Introducing Principles of Antifragility in World Heritage Management Evaluation Tools: The Case of City of Vicenza and Palladian Villas of the Veneto

Ivan Blečić[1], Maria Carla Saliu[1(✉)], Patrizia Borlizzi[2], and Alessandro Portinaro[2]

[1] Department of Civil and Environmental Engineering and Architecture, University of Cagliari, Via Università 40, 09123 Cagliari, Italy
mariacarla.saliu@unica.it
[2] Links Foundation, Via Pier Carlo Boggio 61, 10138 Turin, Italy

Abstract. This paper explores the integration of principles of antifragile planning in the systems of governance and assessment tools for supporting the management of World Heritage Sites.

The paper argues, after describing the management and evaluation procedures used by UNESCO for monitoring the effectiveness of World Heritage, such as Enhancing our Heritage toolkit, that these procedures focus primarily on maintaining the Outstanding Universal Value of World Heritage properties, without considering the possible implications in respect of the wider social, economic, and environmental context.

In this respect, the aim of the paper is to orient a more complete assessment tool that considers the relationship and the reciprocal impacts between property and wider setting. Hence, the paper presents the principles of antifragile planning as a framework of orientations that can contribute to World Heritage evaluation tools. Hence, the paper proposes an assessment tool which integrates existing assessment tools developed by UNESCO for evaluating the management of World Heritage Sites and principles of antifragility to orient the policy design. Finally, we discuss the case of the World Heritage Site City of Vicenza and Palladian Villas of the Veneto, which lets us use the proposed assessment tool during the process of updating of its management plan, in force at the time of writing.

The tool shows, as results, that the different approaches integrated are complementary and that this integration is a possible way to achieve a wider assessment tool that can address the management policy design in terms of antifragility. This paper aims to contribute to the development of assessment tools which include the antifragile dimension to enhance a policy design for the management of World Heritage properties effective for the property and its surroundings.

Keywords: World Heritage evaluation tools · Antifragility · Management

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1 Introduction

"Heritage places depend on their setting and vice versa".

UNESCO, Managing Cultural World Heritage (2013).

The Convention adopted by UNESCO in 1972 [1] is structured around the identification and protection of the Outstanding Universal Value of cultural and natural properties that, once the designation is obtained, become part of the World Heritage List. The conservation approach looks after the preservation and protection of the Outstanding Universal Value —OUV— of the properties in the long term.

According to the UNESCO Operational Guidelines, the World Heritage Sites must have an appropriate management plan. The main objectives of the management plan are to ensure the effective protection of the properties, to maintain their Outstanding Universal Value and to promote their protection and enhancement. Management Plans require mandatory implementation and periodic evaluation in order to be updated [1]. Ensuring the effective protection of the property is entrusted to the Management Plan whose effectiveness is then delegated to the implementation of the Monitoring Plan [2]. The central goal of conservation is then secure—or not secured—by site management that may involve different private actors and different institutional levels.

Among the tools proposed by UNESCO to support and orient local actors in developing management and monitoring plans there is the *Enhancing our Heritage Toolkit 2.0* —EoH toolkit— [3]. The EoH is a set of tools for assessing the effectiveness of the management of World Heritage sites [4]. One of the topics of the toolkit is the management *cycle* which represents the repetition of processes that are, over time and with *experiri* [5] adapted, adjusted, modified, implemented to achieve the desired outcomes [3].

Despite the impact of management practices is not strictly on the individual property but also on its wider context [2], the twelve tools in the toolkit do not include specifically aspects related to the relationship between the nominated heritage the context. In fact, the main goal of protection of the heritage focuses primarly on maintaining the Outstanding Universal Value of the properties, without considering the possible implications on the wider social, economic and environmental context [6]. This has often resulted in conflicts between conservation objectives and development needs at World Heritage Sites [7]. UNESCO's tools may appear as, in the words of Hirschman, *all-encompassing programs* that are in danger of being ineffective due to the equal importance given to the multiple aspects to be considered [8] in the evaluation.

