Glass and Ceramics Conservation 2010

Interim Meeting of the ICOM-CC Working Group
October 3–6, 2010
Corning, New York

Hannelore Roemich, Editorial Coordinator
### Contents

10 Introduction

**History, Technology, and Training**

15 Recording Oral Memories in Fire Arts Conservation  
*Agnès Gall-Ortlik and Pau Maynés*

22 From Mender to Restorer: Some Aspects of the History of Ceramic Repair  
*Isabelle Garachon*

32 What Color Has Saffron? Understanding German Recipes for the Production of Colored Glazes in the 16th Century  
*Helena Fuertes and Christoph Krekel*

41 Training of Ceramics and Glass Conservation Specialists at the Russian State University for the Humanities  
*Ekaterina Sharkova and Ekaterina Stolyarova*

**Special Collections**

53 Deterioration and Preservation of Blaschka Glasses  
*Astrid van Giffen, Katherine Eremin, Susanna Kirk, Jim Tate, and Richard Newman*

63 Classification and Preservation of Ancient Glass Beads from Ile-Ife, Southwestern Nigeria  
*O. Akin Ige*

75 The Museum of Ancient Glass in Zadar (Croatia)  
*Šime Perović*

82 The Production of Pottery Vessels from Peqi’in  
*Elisheva Kamaisky*

**Treatments**

93 Reattaching Paper Labels to Ceramics and Glass  
*Juanita Navarro*

100 An Assessment of Polymers Used in Conservation Treatments at The Corning Museum of Glass  
*Norman H. Tennent and Stephen P. Koob*

110 18 Tons of Roman Glass under the Sea: A Complex Conservation Puzzle  
*Paul Mardikian and Pascale Girard*
In Situ Mosaic Preservation of Three Glass and Marble Opus Sectile Panels at the Roman Villa of Faragola (Ascoli Satriano, Italy)  
*Maria Concetta Laurenti, Elisabeth Huber, and Antonella Martinelli*

An Experimental Treatment for Severely Crizzled Glasses  
*Stephen P. Koob*

Science and Technology

Archaeological Glass: The Surface and Beyond  
*Paul Bellendorf, Hannelore Roemich, Sandra Gerlach, Peter Mottner, Esmeralda López, and Katrin Wittstadt*

Characterization of Japanese Raku Ceramics Using XRF and FTIR  
*Raina Chao, Blythe McCarthy, and Gail Yano*

Mercury Emissions from Historical Tin Amalgam Mirrors  
*Manfred Torge, Sonja Krug, Michael Buecker, Ines Feldmann, Holger Scharf, Heike Witthuhn, Christoph Sander, and Kerstin Fraenkler-Balhorn*

Composition, Stability, and Storage of Imperial Qing-Dynasty Glass  
*Abigail Hykin, Katherine Eremin, Michele Derrick, Richard Newman, Hao Sheng, Kimberley Simpson, and Sarah Fearn*

When Glass and Metal Corrode Together, II: A Black Forest Schäppel and Further Occurrences of Socoformacite  
*Gerhard Eggert, Anne Bührer, Bruno Barbier, and Harald Euler*

Architectural Glass, Ceramic Tiles, and Terra Cotta

Keeping Out the Wind: Repair and Restoration History in Stained Glass Windows  
*Diane Roberts Rousseau*

The Use of Glass Bricks in Architecture in the 19th and 20th Centuries: A Case Study  
*K. De Vis, P. Jacobs, J. Caen, and K. Janssens*

An Investigation and Assessment of Tile-Work on Nila Gumbad  
*Maninder S. Gill*

Italian Renaissance Polychrome Terra-Cotta Sculpture in the Isabella Stewart Gardner Museum  
*Jessica Chloros, Valentine Talland, Holly Salmon, and Craig Uram*

Hatching a Theory of Attribution: A 15th-Century Madonna and Child at the National Gallery of Art  
*Simona Cristanetti*

Posters
The papers in this publication are dedicated to
Dr. Robert H. Brill
Research Scientist Emeritus
The Corning Museum of Glass
Dr. Robert H. Brill. (Photo: Frank J. Borkowski)
Dr. Robert H. Brill is research scientist emeritus at The Corning Museum of Glass, an institution with which he has been affiliated for 50 years.

