BDC

20

BDC

Università degli Studi di Napoli Federico II

20

numero 1 anno 2020

Growing Social Inequalities and Ecological Crisis

BDC
Università degli Studi di Napoli Federico II

Indice/Index

PRESERVATION OF CULTURAL HERITAGE IN POST-SEISMIC RECONSTRUCTIONS: A METHOD AND A CASE STUDY

Marichela Sepe

Abstract

Post-catastrophe reconstructions that do not take into account the intangible cultural resources of a territory often recreate places where people do not recognize themselves and, therefore, decide not to live there. The enhancement of the identity of places in post-earthquake reconstructions through the recovery or new creation of places of aggregation constitutes an important factor both in the immediate risk phase, and in the completion ones. Such places can represent symbolic spaces of socialization, as well as re-appropriation of areas removed from common uses due to catastrophic events. Starting from these premises, aim of this work is to present the results of the task 1.5 "Italian and international best practices and placemaking" research - with the author's co-responsibility - carried out in the framework of SISMI project of the Technological District for cultural heritage in the Lazio region. The case study of Leonessa in the Province of Rieti will complete the paper.

Keywords: cultural heritage preservation, post-seismic reconstruction, public space

SALVAGUARDIA DEL PATRIMONIO CULTURALE NELLE RICOSTRUZIONI POST-SISMA: UN METODO E UN CASO STUDIO

Sommario

Le ricostruzioni post-catastrofe che non tengono conto delle risorse culturali di un territorio spesso creano luoghi in cui le persone non si riconoscono e, quindi, decidono di non vivere. La valorizzazione dell'identità dei luoghi nelle ricostruzioni post-sisma attraverso, in particolare, il recupero o la nuova creazione di luoghi di aggregazione costituisce fattore importante sia in fase di soccorso immediato, che in fase di ultimazione. Tali luoghi possono rappresentare spazi di socializzazione simbolici e riappropriazione di aree sottratte agli usi comuni a causa di eventi catastrofici. Obiettivo di questo studio è presentare i risultati del task 1.5 "Buone pratiche italiane e internazionali e placemaking" - con la corresponsabilità dell'autore - ricerca svolta nell'ambito del progetto SISMI del Distretto Tecnologico per i beni e attività culturali della regione Lazio. La sintesi del caso studio di Leonessa, in Provincia di Rieti, completerà l'articolo.

Parole chiave: salvaguardia del patrimonio culturale, ricostruzioni post-sisma, spazio pubblico

1. Cultural resources and post-seismic reconstruction

Post-catastrophe reconstructions that do not take into account the intangible cultural resources of a territory often recreate places where people do not recognize themselves and, therefore, decide not to live there. The enhancement of the identity of places (Hague, Jenkins, 2005; Lynch, 1960; Porteous, 1977; Rose, 1995) in post-earthquake reconstructions through, in particular, the recovery or new creation of places of aggregation constitutes an important factor both in immediate risk phase, and in the completion one (Mazzoleni, Sepe, 2005). Such places can represent symbolic spaces of socialization for the population (Carmona, 2019; Francis et Al., 2012; Gehl, 2016-2020; Un-Habitat, 2016), as well as re-appropriation of areas removed from common uses due to catastrophic events.

Indeed, in post-seismic reconstruction, interventions carried out with little or no consideration for reconstructing the identity of a place have led in many cases to far greater damage to cultural heritage than that caused by the earthquake itself: towns which have been duplicated, whole quarters eliminated, historical centres and buildings destroyed or made unrecognisable, sites intended for emergency use which have become permanent. As Pantelic affirms "Urban ambiance, historical heritage and traditional architectural values are frequently victims of earthquake destruction, but very often reconstruction programs sacrifice these values, thus intentionally or unintentionally disrupting the social fabric of the community". Furthermore, "Weitz (1986) states that a "major reason for the recurrent failures of past development efforts is the neglect to involve values systems in development planning and implementation. The analysis of recovery programs after earthquakes and other disasters too link the many reconstruction programs to the lack of respect for the social and cultural values of the affected community. Two most significant objectives of reconstruction in this domain can be defined as strengthening the local community through active employment of its resources and incorporating the cultural values of the community into the reconstruction process."

There are three main factors in safeguarding the cultural and identity resources of a place subject to natural disasters: to establish a culture of risk in the population in relation to the historical identity of places; to provide for a conservation plan before a disaster; to adopt a multidisciplinary approach to damage and assessment.

