



MicroNews

San Francisco Microscopical Society

Volume 7, #4 November 2012

DUES

In case you do not know what the title refers to, look at the mailing label with your name. There you will see, if all works right, if you have paid 2013 dues that are now due. Does it say Member 2013? Or Life Member? If not, send in your dues to:

Myron Chan, Treasurer
435 Melrose Ave.
San Francisco, CA 94127-2217

Please do it now.

A Brief History of the San Francisco Microscopical Society

by Peter Barnett

(Originally prepared as script to a slide show in March 2000, this excellent account has been edited to make it fit this publication. We are indebted to Peter Barnett for permission to reprint this version.)

San Francisco in 1850.

In January of 1848, when James Marshall discovered gold in California and Sam Brannan ran through the streets of San Francisco shouting "Gold, Gold, There's Gold on the Ameri-

can River" the English speaking population of California was about 1000. The City of Yerba Buena was a few tents, and the government of California was a military leftover from the just-won Mexican War. Even though victory in the Mexican War completed Jefferson's Manifest Destiny of a nation stretching from Sea to Shining Sea, debate in Washington raged over President Polk's prosecution of that expensive war. When se-

cret messages arrived by military couriers in the fall of that year that gold had been discovered rumors began to fly. Many were skeptical believing that rumors of gold were simply an attempt by speculators and con men to lure the unwary, and their money, to a remote, uninhabited, and unknown land.

George Derby and the SF Academy of Sciences.

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Special Insert

Call for Grant Proposals

SFMS General Meeting: Wednesday, November 14 at 7:30 PM

NOVEMBER 14, 2012 MEET AT MERRITT COLL. 12,500 Campus Drive Oakland, CA 94612 **D224** Follow Hwy 13 south to Redwood Road, go east on Redwood to Campus Dr. \$2.- in quarters for parking on campus. **MICROFEST**

HAVE A HANDS-ON EXPERIENCE

BACTERIA & OTHER CRITTERS

Excellent microscopes are available for your use so if you have specimens to share or material to inspect and photo-

graph, this is a wonderful time to do so. Bring a thumb memory stick to take your images home. (No easy way to use internet to send it to your computer.)

Learn about fluorescence and confocal microscopy. Now is a good time to discuss and learn about imaging techniques.

Bacteria hard to see? Soil organisms troubling you? Insects eating you out of house and home? Bring them tonight and take a good look at what they look like.

FUTURE MEETINGS

The Board will meet on Sunday, January 6 at noon to receive the report from the selection committee for Grants and conduct other business. **YOU ARE INVITED.** Call 510-339 9609 to attend.

GENERAL MEETING

Wed., Jan. 9, 2013
Randall Museum, San Francisco

Featured Speaker

Elections will be held for all officers. All board positions are open. Apply 510-339-9609

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As soon as the discovery of gold was officially announced in Polk's State of the Union address on December 10, 1848, US Army Lieutenant George Derby was ordered to California to undertake mapping and exploration missions in the US's newest territory. Only three years out of West Point, and recently recovered from a gun shot wound suffered during the battle of Cerro Gordo—a decisive U.S. victory made possible in no small measure by the efforts of Derby and his colleague, the young Captain Robert E. Lee—Lt. Derby's assignment was to report to California and begin to document the territory that the United States had recently acquired by the treaty of Guadalupe-Hidalgo.

Lt. Derby arrived in Monterey on June 10, 1849, after a five month voyage by land and sea. He immediately proceeded to San Francisco and started his army assignment in the Sacramento and San Joaquin Valleys. His army assignments, however, left him plenty of spare time to engage in his favorite occupation—journalism. Derby, writing under a variety of pen names, most importantly Squibob and John Phoenix, became a regular contributor to the early literature of the Golden State. Why, you might ask, does Lt. Derby play a role in the history of the San Francisco Microscopical Society?

