

Lecture Notes in Civil Engineering

Giuseppe Amoruso
Rossella Salerno *Editors*

Cultural Landscape in Practice

Conservation vs. Emergencies

 Springer

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Editors

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Preface

Landscape Cultures, A Contemporary and Global Societal Challenge

The book addresses *Cultural Landscape* understanding as driver for societal challenges, economic development, social inclusion, place assessment and conservation of heritage. The book disseminates issues growing from the relation between conservation and emergencies and identifies analytical and descriptive tools with the aim of sharing knowledge already available and with the aim of generating new knowledge so that it can be transformed into skills, seismic culture and social resilience.

In 1972, it was approved the *UNESCO Convention concerning the Protection of the World Cultural and Natural Heritage* that aimed at the identification, protection, conservation, presentation and transmission to future generations of cultural and natural heritage of outstanding universal value.

For the purpose of the *Convention*, they are considered as “cultural heritage” monuments, groups of buildings and sites. Particularly important for the research included in this book are the groups of buildings: «*groups of separate or connected buildings which, because of their architecture, their homogeneity or their place in the landscape, are of outstanding universal value from the point of view of history, art or science*»; and sites: «*works of man or the combined works of nature and man, and areas including archaeological sites which are of outstanding universal value from the historical, aesthetic, ethnological or anthropological point of view*» [1].

Urban or natural landscape has to be admired as an artistic form?, is it only an aesthetic concept? is it only to be lived or consumed rather than an ethical and ethnological concept linked to regional habitat?

Landscape is not only a mere physical extension to be understood in a technical or economic sense, but also a place where the “cultural mediation” is developing and giving form to space. The awareness that culture “informs” landscapes (even from a concrete point of view) derives from this as well as the legitimate question if each landscape is really a cultural landscape, as the definition given by the World

Heritage Convention seems to recognise: «*landscape has different characteristic in each region depending on the cultural background and geographic condition*». Nevertheless, the interpretation of UNESCO and of ICOMOS considers a cultural landscape as an “outstanding universal value”, introducing a hierarchy of priorities, even truly different values; the idea of “cultural landscape” is however almost recent—the first cultural landscape classified by UNESCO, Tongariro National Park in New Zealand, dates back to 1993—and today it is right for the scientific community and all the communities to rethink this concept. The interpretation «*cultural landscape represents the combined works of nature and man*» considers some typological evaluation of landscapes, used today in preserving world cultural and natural heritage: landscapes designed and created intentionally by man such as parks, recreational gardens, plazas, squares, cemeteries, promenades, yards; gardens related to monumental buildings and/or ensembles; organically evolved landscapes; continuing evolving landscape; associative cultural landscapes connected with religious/cultural natural elements. The recognition of cultural landscape is, however, focused on the rarity of type, regarded as a natural monument, although a debate is still running in ICOMOS to find useful interpretations to widen the field of preservation [2].

If buildings and cities are a portrait of the human condition, institutional operators and citizens, according to their skills and possibilities, have to invest resources so that this heritage could remain alive, in the uses and forms of daily life but also in memory, in rites, in traditions [3].

According to the 2003 *Convention for the Safeguarding of Intangible Cultural Heritage*, intangible cultural heritage (ICH)—or living heritage—is the mainspring of humanity’s cultural diversity and its maintenance is a guarantee for continuing creativity. It is defined as follows:

Intangible Cultural Heritage means the practices, representations, expressions, knowledge, skills—as well as the instruments, objects, artefacts and cultural spaces associated therewith—that communities, groups and, in some cases, individuals recognize as part of their cultural heritage. This intangible cultural heritage, transmitted from generation to generation, is constantly recreated by communities and groups in response to their environment, their interaction with nature and their history, and provides them with a sense of identity and continuity, thus promoting respect for cultural diversity and human creativity [4].

Our landscape is also the material expression of meanings that have value, hierarchy and relations according to the different systems from which they derive (economic, social and cultural) and that have the role of making evident the quality of democracy that is rooted in a community.

Cultural heritage consists of products and processes of a culture that are stored and transmitted through the regeneration of memory and the processes related to it.

Natural disasters and degradation phenomena represent the setback of the homogeneous and constant “evolution” of a historically relevant landscape or area; this phenomenon invests, therefore, a vulnerable and weakened system in the settlement infrastructure, which inevitably becomes exposed to risk, in a territorial context already characterised by high seismicity or reduced resilience.

This book shares examples that can be proposed for restoring and reconstructing the physical and, through it, the human condition, investigating the representation and enhancement of cultural heritage and historical urban landscapes, as defined by UNESCO, as well as placemaking methodologies and strategic design that support the traditions of inherent to a place [5].

