

## Seventh Forbes Symposium at the National Museum of Asian Art

Eugene and Agnes E. Meyer Auditorium, Freer Gallery of Art  
1050 Independence Ave. SW, Washington, DC 20560  
June 9–11, 2023

### Symposium Opening, Day 1, *Friday, June 9, 2023*

8:00–8:45 **Registration**

8:45–9:00 **Introductory Remarks**

#### ***Metalworking***

9:00–9:30 **Early East-West Cultural Interactions as Seen from the Finds of Bronze Mirrors in Xinjiang**  
Jianjun MEI, Needham Research Institute, East Asian Studies, University of Cambridge

9:30–10:00 **New Appraisals of Angkorian Copper-Based Metallurgy (11th–13th Century CE): Mines, Foundries, and Cast Products**  
Brice VINCENT, École Française d'Extrême-Orient; David BOURGARIT,

10:00–10:30 **Using Neutrons as a Probe for Technical Study of Solid- and Hollow-Cast Asian Bronzes**  
Sara CREANGE, Rijksmuseum; Francesco GRAZZI, National Research Council (CNR, Italy); Francesco CANTINI, University of Florence; Lambert VAN EIJCK and Yueer LI, Delft University of Technology

10:30–11:00 **Refreshments (Freer Conference Room)**

11:00–11:30 **Metallurgy Industry of Central China and Its Frontier Areas During the Pre-Qin Period**  
Jianli CHEN, School of Archaeology and Museology, Peking University

11:30–12:00 **Metallurgy in the Arc: Technological Choice and Resource Management Strategy During the Shang Period (16th–11th Century BCE)**  
Ray (Ruiliang) LIU, Department of Asia, British Museum, London, UK

12:00–12:30 **Decoration Techniques in Shang and Zhou Bronze Casting: Evidence from the Analysis of Ceramic Casting Molds**  
Matthew CHASTAIN, Jianli CHEN, and Xingshan LEI, Stanford University

12:30–2:30 **Free time for lunch**

- 2:30–3:00 **The Characterization of Heavily Corroded Bronze**  
Peter NORTHOVER, School of Archaeology, University of Oxford; Donna STRAHAN, National Museum of Asian Art, Smithsonian Institution
- 3:00–3:30 **Chinese Bronzes of Hammered vs As-Cast: A Technical or Cultural Choice?**  
Quanyu WANG, Joint International Research Laboratory of Environmental and Social Archaeology, Shandong University
- 3:30–4:00 **Refreshments (Freer Conference Room)**
- 4:00–4:30 **Born to Kill? Metalwork Wear Analysis of Chinese Shang Dynasty Bronze Weapons**  
Qin CAO, Oriental Museum, Durham University
- 4:30–5:00 **Production Insights into Bronze, Jade, and Turquoise Shang Ceremonial Weapons**  
Ariel O'CONNOR, Donna STRAHAN, and Blythe MCCARTHY, National Museum of Asian Art, Smithsonian Institution; Katherine EREMIN, Georgina RAYNER, and Angela CHANG, Straus Center for Conservation, Harvard University Art Museums
- 5:00–5:30 **Technical Investigation of Bronze Strip Inlay on an Eastern Zhou Bronze Vessel in the Collection of The Metropolitan Museum of Art, New York**  
Marlene YANDRISEVITS, Federico CARO, and Jason SUN, The Metropolitan Museum of Art, New York
- 5:30–6:00 **A Technical Study into the Historical Text of Repairing Ancient Chinese Bronzes**  
Tracy HAN, Independent researcher
- 6:00–8:00 **Reception (Freer Loggia and Courtyard)**

## **Symposium Day 2, Saturday, June 10, 2023**

- 8:30–9:00 **Check-in**

### ***Ceramics, glass, and related materials***

- 9:00–9:30 **Exploration into the Composition, Nanostructure, and Color Formation of Numbered Jun Glazes**  
Katherine EREMIN, Harvard Art Museums; Lucy COOPER, Bibliothèque National de France, Paris; Susan COSTELLO, Harvard Art Museums; Emeline POUYET, Laboratoire d'Archéologie Moléculaire et Structurale (LAMS), Paris; Marc WALTON, M+ Museum of Visual Culture, Hong Kong; Andrew SHORTLAND, Cranfield Forensic Institute, Cranfield University, UK; Laure DUSSUBIEUX, Field Museum, Chicago; Stephan KRAEMER and Jules GARDENER, Harvard Center for Nanoscale Systems; Katherine RICE, CAMECA Instruments, Inc., WI

9:30–10:00 **Discovering White Porcelain: Cultural Integration and Technological Transformation**  
Shan HUANG, Institute of Archaeology, the Chinese Academy of Social Sciences; Ian FREESTONE, University College London Institute of Archaeology

10:00–10:30 **A Technical Study of a Head from Hadda, Afghanistan**  
Angela CHANG, Katherine EREMIN, H. Greg LIN, Georgina RAYNER, Sarah LAURSEN, and Deborah KLIMBURG-SALTER, Harvard Art Museums

10:30–11:00 **Refreshments (Freer Conference Room)**

11:00–11:30 **Ultrasonic Velocity Measurements on Buddhist Clay Sculptures**  
Birgit Angelika SCHMIDT, Freie Universität Berlin; Wanja WEDEKIND, Deutsches Archäologisches Institut, Berlin; Lilla RUSSELL-SMITH, Museum für Asiatische Kunst, Berlin

11:30–12:00 **Decipher, Understand, and Compare the Enameling Techniques of Imperial Porcelain of the Qing Dynasty by Non-invasive On-Site Analysis**  
Philippe COLOMBAN, CNRS, Sorbonne Université, Paris

