended this workshop. He volunteered to give a Workshop on microtechnique, microtomy, and staining (for which he has all the necessary dyes). As freebies, John generously brought many plastic pipettes and boxed glass microslides. John brought a Zeiss refractometer and gave a demonstration of its use in determining the refractive index of mounting media. He also displayed several excellent oil paintings of his (European landscapes and a fine owl) - a talent that had remained dormant for some years and which he has revived recently.

Gary Legel had a variety of photographic equipment for sale.

Leo Milan displayed a rare orchid that he had collected in Mexico, a species that grows only near waterfalls, and which he had finally learned how to grow. Leo videotaped the Workshop with his camcorder.

Donna Crandall, our superlative artist of natural history subjects, has been working with the UCLA Media Department which, she reports, is now all-electronic, with images available off the network.

Larry Albright showed a rough draft he had composed of a possible newsletter format, which would contain want ads, buy and sell, and other features which should be especially useful to corresponding members.

Gaylord Moss, our new Editor, reported that he had put together several articles that had been submitted by members. This he did with his Power PC, scanner, laser printer, and the PageMaker program. He displayed a sample page of Jim Solliday's article on Adie, the Scottish instrument maker, photos being scanned in at 600 dpi. He proposed a monthly 'Member Spotlight' feature, which would give a brief biography and interests of a particular member. Gaylord urges everyone to contact him with their ideas for presentations, papers, etc. He proposes that the membership list include a code for each member that will identify his particular interests. The bulletins will have sequentially numbered pages for easy access to articles through reference to the annual index. The pages will be pre-punched for binding. He reported also that we are in the process of establishing a WEB page on the Internet, and an e-mail address. In conclusion, Gaylord said that all this, in addition to the synergy with the young science students at the Crossroads School, offers us some very exciting prospects!

Ed Jones brought all the material and equipment needed for the presentation he put on with Jim Solliday on the preparation of microfossils - the subject of this Workshop's hands-on program. Ed had collected the Eocene period microfossils (which were in their sand-like matrix). He had prepared especially for the workshop a large number of carefully labeled plastic 35mm film containers filled with microfossils that he had collected at Rincon Hill, Ventura County, CA, and at Kalapaki on the island of Kauai. The Rincon samples are from the Lower Pleistocene period (about 1,000,000 years old). There were more than enough canisters for each attendee. For preparing a thin-film transparent adhesive for mounting the microfossils on microslides, Ed brought powdered Ghatti Gum, which is equivalent to Gum Tragacanth, but which dissolves much more quickly. This gum he had also pre-packaged in 35mm film canisters. For his demonstration, Ed brought a set of small, circular, nestable micro-sieves for separating the microfossils according to specific ranges of size. He also displayed two excellent books: Introduction to Microfossils by D.H. Jones, Harper Bros., and Foraminifera by J.A. Cushman, Harvard Univ. Press.

Jim Clark who came to the workshop all the way from near San Diego, brought two modern biological microscopes for sale and displayed the book Closeup Photography by

Lefkowitz - a fine book recommended for its complete coverage of this wide-ranging subject.

Ken Gregory brought, as freebies, 4"x6" glass plates with 'ovals', which are used for blood typing.

Jim Solliday, in addition to being a co-lecturer with Ed Jones on the microfossil preparation presentation, had prepared especially for this Workshop, a 5-page manual Mounting of Fossil Material from Rincon Hill, Ventura County, Calif. - Also Material from Kalapaki, Kauai. In this excellent and very useful manual, the first page was devoted to instructions for Cleaning, Separation, and Mounting. The other four pages contained precisely 100 excellent black-and-white illustrations of Foraminifera, Coelenterata, Porifera, Bryozoa, and Brachiopoda. This manual is to be used for identification of specimens. It will be duplicated and distributed to the membership, in the very near future, as part of our Bulletin.

