



# Newsletter

Of the

## New York Microscopical Society



30 North Mountain Avenue, Montclair, New Jersey 07042-1841

March 2008

N.Y.M.S. (973) 744-0043

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## Meeting Announcement

### New York Microscopical Society, 2008 Spring Lecture Series

#### **“Using NYMS’ Research Laboratory in a Microscopical Investigation of Library of Congress Bas-reliefs by Herbert Adams and Olin L. Warner”**

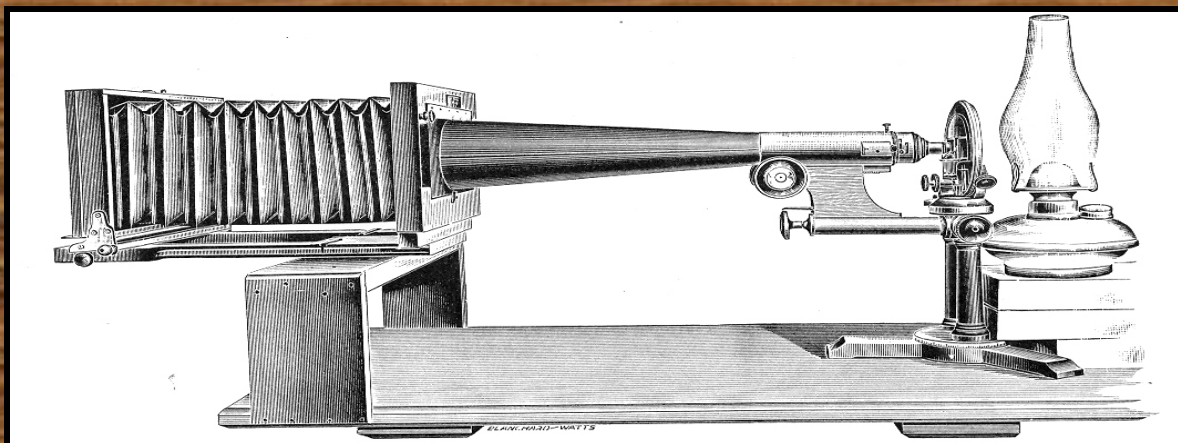
**John Scott, FNYMS, FRMS, PA-AIC, etc.,  
Conservator–Analyst, [www.NYCF.org](http://www.NYCF.org),  
[JScottConsn@aol.com](mailto:JScottConsn@aol.com)**

Thursday, March 20th, 2008, 7:30 pm  
American Museum of Natural History, Linder  
Theater, New York, NY

John Scott is expert in the examination, investigation, preservation and restoration of fine art, especially sculpture, and provides analytical services to colleagues in related fields including architectural preservation. John will discuss his investigation and conservation of two wonderful cast plaster figural bas-reliefs, created in the 1890s by sculptors Herbert Adams and Olin L. Warner for their commission for the Library of Congress' main bronze entryways. John will also describe the New-York Microscopical Society's microscopy laboratory,

which is now ready for members to use at Evergreens in Montclair, NJ. John has used the laboratory in conducting his microscopical analysis of the Adams-Warner sculptures' original and later finishes. After conservation these beautiful and important artworks will be exhibited permanently in the Metropolitan Museum of Art. The lecture is free and open to the public. Enter the Museum at the Central Park West entrance, down the side driveway going behind and under the main steps. The closest subway opening is the 79th St entrance to the 81st St Natural History Museum station.

**NYMS Members and their guests are welcome to join the speaker for dinner (\$25.00 all inclusive) at 5:45 pm at Calle Ocho (<http://www.calleochonyc.com/>), 446 Columbus Ave., NYC. Please reserve your place(s) with Angela Klaus by noon March 20th. Angela can be contacted by email ([avklaus2@yahoo.com](mailto:avklaus2@yahoo.com)) or by phone (201-988-6251).**



A Drawing From “Practical Methods In Microscopy” NYMS Library No. 0544

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New York, NY 10019  
Department of Sciences  
212-237-8896  
[pdiaczuk@jjay.cuny.edu](mailto:pdiaczuk@jjay.cuny.edu)

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Department of Biology  
Seton Hall University  
400 South Orange Ave  
South Orange, NJ 07079  
[klausang@shu.edu](mailto:klausang@shu.edu)

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Mel Pollinger, exp. 2008  
18-04 Hillery Street  
Fair Lawn, NJ 07410-5207  
(201) 791-9826, [pollingmel@verizon.net](mailto:pollingmel@verizon.net)

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29 Kings Road  
Rockaway, NJ 07866  
(973) 625 5988  
[j1orosz@aol.com](mailto:j1orosz@aol.com)

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Pauline Leary, exp. 2008  
Smiths Detection  
21 Commerce Drive  
Danbury, CT 06810  
(203) 207-9754  
[Pauline.Leary@smithsdetection.com](mailto:Pauline.Leary@smithsdetection.com)

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John A. Reffner, Ph.D., exp. 2008  
Smiths Detection  
97 Ocean Drive East  
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(203) 348-8098, [jareffner@cs.com](mailto:jareffner@cs.com)

