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Preventive archaeology: A resource, not a hindrance, for the protection and valorisation of cultural heritage. The case of Ugento (Lecce, Italy)

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I beni culturali nel nuovo codice dei contratti pubblici

Preventive archaeology: A resource, not a hindrance, for the protection and valorisation of cultural heritage. The case of Ugento (Lecce, Italy)

di [Fabio Fortinguerra](#) [*]

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This paper aims to explain the importance of preventive archaeology both in terms of protection and valorisation of cultural heritage. This is thanks to the wealth of data, mostly digital, that multidisciplinary activities related to preventive archaeology are able to provide. Preventive archaeology promotes scientific studies aimed to preserve the soil archives and entails studying past technologies, social and political relations, settlement processes and landscape. It also reveals the common cultural foundation that develops and transforms over time, and provides insight into how space, town planning, and the environment have evolved, as well as ethnic, cultural, and religious differences. The case study of Ugento, an important Messapian centre in the south of Italy, exemplifies how the application of innovative methodologies in preventive archaeology can result in the adoption of shared and smart urban and territorial planning instruments, notwithstanding the absence of overarching binding measures on the part of the competent ministerial authorities.

Keywords: preventive archaeology; public works; cultural heritage protection.

1. Introduction

Nowadays, preventive archaeology represents an important reference point for all the archaeological disciplines, particularly heritage protection [1].

The goal of preventive archaeology is to detect and scientifically study archaeological remains on land and under water that may otherwise be destroyed or seriously damaged by various types of work, such as the construction of railways, roads, sewage pipe, and private or public buildings, and other land development plans. These projects can result in the destruction of the deposits hidden in the subsoil, but preventive archaeology allows us to preserve the soil archives through scientific study [2].

All archaeological works, including excavations conducted in rural and urban areas, provides a wealth of information that enriches our knowledge of the past. Moreover, archaeological deposits are non-renewable resources that contain unrepeatable information and data. This makes an important step linked to a cultural phase, which focuses on the protection of heritage, considered an "objective" expression of historical values, identity, and more.

The field of archaeology, which was previously referred to as "rescue archaeology" due to its absence of a legal framework until 2004, is now referred to as "preventive archaeology" [3]. This shift is very important because it represents a change in perspective, where archaeologists are not only called upon to save artefacts, but also to plan entire development projects where archaeological information is recorded under favourable conditions.

In Italy, the law on preventive archaeology, established in the [Code of cultural heritage and landscape \(legislative decree 22nd January 2004, no 42\)](#), provides for advanced archaeological interventions on development sites for the purpose of assessment and, if necessary, excavation. This means that development work is no longer undertaken at the expense of the remains from the past. On the contrary, such work enables these vestiges to be studied in depth.

2. Research aim

This paper describes the tools of preventive archaeology, both as theoretical, regulatory and practical operative issues, as for Italy. Preventive archaeology is a strategy for minimizing the risk of archaeological destruction and a practice for maximizing the recovered archaeological information through research forced by landscape transformations. The theoretical rationale lies in the relevance of the traces of the past for present and future communities; the target corresponds to the development of shared and diffuse knowledge, as common good [4]. Countries adhering to the Council of Europe presently refer to the [Valletta Convention](#) (1992), locally applied by the signing partners, in the wider worldwide framework. The capacity of preventive action depends on a synthesis of skills in the management of digital,

geomorphological, stratigraphic and material culture data, deriving from teamwork.

The case study of Ugento, an important Messapian center in the south of Italy, exemplifies how the application of innovative methodologies in preventive archaeology, facilitated through the collaboration between research institutions (i.e. Institute of cultural heritage of Cnr) and the municipal administration, can result in the adoption of shared and accepted smart urban and territorial planning instruments, notwithstanding the absence of overarching binding measures on the part of the competent ministerial authorities.

3. The importance of preventive archaeology

Archaeology's goal is not solely to search for masterpieces or remarkable monuments. Rather, its aim is to understand historical areas and societies using the signs preserved in the ground, from the earliest traces of human activity to the present day.

This multidisciplinary and holistic approach is useful for understanding changes in climate, vegetation, and landscape. It is based on studying the technologies, lifestyles, and social and political relations of the past, as well as the settlement process. Nowadays, archaeology, in general, and preventive archaeology, in particular, have an innate vocation to make a high-level contribution to multidisciplinary research on territories [5].

