NTERDISCIPLINARITY, ETHICS AND TERRITORIAL PLAN-NING

Salvatore Lorusso*

Foreign Member Russian Academy of Natural Sciences

Lucio Colizzi

Computer Science Department University of Bari ALDO MORO, Italy

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1. Introduction

This is the presentation made at the invitation of the President of the Technical-Scientific Committee of the *Fondazione San Domenico*, Prof. Cosimo Damiano Fonseca, at the 8th International Conference, "Dalle chiese in grotta alle aree della civiltà rupestre: gli strumenti di pianificazione territoriale", held in Savelletri di Fasano, 29 Nov.-1 Dec. 2018. The sequence of conferences over the years is a clear testimony of the importance of the cultural, landscape and environmental heritage present in the area of Fasano and Monopoli, in the region of Apulia in Italy, from a historical and scientific point of view. The conferences have involved the participation of national and international experts, whose aim is to recover the rock settlements of a civilization which, as a phenomenon of social aggregation, have left a particularly significant mark.

Figure 1 shows two images relating to a church inside a grotto (a), and the landscape (b) found in the area of the rupestrian settlements of Fasano and Monopoli and are an emblematic testimony to the cultural, landscape and environmental heritage that exists in the region. The aim of the Foundation is to carry out research on rupestrian habitats and settlements and it has been doing so since 2001.

In Figure 1, a third image (c) has been added, which I will focus on later; its aim is to highlight that heritage of historical, artistic, archaeological, architectural, monumental, and also natural landscape interest is not entirely and only attributable to beauty and aesthetics, but also to ethics and, as such, is synonymous with identity.

2. The recovery project for the rupestrian settlements

The project aims to study and do research in the following areas:

 history, art, archaeology, architecture, society, anthropology, geology of the particular medieval habitat, also taking into consideration significant events that have taken place over the centuries in the history of the churches and frescoes in the tuff grottoes;

^{*} Corresponding author: salvatore.lorusso@unibo.it

- technical-conservative aspects, relating to the protection and, therefore, to the various procedural steps of diagnosis, restoration, conservation, maintenance and prevention;
- management, concerning the enhancement and, therefore, the consequent, as well as subsequent impact on the territory of the economic value initially paid for the protection of the territorial area itself;
- social aspects that guarantee a positive impact while respecting the natural resources present in the territory, as well as positive returns in economic terms and in the employment sector [1-5].

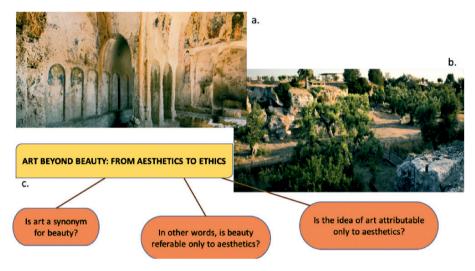


Figure 1. a) landscape; b) rupestrian church; c) art beyond beauty.

3. Interdisciplinarity in consideration of the holistic value of heritage

Cultural Heritage is characterized by a holistic value, i.e. a set of values that are related to different areas of investigation (Figure 2).

Looking at these different areas, it is evident that the study and research needed to address and contribute to resolving problems related to the recovery of this rupestrian heritage must necessarily involve experts with different backgrounds and interdisciplinary competences.

In this regard, it is important that not only professional figures with a historical-humanistic background participate, but that other relevant technical-experimental and legal-managerial skills are integrated. This will facilitate the objective of protecting and enhancing this heritage, with the final intent that the entire project becomes part of a wider vision of shared national and international knowledge.

In the past, achieving this objective was difficult and demanding, due to the fact that those involved in heritage and scientific disciplines were rarely of the same mind, making it difficult to build a solid relationship. Hence the need to set aside the fragmentation of this relationship and to identify the priorities within the context of the cognitive activities in heritage conservation so that the various players come together as one to make the research more meaningful.