Knowledge of values and meanings that belongs to the territory, appropriately documented and shared within each community, is the milestone for informing every decision-making process that intends to transform it or build it. Applying this principle, for example, the American physiologist Ancel Keys unveiled essential concepts for the peoples of the Mediterranean countries and almost invisible to the common perception revealing the values and millennial qualities of a diffuse heritage, which were transmitted without interruption from generation to generation. Thanks to his studies on the epidemiology of cardiovascular diseases, he formulated, starting from the 1950s, the hypotheses on the influence of diet on these pathologies and on the benefits brought about by the adoption of the so-called *Mediterranean Diet*. This intuition led, in 2010, to the V° Intergovernmental Committee for the Intangible Cultural Heritage of Humanity, UNESCO, to proclaim “*The Mediterranean Diet*”, Intangible Cultural Heritage of Humanity.

The Mediterranean Diet is therefore a broader concept of cultural landscape, understood as a paradigmatic set of knowledges, knowledge and practices closely intertwined in a conceptual continuum, from the urban and agricultural landscapes, to the ways of social aggregation, trades and the table. The element of identity of Mediterranean communities characterises the personal experience of each individual who lives there.

But how is it possible to investigate, map, describe and visualise the domains that represent this largely intangible cultural heritage and which can be highlighted in the various territorial contexts?

The cultural landscape can be translated into a “diet”—from the Greek word *diáita*, lifestyle—it is a social practice based on a series of skills, knowledge, practices and traditions that vary from landscape to food chain, which in the basin of Mediterranean concerns collection, cultivation, fishing, conservation, management, preparation and, in particular, consumption. In other words, it is the main infrastructure for cultural landscapes that was developed in different European regions.

A few months after the seismic events in Italy or after the destruction of the triumphal arch of Palmira, the researches here presented promote an adequate response to the demands of the people: “to interpret and represent a collective need, to transform memories, testimonies and signs into knowledge”. Recalling past catastrophes, experts have noted that it is necessary to “have access to all the available knowledge, which will in turn generate new knowledge, which ultimately results in increased competence, professionalism and awareness on seismic risk reduction.” [6] In this framework, the book introduces and promotes the role of digital technologies and the effective solutions to foster the engagement with heritage for its preservation and, consequently, for social innovation participation, risk of loss reduction and the development of identity.

The *EU Framework Programme for Research and Innovation* recognises several societal challenges the Horizon 2020 reflects the policy priorities of the Europe 2020 strategy.

The *Societal Challenge 6 Work Programme 2014–2015* focused, among others, on “Reflective societies” through the transmission of European cultural heritage, uses of the past and 3D modelling for accessing EU cultural assets; and also on the innovation in the public sector, open government, business model innovation, social innovation community, ICT for learning and inclusion.

According to these issues, the book opens to multiple fields of investigation related to design for places and smart growth: digital heritage, documentation and representation of places, agrarian urbanism, environmental design, architecture, sustainable design, smart cities.

A relevant application concerns (re)building for the future and how to reconstruct after a disaster. The book presents examples of best practices for the reconstruction of settlements affected by disasters, focusing on recent earthquakes in Italy. How can an area’s built heritage support regeneration and reconstruction efforts? How can buildings be made safer and more resilient? How can communities be involved in rebuilding? And, how can the process of reconstruction protect local identity?

The book addresses also the role of education and learning and how to develop our heritage and knowledge of the complexity of places by using tools and techniques for representation, documentation and communication. Another focus is on the application of the most appropriate design tools to respect and develop local identity, to take advantage of the cultural context that the territorial system expresses and to suggest how place identity can inform new design that will build community.

What are the methods for place mapping that are recognised by UNESCO as signifiers of environmental, economic and cultural values? How can technologies provide tools and methodologies to support documentation and representation of a cultural landscape?

In this volume, authors present a selection of decision-making and participatory processes that are dealing with complexity and valorisation of cultural landscapes, in order to share good practices for post-disaster construction and rehabilitation, but also to deliver placemaking methodologies and strategic actions for the preservation of territories traditions and community social welfare.

The research, through the documentation of meanings and semantic characteristics of territories affected by seismic events, wants to promote the practical application of tools and processes for the configuration and implementation of cultural landscape: an information system that highlights the tangible and diffuse value of a community through its constructive characterisation according to environmental and natural issues.

In the characterisation and representation of cultural landscape, stability and continuity issues are highlighted, and organicity and difference are also recognisable parameters. The concept of place is inextricably linked to the concept of limit and boundary, its spatial relationship and connotation, which intertwine with a

physical-perceptive delimitation and give a representation of its soul. The place is a set of identities with boundaries, in which there is always a link between subjects and the space. It is therefore something specific, with its own character, which identifies it and, at the same time, makes it unique.

The scientific challenge is to integrate different tools for settlements description and visualisation in their complex nature: it is necessary to make this knowledge available through technological platforms and participatory and inclusive models at the service of economic, tourist and government agencies that makes available the resources available, the potential for development and growth of new entrepreneurship and which makes the opportunities of the territory accessible to a wide international public in all the meanings linked to cultural landscapes.