The preventive archaeology has brought significant developments to research methodologies, particularly in the field of predictive diagnostics and computer systems applied to archaeology. It fully fits into the operations defined by global archaeology since it is characterized by an interdisciplinary approach that combines historical and cartographic studies with archaeometry ones: from remote sensing applications to geophysical surveys and palaeo-environmental studies. It also presupposes a non-selective analysis of the territory, with a diachronic interest in documenting all material evidence of a certain area, according to the typical logic of urban and rural landscape archaeology.

Preventive archaeology, in particular, has a natural capacity to work on different scales, in terms of both space and time.

The importance of preventive archaeology derives from its role as a point of convergence between archaeological and cultural heritage protection in a broad sense, and landscape protection, due to its interaction with land management policies. Moreover, preventive archaeology emphasizes the value of cultural heritage for society and the capacity of heritage to contribute to human development and the enhancement of quality of life [6]. It is not only about heritage but also the people who work in its protection and management, and the discipline of archaeology and knowledge of the past. Furthermore, the discussion of preventive archaeology includes an overview of the working conditions of thousands of young graduates, often hyper-specialized, who ensure the management of these activities.

The economic crisis that involved all the European countries in recent years led to a redefinition, and contraction, of the system of protection in terms of rules and procedures, resulting in less strict control.

Preventive archaeology, which is closely related to regional planning, affects every developer, politician and citizen. It contextualises both the particular and the general, together with local history and wider history, endeavouring to answer fundamental questions about humankind and our origins, history, and values. Preventive archaeology, which is both a human and social science, discloses the heterogeneity of the human groups that have populated a country, the way they have shaped our landscape, and their ability to integrate and innovate.

It also lays bare the common cultural substratum that forms and transforms over time.

Moreover, preventive archaeology sheds light on how space is managed, the evolution of town planning and the environment, as well as ethnic, cultural and religious differences.

Actually, preventive archaeology is more than development-led archaeology rescue or salvage excavation. It seems to be the ideal solution for leaving the archaeological heritage intact. It can be considered the means for reconciling contradictory requirements of territorial and economic development on the one hand and preservation of the archaeological heritage on the other [7].

4. The Italian legislation on preventive archaeology

All over Italy, the requirements of economic development are rapidly destroying many archaeological sites. The character of this destructive activity and the solutions adopted vary among different countries. The studies conducted by researchers involved in preventive archaeological activities cover the institutional and legislative background, provide statistical data and information on each field activity of preventive archaeology, compare theory and practice, and explore forms of existing international cooperation. These are aspects where European-level cooperative activity is most required [8].

Preventive archaeology is a relevant and current issue that is presently capturing the interest of the scientific community [9].

In Europe, and particularly in Italy, the adoption of the Code for Contracts Concerning Public Works ([Codice dei contratti pubblici](#)) led to an increasing need to reconcile the protection of the archaeological and cultural heritage with the development and progress of modern cities and landscape. This includes working activities that involve excavations, constructive or extractive activities, or large infrastructure projects.

The destruction of cultural heritage due to rapid economic development after the end of world war II led UNESCO to adopt the [Convention for the Protection of Cultural Property in the Event of Armed Conflict](#), signed in 1954 at The

Hague, and the Recommendation on International Principles Applicable to Archaeological Excavations, signed in 1956 at New Delhi. The latter is very important because it reminds States to protect archaeological sites and reaffirms the importance of knowledge of past civilizations for higher understanding between the people all over the world. Although it was only a recommendation, and it did not have a great influence on the policies of the signatory States.

An important step that increased the number of specialists involved in preventive research activities, was the European Convention, signed in La Valletta (Malta) on January 16, 1992, supplementing the [European Convention for the Protection of Archaeological Heritage](#), signed in London on May 6, 1969, prepared by the Italian archaeologist Massimo Pallottino, which barely evoked the issue of preventive archaeology as it relates to major development projects.

