



# AE Research Seminar Series

**GUEST SPEAKER: Dr. Thomas E. Boothby**

**Amanda Webb, M.S.**

**TOPIC: Mechanical and Structural Issues in Effective Building Conservation**

**DATE: Thursday October 23, 2014**

**TIME: 12:00 p.m. – 1:00 p.m.**

**PLACE: 107 Engineering Unit B**

All AE Faculty and Graduate Students are invited to attend.  
Pizza and Sodas will be served



**Boothby:** Although the application of empirical design to buildings has been long and successful, the last two or three centuries have seen an increasing influence of rationalism on structural design. One of the outcomes of the now almost universal application of rational ideas to building design is that a rational view of the performance of a building is often imposed on a building that has been empirically designed. I review the potential consequences of misapprehension of empirically designed buildings, along with consideration of the design of Old Botany building and its place in the history of building design.

**Webb:** This study presents preliminary results of an analysis of the Old Botany building, an historic structure and designated landmark on the Penn State University campus. Within the context of historic preservation engineering, this study aims to identify the character-defining features of the building related to thermal comfort. Whole-building energy simulation, combined with statistical techniques for uncertainty and sensitivity analysis, are used to achieve the study's goal.

These talks are preparation for presentations to be made at the 2014 Association for Preservation Technology Conference.