

Review



Proposing a New Methodology for Monument Conservation "SCOPE MANAGEMENT" by the Use of an Analytic Hierarchy Process Project Management Institute System and the ICOMOS Burra Charter

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Copyright: © 2021 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (https:// creativecommons.org/licenses/by/ 4.0/). Abstract: Managing the scope of the "Properties" and "Performances" domains plays a fundamental role in the scheduling and controlling of the wide variety of variables and processes involved in any project, for the purpose of increasing the quality of outputs, which leads to time and budgetsaving. Notably, in monument conservation projects, "scope management" is a vital factor targeted at maintaining historical parameter values and accuracy in the number of interferences and occupations on sites. Nowadays, as urbanization speeds up unprecedently, the territories of these heritage sites have been demolished or have lost their place on the World Heritage List. Undoubtedly, the existence of such critical conditions makes it increasingly necessary to apply scope management methods to preserve such archaeological and historic sites across the world. The purpose of this article is to propose a "Comprehensive and Regular Systematic Schedule" for the purpose of monument conservation via the use of scope management, based on the International Council on Monuments and Sites (ICOMOS)—specifically the Burra Charter (1981). The results of this research include hierarchical levels of management processes which consider all the effective variables, both the tangible and intangible elements (independent factors) and the other weaknesses and opportunities of the project in order to determine the scope of the required operations, which must be scheduled based on historical sites' conservation charters. In this way, in addition to reviving a cultural landscape's (cultural heritage or site) essential and valuable parts, unnecessary changes can be avoided.

Keywords: scope management; conservation; heritage; historical and natural landscape

1. Introduction

The topic of cultural landscape conservation management has been targeted by the ratification of the World Heritage Convention in 1972. These fundamental charters, which include a wide variety of classified methods for conservation, can assist in the preservation of historic civilizations and cultures. These processes consider all aspects of chronological events and features over a monument's lifetime [1]. Therefore, choosing comprehensive data and sufficient key points during field studies can lead to optimal decision making in the scheduling of conservation planning and preservation of the cultural value of historical sites. Indeed, project management in natural and cultural landscapes is the practical application of knowledge and techniques to select and carry out efficient conservation methods and operations for maintaining these landscapes. To achieve this purpose, ICOMOS has prepared the fundamental charters of Venice (1964), Florence (1982) [2], and Burra (1981) [3] to provide a fair and accurate evaluation system for heritage registration [4]. By defining

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the general criteria on behalf of the ICOMOS charters for identification of monuments, it becomes necessary to organize the practical stages and processes of reconstruction, which comprise the main part of these projects after definition of their basic concepts [5].

Conservation includes the entire maintenance, restoration and reconstruction process for the preservation of heritage sites and cultural values [3,6]. Prabowo and Karsono have presented a study as a guide for the owners and users of buildings with European architectural features in order to contribute to the maintenance of this architecture. Along with the method used in their study, they put forward a new analytical descriptive method with the approach of maintaining European cultural heritage buildings with cultural significance in Surakarta (Indonesia) [7].

The preservation of monument sites and the maintenance of cultural heritage are possible with conservation efforts and stakeholder cooperation [8]. Yang et al. selected traditional village landscapes in Qing Mu Chuan, China as their study area and used a photographic questionnaire to assess the preferences, value perceptions and conservation attitudes of landscape professionals and local residents towards the village landscape [9]. As a result of the evaluation, it was determined that there were significant differences between the two groups. It was determined that the conservation attitudes of the local residents were stronger than those of the professionals towards traditional village landscapes with cultural elements. It is recommended that these findings be used to create incentives for the development of conservation attitudes in local residents and to manage planning processes [10].

Frantisek et al., in their study in 2021, investigated changes in the cultural landscape and in conservation opportunities for future generations at the United Nations Educational, Scientific and Cultural Organization (UNESCO) world heritage site Vlkolínec (Slovakia). To analyze the evolution of changes in the Vlkolínec conservation area, available relevant data such as historical maps and aerial photographs were collected from selected time periods of 1769, 1823, 1949, 2007 and 2017, and 13 landscapes in this area were analyzed. In order to reveal the future development of the region, a survey study was applied and the opinions of region users were examined. In line with the results, plans have been prepared for the protection and sustainable development of this important area [11].

