



Newsletter of the

New York Microscopical Society

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NYMS teams up with the NYC Urban Park Rangers



On a beautiful, sunny Thursday, January 31st, NYMS members John Scott and Jay Holmes facilitated a workshop for the NYC Urban Park Rangers. This session was an outcome of our participation in last Spring's Urban Wildlife Festival hosted by the Urban Park Rangers at Highbridge Park in northern Manhattan. At that event we met many rangers who were interested in learning more about microscopy for their programming so, working with John McCoy, Deputy Director of the Urban Park Rangers, we organized a one day workshop on microscopes and nature exploration.

We started the day outdoors with some plankton collection at "The Pool," a small pond at 102nd street, then a short hike through the Ravine, gathering some botanical and mycological specimens (shout out to the other NYMS). Back in the classroom in the North Meadow Recreation Center we started with Stereo Binocular Microscopes (SBM) for viewing these hand specimens we had collected, the magnification range of 20-40x and the large working space of these microscopes provides a great entry

point for new microscopists, working with objects that they can see well and know with the unaided eye, and taking a closer look at those objects. We moved to tricks of further concentrating our plankton samples by passing them through a little more netting, and observing these samples under the stereo microscopes, and projecting compound scopes, thinking about working with groups of people at events, projection can help. Basic line art illustration cards were used to identify Cladocerans and Copepods in our samples, these are large zooplankton easily seen at 20-40x in petri dishes under SBMs. With a little sharing of some Do-It-Yourself collection gear, we moved on to a variety of mosses, fungi, pinned insects and leaf litter samples seeing mites, beetles, millipeds, springtails, snails and spiders along the way.

We hope to be able to use this experience as a building stone to support program development with the Urban Park Rangers. They are a wonderful group of excited naturalists, working in the beautiful green and blue spaces of New York City.

- By Jay Holmes

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.

A not-for-profit Educational Organization, (nyms.org)

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Dues and Addresses

Please remember to mail in your

Dues to:

Mel Pollinger

Treasurer, NYMS

18-04 Hillery St.

Fair Lawn, NJ 07410-5207

Annual:

Junior (under age 18)\$10

Regular\$30

Student (age 18 or above) ..\$20

Supporting\$60

Corporate (includes one advertisement in NYMS News)

.....\$175

Life\$500

(payable within the year)

To avoid missing notices:

Notify Mel Pollinger if you have changed your address, phone or email.

Awards Given by the New York Microscopical Society

The New York Microscopical Society takes great pleasure in recognizing and rewarding individuals who have contributed to either the activities of the society or to furthering microscopy.

These awards are described in our website and in a pdf file for our email newsletter recipients. All members are eligible to nominate individuals for these various awards, and are encouraged to do so.

John A. Reffner, Awards Committee Chairperson

Committee Members:

Jan Hinsch

Peter Diaczuk

John R. Reffner



To Order Your NYMS Lapel Pins

Send a check in the amount of \$12.00 per pin to:

New York Microscopical Society

c/o Mel Pollinger, 18-04

Hillery Street, Fair Lawn,

NJ 07410.

To avoid shipping & handling charges, pins may be purchased directly at any NYMS meeting for \$10.00.

Jay Holmes, Newsletter Editor
3657 Broadway, Apt 2C
New York, NY 10031

“Marvelous” Microscope at the Met



Now on view at the Metropolitan Museum of art, as part of the “Making Marvels: Science and Splendor at the Courts of Europe” exhibition, is a gem of a microscope from the French maker Claude Simoéon Passemant c 1750. The gilded bronze C-scroll and vibrant shagreen green body tube glisten in a spot of light. The substantial instrument stands at about 24 inches (61 cm) tall. It has a fairly massive appearance with a fair amount of bronze C-scroll in the base. Some interesting features to note are:

- The fine focus rack hidden on the back, a little less ornate, but contributing to finer image control than the sliding tube of earlier Culpeper designs.
- There appears to be a stack of threaded objectives to provide some range of magnification (below)
- A stage mount for holding “sliders” of specimens
- A couple arcing arms on the stage seem a little worn on their surface, were perhaps for holding stage forceps, they are slotted to provide some sort of grip on whatever was inserted.

