

CIF Working Conference – Pisa, Italy

Friday October 18th 2007 - Afternoon 14:30-16:30 Session

“Training and Education in Crafts for Conservation”

“Such training should be considered as a new profession based on earlier knowledge obtained from the practice that can still be transmitted by the masters and also based on theoretical knowledge carried by superior institutions, research centres, and training centres.”

This working conference dealt with the specific problems of training/education in crafts for heritage conservation, and tried to respond to the 34th Resolution proposed by the ICOMOS National Committees from Africa and the Middle-East, and adopted at the 15th General Assembly of ICOMOS in Xi’an, China.

34. Training of Youth African heritage practitioners

Recognizing the need for building skill and capacity in the heritage management sector of Africa, and the successful existing training efforts of a number of institutions that are directed only towards heritage professionals from government institutions. The 15th General Assembly of ICOMOS, meeting in Xi’an, China in October 2006 resolves to:

- *Support an initiative by African sub-regions to initiate pilot projects that aim to provide training for young African heritage practitioners who operate outside of government institutions through the offices of all the International Scientific Committees, but specially the International Training Committee (CIF).*

Among all questions raised in the Call for Papers, some have been discussed and answered at the Friday October 18th 2007 Afternoon 14:30-17:00 Session, where representatives from six Countries exposed their needs and challenges: Mrs. Jurate Markeviciene, art architectural historian and heritage conservationist from Lithuania, M. Gaël Kpotogbé Amoussou master degree student in conservation of built heritage at the “Université de Montréal” (Canada) from Togo, M. Mauro Sassu and Mrs. Chiara Cei, professors at Department of structural Engineering, University of Pisa, Italy, and Mrs. Berenice Aquilar Prieto, professor at the Faculty of Architecture in Mexico National Autonomus University, Mexico. Despite the fact that Mrs. Gouhar Shemdin, architect and special advisor in heritage conservation from Canada, and M. Eduardo Muñoz Gonzáles specialist in conservation and restoration of monuments, and professor at the Institute of Anthropological Investigation, Chile could not attend, their papers will be published and are presented herein.

All presenters had a unique goal: sharing their needs, exchanging their experience, looking for solutions to make the know-how of traditional techniques survive and ultimately conserve their respective cultural heritage. The following recapitulation of the afternoon session is a presentation of different perspectives from international experts on the subject; the perspectives have been extracted from their intimate context and brought to a universal point of you applicable to a variety of conditions and circumstances, for the benefits of all.

The questions raised were:

What are the specific gaps of knowledge both within the trades, as well as in other professions about aspects of craftsmanship in the built heritage?

Eduardo Muñoz Gonzáles pictured the Pan-American and the Middle-east situations: increasing technological discontinuity and poverty result in the inadequate use of methods to conserve, recover and construct traditional architecture; increasing architecture movement to imitate models of universal architecture turns out to be incompatible with the method and traditional materials used to construct; lack of knowledge by professionals, contractors, managers, craftsmen, teachers, and decision makers about heritage conservation principles, values related to their built heritage; loss of traditional construction technology, their purpose and structural behaviour; recent inappropriate introduction of new technologies to modernize or repair, altered and damaged the structural systems making them vulnerable to natural environment and disasters.

Mauro Sassu and Chiara Cei mentioned that the lack of experience of structural engineers in the field of heritage conservation could be critical when assessing historic structures. Not knowing how these structures were built, how

CIF Working Conference – Pisa, Italy

Friday October 18th 2007 - Afternoon 14:30-16:30 Session

they behave, fail and deteriorate, and what heritage values need to be protected, make their conservation and sometimes reconstruction almost impossible.

Gouhar Shemdin confirmed that the need for craftsmen and training in traditional craftsmanship is suddenly important and enormous. There are not many, if any, master craftsmen in the crafts related to materials or traditional building components. The fast pace of development in some regions of the world, in contrast to the destruction and insecurity in other regions, has resulted in adopting concrete, steel, and glass products for new buildings including concrete blocks, cement renderings, and decorative elements: this meant the rejection of all special craftsmanship which reflects the distinguished local heritage character leading to a tragic change in the heritage character of the cities, and to the loss of traditional crafts and craftsmen.

Berenice Aquilar Prieto pointed out that the lack of knowledge about how to build, design and repair traditional vernacular architectural constructions, and about the reasons for their structural, environmental and moisture stability, and the threats to their conservation is resulting in extreme negative consequences: loss of architectural and structural integrity and loss of interest for traditional construction survival and conservation.