Visual technologies and tools are studied in their specific fields of application and represent a rapidly growing sector that involves a variety of users in the contemporary society, addressing the societal challenges.

Organisation of the Book

The book represents an exchange of researches and best practices for placemaking and cultural landscape studies.

With contributions from leading experts, including university researchers, professionals and policy-makers, the book promotes transmission and dissemination of universal principles and contemporary applications to address the emerging societal challenges.

Critical to the presentation of case studies and current practice is the use of emerging tools for representation and documentation and to promote research on new core knowledge in the field, and on applications that are contributing to the evolution of such expertise and skills.

The book is the result of extensive researches developed by Rossella Salerno and Giuseppe Amoruso for national and international research programs. The overall organization of the book was designed and developed by both authors, collecting the 22 chapters in two macro areas: (I) Landscape and Territorial Practices and (II) Historic Settlements and Environmental Design. All the essays were preliminary reviewed by the scientific committee and then subjected to a final evaluation process by two anonymous referees.

The first part is presented and edited by Rosella Salerno is more focused on landscape and territorial issues according to natural conditions of land and places while the second part, is presented and edited by Giuseppe Amoruso, is focusing more on historic settlements, built environment and preservation issues.

Chapters will also ultimately help people's efforts to overcome the emergency phase of reconstruction after natural disasters and, introducing references and relevant issues on recent studies, describe emerging tools to understand such paradigmatic knowledge continuously inspiring practices that affect the agrarian, natural and urban landscapes. The work presents also a collaborative framework

encouraging international cooperation and exchange of best practices and fosters the work of charities in different countries.

According to the holistic and multidisciplinary issues related to cultural landscape, the target audience could be heterogeneous and wider, including: scholars of cultural heritage, architecture, urbanism, humanities, landscape/regional and urban planning, urban geography, environmental and sustainability education, building construction, maintenance and design but also scholars of digital media, ICT, 3D modelling and computer graphics. The book also benefits scholars, academics and practitioners that are involved in the process of understanding, designing and transforming places and aims to foster an international exchange of research, case studies and best practices to confront the practical challenges of maintaining cultural landscapes alive and enabling community to improve cultural networks and promote education.

A brief description of each of the chapters follows:

Part I—Landscape and Territorial Practices

In Chapter “[Fragile Cultural Landscapes: A Regenerating Case Study in East Veneto](#)”, Rossella Salerno (*Politecnico di Milano, Italy*) reflects on the case study of a reclamation landscape in the East Veneto Region (Italy), framing it in the European strategies and policy about landscape and heritage: it will be taken into account what has till now been done by local government, first of all by the *Osservatorio del paesaggio del Veneto Orientale* respecting the *European Landscape Convention* guidelines, then the paper will point out both sustainable innovation and potentialities of this fragile territory.

Further, the paper will try to outline the digital infrastructures’ communication abilities of in sharing knowledge, connecting them to main questions about preserving and promoting landscape and scattered heritage, again keeping in the background the European policies, mostly about digitalisation.

The research illustrates also the recent best practice of “Alpinescapes” web platform, implemented to collect and share information about the cultural landscape between Lario and Ceresio lakes and lastly to map and merge Digital Cultural Heritage data from Italian and Swiss territories.

In Chapter “[Rural Landscape in Sardinia. Historical Settlement in the West Coast of Sardinia: The “Ager Bosanus”](#)”, Andrea Pirinu (*Università di Cagliari, Italy*) is describing the rural architecture that still strongly characterises the landscape of Sardinia and composes a complex mosaic of constructive cultures. The Sardinia Regional Office of Planning promoted the publication of seven manuals and an Atlas of building cultures focused on knowledge, documentation and diffusion of historical memory and aimed to strengthen the capacities of protection and valorisation of traditional building. The survey has interested different geographical regions and during the definition of PPR (Regional Landscape Plan) determined the selection of landscape patterns, identified through complex analysis of the

interrelationships between environmental, historical and cultural framework and settlement model. It follows, therefore, starting from the indications of the Regional Plan, the identification of terraced hills and rural villages bordering the edge of the plateau such as landscape matrix centres and key points of the project.

In Chapter “[Riverscapes and Watersheds: Cultural Heritage Layers Along the River Guadalbullón \(Jaén, Spain\)](#)”, Pilar Chías and Tomás Abad (*University of Alcalá, Spain*) give an insight on the river landscape; from the perspective of the natural processes, the river flows across a narrow valley showing varied land forms and topographical features. From the cultural point of view, the river was the borderline between the Muslim territories and the Christian kingdoms throughout the Middle Ages. They were linked by means of an ancient royal road that was recently transformed into a highway from Madrid to Málaga, putting pressure on the landscape. But the narrow valley still keeps old archaeological sites dated back to the Bronze Age. The old route is still in use, holding lodgings, bridges and watermills as described by the travellers since the seventeenth century. It still keeps the castles that controlled the passage, and the *atalayas* where visual signals alerted to the dangers. All of them live together with ancient crops as oil groves, with elements of vernacular architecture such as *alquerías*, and with ancient opencast mines. The research aims to prevent disappearance of all these structures, to avoid the extinction of species and to preserve the memory of territory and landscape.