Lt. Derby was a keen observer of contemporary life and spent much of his time in San Francisco which, while rather primitive by Derby's fine mid-19th century New England standards, still considered itself a

center for science and art. It took only a couple of years for Derby to realize that a city with the pretensions of San Francisco lacked some of the finer attributes that mark a city of high cultural and intellectual attainment.

In the August 10, 1851, edition of the *Alta California*. Derby wrote an article entitled "San Francisco Antiquarian Society & California Acade-

Derby reported that the newly elected directors of this organization repaired to the local saloon for precisely seven minutes and five seconds and emerged with a constitution which established goals for the new organization.

my of Arts and Sciences" describing his version of the organizational meeting of some of San Francisco's elite men of arts, letters, and science leading to the adoption of a Constitution for SFAS & CAAS. Derby reported that the newly elected directors of this organization repaired to the local saloon for precisely seven minutes and five seconds and emerged with a constitution which established goals for the new organization. The objects of the Society were to "*comprise inquiries into every thing in the remotest degree scientific or artful.*" The mem-

bership was to consist of regular members, those persons resident in the State of California, and corresponding and honorary members "*to include both persons and residents of any other place on the face of the globe or elsewhere.*" (Were they anticipating colonies on Mars?) Finally, annual dues were fixed at \$100 to be "*assessed against each member residing in San Francisco or the vicinity.*" (That was sure to keep out the riff-raff.)

In spite of George Derby's instruction that the Academy of Sciences should be interested in "every thing in the remotest degree scientific or artful," the Academy did not include microscopy in the programs it supported. That there was interest in, and availability of microscopes is evidenced by the arrival of Jonathan Sack in 1852, and the opening of his optical shop in San Francisco. Sack's shop included a variety of optical equipment such as , according to his card, surveying and navigational instruments, telescopes, binoculars and microscopes. This sounds like a shop that I would like to browse through. In spite of the early efforts to begin a Microscopical Society as part of the Academy of Sciences, such efforts were opposed by the Academy and it would require another twenty years before the San Francisco Microscopical Society could be formed.

Initial formation of SFMS. On June 4, 1870, a meeting was held by several interested people in an effort to form a society devoted to microscopy, but separate from the Academy of Sciences. Although

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FOCUS ON FASCINATING FERMENTATION FESTIVAL

Petaluma is a town along highway 101 north of Marin in the San Francisco Bay area. It is in the heart of the agricultural area and contains many orchards, farms and dairies. Just a mile or two south of town, along a winding country lane is Tara Firma Farm, a farm-to-table enterprise that caters to families who want farm fresh produce and meat. The schema is simple to describe. Families near the numerous delivery points in the bay area sign up for a box of farm-fresh produce that includes produce, fruit, and meat (either poultry/pork/beef) at a set weekly price in even increments of \$10. The boxes are prepared on the farm and vary according to the

available harvest. You get what is available, not what you would like to order.

It was in the barn of this enterprise that SFMS set up four microscopes during the Fermentation Festival on Sunday, September 16, 2013. The purpose was to show what organisms were present in the fermented foods and beverages that were available from the many stalls that enterprising people had set up. Kombucha is one such product produced from an infusion of tea combined with other ingredients and allowed to ferment. House Kombucha (housekombucha.com) is produced and bottled in Oakland. Other vendors were mostly from the

northern coastal counties. A chocolateir who handed out tiny samples of bitter chocolate pointed out that to release the flavor from the bean, chocolate has to first be fermented.

The claimed benefits for the various brewed and fermented products were wide sweeping and, from my point of view, overreaching credulity. Fermented liquids are used to treat inflammatory disease.



Visitors to the Fermentation Festival viewed samples through microscopes provided by the San Francisco Microscopical Society & Merritt College while members provided explanations and fine adjustments to ensure good viewing.

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there was some initial interest, plans fell through and nothing happened.