Gaël Kpotogbé Amoussou highlighted the lack of institutional structures for training in crafts for heritage conservation, and of human and financial resources; the lack or absence of planning and management skills; of sensitivity; of craft people qualified to undertake heritage conservation projects.

Jurate Markeviciene stated that, when over centuries, communities are disappearing from a region; their cultural identity and built heritage would also disappear. The remaining communities become isolated; they lose their sense of belonging, they are no longer able to find traces, prints and evidences of earlier layers and past conditions, they forgot how their built heritage was constructed and lost their skills to conserve them.

Some of the questions raised were directed towards the training/education organisers.

How to link specialist training to research;

How to balance between theory and practice;

How to translate between abstract and concrete;

How to develop communication between professions and experts;

How to develop multidisciplinary training and communication to overcome both gaps in knowledge and problems in management?

Gaël Kpotogbé Amoussou acknowledged that in-situ training constitutes one of the best means to ensure continuity of knowledge of the youth, protecting them from forgetting the historic practices and techniques; therefore recommended to systematically implement in-situ training in different regions where local youth could be encouraged to be trained in crafts for conservation by interested competent craft people: this way the youth would learn about their own built heritage; how to build, repair, maintain them in their respective context. Also, that heritage conservation training programs already developed for government institutions be tailored to address young professional training needs; that seminars be presented to make young professionals aware of the heritage conservation training requirements and specificity; that a long-term strategic and action plan be developed to trigger the renewal of traditional trades for conservation.

Berenice Aquilar Prieto recommended that heritage conservation solutions that respond to local ways of life as well as balance the natural environment and allow for self building prototypes, be taught; that Schools and faculties of architecture be expected to widen their alternatives regarding building and design solutions that include sustainable building technologies applicable to traditional architecture

Gouhar Shemdin suggested, as a dream comes through, that an International Task Force in Training and Education could be created and be called on, with a universal conservation approach developed for implementation as suitable to site or region. This team would have the know-how in pulling together quickly and systematically the existing experts and talents according to the potential of people and place, and would train the trainers who would ultimately remain or not in the region.

CIF Working Conference – Pisa, Italy

Friday October 18th 2007 - Afternoon 14:30-16:30 Session

Eduardo Muñoz Gonzáles summarized the international perspective on heritage conservation training by recommending the creation of task forces on specific issues related to trades in conservation such as <Seismic resistance of traditional earth structures>. This is the only way that we can initiate; develop implement and follow-up on these specific issues. The current system does not allow for a follow-up an evaluation of the performance, no indicators have been defined and submitted to a recurrent evaluation.

Other questions crucial for the possibility to carry out advanced training and education points outward to the organisation of conservation activities:

How are we to create a sufficient demand for trained specialists in traditional crafts to ensure a base for education/training and (re)production of knowledge and skills?

What are the needs and reach for continuous or recurrent training in crafts?

Berenice Aquilar Prieto demonstrated how traditional materials and techniques could be skilfully used to build traditional habitations and new buildings with contemporary facilities and services that are now being required by the society.

Gouhar Shemdin stated that <crafts and craftsmanship in heritage conservation> has been underestimated for so long. Mrs. Shemdin reinforced that ICOMOS has the structure and the mission with its International Scientific Committees (CIS) and questioned why there is not yet an international committee on Crafts & Craftsmanship since this is possibly the one cultural heritage conservation area that applies to all aspects of heritage conservation. Crafts and craftsmanship are implemented on all materials from stone to earthen, and is used in the art of architectural and landscape patterns, as well as in the designs of structural systems of period construction technology. Gouhar then put forward the recommendation to create ICOMOS International Scientific Committee on Crafts and Craftsmanship for Heritage Conservation; this way crafts would finally make its way out of the surface, and demand its own place.

Jurate Markeviciene stated that a long term vision, solution and impact reside in making the population aware of and sensitive to their cultural heritage; faithful when advocating, explaining, promoting. To achieve this task, Mrs. Markeviciene recommended that inventories, catalogues and integrated documentation centers of cultural heritage assets and resources be created in all regions of the world. This way people, students, youth could be involved in the process of restitution; a local taskforce preserving knowledge could be created undertaking field work, homework's, measurements, recording.

CIF Working Conference – Pisa, Italy

Friday October 18th 2007 - Afternoon 14:30-16:30 Session

1st Speaker:

Jurate Markeviciene is an Art Architectural Historian and Heritage Conservationist; is teaching Heritage Philosophy, Laws and Museology at the Vilnius Academy of Fine Art, in Lithuania; a member of ICOMOS CIF, CIVVIH, and CIAV.