In this respect the Guiding Principles for Cultural Heritage Conservation issued by the World Bank (AAVV, 2010) identified some key issues: "Cultural heritage conservation helps a community not only protect economically valuable physical assets, but also preserve its practices, history, and environment, and a sense of continuity and identity; Cultural property may be more at risk from the secondary effects of a disaster than from the disaster itself, therefore quick action will be needed; Built vernacular heritage offers a record of a society's continuous adaptation to social and environmental challenges, including extreme events, such as past disasters. This record can often be drawn on to design mitigation strategies for new construction or retrofitting; Communities should prioritize which cultural assets to preserve, considering both cultural meaning and livelihood implications, although reaching a consensus may be difficult; Cultural heritage conservation plans are best designed before a disaster, but, in their absence, heritage authorities can and should collaborate to develop effective post-disaster heritage conservation strategies".

What is necessary in order to achieve a reconstruction attentive to all factors is an integrated norm which includes questions related to technical, economic and planning - and

hence also cultural - aspects. Furthermore, clearly an earthquake will never reverse a trend in course; it can merely accentuate current tendencies, whether of development or crisis. Economic growth will be furthered, while an economic crisis will deepen. The damage linked to the loss of identity is more evident where the catastrophes, and the problems existing prior to the event, were greater (Arefi, 2011; Halbwachs, 1992; Paton, Johnston, 2006; Zelinka, Brennan, 2001). Thus recognising the value of the place identity serves as a reference point in the reconstruction process both in terms of the wishes of the collectivity and in safeguarding the urban image (Cullen, 1976).

Starting from this premises, aim of this work is to present the synthesis of the results of the research carried out in the framework of SISMI project of The Centre of Excellence of the Technological District for cultural heritage in the Lazio region (https://dtclazio.it). In particular, the paper will present the results of the task 1.5 "Italian and international best practices and placemaking" (with the author's co-responsibility), within the WP1 "Study and analysis of the historical-cultural, urban and socio-economic context". The case studies object of the whole research concern those interested by the Lazio 2016 earthquake (Caravaggi, 2020; Zampilli, Brunori, 2018). In particular, the paper will show the results of the Leonessa case in the Province of Rieti. The general approach of the task 1.5 is devoted to identify methods for reconstruction which take in account social inclusion, participation, safety, place identity – meant as a fundamental element of the cultural heritage - and sustainability. The method of analysis and design that was used and created by the author both detects elements that do not feature in traditional mapping and which constitute the contemporary identity of the places, and identifies appropriate project interventions (Sepe, 2013). It comprises eight phases, five of analysis and three of design. This method assembles, elaborates and reconstructs the data deriving from surveys based on physical reconnaissance, sensory perceptions, graphical elaboration, photographic and video records, and sets this data against that provided by an overview of expectations, an analysis based on traditional cartography and two questionnaires administered to local inhabitants. The main products are two final complex maps, one of analysis and one of design, which represent the place identity and sustainable project intervention. The method has a holistic approach. The idea is that a reconstruction of a place has to follow the same characteristic of a construction because a place should in any case consider the preservation of identity as a priority.

The paper is organized as follows: section 2 illustrates a study on four emblematic Italian post-seismic reconstructions, carried out by the author in the framework of the Amra Centre of competence (Mazzoleni, Sepe, 2005); section 3 shows the method together with its application in Leonessa (Rieti, Lazio Region); section 4 illustrates the principles which resulted by the case studies of post seismic reconstruction carried out with the same method; and section 5 draws the conclusion.

2. Emblematic Italian case studies

The post-seismic reconstructions involve many factors from the economic to the social, from the urban to the identity and both the times of duration and results are always different because of the specific territorial laws and peculiar characteristics of the places. In order to show some of these differences, brief examples of four emblematic post-seismic reconstructions in Italy will be illustrated in synthesis. The study on these areas was carried

out in the framework of a wider research project concerning the Amra Regional Centre of Competence (Mazzoleni, Sepe, 2004).

The earthquakes selected as benchmark episodes were: Belice, 1968; Friuli, 1976; Irpinia, 1980; Umbria, 1997. These episodes were selected on the basis of period of the event and typology of damage and because all four appeared emblematic of post-earthquake reconstruction of the cultural heritage in Italy.

A concise record of each event was drawn up using data on the earthquake and the subsequent reconstruction. Taken individually the details register the entity of the event, while both their comparison and the degree of difficulty we found in obtaining the data lead to considerations concerning our objective. The data for the earthquakes served to identify: where, when, magnitude, duration, area affected, towns damaged, population affected, number of homeless; also the localisation of the earthquake with the area affected and the epicentre. The information on the reconstruction involved: period, cost, legislation for the reconstruction, with the year of start and finish, the cost of the reconstruction, the main laws used; in addition significant images of the reconstruction, notably of before and after; also data concerning the evaluation and monitoring of the reconstruction, meaning the results achieved, the existence of an observatory with indications about who set it up and its brief, and the consensus of opinion about the reconstruction in question.

