Meeting Notice – Sunday, October 25, 2015

Speaker: Yuri Yanchyshyn

Speaker program begins at 2PM

PRESENTATION TITLE:
What Wood is That? - A Furniture Conservator’s Approach to Wood Identification

PRESENTATION NOTES:
Identifying woods with certainty is a part of everyday life in a furniture or wooden objects conservator’s studio. This presentation will introduce the audience to various techniques used for identifying wood, ranging from the simplest to the very precise. Various contexts for wood identification will also be mentioned, such as replacement, authentication or determining whether a wood is of a species listed as endangered.

Lastly, some of the newest scientific approaches will also be mentioned.

BIO: Yuri Yanchyshyn is Senior Conservator and Principal of Period Furniture Conservation, a New York City firm dedicated to furniture and wooden objects conservation. Prior to founding Period Furniture Conservation, Yuri worked as a consulting conservator at the Metropolitan Museum of Art. He has worked with wooden objects for over 30 years, and received conservation training from the Amsterdam Academy for Restoration and the Smithsonian Center for Materials Research and Education. His firm’s clients include museums, historical societies, auction houses, collectors, fine arts advisors, dealers, designers, architects, and other conservators.

Doors will be open at Noon. Refreshments will be available. For additional information, please contact Mel Pollinger (pollingmel@optonline.net), or call (201)791-9826, or by cell: (201) 314-1354 (meeting day only)
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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

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

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 emailing: pollingmel@optonline.net

Buy and Read a Good Book on Microscopy.
**From the Library:**

The NYMS Library contains over 3,700 cataloged volumes, among these is a full set of McCrone’s Particle Atlas and copies of Microbe Hunter Magazine.

**Come on down and read!**
Contact: Mel Pollinger (201) 791-9826, or email Mel at pollingmel@optonline.net

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**Be A Volunteer – There’s Always Something to do and see at NYMS.**

If you wish to contribute some of your time to NYMS, please contact me at (201) 791-9826 or by email at pollingmel@optonline.net

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**Coming Up in 2015**

EAS Live Webinars for 2015:
Please search on the below indicated web address and review the EAS Website below for information regarding the upcoming Live Webinars in 2015.

http://easinc.org/wordpress/?page_id=2974

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**McCrone Courses**
Call or write for course information:
McCrone Research Institute: 2820 S. Michigan Avenue, Chicago IL 60616-3230
Phone: 312-842-7100

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**Eastern Analytical Symposium**

November 16-18, 2015
Somerset, New Jersey.
For more information:
Contact the Exposition Director,
Sheree R. Gold: easinfo@aol.com
610-742-4981 (cell)

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**Recent Donations by NYMS Members:**

We wish to thank Martin Youngberg for donation of a variety of microscopes, and a Mettler analytical balance. The items donated were from the personal collection of the late Margaret Walsh.

We also received, from Mary McMeeken, a donation of various early microscopes, books and an antique balance.

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On the morning of 06 June 2010, I pulled some aquatic moss from Ramapo Lake in Oakland, New Jersey. Upon getting home with the container, I set it under my stereo microscope and found a member of the *bryozoa*. The sample was also teeming with crustacea, ciliates and insect larva. The next evening, I was able to isolate one of the bryozoa onto a microscope slide. I photographed it with a 10x objective using Rheinberg simulated dark-field. The camera used was a Nikon D5000 set at Manual atop an Olympus BHT/BH2 microscope.

Ramapo lake is located about 0.6 miles up a rocky trail from near the intersection of route 287 and Skyline Drive in Oakland New Jersey. The area is part of the Ramapo Forest Reservation.  

*Mel Pollinger*
Visitors Always Welcome to NYMS

Although most of our lecture meetings, workshops and classes are held in the NYMS Clifton facility on the last Sunday of the month, the building may be opened for special purposes at other times, by appointment only. For such an appointment, please contact Mel Pollinger by phone at (201) 791-9826, M-F noon to 9:30pm, or by email at pollingmel@optonline.net.

From The Editor...

if you have an email address: Getting the newsletter by email means you can receive an extended pdf version that cannot be sent by “snail mail.” Even if you only continue your USPS delivery of the newsletter, NYMS needs your email address for reporting priority events and special news. Being able to contact you quickly by email means better communication between you & NYMS■ Mel

Need to use a Microscope?
The various microscopes that are presently set up on the main floor of the New York Microscopical Society building in Clifton, N.J. are there for the use of its members.