Subject of the presentation

'Inventory of Mural Synagogues in Lithuania': A two-year program for undergraduate students.

Situation

- + A region where invaders came again and again
- + Only few Jewish communities remain today

Cultural Heritage

- + The Synagogues have been distrained and damaged
- + Some have been recycled to accommodate adaptive reuse: gymnasium, musical schools
- + The murals (wooden or on brick) are in great danger and are disappearing
- + The Jewish communities, cultural identity and built heritage are also disappearing

Approach / Solutions

Preferred approach involved:

- + Two-year program for undergraduate students
- + 60 students / 4 teachers / 4 groups
- + Training students in heritage recording and documentation process
- + Forcing students to discover traces, prints, evidences of earlier layers and past condition

Outcome / Recommendations

Long term vision, solution and impact reside in:

- + Making the population aware of and sensitive to the Jewish cultural heritage; faithful when advocating, explaining, promoting
- + Involving students in the process of restitution: a taskforce preserving knowledge

Output

- + Created an inventory of mural synagogues: a catalogue of synagogues
- + Created an integrated documentation center: documented thousands of photographs, three weeks of field work, homework's, measurements, recording

CIF Working Conference – Pisa, Italy

Friday October 18th 2007 - Afternoon 14:30-16:30 Session

2nd Speaker:

Gaël Kpotogbé Amoussou is has a Bachelor degree in Architecture from EAMAU “École Africaine des Métiers d’Architecture et d’Urbanisme” in Lomé (Togo). He has received a certificate from “CRA-Terre-École d’Architecture de Grenoble” (France) in Conservation and Management of Architectural Heritage; is a member of ICOMOS CIRIC; currently completing a Master Degree in Conservation of Built Heritage at the “Université de Montréal” (Canada) on “La transmission du savoir-faire liée à la construction de l’habitat traditionnel Takienta et son impact sur la conservation du Koutammakou du Togo”, this recherche is associated with the “Chaire de Recherche du Canada en Patrimoine Bâti.

Subject of the presentation

A brief analysis of the problems that confronts our Takienta cultural heritage

Situation

- + Lack of institutional structures
- + Lack of human and financial resources
- + Absence of planning and management
- + Incomplete or missing cultural heritage inventory
- + Lack of sensitivity
- + Less and less craft people qualified to undertake heritage conservation projects
- + Absence of training in crafts for conservation

Cultural Heritage

- + Takienta traditional habitat
- + Koutammakou cultural landscape

Approach / Solutions

Long term vision, solution and impact reside in:

- + Involving youth
- + Interesting competent craft people to train youth in crafts for conservation
- + Ensuring that Batammariba’s knowledge of the construction techniques of the Takienta traditional habitat is transferred

Recommendations

- + Find the means to encourage the knowledge transfer and exchange of ancestor’s construction techniques;
- + Develop a strategic plan directed to the development of training programs to generate a task force at the regional and national levels committed to take on the long-term conservation of their cultural heritage.
- + Create a strong network of youth interested in this long-term plan.

CIF Working Conference – Pisa, Italy

Friday October 18th 2007 - Afternoon 14:30-16:30 Session

3rd Speaker:

Mauro Sassu and Chiara Cei from Department of structural Engineering, University of Pisa. Their research focused on the Restoration and Consolidation Projects in the Sultanate of Oman, within UNESCO archaeological site of Al-Baleed inside the World heritage “Land of Frankincense” and the ancient city of Khor Rori.

Subject of the presentation

The Restoration and Consolidation Projects in the Sultanate of Oman: an experience of training a team of structural engineers

Situation

- + Lack of experience in the heritage conservation field for Structural engineers: multi-disciplinary team approach; conservation principles and approach; unknown historic structural systems, failure modes and behaviour
- + Ruins are originally made up of poor quality of irregular stone external layers and of an internal chaotic mixture of ground materials: lime stone and clay
- + Large sections of the walls show signs of collapse due to some rotation at its base, and of plants infestation
- + Lack of topside protection from the rain: loss of mortar
- + Surfaces collapsed into the spoon shape typical of the landslide mechanics of soil collapse

Cultural Heritage

- + The Sultanate of Oman, within UNESCO archaeological site of Al-Baleed inside the World heritage “Land of Frankincense” and the ancient city of Khor Rori.