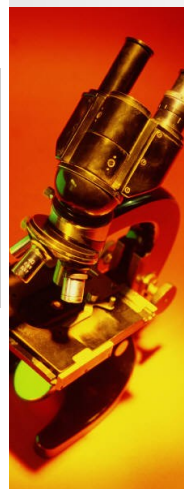
About a year later, on March 14, 1871, the London microscope manufacturer Joseph Beck visited San Francisco and at the Cosmopolitan Hotel he exhibited a new microscope. The local microscopists were excited. Microscop-



pists in San Francisco in the 1870's found themselves unable to purchase Beck's new Best Micro-

"to purchase a binocular microscope and accessories."

scope. Plans were put in place now with a serious goal—a joint effort to purchase one of the Beck mi-



croscopes for the use of interested persons.

Finally, on April 10, 1872, a group of thirty people met at 649 Clay St. in San Francisco, across from Portsmouth Square in what is now the middle of Chinatown, and agreed on a proposal that required the original members to pay an initial \$10.00 fee, then \$2.50 per

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month “to purchase a binocular microscope and accessories.” They elected a slate of officers which included: C. Mason Kinne, President; Mouser, Vice President; E. J. Wicker, Recording Secretary; Charles W. Banks, Corresponding Secretary and Arthur M. Hickox, Treasurer. (It is interesting to note that these five office titles continue to form the directors of the SFM Society today.)

The Charter Members of SFMS included: President Kinne, a former Union army officer; Hiram Green Bloomer, a botanist associated with the Academy of Sciences; Dr. John Broadman Trask, the first State Geologist in California; Gregory Yale, a lawyer and author.

Meetings were first held at the Clay St. site but in December 1873 the Society moved to 531 California St. which bears little resemblance now to its appearance in the 1870’s. The former world headquarters of the Bank of

The Society’s rooms at each location were designed to accommodate meetings, and to allow members to use the Society’s microscopes,

America has replaced the building where the Society met, but vestiges of the 19th century still ply California St. and one can easily imagine the avid microscopist hopping off a cable

car to attend a lecture or an exhibition of the Society.

According to the 1884 City Directory, by that year the Society’s rooms had moved and were located at 120 Sutter, Room 22. A Society pamphlet from 1899 indicates that another move brought the Society back to a block from its California St location to a building at 432 Montgomery. This building too, is no longer standing. As indicated in the 1905 Directory, the final move was to 628 Montgomery.

The Society’s rooms at each location were designed to accommodate meetings, and to allow members to use the Society’s microscopes, extensive slide collection and library.

SFMS Programs. The Society held a variety of

meetings for the benefit of its members and the general public. Formal programs presented mostly by members were held once a month in the Society’s rooms. Topics were chosen by the presenting member and one of the earliest, entitled “How a Fly Walks” was by the then-president C Mason Kinne in 1875.

In his manuscript, Kinne mentioned work done on this subject by several people, including Robert Hooke. Kinne describes his use of the “live box” and “compressor” - standard accessories supplied with the Beck microscope. It is interesting to note that although the drawing of the foot of

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WHAT WE DID: by H. Schott Sept 19 MEETING

I could see it was a busy night at the Randall Museum when I arrived in the parking lot and I was glad that I was early. I unloaded my microscope onto the dolly and rolled it to the Buckley Room where I found Myron Chan already setting up the Society’s microscope. In addition to his own and a recent purchase from the flea market, he had brought his extensive collection of parasitological slides, most of which he

had made during studies at CSU SF. Mike Kan and one of our new members, Ed Lehman were also there.

I set up my microscope with one of the three slides, the section of a pituitary gland and distributed the description of the slides I had selected for this meeting that included Grasshopper Testis and Prostate Gland. Bill Hill showed up and he set up a dissecting scope with a leaf that was overrun with aphids.

Myron told us that the small

tripod microscope was not functional when he bought it but by working on it at home, he was able to straighten and clean the parts until he had a working instrument. It was a novel addition to his growing collection.

It was a low key meeting but we enjoyed getting to know Ed who has a lot of experience with microscopes. His suggestions that we should reach out to high school science teachers has a lot of merit and needs some volunteer activators. How about you?