In Chapter “[Indian Villas in the Valencian Landscape \(Spain\): Casino del Americano](#)”, Pablo Rodríguez-Navarro and Sergio Estruch González (*Universitat Politècnica de València, Spain*) introduce the architectural style appeared in the Canary Islands and the northern provinces of the Peninsula after the phenomenon of emigration from Ultramar. La Quinta de Nuestra Señora de las Mercedes, or also known as Casino del Americano, is a recreational villa that since 1869 is part of the neighbourhood of Benicalap, and whose architectural and construction characteristics make it a property with great heritage value, and one of the last Indian palaces in the city of Valencia. Due to the lack of bibliography, the information will be mostly obtained through the study of the building. The graphic surveying is the main working method, which has an intrinsic value because of the danger of collapse the building. The research presents mainly the historical, stylistic and constructive study, as well as a definition of the main characteristics of Indian architecture, through the most representative case of Indian house in the city of Valencia.

In Chapter “[Traditional Identity and the Progressive Loss of Local Character in La Sagra Region \(Toledo, Spain\)](#)”, Alejandro García Hermida (*Universidad Alfonso X el Sabio de Madrid, Spain*) presents the basic aspects of a research dealing with the identity features of the architectural tradition of La Sagra region, in the Spanish province of Toledo, and the needed review of the criteria applicable to its conservation in order to avoid its disappearance. The problems presented in this regional analysis are very similar to those in other places and, therefore, similar studies may be valid for them.

For this research, the architectural tradition had to be studied first, as the existing diversity and complexity in the local traditions of this area were unknown before undertaking this study, all previous studies considering it as a homogeneous entity.

Finally, towns have been studied building by building, recording the transformations operated in each one of them. This is, the evolution of the building elements which define local urban landscape. To this aim, the composition, volumes and various constructive solutions used both in the new buildings and in the interventions made in the last decades on existing buildings have been analysed, then contrasting them with the traditional local identity municipal regulations of each town seek for preserving. Finally, the results obtained have been compared with that stipulated by the regulations in question, trying in this way to identify their strengths and capacities.

In Chapter “[The Liberty Network in Varese Province: Strategies for Its Knowledge and Enhancement](#)”, Anna Anzani and Claudia Caramel (*Politecnico di Milano, Italy*) propose a study on the phenomenon that, between the end of nineteenth and the beginning of twentieth centuries, produced various architectural experiments in Europe including the development of Liberty, according to the research of a national style. In the province of Varese as well as in the adjacent Canton Ticino, the diffusion of Art Nouveau was fostered by the creation of new rail links that became a source of tourism development. The purpose of this research work is to suggest possible perspectives to improve the people daily experience by enhancing the identity characters of a specific urban environment, inevitably including the preservation of the ecological conditions.

Solutions based on a “space outfitting” approach will be proposed, which can be a response to current social changes, but also a transdisciplinary perspective to address the relationship between present and memory, relying upon reuse instead of new construction, low environmental impact, no waste, energy sustainability, social network and shared economy, participatory design, attention to the details, comfort and wellness.

In Chapter “[Survey and Digital Representation of an Architecture in a Landscape Between Karst and the Sea](#)”, Paola Cochelli and Veronica Riavis (*Università di Trieste, Italy*) focus on the reconstruction of the Casa Alberi by Romano Boico obtained by integrating different types of survey to the cadastral documentation. As described by Boico the House in the Rock is like “a large rock shattered here and there and reassembled” that is camouflaged among the karst rocks of the promontory, characterised in plan and elevation by jagged shapes and lines. The villa is also characterised by the consistent use of raw materials for the structural elements and details such as the autochthonous stone of Aurisina and larch wood.

The study has previously analysed the historic evolution of project and construction phases of the villa, and the artistic context through historical and photographic sources. The next phase involved the digital reconstruction of the building, in which have been illustrating its architectural peculiarities. The traditional survey has been integrated with the photogrammetric one, that allowed to effectively reconstruct the orography and the territorial character in which the building is inserted, with particular attention to the passage in the rock that leads to the pier and the natural cave.