The Belice earthquake devastated the urban and landscape identity, with whole cities being duplicated and rebuilt elsewhere. In Gibellina, for example, the buildings that collapsed were simply buried under tons of cement. At Santa Margherita many of the churches damaged by the earthquake were demolished to make way for motorway spurs, roads and new buildings.

The reconstruction in Friuli was able to some extent to learn from the mistakes made in Belice,and is the only example of work seen through to its conclusion. The criterion adopted was "where it stood, as it stood", so that the historical centres were rebuilt on the original sites, paying particular attention to conserving the historical and cultural identity. In this case the territory was already in a phase of development and the post-earthquake reconstruction in fact represented not a handicap but, on the contrary, an incentive and a significant boost for economic growth.

In Irpinia the earthquake produced extensive damage, eliminating almost entirely the "crib-style" villages (in italian: "paesi-presepe") perched picturesquely on rocky outcrops, typical of this region. They were replaced by other urban typologies and new landscape morphologies, which more often than not the local population still finds alien. The consensus of opinion is that although the reconstruction has favoured the building of infrastructures needed to link the various localities in Irpinia, it was nonetheless a missed opportunity for the area's development. There is a widespread feeling of alienation and rejection on the part of the population vis à vis the new constructions, and the whole experience has left quite severe psychological scars.

In Umbria the earthquake caused fewer casualties and homeless than elsewhere. The ensuing problems were above all in terms of economic growth. The most significant damage concerned the historical and architectonic patrimony, one of the region's prime sources of prosperity in view of the importance of tourism. Thus questions related to loss of identity were assimilated above all to the problem of recuperating traditional images in the form that had been more or less artificially formulated and commercialised for the tourist trade.

Some regions such as Irpinia and Umbria set up observatories to monitor the achievements of reconstruction. The documentation accumulated by these institutions is very useful for the conservation of a historical memory and the possibility of evaluating the events and processes of the reconstruction.

The goals of the observatory in Irpinia were set out as follows: "to provide for permanent mechanisms for the conservation of the memory of places and the event; to comprehend and document the transformations induced by means of scientific research and onsite investigations." In Umbria, the observatory was set up to: "monitor the reconstruction process, elaborate and diffuse data and information on the state of advancement; coordinate the various sources of funding and oversee expenditure and the financial requirements; monitor the more general socio-economic effects produced by the reconstruction" (Mazzoleni, Sepe, 2005).

The difference in the aims of the two observatories points to the different experiences of earthquake and reconstruction in the two regions.

The Regional Administration of Friuli was the first to adopt a law on protection of the territory (which pre-dated national legislation). To safeguard its architectonic patrimony in view of earthquake risk it set up a Centre of Documentation on Earthquake and Cultural Assets. This Centre drew on the documentation and systematic analysis of the various phases of the earthquake event. For us it was very significant that in Friuli the National Disasters Centre was set up and the new discipline of sociology of disasters came into being.

In the light of these experiences, the "reconstruction" in Belice appears all the more distressing. Certainly, the historical and political climate of 1968 ruled out an adequate preparation in the face of such an event, and there were no previous experiences to learn from. Nonetheless, the lack of systematic documentation and the impossibility, nearly 40 years on, of obtaining complete and unequivocal information make it particularly difficult to quantify, qualify and above all monitor on the basis of precise data the reconstruction as it happened there.

3. The chosen method and the SISMI case study

The cases of reconstructions before described demonstrate the importance to use suitable urban methods to identify and reconstruct the place identity, meant as a fundamental element of the cultural heritage.

The case study of Leonessa was carried out in the framework of SISMI research project of The Centre of Excellence of the Technological District for cultural heritage in the Lazio region (https://dtclazio.it). Specific objectives of the project "Technologies for the improvement of security and the reconstruction of historical centres in the seismic area (Italian acronym: SISMI)" include the following:

a. to provide methods and tools for assessing the degree of vulnerability of both historical centres and their contexts (vulnerability related to cultural heritage, urban tissue, territorial relations and settled communities)

b. to provide methods and tools for assessing the degree of local seismic hazard which is preparatory to quantifying the risk conditions on the scale of the urban system, of the single building, of the objects and of the contents of the buildings (museum assets)

c. to allow an assessment of the current and specific possibilities for the seismic protection of buildings or objects of art, seismic improvement and seismic reconstruction of urban

contexts (technical, economic and temporal possibilities) feasible through simulations in terms of costs and times for typical cases)

d. to disseminate methods and results of seismic verification tests on technologies and materials for reconstruction and recovery

f. to provide guidance on how innovative, low-cost, easily implementable structural monitoring systems can also be used by end users (on a large scale).