The "Burra" Charter, after a thorough description of conservation principles, attempts to outline a procedure for practical operations in a project management format (cognition, development and management policy, control, and repetition of these steps) [12]. Trusting and relying on this general process without observing and considering the site SWOT (Strengths, Weaknesses, Opportunities, and Threats) table and the scope of permitted changes appropriate to a monument is highly risky, and can lead to the destruction of cultural and natural components, rather than their maintenance [9]. Therefore, having a Scope management template is vital for categorizing all process steps and determining how to carry out each phase of a conservation project, with emphasis on the degree of involvement necessary to achieve the desired outcome over the next 20 year period, as well as in terms of validity and reliability, etc. [13].

Finally, based on project management contents—particularly scope management—in combination with the already mentioned general conservation principles, this research work tries to outline new methods employing hierarchical steps for data gathering, analysis, and extraction of training information, to propose an optimal operational planning method which can balance the three dimensions of "Quality, Time and Cost" [14].

Utilizing scope management (project scope is the work required to output a project's deliverable. project scope management includes the process to manage scope changes) in data gathering plays a fundamental role in conservation project executive management, which contains various training data such as the national conservation charter principles for tangible or intangible parameters in vernacular cultures and civilizations, Indigenous lands and territories, and ecological constraints [15]. In essence, organizing survey studies and execution phases according to scope management principles will lead to progress in the conversation on and achievement of restoration. There are many advantages and



disadvantages that must be considered in this modular system in order to determine which activities are necessary and sufficient [16].

2. Scope Management

2.1. Scope Management Process

Project scope management involves all essential processes, from planning to controlling, to ensure that activities are limited to tasks which are necessary for completing the project successfully (comprehensive operations). Practically, this method defines all the different variables that apply to project planning whereby it can lead to innovative solutions for the control of implementation steps and for the achievement of high performance [17].

The overall processes of scope management include:

- 1. Plan Scope Management: The process of planning and creating a scope management plan.
- 2. Collect Requirements: Investigate and document stakeholders and site requirements to prepare the project targets.
- 3. Define Scope: The process of developing a detailed description of the project and the product.
- 4. Create a work breakdown structure (WBS): This process is defined as the subdivision of work into smaller, more manageable work packages.
- 5. Validate Scope: The process of formalizing the project's expected results is a task in of itself.
- 6. Control Scope: The ongoing process of monitoring and managing changes to the project scope [18].

These processes interact and overlap with other knowledge domains in project management (there is no clear boundary between them). An overview of these six processes is shown in the table below [19].

Based on Table 1, a similar process can be implemented to rehabilitate cultural landscapes. Before focusing on scope management, it is necessary to analyze the site's territory and manage a large number of documents using appropriate data storage, which should be sufficient to organize the charters and the management plan, and to consequently clarify the scope baseline, work performance, environmental regulations, design manuals, etc.

| | | Inputs | Tools and Techniques | Outputs | | |
|-----------------------------|--------------------------|--|--|--|--|--|
| Project Scope Management | Plan Scope Management | Project charterer Project management plan Enterprise environments | Expert judgment Data analysis Meetings | Scope management plan Requirements management plar | | |
| | Collect Requirements | Project charterer Project management plan Project documents Business documents Agreements Enterprise environmental factors Organizational process assets | Expert judgment Data gathering Data analysis Decision making Data representation Interpersonal and team skills Context diagram Prototypes | Requirement documentation Requirement traceability matrix | | |
| | Define Scope | Project charterer Project management plan Project documents Enterprise environmental factors Organizational process assets | Expert judgment Data analysis Decision making Interpersonal and team skills Product analysis | Project scope statement Project documents updates | | |
| | Create Wbs | Project management plan Project documents Enterprise environmental factors Organizational process assets | Expert judgment Decomposition | Scope baseline Project documents | | |

Table 1. Scope management processes [20].



| | Inputs | Tools and Techniques | Outputs |
|----------------|--|-------------------------------|--|
| Validate Scope | Project management plan Project documents Verified deliverables Work performance data | Inspection Decision making | Acceptable results Work performance information Change requests Project documents updates |
| Control Scope | Project management plan Project documents Work performance data Organizational process assets | Data analysis | Work performance information Change request Project management plan updates Project documents updates |

Table 1. Cont.