Hence, we introduce the principle of antifragile planning [9, 10] –in terms of policy design planning— as a framework of orientations which can guides the management plan considering the interdipendence between the property and its wider setting and their reciprocal impacts. Principles of antifragility used in the monitoring and assessment tools may be important to the achievement of a management plan that is best suited to ensure that the presence of the World Heritage Site is beneficial for local development, beyond the boundaries of the *core zone*.

The principles of antifragile planning [9] are introduced as possible tools to integrate with the existing ones proposed by UNESCO in the assessment of the World Heritage and its management systems and interests [11]. The approach is multiscalar [12].

The sections below will examine: in Sect. 2, UNESCO management and evaluation tools, with a particular emphasis on Enhancing our Heritage toolkit; in Sect. 3, the focus will shift to the concept of antifragility in policy design planning and its principles; in Sect. 4, will be presented the hypothesis of integrating the antifragile principles with the EoH toolkit in the case study of Site part of the World Heritage List *City of Vicenza and the Palladian Villas of the Veneto*; and finally this paper draws conclusions on aspects that can contribute to the development of governance tools for the antifragile management of World Heritage properties.

2 Management and Evaluation Practices of UNESCO

The World Heritage system is based on the Convention Concerning the Protection of the World Cultural and Natural Heritage, adopted by UNESCO in 1972 [2]. The Convention, as a value-driven approach to heritage preservation and management, is structured around the identification and protection of the Outstanding Universal Value of properties that, once the outstanding universal value of a site is recognised, become part of the World Heritage. In the WH framework, the preservation of the OUV in a long-term perspective is the goal of management. And the management of the goods is the process that safeguards the heritage.

2.1 Management Systems and Documentation

The Operational Guidelines provided by UNESCO are a guide for the implementation of the Convention and represent a tool with guidelines for the management of World Heritage sites. In this document, the following is reported: "appropriate management plan" that each (candidate) site should have. The purpose of such a management system is to ensure the adequate protection of the designated property by maintaining all aspects of its Outstanding Universal Value.

The management system presented is a generic description and its variability due to the different characteristics and needs of the designated site is highlighted. All sites have to respect some general aspects common to all the properties and some different elements due to variety of situations.

The guidelines propose the use of an impact assessment to evaluate the effect of development proposals on a property's OUV and emphasise that WH sites have a role in sustainable development, as long as this does not have negative repercussions on them [1].

2.2 Local Evolution and Development Dimension

Protecting heritage goes beyond the protected goods; buffer zones and wider settings are set up when necessary. In the management systems definition, we can find the *wider setting* [1]. The approach goes beyond the physical boundaries of the core zone and includes social and cultural practices, economic processes, and other intangible dimensions of heritage. Managing a wider setting is considered from the supporting-the-OUV point of view. Its maintenance can contribute to sustainable development involving -mutually-

(local) society (or heritage community) and (World) heritage [13]. The assumption that heritage places depend on their environment and vice versa leads stakeholders not to think about heritage management apart from development activities, social change, and planning. Instead, the broader impact of heritage in the territory emerges, involving multiple right-holders and stakeholders. The more extensive the sites are, the wider the impact occurs. World Heritage serial sites are, in this sense, the perfect example [2]. The wider vision implies a multiplicity of actors involved, hence objectives to be set in the management tools. Hence, the goal to pursue is the entire valorisation of the system, no longer just protection and conservation [14].

2.3 Monitoring Tools

The management plan is starting point for the management of the site. It is generally submitted at the same time as the candidature dossier, and, after incorporating the changes proposed by the Committee, it governs site management. A general monitoring plan addresses the management system's effectiveness [2].

Monitoring is the core of the plan in the World Heritage system. Monitoring mechanisms include: (i) the identification of monitoring indicators; (ii) reactive monitoring (for critical situations), given the presence of threats that could affect the designated property and the conservation status process; (iii) periodic reporting [1].

Periodic Reporting is a formal requirement of the World Heritage system. It is a self-reporting process that each State Party deliver to the UNESCO General Conference through the World Heritage Committee. These reports cover the legislative and administrative provisions and other actions taken by the State Party, including reports on the state of conservation of its sites inscribed on the World Heritage List [1]. Periodic reporting guarantees the effective long-term preservation of the inscribed sites. At the same time, it is also a valuable tool for site managers because it allows a periodic review of the management system's effectiveness. The monitoring system is mandatory for UNESCO and useful to the site itself. The question is whether the interest also concerns the wider territorial context. Among the tools suggested by UNESCO for evaluating the effectiveness and functioning of sites is the *Enhancing our Heritage toolkit 2.0.*

2.4 Enhancing Our Heritage Toolkit 2.0

"Do management processes influence conservation results"? [3].