This provision and the accommodation of the European countries legislation recognise that the “need to protect the archaeological heritage should be reflected in town and country planning and cultural development policies” and reflect the commitment of the parties “to institute, by means appropriate to the State in question, a legal system for the protection of the archaeological heritage”. Another important rule provides for party States to “guarantee the scientific significance of archaeological research work” and to “increase the material resources for preventive archaeology”. The application of the Malta Convention has resulted in a decided increase in archaeological excavations and a progressive improvement of techniques and procedures, which sometimes have favoured an expansion of the “commercial archaeology”. This term, which applies commercial competition in archaeology, is based on a fundamental misunderstanding. Developers do not want to buy the best archaeology possible but seek only the company that will release their land as soon as possible and at least cost. If competition exists in the scientific field, it is to produce not the cheapest research possible, but the best research possible [10]. Several analysts have defined a continuum of government-controlled versus market-controlled. We can find these conflicting approaches in France and in anglo-saxon countries. In France, the [Code du patrimoine](#), adopted in 2001 (and modified in 2004), defines developers’ financial and procedural responsibilities, requiring payment of an archaeological levy for every large-scale property development project [11]. In the anglo-saxon countries, instead, archaeology relies almost entirely on free market.

Besides favouring both legislative and institutional developments, as well as more strictly scientific-technical initiatives, the Convention has also led to a virtuous cycle in many countries. In some cases, this has resulted in significant growth in economic activities related to preventive archaeology.

However, even 24 years after its introduction, the Italian government only ratified the Convention on December 31, 2015 [12], at a purely formal level. This ratification has not produced any significant legislative effects. The failure to ratify the Malta Convention highlights how far behind Italy is in this strategic sector of heritage protection, particularly in the field of the integrated conservation of the archaeological heritage (article 5 of the Convention). This situation is due to the “wealth” of Italy’s heritage, which has resulted in legislative initiatives that focus on protecting individual assets, often seen as a work of art on their own, detached from the context to which they belong.

Italian legislation has reflected the separation between cultural heritage and landscape, which continued until the promulgation of the Code of 2004, which consolidated the laws of both fields into a single *corpus*. However, the failure to include preventive archaeology within the legislation on landscape protection has kept alive the situation that was dictated by the “Bottai laws” of 1939.

In Italy, there is no specific law that governs preventive archaeology. However, we must bear in mind that one of the reasons for the breakdown of the implementation of all these episodic provisions was the cardinal sin of having restricted preventive to public works alone. This inadequate model is probably linked to the role attributed to the private property but was partially remedied by law no. 106 of 2011, which broadened preventive archaeology to include so-called “special sectors” that relate to particular projects that are financially supported by private individuals but have a significant impact and public utility.

Despite the historical law no. 1089 of 1939, which considered cultural heritage as a property, the Code of Cultural Heritage and Landscape did not introduce a radical and essential innovation. Many of the actions of cultural heritage protection are implemented through the provisions of city and landscape planning, which Italian legislation delegated to local authorities. In this field, law no. 431 of 1985, also known as Galasso law, is very important because it delegates landscape-planning procedures to the regions [13].

In the 2004 Code, archaeology is still considered as a 19th century-style academic discipline, only one paragraph is dedicated to preventive archaeology in article 28: “In cases of public works carried out in areas of archaeological interest, even when assessment referred to in article 12, paragraph 2 has not been carried out, or the declaration referred to in article 13 has not been issued, the superintendent may request that preventive archaeological sample analysis be carried out on the aforesaid areas at the expense of the principal commissioning the public work”.

This provision limits the scope of preventive archaeology to public works alone, although in 2011, the category of public works was expanded to include works of public interest and those related to sectors such as gas, electricity, and transportation. Private property remains exempt from preventive archaeology regulations, and rescue archaeology regulations apply to the large majority of private works. However, it is possible for each Superintendence to stipulate agreements with municipalities regarding city planning [14].

The methodologies referred to in this contribution are also mentioned within the scope of the so-called “preventive archaeology” procedures, namely those detailed until July 1, 2023, by previous article 25 of legislative decree 2016, No. 50, recently repealed, and subsequently, after that date, by articles 38, paragraph 8, and 41, paragraph 4 of legislative decree 2023, No. 36, and its annex I.87.

Legislative decree no. 50/2016 and subsequent amendments were issued to organise preventive archaeology, at least for public works. Article 25 stipulates that the preliminary project must contain an integrated geological and archaeological survey investigation to evaluate the archaeological risk. Only scholars who graduated in archaeology

(with a degree of no less than five years) and/or a Department of archaeology are entitled to sign the report and to submit it to the Superintendent.

The superintendent, based on the report as well their knowledge, may order test coring and/or excavation to establish the archaeological content of the area. This research will be conducted by archaeologists of the superintendence and paid for by the public developer.