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10 Sampson Street, Unit 113  
Saddle Brook, NJ 07663  
(201) 368-8849  
[dkoleary@verizon.net](mailto:dkoleary@verizon.net)

### **Membership Chair**

Mary McCann, exp. 2009  
McCann Imaging  
161 Claflin Street  
Belmont MA. 02478  
(617) 484-7865 Fax (617) 484-2490  
[mccanns@tiac.net](mailto:mccanns@tiac.net)

### **Webmaster**

Roland Scal, Ph.D., exp. 2010  
Dept. Biological Sciences & Geology, M-213  
Queensborough Community College  
222-05 56<sup>th</sup> Avenue  
Bayside, NY 11364-1497  
Tel 718-631-6071  
Fax 718-631-6678  
[rscal@qcc.cuny.edu](mailto:rscal@qcc.cuny.edu)

### **Board Member**

Gary Mayer, exp. 2008  
[mayer@co.somerset.nj.us](mailto:mayer@co.somerset.nj.us)

### **Board Member**

Seymour Perlowitz, exp. 2010  
[perlowitz@hotmail.com](mailto:perlowitz@hotmail.com)

### **Board Member**

Craig Huemmer, exp. 2009  
[craig.huemmer@jjay.cuny.edu](mailto:craig.huemmer@jjay.cuny.edu)

**The Mission of the New York Microscopical Society** is the promotion of theoretical and applied microscopy and the promotion of education and interest in all phases of microscopy.

### **Dues and Addresses**

Please remember to mail in your Dues to Mary McCann, Membership Chair (see this page for address).

Junior (less than 18 years old) \$10  
Annual \$30 (students  $\geq 18$  years old \$20)  
Supporting \$60  
Life \$300 (payable within the year)  
Corporate \$175 (includes one advertisement in NYMS News)

To avoid missing notices:  
Notify Mary if you have changed your address, phone or email.

### **Alternate Meeting Notifications**

Please note that due to time constraints in publishing, some meeting notices may be available by calling Mel Pollinger at 201-791-9826, or by visiting the NYMS website.

**Buy and Read a Good Book on Microscopy.**

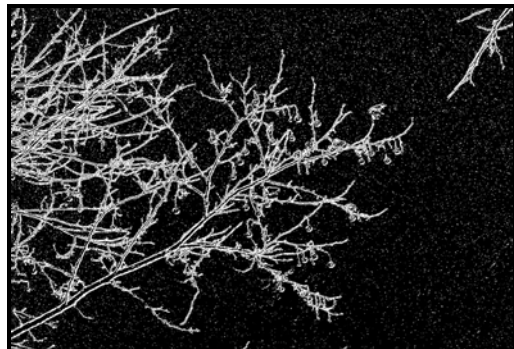
## The Inter/Micro 2008 Conference



The McCrone Research Institute cordially invites you to participate in Inter/Micro 2008, an internationally recognized professional meeting dedicated to applied microscopy. Meeting Dates: July 7-11, 2008.

The symposium will return this year to the Millennium Knickerbocker Hotel (163 E. Walton Place, (p) 800-621-8140). The special room rate for participants is \$195 plus tax for a King room. The Club Quarters hotel (75 E Wacker Dr., reservations: 212-575-0006) will also offer discounted rates to Inter/Micro attendees. Reservations must be made with the hotel before June 6, 2008. Further information on the 2008 meeting can be found within the [Inter/Micro 2008 Conference Homepage of the McCrone Research website](#).

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## Words, Words, Words

by Richard L. Howey, Wyoming, Professor, Emeritus

Recently I have felt overpowered by the Torquemadian terminology of contemporary biology. Consider the following passage from the *Handbook of Protoctista*, ed. Lynn Margulis, et.al. I opened the book randomly and landed in the chapter: "Phylum Plasmodial Slime Molds; Class Protostelida" by Frederick W. Spiegel. Now, I don't know Dr. Spiegel and I'm sure he knows what he's talking about and I do, as a matter of fact, find slime molds rather fascinating in spite of their name. Here's the passage: "Another character of Eumycetozoa is that all species have mitochondria with tubular cristae (Olive, 1975; Dykstra, 1977). The major subgroups of Eumycetozoa are the myxomycetes (Myxogastria), the dictyostelid cellular slime molds (Dictyostelia), and organisms with simple sorocarps resting on basal disks

know as protostelids (Protostelia). Olive (1975) suggests that the myxomycetes and dictyostelids (both of which are generally accepted to be monophyletic groups) were each derived from separate protostelid ancestors and that the protostelids arose from a common mastigote ancestor." (p. 484)

A sure cure for insomnia? Well, not for me. I get irritated and want to know what's being said, but I know that that means hours of dictionaries and other reference books and so, I stay awake and write essays like this one.

Imagine the conversation at a cocktail party during a protozoological conference. "Have you come across any interesting adoral membrane zones lately?" "No, but I found some fascinating extrusomes in the flagellar fold of a cryptomonad that is a symbiont of *Strongylocentrotus drobachiensis*."

