

Historical Territory of L'Aquila; From Emergency to Revitalisation

Ecole française de Rome, 7 October 2009; Notes by J. Jokilehto (11/10/09)

The Conference at the Ecole Française de Rome (Piazza Navona, 62, Rome) was organised by ICCROM in collaboration with Presidenza del Consiglio dei Ministri (Dipartimento di Protezione Civile) and Ufficio del Vice-Commissario delegato per la tutela dei Beni Culturali, and under the auspices of the Italian National Committee of ICOMOS and UNESCO. The Conference was attended by representatives of several authorities and organisations.

Background to the meeting:

The disastrous earthquake of L'Aquila that took place at 3.32 of 6 April 2009 was of magnitude 6.3 (Mw). In terms of Mercalli, its impact was VIII/IX grade. It is noted that seismic events had started in the region already from December 2008, and have continued after April 2009. There were more than 300 victims and some 1600 wounded. The earthquake hit a large number of towns and villages in the Abruzzi, including particularly L'Aquila itself.

The Italian government has undertaken an effective emergency programme, providing housing for most of the 65,000 who lost their homes. A number of damaged buildings have been secured against collapse, etc. The Emergency Phase is planned to come to a close by the end of 2009. Following this, the purpose is to focus on the Recovery Phase. This is expected to involve a medium and long-term programme of rehabilitation, including restoration, reconstruction and conservation of damaged historic centres within the cultural landscape of the Abruzzi.

This was the third meeting on the Cultural Heritage of L'Aquila to which ICCROM is participating. The two previous ones took place respectively on the 3rd of July at the Ministry of Economy and the 14th of September in L'Aquila. The principal scope of the current relatively informal gathering was to collect ideas and guidance for the development of strategies for the Recovery Phase following the completion of the Emergency by the end of 2009.

General Principles regarding Risk Preparedness

It is noted that conservation of cultural heritage is fundamentally a cultural problem. The historical and cultural dimension should also be taken as a basic reference for technical and economic decisions. Recovery and rehabilitation should be undertaken with due attention to historically established qualities and characteristics of the landscape, the historic centres, and the society as a whole.

Earthquakes do not only cause structural damage, but infringe multiple problems on infrastructures, the landscape area, as well as the socio-economic structure of society. In the recovery/prevention phase, it is necessary to make an effort to reduce risk at source, reinforce the ability of property to resist, provide adequate warning system for the future, and to develop and implement emergency-response plans. Education and training have a fundamental part of the rehabilitation process.

Referring to the areas of the Abruzzi Region, which were affected by the 2009 earthquake, future planning and management should take into account the following issues:

- **The institutional dimension** of the region and of the localities related to the basic rights of an individual to participate in a social pact within a given society, and the governability of the community.

- **The ecological-environmental dimension** in search for a sustainable balance.
- **The cultural dimension**, related to a search for equilibrium between traditional ways of life and today's potential, aiming at social cohesion in community.
- **The economic dimension**, related to the integration within a network economy, the guidance of informal part of society beyond self-consumption establishing links with the formal society.
- **The ethical dimension**, based on social justice and the consideration of future generations and of environment.
- **The spiritual dimension**, related to the fundamental needs of human beings, sustaining the capacity to generate meanings and values as members of the community.

Definition of heritage

Over the past thirty years, there has been significant development in the definition of heritage. In the 1970s, the anti-seismic norms were principally referred to reinforced concrete structures, and the character of historic masonry structures was ignored. Today, due to substantial laboratory testing and field experience, it has been possible to elaborate guidelines that take into account the true nature of historic structures and materials, as indicated in the 1997 Kobe-Tokyo Declaration on Risk Preparedness for Cultural Properties and the 1998 Assisi Declaration. Risk Preparedness has also been the subject of manuals and handbooks, such as B.M. Feilden, *Between Two Earthquakes* (GCI, 1987), and H. Stovel, *Risk Preparedness: a Management Manual for World Cultural Heritage* (ICCROM, 1998). Furthermore, in Italy, the norms already established for the Regions of Umbria and Marche will be a useful reference for the Abruzzi as well.

Recent development has also introduced the notions of historic urban areas and cultural landscapes. As a result, it is now recognized that the rehabilitation of heritage in areas damaged in earthquakes needs to take into account the cultural and physical, as well as the social-economic context, i.e. the territorial and the intangible aspects of heritage.

Coordination and Management System

Risk prevention is a fundamental precondition for the mitigation of hazards and risks. In risk prevention and mitigation it is possible to identify three phases: a) prevention, b) response, and c) recovery. In practice, the phases of recovery and prevention necessarily overlap. Rehabilitation, reconstruction, restoration, and conservation works become a new opportunity to improve risk prevention and mitigation of hazards in the future. It is necessary to act "between two earthquakes".

In order to guarantee informed and efficient rehabilitation, it will be necessary to establish a Commission for the management of the cultural landscape area, taking into account the historical, cultural and social-economic resources, and involving Decision-makers and relevant Stakeholders.

It will be essential to place due attention to the organisation of proper System for Communication and Information Management.

The Commission can involve and/or consult international organisations and foreign experts as appropriate.

At the local level, there is need for Coordinating Teams to guarantee the overall management and the proper involvement of qualified technicians, the empowerment of the property owners, and the involvement of local and national resources as appropriate.

Principal Causes of Damage

During the earthquake, damage has generally been caused e.g. due to the following causes (taking into account that trembles often continue for several months):

- Lack of maintenance; lack of regular inspections; lack of proper heritage management;
- Lack or removal of proper chains or tie beams that allow the structure to retain its integrity; e.g. linking the roof structures to the peripheral walls; guaranteeing that the beams are properly tied to the walls; retaining the traditional system of ties;
- Lack or loss of intrinsic structural coherence in rubble-core walls and/or pillars;
- Introduction of heavy reinforced concrete structures that are not properly integrated into the existing structure;
- Mistakes in construction; discontinuity or lack of coherence between the different structural elements;

After the earthquake: damage can be caused in the reconstruction phase, e.g. due to following reasons:

- The recovery and rehabilitation of the earthquake-damaged structures is postponed, and the damaged, vulnerable structures are exposed to natural decay for too long;
- Extent historic structures are demolished due to lack of proper understanding of the potential of recovery, or due to over-strict interpretation of modern norms and standards that do not take into account the specificity of historic structures or spaces;
- Lack of proper attention to the different aspects of heritage, including historical stratigraphy underground, requiring preventive archaeology, and the spatial qualities of the urban and cultural landscape areas concerned;
- The character and behaviour of historic structures is not properly understood and if new structures are not properly integrated with the existing;
- The cultural and social-economic conditions of the region (historic settlements and cultural landscape) are not properly understood and respected.

Training and Awareness Raising

As noted in the 1998 Declaration of Assisi regarding risk preparedness, appropriate training should be offered to site managers to be aware of and effectively implement risk preparedness measures and operational guidelines. Decision-makers, property owners and the general public should be adequately informed of the necessity of preventive maintenance and repair of historic structures.

Italian, Local and International Sources of Expertise

It is recognized that, by now, Italy has achieved good expertise in seismic behaviour and recovery, based on extensive research and laboratory testing, as well as on practical experience in Italy and abroad. This does not exclude possible consultation with foreign experts when required. Local expertise and work force in the Abruzzi is an indispensable asset in the recovery/prevention phase, and should be the basis for the preparation and implementation of planning and management plans and regimes.