This is the introduction to the *Enhancing our Heritage Toolkit 2.0*, a self-assessment model consisting of 12 tools that measures the effectiveness of managing World Heritage Sites. The model is a participatory process involving local, regional and national managers. The word *manager* refers to all involved actors, private and public, as responsible for the management of the entire or part of the site [3], as "Ideally, all those involved in the governance and management of the World Heritage property or other heritage place should take part in the management effectiveness assessment". The tools come with worksheets that can be adapted to each specific case. The toolkit supports site managers in revising their management practices [3]. The tool is proposed as a generic guide, with a view to a specific declination linked to the characterisation of each site [4, 15].

Certain types of heritage places may require a more flexible use of the Toolkit. This is particularly the case for serial World Heritage properties. Here, you will need to decide how best to adapt the tools to your needs, the complexities of the property and the management system in place.

Part of the tools of the toolkit are examined below, in particular the three realated to the governance and the management system: tool4, tool 6 and tool 8.

Tool 4 Governance Arrangements
The tool goes into the responsibilities and tasks that each actor involved has in the management process. The clarity of the assigned roles and the effective collaboration and coordination between the actors are analysed. It also goes into the level of participation of stakeholders in the management of the World Heritage Site.

The tool consists of 3 worksheets: (1) identifies which actors can be considered managers and their specific roles (applicable division between managers with primary responsibilities and managers with responsibilities over limited areas of the whole site); (2) is about cooperation and coordination between managers, only in this sheet there are documents, agreements regulating how the different roles and responsibilities are distributed; and (3) about involvement in management by groups of right-holders.

Tool 6 Management Planning Framework
The tool investigates the adequacy of the management plan for effective property management. It identifies how effective the planned system is for the protection and management objective of the designated site (on the property, in the buffer zones and the wider context). In the in-depth study of its worksheets, the tool, also intends to prepare conclusions on the adequacy of the planning framework.

ITool 8 Management Processes
The tool reviews the adequacy of management processes, focusing on three core processes: decision making, planning and community engagement. The tool delves into how the management plan was developed.

The questions and issues that are asked in the different tools of the kit present a clear framework of the site, only when the answers about the management are available, but future proposals still need to be answered in the kit.

The EoH toolkit analysed lacks a specific part relating to the relationship between the heritage proper and its context. Hence the research question: when are management processes antifragile? Under what conditions and with what territorial impact?

The antifragile approach is presented as a possible guide to follow.

3 Antifragility Orientation

Questions about opportunities and recommendations remain open and are freely expressed by the compiler. In the following section we want to examine the issue of antifragility in relation to the management and monitoring systems of World Heritage Sites. Antifragility can be, declined in its principles, a path for site opportunities with regard to its management.

3.1 The Essence of Antifragility

The definition of antifragility [16] explores the differences between it and the concepts of robustness, fragility and resilience. The aspect that grants it differentiation is the potential gain caused by the intrusion of perturbing events into the phenomenon [9]. Something is antifragile in relation to a perturbing event, a stressor. According to Taleb (2012), in the case of the systems, depriving antifragile systems of the stressor factors they need produces great fragility. Its opposite is, therefore, optionality, having more possibilities, for that principle pragmatically described by Taleb according to which a single large stone thrown at someone is much more damaging than a thousand pebbles. The more variability there is in a system, the less that system is subject to Black Swans.

In the antifragile approach to complex systems such as those for managing heritage spread over a territory, the problem arises of measuring and quantifying the potential benefits this could contribute.

According to Blecic and Cecchini, the question remains "Antifragility of what to what?". In the management of the systems of World Heritage, in order to answer the question, an additional dimension useful in evaluation must be given: time. Unesco offers monitoring tools useful for making a periodic evaluation, in a long time-line, at certain moments in the life cycle - starting with the designation or in anticipation of it - of goods. This temporal dimension is fundamental in evaluation. To use Taleb's words, on a functional level, time is analogous to volatility because more time translates into more events, and more disorder. Thus, evaluation can be performed as time goes by, allowing mistakes to be made, disruptions to be acknowledged, and subsequent positive responses to these. Such antifragility is obtained because the system incorporates learning mechanisms in this way [10].