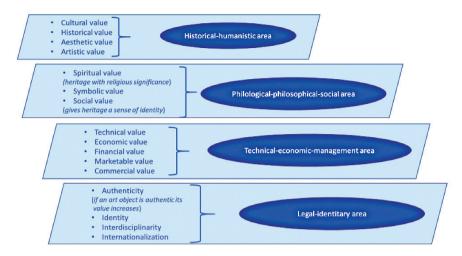


Figure 2. Interdisciplinarity in the sector of cultural and environmental heritage.

4. Art beyond beauty: from aesthetics to ethics

In the context of the holistic value of cultural heritage, the aesthetic value, as for the other values mentioned above, must be imbued with a sense of ethics [6-7].

Consequently, the following questions arise: "Is art a synonym for beauty?" and "Is beauty only referable to aesthetics?", "And is the idea of art attributable only to aesthetics?".

If this were so, art would be seen as being old-fashioned and decadent, a vision belonging to those who do not love or trust art or think they can banish it to the furthermost corners of the cultural world.

On the contrary, art is never solely or necessarily beauty, its vocation is not decorative, but metaphysical. Indeed, what remains for art when it escapes the diktat of beauty? Art is left with the intelligence, knowledge and wisdom of great alchemies, which gives a meaning to art without any sense, or shows why it is impossible to make any sense of it.

It is therefore possible to affirm that we perceive ethical and aesthetic values together and in combination with other values.

Furthermore, the word ethics comes from the Greek $\epsilon\theta$ o ς meaning "custom" or "rule of life".

I would like to distinguish the two meanings however, which are attributable to the same term "ethics".

In the first case, it should be noted that the artefact of historical, artistic, archaeological, architectural and monumental interest performs an ethical function because, as a finished product, it represents the expression of a custom, of a habit attributable to a particular historical period. If the historical period is classical, then the art expressed is classical; if instead it is present-day, it is contemporary art. In the latter case, the artefact may not always correspond to the concept and / or those canons of beauty to which we are accustomed, even though it identifies with and bears witness to the social context of this particular period.

In the second case, it is equally true that ethics, as a rule of life, implies the determination of human conduct and the search for the means that will concretize it according to the nature, will and morality of each individual or group, in choosing their way of life and activities.

5. Art as a means for sustainability

Art and science represent two ways of narrating the history of the world, not two contrasting subjects. Moreover, art, in other words, cultural heritage, considering the environment an integral part of it, is linked to the history of humanity [8].

It is evident then that the various artistic expressions and, therefore, the various generational waves with their social events and problems, from the past to the present, are temporally connected to each other and, moreover, because "The past is part of the future through the present".

It is also true that "Nature does not support the human footprint". This is what the World Wide Fund for Nature points out in highlighting the marked imbalance caused by the consequent irreversible damage to the environment, despite the fact it has happened gradually over the centuries.

How can art, therefore, act as a means to help sustainability?

However, firstly, a distinction should be made between sustainability understood from the inside and, I would say, an interior point of view, and sustainability understood from an exterior point of view, as I believe it concerns each sector in the context of the various multiple anthropic activities.

In the former, in referring to art and its function in the context of sustainability, we speak of the importance of training those who work in the "system: artefact of historical interest - conservation environment - biota", with the intent and objective of protecting and valorizing the cultural and/or environmental asset, according to ethical principles, i.e. by implementing and respecting their own specific skills, as well as those of other experts, in a mutual need for humility and wisdom and therefore, for interdisciplinary. It is essential to consider the behavioral aspect, but not easy to achieve.

In art, moreover, always understood in the sense of cultural and environmental heritage, there is the external aspect of sustainability which regulates its practice according to historical, technical and conservative assumptions within the framework of sustainable development.

