

**From
Vernacular
to World
Heritage**

edited by
LETIZIA DIPASQUALE
SAVERIO MECCA
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Stampato su carta di pura cellulosa *Fedrigoni Arcoset*



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Introduction

cultural heritage conservation;
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sustainable development;
safeguarding;
risk assessment;
risk management



CROSSING DIMENSIONS AND COMPONENTS IN VERNACULAR ARCHITECTURE RESEARCH

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Gilberto Duarte Carlos
José Vicente
Teresa Correia
Sandra Rocha e Sousa
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Introduction

Living and virtual visiting European World Heritage (3DPAST project) is a research focused on the vernacular heritage of World Heritage properties across Europe. These sites are particularly relevant as they consist of inhabited architectural vernacular properties that have been maintained and safeguarded by local craftsmen and their know-how; a legacy that passed down through generations.

The project was based on valuing the significance of vernacular heritage tangible and intangible knowledge. This was possible by the development of innovative technological ways of reaching new audiences, which became a factor of distinctiveness of vernacular architecture in European World Heritage Sites. It also contributed to the identity and diversity of local communities, as ancient and new knowledge continue to be learned through traditional ways, but also through new communication tools.

The research problem

The inherent research problem associated to vernacular heritage, based on the pre-industrial activities and specific geographic site conditions leaves this legacy in a very sensitive situation. The challenges, once centred in the building conservation and management, considering previous paradigm of places without inhabited building cultures, have been systematically guided to local communities' issues. The actual socio-economic situation, especially enhanced by the thriving global networks, results in an unprecedented pressure for the inhabitants of such places, who are impelled to leave or to change profession at a remarkable pace.

The institutions responsible for cultural protection and preservation, aware of this fact, have been adjusting the approach, by converging strategies to protect and to support local communities, and enhance their role and responsibility in the process. The 3DPAST project, align with UNESCO conceptual recommendations and the European Commission technical premises for Cultural support, has drawn a strategy focusing on both, tangible and intangible aspects of the site's features, of which the present local community is not only an audience, but a fundamental part of the heritage asset.

A key factor for the research that was carried out was accepting the cultural dynamism of each place, and to contribute to more economical competitive communities with better living conditions – all without compromising the Outstanding Universal Value of the sites. The obvious tourist approach is no longer the only, nor the more adequate answer for the population prosperity. It has been confirmed,

opposite page
Tower's trap door, Chazhashi,
Ushguli, Svaneti, Georgia
(© G. Duarte Carlos, 2019)

Overview of some of the drawings and documentation produced for 3DPAST project (© M. Mourão, 2020)



especially in the long term, that just relying on tourism can have significant limitations and consequences for the heritage asset itself. The impact of COVID-19 confinement revealed the problems resulting from sites, regions and countries only focused on development based on tourism revenue. The value of a place cannot be interpreted by its profitability rate, but this does not mean that it has to be assumed as a passive resource. Furthermore, it should be considered as its main resource, and it should be crucial for local population to be aware of that fact. Respecting all local communities' socio-economic expectations, suitable conditions and tools should be provided to engage local players; from local administration to private stakeholders. The 3DPAST strategy attempted to stimulate measures that could be transversal to different economic sectors, promoting the audience spectrum beyond the obvious beneficiaries, and updating related contents and their exhibition, using digital technology as a determinant tool to preserve and promote the uniqueness that prevails on each site's cultural identity.

Dimensions

The essential approach of the project presented a tripartite holistic interpretation, according to the following phenomenological dimensions of each World Heritage property:

- Architectural Heritage Dimension (D1) that is still persisting nowadays. Inhabited dwellings entailing a unique legacy that requires maintenance;
- Historical Building Dimension (D2), concerning building techniques and materials that can be tackled to the buildings. It also relates to particular socio-cultural episodes that can influence specific technologic changes;
- Intangible Heritage Dimension (D3), regarding craftsmen empirical knowledge to build and maintain the vernacular buildings. This third dimension was addressed all throughout the research, aim-

ing at preserving the immaterial culture of the building techniques in-use, based on the empirical existent knowledge.

The stated dimensions represent the classic homogeneous domains of analytic interpretations. Although isolated for methodical convenience and data collection pragmatism, they represent a connected corpus of information that is indispensable for the overall understanding of the traditional built environment. They also represent different scientific frameworks that range from geographical disciplines to anthropologic fields, specifically interrelated by the Architectural and Urban domain, in which the traditional building technology played a determinant role.