Approach / Solutions

- + Developing and implementing a structural consolidation program
- + Involving expert members to train a group of young post-graduate engineers and archaeologists: 1 senior + 13 juniors + 100 workers
- + Defining and implementing the related field activities: construction phases and material and tools supplies organization
- + Training the non-specialized manpower through research studies and development of walls behavior structural models

Outcome / Recommendations

- + Implementation of an immediate plan, management and supervision of the Building yard through active field work
- + Understanding of the walls structural behavior through numerical and analytical models
- + Scientific researches: knowledge about aesthetic aspects, material composition
- + Technical Publications / Scientific Papers
- + Capability to reconstruct in a faithful manner using proper consolidation techniques
- + Great challenge for young engineers
- + Both the scientific aspects and the respect of the environment were considered

CIF Working Conference – Pisa, Italy

Friday October 18th 2007 - Afternoon 14:30-16:30 Session

4th Speaker:

Berenice Aguilar Prieto, Master Degree in Architecture at the Institute of Technology in Tokyo, Japan and full time professor at the Faculty of Architecture in Mexico National Autonomous University, in charge of Vernacular Architecture during eleven years. Her book: How to build with Adobe will soon be published.

Subject of the presentation

Raw Earth Construction at Undergraduate Education

Situation

- + Lack of knowledge about:
 - how to design, build and repair traditional earth construction
 - seismic resistance and behavior of such structural systems
 - moisture stability
 - structural stability
- + Resulting in negative consequences:
 - use of inappropriate materials leading to complete loss of integrity
 - loss of interest for traditional construction survival and conservation

Cultural Heritage

- + The Traditional Earthen Architecture

Approach / Solutions

- + Theoretical workshops
- + Field work
- + Design exercises for rural communities and local natural environments
- + Development of didactic material such as articles, books and manuals

Outcome / Recommendations

- + Offer adequate solutions based on appropriate technology both for rural communities and for urban outskirts and historic centers in Mexico
- + Solutions that respond to local ways of life as well as balance the natural environment and allow for self building prototypes
- + Schools and faculties of architecture are expected to widen their alternatives regarding building and design solutions that include sustainable building technologies applicable to traditional architecture

CIF Working Conference – Pisa, Italy

Friday October 18th 2007 - Afternoon 14:30-16:30 Session

5th Presenter (could not attend):

Gouhar Shemdin, Architect and Special Advisor in Heritage Conservation. Gouhar worked for 30 years as a heritage conservation architect for the Canadian Federal Government, first for the Restoration Services for Parks Canada and then for the Heritage Conservation Directorate for Public Works and Government Services Canada. Working in the area of intergovernmental affairs, she advised on the nominations of the Federal Heritage Awards, and attended meetings of the Canadian Commission for UNESCO regarding heritage issues related to the International Centre for Conservation-Rome (ICCROM), the international Heritage Decade, and the International Council on Monuments and Sites (ICOMOS). Now, Gouhar is the Special Heritage Conservation Advisor in Iraqi Kurdistan. Long term member of ICOMOS.

Subject of the presentation

Crafts and Craftsmanship in Heritage Conservation

Situation

- + Subject that has been underestimated for so long
- + Loss of significance: we just forgot that crafts and craftsmanship are implemented on all materials from stone to earthen, and used in the art of architectural and landscape patterns, as well as in the designs of structural systems of period construction technology
- + Loss of significance: we just forgot that crafts created over the millennia to build, adorn or strengthen our cultural heritage around the world, couldn't be counted.
- + Loss of significance: we just forgot that every big or small region distinguishes its self with its special craftsmanship that reflects its own heritage character
- + The fast pace of development in this region of Iraq, in contrast to the destruction and insecurity in the other parts of the country, has resulted in:
 - adopting concrete, steel, and glass products for new buildings including concrete blocks, cement renderings, and decorative elements.
 - rejecting all thing earthen leading to a tragic change in the heritage character of the city, and
 - loss of traditional crafts, craftsmanship and craftsmen.

Cultural Heritage

- + The City of Erbil in Iraqi Kurdistan: Erbil citadel. It is almost entirely earthen, and sits on an 8000 year old mound formed by layers of civilizations
- + The fortification, most buildings, and most architectural finishes and decorative arts are of mud, mud brick, sun-dried brick, and glazed brick craftsmanship

Approach / Solutions

- + Call on an International Team in training and education, with a universal approach or approaches developed for implementation as suitable to site or region: This team would have the know-how in pulling together quickly and systematically the existing experts and talents according to the potential of people and place, and would train the trainers.

Outcome / Recommendations

- + Crafts would finally make its way to the surface, and demand its own place;
- + Create an ICOMOS International Scientific Committee on Crafts & Craftsmanship

CIF Working Conference – Pisa, Italy

Friday October 18th 2007 - Afternoon 14:30-16:30 Session

6th Presenter (could not attend):

Eduardo Antonio Munoz Gonzalez, Specialist in Conservation and Restoration of Monuments, Institute of Anthropological Investigation, Faculty of Education and Human Sciences, University of Antofagasta, Chile. He obtained experience in academia and in practice in the restoration and conservation of architectural heritage in diverse sites in Chile, Latin America, Europe and Iran, over the course of 45 years.