Based on the previous aspect, the experience acquired in studying and implementing practical skills must be aimed at revitalizing the artistic artefact, so that it continues to bear witness to the past through the present for the future. At the same time, the work of the expert must not only aim to safeguard the environment itself, according to set rules related to its protection, since the heritage asset is located therein, but also work according to ecological objectives, so that a balance is maintained between the two and thus satisfies present needs without compromising the needs of future generations. These then are the goals that are being pursued in the ongoing research project on the ancient cave settlements in Apulia.

6. Drawing value from culture

But there is a consequent aspect to be considered which can be added to the sequence of procedural phases in the methodological path of the project, that of the territory.

By intervening in the protection and valorization of the historical, artistic, landscape and environmental heritage, the territory - synonymous with a single generous guardian, patron, sponsor or even businesses, including regional and local authorities - can "generate value" for it and, at the same time, "draw value" from it [9-11].

In this regard, it is well known how funding available for heritage purposes must be allocated taking into account the concrete possibilities it offers for economic development, and, therefore, by adopting a forward-looking approach, in the belief that the logics of culture go hand in hand with the logics of profit. The heritage-profits marriage should in no way scandalize but should always be pursued to support conservation and safeguard actions, creating value in the business areas that have been stimulated. Furthermore, influences from different human disciplines and activities, such as food and wine, and tourism and design, can only be virtuous catalyzing processes, especially if supported by technologies [12].

It is important to underline, moreover, that culture can give rise not only to economic returns, but also to systematic transformation processes, becoming an exercise in personal and collective well-being, an ethical practice that everyone can embrace, according to taste, sensitivity and curiosity.

It follows that talking about territorial planning – which represents the specific theme of this paper – implies the use of the territory and, consequently, the organization of the activities that are carried out therein, and which have already been described, in order to give life to territorial growth that is productive and economically sustainable.

I also wish to highlight that the management of the territory, which implies evaluating the effects of the project on the territory itself and the consequent economic and technological growth, must "respect" the natural resources of the landscape and the environment, in the belief that the rock habitat, as an element of cultural identity, will also produce positive social and occupational effects. This last important aspect is connected to the training of a professional figure, who is able to perform a multifaceted function within the organization.

7. Training

It is therefore considered significant – also as a possible example to refer to – to briefly present the aims and the corresponding objectives achieved over the years by the Master in: "Planning and promotion of artistic and cultural events", which was launched by the Department of Cultural Heritage of the University of Bologna and ran for six years [13]. The tangible results, which followed the conclusion of the course over the years, have enabled students to enter the employment market, often at the same locations, represented by the Cultural and Productive Units, where they carried out their project work during their individual work placements.

The Master prepares a professional figure: the event manager, who is specialized, but able to adopt an interdisciplinary approach and consequently plan and promote strategies, operate on multiple media platforms and effectively use their languages and potential.

Once upon a time, the event manager simply organized and managed the event from its design to its conclusion. Today, the event manager is a professional, specialized in the following functions as:

- the project manager, who elaborates the project;
- the logistics expert, who identifies the geographical location and accommodation facilities:
- the expert who studies, realizes and controls the specific cultural contents of the event;

- the account manager, who interfaces with the user;
- the operator who manages the event.

Hence the importance of the training which universities should properly provide by offering specific quality courses: in doing so, the professional figure is also able to compete internationally, an aspect that is now mandatory.

8. The internationalization of creativity

As part of Italy's heritage, the rock habitat, seen as a combination of the historical, artistic, landscape and environmental identity of this territory – where the materials of the admirable native landscape are stone, light and color – can and must represent an emblematic example of internationalization because [14]:

- worldwide demand for culture has grown, with a consequent growth in its users;
- the market has gradually widened its range;
- the institutions themselves have become global;
- there are international protection bodies, such as UNESCO.

And within the context of the globalization, present not only in economics and society but also in culture, internationalization must play an integral role in the research project on the rupestrian settlements of the Savelletri di Fasano territory by taking into account a peculiarity inherent in Italian genes and expressed in the cultural reality of the aforementioned territory: "creativity".