As aforementioned, the paper will present the results of the task 1.5 "Italian and international best practices and placemaking" within the WP1 "Study and analysis of the historical-cultural, urban and socio-economic context".

The expected results include: the identification of public spaces for the reconstruction of the socialization of the population involved in the seismic event; itineraries for the promotion of the territory with attention to the cultural heritage; identification of principles for sustainable reconstruction. The main subjects to whom this type of investigation is addressed include: the inhabitants, the administrators, the professionals, the visitors, the local businesses.

The method which has been used to analyse the places comprises eight phases, five of analysis and three of design. The first phase is devoted to anticipatory analysis aimed at a primary investigation of places; after the preliminary choice of the city and of the part(s) to be investigated, the ideas about that particular area can be described using any type of instrument or tool of expression, using the information known prior to the first inspection. These notes can be represented in different ways and the result of this phase will be a map of the emerging ideas.

The second phase is that of the five surveys. The first, the denominative one, consists in collecting data regarding constructed elements (presence of monuments, buildings, etc.), natural elements (presence of urban green areas, trees, animals etc.), transportation mode (presence or transit of cars, buses etc.), people (presence of tourists, residents, etc.).

The localization of all these elements and the kind and amount, expressed as a low, medium or high percentage, are indicated. As well as the denominative data base there is a cognitive one which constitutes a kind of flexible input, where it is possible to insert elements which are not decided previously but deduced during inspection.

The second survey is perceptive; a survey is carried out of the smell, sound, taste, touch and visual sensations, and of the global perception, focusing on the localization, type, amount (present in low, medium, high percentage) and quality (non-influential, pleasant, annoying). The survey of the amount and quality of the data, the three options regarding, respectively, the percentage of presence and the feelings induced, are intended to summarise the processing of data that can however be extended during collection.

The next survey is graphical: it consists in sketching the places; the sketches will represent the area in question according to a visual-perceptive standpoint and will be supported by annotations where necessary. This operation constitutes a preliminary study for the construction of the graphical symbols for the complex map. Photographic and video surveys of the whole study area are carried out, taking care to record facts rather than an interpretation of the places. The product of the five surveys is a map visualizing the results obtained from the different inspections.

The third phase involves the analysis of traditional cartography of the selected sites in the city. The types of maps used in this phase derive from different disciplines and depend on the nature of the place; the study is carried out at the urban scale, in order to identify the

characteristic elements and their relationships with that particular area, and at the areal scale, in order to identify the relationships between the site and the whole city. The result of this phase is a map identifying the components required for the site description that can be found only through a traditional planimetric reading.

The fourth phase is that of the questionnaire administered to visitors to the area in order to gain an idea of the place as perceived by those who are not involved in the study and are not specialists in related fields, but only perceive the site as users, at various levels: the inhabitant, the passer-by, the tourist. The questionnaire consists of questions asked on the basis of images of the area or an inspection visit with the interviewee. The information deduced from the questionnaire is transferred onto a map that, like the previous ones, will constitute the basis for the construction of the complex map.

The fifth phase is that of assembling the collected information. In this phase, we test the maps produced, the congruence of the various collected data, and choose the useful elements to construct the final map. The recorded data represent the basis for the construction of the graphical system of symbols to represent the elements of the urban landscape and the elaboration of the complex map of analysis.

We then have three design phases. The sixth phase is devoted to surveying identity resources in the study area. During this phase, the complex map of analysis drawn up with the method is used as a basis to detect the resources available for the project.

The sixth phase is realized through three measures. The first is the identification of the identity potential, namely of the elements of the complex map which characterize the area in question in order to recognize those which may assume a focal role in the project.

In this respect, both the comprehensive presence of a specific type of element (e.g. how many points of visual perceptions are present) and the quantity is measured for each of them (e.g. such an element is assigned a certain size of symbol depending on its visual importance: namely medium size=presence of a given element in a medium percentage). Then there is the second action where the identity problems are highlighted. The activities are devoted to observing places in the complex map with the presence of unsustainable elements and annoying points of perception. With the aim of identifying these places the relationship among the different elements in the map need to be observed. An element may be sustainable in itself, for example a shop which sells typical products; but the presence of several of them may create a site with a concentration of businesses which is unsustainable with respect to place identity.