Components

Aware to the fact that the project represents a unique opportunity to experience the special character of the World Heritage, the main structure of the project was developed through 3 major components that were interconnected with the 3 stated dimensions, which contributed to the enhancement of the significance of the World heritage properties:

- Digital Component (C1). Digital interactive communication tools were developed, considering new digital realities for people who cannot travel and visit the exceptional and unique heritage of the listed sites;
- Creative Component (C2). Creative potential was associated with observation drawing, artistic drawing, photo, video, digital image, etc., aiming at different audiences;
- Communication Component (C3). Communication was considered as a tool of work, in order to better structure and disseminate the project.

The main outputs were essential to enhance the contribution of the distinct components. The digital component was boosted through an app and a digital platform, but also through the collection of data through photogrammetry, and other recording techniques. The project was also enriched by using Virtual and Augmented reality. The creative component was heightened through different data collection such as drawings, photos, videos, art installations, drone record, etc. Data was also collected and transfer of knowledge was achieved during the workshops organised in the different case studies countries. This was possible through the organisation of scientific workshops, digital workshops, technical hands-on workshop, art workshop, etc. The communication component was responded through the organisation of a large online international conference, the production and dissemination of videos, the organisation of different international seminars, the dissemination of activities among different networks, etc

Data collection and survey missions

The project was based on the collection of data gathered from several vernacular architecture World Heritage properties, but also from national and international archives, and on the Internet. Data was also gathered before, during and after the site missions. Following, revision of the literature was ad-



4 Photogrammetry and Plan of the World Heritage property of Upper Svanetti (Georgia), produced for 3DPAST project © C-ESG, Escola Superior Gallaecia, M. Mourão, 2020

ressed, in order to identify relevant issues to consider for the content's development. Site missions were undertaken to all the selected sites, by partners and university students, to work on surveying, recording and drawing, in order to properly document the sites. Some dwellings were chosen as case studies and were deeply studied through architectural surveys (intended to respond to Dimension 1), and through historical dwellings analysis (to answer to Dimension 2). Craftsmen that were still active were also contacted to share their knowledge regarding building's maintenance (to address Dimension 3).

Content's development and scientific review

Efforts were mainly devoted to the development and production of contents concerning the three dimensions of work and their specific outcomes. A general methodological approach for site maintenance, for historical, tangible heritage building cultures, and for intangible heritage knowledge was previously established to address systematic and consistent approaches across the different sites. This activity addressed specific contents for each selected site. Later on, site missions to World Heritage properties were accomplished to validate the produced contents. The crossing of findings from the missions with the results emerging from the data collection and the literature review contributed to a comprehensive scientific analysis of the subject.

Working plan

3DPAST developed a methodology that was addressed in the three dimensions, which can be applied in the future in other heritage researches.

Its approach consisted in:

Phase 1 | Planning: it relates to the planning of the activities and establishes organisation procedures.

Phase 2 | Data collection: To address data collection for the different dimensions in the sites, in local and national archives, international institutions, and on the Internet.

Phase 3 | Content development: a) To define methodological guidelines for a consistent approach in the different dimensions and sites following data collection; b) to produce content development con-



5 Photogrammetry of the World Heritage property of Upper Svanetti (Georgia), produced for 3DPAST project © C-ESG, Escola Superior Gallaecia, M. Mourão, 2020

6 Photogrammetry and Plan of the World Heritage property of Upper Svanetti (Georgia), produced for 3DPAST project © C-ESG, Escola Superior Gallaecia, M. Mourão, 2020

sidering the aimed outputs in the different dimensions; to address capacity building in all the dimensions, through technical and scientific workshops;

Phase 4 | Implementation of communication tools: To implement the developed content through effective communication tools;

Phase 5 | Outputs and dissemination: a) To develop specific and effective outputs; b) to address a cross-approach regarding the dissemination of results.

The project offered the opportunity for non-traveller citizens, to visit other dimensions, through videos, photos, diagrams and 3D modelling of World Heritage Sites in Europe. The project also intended to attract tourists to these sites, through the use of 3DPAST Mobile App on site, which opened the mind to other ways of inhabit, as well as to new audiences. These digital interactive communication contents are now available on a 3DPAST Digital Platform that was created throughout the project (www.esg.pt/3dpast/platform).

Conclusion

It is undeniable that vernacular architecture in European World Heritage has been progressively studied. The research problem shifted from the historical and architectural characterisation to the understanding of their building cultures.

Empirical knowledge beyond tangible heritage is still existent in these sites, and must be preserved and widely disseminated. Local know-how becomes then a positive reference for good-practices.

Intervention priorities, previously focused on the traditional materials and building systems technical conditions, are now complemented with the promotion and support of the related empirical knowledge. The 3DPAST initiative was set according to these principles and expects to actively contribute to the development of such conceptual approach.