From Gary Mayer: In need of parts for older Olympus Microscopes? Contact J.C. Ricky in Ohio at (740) 862-9252

Microscope Cleaning Kit
A complete set of tools and accessories to keep your microscope in optimum operating condition. The kit is put together by our previous Curator/Educational Chairman, Don O’Leary, and available directly from NYMS, while they last, for only $35.00 plus shipping & handling, or may be purchased at a meeting. Call or email Mel Pollinger for details (see page two for contact numbers).

NYMS Meeting Dates
Most meetings of NYMS are usually held in Clifton on the last Sunday of the months of Jan., Feb., Mar., Apr., May, Sep., Oct. Exceptions will be noted in the Newsletter.

NYMS microscope slide collections are available for study at meetings and by appointment.

Please note that our website is undergoing some repairs.

Answer to Mystery Photo for September 2015

Campfire smokestack. Imaged by Mel Pollinger. Did you guess correctly? Sorry if the flipped image fooled you.

Mystery Photo for October 2015

Want to take a guess? Send it to me by email or call me: pollingmel@optonline.net, (201) 791-9826

Additional Historical NYMS Supplements
Email Newsletter recipients will also be getting copies of NYMS Newsletter pdf back-Issues from 2007. Copies of older newsletters will be sent as I convert them.

Attention NYMS Members
Got something to sell? Article to publish? Pictures for the newsletter? Looking to buy something? Want to use the library? Want to use a NYMS microscope? For any of the above, contact the Editor, Mel Pollinger.

Please note that our website is undergoing some repairs.

A Not-For-Profit Educational Organization, Page 4 of 4
What: Enjoy a wonderful Buffet Luncheon, including soft beverages (cash bar available) and desserts, with your fellow-members, an exciting speaker presentation to be announced. An overall jolly time at one of the oldest restaurants in mid-town Manhattan; The Landmark Tavern.

When: Sunday December 06, 2015, from noon until 3:30pm.

Where: Landmark Tavern, 626 11th Ave., at W. 46th St New York City, NY Tel: 212-247-2562.

Cost: $35.00 per person.

How: Reserve your place now* by filling in the Reservation Request form below and mailing it along with your check to the Treasurer (see address below).

*Reservation requests must be received on or before November 15, 2015

Number attending _________ @ $35/each = (write check amount) _______

Member name______________________________________________

Address____________________________________________________

Phone__________________   eMail____________________

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Send this form and payment to:

NYMS Banquet 2015
c/o Mel Pollinger, Treasurer
18-04 Hillery Street
Fair Lawn, NJ  07410-5207

For additional information contact Mel Pollinger
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Space is limited, so rush your reservation request in to reserve your place asap.
In This Section:

◊ Yuri Yanchyshyn, speaker information
◊ Kreindler on the Wild Stereo Microscope, Part 1
◊ EAS 2015 – Join Us!
◊ Membership Application
◊ NYMS Items for Sale
◊ Traveling Directions to NYMS
◊ NYMS 2015 Banquet
◊ Last page images
"When you work with Yuri, you're getting much more than you think."
— Cynthia Volk, Director, Berwald Gallery

Studio Head
Furniture conservator Yuri Yanchysyn has worked with wooden objects and their owners for over 25 years in a variety of settings, from a cabinet-maker’s shop to the laboratories of The Metropolitan Museum of Art. He regularly works on rare, valuable and handmade objects dating from the 14th through the 21st century, stabilizing their structures, restoring their historic integrity and minimizing the chances of future deterioration. Private collectors, museums, architects, decorative arts historians, fine arts advisors and designers have all entrusted treasured items to Yuri’s care, and institutions such as Christie’s invite him to lecture. Yuri is currently proprietor and Head of Studio at Period Furniture Conservation, LLC, a New York City-based firm.

Yuri was born in Philadelphia of Ukrainian parents and grew up in the Detroit metropolitan area. He and his wife Deborah have lived in New York City for over 25 years, and they have two sons. In his free time, Yuri enjoys reading and travelling. He is also an active volunteer for community non-profit organizations, including schools, museums and libraries.

Yuri holds degrees from the University of Michigan and the California Institute of the Arts. He received advanced training in conservation from the Amsterdam Academy for Restoration and the Smithsonian Center for Materials Research and Education, and frequently participates in ongoing continuing education courses.

To download a PDF of Yuri’s CV, please click here.