Subject of the presentation

“History of Training in the Heritage Conservation of Earthen Architecture”

This presentation exposes briefly the Pan-America and Middle-East heritage conservation context and challenges; presents a list of training activities implemented since the 1960s to address the situation; exposes advantages, disadvantages, advances and deficiencies of such training; and introduces the perspective of the development of new strategies for professional training and the implementation of appropriate technologies derived from scientific investigation.

Situation

+ The Pan-American Situation:

- in the university curricula for schools of architecture and civil engineering, training in heritage conservation remains a vocational or personal interest option; importance given to heritage conservation is diminishing and traditional vernacular architecture is not taught in the schools of engineering
- lack of knowledge by professionals, contractors, managers, craftsmen, teachers, decision makers about heritage conservation principles, values related to their built heritage
- lack of consciousness by various ethnic groups and by the local community about the necessity of conserving their heritage
- lack of training and international interest/attention on seismic resistance of the traditional earthen architecture
- increasing technological discontinuity and poverty result in the inadequate use of methods to conserve, recover and construct such traditional architecture
- increasing architecture movement to imitate models of universal architecture turns out to be incompatible with the method and traditional materials used to construct

+ The Middle-East Situation:

- inefficiency of known restoration solutions in the strengthening of earthen architecture against seismic activities
- loss of understanding of traditional earth construction technology: its purpose in the great Iranian desert plain, and structural behavior
- recent inappropriate incorporation/introduction of modern technologies to modernize or repair, altered and damaged the structural system of the earth walls of these structures making them very vulnerable to natural disasters.

Cultural Heritage

- + The City of Erbil in Iraqi Kurdistan: Erbil citadel. It is almost entirely earthen, and sits on an 8000 year old mound formed by layers of civilizations
- + The fortification, most buildings, and most architectural finishes and decorative arts are of mud, mud brick, sun-dried brick, and glazed brick craftsmanship

CIF Working Conference – Pisa, Italy

Friday October 18th 2007 - Afternoon 14:30-16:30 Session

Approaches / Solutions

- + Since the 1960s, Chile has taken seriously the need for training professional architects in the realm of its architectural heritage at the Faculty of Architecture and Urbanism, at the University of Chile. The Institute of Patrimony was created there from which seminars and workshops are offered.
- + In the 1980s, the development of international and regional seminars, workshops and short courses was organized and undertaken by the PNUD with the support and collaboration of ICCROM, the Getty Foundation and the Foundation Andes in Chile.
- + In the 1990s, the first PAT 89 course offered by the Center for the Research of Earth Architecture (CRATerre) at the School of Architecture of Grenoble (France) was organized by CRATerre and ICCROM: the topics offered were at a good level of scholarship with suitable support in laboratories, outdoor testing and site visits, and covered all aspects of heritage conservation with special emphasis on earth constructions.
- + In subsequent years, project GAIA was created in collaboration with TERRA. A biennial training program was implemented presenting the new editions of the PAT courses; this continued until 1999, when the last course was offered in Trujillo, Peru. This project was done in collaboration with the CRATerre, ICCROM, UNESCO, US/ICOMOS, the PNUD and the Getty Institute.
- + The heritage conservation responsibility moved from the international level down to governments forcing them to develop their own national policies for their cultural heritage, and to secure financial resources

Outcome / Recommendations

- + Create a task force on “Seismic resistance of traditional earth structures” that would:
 - Propose to international institutions, UNESCO, ICCROM and the Getty Institute to support training development and proper scientific research on the subject
 - Promote cooperation and commitments between nations to allow for the development of global solutions and to elevate this heritage conservation discipline to a level of excellence, especially in the poorest countries
 - Encourage and collaborate to the development of a renewed training program at the university and post-graduate levels
 - Encourage and collaborate to the update of regional courses and workshops, incorporating the lessons learned and new knowledge
 - Promote international cooperation to advance understanding in the problems of traditional materials and structures and how to address these, using proper concepts and methodologies specifically to resist to seismic activities
 - Encourage scientific research on the seismic resistance of traditional earth structures, using existing university or laboratory facilities
 - Encourage and collaborate to the development of an emergency protocol for damaged monuments in case of natural disasters (update of the UNESCO protocol)
 - Make use of modern communications to maintain effective networks