In Chapter “[Creating a Map of the Underground Heritage in the Mediterranean Area: A Visual Representation for a Comprehensive Research](#)”, Beniamino Polimeni (*De Montfort University, UK*), Roberto Bixio, Carla Galeazzi, Carlo Germani, Mario Parise, Stefano Saj and Mariangela Sammarco (*Italian Speleological Society, Italy*) present a study in human-made (or artificial) cavities in the Mediterranean Area which has led the Italian Speleological Commission to study and catalogue some of the most common troglodyte types of the region. From 2000 onwards, the Commission has drawn up a study of the geographical distribution of the rock-cut structures by a project initially developed by Mario Mainetti and Erica Besana in 1994. This geographical catalogue has been realised integrating the information available in the international bibliography with the scientific research carried out by the Commission and the research groups affiliated. The result of this work is a list of 1948 rupestrian sites distributed over 31 countries. In this chapter, a general overview of the project is presented, along with a description of some case studies from different countries, including Tunisia, Libya, Turkey and Italy (Apulia and Lazio).

In Chapter “[The Challenges of the “Divided” Heritage of Cyprus](#)”, Kokan Grchev and Ozgur Dincyurek (*Eastern Mediterranean University, Famagusta, TRN Cyprus*) intend to discuss different continuities as well as internationally established consensuses on cultural heritage and its identity by opening the issues of “divided” heritage of Cyprus. Heritage is discussed as representing and evolving contemporary culture, problematising human existence and guiding the future of the societies and cultures towards valuable identities. Perceived heritage of the island as a specific resource is questioned theoretically and by following the activities of the “Technical Committee on Cultural Heritage in Cyprus”, in their efforts to bring together some practices aimed for heritage positioning in the focus of contemporary culture. Specific discourse is open towards the evident need of monuments on one side, and the social integration of heritage in cultural and development activities on the other. Unique emergencies are recognised as challenging the existence of both.

In Chapter “[Conservation Issues on UNESCO World Heritage Sites in Russia. From the Roerich Pact to Contemporary Challenges](#)”, Polina Mironenko (Politecnico di Milano, Italy) presents an overview on the heritage protection within the Russian Federation. The idea to settle an organised preservation of the artistic and scientific world treasures belonged to the famous artist and Russian public character Nikolaj Konstantinovich Roerich. On 15 April 1935, in Washington, representative members of the USA and other twenty nations of the American continent signed an agreement “On the protection of the artistic and scientific institutions and the historical monuments” that later became famous in the international legal practice as Pact Roerich. From 1999, this day has been considered the *Universal Day of Culture under the Banner of Peace*. On 12 October 1988, Russian Federation accepted the *World Heritage Convention* from UNESCO for the conservation and promotion of the heritage of humanity. Currently in Russian Federation, there are 26 properties that are inscribed on the *World Heritage List* and considered as a universal outstanding value: 16 cultural sites and 10 natural sites.

Nowadays, the protection of the cultural heritage in the modern Russian society is becoming more complex and intense and, for this purpose, it requires a constant attention and the development of specific heritage skills.

In Chapter “[Placemaking Workshops: Application of the PPS Method](#)”, Tomasz Jeleński (*Cracow University of Technology, Poland*) describes three cases of placemaking workshops conducted by the author in three different places: Ukraine, Tunisia and Poland, and against different cultural and political backgrounds. Public space is a priceless environment for human communication, interaction and local economies. It is a space for culture and a medium for symbolic content. A good public space is fundamental for the sense of community and thus an indispensable component of sustainable urban structures. In each case, application of placemaking methods encouraged public participation, showed the potential to facilitate the decision-making process and helped resolve potential or existing conflicts while building confidence in democratic procedures and institutions. The methodology is based mostly on the abundant experience of the organisation *Project for Public Spaces* (PPS), a non-profit established in 1975, which set itself a goal to assist local communities in reclaiming spaces that were socially degraded or car-dominated, and to create or strengthen more traditional characteristics of public places.

Part II—Historic Settlements and Environmental Design

In Chapter “[Place Identity Graphic Assessment and Post-disaster Reconstruction](#)”, Giuseppe Amoroso (*Politecnico di Milano, Italy*) identifies the tools to understand and assess values and meanings of a territory that have to be appropriately documented and communicated in order to inform every decision-making process that intends to transform it or build it.

Natural disasters and degradation phenomena interrupt the organic and natural evolution of a place or an area rich in heritage; this phenomenon invests, therefore, a vulnerable and weakened system in the settlement infrastructure, which inevitably becomes exposed to risk, in a territorial context already characterised by high seismicity or reduced resilience.

The landscape documentation and the different identities and the graphic transcription of their semantic expressions, also according to new technology applications, provide a cognitive framework but also an operative vision to regenerate places and building according to local traditions; with the aim of generating new knowledge so that it can be transformed into skills, seismic culture and social resilience.

The research proposes the integration, in decision-making processes, of models, representations and visualisations based on repertoires, high-iconic databases and predictive simulations. The promotion of local identity and psychological and environmental well-being requires the definition of the tools for collecting and documenting local characters: analysis of urban patterns, construction techniques

and tonal analysis of the urban environment, classification of architectural and landscape vocabulary.