2.2. Scope Management Background in Cultural Landscapes

The first specialized studies on the comprehensive definition of various types of heritage and historical landscapes on behalf of ICOMOS Inst. Coop were carried out in 1970 in Australia by the International Federation Of Landscape Architects (IFLA) in order to identify and register valuable sites across the world; this process has since been expanded to define and modify specified management and restoration procedures, which can be found in the form of the Venice Charter (1964) [4], the Florence Charter (1982) [3] and especially in the Burra framework (1981; Table 2) [21]. Based on these principles, the restoration and rehabilitation of historical landscapes and specialty gardens should be performed according to the Venice and Florence Charters [22]. Simultaneously, in the United States, the heritage conservation and preservation system was established by the HCRS and, eventually, transferred to the National Parks Service (NPS), which has also contributed to the Australian ICOMOS categorization system (Table 2) [23].

Table 2. History of conservation management of heritage sites.

| | Conservation Management Studies | | | | | | | | | | |
|----------|---|---|--|---|--|--|--|--|--|--|--|
| | Preparing A Heritage Management Plan | Conservation Management Plan: Managing Heritage Sites | Project Management in the Conservation and Restoration of Historic Buildings | Management Guidelines for World Cultural Heritage Sites | Conservation Management Plans | The Faro (Council of Europe Framework Convention on the Socia Value of Cultural Heritage) Convention Report from the Swedis National Heritage Boar | | | | | |
| | Natural England | Heritage Council of Victoria | SAR Journal | ICCROM | Department of Environmental and Heritage Protection | National Heritage Board in 2014 | | | | | |
| Projects | http://www. naturalengland.org. uk/ (accessed on 15 June 2021) Heritage Management Plan (HMP) preparation/ Northanger Abbey Estate illustrative HMP Pages 1–34 [21] | https://www.heritage.vic. gov.au/_data/assets/ pdf_file/0022/514273/ Conservation- Management-Plans- Managing-Heritage-Places. pdf (accessed on 15 June 2021) Preparing a CMP in five steps/ Pages 8–12 Appendixes: Heritage criteria/ a model brief/ typical CMP contents checklist/ Step by step examples Pages 26 / 28 [22] | http: //www.sarjournal. com/content/21 /SARJournalMarch2 019_24_30.html (accessed on 15 June 2021) pages 24–30 [23] | https://www. iccrom.org/sites/ default/files/2018 -02/1998_feilden_ management_ guidelines_eng_70 071_light_0.pdf (accessed on 15 June 2021) pages 15–156 [24] | https: //www.qld.gov.au/ data/assets/pdf_ file/0023/68018/gl- conservation- management-plans. pdf (accessed on 15 June 2021) pages 1–16 [25] | https://historicenglanc org.uk/content/docs/ research/faro- conventionpdf/ (accessed on 15 June 2021) pages 1-15 [26] | | | | | |

Subsequently, the guidelines and fundamental principles of these charters comprise four main steps: (1) ascertaining the cultural significance of a site, (2) identifying and registering these aspects and evaluating its historical aspects and integrity, (3) determining how to manage the proposed strategy and theory, and finally, (4) monitoring and controlling activities in case there are also unintended consequences [27]. Based on these guidelines, the cultural landscape as a geographical region includes cultural and natural resources in relation to historical events, functions, humans, and other sources of intangible significance—as well as the wildlife belonging to it [28]. In essence, these four stages provide the executive hierarchy for managing the preservation and conservation of the cultural landscape—especially in the Burra charter, as shown in the table below.



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3. Research Methodology

At first, this research, in terms of its methodology, could be categorized as descriptiveanalytical research. To extract the scope management process for conservation and restoration projects, the wide variety of key information and functional techniques that has been used in similar case studies across the world was assembled by the use of surveying method analysis. In addition to general library resources, Indigenous intangible or tangible data maintained by aboriginal inhabitants had to be compiled via the use of interviewing and observation, etc. [29].

4. Scope Management in Cultural Landscapes

According to previous work based on the PMBOK (Project Management Body of Knowledge) system, scope management fundamentally involves five consecutive phases of "Collecting Requirements", "Defining the Scope", "Creating WBS of work", "Approving the Scope and at the end", and "Controlling The Project Scope", which were extended for application to the cultural landscape conservation management process on behalf of the Burra framework. as shown below [8].

