



MicroNews

San Francisco Microscopical Society

Volume 10, #1 September 2015



Dr. Greg Antipa and
Robert Griffin

GENERAL MEMBERSHIP MEETING FRIDAY, SEPTEMBER 11, 2015, 6PM-9PM SAN FRANCISCO STATE UNIVERSITY A GOOD EXPERIENCE, A HANDS-ON WORKSHOP

MEETING

September 11, 7-9

FRIDAY

SFSU

HENSILL HALL

4TH FLOOR

If you are interested in microscopy, botany, lichen anatomy, or algal symbiosis, if you are an amateur naturalist or an aspiring plant scientist or a professional who wants to help out, come to this workshop. The door will open around 6:00 PM to let us set up the facility with the meeting scheduled from 7 to 9 pm. It will be a good evening to meet new friends and learn some new techniques.

The San Francisco Microscopical Society (SFMS) and the California Lichen Society (CALs) will hold a joint meeting and workshop on Friday evening, 11 September, 2015, from 7 to 9pm, at San Francisco State University (SFSU), **Hensill Hall, 4th floor**, across from the Harry Thier Herbarium. Conducted by Miko Nadel and Bill Hill, the workshop's topic will be "EXPERIENCE WITH MICROSCOPES FOR A CLOSE-UP OF LICHENS". You will take a **hands-on** 'inside look' at the

anatomy of lichens using excellent microscopes. See the distribution of algae within lichens, see lichen apothecia, spores, and more; practice making slices of specimens with razor blades to make slides to view the inner anatomy. All interested members of the public and mature youngsters with adult relatives are welcome, no previous experience necessary. We will help you develop interest in the subject. Bring a friend, - share a ride. BH/HS

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All Good Things Ahead: Events

Not everything is decided at the spur of the moment. To get each element in place and to make sure that we can coordinate presenters, informative advertising, and the right venue requires a lot of effort. Your SFMS board members devote a lot of energy during and after a board meeting to "get all the ducks in a row". We need you. The effort is worthwhile if the meeting is well attended.

It was not a cool day in Alameda when the board met on July 19th at the home of MaryAnn Scott. The possibility of a thunderstorm did not dampen the enthusiasm of the participants. Using a prepared agenda, President Peter

Werner first reported what had not been accomplished since the February meeting that was the result of failing to hold a January meeting. Also cancelled were the March and May meetings. He asked that the Board all work to make this next year (2015-16) a more successful and productive set of five meetings. For those who may be unaware, SFMS holds regular General meetings in September, November, January, March and May.

Friday, September 11, 2015:
SFMS General Membership Meeting: For

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WORTH READING Book Review—

1674 in Delft, A Dutch City

A great deal of light has passed through the optics of microscopes since 1674 when Leeuwenhoek gazed through one of his hand-made microscopes. Since then, a great deal of knowledge about optics has been gained. Delft was then not a particularly large city but it contained a prosperous and

(Continued on page 3)

Robert Donald Griffin (1930-2015)



Robert Griffin and Peter Werner at our exhibit at Randall Museum, Bug Day, April 2011.

Native San Franciscan Robert Donald Griffin passed away on 13 March 2015. Born in 1930 to Donald and Nora (Conroy) Griffin, he graduated from St. Ignatius ('48) and USF ('53). Following his service in the US Army as a radio operator on Okinawa during the Korean War, he completed his MA and teaching credential at SFSU.

After teaching at Horace Mann Jr High and Galileo High School, he dedicated 33 years to CCSF, serving at times as Biology department chair, and helping to establish the biotechnology certificate program. He wrote "The Biology Coloring Book" to assist students learning key concepts by illustrating them clearly. He loved to teach, and was proud of the many students who went on to professional schools after getting their start at CCSF.

He was heavily involved with the Sea Scouts ever since joining the crew as a teenager. He served as skipper and was a long-term board member of the or-

Bob Griffin's Service to the San Francisco Microscopical Society

Bob was a long-time life member of the Society having joined in 1969. I first met him in the Society when he was president in the 1990's. I realized then that I had seen him at meetings of biologists in the Bay Area although I had not truly made his acquaintance. We all were interested in finding better ways to help our students learn and these meetings were one way to find out how and what fellow teachers were doing that worked in their classrooms.