The answer can be structured around the question: can management policies learn from themselves? And, more specifically, how is this learning process measured? One answer lies in the governing instruments that regulate and regulate the policies themselves. Hence, the antifragility of the instruments of governance and regulation for heritage management. The answer given intends to pursue both issues that Blecic and Cecchini (2019 and [17]) suggest should not be separated: the construction of a system -in this case of management- that makes the heritage antifragile and that is antifragile itself.

3.2 Antifragility in Planning

According to Blecic and Cecchini, antifragile planning is structured around some principles. They are listed below: (1) modular design, which through the identification of the minimum unit of intervention in which to act in the model proposal so that even if something is fragile in the individual part, the entire system is not affected; (2) decentralisation through layering, in favour of discretionary action in the various institutional levels; (3) redundancy, in favour of a trial-and-error system that allows for mistakes to be made quickly, without irreversibly damaging the system and with a reaction time that can be reasonably assimilated by the entire system; (4) resist the urge to suppress randomness, for an openness to the possibility of accepting unexpected opportunities that can benefit the entire system; (5) skin in the game, in favour of proactivity on the part

of decision-makers in planning processes that can favour adaptable, non-rigid planning; (6) Chesterton's Fence, a principle based on the assumption that conflicts linked to the multiplicity of actors in the system must be able to exist in a dynamic, albeit precarious, equilibrium; (7) optionality, as the property of having different possibilities, options, without constraints.

4 New Governance System for the World Heritage Site *City of Vicenza and Palladian Villas of the Veneto*

Finally, the ongoing project of the WH Site City of Vicenza and the Palladian Villas of the Veneto is presented and discussed. The site is, at the time this contribution is written, in the updating process of its management plan, reviewing its governance and management structure.

4.1 Case Study

The serial site involves different institutional, public, and private subjects and represents a highly diffuse reality closely connected to the regional territory [12]. The site consists of 25 components: the city of Vicenza (which includes the historic center with its 23 Palladian monuments) and 24 Palladian villas spread over the region, in the provinces of Vicenza, Padua, Rovigo, Treviso, Venice and Verona. All the subjects directly involved in the heritage management are 21 local authorities, 6 provinces, the Suprintendence of architectural and landscape heritage, the Superintendence of archaeological heritage, the Veneto Region, the Cultural and landscape heritage Regional Direction, Vicenza Diocese, Regional Institute of Venetian Villas (IRVV), Regional Association of Venetian Villas, CISA Palladio.

The diffusion over a culturally homogeneous territory of a heritage with a public and meritorious character and the consequent copresence of different institutional subjects, public and private [12] and the request of UNESCO made to each site on the List, led in 2007 to the first management plan still in force at the time of writing. The property's Management Plan was developed by several public and private Institutions. There is a UNESCO office, set up inside the Municipality of Vicenza, which is the referent of the Site and takes care of technical and administrative aspects and is charged with the monitoring of the property's Management Plan. In addition, there is a piloting committee responsible for the proper functioning of the plan (Table 1).

Since the ICOMOS/UNESCO Advisory Mission concluded in 2017, the site is on observation by the Committee (ICOMOS UNESCO, 2017). In the Advisory Mission Report, it is noted that the role of the site Manager to the City of Vicenza (UNESCO Office of the Municipality) should be reconsidered, and the function should have more support. Difficulties in the governance system emerge especially in relation to a poor capacity for involvement of the different subjects involved.