I would like to highlight two definitions that can be traced back to two different eras and to two different conceptions.

The first is a definition by Henri Poincaré, a French physicist-mathematician and scholar of scientific methods, who lived between the mid-1500s and early 1600s: "Creativity is the ability to combine existing elements in new combinations that are useful". It introduces the idea of superseding existing rules (the new), giving rise to a further shared rule (because it has proved useful).

Furthermore, the Italian "White Paper on Creativity" (Ministerial Decree 2007 – Ministry of Cultural Heritage and Activities) states that: "Creativity and culture are an indissoluble binomial, a successful mechanism that can put the country in a strategic position in the international process of globalization".

Creativity is therefore also the basis of a profession in a sector that is changing today, that of culture: the profession and professional figure being that described above.

9. Conclusion

In conclusion, handing down the past to the future through the present is the goal the commendable work of the Foundation is pursuing, taking into account not only the progress of science and management, but also cultural, ethical and social parameters.

As the philosopher, Salvatore Veca says: "Awareness of what is, or a sense of reality, must always be accompanied by a passionate and optimistic sense of possibility".

References

[1] Lorusso, S., Prestileo, F., Troili, M., Marabelli, M. (1998) Aspetti tecnico-diagnostici e storici relativi ai dipinti murali del vestibolo della Chiesa di Santa Maria del Parto (Sutri-Viterbo), Scienza e Tecnica, 329, 1-11.

- [2] Lorusso, S., Prestileo, F., Troili, M., Agostinello, D., Buonocore, F. (1998) Monitoraggio microclimatico nel vestibolo della Chiesa di Santa Maria del Parto (Sutri-Viterbo), L'Ambiente, 1, 37-41.
- [3] Lorusso, S., Schippa, B., (2004) (2° Edizione), Le metodologie scientifiche per lo studio dei beni culturali. Diagnosi e valutazione tecnico-economica, Bologna, Pitagora Editrice (1° Ed.Bulzoni, Roma, 1992) La méthodologie scientifique appliquée à l'étude des biens culturels. Diagnostic et Evaluation tecnico-économique, traduction et adaptation par M. Stefanaggi, E.R.E.C. Editeur, Paris, 1995.
- [4] Lorusso, S., (1999) Il contributo storico-umanistico e tecnico sperimentale nello studio dei beni culturali: una necessità, una realtà, Scienza e Tecnica, 341, 5-6.
- [5] Lorusso, S., Matteucci, C., Natali, A. (2007) Anamnesi storica, indagini analiticodiagnostiche e monitoraggio ambientale: alcuni casi di studio nel settore dei beni culturali, Bologna, Pitagora Editrice.
- [6] Lorusso, S., Braida, A., (2012) Art and environment as media for ecosustainability, ethics and aesthetics, Conservation Science in Cultural Heritage, 12, pp. 55-78
- [7] Lorusso, S., Natali, A., (2015) Promozione e conservazione dei beni culturali, in Pensieri nascosti nelle cose. Arte, Cultura e Tecnica, a cura di Lombradi G. e Mantovani M., LAS (Libreria Ateneo Salesiano) – Angelicum University Press, Roma, pp. 352-373
- [8] Lorusso, S., 2014, Arte e ambiente come mezzo per l'ecosostenibilità, l'etica e l'estetica, in: Scienza e Tecnica, 527-528-529, pp.17-18
- [9] Lorusso, S., Matteucci, C., Natali, A. (2010) Il mercato dell'arte e le case d'asta: valutazione diagnostico-analitica e economico-finanziaria. L'autentico, il falso, il riprodotto nel settore dei beni culturali. Bologna, Pitagora Editrice.
- [10] Lorusso, S., Cogo, G.M., Natali, A., (2016) The Protection and Valorization of Cultural and Environmental Heritage in the Development Process of the Territory in Conservation Science in Cultural Heritage, Vol.16, Mimesis Edizioni, Milano-Udine, Italy, pp.59-73.
- [11] Lorusso, S., Natali, A., (2017) Drawing Value from Culture and the Territory, Athens: ATINER'S Conference Paper Series, No: CUL2016-2185. Printed in Athens, Greece by the Athens Institute for Education and Research. ISSN: 2241-2891.
- [12] Lorusso, S.; Colizzi, L. (2018) Design Between Art, Technologies and Science. Conservation Science in Cultural Heritage, 18.1: pp.211-221.
- [13] Lorusso, S., Matteucci, C., Natali, A. (2013) I beni culturali e ambientali: formazione e ricerca, interdisciplinarità e internazionalizzazione. Milano Mimesis Editore.
- [14] Lorusso, S., Mantovani, M., Zhang, G., Barone, V., (2015) Art, science and history in a globalized world: the case Italy-China, Conservation Science in Cultural Heritage, pp. 326-335

