

**NCPTT Mortar Examination Workshop**  
**August 12-14, 2014**  
**Natchitoches, Louisiana**

**Schedule for August 12-14**

**Tuesday**

9:00 – 10:30

**Lecture**

Welcome (NCPTT)  
Introduction  
    Architectural conservation  
    Guidelines for Practice  
    Standards  
Overview of workshop  
    Lectures  
    Lab sessions  
    Site visits  
Terminology  
    Types of mortar joints  
    Brick bonds  
The role of mortar  
    Accommodates movement  
    Weather resistant  
    Contributes to appearance  
    Replaceable material  
Unit masonry  
    Brick, natural stone, terra cotta, etc.

10:30 – 10:45

**Break**

10:45 – 12:30

**Lecture**

Mortar components  
    Binders, including clay, lime, Natural Cement, Portland cement  
    Aggregate, including sand and other aggregate  
    Mortar mixes  
Curing processes  
    Simple cements  
    Complex cements

12:30 – 1:30

**Lunch**

1:30 – 3:15

**Lab Session**

Lab safety (NCPTT)  
Stereomicroscope use  
Examination of mortar samples  
Writing descriptions

3:15 – 3:30

**Break**

3:30 – 4:30      **Lab Session**  
Pulverizing samples  
Use of electronic and triple beam balances  
Acid digestion

4:30 – 5:00      Wrap up and Q&A

**Wednesday**

9:00 – 9:30      **Lab session**  
Check on mortar testing  
Oven drying components may be required

9:30 – 10:15      **Lecture**  
Problems with mortars  
    Erosion and other weathering  
    Soluble salts  
    Inappropriate mixes  
    Inappropriate installation  
Discussion of similar materials  
    Plaster and stucco, concrete, patching materials, etc.

10:15 – 11:15      **Lab session**  
Sieve analysis of sand (if sand is dry)  
Examination of similar materials

11:15 – 11:30      **Break**

11:30 – 12:30      **Lecture**  
Lab reports  
    Evaluating test data  
    Providing recommendations  
    Specifications for repointing

12:30 – 1:30      **Lunch**

1:30 – 5:00      **Site visits (NCPTT)**  
Magnolia Plantation  
Melrose Plantation

**Thursday**

8:30 am – 9:00

**Lab Session**

Finish mortar examination  
Clean-up

9:00 – 10:30

**Lecture**

Instrumental Methods  
    Petrographic examination  
    X-ray diffraction analysis  
    SEM/EDS  
Case studies  
    Heidemann Ranch  
    UT projects

10:30 – 10:45

**Break**

10:45 – 11:30

Wrap up and Q&A

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