4.1. Step 1: Collecting Requirements in Conservation Project

Requirement gathering involves determining and documenting stakeholder needs and the scope of the work required to achieve project goals. In this regard, it first requires the evaluation and registration of any historical place as a heritage site in ICOMOS, which is classified into various types of historical and natural landscapes. By defining the cultural landscape's significance and categorizing its type and use, the scope of variables such as needs, resources, opportunities, strengths, weaknesses, threats, and obligations can also be consequently specified to determine early solutions and strategies [30].

According to Figure 1, the first step in project integration management is to develop a project charter and a plan.



Figure 1. Preparing a conservation and restoration management charter for cultural landscapes according



to the PMI (PMI: Project Management Institute) institute management model [31] (Source: Authors) (Tables explanation: same color boxes are in the same group and step which Arrows showes the direction in chart; the empty box with a dashed border means more alternatives are exist due to the project conservation management process/light blue showes the hed topic/some of these steps influens the othere parallel steps (repeatable) as an example, "Case Study" which is determined on the basis of criterias then would inflouse the criterias again by defining new methods or solutions).

4.2. Step 2: Identifying the Stakeholders

According to the theoretical section, stakeholders consist of a wide range of people involved in the project, both internally and externally (Figure 2) [32]. Internal stakeholders may include top management, project team members, peers, resource managers, and internal customers. External stakeholders may consist of external customers, governments, contractors and subcontractors, and suppliers (Figure 3) [22].



Figure 2. Cultural heritage and tourism convention stakeholders [32,33].





Figure 3. External stakeholders of cultural landscapes and their accommodation and amenities according to the PMI management institute model (At bottom of table the yellow box shows the sample grouping in other parallel column) [34] (Source: Authors).

4.3. Steps 3 and 4: Collecting Requirements and Defining Project Scope through Work Breakdown Structure

In this phase, the effective variables have to be categorized as "Requirements, Potentials, Capabilities, Limitations and Threats" in the cultural landscape sector; therefore, the first step is to evaluate the main types of constraints. In the planning and implementation phases, there are six main factors that limit activities and processes (Figure 4) [35].

Requirements are responsive to both the necessities of the environment and the stakeholders—especially to Indigenous groups and external tourism. Therefore, their "requirements", "expectations", and "interests" must be considered (Figure 5).

The "Work Breakdown Structure" is the process of breaking down outputs and project tasks into more manageable components (Figures 6 and 7).

Operation breakdown, and ultimately the proposal of solutions to address all project targets, can manage the scope of activities in order to save time, quality and the budget. Therefore, conservation management consists of four steps including "recognizing Equipment and resolving the functional crisis", "Preserving physical, social, and cultural identity", (Figure 7) "preparing Socio-economic development", and, finally, recommending "New tools and methods" [20,36].

Based on the Burra charter [8], all details and data which relate to the site and stockholders have to be assembled and analyzed to achieve the above variables; following this, it would be possible to manage the project "Communication" and "Risk" (Table 3).

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Figure 4. Initial diagram for input of cultural landscape conservation management requirements according to the PMI institute management model [20] (Source: Author).

Figure 5. (Visitor) Stakeholder requirements in conservation management and restoration of cultural landscapes according to the PMI institute management model (Source: Author).

Table 3. The different stages of burra charters for cultural landscape conservation management [8].

| | | | | | | Conse | ervation | Management 1 | Process | | | | | |
|-----------------------------|----------------------|---|------------------------------|---|---------------------------------|---|----------------|--|-----------------------------|--|-------------------------------|--|---|--|
| Understand Significance | | | | | Develop Policy | | | | ľ | Manage Accordance with Policy | | | | |
| | 1 | | | 2 | | 3 4 | | 4 | 5 | | 6 | | 7 | |
| The Burra Charterer Process | UNDERSTAND THE PLACE | Define the place and its extent Investigate the place: its history, use, associations, materials Articles 5-7, 12, 26 | ASSESS CULTURAL SIGNIFICANCE | Assess all values using relevant criteria Develop a statement of significance Article 26 | IDENTIFY ALL FACTORS AND ISSUES | Identify obligations arising from significance, identify, future needs, resources, opportunities, constraints, and condition Articles 6, 12 | DEVELOP POLICY | Regularly review and revise as necesary. Articles 6–13, 26 | PREPARE THE MANAGEMENT PLAN | Define priorities, resources, responsibilities, and timing Develop implementation actions Articles 14-28 | IMPLEMENT THE MANAGEMENT PLAN | The least amount of work required at a minimal cost. Articles 26–34 | MONITOR THE RESULT & REVIEW THE PLAN | Monitor actions taken in case of unintended consequences, periodically reviewing to ensure continuing appropriateness and effectiveness Articles 26 |
| | | | | Com | munity a | and stakeholde | rs' engas | gement should | occur tl | nroughout the | process | | | |