Publications, Articles, Catalogs and Presentations by Yuri Yanchyshyn
Please visit the resources page to read more about our work and find out about us speaking to your organization.

PERIOD FURNITURE CONSERVATION

Period Furniture Conservation, LLC, 37-18 Northern Boulevard, Suite 407, Long Island City, NY 11101  P. 212.255.7426  F. 212.208.4520
"Period Furniture Conservation really takes the time to get to know my clients' collections."
— Patrick Cooney, President, Connoisseur's Advisory Group

**Period Furniture Conservation** can help you keep the furniture and wooden objects in your care stable, historically faithful and esthetically presentable, whether you own them or have curatorial responsibility for them. There are several things we can do. Here's a sampling by service category:

**Preventive Conservation and Collection Management**

**Assessment, Valuation and Testing.**
Before you buy — or sell — your furniture or wooden object, you want to be certain that it is exactly what is advertised. While we do not "authenticate" objects, we frequently provide thorough technical examinations, detailing the materials and methods that were used in their creation as well as their present condition. We also provide scientific testing of coating surfaces, such as solvent solubility, cross-section analysis, microscopic wood identification analysis, x-ray fluorescence of furniture mounts, and ultraviolet light surface surveys. Our reports are always confidential to our clients.

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a ultraviolet-induced visible fluorescent surface scan, revealing previous restoration not visible to the naked eye

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Wild Stereomicroscopes-Part 1

R. Jordan Kreindler (USA)

This two Part paper is adapted and expanded from an earlier paper on stereomicroscopes (Kreindler, September 2013).

Wild Heerbrugg, Switzerland

The Wild company was formed when Heinrich Wild, originally of Glarus, Switzerland, and formerly head of Zeiss' surveying instruments branch in Jena, Germany returned to Switzerland. In April 1921 he founded the Werkstätte für Feinmechanik und Optik (Workshop for Precision Mechanics and Optics) in Heerbrugg, Switzerland. He started with surveying instruments, in keeping with his experience with Zeiss. In 1923, he formed Verkaufsgesellschaft Heinrich Wild (Henrich Wild Joint Stock Company) to sell Wild instruments. In 1924 the original company became part of the Joint Stock Company.

Wild can be credited with many "firsts" including making the world's first aerial cameras, in 1927. In 1948, he set up its first overseas company, in the US, Henry Wild Surveying Instruments Supply Company of America, Inc.

Arguably, the best stereomicroscopes, optically and mechanically, were made by Wild (author: pronounced: vilt) of Switzerland, and Zeiss of Germany.

A Wild brochure on Stereomicroscopes, (Wild Brochure, 1975), explains their important characteristics.

Wild stereomicroscopes have some great features:

- Swiss quality and precision in mechanics and optics
- Economically designed for convenient and comfortable use
- Value for money, because rugged design guarantees long life
- Easy to handle, because of clear basic concepts and logical assembly
- Astounding number of combination possibilities for accessories
- Good range of ancillary equipment for special applications
This same brochure explains the key features of stereomicroscopes.

The main properties of the stereomicroscope are:

- Three-dimensional image
- Erect, laterally-correct image
- Large working distance
- Wide field of view
- Considerable depth of field

Because the image is the right way round and there is plenty of room underneath the objective, the specimen can easily be manipulated.

The wide field of view enables the stereomicroscope to be used for examining large, flat objects.

Stereomicroscopes have long been well established in all branches of science, and have now become indispensable tools in technology.

They are widely used in the production and assembly of small components, and in quality control at intermediate and final stages of manufacture.

Although Wild made its first microscope in 1947, it was not until over a decade later, i.e., 1958, that it released its first stereomicroscope, the Wild M5 (Figs. 1).

The M5 could be purchased with a variety of bases, e.g., an incident light only, or incident and transmitted light base. Fig. 1 shows a Wild M5 with transmitted light base, mechanical stage, and hand rests for support when dissecting. Wild M5s are still commonly found in use today, and they or the M5A, see below, and are often the dissecting microscopes of choice, particularly for entomology and some other areas of biology.

The M5 has four fixed magnifications, and with 10x eyepieces these magnifications are 6x, 12x, 25x, and 50x. The M5 was sold new from 1958 to 1989. It came with a metal protective dome that could be installed both for protection in the field, or on the research bench, and as a carry case. To assist in photography, the M5 also had phototubes available. Wild phototubes were available to convert the microscope to monocular, or trinocular versions for photography. An example of a monocular phototube is shown in Fig. 2. As configured below, the M5 microscope is rather heavy and weighs approximately 14 pounds, 7.4 ounces.