Depending on the relevance of the archaeological remains, the Superintendent may order an extended excavation or physical preservation. In both cases, the builder is responsible for the cost and must also bear the cost for publication and/or exhibition.

This "good" law improves the development of "non-invasive archaeology" and a smarter activity related to public works. However, it does not apply to private projects, which are still governed by a law dating back 1939 (occasional finds). The updated regulation in 2023 stipulates that the preliminary archaeological report, which may be generated through on-site surveys, shall be submitted by the contracting entities during the "conference of services" convened for the purpose of approving the technical and economic feasibility project and the site selection of the project.

The small paragraph of the Code has necessitated further legislative references, which have not been set forth in specific provisions but rather in provisions that have left many interpretative gaps, such as in the Code of public procurements.

The rules of the legislative Ddcre no. 50/2016 and subsequent amendments establish rules for the activities related to preventive archaeology in Italy (for public works and public utility projects), implementing the previous law no. 109 of 25 June 2005.

The innovative principle of these provisions is that the excavations need not be undertaken as part of a research activity carried out directly by the State (in particular, the ministry for Cultural heritage and Activities) or by holders of licenses, but also for the purpose of enabling the execution of public works of a highly diverse nature.

In the current legislation, we can find three different stages. The first stage, called the "preliminary stage", is governed by article 25 of the Code, which requires the commissioning entity to draw up a preliminary report with any data concerning archival research and surface surveys. This report must be prepared by highly specialized individuals who have completed a postgraduate specialisation or hold a research doctorate or university departments with at least three tenured professors.

Modern archaeologists must have specific skills and integrated, multidisciplinary training to formulate a preventive evaluation of the archaeological record in a specific area. In this perspective, knowledge of theory, legislative aspects, and methods and techniques of the modern preventive archaeology is of great importance.

In the next stage, the law provides that once completed, the preliminary report must be submitted to the superintendence with jurisdiction over the area concerned, which can assess whether the report suffices to rule out an archaeological impact and then authorise the works. The superintendent can also deny approval or consider it necessary to conduct further investigations.

In most cases, the superintendences for archaeological heritage request implementation of the procedures outlined in article 25. These procedures involve an initial phase of intervention which includes core sampling, excavation surveys and geognostic surveys of various types.

After conducting these preliminary investigations, which are carried out by the superintendences at the expense of the commissioning entity, the superintendent will make a decision regarding the public works project.

He may consider all of the necessary elements to be acquired and prevent the project from being carried out, placing restrictions on any archaeological objects identified. Alternatively, he may request an open-area excavation of the archaeological sites and provide for the total or partial removal of the structural remains, which may be eventually exposed to view.

When the excavation is to be carried, the commissioning entity begins the excavation under the scientific direction of the Superintendence for archaeological heritage.

The coexistence of economic responsibility, in the hands of commissioning entities, and scientific responsibility, borne by the superintendence, has created many problems. In fact, the speed and cost-saving measures, which characterize most of the works do not guarantee a high quality of excavation work. Often, the excavation work is left to the control of superintendence officials, who are few in number and have few means of coercion. The consequence of this is an archaeological market characterised by increasingly low tender prices and exiguous pay for workers, factor that do not favour the best firms and the most expert and qualified archaeologists.

In 2012 and 2016, the former central body of the ministry of Cultural heritage and Activities and Tourism, the Directorate for archaeology (abolished by the recent reform) issued two important circulars, which do not have the force of law. These two ministerial circulars, numbered 10 of 15.06.2012 and 1 of 20.01.2016, are strictly internal in nature and have both been criticised for their almost exclusively bureaucratic-procedural character.

The weak point of these provisions is the hybrid situation that arises from the managing of all preventive archaeology activities, which are neither completely public nor private.

This situation puts professional archaeologists in an uncomfortable position between the contracting entity and the superintendences responsible for heritage protection. All procedures are coordinated by ministry staff because of

personnel shortages, which have never allowed them to conduct excavations directly. Therefore, excavations are conducted by specialized firms or professionals paid by the contracting entity, while ministry officials are left in charge of scientific direction.

Circular no. 10, issued by the General directorate in June 2012, is useful from a technical standpoint. It seeks, in some way, to address the basic problem of the limitation to public works by calling for the adoption of the same procedures for private development. However, the legal nature of this act, being only an internal document, limits its impact.