Figure 6. WBS diagram of sustainable development in cultural landscape conservation management and according to the PMI institute management model (Source: Author).

Figure 7. WBS (Work Breakdown Structure; shows what we have to prepare for evaluating and organizing the conservation management process) of field study in conservation management according to the ICOMOS institute model (Source: Authors) [36].

The risk may not be precisely regarded as a negative or destructive factor because virtually anything that changes the conservation management process and can be considered as "independent" or "moderator or intervention variables" is a risk [24].

Within risk management, there are two main factors: "Environment" and "Stockholders", which can be extracted through (1) "Heritage Convention field studies and reports", (2) "stakeholder identification", (3) "existing conditions", (4) "Destructions or vandalism and its causes", and finally (5 and 6) "Scheduling the conservation process", which also relates to project communication management (Figure 8).

Figure 8. Risk management according to the ICOMOS and PMI model (Source: Authors).

After preparing the interactive programs, there are various ways to choose the best methods based on "Expert Opinion, Principals, and Efficient Sample Process".

4.4. Step 5: Monitoring and Controlling the Scope of Project

Based on the project requirements, the five main fields in conservation management should be considered, which consist of (1) the variety of stockholders, (2) environmental regulations and design manuals, (3) cultural landscape conservation criteria and papers, (4) regional land-use plans and SWOT tables [30] (mentioned above), and finally, (5) sustainable ecology and tourism principals, as well as any training methods that have been considered in similar heritage conservation management projects (Sodangi and colleagues, 2014). By merging all these steps, it would be possible to control and verify not only the scope of operations but also identify any appropriate interactive methods [20].

Finally, the project reliability, which plays a main role in the review and finalization of the management process, can be maintained by continuous monitoring and document updates [37,38].

In this step, new renovation methods or technology that can be used to protect against any natural disasters or vandalisms that might occur during the project implementation process are continuously incorporated into the management system [39,40]. If there are any new or unrecorded requirements, they will be determined and incorporated into the process [24].

The most important parts of the control phase are "recognizing diversions," "determining the causes", and "choosing the corrective or preventive actions" (Figure 9).

4.5. Step 6. Project Termination

To complete a conservation management project, the Cultural Heritage Convention's process includes policies, procedures, project charterers, plans, and conclusions that must be reviewed and evaluated by internal systems and experts (Figure 10) [20].

Figure 9. Planning and variables diagrams in conservation management of cultural landscapes according to the ICOMOS and PMI model (Source: Authors) [28].

Figure 10. Confirming and controlling the scope of cultural landscape conservation management according to the ICOMOS and PMI model [20] (Source: Authors).

5. Conclusions

This research has been organized to gather and summarize executive processes for scope management in cultural landscapes. Determining the scope of conservation executive phases in historical sites confirms the importance of using project management tools. Based on this research, it would be possible to achieve a whole scope of ideas and methods by combining several factors, including environmental regulations, design manuals—especially in historical sites—cultural site design principles (based on the aforementioned charter), graphic plans, SWOT tables (including environmental and ecological conditions), sustainable environment and ecotourism conditions, and finally, suggested solutions and requirements. These solutions can be categorized into: equipment and disaster recognition and solution methods, rehabilitation or conservation of physical and social contents, economic and social development, new tools and methods, and, finally, controlling and monitoring. All these aspects of implementation processes can be used to manage risks and increase the validity and reliability of a project.