He earned a B.S. in chemistry from Upsala College in East Orange, New Jersey, and a Ph.D. in physical chemistry from Rutgers University in New Brunswick, New Jersey. He was an associate professor of chemistry at Upsala College for six years before he joined the Corning Museum in 1960 as administrator of the Scientific Research Department.

From 1972 to 1975, he served as the museum's director, and he supervised its extensive recovery efforts following a devastating flood in 1972.

Dr. Brill is the author of more than 150 publications on the scientific investigation of early glasses and related materials, and on conservation studies. The most significant of these publications is *Chemical Analyses of Early Glasses*, the first two volumes of which appeared in 1999. These books detail Dr. Brill's chemical analyses of some 3,600 examples of historical glasses. Volume 1 presents a catalog of the samples, volume 2 consists of tables of analyses, and volume 3 will contain site reports and essays interpreting the data. Most of the glasses are fragments from archaeological excavations, although some are from objects in museum collections. These samples, which date from between 1500 B.C. and A.D. 1800, were provided by institutions in more than 40 countries. They come from Egypt and Mesopotamia, the Roman and Islamic worlds, Europe, and the Americas. There are also large groups of medieval stained glass windows and Asian glasses, as well as raw materials of the kind used in antiquity.

Dr. Brill was a founding member of the American Institute for Conservation, and he is a member of numerous scientific and archaeological organizations. During the 25th annual meeting of the Association of North American Graduate Programs in the Conservation of Cultural Property in 1999, he received a certificate of appreciation for convening the first such meeting of faculty and students from graduate programs in conservation. That meeting, titled "Conservation Seminar on Glass and Library Materials," was held in November 1974 at the Corning Museum, and it was attended by 70 students from New York University, the State University of New York program at Cooperstown, Oberlin College, The Henry Francis du Pont Winterthur Museum, and the Fogg Museum.

Dr. Brill's research and advances in the scientific analysis of glass have resulted in several major awards. In 2004, he received the William E. S. Turner Award for contributions to the work of the Technical Committees of the International Commission on Glass. He was the founding chairman of the Commission's Technical Committee on the Archaeometry of Glass (TC-17) in 1982, and he was chairman until 2004. He continues to serve as vice chairman.

The 11th annual Pomerance Award for Scientific Contributions to Archaeology was awarded to Dr. Brill in 1990. It is one of the two highest honors of the Archaeological Institute of America. The award stated: "Robert H. Brill has spent an enviable life as a productive scientist and administrator. He has been a pioneer in the application of many scientific techniques to the study and understanding of artifacts and the technologies behind their manufacture. His research, his field projects, his lectures, and his impact have extended throughout Europe, the Middle East, Africa, Central Asia, and the Far East." Among Dr. Brill's accomplishments, the award noted his use of lead-isotope analysis to determine the provenance of ancient glass, his production of a 30-minute film documenting a one-room glass factory in Afghanistan, and his research on the origin and development of Chinese glass.

In 1987, Dr. Brill received the American Chemical Society's Eugene C. Sullivan Award. As a Distinguished Scholar sponsored by the Committee on Scholarly Communication with the People's Republic of China, he lectured in China in 1982, 1984, 1990, and 1995.
Introduction

What a wonderful meeting we had in Slovenia in 2007! It left lasting memories of the unmatched hospitality of Jana Šubic Prislan from the Goriški Muzej Kromberk in Nova Gorica and all of her colleagues in the country. All participants remember the three exciting days with presentations of current conservation projects and research, excursions to other places in the vibrant cultural melting pot of Slovenia, the tour to Murano, and the, h’m, let’s say avant-garde venue of a hotel casino. Last but not least, because of Lisa Pilosi’s tireless efforts, a well-edited and -produced preprints volume 1 made the content of the conference available also to all those in the conservation community who could not make it to Slovenia, as well as to future generations.