[Examples of Wild trinocular phototubes can be seen on the M8 and M10, Figs 20 and 28, stereomicroscopes shown toward the end of this paper, below.]
Figure 1. Wild M5 Stereomicroscope on transmitted-light stand
The M5 can be used with one or two lamps for incident illumination. If one lamp is used a spacing ring is placed on top of the objective’s milled terminal ring, shown in Fig. 1. If a second incident lamp is used the spacing ring can be replaced with the second incident illuminator’s ring. If this is done each lamp’s lighting position can be adjusted independently from the other. [See Figs. 21 and 23 for more details of incident lighting attachment]

The optical quality of modern computer-designed high-end stereomicroscope systems from the top four makers, Leica, Nikon, Olympus, and Zeiss can, in resolution, magnification, and zoom range, sometimes exceed the original Wild stereomicroscopes. However, the mechanical quality of these newer systems, whose cost may exceed USD $15,000 when new, is debatably not as good. Their focusing systems often contain plastic components, and have in this author’s opinion, a limited lifespan, and planned obsolescence, compared to the original Wild models, many of which are still in use today.

The M5 and its derivatives the M5A and M5D, see below, have optical paths further apart than do those of other Wild stereomicroscopes. Thus, many accessories are specific to the M5 series, e.g., any accessory placed between the body and head of these stereomicroscopes, as well as the binocular heads themselves.

Although the standard magnification range of the M5, as noted above, is 6x to 50x in designated discrete steps with 10x eyepieces, this can be extended from 1.4x to 200x using various combinations of eyepieces and objectives.

The following magnification diagram is from the Wild M5 Stereomicroscope: Instructions for Use brochure, (Wild, 1964), Fig. 3.
Figure 3. Wild M5 magnification diagram from Wild manual

Note: Single and double asterisks are in the manual’s table, but are not applicable here.
As will be seen below, Wild for reasons not yet obvious to this author, chose to number its stereomicroscopes without regard to the sequence of their chronological release. Thus, e.g., the M5 was released before the M4, the M4A after the M4C, the M8 after the M7, and the M1 was released in 1973 (see M1 and detail of its stand in Fig. 6), etc. Therefore, model numbers should not be used as relative indicators of Wild stereomicroscope release dates. The M4 was introduced only a year after the release of the M5, i.e., 1959, Fig. 4 and 5.
Figs. 5 show an M4 with magnification changer moved into its left- and rightmost positions, and finally removed. In the leftmost position, according to the Wild manual, with cartridge I in place the microscope's total magnification is 6x (not the 16x shown on the cartridge, see below for magnification with magnification changer removed) and in the rightmost position 40x. The cartridge can also be completely removed as shown in the rightmost picture of Fig. 5. With the cartridge removed the microscope's total magnification is, in accordance with the Wild manual, "Three-dimensional objects in natural relief", 16x.

There is also a magnification changer II. With stated magnifications of 10x and 25x, in left and right positions and 16x removed. With either magnification changer I or II the M4 has three magnification choices, two with the changer in left and right positions, and one with the cartridge removed. These magnification options can be further changed by changing eyepieces. Eyepiece choices include 8x, 10x, 15x, and 20x options.

The M4 was designed primarily as a simple educational microscope. It has a screw on the body that allows it to be raised for taller specimens or when an auxiliary lens with lower magnification is used, i.e., a 0.5x, to increase the working distance. Here the microscope, Fig 4, is shown on its Normal Stand with trapezoidal base plate, designed for stability. There is also a Swing-arm Stand, and a Table Clamp Stand. Its primary weakness is the two plastic "wings" that are placed underneath the magnification changer. These are often completely missing, as they are easy to damage and knock off.