Communication plays an important role in the entire excavation process, from preliminary surveys to post excavation publications. The provisions of articles 7, 8 and 9 of the Convention of Malta emphasize the importance of disseminating information about the archaeology system to society.

However, in Italy, this phase is often disregarded and is entirely non-existent for pre-excavation activities. In the Circular no. 10 of 2012, although the document's subject matter is related to this issue, there are no provisions about communication concerning the preliminary survey phase. This serious lack contradicts one of the objectives of archaeology, which is to achieve direct communication with citizens, aimed at explaining to them the causes, reasons and aims of archaeological excavation projects in their town, in their neighbourhood or even on their property [15].

The legislative decree 2023, No. 36, further refers to a regulation to be issued by December 31 of the same year for the adoption of guidelines concerning the implementation of the preventive assessment of archaeological interest, with the purpose of specifically repealing Annex I.8.

Until the issuance of said regulation, the *"Guidelines for the procedure of assessing archaeological interest and identifying simplified procedures"*, promulgated by the d.p.c.m. on February 14, 2022, shall remain in force. These guidelines outline the methods and timeframes for conducting the preventive assessment of archaeological interest, as well as the procedures for delivering documentation utilizing an open-source Gis template (.gpkg) developed by the Central institute for archaeology, intended to be integrated into the National archaeological geoportal. Matters pertaining to non-invasive research are addressed in sections 4.1 and 6.4.1, as well as table 4 of the Guidelines, which provide comprehensive details on the operational aspects of surface surveys/inspections and geophysical investigations (ground-penetrating radar, differential fluxgate magnetometry, sclerometry, electrical resistivity tomography, thermography).

In the aforementioned cases, the findings of the investigations (including non-invasive ones) are transmitted and retained by the offices of the ministry, which, as the institutional custodians responsible for safeguarding and research activities, possess unrestricted access to them and determine the most appropriate means of dissemination, ensuring that they do not infringe upon the intellectual property rights of the professionals entrusted with their compilation.

5. The role of preventive archaeology for the protection and fruition of cultural heritage

Recently, the establishment of the ministry of Ecological Transition and the need to quickly build public infrastructure with European funding from the Nrrp have reopened the debate on the role and importance of preventive archaeology [16].

The acceleration of the implementation of projects related to the ecological transition and the Nrrp has indeed raised concerns that this may compromise the protection of national landscapes and archaeological heritage, in clear conflict with the constitutional dictate of article 9 of the Constitution, which emphasizes the importance of protection.

The proposed solutions involve a change in the permitting processes for facilities located in areas of cultural or scenic interest. Specifically, these proposals introduce the use of silent consent (thirty days after a request for authorization for a project, if no response is received the Environmental impact assessment will be considered adopted) and limit the involvement of the ministry of Culture and the Superintendence offices only to projects involving plants powered by renewable sources located in areas subject to protection under the Cultural heritage code. Furthermore, they exclude participation in authorization procedures for plants powered by renewable sources to be built in areas adjacent to those subject to protection under the Cultural heritage code. This solution presents a real threat to protection, as it hinders or prevents preventive archaeology and suspends preservation activities not only for the construction activities of the facilities, but also for the works in their entirety, including connecting roads and ancillary works. This suspension would not benefit large system-wide works and would lead to substantial and widespread damage to heritage. In this way, only what is already known thanks to investigations already carried out in the past can be protected, so much so that protection procedures are underway, in addition, of course, to sites that are already constrained.

Protecting our heritage, archaeological and landscape is not an obstacle to the country's development but the real resource for a future that focuses on ecological and cultural sustainability of economic development.

It is essential to understand complexity of the subject matter and offer interpretations tailored to the communities inhabiting the territory where the archaeologists work and share their knowledge and results. All preventive archaeology projects must be shared with the community they are intended to benefit. In this regard, archaeologists must be capable not only of informing but also of communicating and involving citizens.

If the community involved in preventive archaeology works understands the real benefits of these activities, it will achieve two important objectives: more effective and sustainability of preventive archaeology and a real implementation of the right to cultural heritage spoken of in the Faro and Malta Conventions. Indeed, according to a European vision on these matters, the goal of the rules is not only to ensure the protection of objects and monuments but also to satisfy the needs and aspirations of the communities that preserve them [17].