As always, success raises expectations. Our working group2 was delighted, at its meeting during the ICOM-CC triennial conference in New Delhi in 2008, to receive the invitation of The Corning Museum of Glass to host the group’s next interim meeting in 2010. The museum, with its internationally renowned collection and its special exhibitions, will be the ideal locale for our international conference “Glass and Ceramics Conservation 2010.” And it is not just the institution that is the attraction here. The Corning Museum has several highly regarded experts in its ranks, and two of them are of particular significance to us:

• What glass conservator will not have come across the papers of Dr. Robert H. Brill on crizzling? When trying to make sense of a glass analysis, who will not make comparisons with the data found in the (so far) two volumes of his *Chemical Analyses of Early Glasses* (Corning: The Corning Museum of Glass, 1999), the scholarly achievement of a lifetime and an indispensable reference work? It is in gratitude for these publications and for other contributions by Dr. Brill, research scientist emeritus at the Corning Museum, that we dedicate this volume to him.

• *Conservation and Care of Glass Objects* (London: Archetype Publications in association with The Corning Museum of Glass, 2006) is an essential book in the education of glass conservators. It was written by Stephen P. Koob, the Corning Museum’s chief conservator, and it presents invaluable hints and tips that are based on his decades of experience with the subject. In our continuing search for more stable conservation materials, such as glass and ceramic adhesives, all of us are following his tested route.

Meeting both of these outstanding scholars and practitioners in the lectures and social activities in Corning will be a highlight for all participants. More information on both of them will be found in the paper by Agnès Gall-Ortlitk and Pau Maynés on pages 15–21 of this volume.

Because of the considerable interest in the interim meeting displayed by our colleagues in the working group and beyond, as well as the submission of papers, the 2010 meeting will cover all aspects of glass and ceramics conservation (as will be seen in the table of contents). Individual sessions will be devoted to history, technology, and training; special collections; treatments; science and technology; and architectural glass, ceramic tiles, and terra cotta. The contributions will lead us all around the world, affording our somewhat Eurocentric group (most of our members are Europeans) a truly international perspective. All of the papers were selected and reviewed by members of the program committee, led by our editorial coordinator, Hannelore Roemich of New York City. The other members of the committee are Stephen P. Koob of Corning and Gerhard Eggert of Stuttgart, along with assistant

---


2. Glass and Ceramics is one of the working groups (WG) of the Committee for Conservation (CC) of the International Council of Museums (ICOM). Its members are interested conservators, conservation scientists, and curators. More information about the working group will be found on our website, www.icom-cc.org.
coordinators Kate van Lookeren Campagne of Amsterdam, Agnès Gall-Ortlik of Barcelona, Laurianne Robinet of Gif-sur-Yvette (France), Renske Dooijes of Leiden, and Isabelle Garachon of Amsterdam.

We also thank the staff members of The Corning Museum of Glass who made this publication possible: Richard W. Price, head of the Publications Department, who edited the papers; Jacolyn S. Saunders, publications specialist, who designed the volume and prepared the layouts of the papers; and Dr. David Whitehouse, the museum’s executive director, who served as editorial adviser.

In its triennial program of 2008–2011, the ICOM-CC Glass and Ceramics Working Group aims to foster the conservation of the world’s cultural heritage made of glass, ceramics, and related materials. We believe that the way to achieve this goal is through “improved communication between experts . . . on current conservation research, practice, and education.” We hope that “Glass and Ceramics Conservation 2010” and this volume of preprints will be milestones in this pursuit!

Hannelore Roemich
Institute of Fine Arts, New York University
Editorial Coordinator

Gerhard Eggert
State Academy of Art and Design Stuttgart
Coordinator, ICOM-CC Glass and Ceramics Working Group

Editor’s Note: In the bylines of papers and posters with more than one author, the name of the corresponding author is followed by an asterisk, and that author’s e-mail address appears at the end of the byline.