The report advocates for a more direct involvement of the province, as well as the Ministry of Cultural Heritage and Activities and Tourism (today Ministry of Culture), in the role that its peripheral offices play at the regional level (MIBACT Recommendation 19). Additionally, the factual functioning and role of the piloting committee, which met

Table 1. Governance system of the current Management system

Organization/body	Role within the site	Functions
"UNESCO Office" within the Municipality of Vicenza	Referent subject for the entire World Heritage Site	Operational structure of the site with secretarial functions and monitoring of the management plan
(1) Veneto Region (2) Regional Direction for Cultural and Environmental Heritage of the Veneto	General coordination	(1) Legislative, planning and programming functions; (2) Protection of cultural heritage
Province of Vicenza	Coordination of the provincial and municipal administrations involved in the site	Acquisition and organisation of all the documentary and cognitive elements for the extension of the Vicenza City Management Plan to the Villas
Municipality of Vicenza; Province of Vicenza; Veneto Region; Vicenza Diocese; Regional Directorate for Cultural and Environmental Heritage of the Veneto Region; Suprintendences of Veneto; International Study Center on Andrea Palladio; Regional Institute of Venetian Villas; Regional Association for the venetian villas; Municipalities of the Provinces of Veneto; Marketing, administration and tourism experts	Piloting committee	Coordinating and reviewing the implementation of the management plan

more than a decade after its creation in 2005, is questioned. It is suggested that its composition and functioning be rethought.

In 2023, the UNESCO office of the Municipality of Vicenza, began a process of revision of the area with the aim of drawing up the Periodic Report and updating the Management Plan. For this task, the Municipality of Vicenza collaborated with an external project manager who is an expert in guiding UNESCO sites, as well as two companies that are specialists in documenting and producing materials for cultural and heritage sites and activities related to territorial development. The group's initial considerations focused on studying the current management plan. This led to the identification of several key issues that should not be overlooked during the revision phase:

(i) the significance of the site to institutional actors and private owners and managers involved in the heritage;
(ii) the presence of collaborative networks among some of the owners or managers for shared use of the site's goods. This could potentially lead to similar initiatives among other components of the site;
(iii) the presence of a UNESCO office within the organisational structure of the Municipality of Vicenza, with the role of reference point for the site, is a valuable element. It offers a single point where best practices and identified criticalities can be collected;
(iv) the previous management plan was not effectively implemented despite agreements;
(v) the lack of operational coordination among public actors has resulted in a fragmented development of coordinated initiatives on the site as a whole. Additionally, there has been a lack of management of collaboration between public and private actors involved. Finally, an authoritative direction in the management of the serial site has been absent;
(vi) there is a lack of uniformity in service standards, which is a result of the higher management level's failure to reach an agreement with all private stakeholders.

4.2 Ongoing Proposal

The Management Plan under review must receive formal approval from all those with management responsibilities, as well as from the private owners of the heritage, in order to create a stable network in which the commitments, responsibilities and opportunities that come with the UNESCO designation are shared. After a year of discussions with various institutions and stakeholders, the task group proposes the association model as a possible solution, considering the complexity of the site and the large number of parties involved. An association could enable the differentiation of contributions and skills among members based on their belonging to different typologies. Specific prerogatives may be reserved for those identified as founding members. If an association is formed, it will be necessary to initiate a series of activities and to respect the democratic and participatory dynamics inherent to an associative body, with regular and permanent meetings of the management committees and the possibility of having a structure adapted to the needs expressed by the territory and the local actors, as well as identifying mechanisms for listening to needs and balancing legitimate divergent interests.

A new assessment model is now proposed. It integrates the principles of antifragility and some of the existing Enhancing our Heritage toolkit (Table 2).

4.3 Principles of Antifragility

The current analysis examines the application of the principles of antifragility to the management of the whole site through the hypothesis of an association and its statute. The statute we thoroughly examined has not yet been adopted by the managers of the site.

Modular Design and Decentralization Through Layering

The initial two components of antifragility, modular design and decentralisation through layering, are to some extent structural, independent of the management system adopted,

Table 2. Integrated assessment tool combining Enhancing our Heritage toolkit and principles of antifragility

Enhancing our Heritage toolkit	
Tool + worwsheet	**title**
4a	Assessment of roles and responsibilities of managers
4b	Assessment of coordination and collaboration between managers
6a	Assessment of management planning framework
6b	Assessment of primary planning instrument
8b	Assessment of other important processes
Antifragility principles	
principles	**How the principle is being taken into account in management tools**
1. Modular design and decentralization; 2. Redundancy; 3. Resist the urge to suppress randomness; 4. Skin-in-the-game; 5. Chesterton's fence; 6. Optionality	

but rather inherent to the very character of the designated heritage. The site's seriality and subdivision into multiple modules make the management dimension of the site necessarily a modular one, to be applied to each part, with the possibility (and hope) that what has been planned will not work in some components and that this will allow the others to learn, to function differently, to be corrected (proof of concept approach).