Myron’s microscope



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the fly in the manuscript by Kinne is very similar to the drawing by Robert Hook in *Micrographia*, Hooke and Kinne have very different views on the reason a fly can walk on the ceiling.

Early in the Society's history these meetings were attended by members of the press. Finding that the press reports of the presentations at these meetings, and the conduct of the members at the meetings left something to be desired, the Society began providing the journalists with printed versions of the presentations made at these meetings. These were published in the daily newspapers of the time, principally the *Alta California*. Clippings of these articles were maintained by the secretary and filed with the society's records. These are now part of the History of Science collection at Bancroft Library of UC Berkeley. The earliest reference to the Society is an article about a meeting which was published in the *Alta California* of December 20, 1873 and the last reference was published in the August 10, 1881 edition.

The incorporation of the Society, although coming at a time of great wealth in California associated with

...many of the members of the Society at this time found their way into the legal system of California as expert witnesses.

gold and silver mining and the coming of the railroad to California [Leland Stanford—one of the railroad tycoons—was a Life member of the Society], coincided with a severe economic depression in the State that lasted well into the 1880s. During these lean years the Society's fortunes waned as *"those who patronized the Society*

... found they could make other uses of their funds."

It is worth noting that many of the members of the Society at this time found their way into the legal system of California as expert witnesses. Then, as today, the microscope was an essential tool to the forensic scientist.

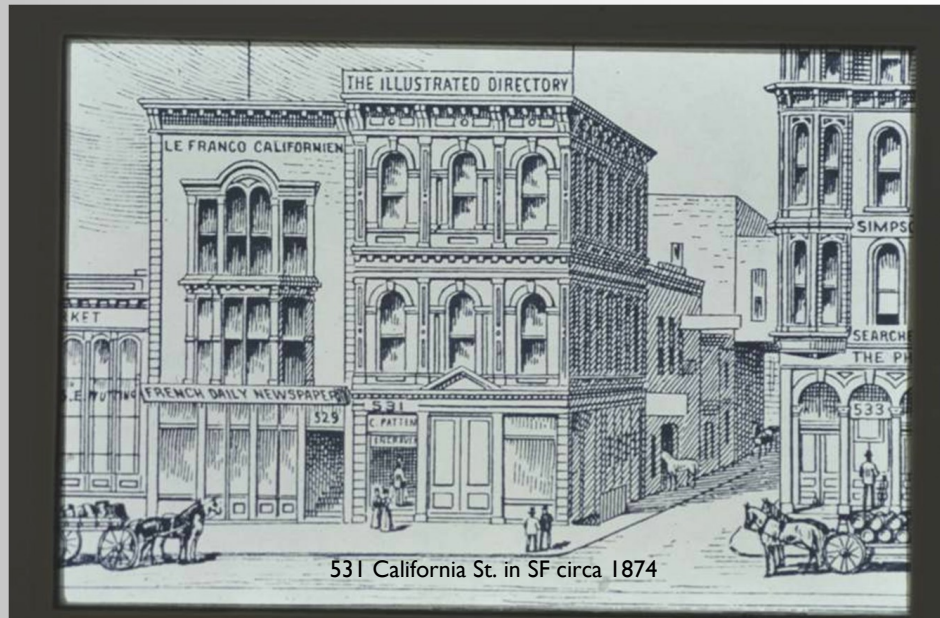
As the membership and activities increased in the late 1880s and into the 1890s, regular schedules of meetings were published. In addition to the Business meetings, in which papers such as Kinne's would be presented, informal "conversational" gatherings were held on a monthly schedule, usually alternating every other weekend with the formal programs. The informal sessions were an opportunity for mem-

bers to gather for discussion and demonstration.

A volume of Proceedings of the SF Microscopical Society was published in 1893, apparently the only one produced. This volume included current and past membership lists, a brief history of the Society, list of holdings in the library and slide cabinets, a list of papers read before the members, two papers on diatoms and a paper on the disease *molluscum contagiosum*.