He served as president of the Society for 13 years, probably the longest period of leadership in the past thirty years. Several other members served with him including Helmut Will as Treasurer and Peter Barnett as Vice President and Program Chair, William Humphrey who kept meticulous records of general meetings. The secretary was Linda Wrxall.

Ever ready to help out where possible, Bob contributed to meetings by being the featured speaker on several occasions. He liked to emphasize that the first steps to being a good microscopist, knowing and caring for your instrument, were the hardest to teach to students but in the long-run the most beneficial and instrumental in stimulating long-time interest in microscopy. His cheerful outlook on life was his greatest gift to all of us. HS

ganization. An avid sailor, he sailed around the world aboard *Good News* after completing a race to Tahiti. He was active in the San Francisco Microscopical Society and volunteered as a docent at the California Academy of Sciences.

In 1964, he married Marta Esténs Sterling. She preceded him in death in 1992. He is survived by his 3 sons Kurt, Garrett, and Bruce.

A memorial mass was held at St. Anne of the Sunset, Thursday, 19 March at 3:30 PM. In lieu of flowers donations are suggested to the California Academy of Sciences. <http://calacademy.org/donate>

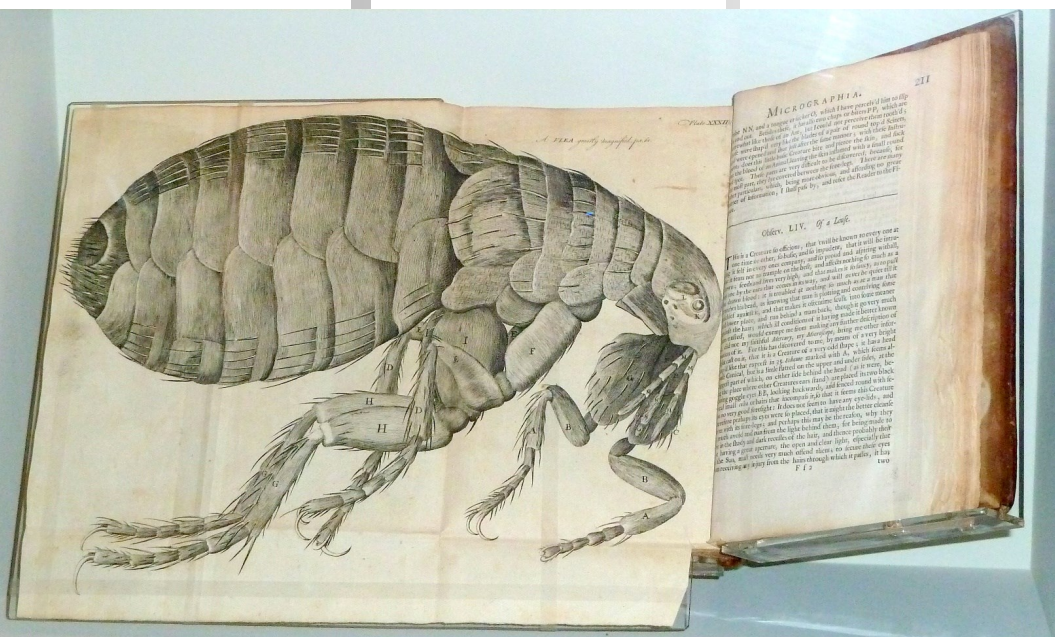
(Continued from page 1)

energetic society that included artists and tradesmen. This vibrancy was partly driven by the prosperity of the people who had successfully created a market economy that traded on a world scale. This small country had a fleet that reached the Spice Islands and Japan as well as across the Atlantic

to Brazil and what eventually became known as Manhattan. It is in this setting that Leeuwenhoek and the artist Vermeer lived. They were of the same age and lived only a short distance from each other. They may well have known each other and have met on several occasions although no records of such meetings or acquaintanceship exist. Also present was the Huygens family, art dealers, astronomers, and lens grinders, as