Biographical notes

Salvatore Lorusso is a former full Professor of the University of Bologna. He is a Foreign Member of the Russian Academy of Natural Sciences; Emeritus Professor of the Cultural Heritage Institute of Zhejiang University, China; former Visiting Professor of the Academy of Social Science of Zhejiang University, China; Visiting Professor of the Faculty of Arts, Lomonosov Moscow State University, Russia; former Vice-president and currently a Councilor of the Società Italiana per il Progresso delle Scienze (SIPS-established in 1839). Direttore Generale of the Accademia della Cultura Enogas-

tronomica. His biography appears in the 2016 Marquis Edition of Who's Who in the World. He is the founder and director of two book series relating to the specific issues pertaining to the sector of cultural and environmental heritage. He is the author of over 430 publications in national and international journals and 24 volumes and monographs covering commodity science, cultural heritage and environment. In 1997, he founded the Diagnostic Laboratory for Cultural Heritage at the Ravenna Campus of the University of Bologna and remained head of the Laboratory for eighteen years. In 2001, he founded, and is Editor-in-Chief of the historical-technical Journal "Conservation Science in Cultural Heritage". His scientific work deals mainly with the study of the "system-artifact-environment-biota" and diagnostic, analytical, technical and economic evaluation within the context of the protection and valorization of cultural and environmental heritage.

Lucio Colizzi graduated in Computer Engineering from the University of Salento. He has worked in the private sector for the company Infobyte S.p.A., in the field of the design and development of virtual reality applications. In 2001 he became Director of the Computer Engineering Division of CETMA (European Research Centre for Technology, Design and Materials), where he was scientific coordinator on several major industrial research projects. He is currently CEO of the innovative startup SmartEducationLab, a CETMA spin-off company operating in the fields of digital manufacturing, the IoT and process digitisation and simulation. He is the author of a European patent in the field of mechatronics and several scientific publications. His areas of expertise focus on the development of ICT technologies in industry 4.0 and cultural heritage and healthcare IT. He teaches digital supply chain at the "Istituto Tecnico Superiore della Logistica Puglia", Italy. He is currently completing his PhD at the Department of Computer Science of the University of Bari.

Summary

Representing a phenomenon of social aggregation, the settlements of the rock civilization of Fasano and Monopoli in Brindisi, Italy and their recovery, is one of the objectives pursued by the technical-scientific committee of the San Domenico Foundation, which involves experts at national and international level. This paper, presented at the 8th International Conference, intends to highlight how art, as a testimony of these settlements in the area of this rock civilization, is not attributable only to beauty, but also to ethics, and as such, is synonymous with identity. This leads to concepts and meanings deriving from interdisciplinarity, sustainability, planning, territorial development, as well as the need to train a specialized and multi-faceted professional figure who is qualified to operate in the field of the protection and valorisation of the past, in order to be able to competently pass it on through to the future.