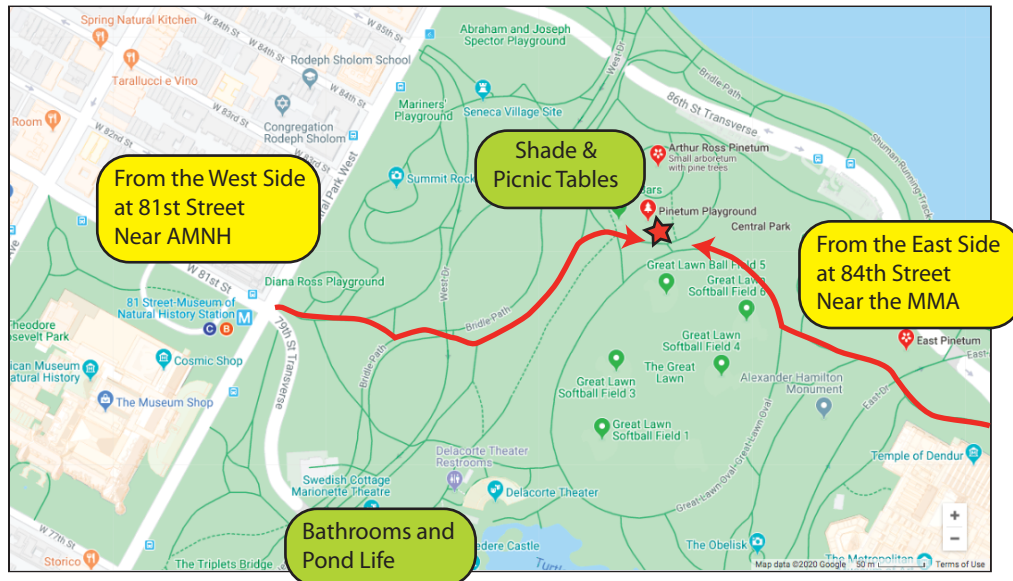


Above the focusing rack can be seen to the left of the body tube. Below the stage mount and the armature, perhaps for stage forceps.



For those who are mechanically inclined you will also enjoy the rose-lathe and lathe work as well as the nearly 4.5 meter long, ornately engraved and inlaid wire drawing bench. The show runs until March 1st, for more details visit www.metmuseum.org. - By Jay Holmes

Save the Date: NYMS Summer Picnic: July 26th!



Location: Picnic Grounds in the Arthur Ross Pinetum in Central Park

Date: Sunday, July 26, 2020

Time: 11:00 am -3:00 pm

We have acquired a permit for a picnic at the Arthur Ross Pinetum in Central Park (map above) for Sunday July 26th, 2020!

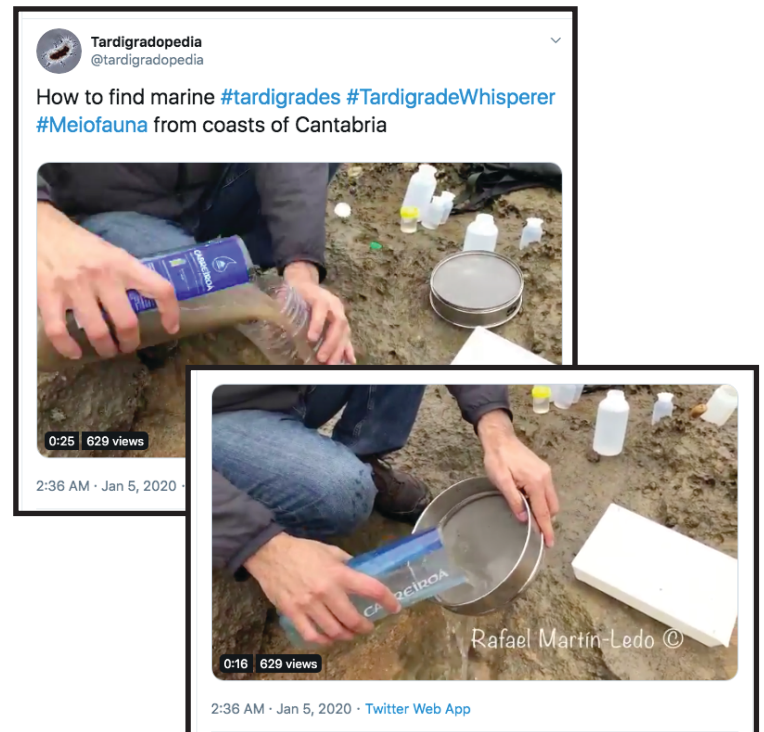
We hope that this site will be accessible to all of our members:

- There are picnic tables (some of us will arrive early to secure some of those)
- There is parking on the streets and in garages in the area of the Museum of Natural History.
- There is a close Subway station at 81st Street
- The walks from 81st Street on the West Side and 84th Street on the East are fairly gradual with no stairs
- There are bathrooms available at the Delacort Theater
- There is a pond near by for potential microscope fun.

