



***Come hear what happens when art meets chemistry !***

Join the Columbus Section of the American Chemical Society at Otterbein University to hear a research talk titled:

## **“Unveiling the Palette: Multi-Analytical Insights into Colorants of Modern Chinese Paintings”**

Joan M. Esson, Ph.D.  
Professor of Chemistry  
Otterbein University



**Thursday, November 20 Otterbein University @ The Point (Room 165)**

Directions: <https://maps.app.goo.gl/LBbY3AeFpmbYYTrXA>

**Registration Required by Thursday November 6 at 5:00 PM**

E-mail [columbusacs@gmail.com](mailto:columbusacs@gmail.com) to register

**Registration Info next page**

| Time   | Program                                                                                                                                                                                                                                     | Details                                                                                                                                                                                                                                          |
|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 5:30PM | <b>Check-In and Welcome Reception</b>                                                                                                                                                                                                       | Check-In and nametags available at welcome table                                                                                                                                                                                                 |
| 6:00PM | <b>Buffet Dinner</b><br><u>Dinner Costs</u><br>Member: \$25<br>Non-Member: \$30<br>Student: \$10<br>Retired/Emeritus/Unemployed Members: \$10<br>Program Only: Free<br><b>Payment in advance preferred by PayPal (see QR code below) or</b> | Menu (subject to change)<br><br><b>Fiesta Buffet</b><br>Adobo chicken<br>Rice<br>vegetarian seasoned black beans<br>peppers and onions<br>pico de gallo<br>corn and black bean salsa<br>lettuce, onion, jalapenos, shredded cheese and tortillas |

|        |                                                                                                                                                                                                          |                                                                                                      |
|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|
|        | <b>Venmo (@ACS-Columbus). Payment at the door by cash, checks, or credit card.</b><br><i>Please note that this is a dinner order and must be paid. Please help control costs by honoring your order.</i> | Served with lemonade and iced water with churros                                                     |
| 7:00PM | <b>Speaker:</b><br><b>Joan Esson</b><br>Otterbein University                                                                                                                                             | <b>“Unveiling the Palette: Multi-Analytical Insights into Colorants of Modern Chinese Paintings”</b> |

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E-mail [columbusacs@gmail.com](mailto:columbusacs@gmail.com) to register.

Include the following information in your e-mail:

- First and last name
- Membership category: member, non-member, retired, emeritus, unemployed, student
- Employer, if applicable
- Indicate if you are new member and attending our events for the first time
- If joining for dinner, please pay in advance via Venmo (@ACS-Columbus) or PayPal (see QR Link below)



**Professor Joan M. Esson**

**Biography:** Dr. Joan Esson is a Professor of Chemistry at Otterbein University and Councilor for the Columbus Local Section of the American Chemical Society. She teaches general and analytical chemistry as well as courses exploring the intersection of chemistry and art. Joan has been recognized for her excellence in teaching, receiving Otterbein’s Teacher of the Year award in 2024 and the Ohio Project Kaleidoscope STEM Educator of the Year award in 2023. She serves on the ACS Committee for Chemists with Disabilities and the Design Team for the SCIENCE Collaborative, a consortium of 14 institutions dedicated to institutional transformation through evidence-based practices that promote student success. Her recent sabbaticals as a Project MUSE Fellow in the conservation science laboratory at the Indianapolis Museum of Art at Newfields focused on applying complementary analytical methods to characterize the materials used in cultural heritage objects, bridging the disciplines of chemistry, art, and conservation science.

**Abstract:** Traditional Chinese paintings reveal their history not only through brushwork and style but also through their chemistry. This presentation demonstrates how a suite of complementary analytical methods was applied to identify colorants in modern Chinese paintings held by regional museums,

including the Frank Museum of Art at Otterbein University, the Cincinnati Art Museum, and the Indianapolis Museum of Art at Newfields. More than one hundred paintings by the Chinese American artist C. Y. Woo, his mentors, and contemporaries were examined using an integrated analytical approach that enabled the identification of both pigments and dyes. The results reveal shifts in colorant use, showing how materials evolved from traditional Chinese mineral and botanical sources to modern synthetic pigments - reflecting broader technological, cultural, and trade developments. This information has been used to establish timelines for undated works and to support authentication efforts, including the identification of several likely forgeries.