those who had the leisure to pursue scientific inquiry but also those who painted and engraved images. Artists, enthralled by what the lens revealed, included both greater details and emphasized the effect of light in their paintings. Lenses in instruments opened the eyes of a great many people to what had not been seen. This was true for astronomy as well as for the micro world that had previously been judged and explored primarily through taste and smell, at least in the micro aspect of

tween the lines". We have no real feeling for the fear of disease, the depth of religious feelings and the persecution for political or religious beliefs. Today, we have a plethora of communication channels and a flood of printed material to keep us informed. If these channels are not enough, we turn to blogs or TV broadcasts, TED talks, YouTube or Netflix. Our libraries provide an unprecedented wealth of information to millions of literate citizens. Not so in the 17th century when education was expensive and leisure time much more circumscribed by labor and custom. Yet Leeuwenhoek knew of the British Royal Society and was able to properly communicate with these fellow scientists. His letters and illustrations undoubtedly helped stimulate discussion and interest among the members. The intelligencia of the day, heard of advances in knowledge taking place in other parts of Europe, although at a snail's pace compared to today. The role of the camera obscura is detailed in its application to both art and microscopy where is led to solar microscopes.



FUTURE FLAT LENSES

Frederico Capasso et al at Harvard figured out how to produce ultrathin flat lenses that focus light via microscopic silicon ridges. Reported in the February issue of Science and briefly in May 2015 Scientific American, these lenses may in the future function effectively in photography, microscopy and astronomy reducing weight, cost and bulk of instruments. You may expect companies, such as Google, to be interested in improving imaging systems. HS

Robert Hooke's famous *Micrographia* with the fold-out page of a highly magnified flea. Dover published a modern ver-

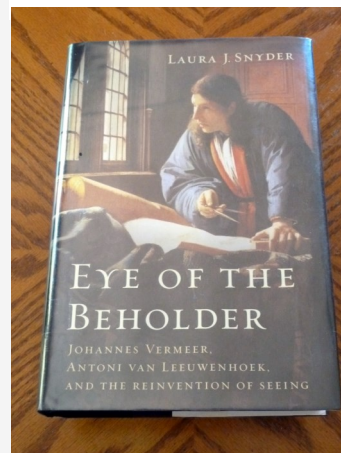
well as a number of other artists and scientists.

Laura J. Snyder, professor at St. John's University, writes about science and ideas for the Wall Street Journal, and is the author of *Eye of the Beholder*. The thesis she explores is that as a result of lenses and their increasingly widespread use, a visual education developed that affected not only

experience. It is clear that grinding lenses for the manufacture of spectacles had been practiced for a long time but they had only been sold to those who needed to see clearly what they were reading or writing and they were a small fraction of the population. It is the combining of lenses into instruments such as telescopes and microscopes that extended knowledge of the world and the cosmos.

What makes the book interesting is the ability of the author to paint a picture of what life was like at the time, although it is important to add quite a lot to "what is be-

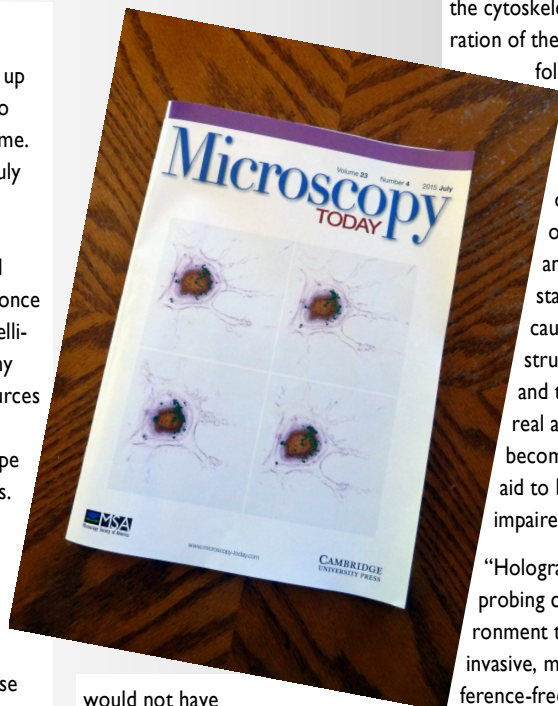
The Eye of The Beholder, published in 2015, is an interesting account of art and science in the 17th Century. HS



