1. Designing a Conservation Treatment Plan for the Cloister of St-Trophime, Arles, France
   Glenn Boornazian, architectural conservator, World Monuments Fund, New York, New York

I. Introduction - Background and Overview
   A. Short history of Arles
   B. Short review of the chronology of construction of St Trophime
   C. Importance of the site architectural & art history

2. Preliminary Definition of Conservation Threats

3. Phase I - 1980’s early 1990’s
   A. Initial Documentation
   B. Initial Testing program and findings

4. Phase II - 2008 - Present
   A. Reasons Phase II was initiated
   B. The Project Team
   C. The WMF Scientific Committee
   D. Interrelated expertise WMF brought to the project

5. Historic Research
   A. Brief overview of findings

6. User Friendly GIS based software
   A. Brief review of software and application at St Trophime

7. Specialized Conditions Mapping
   A. Brief review of approach

8. Innovative Laser Cleaning techniques
   A. Brief review of specialized Greek equipment mixing UV and IR laser and results
   
   A. Brief review of test program and findings

10. Implementation
   
   A. Members of the Implementation Team
   
   B. Approach
   
   C. Anomalies during implementation and Team response
   
   D. Examples of before and after treatment images

2. Une deuxième vie pour le ménage militaire de la Grande-Allée de Québec : Le projet de reconstruction et la conservation des vestiges

Pascal Létourneau, architecte spécialisé en conservation, DFS Inc. Architecture & Design, Montréal, Québec

Stéphan Langevin, architecte et designer du projet, STGM / St-Gelais Montminy, Architectes + Associés, Québec, Québec

1.0 HISTORICAL BACKGROUND

   - Short historical overview of the building

2.0 DAMAGES OF THE FIRE AND LOST COMPONENTS

   - Impact of the fire on the building and overall conditions

3.0 REHABILITATION PROJECT AND CONSERVATION PHILOSOPHY

   - Very brief description of the project

4.0 INVESTIGATIONS PROCESS AND TESTING

   - MASONRY

   - Research of original specs, drawings and historical pictures

   - Exploratory openings and masonry conditions

   - Lab testing on brick, stone and mortar

   - Visits to the quarry
- PLASTERS
- Plaster condition and impact of the fire
- Testing solutions

- WINDOWS
- Window condition
- How to meet all the requirements for the new windows (acoustic, thermal, functional, compatible with heritage building context

5.0 TESTING OUR SOLUTIONS: MOCK-UPS
- Masonry large-scale mock-up (north facade)
- Plaster repairs and treatment mock-up

6.0 CONCLUSION
- Dealing with all the constraints
- Foreseen challenges during construction

3. Stone Cladding Restoration of the National Gallery of Art’s East Building: Investigation and Preliminary Design
Kirk Mettam, Preservation Engineer, Executive Vice President, Robert Silman Associates, Washington, DC
Susan Wertheim, R.A., Chief Architect, National Gallery of Art, Washington, DC

Introduction
- The National Gallery of Art and its East Building
- Background
- Introductory Film – Part 1

Investigation
- Review of Archived Documents
  - The components of the original panel support system
- Field Surveys
  - Visual survey, feeler gages and sounding
  - Lift assisted hands-on surveys of displaced panels
  - Limited panel removal
- Monitoring
  - Panel displacements
Monitoring for movement, moisture and temperature fluctuations.
Flooding/ Stacked/ Locked-in Conditions

Engineering Analyses
- Structural analyses of cladding-frame interactions
- Hygrothermal analyses of the wall section

Findings
- Materials in the joints between stone panels were preventing individual panels from being independently supported, as was originally intended.
- A combination of physical mechanisms driven by thermal cycling was causing stress in the anchorage system resulting in progressive panel movement.
- Tracking of panel displacements over time lead us to conclude that temporary stabilization measures would not suffice.
- It was concluded that the problem was not localized - all panels throughout the building were at risk and that the repairs needed to be made within three years to avoid failures.

Preliminary Design Phase Recommendations
- Pre-Design Criteria
  - Mortarless Design
  - New Gasket Material
  - Staged Adjustability for tight tolerances
- The design team considered a range of alternative solutions
- Design phase mockups were used to develop a solution that allowed division of trades to effectively meet the existing tolerances upon resetting the stone
- ‘Constructability driven design’ – design for productivity
- Tolerances were critical to aesthetics for the large planar expanses of panels, the joints and gaskets.
- Careful survey during ‘stone off’ process was critical to restore original tolerances and to avoid unnecessary cutting of stone

Construction
- Introductory Film – Part 2
- Closing Remarks

Jessie Grebenc, B.A.A.S., M.Arch., ERA Architects, Toronto, Ontario

Introduction
- Brief overview of the ideas that will be explored by this paper
- Brief overview of my personal background in respect to this topic
  - Why does this topic interest me?
  - How could this benefit other heritage professionals?

Building Stone as a cultural feature
- Local geology leading to vernacular traditions
- Iconic examples of cities that are associated with certain stone types
- Stone types popularized by dominant Architectural trends

North American Context vs European Context
- How do our building stone traditions differ?
  - imported material vs local sources
  - timelines for growth and development much later for NA cities
  - transportation links more advanced
  - fewer established quarry operations
  - major civic buildings constructed during periods of intense growth rather than spread out over centuries

Brief discussion of precedents for region-based building stone inventories
- Roman tabletop containing marbles from the Appian Way tombs (1870)
- Commonwealth marble tabletop
- Corsi Collection of Decorative Stone
- NIST Stone Test Wall (1948)
- Northern Ireland’s Natural Stone Database
- UK’s Strategic Stone Study

The Sample
- Description of sample precinct for the development of a prototype database
  - reason for selection (large collection of stone buildings, wide range of construction dates, range of building types)
  - building stone information is readily available
  - geology of Toronto does not lend itself to a vernacular-based building stone tradition, it is a classic example of the stone history that is typical of many North American cities
- Overview of the information recording process

The Prototype Database
- Could be more than simply a stone identification and matching database
  - Review of information categories. What do we include?
  - Examples of different organization methods, filters, layers and interfaces
  - How can the user engage with the database?
    - What trends and relationships does it reveal about the sample precinct?
    - What kind of place-specific stone histories can it reveal?
    - How is this information useful to the heritage field?

Future Implementation Questions
- How can this database be supported and populated with information?
- Who maintains it? How is information verified?
5. Socio-Cultural Influences on Cultural Heritage Preservation Education at World Heritage Sites in North-Eastern Brazil: A Critical Auto/Ethnographic Study
Karla Penna, PhD student, Curtin University, Perth, Australia

- What this critical auto/ethnographic study is about?
- The context: harsh socio-political contexts in world heritage sites in Latin America
- Research problem and research questions
- The case study: preservation education training centres in North-Eastern Brazil
- Research objectives
- Emergent paradigmatic research methodology: the PhD journey
  - From postpositivism to critical-constructivism
  - From exploratory to critical auto/ethnographic approach
  - Researcher’s phases
- Emerging issues framing preservation education in Brazil
- Critical analysis:
  - Socioeconomic issues
  - Political issues framing preservation and education system in Brazil
  - Managerial and legal framework of Brazil
- Guidelines for training programs’ improvement
  - Reconceptualisation of training programs based on new standards
  - Education and cultural heritage preservation
  - Empowerment: the key for citizenship and sustainable strategies
  - Shared management
  - Integrated Conservation aiming people well-being
- Further steps
  - Workshop for “bridging professionals” in target cities
  - Cultural awareness program under a Latin American perspective
  - Education for empowerment: an integral strategy for Latin American countries