The goal is to understand the impact of people, things and activities and relative issues. The third action is the survey of identity qualities. The actions to be performed here involve noting places within the complex map of analysis with the presence of sustainable elements and points of pleasant perception. The elements which contribute to defining that sustainable place or perception will need to be analysed. In this case the aim is again to detect the impact of people, things and activities and relative relationships, which are sustainable for identity of places. The product is a synthesis derived from interpreting the complex map of analysis where the identity resources available for the project are represented: a sort of map of intents, the first step for the construction of the complex map for the identity project in question.

The seventh phase is the survey of the identity resources by users of places, locals, passers-by and tourists. A questionnaire designed to elicit information emerged from the previous phase will be administered. The questions aim to ascertain whether the data observed until

now are consistent with aspirations, desires and thoughts of the users of the area in question and to collect further suggestions and proposals. The product of this phase is the fourth partial map which will represent the identity resources from the perspective of users of places and/or privileged actors. The eighth and last phase consists in the overlay of data collected during the previous four phases and identification of the project proposals. In this phase we identify the places around which the project hypothesis to be conducted to enhance the identity resources are focused and the relative interventions. The products of this phase are a suitable system of symbols which represent the project activities and the construction of the complex map for the identity project. This map is the last step in the planning process, where the information contained in the complex map of analysis, after being filtered and transformed into resources, gives rise to proposals for the construction and enhancement of a sustainable place identity.

The case study of Leonessa is one of those carried out for the SISMI project, in which – differently from other centres which were entirely destroyed by the catastrophic event - the earthquake hit many historical and religious buildings and only little parts of the urban system. The question is that, because of the earthquake, Leonessa increased its process of abandonment, needing a reconstruction which involve a suitable enhancement of its cultural heritage, improving the cultural tourism, important source for the economy of this place.

In the anticipatory analysis a sparsely populated town was imagined, although in a fairly good condition. Again, a centre with few tourists was imagined, but well connected with nearby towns including Rieti.

The perceptive survey phase was focused on the historic centre and in particular on Corso San Giovanni da Leonessa, Via Mastrozzi, Via San Francesco D'Assisi, Via Durante Dorio, Via Brunoni Bucarini, Via della Ripa and on the main square, Piazza VII April. For reasons of synthesis the data of the individual nominal, perceptive, graphic, photographic and video surveys are not reported, while the final results of them are illustrated. Corso San Giovanni da Leonessa, Via Mastrozzi, Via San Francesco d'Assisi are the main axes of Leonessa and appear slightly dissimilar to each other. The perceptions that mostly emerge are the transient visual ones, due to the scaffolding of the buildings being recovered - consisting mainly of churches - and the pleasing permanent visual ones, due to the churches, the fountains, the historical doors and the view of the mountain landscape that can be observed in perspective from the main axes.

Further perceptions are the acoustic ones, related to recovery works and people's voices on the streets and to a few passing cars, and the olfactory ones, due to some typical products of Leonessa, including honey, confectionery and bakery products sold in stores. Finally, the tactile perception - pleasant - mainly consists of the historic, pavement. The general atmosphere is of a serene place.

The traditional analysis has revealed the presence of a compact medieval urban system with three main axes - namely Corso San Giovanni da Leonessa, Via Mastrozzi, Via San Francesco D'Assisi which directly connect the entrance to the historical centre (through the Porta Spoletina) to Piazza VII April - and three secondary axes, namely Via Brunoni Bucarini and Via della Ripa which also end at Piazza VII Aprile, and Via Durante Dorio. The main and secondary axes develop longitudinally along the whole urban structure, characterizing its conformation. The streets that are read in the planimetry constitute points of connection between the axes or connection to the Churches and buildings (http://www.leonessa.org). Piazza VII Aprile, the main square of Leonessa, ends with the

Church of San Pietro. Other squares, with non-regular form, consist of Piazza Costantino Palmieri and Piazza IV Novembre. The major historical buildings are churches. Among them: the Church of San Francesco, the Church of San Giuseppe da Leonessa, the Church of San Pietro, the Church of San Carlo, the Church of San Nicola, the Church of San Giovanni, the Clarisse convent, the Church of San Salvatore, the Church of Santa Maria del Popolo, the Church of San Matteo. Other important monuments are the two doors, namely Spoletina and Aquilana. The Terminillo Mountain in visual perspective constitutes a strong element of the cultural landscape of Leonessa.

