Preservation Technology

- Investigation/Inspection
- Documentation
- Stabilization
- Monitoring
- Hazard Abatement
- Material Science
- Life Safety/Building Codes
- Restoration/Rehabilitation
- Conservation

Investigation/Inspection

- Visual/Tactile/Auditory
- Nondestructive testing (NDT)
- Sampling
Visual/Tactile/Auditory

- Visual and tactile inspection methods using small tools and/or magnifiers
  - Hammer, screwdriver, awl, probe
  - Binoculars, magnifying glasses
- Auditory inspection methods using tapping or sounding devices
  - Mallet, hammer, sounding chain
  - Fingers and knuckles

Nondestructive Testing (NDT)

- Using instrumentation that does not destroy the item while testing
  - Infrared Thermography (IRT)
  - Impulse Radar
  - Impact Echo
  - Pulse Induction Metal Detection
  - Ultrasonic Pulse Velocity Measurement
  - CCTV

Nondestructive Testing (NDT) (continued)

- Impulse Radar (aka GPR)
- Radio Detection
- UV Inspection
- Rebound Hammer
- Tomographic Imaging
- Borescope
- Bore Hole Dilatometer
- Flatjack
- Probe Penetrometer
- Moisture Meter
- X-Ray Fluoroscope
Sampling

- Pieces of the building fabric are removed and tested off site
  - Mortar
  - Paint
  - Masonry
  - Hazardous materials

Documentation

- Manual
- Photographic
- Automated/Digital

Manual Documentation

- Sketches
- Hand Measured Drawings
- Field Notes
Photographic Documentation

- SLR 35-mm
- Medium Format
- Large Format
- Rectified Photography
- Photogrammetry

Automated Documentation

- Photogrammetry/3-D Scanning
- Information Technology
- Remote Sensing
- Visualization
- GIS

Automated Documentation

Light Detection And Ranging (LIDAR)
Stabilization
• Structural
• Non-structural

Monitoring
• Moisture
• Movement
• Strain/Deflection

Hazard Abatement
• Lead
• Asbestos
• Radon
• Mold
• PCBs
Materials Science
- Replacement Products
- Coatings/Sealants
- Strippers
- Consolidants
- Cleaning Processes
- 20th Century Materials

Building Codes
- ADA
- Energy Conservation
- Fire and Life Safety

Restoration/Rehabilitation
- Structure
- Envelope
- Building Systems
- Ornamentation
- Finishes
Conservation

- Architectural Features
- Ornamentation
- Finishes

Project Planning

- Protect the Property
- Inspection
- Library Research
- Architectural Research
  - Report
  - Philosophy and Goals
  - Construction Drawings
- Restoration/Rehabilitation...

Protect the Building and Site
Planning Report
Philosophy and Goals
Drawings