The reorganization of the ministry has abolished both Central directorate for archaeology, and the archaeological

superintendences, which have been merged with other specialized superintendences. This situation, coupled with the lack of clearly provisions about preventive archaeology, has created legislative ambiguities and uncertainties and has resulted in an incoherent context where the conditions of work for archaeologist are very difficult and problematic.

Other problems concern the promotion of newly discovered heritage, the management of deposits of excavated materials and the diversity in the application of legislative provisions by different superintendences.

This fragmentary legislative framework has contributed to producing a contradictory context with different solutions applied to similar contexts.

Another important question regards the publication of the results of archaeological investigations, which often takes an excessively long time. These works are often addressed only to specialist and not to a wider public, thus disregarding one of the most important purposes of preventive archaeology: the public and social dimension of the discipline.

The superintendences, except for some cases, do not allow a dialogue between those involved in the works of excavation and the community of people. The sites are often closed and off limits. This lack of social practices of sharing and inclusion contributes to offering an idea of preventive archaeology as only a bureaucratic process and not as an important occasion to improve the knowledge and promotion of the cultural heritage. By participating in the process of protecting archaeological sites or recovering archaeological information, local residents can become the advocates for the use of that information and exert ownership over their own history.

The lack of connection between preventive archaeology procedures and spatial planning severely undermines the effectiveness of interventions, as archaeology is not considered an "added value", but only an obstacle.

Despite this difficult situation, preventive archaeology activities have led to highly important scientific results, especially in urban areas. Thanks to preventive archaeology, many European countries has experienced an explosion of knowledge about its own past. This large amount of data has also revolutionized the real approach of archaeology. It is no longer the study of isolated sites, but the study of whole territories. Nonetheless, all this data has made it possible to raise public awareness through exhibitions and accessible publications that provide an overview of recent discoveries in each country [18].

Nevertheless, although important progress has been made, many uncertainties remain as to how the concept of preventive archaeology should be interpreted. First of all, it should be considered as a set of practices aimed at limiting excavation as much as possible and hence as a primary tool for minimizing the disturbance of archaeological deposits. This need is felt today more than ever, given the drastic reduction in available resources for cultural heritage protection and management.

Another important step is to consider including preventive archaeology in landscape planning policies, as cultural heritage should be included within the concept of territory, which in Italy largely overlaps with the concept of landscape, forming an indivisible whole that should be analysed and protected as such. Preserving this heritage can bring a unique sense of place and pride to a community, and many cities capitalize on that heritage and use it also as a marketing tool.

6. The case study of Ugento (Lecce)

Notwithstanding the foregoing and considering the precise obligations of study, research, and knowledge imposed by law, pertaining to the prior assessment of archaeological interest in the context of public works, it is frequently observed throughout the national territory the presence of historic centres, often with a continuous occupation until today, which entirely lack or are significantly deficient in a comprehensive study of their evolution, as well as the multitude of archaeological and monumental evidence therein [19].

The situation is further exacerbated and characterized by urgency and extemporaneousness of interventions, often unjustifiably exploited as grounds for exemption from the obligation to undertake thorough preliminary studies. Consequently, this has led to the disastrous outcome of operating without adequate planning on territories that have undergone profound transformations, where invasive urbanization projects have been conceived, if not implemented, with little to no regard for the immense archaeological, monumental, and environmental heritage that has been compromised, destroyed, or completely obliterated.

In this regard, it suffices to examine the provisions of the majority of regulatory plans, which, despite envisaging significant interventions within historic centres, exhibit notable deficiencies in terms of the requisite understanding of general diachronic stratification, as well as the individual monuments involved (some of which are often even unknown). Similarly, the so-called historical/archaeological charts appended to these Plans appear to serve more as a response to the immediate need of fulfilling an obligation rather than providing detailed and accurate data and information.

Within this complex regulatory framework and the protective instruments provided for the safeguarding of archaeological heritage, the experience of the municipality of Ugento emerges, demonstrating how a synergistic collaboration among the municipal administration, the competent entities for protection (Superintendence for archaeological heritage of Apulia, now Superintendence of archaeology, fine arts and landscape for the provinces of Brindisi and Lecce), and the research institutions (University of Salento and the Institute of cultural heritage of the National research council, shortened as Cnr-Ispc) can lead to a more intelligent approach to urban and territorial planning. This approach is based on tools capable not only of enhancing the conservation status of the heritage but also of providing better valorisation of historic centres and landscapes. In doing so, it ensures an improvement in the quality of life and a greater awareness of the significant cultural and economic value of the territory by the community residing therein.