Fig. 1 – Leonessa, Piazza VII Aprile   **Fig. 2 – Leonessa, Piazza Garibaldi**

Source: Photo by the Author   *Source: Photo by the Author*

Fig. 3 – Leonessa, Corso S. Giovanni   **Fig. 4 – Leonessa, Via Durante Dorio**

Source: Photo by the Author   *Source: Photo by the Author*

The questionnaire was administered to forty people, users of the places, especially Italian visitors. The age of the people interviewed varies from thirty to sixty years. The questions that have been asked include:

0. Age and nationality
1. What is your idea of Leonessa today?
2. What is the most representative or symbolic place in Leonessa?
3. What is the most representative or symbolic monument in Leonessa?
4. What place or monument in Leonessa arouses a particular emotion in you?
5. What part of Leonessa do you prefer?
6. If you could change something in Leonessa, what would you change and how?

What emerges in particular by the questionnaire is that Leonessa is an agreeable historical centre, although not suitably enhanced (question 1).

The Piazza VII Aprile with the Cathedral of San Pietro, and the Church of San Francesco are for about the 70% of the interviewed the most representative places of Leonessa (question 2-3). The 30% of the interviewed knew or had news about the Velvet Horserace (in Italian, Palio del Velluto) (question 2-3). The emotion that evoke these places concerns the excursions or sports activities carried out in the mountains or small holidays, while the favorite part was for the 35% the natural part, for the 40% the historical-architectural parts, for the 25% those linked to food and typical products (question 4-5).

The last question had several answers: the 50% replied that all is fine, except for the scaffolding on the buildings; the 40% would have included more seating and leisure facilities; the 10% mentioned the possibility of Leonessa's better connections to nearby areas (question 6).

The last phase of analysis concerned the identification of the elements that constitute the identity of the places. The identity that results from this place is given by a balanced mix of history and nature that, despite the destruction caused by the earthquake, has not lost its charm. The historical places that constitute the representative places of Leonessa are the numerous Churches, currently being restored for the damages caused by the earthquake. The main square, Piazza VII Aprile, is a place that due to its breadth and shape can be considered both a place of traditional socialization, and a place of multiple value. The presence of the mountain is at the same time a visual perception and a natural element of great impact for this place. The visual (the churches and the mountains) and acoustic perceptions (restoration work, cars and people in the streets) are the most present.

As regards the phases of project, it emerged that, on the one hand, Leonessa is a place full of traditions, memories, nature and architecture - above all religious - and, on the other, there is a lack of reconnection both between public spaces within it, and among the places in its surroundings. In fact, there is a lack of places for socializing, public spaces able to accommodate people of all ages and for different functions and, moreover, Leonessa is not well connected to other places in the province of Rieti.

In the last phase, that of the design proposals, three main cultural "landscapes" have been identified within which to build "experiential" paths: the religious path, the path of art and crafts and the path of sport and nature. Each of these routes starts in representative locations of Leonessa, crosses both internal and external locations in Leonessa and ends again in Leonessa. It is an enhancement of cultural resources that involves the entire territorial system with everything related to tangible and intangible heritage. In addition, each of these routes can connect to networks of routes and public spaces already existing in the area.

The first two do not require project interventions, the third could have major success if little project interventions could be carried out.

The religious path has as its basic idea in the paths of San Francesco d'Assisi and begins and ends in Piazza Garibaldi where the Church and the relative Sanctuary of San Francesco d'Assisi are located. This is both a meditative and cultural route in which the already existing San Francesco path crosses and stops in Leonessa creating new stronger connections between our centre and the Rieti surroundings. The Piazza Garibaldi assumes in this way a more important role as both a symbolic public space of socialization and a conjunction with the places around.

The path of arts and crafts aims to make known - by visitors and people in general - all the artisan shops of Leonessa and how to work or taste the products. The route begins and ends in front of the Porta Spoletina and crosses all the route of Leonessa before mentioned. The educational and tasting characteristics of the route make it of particular interest for children and tourists.

The third route is that of sport and nature which starts from Piazza VII Aprile and is articulated in particular on the Terminillo mountain. The route, which can be done on foot, on horseback, by mountain bike and on skis and snowboard (in winter) includes several stages of different difficulty and stops with views that can be enjoyed from different places to be enhanced with punctual interventions and with bio techniques (naturalistic engineering, bioecological architecture).

In summary, Leonessa's enhancement project aims to redevelop places with an experiential approach, highlighting tangible and intangible cultural resources, connecting it to the surrounding areas and enhancing local products. All with attention to strengthening the places of socialization and aggregation, public spaces already existing or to be built, which can become an opportunity for small and large-scale projects in which to involve technicians, professionals, local artisans.

