

## **MATERIALS & TECHNIQUES of HISTORIC RESTORATION & REHABILITATION**

Wednesday evenings, 6:30 -8:30 PM - Instructor will be available for questions at 6:15 PM

Instructor Robert Russell, AIA is available during working hours at 609 452 1070 and by e-mail at [russell@hmr-architects.com](mailto:russell@hmr-architects.com).

### **Class #1**

Introduction to Secretary of the Interior's Standards for the Treatment of Historic Properties.

Differences between Preservation, Restoration, Rehabilitation and Reconstruction

The importance of historic fabric (materials) in the preservation of the character of historic properties

Introduction to traditional construction materials (slide presentation)

**Required reading assignment:** *The Secretary of the Interior's Standards for the Treatment of Historic Properties. (NPS website)*

### **Class #2**

Deterioration of historic construction materials in historic buildings.

The role of water, thermal changes, environmental conditions, UV, vibration, bugs, and geology in building deterioration.

Traditional wood framing systems

Architectural woodwork, doors and windows

### **Class #3**

Masonry – Discussion of masonry construction, including brick, rubble stone, cut stone, terra cotta and concrete.

Introduction to the basics of mortar preservation.

### **Class #4**

Traditional roofing systems including wood, slate, and tile.

**Term Assignment:** Select an historic building and complete a conditions assessment of the construction materials describing the existing conditions and nature of restoration work required. Develop written recommendations for the preservation of a minimum of three different materials. Provide photographic documentation of the existing conditions and product information sheets (if applicable) on proposed restoration materials. Present a case study of one material during class discussion during week 9 or 10.

### **Class #5**

How to “read” historic buildings through existing materials and ghosts of past construction.

**Reading assignment:** *NPS Preservation Brief #35 “Understanding Old Buildings: The Process of Architectural Investigation”*

Where danger lurks – A primer on how to stay safe while investigating historic structures.

Discussion of potential hazardous conditions and materials including lead, asbestos, industrial chemicals and biological hazards.

### **Class #6**

Architectural metals

Metal roofing and sheet metal

**Class #7**

The basics of plaster and stucco.

Historic Finishes – An overview of paints and other decorative finishes

Information on lead paint abatement

**Reading assignment:** *NPS Preservation Brief #10 – Exterior Paint Problems on Historic Woodwork*; *Brief # 28 – “Painting Historic Interiors”*; and *Brief #37 – “Appropriate Methods for Reducing Lead-Paint Hazards in Historic Housing”*

**Class # 8**

Stained Glass Documentation and Restoration (Jersey Art Glass presentation)

Discussion of the impact of the NJ Rehabilitation subcode in the preservation of historic structures.

Discussion of the impact and dangers of new MEP systems on historic buildings.

**Class # 9**

Walking tour of historic building materials in Cooper Street corridor and/or examination and discussion of additional class selected material interest areas.

**Class # 10 -**

Student project presentations & class discussion.