In the face of such a complex regulatory framework and the protective tools provided therein, the municipality of

Ugento has endeavoured to identify a path capable of triggering a virtuous cycle, countering the inertia of central authorities (which is more attributable to the lack of necessary financial resources rather than a genuine lack of willingness to intervene). This path aims to ensure the optimal preservation of the significant archaeological and cultural heritage within its territory while integrating the needs for growth and development of the modern urban centre, which largely overlaps with the ancient one, with the requirements for the conservation and valorisation of its historical evidence, often directly or indirectly obliterated by recent constructions.

Indeed, even prior to the establishment of archaeological and landscape constraints, the municipal administration has developed an urban plan that specifically includes provisions which, although primarily of an urbanistic nature, aim to safeguard and protect the archaeological assets present.

The Urban Plan of the municipality of Ugento, approved by the city council through resolution No. 43 of January 15, 1983, and endorsed by regional government resolution No. 1031 of March 2, 1990, includes a non-buildable restriction of a 20-meter strip both internally and externally to the route of the Messapian city walls, documented by a cartography in 1:2,000 scale. In 2005, this cartographic attachment to the urban plan was updated through precise georeferencing on a new digital map of all known archaeological evidence related to the ancient centre. This update was the result of a collaborative research effort involving the Ancient topography and photogrammetry laboratory of the University of Salento and the Institute for the Archaeological and Monumental Heritage of the Cnr (now Cnr-Ispc), under the supervision of the competent Archaeological Superintendence [20].

The updated version was accompanied by a revised formulation of the technical implementation regulations, which stipulate the requirement for preliminary excavation surveys for both public and private construction works within the entire area enclosed by the walls and within a 100-meter buffer outside the walls. This version was approved by the superintendency for archaeological heritage of Apulia and adopted by the municipality of Ugento through city council resolution No. 30 of July 23, 2005. The resulting amendment to the urban planning instrument was approved by the region of Apulia through Resolution No. 90 of February 15, 2007. The new non-buildable restriction not only pertains to the preserved sections of the Messapian city walls but has also been extended to the necropolis in the St. Antony area and the zone of the Crypt of the Crucifix.

In a departure from the usual procedure, it was the municipality of Ugento itself that requested the region of Apulia to incorporate all the precise demarcations set forth in the 2005 amendment to the urban plan, replacing the boundaries outlined by the regional territorial landscape plan ("Pptr"). As a result, both this significant landscape planning instrument of the regional territory and the general urban plan of the municipality now encompass the constraints originally envisioned and identified by the municipality of Ugento, aiming to safeguard the interests of urban development and the protection of archaeological evidence.

The experience of the municipality of Ugento illustrates how, even in the absence of a legally binding archaeological constraint, local administrations can implement protective measures that, while legally considered "subordinate" (as previously explained), effectively address the requirements of safeguarding and conserving the archaeological heritage within their jurisdiction. These measures are implemented while awaiting the enactment of relevant provisions by the State administration.

The commendable precedent set by the municipality of Ugento could serve as a blueprint for other municipalities that are awaiting the establishment of protective instruments at the State or regional level. These municipalities still retain the opportunity to adopt measures that adequately safeguard their own heritage.

From an operational standpoint, another innovative aspect of Ugento's experience lies in the utilization of technical and legal tools provided by Law No. 109 of June 25, 2005, regarding preventive archaeology, for purposes beyond those explicitly outlined in the law itself. In this particular case, it involves the incorporation of measures within the urban plan aimed at safeguarding the archaeological heritage within the territory through the provision of preventive excavation surveys.

The results obtained from numerous surveys of ancient topography and preventive archaeology conducted within the municipal territory of Ugento, in close collaboration between the local Administration, the entities responsible for safeguarding, the National research council, the University of Salento, and the entire local community (which could serve as a replicable example in other contexts and territories), have guided the main political, strategic, and operational decisions made by the municipality. These decisions not only pertain to the recovery and protection of archaeological and historical-architectural heritage but also, more generally, to urban planning aimed at a more precise and accurate determination of the relevant instruments.