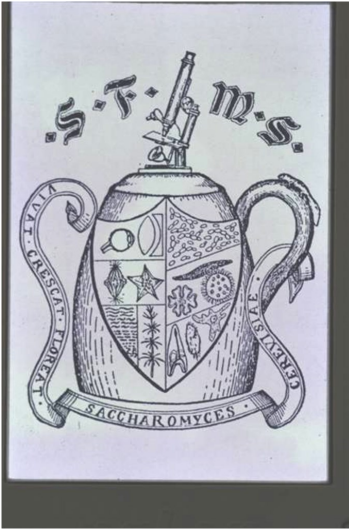
Brochures announcing the Society and explaining its programs and purpose were printed. An elegant new logo most appropriately featuring a microscope on

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top of a beer stein, was featured on the Society's new brochure—a sure inducement for proper Victorian gentlemen to attend one of the Society's meetings.



Exhibitions were sponsored by the Microscopical Society on an annual basis. These exhibitions provided an opportunity for the general public to look at microscopical subjects and specimens prepared and presented by members of the society and in some instances, by visiting scientists. In the 1870s and 1880s these exhibitions were very well attended affairs, held in various public meeting halls both in San Francisco, for example in Irving Hall on the very fashionable Post Street, as well as in locations in San Francisco's more civilized neighbors

to the East: Oakland and Berkeley. Ultimately, these exhibitions grew too large and the membership became tired of sponsoring them, so smaller receptions and exhibitions were held in the Society's rooms but a tradition of annual banquets with multi-course menus was maintained.

The Earthquake.

The Minute Book for the Society shows, as its last entry, the date of December 6, 1905. Four months later, on April 6, 1906, SFMS became a memory as the great earthquake and fire destroyed most of the city. What once had been a modern city was essentially reduced to ashes and ruins in a couple of days. Happily, the records and even some of the equipment was rescued from the general devastation but how this was accomplished is not known.

SFMS Re-established in 1946. George Needham issued a call in 1946 to re-establish the Society. For-

mer President of the new York Microscopical Society, writer, and observer, Needham sent out the notice to scientists all around the Bay Area. As a result of this announcement, SFMS was reincarnated.

...request to the CIA for a document having to do with secret, or invisible ink technology led to the realization that the requested document, the release of which was, of course, routinely objected to on the basis of national security interests, ...

The reformed Society's members apparently decided that a microscope should be part of the new logo but apparently rejected the idea of its placement on a beer stein. The new logo therefore incorporated the same old microscope that had decorated the beer mug but

without the suggestion of an ongoing October Fest.

Meetings of SFMS in the late '40 and the next two decades featured a variety of Bay Area Scientists. Presentations on electron microscopy in 1946 and on photo micrography using electronic flash in 1947 demonstrate that the members of the Society were keeping abreast of current developments in science and technology.

Participation in the Society by forensic scientists was a feature of SFMS in both the 19th and the 20th century incarnations. In the 19th century many of the pioneer document examiners in the San Francisco area were members of the Society. Papers were presented on subjects dealing with handwriting identification, forgery detection, and document authentication. Many of these involved disputes over the validity of various land titles which played an important role in the history of the State of California. In fact, as recent as this decade disputes over land titles were continuing and work done by SFMS members on old documents was being reviewed.

Within the past year, (2000) a Freedom of Information Act request to the CIA for a document having to do with secret, or invisible, ink technology led to the realization that the requested document, the release of which was, of course, routinely objected to on the basis of national security interests, had been authored by a member of SFMS, and in fact had been published

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SFMS BOARD MOVES TO OFFER GRANTS

With this issue, you will find a sheet describing the first of what the Board hopes will be a series of annual grants that will be awarded to promote the aims of the San Francisco Microscopical Society.

Under the leadership of President Peter Werner the four board members unanimously decided at the October 28 Board meeting to offer one or more grants totaling \$6000.00 during fiscal 2012 and have called for Grant Proposals to be submitted by December 10, 2012. An evaluation committee composed of two members of the Society and the President, will report to the board by January 6, 2013, their recommendations and the board will then decide if it will disburse the funds to the recommended applicants.