12:00–12:30 **Chinese Realgar Glass**  
Astrid R. VAN GIFFEN, the Corning Museum of Glass, New York

12:30–2:30 **Free time for lunch**

### ***Lacquer traditions***

2:30–3:00 **Comparative Analysis of the Stratigraphy of Victoria and Albert Museum Asian Lacquer Objects**  
Valentina RISDONNE and Lucia BURGIO, Victoria and Albert Museum; Herant KHANJIAN and Michael SCHILLING, Getty Conservation Institute

3:00–3:30 **The Lacquered Skin of Quqin: Technical Studies of the Surface Coatings of a Traditional Chinese Musical Instrument**  
Aidi BAO and Catherine MATSEN, University of Delaware and Winterthur Museum

3:30–4:00 **Refreshments (Freer Conference Room)**

### ***Precious metals***

4:00–4:30 **Parthian Silver Rhyta in the Collection of the J. Paul Getty Museum: New Insights on Composition and Construction**  
Jessica ARISTA, J. Paul Getty Museum; Monica GANIO, Getty Conservation Institute; Susanne GÄNSICKE, Erik RISSER, and Marie SVOBODA, J. Paul Getty Museum; Karen TRENTELMAN, Getty Conservation Institute

4:30–5:00 **A Chemical Composition and Granulation Technique of Silla Gold Artifacts**  
SHIN Yongbi, National Museum of Korea

5:00–5:30 **Comparison of Shibuichi Coating Behaviors**  
Matthew L. CLARKE and Blythe MCCARTHY, National Museum of Asian Art, Smithsonian Institution; Shirley Z. JOHNSON, Independent researcher; Lorrie A. KREBS, Anderson

Materials Evaluation, Inc., MD; Donna STRAHAN, National Museum of Asian Art,  
Smithsonian Institution

### **Symposium Day 3, Sunday, June 11, 2023**

8:30–9:00 **Check-in**

#### ***Painting materials***

9:00–9:30 **A Technical Study of Bishamonten (05.202), a Late 12th–Early 13th Century Japanese Painting in the Collection of the Museum of Fine Arts, Boston**

Jacki ELGAR, Richard NEWMAN, and Tatsuya YAMAUCHI, Museum of Fine Arts, Boston

9:30–10:00 **Combining Chinese and Western Pictorial Techniques: Seeing Leng Mei's Paintings through Non-invasive Analysis**

LEI Yong, LI Guanghua, GAO Xiang, CHEN Lu, and LU Ying, The Palace Museum, Beijing

10:00–10:30 **On the Materials and Construction of an Iranian Twelfth-Century Copy of the Qur'an**

Nina OWCZAREK and Julie REAM, University of Delaware

10:30–11:00 **Refreshments (Freer Conference Room)**

11:00–11:30 **Mapping Color in History: A Case Study of Pigments on Painted Palm-Leaf Manuscripts from South Asia**

Erin MYSAK, Museum of Fine Arts, Boston; Jinah KIM, Harvard University; Richard NEWMAN, Museum of Fine Arts, Boston; Katherine EREMIN and Penley KNIPE, Harvard Art Museums; Michiko ADACHI, Museum of Fine Arts, Boston

11:30–12:00 **The Viceroy's Gallery of Goa: Technical Study of an Indo-Portuguese Portrait Collection**

Teresa REIS and Sara VALADAS, University of Évora; Ana MACHADO and Luís PIORRO, José de Figueiredo Laboratory, Portugal; Ana CARDOSO, University of Évora; Fernando PEREIRA, University of Lisbon; António CANDEIAS, University of Évora

12:00–12:30 **Pigments Used in Rajasthani and Deccan Pichhwais**

Jennifer GIACCAI, National Museum of Asian Art, Smithsonian Institution

12:30–2:30 **Free time for lunch**

2:30–3:00 **Japanese Sugito: Investigation of Painted Decorations Reveals Unusual Copper Green Mineral**

Beth PRICE, Philadelphia Museum of Art; Georgia A. ARBUCKLE-KEIL, Rutgers University; Tim G. FAWCETT, International Center for Diffraction Data, PA; Richard NEWMAN, Museum of Fine Arts, Boston; Federica POZZI, formerly The Metropolitan Museum of Art; Dan KIRBY, Museum of Fine Arts, Boston; Kate DUFFY, Peggy A. OLLEY, Sally D. MALENKA, Felice FISCHER, Katie SHULMAN, Matthew DUSTIN, and Wei KAO, Philadelphia Museum of Art

- 3:00–3:30 **Copper Green Pigments and Silk Deterioration in a Korean Buddhist Temple Banner**  
Christina BISULCA, Joseph LEACH, and Aaron STEELE, Detroit Institute of Arts
- 3:30–4:00 **The Characterization of Porcine Blood-Based Binding Media in Traditional Polychrome Wooden Objects in Taiwan: A Case Study from the Longshan Temple in Lukang**  
Yu LEE, National Yunlin University of Science and Technology, Taiwan; Chun-Chieh CHEN, Central Police University, Taiwan; Saskia WU, Tainan National University of the Arts; Ching-Tai WU, National Science and Technology Museum, Taiwan; Hsiao-Hsuan CHAO, National Yunlin University of Science and Technology
- 4:00–4:30 **Material Characterization of Two Chinese Painted Wall Fragments at the Yale University Art Gallery**  
Marcie WIGGINS, Yale Institute for the Preservation of Cultural Heritage; Anne GUNNISON, Yale University Art Gallery; Gabrielle NIU, Yale University and Isabella Stewart Gardner Museum; Aniko BEZUR, Yale Institute for the Preservation of Cultural Heritage
- 4:30 **Program ends**