INTERESTING ARTICLES **MICROSCOPY TODAY**

July 2015 Issue

Whenever my copy of MT shows up in the mail I eagerly look it over to see what new ideas spring out at me. There is food for thought in the July issue although bringing it to bear would involve more skill and time than I am likely to possess. I recall from my teaching days that I was once asked to accommodate a very intelligent and willing blind student in my biology class. I felt that the resources I had at my disposal were totally inadequate for the task. Microscope slides and wall charts were useless. The chalkboard, filmstrip or even movies that were standard means for showing students what the biological world was like were fine for sighted students but not the blind. Models were of some use but most did not disassemble into parts so to name the parts of a cell it would have been helpful to have a removable nucleus and mitochondrial bodies as well as endoplasmic reticulum and microtubules. But to transition a nucleus to chromosomes or to show the production of a protein molecule at a ribosome and the role of RNA, that



would not have been possible with ordinary models available at the time. The article that caught my attention is "Three-Dimensional Printing of Super-Resolution Microscopy Images" by Emily Mace et al.

Using a MakerBot 3D printer that deposits filaments of acrylonitrile butadiene styrene (ABS), the software created a scaled up model of the

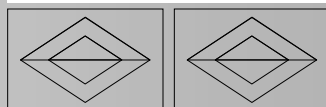
F-actin in a natural killer (NK) cell of the immune system. The F-actin forms the cytoskeleton of these cells. Preparation of the data for the software to

follow was more than this reviewer cares to describe but the end product was clearly a three-dimensional representation of the cell's cytoskeleton, an invaluable aid in understanding cell structure. Because three dimensional structures provide a tactile and textural object based on a real anatomical structure it can become an invaluable teaching aid to both visual and visually impaired students.

"Holography offers a new means of probing cells in their native environment that is label-free, non-invasive, manipulation-free, and interference-free." claim the authors in their article entitled *Digital Staining: Microscopy of Live Cells Without Invasive Chemicals* by Lisa Pollaro et al. Light microscopy has provided various ways to look at biological specimens without conventional staining but this has always been limited to rather low magnification in my experience. A new instrument, The NANOLIVE 3D Cell Explorer, using a rotating scanning

head and a green laser, captures images of individual small cells in holographic images that are electronically reconstituted into 3D much as is done in standard tomography. What in the past required several hours of staining can be accomplished now in minutes through digital staining with the right software.

For those who would like an inexpensive and versatile field microscope there is an excellent article by Glen Shipley and Robert Hoelter: *A Flexible and Economical Field Microscope*. This is also a good approach for those who would like to give a first microscope to a grandson of the right age. What stood out in this article was the description of making a stage for accessories that could be made with layers of plywood just as easily as a single block of wood. The methods for sub-stage illumination that they discuss are both clever and quite simple. This, I thought, was a useful and clever adaptation for a field microscope. Subscription to MT is free. HS

*(Continued from page 1)*

details, see front page.

Sunday, September 24, Sunday, 12 noon (lunch) to 3 pm.

SFMS Board Meeting.
Location: 1648 Mooreland Dr., Alameda, CA. 510-523-4132 (Alternate date, Sunday, October 4, check your e-mail)

Saturday, October 24, 2015: 11 am. to 4:00 pm. **Bay Area Science Festival, Discovery Day.** Cal State East Bay Hayward Campus, Science Buildings,

25800 Carlos Bee Blvd, Hayward, CA 94542. Parking is available in lots D,E,F,&G, closest to the Science festival activities in the North & South Science Buildings. (Participation is to be explored by Peter.)