In Chapter “[L’Aquila Model. Strategies and Restoration Processes for Historic Centre](#)”, Mario Centofanti, Stefano Brusaporci and Pamela Maiezza (*Università dell’Aquila, Italy*), nine years after the earthquake of 6 April 2009, analyse strategies and current processes the reconstruction of L’Aquila and the centres of its territory, highlighting positivity and criticality, in order to identify the possible optimisation of methodologies and procedures, useful for present and future emergencies.

A first criticality is the “non-synchronic reconstruction”. Both in terms of financial resources and in terms of validation and implementation procedures, the planning of the interventions and the execution management are structured on parallel and independent lines, which cause even considerably different process speeds.

A second problem is the “parcellisation of interventions”. The “Plan of reconstruction” is as a mosaic of the individual parcelled proposals for intervention, caused by the procedural chain, without an overall strategic vision aimed at re-identifying urban identity and spatial and figurative qualities.

A third problem is denotable as “divided knowledge”. The process of knowledge is discretized, according to the individual building or block project’s validation procedure. In the case of the historic centre of L’Aquila, the paradox is that we have an extraordinary knowledge, unique and without precedents, with thousands of surveys, tests and analysis on materials. However, this knowledge is dispersed among the archives of the various institutions responsible for project validation and procedures control.

Purpose is to recognise the identity values, for the foundation of shared architectural/urban restoration projects and of reconstruction processes of the historic centre of L’Aquila that for the historical centres of the territory. It aims to a urban and territorial re-composition, coherently with the history of constitution and transformation of L’Aquila as territorial city.

In Chapter “[Vulnerability of Architectural Heritage in Seismic Areas: Constructive Aspects and Effect of Interventions](#)”, Maria Rosa Valluzzi and Luca Sbrogiò (*Università degli Studi di Padova, Italy*) document the vulnerability of architectural heritage that is particularly prone to damage in seismic area, due to possible constructive defects or limitations, e.g. the low masonry quality, the scarce connection among components (walls, floors and roof), the structural irregularities, which combine together with the effects of lack of maintenance and deterioration exposure of materials. Nevertheless, the analysis of historic centres struck by earthquakes in the last 30 years in Italy revealed severe damages and collapses attributable to additional vulnerabilities provoked by heavy retrofitting techniques, ideally conceived to improve the mutual collaboration of the structures, but actually entailing a more complex and hybrid behaviours. It is the case of use of reinforced concrete to substitute floors and roof (aimed at increasing the in-plane stiffness), to strengthen vaults, or adopted as ring beams at floor and roof levels (to connect walls against overturning). This practice was commonly adopted in masonry buildings

from the '80s onwards, according to the knowledge and recommendations available at those times.

In this work, the effects of past interventions applied to historical centres struck by a scale of earthquakes over time are analysed in terms of local and overall damage. Three villages of central Italy, namely Castelluccio di Norcia (PG), Campi Alto di Norcia (PG) and Castelsantangelo sul Nera (MC), all summing up to about 150 buildings, are examined. A classification of damage based on the *European Macroseismic Scale* is proposed. The study provides vulnerability maps able to take into account the influence of intervention on buildings in historical centres, which can contribute to evaluate possible damage scenario and maintenance plans.

In Chapter “[Reducing the Loss of Built Heritage in Areas of Tourist Interest](#)”, Giuliana Cardani (*Politecnico di Milano, Italy*) introduces issues on the potential of tourism as driver to sustaining the maintenance of built heritage. Tourism is an essential resource for the promotion of cultural sites and for keeping them alive. Traditional and modern technology should be employed whether for a single building or a whole village or even a small island. On the other hand, increasing exploitation of such sites may reveal itself to be a double edged sword. By attracting an uncontrolled number of visitors, this could result in a more rapid decline of the resource. Some places have been radically transformed to accommodate ever increasing numbers of tourists, with detrimental results. Rather than being enriched by the authenticity of the site, mass tourism is liable to damage the authenticity that it seeks. Sometimes, the final result is less authentic and the traditional spirit of the place destroyed, sacrificed to a need to comply to standard “hit-and-run” tourist destinations. The paper wants to present one of the many Italian cases where the need to deal with an ever-growing tourist pressure has reached such a high level that intervention now becomes urgent: the small Isola Superiore of Stresa, named Fishermens’ Island located in the centre of Lago Maggiore (Italy). Some suggestions are here reported in an attempt to reduce the loss of cultural heritage to the small island as well as in other similar situations.