4. The principles

The methodological approach - and the related results of the Leonessa case - just illustrated - can be replicated in places that have suffered damages from the earthquake and are therefore affected by depopulation and economic recovery difficulties (Sepe, 2007; Sepe, 2019). The case of Leonessa and the cases previously developed by the author with this method, including the historic centre of Sant'Angelo dei Lombardi in Irpinia, developed as part of the Irpinia Demonstrator Project of the Regional Competence Centre in Environmental Risk Analysis and Monitoring (www.amra.unina.it), the Kitano-Cho area in Kobe in Japan and the Market Street axis in San Francisco (Sepe, 2013), led to the development of principles for a reconstruction of the places attentive to the identity of the places which are reported in the following.

1. The identity of the places has to be considered the set of characteristics that make a place unique and recognizable. Sustainable reconstruction is a reconstruction that takes into account the social, economic and environmental aspects as well as the identity of the affected place.

2. The identity of the places is a dynamic factor. The reconstruction of a place must be thought in harmony with the urban identity both in the first phase, linked to the provisional and emergency period, and in the second phase, relating to completion.

3. Public spaces are fundamental elements for the reconstruction of the socialization of people. These must be designed and built together with the reconstruction of the artifacts.

4. The participation of the people of the affected area is a necessary factor to carry out a shared and successful reconstruction. It must be implemented from the earliest stages of operations.
5. Carrying out suitable analysis of the places both for what concerns the tangible and intangible cultural resources is to be considered of primary importance for a sensitive reconstruction.
6. The reconstruction of a place must be considered from a slow regeneration perspective, that is, a regeneration that first takes into account the needs of people and aims to slowly change the places in order to co-create the new identity of the place.
7. The construction of a monument or symbolic place emblematic of the catastrophic event strengthens the memory of the place and contributes to the reconstruction of the sense of community.
8. The presence of a network of residences, hotels, places for the first hospitality of people after the catastrophe is an important element for the basic needs of the affected population.
9. In the case of construction of housing centres to accommodate the population far from the centres affected by the event, they must be built taking into account the spaces for socialization and services.
10. The presence of a potential crowdfunding network is essential for participatory reconstruction.

5. Conclusion

The paper illustrated the results of the task 1.5 "Italian and international best practices and placemaking" (with the author's co-responsibility), within the WP1 "Study and analysis of the historical-cultural, urban and socio-economic context" concerning the SISMI project, Centre of Excellence of the Technological District for cultural heritage in the Lazio region. In particular, the paper illustrated the results of the case study of Leonessa, which was interested by the Lazio 2016 earthquake. The general approach of the task 1.5 is devoted to identify a method for reconstruction, which take into account social inclusion, participation, safety, place identity and sustainability.

The method of analysis and design that was used both detects elements that do not feature in traditional mapping and which constitute the contemporary identity of the places, and identifies appropriate project interventions. The method has a holistic approach. The idea is that a reconstruction of a place has to follow the same characteristics of a typical construction because a public space should in any case consider the preservation of place identity as a priority (Garau, Lancerin, Sepe, 2015). A synthesis of the results of the Leonessa (Rieti, Lazio Region) case study was presented, after a description of emblematic Italian post-seismic reconstructions, carried out by the author in the framework of Amra Centre of competence.

The identity that emerges from this place is given by a balanced mix of history and nature that, despite the devastations caused by the earthquake, has not lost its beauty. The historical places that constitute the representative places of Leonessa include the numerous Churches, currently undergoing restoration due to the earthquake damages. The main square, Piazza VII Aprile is a place that due to its breadth and shape can be considered both a place of traditional socialization, and a place of multiple value. The presence of the mountain is at the same time a visual perception and a natural element of great impact for

this place. The elements of traditional memory which are present are many. One of the most recognized is the Velvet Horserace, which take place during the last week of June. This is a historical commemoration of the festival that, for eight days, took place five centuries ago for the Fair of St. Peter.

By the analysis, the idea of project interventions arisen. The main idea is to create three paths related to three main urban landscapes: the Religious path, the Art and craft path and the Sport path. These paths concern the main peculiarities of Leonessa. The particularity of these project interventions stands in the fact that the paths starts and ends in the territory surrounding and continue in various places of Leonessa. This because Leonessa, although rich of heritage, is currently not well connected with other centres which surroundings it. Connecting Leonessa to the sport close activities related to the mountain (such as bike, mountain bike, ski, walking and so on) or to the Religious Sanctuary related to the life of San Francesco D'Assisi, or, still, to the other surrounding art and craft typical products could enhance its own cultural heritage. These paths could be inserted in a wider network of public spaces – safe and inclusive - to welcome both visitors and locals.

In conclusion, although it is possible to observe different approaches with respect to the reconstruction of the identity of places in Italy - and beyond -, the flexibility of the method and its principles could constitute a useful guide that can be adapted to the different peculiarities of the places.