Saturday, November 7, 2015: 10-4 pm. The 5th annual **Discovery Day at AT&T Park** Bay Area Science Festival. SFMS will share a booth with Merritt College Microscopy Club. Society members are needed for two-hour turns, 10 to 12, 12 to 2, 2 to 4, to help manage the crowd. Call or e-mail Peter. (germpore@sonic.net) "This year, every exhibit will be

framed as investigative questions to encourage explorations and curiosity that we hope will continue throughout the school year." Help and ideas are needed to frame our exhibit to meet this goal.

Saturday, December 5 & **Sunday** 6, 2015, 10am to 5 pm: **Fungus Fair: A Celebration of Wild Mushrooms.** Location: San Francisco Fair Building, next to the Arboretum in Golden Gate Park, 1199 9th Ave (at Lincoln).

Sunday Only: Be a "presenter" and participate in hosting our display of microscopes and micro-

scopic slides. Call or e-mail Peter.

(germpore@sonic.net)

Sunday Only: Many educational tables on varied subjects such as medicinal mushrooms, cultivation, ecology, lichens, psychedelic fungi, dyes from fungi, toxicology, edible mushrooms, microscopes and spore prints. - See more than 250 species of locally

(Continued on page 5)

SFMS FINANCIAL POSITION

TABLE COMPARING INCOME AND EXPENDITURES FOR THE YEARS 2014 AND 2013

	2014	2013
IRS Refund		750.00
Donations		168.00
Life Membership		144.00
Dues current year	48.00	266.00
Dues next year	12.00	84.00
TOTAL INCOME	60.00	1,412.00
Speaker fees		425.00
Travel		411.15
Printing		278.97
Grant Recipient		2,500.00
Postage	24.50	205.21
Miscellaneous	344.35	962.60
Supplies	5.84	182.32
Purchase (Publisher)	98.99	
TOTAL EXPENSES	473.68	4,965.25
Reduction of reserves	(413.68)	(3,553.25)

TREASURER'S REPORT

The table on the left compares the income and expenditures for the past two calendar years as reported by the treasurer, Myron Chan.

Funds are expended as a result of Board Action and must be approved prior to expenditure. When the Society is relatively inactive and there are few expenses, the amount of deficit is correspondingly low.

Our reserves are considerable and data in this area are shared only with members. One should not consider the reduction in reserves as a deficit since they are intentional and result from board action.

The grant we gave in 2013 accounts for a large part of expenditures while a refund from the IRS inflates income.
HS

A WEBSITE WORTH A VISIT

There is a lot of interest among the British in microscopy as a hobby. This may be due to the bad weather that keeps them indoors while we, here in California, like to get out more and enjoy the sunshine while at the same time we curse the drought. This site is for amateurs and offers discussion and a place to display microphotographs. It was suggested by Judd Smith, a life member.

www.microbehunter.com/microscopy-forum/viewforum.php?f=6&sid=839d70d7a470bac2d22797532f810d1c

If you have one or more favorite web sites, drop a line to HSchott@aol.com so that the information can be shared with our readers in the next issue.

collected fungi - Identification table - bring your specimens to find out the species!

Friday, November 11, 2015:
SFMS General Membership Meeting: For details, see report in subsequent issue.

Other items discussed and reviewed by the SFMS Board:

Change in editorship of Micro News. With many thanks to Sara Sandhu for editing and producing the recent issues of Micro News,

the board decided to accept the offer of the past editor, Henry Schott, to resume editing Micro News. Since Volume # 10 correspond to publication year 2015 as noted on the headline, 2015 will have only two issues, September 1, and November 1, 2015. (The issue you received in July was due in December 2014 and was mailed a bit late.) Normal mailing dates are January 1, March 1, September 1, and November 1. We hope to also soon have the issues on line. The following letter was sent:

Dear Sara:
July 22, 2015

The SFMS board knows how con-

strained you are by time and expresses its appreciation for what you have done and for the time you have devoted to publishing Micro News.

Since I have been able to free up some of my time, the board has voted to accept my offer to renew my editorship. I hope that this will provide you with more time for study and work.