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References

- Zancheti, S.M.; Hidaka, L.T.F.; Ribeiro, C.; Aguiar, B.; Hidaka, L.T.F.; Ribeiro, C.; Aguiar, B. Judgement and Validation in the Burra Charterer Process: Introducing Feedback in Assessing the Cultural Significance of Heritage Sites. *City Time* 2009, *4*, 47–53.
 ICOMOS; Fondazione Carlo Forte. Economic and Financial Aspects of the Conservation of Monuments and Historic City Centres.
- Available online: https://www.icomos.org/en/368-whp/cultural/3049-1982 (accessed on 29 June 2021).
 Ortiz, R.; Ortiz, P. Vulnerability Index: A New Approach for Preventive Conservation of Monuments. *Int. J. Archit. Herit.* 2016, 10, 1078–1100. [CrossRef]
- Gazzola, P.; Lemaire, R.; Bassegoda-Nonell, J.; Benavente, L.; Boskovic, D.; Daifuku, H.; de Vrieze, P.L.; Langberg, H.; Matteucci, M.; Merlet, J.; et al. International charterer for the conservation and restoration of monuments and sites (the venice charterer 1964). In Proceedings of the II International Congress of Architects and Technicians of Historic Monuments, Venice, Italy, 26 May 1964; pp. 1–4.
- 5. Patiwael, P.R.; Groote, P.; Vanclay, F. Improving heritage impact assessment: An analytical critique of the ICOMOS guidelines. International Journal of Heritage Studies. *Int. J. Heritage Stud.* **2019**, *25*, 333–347. [CrossRef]
- 6. ICOMOS. The ICOMOS Charterer for the Interpretation and Presentation of Cultural Heritage Sites; ICOMOS: Quebec, QC, USA, 2008.
- 7. Prabowo, W.; Karsono, D. Degradation of Cultural Heritage Buildings. Proc. Int. Conf. Eng. 2020, 1, 32–41. [CrossRef]
- 8. Burra Charterer. The Australia ICOMOS Charterer for Places of Cultural Significance; Australia ICOMOS: Burwood, Australia, 1999.
- 9. Qian, F. China's burra charterer: The formation and implementation of the china principles. *Int. J. Herit. Stud.* 2007, 3, 255–264. [CrossRef]
- 10. Yang, H.; Qiu, L.; Fu, X. Toward Cultural Heritage Sustainability through Participatory Planning Based on Investigation of the Value Perceptions and Preservation Attitudes: Qing Mu Chuan, China. *Sustainability* **2021**, *13*, 1171. [CrossRef]
- 11. Petrovič, F.; Boltižiar, M.; Rakytová, I.; Tomčíková, I.; Pauditšová, E. Long-Term Development Rrend of the Historical Cultural Landscape of the UNESCO Monument: Vlkolínec (Slovakia). *Sustainability* **2021**, *13*, 2227. [CrossRef]
- 12. Henderson, J. Understanding and using built heritage: Singapore's national monuments and conservation areas. *Int. J. Herit. Stud.* **2011**, 17, 46–61. [CrossRef]
- 13. Waterton, E.; Smith, L.; Campbell, G. The utility of discourse analysis to heritage studies: The Burra Charterer and social inclusion. *Int. J. Herit. Stud.* **2006**, *4*, 339–355. [CrossRef]
- 14. Dos Santos, P.H.; Neves, S.M.; Sant'Anna, D.O.; Oliveira, C.H.; Carvalho, H.D. The analytic hierarchy process supporting decision making for sustainable development: An overview of applications. *J. Clean. Prod.* **2019**, *212*, 119–138. [CrossRef]