References

AAVV (2010), *Safer Homes, Stronger Communities: A Handbook for Reconstructing after Natural Disasters*, World Bank

Arefi M. (2011), "Design for resilient cities, reflections from a studio", in Banerjee, T., Loukaitou-Sideris, A. (Eds.), *Companion to urban design*. Routledge, Abingdon

Caravaggi, L. (2020), *Conoscenze e innovazioni per la ricostruzione e il miglioramento sismico dei centri storici del Lazio*. Quodlibet, Macerata

Carmona, M., (2019) "Principles for public space design, planning to do better", *Urban Design International* vol. 24, n. 1, pp. 47-59

Cullen G. (1961), *Townscape*. London, The Architectural Press.

Francis, J., Giles-Corti, B., Wood, L., Knuiman, M., (2012) "Creating sense of community: The role of public space". *Journal of Environmental Psychology*, n. 32, pp. 401-409

Garau, P., Lancerin, L., Sepe, M. (2015), *The Charter of Public Space*. LiST, Trento

Gehl, J. (2016), *Inclusive Healthy Places*. Gehl Institute, Copenhagen

Gehl, J. (2020), *Public space and public life during Covid 19*. Gehl Institute, Copenhagen

Hague, C. and Jenkins, P. (a cura di) (2005). *Place Identity, Participation and Planning*, Routledge, Abingdon

Halbwachs M. (1992), *On collective memory*. University of Chicago Press, Chicago, IL

Lynch K. (1960), *The image of the city*. Mit Press, Cambridge

Mazzoleni D., Sepe M. eds (2005), *Rischio sismico, paesaggio, architettura: l'Irpinia, contributi per un progetto*. Amra, Napoli

Mazzoleni D., Sepe M. (2004), "Safeguarding of urban and landscape identity in post-earthquake reconstructions in Italy. Methodology of the analysis and first results" in Manfredi G., Pecce, M.R., Zollo A. (eds) *Proc. of the Workshop on Multidisciplinary Approach to Seismic Risk Problem*s. CRdC AMRA, Naples

Pantelic, J. (undated) *Issues in Reconstruction Following Earthquakes: Opportunities for reducing risks of future disasters and enhancing the development process*. National

Centre for Earthquake Research. available at: http://www.ceprode.org.sv/staticpages/ pdf/eng /doc255/doc255-contenido.pdf

Paton D., Johnston D. (2006), *Disaster resilience: An integrated approach*. Charles C. Thomas, Springfield, IL

Porteous, J.D. (1977), *Environmental and behavior: planning and everyday urban life. Massachusetts*. Addison-Wesley, Reading

Rose G. (1995), "Place and identity: a sense of place", in Massey D., Jess P. (eds) *A Place in the world? Place, cultures and globalization*, Open University/Oxford University Press, Oxford.

Sepe, M. (2007), *Il Rilievo Sensibile. Rappresentare l'identità per promuovere il Patrimonio Culturale in Campania*, FrancoAngeli, Milano

Sepe, M. (2013), *Planning and Place in the City. Mapping Place Identity*. Routlege, London-New York

Sepe M. et Al. (2016), *Italy's Presidency of the Council of Ministers Habitat III Italy's National Report*, http://www.governo.it/sites/governo.it/files/UN_ HABITAT_III_ ITALY _NATIONAL _REPORT_EN.pdf

Sepe M. (2019), "Slow regeneration: liveable places for all", in Gospodini, A. (ed) *Proceedings of the International Conference on Changing Cities IV*, ISBN: 978-960-99226-9-2

Sepe, M. (2020), *Spazi pubblici nella città contemporanea*. Inu Edizioni, Roma

Un-Habitat (2016), *The New Urban Agenda*, http://habitat3.org/the-new-urban-agenda/

Zampilli M., Brunori G. (2018), "Metodi e pratiche per il recupero dell'identità e il miglioramento della sicurezza dei centri storici terremotati dell'Appennino Centrale". In Oteri A. M, Scamardì G. (eds), *Un paese ci vuole. Studi e prospettive per i centri abbandonati e in via di spopolamento*. Rubettino Editore, Soveria Mannelli (CZ)

Zelinka A., Brennan D. (2001), *Safescape, Creating Safer, More Livable Communities Though Planning and Design*. Planner Press APA, Chicago

http://www.amracenter.com

http://www.leonessa.org

https://www.worldbank.org

Marichela Sepe
ISMed, National Research Council
Via G. Sanfelice, 8 – 80134 Napoli, Italia
Tel.: +39-081-253-8818; email: marisepe@unina.it