Optional accessories included a variety of interchangeable stage plates, in addition to the metal (white on one side, black on the other) and glass stage plates. Inclined binocular tubes are shown in Fig. 4, but the M4 was also available with straight binocular tubes.
The M4C was introduced in 1965 and the M4A in 1967. Both were made until about 1970. Later versions of the M4, e.g., the M4A, had built-in circular magnification changers, somewhat similar to the original M5, rather than the sliding cartridge magnification changers available on the earlier M4s. Later models, including later models of the M4, were made in a lighter color, although the magnification changers were still made in black. The M4, Fig. 4, weighs approximately 8 pounds, 5.2 ounces, and is approximately 14 inches tall, in the position shown.
Fig. 6 shows a Wild M1A series stereomicroscope. The earlier M1, as noted above was released in 1973. This M1 provides the capability to use interchangeable CMOs. Some versions of the M1 series, e.g., the M1A, had the unusual, for Wild, additional extruding support with rectangular, cross-section on the pole stand for locking orientation and added strength. The M1 was available with both incident-only or transmitted- and incident-light stands, as well as a swinging-arm stand. This M1 series was a successor to Wild’s M4 series, presented above. It was designed for education, as was the M4, which explains the decision, in some versions, to “fix” the orientation of the microscope’s body over the object to be examined. This series was sold through the mid-1980s.
Using various combinations of eyepieces and objectives, the magnification range of the M1 can be extended from 1.25x to 40x.

Wild introduced the M5A, Fig 7, and the M5D, c. 1971, before the M1. These were available to c. 1989. An optional apochromatic objective was available for these at additional cost. The M5A is shown with a transmitted light base on a 25mm diameter column (25mm was the standard pole diameter for the M5A). The M5A is also available with a reflected light only base, Fig. 8. With 10x eyepieces, it provides magnifications of 6x, 12x, 25x, and 50x. These twist-to-select magnifications are marked on the M5’s rotating turret ring. As with other Wild stereomicroscopes in the M-series, it can be equipped either with one or two lamps, mounted around the objective. When only one lamp is used, an additional spacer may be required.

The M5A was also available in an M5APO version. An E. Leitz/Wild advertisement in Volume 54, Number 4, of Analytic Chemistry (Wild, 1982) notes,

**M5APO Stereomicroscope.** Special glasses and coatings were developed for total correction of chromatic aberration. For applications requiring the highest accuracy and detail in the areas of sharpness, contrast, resolution and color fidelity. The M5APO (apochromatic) has the same basic well-tested modular M5A design (the long time standard for dissecting-microscopes). All conventional M5A accessories can be used with the APO.

The Wild modular design allows rapid conversion to photomicrographic use.
Figure 7. Wild M5A on transmitted-light stand
Wild introduced other models in the M-series. In 1972 it marketed the M3, Fig. 8 shows this model with a standard base. In this configuration, it weighs approximately 9 pounds, 6.4 ounces. As shown, it is approximately 16 inches tall.

The M3 was also sold with a bright field / dark field base. The dark field option can be invoked by sliding a lever, with a black sphere at the end, into the dark field position. This moves the default stage plate out of position to switch to dark field, Fig. 9.

The M3 shown in Fig. 9, as expected is somewhat heavier that the M3 shown in Fig. 8. It weighs about 11 pound, 6.2 ounces and is approximately 18" tall. Both Wild M3’s have an achromatic CMO (Common Main Objective) of 1x. Their drum changers have three marked magnifications of 6.4x, 16x, and 40X. These apply if used with Wild’s standard 10x / 21mm eyepieces. As with Wild’s M4, in the 16x position, there is no additional lens present in the Galilean drum changer, optical path. Thus, the brightest images are obtained at 16x. The range of the M3, as with other Wild stereomicroscopes, can be extended with combinations of eyepieces and objectives. For the M3 this extended range is from 1.5x to 160x. Although shown here with inclined binocular tubes, the M3 was also available with a ‘straight’ non-angled binocular tube.

Wild also introduced at later stages models M3B, M3C, and M3Z, Fig. 15. The series was sold until 1994. All M3s like the M5s are considered excellent, and they are relatively easy to repair by maintenance professionals, as opposed to many models by competitors. All Wild models have a variety of optional accessories; some are discussed in this paper, and so they can be used in a myriad of applications.

The M3B provided greater field "flatness", compared to the somewhat "dome" shaped images of the M3. The M3B offered three clickstop magnifications, 6.4x, 16x, and 40x, with 10x eyepieces. The M3C added two additional magnifications for a total of five clickstop choices, with 10x eyepieces these are 6.4x, 10x, 16x, 25x and 40x.

The M3Z was unique in the M3 series, in that it offers a continuous zoom from 6.4x to 40x. It is available with achromatic or planapo objectives. The M3Z provides exceptional field flatness with its plan objectives. M3 objectives are interchangeable with the M5 series.
Figure 8. Wild M3 on incident-light stand
Figure 9. Wild M3 with bright / dark field base
Figure 10. The Wild M3, results of using the rear lever to switch between bright field and dark field
The following table, Fig. 11, is given in the Wild manual (Wild, Unstated-1), *Wild M3: Instructions for use*. It shows the working distances and magnifications for various combinations of objectives and auxiliary lenses.