The statute clearly outlines two principles: the establishment of a main office in the Municipality of Vicenza and the possibility of creating secondary offices, branches, or administrative and representative offices in the regional territory.

Redundancy

If one component fails, another can take over its role. The mechanism should be developed so that it can function in the event of a local failure. Redundancy must be built both vertically and horizontally [9]. In this case, it is particularly necessary to apply this principle to components in critical states of conservation, which represent a real risk to the maintenance of the OUV and put the entire World Heritage Site at risk. In such cases, overcompensation may be necessary, mobilising various actors (institutional, private, managers, associations) to take concrete action in place of the actor(s) responsible for maintaining the site's attributes. Intervention through overcompensation, with the participation of multiple parties in managing the most critical components for preservation, can mitigate the risk of adding to the list of endangered world heritage sites. This approach also provides an opportunity for the involved parties to collaborate on actions for protecting the territory.

Resist the Urge to Suppress Randomness
This principle is in direct opposition to the rigid Weberian management model of 'putting the screws in' [12]. The current non-controlled management system has already experimented with this free modality, which has allowed in several cases the operators to proceed with a beneficial self-organisation, even if isolated from the World Heritage system. Currently, some models of proactivity can be considered in the implementation of "self-organisation" zones within the management tools under construction.

Skin-in-the-Game
The management system has demonstrated that the piloting committee's designation, based on a protocol of agreement signed by all the active actors, has not been able to effectively carry out the tasks set and the roles assigned. The proposal to set up an association to guide the management of the site and the definition of the various social bodies represent an opportunity to mobilise all the actors involved and to support their pro-activity in the system, which, with the contribution of different actors with different instances, can lead to an effective and adaptable policy design (Blecic Cecchini, 2023) and to the implementation of a governance logic that works in such a way that the governance body creates the conditions for the different actors to decide on their own to contribute to the goals [18].

Chesterton's Fence
The absence of an identifiable and effective governance system in the decades since the system was structured only on paper has allowed for self-organisation by all those involved as owners and/or managers of the components. This self-organisation, rather than being discouraged, should be taken into account and integrated into the new organisational framework. The system, following an antifragile management approach, would incorporate unofficial tools into a broader framework that adopts the most effective solutions already in place. It would modify and model itself based on what has been specified and deemed useful. It is possible to establish a logical governance framework by mobilising various actors to derive solutions from a network of collaboration.

Optionality
The proposed new governance system does not respect the principle of optionality. There are no different options available to the various parties. The instrument only offers one possible governance structure after an open sharing between all subjects, without any option for participation by the different private subjects. The level of private ownership remains on the fringes of total management, despite being included in a more structured way than in the previous site management cycle. The way in which the different subjects are treated has not been diversified on the basis of the different needs and conditions that each individual owner may have (Table 3).

4.4 Integrated Tool Applied to the Case Study

We propose the integrated assessment tool applied to the case study.

Table 3. Integrated assessment grid: application to the case study

Enhancing our Heritage toolkit 2.0 - tools				
Tool number of the toolkit	Worksheet	Title of the tool		
4	a	Assessment of roles and responsabilities of managers		
Group or institution recognized as managers	Specific role	Key instruments and powers at the managers disposal to implement mandate		Extent of involvement in the decision-making processes
x	x	x		x
4	b	Assessment of coordination and collaboration between managers		
Aspects/themes			Strenghths	Challenges
Existence of platforms, agreements, contracts, procedures and financial resources for coordination and collaboration			x	x
Sharing of relevant information between managers			x	x
Alignment for policies and plans			x	x
Coordination - ability to work together in a planned and organized way			x	x
Collaboration - ability to work together based on shared objectives, joint projects and planning and monitoring mechanisms			x	x
6	a	Assessment of management planning framework		
Name of plan	Territorial scope of plan	Level of approval	Year of last review	Year of finalizing instrument
Management plan 2024–2030	Guarantees the preservation of the Outstanding Universal Value accorded to the site for present and future generations	Strategic and operational document, in the process of approval	2024	2030
6	b	Assessement of primary planning instrument		
Name of planning instrument: *Management plan (2024–2030)*				