WE NEED TO HAVE MEMBERS VOLUNTEER TO SERVE ONE AFTERNOON OR EVENING BETWEEN December 10 & January 5 TO EVALUATE THE APPLICATIONS AND TO MAKE THE RECOMMENDATIONS TO THE BOARD. This important task will ensure that the funds go to projects that will benefit the greater San Francisco Bay Area and further the aims of the Society. Please contact either one of the board members listed at the end of the article or President

Werner (415) 261-7114 to offer your time. Your participation is a vital service to the Society and to the grantees. It will insure that the process is fair and unbiased, and that the grant proposals have received adequate consideration.

The funds come from our general fund which has been enriched by the generous legacy from a deceased Life Member, Robert Hancock of Carson City, Nevada. The amount assigned to the grant should attract some interesting proposals and we hope will also bring us some new members as public-spirited individuals find that the Society is not only concerned about occasional meetings but also about the condition of science and education in the Bay Area.

If SFMS members wish to attend the January 6 board meeting they should call in advance Henry Schott, Corresponding Secretary and Editor, (510) 339-9609.

Our Society functions best when it has five board members instead of the current four. We need a Recording Secretary. Please apply to Bill Hill, Vice president (415) 686-6146 or to Myron Chan, Treasurer (415) 585-4747.

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THERE WAS ROOM FOR DISAGREEMENT EVEN BACK IN

1875

Dr. J. Gibbons Hunt desired it to be distinctly understood that he had nothing to do with the preparation of the report, and did not wish to be held responsible as a member of the committee for the views advanced in it. He considered that it embodied the obsolete views of Carpenter and Beale in regard to penetration, which term should be dropped from the vocabulary of microscopists. He believed that penetration and resolution can be and have been combined in the best objectives.

JOIN NOW—BECOME A MEMBER

Consider the advantages of membership:

1. Borrow a microscope to take home before buying your own.
2. Discover your micro-world at home.
3. Participate in exploration and discovery at our meetings and fieldtrips.
4. Share in the tradition of scientific objectivity and serious endeavor with other members.
5. Improve the public's understanding of microscopy and scientific endeavors.

Go on-line www.sfmicrosoc.org for the application form and fill it in. Then print and send in a copy with your check for \$12 dollars for 2013 dues.

SFMS c/o M.Chan, 435 Melrose Ave. San Francisco, CA 94127



Volume 7, #4 November 2012

FROM:

Micro News

San Francisco Microscopical Society
20 Drake Lane
Oakland, CA 94611-2613

TO:

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in the first issue of the American Journal of Police Science edited by August Vollmer.

Many of the presenters and several members of SFMS in the 20th century have been forensic scientists. Notably, Paul L. Kirk, the founder of the criminalistics program at the School of Criminology [founded by August Vollmer] at the University of California in Berkeley, and several of the heads of crime laboratories in the SF Bay Area were either members of or made presentations to the SF Microscopical Society.

The following are a few of the people who have been either mem-

bers of, visitors to, correspondents with or presenters to SFMS: Walter McCrone, John Delly, Brian Ford, John Field [an avid Leitz microscope and antique slide collector], Larry Wayne, Steve Shaffer, Frances Jones.

Currently, [2000], the SFMS has a roster of about 60 members, about 30 of which are active at any one time over the course of a year. Although retaining the name, our meetings now are generally held in the East Bay, sometimes in member's laboratories and other times at a Public library in Oakland. Over the past few years meetings have featured presentations on a variety of topics ranging from scanning probe microscopy, to the microscopy and microchemistry of li-

chens, microscopical books and various applications of microscopy.

SFMS was not the first American Microscopical Society. Already in existence prior to 1870 were: American Microscopical Society of New York, Fairmount Microscopical Society of Philadelphia, Troy Scientific Association, State Microscopical Society of Illinois.

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Note: Statements in () are by the editor, HS, If in [] they are in the original.