CHSA Construction History Society of America

## *Metals Through Time and Other Tales of Construction History*
## *Friday February 19th at 12:00 pm CST*

The Construction History Society of America is pleased to present the third installment of our webinar series on Friday February 19th at 12:00 pm CST. Moderated by Peter Hilger of the University of Minnesota and Clifton Fordham of Tyler School of Art & Architecture, three presentations are offered on the theme: ***Metals Through Time and Other Tales of Construction History.***

## Tait Johnson, PhD
## *Machines for Selling: Kawneer Products in Commercial Districts*

**ABSTRACT**
Adorning the kickplate of countless storefront doors across the United States today is the name "Kawneer." Founded by Francis Plym in the early 1900s, this storefront and cladding manufacturer, now owned by Alcoa, brought architectural modernism to commercial districts across the country with aluminum framed window and cladding systems. After World War II, Kawneer developed a comprehensive store font system they called a *Machine for Selling.* This "machine" was most visible as a store front, but it also extended as a comprehensively designed ensemble deep into the store. Kawneer's aspirations for selling modernism didn't stop at the store, however. The company envisioned the entire commercial landscape as a domain of sales for their downtowns across the United States planned as multiple *machines for selling* to be designed in harmony. This presentation shows Kawneer's spatial experimentation in one particular landscape – Niles, Michigan, and reveals the history and construction of prototype "machines" as a singular unit in a broader effort of postwar planning for consumer growth in the United States.

**BIO / TITLES** Lecturer, Architecture, University of Illinois Urbana / Champaign

**BIO**
Tait Johnson is an architect and architectural historian teaching at the University of Illinois at Urbana-Champaign. His research examines the history and theory of modern architecture and materiality in the

twentieth century, specifically concerned with the image and instrumentality of metals in architecture. This research has most recently been published as an essay in the edited volume, *Constructing Building Enclosures: Architectural History, Technology and Poetics in the Postwar Era*, with presentations at conferences including the Construction History Society of America and the Society of Architectural Historians. Johnson earned a Doctorate at the University of Illinois at Urbana-Champaign in architectural history, a Master of Architecture at The University of Arizona, and a Bachelor of Architecture at Oklahoma State University. In addition to teaching, Johnson has practiced in the small Midwestern firm General Design for over 20 years.

## Kevin Vazquez, PE
## *Dunwoody College of Technology Renovation – Minneapolis, MN*

**ABSTRACT**
Dunwoody College was founded as a technical institute in 1914, when Minneapolis businessman William Hood Dunwoody left three million dollars in his will to "provide for all time a place where youth without distinction on account of race, color, or religious prejudice, may learn the useful trades and crafts, and thereby fit themselves for the better performance of life's duties. When his widow, Kate L. Dunwoody, died a year later she left additional funds to the school. The renowned A & E firm Hewitt and Brown were contracted to design a school building. The presentation will try to summarize the various structural works, approaches implemented, and challenges faced during a major campus Renovation completed in 2018 of this historic Higher-Education Facility in the Twin Cities, Minnesota.

**BIO / TITLES**
Senior Structural and Preservation Project Manager, Professional Engineer in MN and WI, Association for Preservation Technology (APT) Member, CHSA Member, Member of the Society of Hispanic Professional Engineers Twin Cities.

**BIO**
Kevin was born and raised in Mexico City where he completed a BSc in Civil Engineering, he also holds a MSc in Structural Engineering by the University of Sheffield, UK and an Advanced Masters in Structural Analysis of Monuments and Historical Constructions-ERASMUS Mundus Programme of the European Union by University of Minho, Portugal and Barcelona Tech, Spain. Kevin works with a diverse range of modern construction materials, such as cast-in-place concrete, precast concrete, hot rolled steel, cold formed steel, masonry, wood, etc. In addition, Kevin has special expertise in diagnosis, analysis and repair of existing buildings, construction systems and materials. Kevin is a recurrent presenter at the International Conference on Structural Analysis of Historical Constructions and an active member at the Association for Preservation Technology.

## Sara E. Wermiel
## *Introduction of the Rolled I-beam in the U.S.A. in the 1850s*

**ABSTRACT**
Of the new construction materials introduced in the nineteenth century, the rolled I-beam – a solid, metal structural element with a cross-section in the shape of a capital 'I' – was one of the most important. In the mid-1850s, two American rolling mills began to manufacture wrought-iron I-beams. These beams were rapidly adopted, and from an early date, beams in a range of sizes and weights, rolled in American mills, were available in the U.S. market. They were components of metal building frames, which evolved into skeleton-frame construction – one of America's principal contributions to construction technology. The story of the beginning of I-beam manufacture in America has been treated in several texts. This paper revisits the history, expanding on and correcting earlier work. It also revisits the beginning of I-beam production in France and Great Britain.

**BIO / TITLES**
Adjunct professor, Boston University; Research affiliate, Massachusetts Institute of Technology; independent scholar and historic preservation consultant

**BIO**
Sara E. Wermiel is an independent scholar, historic preservation consultant, and teacher. Her research focuses on the history of 19th-century American technology, industrialization, and urbanization. She has written several books and many articles on the main subjects of her research: structural fire protection, and the development of new materials and assemblies for constructing buildings in the 19th and early 20th centuries. Wermiel received a doctorate in urban history and history of technology from the Massachusetts Institute of Technology (1996). She also has a degree in urban planning, and before returning to school to get a doctorate, worked in city planning, housing and other public sector agencies. As a consultant, she particularly likes to work with structural engineers identifying obsolete construction materials and assemblies that are still holding up old buildings, in order to preserve them.