**Technical data for M3 – Données techniques, M3 – Technische Daten M3 – Características técnicas del M3**

<table>
<thead>
<tr>
<th>Eyepiece</th>
<th>Additional objective</th>
<th>Working distance</th>
<th>Total magnification/Field of view at position:</th>
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<td>0.3×</td>
<td>91 mm</td>
<td>5.0× / 35.0 mm</td>
</tr>
<tr>
<td>10×</td>
<td>0.3×</td>
<td>91 mm</td>
<td>6.4× / 35.0 mm</td>
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<tr>
<td>15×</td>
<td>0.3×</td>
<td>91 mm</td>
<td>9.6× / 35.0 mm</td>
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<td>20×</td>
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<td>12.8× / 35.0 mm</td>
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<td>19.2× / 14.5 mm</td>
</tr>
<tr>
<td>8×</td>
<td>2.0×</td>
<td>31 mm</td>
<td>10.0× / 17.5 mm</td>
</tr>
<tr>
<td>10×</td>
<td>2.0×</td>
<td>31 mm</td>
<td>12.8× / 17.5 mm</td>
</tr>
<tr>
<td>15×</td>
<td>2.0×</td>
<td>31 mm</td>
<td>19.2× / 14.0 mm</td>
</tr>
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<td>20×</td>
<td>2.0×</td>
<td>31 mm</td>
<td>25.6× / 11.0 mm</td>
</tr>
<tr>
<td>16×</td>
<td>0.5×</td>
<td>265 mm</td>
<td>3.8× / 44.0 mm</td>
</tr>
<tr>
<td>40×</td>
<td>0.5×</td>
<td>265 mm</td>
<td>9.6× / 117.0 mm</td>
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</table>

The 8x, 10x, 15x, and 20x eyepieces listed in Fig. 11 can be seen in Fig. 12.
The auxiliary lenses presented in the table above can be seen in Fig. 13.
One of the advantages of the Wild stereomicroscope is the modular nature of the models in its various series. Wild microscopes can be configured with a variety of modules. Leica (Leica AG, Unstated-1) mentions this, and notes that you can choose whatever is needed currently, and be assured that the M3 chosen could be adopted to any future needs.

Accessories and modules include auxiliary lenses, phototubes, pods, eyepieces, polarizing attachments, etc. Fig. 14 shows a Wild M3 with polarizing attachments, and Fig. 15 shows more detail of these polarizing attachments. All Wild stereomicroscopes can be adopted to polarized light work, and a rotating stage.

Three Wild M3 series microscopes are mentioned in the Leica pamphlet.

[The] Wild M3 series offers a choice of several versions:

- **Wild M3B** with three-step magnification changer
- **Wild M3C** with five-step magnification changer and either an achromatic or planapochromatic objective (M3C PLANAPO)
- **Wild M3Z** with 1:6 zoom and either an achromatic or planachromatic objective (M3Z PLAN)

(Leica AG, Unstated-1)

This pamphlet explains that this series can be used in a variety of areas, including the automobile industry, agronomy, telecommunications industry, semiconductor industry, dental laboratories, electronics industry, chemistry, and biology. It further notes that these stereomicroscopes have received the international quality certificate for ISO 9001. Some instruments in Wild’s M3 series are shown below.
Figure 14. Wild M3 with polarizing accessories on transmitted-light stand
Fig. 16 shows an M3B pod. Leica purchased Wild, along with other microscope competitors including AO, and Bausch and Lomb. The M3B shown in Fig. 16 displays both the Leica and Wild trademarks, as does the M10 in Fig. 28. After a number of iterations of stereomicroscope releases, the Wild trademark was discontinued. Fortunately, Wild is arguably one of the most easily repaired stereomicroscopes, with a vast variety of interchangeable parts seemingly always available, and Wild second-hand stereomicroscopes continue to serve as useful instruments even for today’s scientists. They continue to, appropriately in this author’s opinion, obtain high prices on the used market.
Figure 16. Wild M3B
References and End Notes


Beale, Lionel Smith (1870) How to Work with the Microscope, Fourth Edition. Lindsay and Blakiston: Philadelphia


Classic Optics. Has provided support on several occasions, including a copy of the Wild manual, Stereomicroscope Wild M1. Instructions for use. (See Stanley, Jay below)


Goren, Yuval The author’s thanks to Dr. Goren for our many discussions on historical microscopes, and his emphasis on the importance of setting microscopes in their historical context.