Indeed, the new *modus operandi* followed has marked a transition from a phase where the chance discovery of a historically and archaeologically significant artefact was followed by occasional and sometimes approximate efforts towards its recovery and protection, to a phase where each intervention is part of a predefined and planned process designed to comply with recent legislative provisions.

This systematic approach to archaeological investigations, made possible by the use of flexible and technologically advanced control tools, has brought about a change in community perception. Archaeological investigations are no longer seen as obstacles to the free realization of the legitimate aspirations of individual landowners in the affected areas or as elements that only negatively influence the choices of the municipal administration. Instead, they are recognized as activities whose results, while primarily aimed at safeguarding heritage, also provide tools for controlling and rationalizing urban development.

The surveys of ancient topography conducted since 2002 in Ugento, along with the creation of a large-scale archaeological map, have allowed overcoming the rigidity of the general urban plan in force during the 1980s. Often, due to the lack of accurate preventive checks, this plan imposed prohibitions and prevented any activity in areas that

were mistakenly considered "at risk". This was particularly useful in a context of continuous habitation like that of the municipality of Ugento, where the investigated area was characterized by the overlapping of two thirds of the current settlement on the ancient one. This led to an intense activity of studying, recovering, and rationalizing previous data, accompanied by the acquisition of new and more detailed information. Based on this, a variant to the general urban plan was developed, satisfying the requests made by the Superintendent for archaeological heritage of Apulia.

This intense work was made possible through a thorough study of photointerpretation of historical aerial photos and the creation of a new cartographic base that ensured a detailed topographic analysis suitable for an ancient city centre [21]. Consequently, the precise positioning of the remains of the Messapian city walls and other archaeological sites of the ancient city of Ozan/Uzentum was achieved. The definition of a buffer zone around the city walls and the establishment of the corresponding prohibition of construction (through a specific urban planning constraint) were therefore necessary measures resulting from an in-depth knowledge of the territory. It is hoped that further interventions will follow, aiming to preserve and enhance the most significant monumental complex of the city (the city walls) and enable a reasoned and intelligent planning of the urban centre [22].

Until this change of course, archaeological interventions in Ugento were limited to emergency excavations mainly conducted by the Superintendent for archaeological heritage of Apulia. These interventions were often unplanned and focused on limited areas, and their publication was partial and substantially summarized. Even the interest of researchers and their research activities were often limited and attracted only by exceptional findings, such as the so-called Athlete's tomb, the statue of Zeus, or Messapian epigraphic texts.

7. Conclusions

The experience of Ugento is the result of forward-thinking and culturally sensitive local administrators who took action in the face of inertia and bureaucratic delays often associated with the establishment of more comprehensive protection measures, such as archaeological and landscape constraints. The adoption of such measures involves not only the involvement of local authorities but also the regions and the ministry of cultural heritage and tourism.

This is a concrete demonstration of the potential for action by local administrations, which have a range of legal instruments for the protection of cultural heritage within their territories. Modern investigation methodologies and high-tech instruments have played a crucial role in achieving these results. When employed, they can trigger a virtuous cycle that goes against the current widespread state of degradation and lack of understanding of the socio-economic potential inherent in Italy's cultural heritage.

Therefore, it is desirable for the combination of large-scale archaeological maps and subsequent preventive archaeology interventions, including targeted geophysical surveys, to find wider application [23]. Despite the undeniable difficulties inherent in the methodological and technological tools for the predictive assessment of deposits, precisely because they are inherently focused on assessing the predictable and the possible, it cannot be denied that this approach is currently the only viable path. In contexts of continuous habitation, it allows for urban planning choices that prioritize intelligent solutions, resolving and avoiding particularly complex situations and minimizing the need for extensive excavations.

Moreover, incentivizing this *modus operandi* and strengthening the preventive phase, including the implementation of archaeological potential maps, can have significant implications for heritage valorisation. It can transform the "risk" into a potentially exploitable value by identifying archaeological sites on which to focus research excavations or plan valorisation projects in collaboration with local authorities [24].

Virtuous initiatives like that of the municipality of Ugento also contribute to creating a climate of greater public awareness and sensitivity towards various types of conservation policies. These policies are often seen as obstacles to the full and unrestricted exercise of property rights or as limits on private economic initiative, rather than as instruments aimed at safeguarding the primary constitutional values of landscape and historical and artistic heritage protection (article 9 of the Constitution).

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