Stuart Warter exhibited several excellent books and showed a most remarkable sample of Foraminifera, of the Oligocene period, the likes of which no one present had ever seen! Each 'critter' was the size of a 50-cent piece, having grown to this size in a tight spiral pattern! Stuart had collected this sample of many LEPIDOCYCLINA MANTELLI, which covered the surface of a 12" square piece of limestone, at Marianna Limestone, St. Stephens Quarry, Alabama. In addition, Stu displayed a beautifully designed and constructed, cased, brass folding microscope by Reichert, Vienna. We hope to have a write-up on this excellent piece in a forthcoming publication.

Terry James brought his 6-year old grandson, Cameron James to the Workshop. It is Terry's purpose to instill an interest in microscopy in this bright youngster.

Dave Hirsch commented that this is the LARGEST WORKSHOP that we have ever had. He reported that publication of the bulletin for the previous 12 months had been in excess of \$2K, and that we can save some 70% by our proposed new way of publishing.

Frank Barta circulated a most useful catalog of A&A Jewelry Supply Co., 6th Street & Broadway, L.A. This large catalog contains every conceivable tool and material of utility to both jewelers and microscopists. It is much more extensive than that published by Bourget Bros. of Santa Monica, CA.

Ron Morris brought for sale a cased, mint Olympus PM-6 photomicrographic camera. Ron is to be highly commended on the effort he had expended in bringing his superb (and massive) Wild Stereo Zoom Microscope with video camera and large color monitor, along with hundreds of pristine (unscratched) samples of silicon integrated circuit microchips of various kinds for inspection at the Workshop and as freebies which he distributed to those present. For this viewing, Ron had arranged his Wild for EPI incident illumination.

Richard Jefts showed and described his method of preparing grid labels on which to

mount opaque microsamples. He did this with beautifully prepared large display board showing a variety of label formats (black-on-white or white-on-black) and mounted specimen types (15 types of gunpowder, etc.). Richard said that excellent opaque specimen slides might be available from PMS (Postal Microscopy Society) British member, Mr. Darnton.

Jim Solliday and Stuart Warter displayed a special slide holder for opaque specimens. The device completely encloses the specimens between two glass slides (with a card stock apertured separator), the sandwich sliding into a channel made of thin aluminum sheet. Ed Jones stated that this item is no longer manufactured because of the severe downturn in oil exploration effort in the USA, a major consumer of these items, where an analysis of foraminifera content in core samples points the way to oil deposits. Jim stated that we might have a workshop on diatom mounting.

IMPORTANT NOTE: Jim also said that the planned visit of KLAUS KEMP is definitely ON and that everything is ON TRACK for the 3rd Wednesday of November, 7pm, at the Crossroads School, Santa Monica, CA. Klaus is acknowledged as the greatest living microslide mounter of arranged diatoms and butterfly wing scales - his slides being true works of art which are highly collectable. **Steve Craig** said that he has a video of KLAUS KEMP's work which belongs to Paul Ottenheimer. **Tom McCormick** volunteered to make a digital master from which copies can be made for those members desiring the tape.

We wish to thank Millie Craig, Steve's charming wife, for furnishing the tasty goodies and an endless supply of coffee and tea! After the workshop, a large number of microscopists adjourned to Coco's for lunch and conversation.

Microscopical Society of Southern California Workshop

**Conducted by Edwin L. Jones, Jr. and James Solliday
7 September 1996**

Mounting of Fossil Material from Rincon Hill, Ventura County, Calif.

Also, material from Kalapaki, Kauai.

Cleaning Fossil Material.

Separation Methods demonstrated.

Mounting Methods demonstrated.