Hatcher, Bill (scopeoptic). The author’s thanks to Mr. Bill Hatcher, scopeoptic, for his courtesy and permission to use his photograph of the Wild M7A.

Kreindler, R. Jordan (October, 2013) *Part 8 The Zeiss SR CMO Microscope. The Anatomy of a CMO* Microbe Hunter Magazine

Kreindler, R. Jordan (June, 2013) *Part 5 Additional Greenough Makers and Images.* Microbe Hunter Magazine


Kreindler, R. Jordan and Manuel del Cerro. (November, 2012) *Ten Tantalizers: Microscopes that Continue to Fascinate* Microscopy-UK

Leica AG (Unstated-1) *Wild M3B · M3C · M3Z: Stereomicroscopes for universal use.*


Stanley, Jay. Thanks to Jay of Classic Optics for his assistance in providing a copy of the Wild M1 manual.
Stereo Microscopy

Sychrostream Solutions. Thanks to Nikola Gaidarov of Synchrostream Solutions for permission to use the M10 picture.


Walker, David (undated). This is a short no frills introduction to stereomicroscopes.

Wild Heerbrugg Ltd.
- Wild Heerbrugg Ltd. (Unstated-1) Stereomicroscope Wild M3 Instructions for use
- Wild Heerbrugg Ltd. (1964) Stereomicroscope Wild M5. Instructions for use
- Wild Heerbrugg Ltd. (1970) Stereomicroscope Wild M5. Instructions for use
- Wild Heerbrugg Ltd. (1972) Stereomicroscope Wild M4/M4A. Instructions for use
- Wild Heerbrugg Ltd. (1973) Zoom Stereomicroscope Wild M7 Zoom Microscope. Instructions for use
- Wild Heerbrugg Ltd. (1974) Stereomicroscope Wild M1. Instructions for use
- Wild Heerbrugg Ltd. (1975) Stereomicroscope Wild M8 Zoom. Instructions for use
- Wild Heerbrugg Ltd. (1975) Stereomicroscopes
- Wild Heerbrugg Ltd. (1975) Wild M5 Stereomicroscope
- Wild Heerbrugg Ltd. (1977) Wild MTR27 Regulating transformer 12V/100VA
- Wild Heerbrugg Ltd. (1978) Zoom stereomicroscope Wild M8
- Wild Heerbrugg Ltd. (1981) Stereomicroscope Wild M7A / M7S Instructions for Use

Wild stereo microscopes. The extra dimension is quality.

London: Williams & Norgate
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- Free light lunch served daily in the poster area, located in the center of the exposition floor
- Improved Employment Bureau!

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For the first time in our Somerset location, there will be a Mixer on the exposition floor during show hours. This event on November 17 from 4:00-5:30 pm, will feature free food, beverages, and entertainment as well as a special poster session. The mixer is open to all registered attendees and sponsored by the following exhibitors:

- Anton Paar USA
- CEM Corporation
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- GenTech Scientific
- Markes International
- MicroLiter
- Shimadzu
- Solvias
- Thermo Scientific

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The following 20 exhibitors will be participating in the Technology Tour. Visit each of them to find out about the latest in analytical instrumentation and services.
Each completed passport qualifies you to be entered into a daily drawing for a Visa gift card. Additional details will be provided in the Final Program at the meeting.

Anton Paar USA
CEM Corporation
Chemglass Life Sciences
Digipol Technologies
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Nanalysis
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Shimadzu
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To find the latest information on the exposition, current list of exhibitors, and special events; please check the EAS website at www.EAS.org

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Registration is available on-line or on-site. Register before Oct. 15th for reduced rates
I hereby apply for membership in the New York Microscopical Society

Name: (Dr., Ms., Mr.) ........................................................................................................ Nickname

Home Address.........................................................................................................................

Phone........................................ Fax.................................................. E-Mail

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Would you prefer to receive NYMS mail at home □ At work □ By e-mail (best way) □

Principal work or interest in Microscopy

On what topic are you available as a speaker?

Would you like information about NYMS committees? Yes □ No □ Awards □ Membership □

Education □ Library □ Finance □ Curator □ Housing □ Program □ Publications □ History □

Who referred you to NYMS?