If you have material and/or illustrations that you would like to include in the next issue of Micro News, please forward it as soon as possible. I also welcome your ideas and suggestions to make this a more inclusive and interesting

publication.

I look forward to your suggestions and to your occasional help, if you can spare the time.

Sincerely, Henry Schott

The purchase of a set of representative microscope slides, that may be made available to members on request through a lending library, has been delegated to H. Schott. Funds have previously been set aside to order microscope slides from Germany. We hope that your interest in borrowing these slides will justify this and subse-

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Africa C. Williams

**SFMS BOAR MEMBER
Mrs. A. C. Williams**

At the February 2015 membership meeting Africa, a student at Merritt College, joined SFMS and volunteered to become the Communications Secretary, an unfilled board position. This interview will introduce her to the membership and provide her dynamic personality a forum. We welcome her and thank her for her service.

The Editor HS

Where did you grow up and go to high school? Was there a particular teacher that influenced you in your choice of educational objective and if so, how did this teacher stimulate your interest?

I was born in San Francisco and lived there until I turned 5 years old and my parents moved to Oakland. In 1989, I entered the Katherine Branson High School in Ross, and remained there until my parents moved in 1992 to Union City where I

transferred to James Logan HS. While studying Forensic Debate with Tommie Lindsey Jr., the MacArthur-Award winning coach, I was invited to perform The Autobiography of Rosa Parks for civil rights activist Rosa Parks on her 81st birthday. I graduated in 1994. I studied at Berkeley City College in 2009' and am currently pursuing a degree from Mills College in Environmental Policy.

What led you to be interested in microscopy and what was your earliest recollection of looking through a microscope?

While at a junior high science camp I was able to dissect owl pellets and look at the bones beneath a dissecting microscope. Later, I explored opportunities for young people to learn about the environment and found the East Bay Conservation Corps that brought a conservation program to my school called Project Yes. YES stands for Youth Engaged in Service. This program gave 13 to 19 year olds valuable volunteer experience, a chance to earn money and become

trained Environmental Ambassadors.

You have been active in Oakland political circles. What has been your participation and accomplishments in this area of activity?

My participation in Oakland has been active since 1989 when I attended Frick Junior High. I was a member of the Youth Advisory Board for a number of years. I served as an Oakland employee from 2003 to 2011 as the Community-Building Coordinator for the City & County Neighborhood Initiative for Violence Prevention. My most recent accomplishment includes the tearing down of a toxic waste site in the historic district of Oakland called the 31st & Green Street Research & Demonstration Project. We collaborated with *Urban Relief* and the *UC Davis LAWR and Hyphae Design Laboratory* in order to revitalize the neighborhood. This revitalization included *Low Impact Design (LID)* consisting of planting trees, reducing urban landscape irrigation needs and improving water quality, as well as reducing urban runoff while educating the community about drought conditions. Coming to a neighborhood near us on 29th Street will be the opening of our tot-lot and park revitalization that *Friends of Durant Park* and I organized. Total funding for the park is \$1,050,000.

Is your interest in microscopy primarily for developing a professional career or exploring personal growth and interest?

My recent interest in microscopy was primarily for developing a professional career and I am currently pursuing my Microscopy Certification at Merritt College.

How have family members, close relatives or friends influenced you in your choice of career path?

My mother is a registered nurse and a surgical technologist and has been working for Children's Hospital for more than 30 years. I enjoyed reading all of her

**Your Elected
2015 Board**

- President:: Peter Werner
- Vice President & Program Chair: Bill Hill
- Treasurer: Myron Chan
- Recording Secretary: MaryAnn Scott
- Communications Secretary: Africa C. Williams

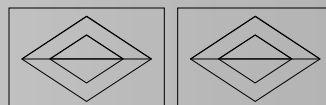
biology and chemistry texts. My parents encouraged my curiosity by purchasing chemistry sets that came with microscopes, slides, and frogs submerged in formaldehyde. A teacher in junior high who liked my enthusiasm for the life sciences inspired me. She encouraged me to take more science and math classes.