Description of fossil material:

Material was collected from Rincon Hill, located near the border of Ventura and Santa Barbara Counties. The location lies 15 miles north of the intersection of Interstate 101 and State Routs 33 (to Ojai) on the north edge of Ventura. Collections were from a road cut on the north side of the off-ramp to State Route 150 (to Ojai and Lake Casitas). The

fossils on Rincon Hill are found in the Santa Barbara formation, which is Lower Pleistocene, and about 1,000,000 years old. There are some 40 different species of snails and about 15 species of pelecypods, including such varieties as scallops, oysters, mussels and clams. Also found are corals, bryozoans, algae, worm tubes and foraminifera.

Cleaning Methods (for loose marine fossil material)

1. Dry sieve at 120 mesh
2. Mix in water using a bucket (mash the chunks)
3. Pour through 35 mesh sieve (keep both samples)
4. Sieve through 120 mesh sieve (lower into water just under the surface and break up the remaining chunks)
5. Spread into thin layer on paper and air dry in the sun

Other cleaning methods:

1. Boil foraminifera in Kerosene (beware of fire hazard)
2. Decant
3. Boil in water
4. Repeat the above steps. After 2nd boil in Kerosene, forams will float on the surface. Place in water and they should remain on the surface as the Kerosene should be trapped inside the forams.

A heavy solution can be used in the separation of forams (Varsal). Varsal is used for cleaning and separation and was developed by the Exxon Company.

Mounting Methods

1. Prepare the exhibition slide (cover with label having numbered squares).
2. Separate the specimen material by preparing a storage slide.
3. Apply tiny amount of adhesive to exhibition slide. (Elmer's Glue, gum tragacanth, Ghatti gum).
4. Place storage slide having specimens together with the exhibition slide.
5. Use brush for very small specimens, use tweezers for larger specimens and place in position on the glue points on exhibition slide.

Equipment needed

- Stereo microscope and illumination
 - Sieves, bucket
 - Slides and slide labels, mounting adhesive
 - Needle-nose tweezers, 00 brush, black board (for a background)
-

Microscopical Society of Southern California

Meeting of 21 September 1996

Location: Crossroads School

Jim Clark, Ken Gregory, Stuart Warter and George Vitt displayed several microscopes. Jim and George brought A/O Spencer Polarizing microscopes of the excellent Mod. 37 series; Ken showed an excellent brass Dicke type polarizing microscope c.1900-20; Stu displayed his brass Reichert portable folding microscope of most clever design.

John de Haas, and the membership, discussed plans for future workshops where he will focus on various specimen preparation microtechniques and sectioning methods. John passed around for inspection several types of small microtomes.

The last part of the meeting was devoted to showing a VHS video tape, made by our member Paul Ottenheimer, and featuring the superb artistic work of Klaus Kemp, who is undoubtedly the greatest maker of arranged diatom and butterfly wing scale microslide art. Having Paul's OK, Tom McCormick brought many VHS copies of this very tape which were sold at the meeting for a mere \$8!

1 OCT 1996: Approximate annual cost of MSSC publication:

Gaylord Moss, our VP and Editor, spent the following amounts for publishing the Sept-Oct Bulletin (the two months combined) :

Envelopes: 250 - 6" x 9" envelopes for \$ 16.99: \$ 0.0679 / envelope

Copies: \$97.00 for 125 copies of 20 pages (10 sheets):

125 x 20 = 2,500 pages; \$97.00/2500 = \$ 0.0388/page

Labels: 3000 labels for \$ 21.55: \$ 0.00718 / label

PUBLICATION FOR 1 YEAR: 10 pages/month/copy, 125 copies/month, 12 months/year:

COPIES: 10 x 125 x 12 = 15,000 pages/year; 0.0388 x 15000 = \$ 582.00 /year

ENVELOPES: 0.0679 x 125 x 12 = \$ 101.94

STAMPS: \$ 0.54 x 125 x 12 = 810.00

LABELS: 0.00718 x 2 x 125 x 12 = \$ 21.55

Total annual publication cost = \$ 1,435.49

Approximate annual income from dues = \$ 2,500: \$ 2500 - 1435 = \$ 1,064