Academic and Honorary Degrees:

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I have enclosed a check for $.............. to cover my application fees for membership (Annual

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I understand portions of the above information may be used in NYMS publications.

I would prefer my home □ work □ address/ phone included in the NYMS Directory.

Signature................................................................. Date.................................

NYMS Headquarters: One Prospect Village Plaza, Clifton, NJ 07013 Telephone (973) 470-8733
New York Microscopical Society Items For Sale
08-Sept-2015

N.Y.M.S. Microscope Covers

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<th>Size</th>
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<td>MT-003</td>
<td>Small Microscope or Stereo, 15&quot;W x 17&quot;H</td>
<td>$18.00</td>
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<tr>
<td>MT-004</td>
<td>Lab Microscope or Large Stereo, 20&quot;W x 18&quot;H</td>
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<tr>
<td>MT-005</td>
<td>Large Lab Scope, 22&quot;W x 21&quot;H</td>
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<td>MT-009</td>
<td>Large Lab Scope with Camera, 9&quot;W x 19&quot;Deep x 23&quot;H</td>
<td>$31.00</td>
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<tr>
<td>MT-010</td>
<td>Universal Scope with Camera, 11&quot;W x 25&quot;Deep x 26&quot;H</td>
<td>$36.00</td>
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<tr>
<td>MT-012</td>
<td>X-large Scope, 20&quot;W x 28&quot;Deep x 32&quot;H</td>
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N.Y.M.S. Microscopes (see below for images)

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<td>185</td>
<td>Monocular Dissecting Microscope</td>
<td>$85.00</td>
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<td>131</td>
<td>H.S. Student Microscope</td>
<td>$190.00</td>
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<tr>
<td>131-FLU</td>
<td>H.S. Student Microscope (Fluorescent)</td>
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<tr>
<td>125-LED</td>
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Other Items

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<td>NYMS Glossary of Microscopical Terms</td>
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<td>NYMS Patch</td>
<td>$5.00</td>
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<tr>
<td>Microscope Cleaning Kit*</td>
<td>$40.00</td>
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<tr>
<td>NYMS Lapel Pin</td>
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<td>$15.00</td>
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<tr>
<td>NYMS Engraved Pen</td>
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</tr>
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</table>

*When available

Model 131: Tungsten
Model 131-FLU: Fluorescent
Model 185: 20x
Model 125-LED Cordless
Directions to NYMS Headquarters

One Prospect Village Plaza
(66F Mount Prospect Avenue)
Clifton, NJ 07013

From George Washington Bridge:
Take Interstate Route 80 west to Exit 57A, Route 19 South. Take Route 19 to Broad Street and continue two lights to Van Houten Avenue. Turn Left. Go to second light, Mount Prospect Avenue and turn left. Building 66F is on the left side, one and a half blocks from Van Houton.

From Lincoln Tunnel:
Follow exit road to NJ route three west. Continue to Bloomfield Avenue exit. Turn right to Circle and go three quarters to Allwood Road West. Mount Prospect Avenue is a few blocks on the right (a small street) Turn right and go to first light (Van Houton) continue. Building 66F is on the left side, one and a half blocks from Van Houton.

From North:
Take Garden state Parkway South to Route 46 Clifton Exit. On 46 Make second exit to Van Houton Ave. Continue to third light Mount Prospect Avenue and turn left. Building 66F is on the left side, one and a half blocks from Van Houten.

From Route 46 coming from West:
Take Broad Street Exit in Clifton and follow Directions above from GW Bridge.

From Route 46 coming from East:
Take Paulson Avenue Exit in Clifton and follow to Second light, Clifton Ave turn right. Go to next light, Colfax, turn left, go three blocks and turn right on Mount Prospect Ave. Building 66F is half block on right.

Public transportation from NY:
Take NJ Transit train from Penn Station to Secaucus Transfer Station. Change trains to Bergen Line to Clifton (call NJ Transit for schedules). From Clifton Station cross under tracks to first street and go left one block to Mount Prospect Street, turn right and Building 66F is one half block on Right.

If you plan to come by bus or train, please copy the links below into your browser:
http://www.njtransit.com/sf/servlet.srv?hdnPageAction=TripPlannerItineraryTo
http://www.njtransit.com/sf/servlet.srv?hdnPageAction=TrainTo
Dew drop under evergreen bud; by Jeff Glover

Wooly caterpillar, stacked images; by Len Tilstra