How would you like to see SFMS change or improve in order to better serve our community?

I would like to see more young people involved in SFMS. The Society can develop a set of aims that includes teaching young minds about microscopes and how they can be useful in particular areas of science.

What else would you like to share with the members of the San Francisco Microscopical Society?

I look forward to meeting the members of our SFMS and through our seminars deepen and share our interest in microscopy.



CORRESPONDENCE

I am guessing that my great, great grandfather, Joseph Henry Wythe, was one of the founders of SFMS in 1870. JHW wrote the leading textbook on Microscopy in 1851, which in various versions was used for over 50 years. He was a teaching doctor at COP/UOP/Cooper in SF (among other things). I have dozens of slides of his, a few of which have an SFMS label. I also have a half-dozen slides made by famous English microscopists. If and when I scan them, let me know if they are of interest to you. I also have his "traveling" microscope, which he gave to his science teacher daughter Margaret, who was famous in her own name. JHW wrote many books. I have several early editions. Mark Kilkenny NASA Glenn Research Center, 216-386-1214

Dear Mark:

Thank you for contacting SFMS and for telling us what you have. We are very much interested in any historical material and would love to add it to our small collection. I have no doubt that our membership would love to see the slides. We know that at one time the Society had a slide of diatoms arranged to spell SFMS. I wonder if by chance it is among the slides that you have.

Sincerely, Henry Schott

INFERIOR VIEW OF ANTERIOR OF CENTIPEDE 25 X



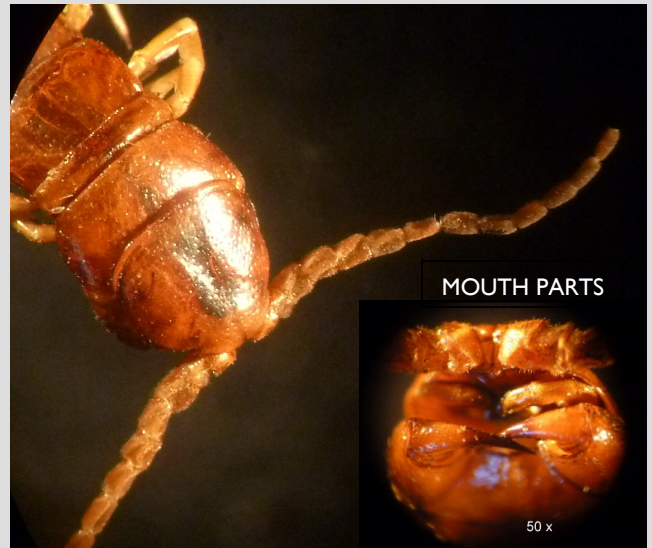
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quent purchases. If you would like to recommend slides titles for acquisition, please send as accurate a description as possible to hschott@aol.com. Slides are being ordered from www.Lieder.com. JOHANNES LIEDER GmbH & Co. KG, Laboratory of Prepared Microscope Slides. D-71636 Ludwigsburg/Germany, Solitudeallee 59, Telefon: + 49 (0)7141 921919, Email: lieder@lieder.de, Homepage: www.lieder.com Ident No. DE 239 649 828

Donation to Randal Museum Friends. (RMF) Recommendation will be made to the board at the next board meeting for making a significant donation to the Randall Museum Friends. The RMF Board of Directors will be contacted through the Randall Museum Friends office at (415) 554-9681 or friends@randallmuseum.org, or by contacting the Friends' office by emailing or calling (415) 554-9681, Traci McCollister, Development Director tmccollister@randallmuseum.org or Nathan Robinson, Administrative Director. We want to support the mission of **Fostering a love of science, nature and the arts.** 554-9609, (Currently closed for renovation and operating out of the MISSION ART CENTER, 745 Treat Ave., San Francisco, CA 94110. (For copies of the regular SFMS Board minutes contact Secretary MaryAnn Scott) HS

WHAT I SAW THROUGH MY MICROSCOPE

You may submit for publication one or more microphotographs you have taken with an explanation what they represent. Please also describe the equipment used.