We are just getting started with planning, if anyone would like to get involved or has suggestions that would help us make this as accessible and as enjoyable as possible that would be wonderful.

Contact Jay Holmes at jholmes@igc.org

Micro Resources on the web: Tardigradopedia



I love searching for old microscopy books on the internet (Ebay and other used book sources), the hand colored diagrams and the various collecting tools and procedures. The Do-It-Yourself nature of the writing I find refreshing and exciting, stuff I can do!

There are some "channels" through which one can find some wonderful tips and tricks and people of like interest on the Internet. Our own society has a variety of portals on the Internet as well as some of our Board of Managers, like the wonderful work Sally Warring has been doing with "Pondlife" (follow her on Twitter & Instagram @pondlife_pondlife, and her website: <http://pondlifepondlife.com/>).

I would like to start a little sharing of other people doing great work on the web. This issue, Rafael Martin-Ledo (@rmartinledo). I first started following his Twitter series "Rafael Marine Microfauna" an excellent exploration of the marine plankton collected off the coast of Cantabria, Spain. A fair number of NYMS members have been involved in "Tardigrade Expeditions" with the public (Thank you Jean and Guy for so many fun events!), and on our own, so I thought you might be interested in Rafael's "Tardigradopedia" on Twitter. There are many things that I like about Rafael's work. He captures some great video, but he also shares things that I don't see often.

- Links to current scientific literature on tardigrades
- Collection techniques, he shared a quick video on his marine tardigrade collecting technique (see above) <https://twitter.com/tardigradopedia/status/1213725821829091329?s=20>
- New location ideas like tardigrades in Icelandic lichen (*Cetraria islandica*) sold as a food product (inspired by another Twitter poster).

So I find his stream very educational. He has captured some amazing video: mating tardigrades, developing eggs, and a real diversity of tardigrades, armored, tentacled, and my favorite the marine tardigrade with the sticky toes!

We have to go look for some New York marine tardigrades!

Don't forget to follow NYMS on Instagram, Twitter and Facebook @NYMicroscopical.

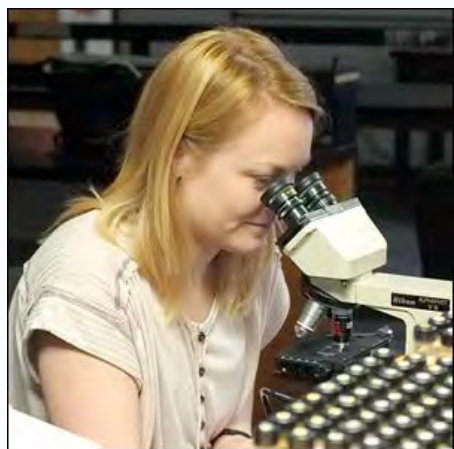
What are your go to resources for microscopical topics on the internet or in print?

By Jay Holmes

Microscopy Training at McCrone Research Institute, Chicago

*Polarized Light Microscopy - Scanning Electron Microscopy
Forensic Microscopy - Asbestos Identification - NIOSH 582
Fungal Spore Identification - Hair and Fiber Microscopy - more*

Register today for McCrone microscopy courses in 2020. Select a title to read the course description and register online:



Advanced Asbestos Identification
– January 27-31

Indoor Air Quality: Fungal Spore
Identification – March 2-6

Microscope Cleaning, Maintenance and
Adjustment – March 11-12

Applied Polarized Light Microscopy (PLM) /
Forensic Microscopy – March 16-20

Hair and Fiber Microscopy – March 16-20

Microcrystal Tests for Illicit Drugs and Diverted Pharmaceuticals – March 30-
April 3

Scanning Electron Microscopy and X-ray Microanalysis – April 6-10

Advanced Indoor Air Quality: Advanced Fungal Spore Identification – April 13-
17

Asbestos Fiber Counting [NIOSH 582] – April 20-24

Microscopical Identification of Asbestos – April 27-May 1

Applied Polarized Light Microscopy (PLM) (1201) / Forensic Microscopy – May 4-8

Food Microscopy – May 11-15

Microscopy of Extraneous and Foreign Matter in Food – May 18-22

View complete 2020 microscopy course calendar.