In Chapter “[Small Historic City Centers of Mediterranean Europe: Critical Points and Potentialities for Environmental Sustainability](#)”, Valentina Pica (*Marie Skłodowska-Curie Fellow, University of Roma Tre, Italy*) addresses the importance of the conservation of historic urban environments with a multidisciplinary and operative approach. This is currently one of the most universally urgent and challenging cultural heritage conservation issues that also deals with environmental sustainability. More specifically, southern Europe small towns are progressively being abandoned and are far from being accurately requalified. The current conditions and historic resources of the Albaicín quarter of Granada (Spain), as well as of other small historic city centres in Italy, are being pointed out. A method for a comprehensive recovery plan approach of these centres is proposed, that should start from a territorial analysis, throughout different steps, such as: identifying existing assets; historical and critical studies of their diachronic evolution; mapping and general classification of the built heritage and existing infrastructures; study of the accessibility of the historical centre’s sites; a deep analysis of their critical points and opportunities and a critical valuation of the existing planning

regulations. The chapter also argues in favour of numerous international projects, aimed at the renewal and resiliency of small historic Mediterranean centres, in order to foster good practices in their conservation worldwide.

In Chapter “[Ichnography, Orthography and Scenography as Forms of Tracing the Past: A Reconstitution of the Roman Forum of Ebora Liberalitas Julia](#)”, Mariana Martins de Carvalho (*Universidade do Porto, Portugal*) presents an attempt to better understand the central core of a roman city—the forum—from three different forms of representation: ichnography (plan), orthography (elevation) and scenography (perspective).

Our laboratory is the monumental centre of Evora, located in Alentejo, Portugal, where the urban ruins of the roman temple are located. Here, we are attempting to trace the roman forum of *Ebora Liberalitas Julia*.

In order to comprehend the whole remaining structure, a dissection of each fragment was carried out. We analysed and drew all the archaeological vestiges over the current plans of the city; and then ichnographic, orthographic, scenographic hypothetical projections started rising from this ground. These three forms of expression are the result of thought and invention, such as described by Vitruvio, in his chapter on the fundamental principles of architecture (I, II, 2). In these representations, we can see how each one is increased with a dose of interpretation and hypotheses analysis.

The developed representations are supported not only by archaeological sources, but also iconographic, literary and historic sources. To study and to draw roman architecture in an urban context, it is fundamental to recognise the urban history and the phases by which each building has passed, in order to provide data that will add knowledge to the remaining architecture. Although the purpose of this study is to recognise roman architecture, it is impossible, in an urban scenario as this one, not to consider other times as well.

Considering the importance of the sources and its semantic expression, this essay tries to fill the gap between different types of representation in order to increase the possibilities of a more accurate reconstitution.

The ruins, and the archaeological remains that were exhumed, will be our field of experiment to try to trace the presence of the past and the different configurations of this monumental centre, reasoned by the evidence, knowledge and imagination.

In Chapter “[Shortsighted Solutions Versus Long Term Planning](#)”, *Effects of Rapid Infrastructure Developments in the World Heritage Site of Gjirokastra*, Kreshnik Merxhani (*Polytechnic University of Tirana, Albania*) and Valmira Bozgo (*Environmental planner, Albania*) document the case study of an approved infrastructure project for the construction of a new road known as the “Bypass”, which endangers the historic centre of Gjirokastra, a World Heritage Site since 2005. The project’s initial aim was the diversion of automobile traffic from the city’s Old Bazaar, for a more tourist-friendly pedestrian area. After few procedural problems were noted during public consultations, a more in-depth look at the project revealed a diversion from the original aim, and technical solutions that posed a threat to the *Outstanding Universal Values* for which the city enjoys its UNESCO *World Heritage* status. This generated a wide and largely publicised

discourse among professionals opposing the development, and the government representatives that put through the proposal. Several technical and legal arguments, showing the perceived damages of this project to the structural integrity and the urban historical landscape of Gjirokastra, were presented to responsible national and international authorities. Currently, the project is in an “limbo” kind of state, having been suspended by means of several media declarations from national authorities, while still being depicted in the local development plan. The case study will be discussed for its technical and professional problems, disagreements with the priorities of the historical centre and the threat on the *Outstanding Universal Values* of the city. The bypass case, will be further utilised to illustrate the effects that shortcut solutions with no sound bases on strategic studies, can have on an urban historical landscape. Possible resolutions will be discussed for breaking the trend of rushed “politically impressive” developmental projects that present negative ramifications on historical landscapes.

In Chapter “[Functional Heritage. Reconnecting with the Iron Web](#)”, William Howse and Renata Jadresin-Milic (*Unitec Institute of Technology Auckland, New Zealand*) present the case of historic buildings in New Zealand that have been underutilised and redundant in the face of contemporary development, although the potential for adaptation for reuse is increasingly being considered. The purpose of this project has been to develop an architectural solution for the adaptive reuse of an historic building, with the intention for the building to become functionally relevant in the twenty-first-century Dunedin in response to a current urban situation. The site in Dunedin is the currently neglected historic former Mornington Cable-Car 17 Depot. As a general methodology of the site condition valorisation, a systematic study of architectural, historical and urban analysis was conducted to provide insight into the appropriate approach to adaptive reuse. Further, field trips, examination of relevant literature and precedents, and the examining of different designs concepts through drawings and 3D models were methods applied in this project. The final design proposes “alternative representation” as a new and “experimental” approach to heritage developed for the purposes of the project. As a result, the building maintains its integrity while simultaneously each historical period is acknowledged for its contribution to the building itself and to the history of Dunedin. Hence, the building acts as a reminder of what has gone before, while fulfilling its original function as a cable-car depot, and ultimately stimulates a momentum for change in the local urban landscape.