In response to such nomenclatural torment, I have taken refuge in the lush, and admittedly sometimes florid, 19th Century prose of Philip Henry Gosse's *Evenings At The Microscope* (Appleton and Co., New York, 1865). In this passage Gosse describes a section of a cuttlefish shell: "We are looking now at the perpendicular section; is it not a beautiful object? You might fancy yourself looking at one of the noble icebergs that majestically navigate the polar seas, when it is rendered porous and laminated, by the rains of spring. You see a number of thin horizontal tiers or stages, perfectly parallel and equidistant, about one-fortieth of an inch apart, rising above each other like the floors of an edifice. These are connected together by an infinite multitude of thin pillars of crystal, or rather leaves, some of which show their edges towards us, other their broader sides, and others are broke off at various distances, the fragments standing up from the floor, or depending from the roof, like stalactites and stalagmites in a cavern." (p. 45). At least when I read Gosse, I feel a sense of passionate curiosity and his description makes me want to go look at whatever it is he is describing.

Not long ago, I encountered some specimens of *Dinobryon* for the first time. *Dinobryon* is a branching colony of flagellates, each cell of which has chloroplasts and is enclosed in a transparent vase-shaped envelope. This organism is often encountered as swimming colonies. Are these just parts of a larger colony? Do they ever attach? I don't know and I'm not sure anybody does. I suppose I could do a computer literature search and find some dandy articles filled with terminological torture that might or might not tell me. One of the dangers of getting intrigued by such an organism is that one has to learn a new language, but even then one may not find out what one wants to know. A second major problem is that the articles one does find on a given organism will be scattered throughout technical journals, both major and minor; and, in some instances, at least, to get the full story, one may need to know not

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only English and Biologese, but Polish, Russian, Italian, French, German, Danish, Dutch, and Japanese! My wife can read Russian (but not Biologese) and I can read German and bits of French, Danish, and Dutch, but there's no way I'm going to learn Polish, Japanese, and Italian. I love Italian opera but as Sir Edward Appleton said, "I do not mind what language an opera is sung in so long as it is a language I don't understand." However, with these wonderful marvels under the microscope, I do w But back to *Dinobryon*. One reference tells me the "*Dinobryon* is a type of mixotrophic chrysophyte." (Patterson, *Free-Living Freshwater Protozoa*, (p. 37) Terrific. so, I look up "mixotrophic" and I find "used in reference to organisms that use a mixture of nutritional strategies, e.g. organisms that have chloroplasts and carry out photosynthesis, but which are also able to feed by phagocytosis." So, here we go again. I look up phagocytosis and find: "Phagocytose: to take food by phagocytosis, i.e., to ingest visible particles of food by enclosing them in a membrane to form a food vacuole." Consulting Jahn's *How To Know The Protozoa*, we find the following description of *Dinobryon*: "Solitary or colonial with hyaline test. Each cell has two flagella unequal in length and two yellow-brown chromatophores. When a flagellate divides one of the filial cells forms a new test on the rim of the parent cell." O.K., so back to my *Webster's Encyclopedic Unabridged Dictionary of the English Language* (1949 edition, p. 54). We find under hyaline: "1....*Biochem* a horny substance found in hydatid cysts, closely resembling chitin. 2. something glassy or transparent.—adj 3. glassy, crystalline, or transparent. 4. of or pertaining to glass. 5. amorphous; not crystalline."

So what have we learned? Well, we know that *Dinobryon* is a flagellate, is usually colonial, has chloroplasts and so is capable of photosynthesis, but can also feed by ingesting small particles, each organism is enclosed in a transparent covering and has two flagella, and it is not related (or only very indirectly) to lobsters.

**The full original article appears in Micscape magazine. Parts of its text have been reprinted here. Some paragraphs have been omitted due to limited space.**

**Read the full article in Micscape Magazine**  
<http://www.microscopy-uk.org.uk/mag/indexmag.html>>. The above was printed here with the permission of the author.

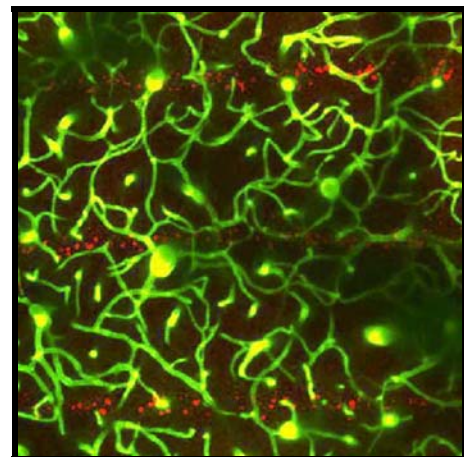
## Answer to February 2008 Mystery photo



Fern Sori (spore cases)

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## March 2008 Mystery Photo



Mystery Photo – Do you think you know what it is? Email or phone me your answer. > Mel

Got something you want to sell, trade or publish in the Newsletter? Write, call or send an email message to: 201-791-9826 or [pollingmel@verizon.net](mailto:pollingmel@verizon.net)

or  
Mel Pollinger, Editor  
NYMS Newsletter  
18-04 Hillery Street  
Fair Lawn, NJ 07410

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