- 15. Mackay, R. Values-Based Management and the Burra Charterer: 1989, 1999, 2013. In Values in Heritage Management: Emerging Approaches and Research Directions; GCI: Los Angeles, CA, USA, 2019; pp. 110–126.
- Pham, N.T.; Do, A.D.; Nguyen, Q.V.; Ta, V.L.; Dao, T.T.B.; Ha, D.L.; Hoang, X.T. Research on knowledge management models at universities using fuzzy analytic hierarchy process (FAHP). *Sustainability* 2021, 2, 809. [CrossRef]
- 17. Conforto, E.C.; Salum, F.; Amaral, D.C.; da Silva, S.L.; de Almeida, L.F.M. Can agile project management be adopted by industries other than software development. *Proj. Manag. J.* 2014, *3*, 21–34. [CrossRef]
- Sánchez Arias, L.F.; Solarte-Pazos, L. The body of knowledge of the project management institute-PMBOK. Guide, and the specificities of project management. *Innovar* 2010, 20, 89–100.
- 19. Vaidya, S.; Kumar, S. Analytic hierarchy process: An overview of applications. Eur. J. Oper. Res. 2006, 169, 1–29. [CrossRef]
- 20. PMI-Project-Management. Project Management Forms. In PMBOK Handbook, 4th ed.; PMI: Newtown Square, PA, USA, 2009.
- 21. Childhood, P.H. Some Principles for the Conservation of Historic Landscapes; University of York: York, UK, 1990.
- 22. Parsayiyan, A.; Mohammad, S. Tourism in a Comprehensive Perspective; World Tourism Organization: Madrid, Spain, 1998.
- 23. Tishler, W.H. Historic Landscapes: An International Preservation Perspective. Landsc. Plan. 1982, 9, 91–103. [CrossRef]
- 24. Natural England. Preparing a Heritage Managemnet Plan; Catalogue Code: NE63; Natural England: York, UK, 2008; pp. 1–56.
- 25. Heritage-Council-of-Victoria. *Conservation Management Plans: Manageing Heritage Places;* Heritage Council of Victoria: Melbourne, VIC, Australia, 2010; pp. 1–30.
- 26. Guner, A.F.; Benli, G. Project Management in Conservation and Restoration of Historic Buildings. SAR J. 2019, 2, 24–30.
- 27. Prisma. Environmental Protection Strategy. In *Operational Guideline for Safeguarding and Managing Environmental Risk, Impact and Outcome;* Prisma Energieanlagen & Umwelttechnik GmbH.: Dinslaken, Germany, 2019; pp. 1–29.
- Slaiby, B.; Mitchell, N. A Handbook for Managers of Cultural Landscapes with Natural Resource Values; The Conservation Study Institute/QLF/Atlantic Center for the Environment: Ipswich, MA, USA, 2003.
- 29. Shin, Y.; Kim, S.; Lee, S.W.; An, K. Identifying the planning priorities for green infrastructure within urban environments using analytic hierarchy process. *Sustainability* **2020**, *13*, 5468. [CrossRef]
- Bemanian, M.; Ansari, M.; Almasifar, N. Takht-e-Suleiman Cultural Landscape rehabilitation with Emphasis on the ICOMOS World Heritage Convention principals. *Urban Manag. J.* 2010, 26, 7–26.
- 31. Caneva, G.; Benelli, F.; Bartoli, F.; Cicinelli, E. Safeguarding natural and cultural heritage on Etruscan tombs (La Banditaccia, Cerveteri, Italy). *Rend. Lincei* 2018, *4*, 891–907. [CrossRef]
- 32. Millar, S. Heritage management for heritage tourism. Tour. Manag. 1989, 10, 9–14. [CrossRef]
- 33. Cultural Heritage-Restoration-Deputy of Preservation-Organization. *Takht-e-Suleiman Historical Landscape's Legal Regulations*; ICCROM: Rome, Italy, 2010.
- 34. Feilden, B.M.; Jokilehto, J. Management Guidelines for World Cultural Heritage Sites; OGRARO: Rome, Italy, 1998.
- 35. Hockings, M. Evaluating management of protected areas: Integrating planning and evaluation. *Environ. Manag.* **1998**, 22, 337–345. [CrossRef]
- 36. The-Faro-Convention. *Report from the Swedish National Heritage Board;* Council of Europe Framework Convention on the Social Value of Cultural Heritage: Stockholm, Sweden, 2014.
- 37. Deacon, H. Intangible Heritage in Conservation Management Planning: The Case of Robben Island. *Int. J. Herit. Stud.* 2007, 10, 309–319. [CrossRef]
- Sodangi, M.; Khamdi, M.; Idrus, A.; Hammad, D.B.; AhmedUmar, A. Best Practice Criteria for Sustainable Maintenance Management of Heritage Buildings in Malaysia. *Procedia Eng.* 2014, 77, 11–19. [CrossRef]
- Lesh, J.P. A Regional Conservation Manifesto. The Burra Charterer and the Australian Re-invention of Urban Heritage Management. *Int. J. Reg. Local Hist.* 2017, 2, 120–133. [CrossRef]
- 40. The-Australia-ICOMOS-Charterer. *Burra Charterer;* Australia ICOMOS Incorporated International Council: Melbourne, VIC, Australia, 2013; pp. 1–10.

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