In Chapter “[The Ottoman Landscape of Büyükçekmece. A Case of Oversight or Misinterpretation of the Past?](#)”, Luca Orlandi (*Istanbul Technical University, Turkey*) focuses on the importance of the Ottoman site at Büyükçekmece Lake in Thrace, incorporated today in the outskirts of the fifteen millions inhabitant’s megalopolis of Istanbul, and its relations to the surrounding environment. The Ottoman site analysed as case study was designed in the second half of the sixteenth century by the master-builder Sinan for the will of Sultan Suleiman and Grand Vizier Sokollu Mehmet Pasha. The Büyükçekmece complex, a post station on the road, includes a monumental stone bridge for crossing the lake, a capacious caravanserai, a small mosque and a fountain, and for centuries was an important centre

along the Imperial road connecting the capital of the Ottoman Empire with the West. A recent project consisting of a tourist-sports centre and an entertainment park done by the Great Municipality of Istanbul in order to revitalise the area and attract more visitors and residents, had instead compromised the historical buildings and the original site, making impossible to read the traces of the Ottoman past in that region. The impact on the historical buildings has been completely ignored, and although it is still perceivable, the set of homogeneous buildings and the redevelopment process did not take into account the strong cultural values of these architectural elements, their legacy and their relation with the landscape. This paper aims to describe how that process of regenerating the Ottoman heritage in Büyükkçekmece, hastily done in an inappropriate way, had definitely compromised the whole area, giving no more possibilities to read neither the buildings in the proper way nor the surrounding landscape that once characterised the area.

In Chapter “[Ottoman Heritage in Southern Balkans: The Multicultural Port Town of Kavala](#)”, Velika Ivkowska (*Bahçeşehir University, Istanbul, Turkey*) introduces issues on multiculturalism as one of the keystones in understanding the complexity of the Ottoman civilisation. Especially in the provincial areas of the vast empire established by the Ottomans in almost six hundred years, it is possible to observe how multiculturalism and multi-ethnic components were a fundamental tool to glue together such diverse of populations and religions, in which each community had the possibility to maintain their distinctive collective identities, culture, rituals and practices. In the case of the town of Kavala in the Southern Balkans, that passed from Byzantine into the hands of the Ottoman rule after its conquest in 1391, it is possible to track how the town—through the centuries—became more and more a multicultural centre, due to the economic and social dynamics in the society itself, up till the dramatic events of the Balkan Wars in 1912. The Ottoman town developed rapidly around its harbour and the trade activities, and this paper wants to outline the urban environment of Kavala and its growth in the Ottoman time, from the conquest until its annexation to Greece. In a contemporary perspective, today it seems significant to widen the perception of how a vast tangible heritage left by the Ottoman civilisation, crossing the borders of different nations, religions, customs and cultures, especially in the Balkan context, could be analysed and incorporated in a bigger system to redefine the importance of such multicultural asset in a global manner.

In Chapter “[A Cultural Reading of the Territory. Practices and Interdisciplinary Approach for the Making of Beauty in Apulia](#)”, Valentina Battista (*Euro Mediterranean Youth Academy, Italy*) presents an overview on beauty that, according to the ancient Greek culture, was inherently visual; beauty represented a well-suited harmony between finite and infinite, an overarching force to grasp those preternatural laws shaping human life, our earthly life. A measure, which if observed carefully, in architecture as well as in the other arts, is able to produce Eudaimonia, happiness. And here’s how “a fragment of a temple, wrote Simon Weil, is still beautiful because we recognise the symbol of the temple in its entirety, as everything in the universe is beautiful because it symbolises the universe”.

Since any cultural reading of the territory and its own beauty should start from the sources of law/the legal instruments available to ensure its preservation, the chapter considers the pivotal example of Apulia and the regional law on beauty, an ambitious project of interdisciplinary bottom-up co-drafting/programming, which ties together seemingly antithetic criteria like quality and well-being, focusing on the citizen, on his needs and dignity. This law provides tools, methods and actions to experience the beauty of our territory and to appreciate the vast diversity of Apulian identities' mosaic. The need to protect and preserve cultural heritage is a human rights issue and that cultural heritage is relevant not only in itself but also in relation to its human dimension, in particular in its meaning for individuals and community as well as in their identification and development processes.

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