Select the links below to see all courses by category and register online.

Asbestos ID by PLM, NIOSH 582, Fungal Spore ID, and Other Indoor Air Quality Microscopy Courses

PLM, Forensic Microscopy, Drug Microcrystal, Food, and Other Microscopy Courses

SEM, FTIR, Fluorescence, Sample Preparation, and Other Micromethods Courses

Specialty and Other Courses

Visit www.mccroneinstitute.org for full descriptions of all courses, secure online registration, hotel information, and more.

Since 1960, McCrone Research Institute in Chicago has offered intensive courses in microscopy that emphasize the proper use of the microscope and more specialized microscopy, focusing on a particular technique, material, or field of application. All courses are hands-on, featuring lectures, demonstrations, and laboratory practice.

We look forward to seeing you in Chicago!



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Science Council of New York City



42nd Annual Conference

NEW SITE

Visualizing 3-D Learning in 2020. Are YOU ready?

Saturday, MARCH 21st, 2020

7:45 AM –1:30 PM

On Site Registration begins at 7:45 AM

NEW SITE

Thomas McCann IS125Q

46-02 47th Ave

Woodside, NY 11377

**Register
Early**

**Workshops for
All levels of
Science PK-12**

- ❖ *CTLE CREDIT will be available for up to 4 hours of credit for selected workshops as noted in the final program and in updates on our website. CTLE required for mandatory PD 100 hours required by NYSED.*
- ❖ There are 4 workshop sessions and you can select workshops of your choice for each session.
- ❖ Special workshops planned for new and in-service science teachers on understanding of current assessment systems and instructional strategies.
- ❖ Update your content understanding.
- ❖ Informal educational resources available for NYC including museums, zoos, aquariums, environmental and National parks
- ❖ Information about textbooks, educational materials, programs and ideas
- ❖ Commercially developed educational workshops
- ❖ Exhibition Hall featuring books, programs, and classroom materials
- ❖ Hot coffee, tea and muffins will be available in the cafeteria.
- ❖ Easy access via many subway lines: #7 subway and LIRR.

For more information visit our website at <http://www.sconyc.org>

On-line registration and payment available on website

DAY AT A GLANCE

Coffee, Tea and Muffins 7:45-9:00
Session A 8:15-9:15 AM
Session B 9:30-10:30 AM
Exclusive Vendor Time 10:30-11:15 AM
Session C 11:15-12:15 PM
Session D 12:30-1:30 PM

Member Associations of SCONYC

Chemistry Teachers Club of New York - Educators for Gateway - Elementary School Science Association - New York Biology Teachers' Association - New York Microscopical Society- New York State Marine Education Association - Physics Club of New York - Science Supervisors Association- Science Teachers Association of New York State (NYC Section)

Associate Members

Environmental Education Advisory Council- United Federation of Teachers Science Committee
New York State Science Olympiad, Inc.- United Federation of Teachers Outdoor-Environmental Education Committee

SCONYC is a Non-Profit Organization and an associate member of the National Science Teachers Association

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Registration: Follow these procedures:

1. Register and pay online using your credit card at <http://www.sconyc.org> SEE CONFERENCE TAB follow link to Eventbrite: <https://www.eventbrite.com/e/sconyc-conference-tickets-89705699161>
2. Mail Registration: DOWNLOAD registration form on the website and mail with payment to the address listed
3. Purchase orders can be accepted in advance. Send an email to Treasurer@sconyc.org for detailed instructions.

Registration Fees:

On Site Registration:	Early Bird Registration	General Registration	On-Site
7:45 AM on Saturday March 21, 2020 At Thomas McCann IS125Q	must be postmarked by 2/28/20	On-line or by mail must be postmarked by 3/11/20	
Full-Time Undergraduate or Full-Time Graduate College Student. include a copy of your college ID, current course schedule, and instructor's name with this form	\$20	\$25	\$30
Teachers, Informal Educators, Part-time college students and all others.	\$35	\$40	\$45

- ❖ Want to make a presentation? Contact Program Chair presenters@sconyc.org
- ❖ If you know someone who wants to have an exhibit table send a message and receive an application form: vendors@sconyc.org for Non-Profit Organizations and exhibits@sconyc.org for Commercial Organizations.

❖ Attend our annual conference and meet other Science Teachers. This is a conference <u>for</u> and <u>by</u> Science Teachers.
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