(*continued*)

Table 3. (*continued*)

Questions			Response
Legislative, statutory and other requirements			x
Planning context and integration with other planning instruments			x
Presentation and content of the plan			x
Resources, commitment and implementation capacity			x
Monitoring and review			x
8	b	Assessment of other important processes	
Questions			Response
Organizational			x
Communication, education and interpretation			x
Impact assessment, risk management and climate change mitigation and adaptation			x
Access, tourism and visitation			x
Research			x
Antifragility planning - principles			
principle		Response if the principle is present in the proposed management system	
Modular design and decentralization through layering		Establishment of a main coordination office in the Municipality of Vicenza, with the possibility of setting up secondary offices in the regional territory to act as intermediaries between right-holders and site managers	
Redundancy		Shared responsabilities, both financial and for maintenance of the OUV, by both private and institutional actors	
Resist the urge to suppress randomness		The new management system will maintain the existing forms of self-management and protection. These are the result of the lack of management in recent years	
Skin-in-the-game		Different groups of actors, with specific roles assigned, ensure that all actors are mobilised and encouraged to be proactive	
Chesterton's fence		The new system would incorporate unofficial tools into the management framework. These tools are actually effective ways to manage the property using solution already in place and already tested	
Optionality		Absent	

The tool developed here, which aims to analyse management practices and tools using the worksheets proposed by UNESCO and integrating them with the principles of antifragility, actually provides a complete reading of the management system. While

the existing worksheets analyses all the technical features of the management system, the antifragility principles explore how they work or do not work in practice.

Unlike the Toolkit questions, which leave many answers open for comment and observation, the antifragile principles provide a tighter guide to the assessment of the management plan.

5 Conclusions

The proposed assessment tool integrates existing models developed by UNESCO to assess the state of the art of site management issues and guidelines to guide antifragile policy planning.

The integrated tool makes it possible to obtain an evaluation of the heritage site by providing two categories of elements: (1) aspects related to the functioning of the management at the time of the evaluation, from the actors involved, to the coordination mechanisms, to the strategic planning tools; and (2) the analysis of the management tools regarding their possible functioning in terms of antifragility.

The proposed model, as applied to the case study of the World Heritage City of Vicenza and the Palladian Villas of the Veneto, shows how the different approaches integrated here are complementary. In fact, the responses to the Enhancing our Heritage Toolkit worksheets are not redundant with the antifragility-oriented evaluation part. On the other hand, there is a significant limitation in the evaluation section linked to the principles of antifragile planning. In fact, it is very unstructured and leaves the answers open in the evaluation. The less structured nature of this section is not in line with the Enhancing our Heritage toolkit's own evaluation forms.

The results discussed following this first application of the model suggest several developments. Firstly, the integration of assessment systems is a possible way to achieve a wider assessment tool than the existing Enhancing our Heritage toolkit alone. The second relates to future developments in operational terms and concerns the need to consolidate the model, in particular by substantially deepening and specialising the evaluation tool around the principles of antifragility. In fact, this part of the evaluation should be more tightly structured so that it is structurally homogeneous with the existing tools provided by UNESCO.

The final discussion presents aspects that can contribute to the development of governance tools that are antifragile and can enhance the antifragile management of World Heritage properties. The goal is to maintain the Outstanding Universal Value as declared by the Convention, by adopting the appropriate approach of antifragility. Antifragile orientation as a policy objective can be seen as one of the ways of achieving a wider benefit, which may include what lies beyond the boundaries of the core zones. The World Heritage framework is potentially open to critical debate here, as the anti-fragile nature of the system as a whole can cause local fragility [9]. The decision to adopt a planning orientation to management policy, however, raises the question of whether antifragile planning principles can be proactively incorporated into the cyclical review phase of the site, in parallel with the periodic reporting and monitoring system required by UNESCO. This approach would enable a more antifragile examination of World Heritage sites, extending beyond established boundaries and promoting a higher level of impact on the territory.

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