This centipede had tried to cross a rather wide road here in Oakland and had either become disoriented or been baked by the sun before he could reach the soil under the trees. He was desiccated and quite fragile when I picked him up and carried him to my nearby car. To mount him (or her), I cut a wedge of stiff white paper and applied a little rubber cement to the tip and centered it on the body. While it was drying, I found a pin, a used sponge and some black felt. I passed the pin through the thick part of the wedge and into the sponge and then repositioned the specimen above the center of my dry sponge and laid the black felt on the sponge below the specimen. The centipede now floated about an inch above the sponge that formed a platform that I could move under the lens of my Wild Heerbrugg dissecting binocular microscope. The specimen was illuminated by two fiber-optic lamps from one Dyonics illuminator, arranged so that the illumination came from both the left and the right.

Using a handheld Panasonic Lumix DMC-ZS6 camera, I centered the lens over one eyepiece and took pictures when they appeared sharp. The picture has been cropped in Picasa, a simple photo program.

Centipedes are Chilopods and have only one pair of legs per segment. They are carnivorous. The millipedes are Diplopods that typically have two pairs of legs per body segment and are herbivores or vegetarians. Both have exoskeletons and jointed limbs, typical of Arthropods.

Photo and text by Henry Schott.



Volume 10, #1 September 2015

FROM: Micro News

San Francisco Microscopical Society
20 DRAKE LANE
OAKLAND CA 94611-2613

MEMBERSHIP INFORMATION

To join the Society:

Download & fill in the form available at
www.sfmicrosoc.org

Mail it to : SFMS Treasurer
435 Melrose Ave
San Francisco, CA 94127

Make check out to SFMS: Yearly dues are \$12. per
calendar year. Pay now for membership through 2016
Life membership is \$144.00

www.sfmicrosoc.org

We are on the Web

**“EXPERIENCE WITH MICROSCOPES
FOR A CLOSE-UP OF LICHENS”.**

Friday evening, 11 September, 2015, from 7 to 9pm, at
San Francisco State University (SFSU), **Hensill Hall, 4th floor**

Our General Membership Meeting will be conducted by
Miko Nadel and Bill Hill. The **hands-on** 'inside look' at
the anatomy of lichens using excellent microscopes will
reveal the distribution of algae within lichens,

CONTINUED BELOW

Stamp

TO:

Suggestions, criticisms, or praise are always welcome at Micro News. Communicate your
views to hschott@aol.com as they occur to you and look for responses in the next issue.

Come and enjoy an evening of ex-
ploration and workshop experience.



This view is a section of the apothecia from what I believe is a Hy-
perphyscia. Photo by Miko Nadel

Lichens have an
important place
in the plant
kingdom and we
will get deep in-
side to look at
structures. Bring
samples or use
what is available
in the laboratory. Your participation
and contribution will be enjoyable.

CONTINUED FROM ABOVE

apothecia, spores, and more.
Practice making slices of speci-
mens with razor blades to
make slides to view the inner
anatomy.

Wondering why we are holding
a Friday meeting? There are no
classrooms available in the
evening during the week. What
about the Randall Museum? It is
closed for a year of renovation.

We need you to attend and
show that we have a viable
membership. This is a good
opportunity to bring a friend
or neighbor, to reach out to
someone who would other-
wise just sit at home. Call them
today to give them time to
make up their mind.

Check your label to see when
you last paid your dues and
become an up-to-date mem-

ber. Bring cash or a checkbook
to the meeting and find the
TREASURER. Pay your 2016
dues now and be ahead of the
game. WE NEED YOU (Just
like Uncle Sam!)

To all interested members:
“Do you know a young adult?
Be a mentor and bring them to
a meeting for an interesting
experience. You have a chance
to influence their interest in
science and in microscopy.”

That is the message Henry
wants to leave with you.

“Bring a friend, - share a ride.”

HS

**HAVE YOU A MICROSCOPY
STORY TO SHARE??**

Send it to The Editor, 20 Drake
Lane, Oakland, CA 94611 OR
hschott@aol.com