Scheduling a New Method for the Cultural Landscape Management as the Most Important Part of the World Heritage Conservation

Aryan Amirkhani, Nina Almasifar

Abstract. Setting and planning the limits for region and actions (project management), increases executive quality and saves time and budget. Especially in cultural landscape conservation because of the historic value and restriction in intervening and owning, the management has got an important role. Nowadays because of unlimited growth of the cities, these properties especially historical gardens has been exposed to destruction, for this reason, the necessity of using concurrent management system has demonstrated more than before. The purpose of this research is to define the process of cultural landscape conservation management on the basis of ICOMOS's articles (World Heritage Papers) and Burra management system. The results of this research explains a new hierarchy of conservation management's stages based on all of the limitative criteria, including renovation and reconstruction bunds, ecological and environmental condition, stakeholders and other significance of historical sites, which is used to determine all of the necessary activities based on conservation charts. There by in addition to restoring a cultural landscape, it will be possible to restrict any illegal and unnecessary changes.

Keywords: cultural landscape, management, conservation

1. Introduction

Preservation management of cultural landscape has become the main subject of monumental protection over the last few years. Specially after defining the concept of heritage conservation -as a variety of cultural landscape classification- determining executive processes of this method which includes consideration and investigation of the past time (all of the events and natural and cultural significance), evaluation and registration, encounters a type of complex and uncleanness. Choosing the best way during the study and collecting information can lead to a useful decision in restoration management and conserving cultural identity of the related sites [1]. The conservation and rehabilitation management of the cultural landscape is basically the usage of knowledge, skills and tools in order to maintain the cultural significance.

So ICOMOS has provided chartes like Burra’s and Venice’s to bring a kind of equality in evaluating cultural sites. Determining general principals of reconstruction process shows that the executive step is the main part of the project after definitions and basic concepts [2]. The burra charter is one of the several conservation charts which have comprehensive definitions of protection and preservation subjects and their basics, and also explain the executive methods as a management chart including "recognition, development policy, management, control and the repetition of these steps” [3].

Even though being satisfied with a diagram is actually risky, but not having the activities details, regardless to different aspects of the job and limits of appropriate legal changes for the monument can eventually lead to destroying the site's cultural and natural significance instead of protection and revival. So having a management method can prioritize the mentioned levels and determine how to execute each phase of the project [4].

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Project management stages are a complex of separable management structures in equal levels that coordinated accomplishment of them improves a project's quality, timing and finances [5].

Determining scope management pertain to cultural sites rehabilitation is one of the main criteria in practical management which includes principles of cultural heritage conservation charts, protective boundaries and ecological and environmental limits [5]. In fact, organizing and systematic planning of consideration, investigation and practical procedure on the basis of management principles causes accurate progress in protective objects and historical value of the monuments; especially the rules that has been defined and determined for the necessary activities of heritage conservation and its practical stage play an important role in this scheduling [6].

2. Cultural Landscape Conservation Management

Based on burra's mention about protecting cultural sites “every kind of action which result the continuance of cultural identity, it will be counted as a protective process [7]. But, another subject that it’s called as a conservative activities scope has been added to the charter for controlling the processes and obligating them to considering the native environmental conditions (stakeholders and beneficiary, vandalism and variety) [8]; But the general schedule for determining process actually can’t carry out a task even may be lead to destroy the cultural significance [9].

Therefore, choosing an organized method matched with ICOMOS standards is necessary. In continue, according to the project's hierarchy diagram, the conservation process will be exhausted [10] (table 1).

2.1. Developing project charter and collecting requirements

Collecting requirements includes investigating all significances and environmental conditions (by the use of SWOT table and environmental analysis graphic plan), registering stakeholders and beneficiaries needs and defining the scope of tasks in order to provide purposes of the project [6]. Then, it will be possible to evaluating and determining the types of extant site on the basis of all definitions about the concept of cultural landscapes and evaluation criteria of UNESCO [3]. With recognizing the kind of cultural sites and limiting its significances, the scope of renovating rules and selecting similar study cases -for primary ideas- becomes obvious [11].

After defining the scope of the place and type of the site, there is a time for assigning and classifying the conservation tasks on the basis of ICOMOS and the other charters criteria, and especially coordinate with local environmental conditions [12] (chart 1).

2.2. Identify stakeholders

On the basis of project declaration, intention of stakeholders is an extensive range of people involved in the project both inside and outside the organization (Project Team) (chart 2), who affect the results and purposes of project. Therefore, their needs (requirements & services) and subsistence must be considered in conservation management process. According to this principle, the stakeholders (tourism and residents) involved in the conservation process of cultural landscapes (from study to accomplish) so their recognition method has been shown in the below chart [13].

As a sample, the below chart shows the considering and registering process of exterior stakeholders (out of organization) such as tourism and residents. Other requirements of case study will be considered at the “requirement traceability matrix” and registered as an input for project charter.

2.3. Collecting requirements and defining the scope management plan by the use of work breakdown structure (WBS)

In this section of management policy, the determinants of site requirements (needs), Strengths, Weaknesses, Opportunities and Threats must be distinguished. These indicators are such as criterion for sorting and defining the executive methods. By determining the scope of activities and requirements, it will be possible to prevent the time and expenditure wasting and improve the quality.
### TABLE 1: Project Management Process Naf IT’D Details (PMI, 2010, p 59)

<table>
<thead>
<tr>
<th>Knowledge Regions</th>
<th>Project Management Process</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>The Beginner Group</strong></td>
<td><strong>The Planning Group</strong></td>
</tr>
<tr>
<td>1. <strong>Project’s Integration Management</strong></td>
<td>Providing the Prism</td>
</tr>
<tr>
<td>2. <strong>Managing Project’s Scopes</strong></td>
<td>Collecting Necessities Defining Boundaries Creating WBS -Defining Activities -Providing the Timing Plan</td>
</tr>
<tr>
<td>3. <strong>Project’s Time Management</strong></td>
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<td>4. <strong>Project’s Financial Management</strong></td>
<td>Quality Planning</td>
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<td>5. <strong>Project’s Quality Management</strong></td>
<td>Providing Human Resources</td>
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<td>6. <strong>Project’s Stakeholder’s Management</strong></td>
<td>Identifying Stakeholders</td>
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<td>8. <strong>Project’s Risk Management</strong></td>
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<td>9. <strong>Project’s Preparation Management</strong></td>
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First step is providing the contents of limitative factors. On the basis of “chart 3”, there are six elements which limit the work scope and process that has been extracted from Burra charter.

Registering the tourism and vernacular residents, who have been related directly to the historical base, constitute one of the main management indicators. The presence of tourism in the host community, inadvertently
influence the local behavior and culture that would be have positive or negative results. Therefore, controlling the communication between the local base and tourism appears so important.

Basically, culture heritage management process has deal with two general indicators “landscape” and “human”, so it should be organized for controlling and directing them.

The tourism communication scope has been considered as an “Ecotourism” for controlling any affects (positive or negative) on host region. Preserving the sustainability between environment and humans is the main purpose of conservation management system.

Fig. 1: develop cultural landscape conservation and rehabilitation management project charter on the basis of PMI process (PMBOK, project management), (resource: writer)

“Visitor communication scope with the local society”, “destruction of environment” and “influence on the host culture” has been propounded for risk management process (tourism compress and destruction against the benefits effects the management plan).

By the use of WBS method, the essential components of each executive step become clear that cause to facile scheduling of scope management.

After defining the input and utilizing the tools and necessary strategies at first steps to the fourth, it is the turn of environmental and similar case study investigation (by the use of WBS). Limiting factors and determining the development of goals and requirements are critical factors in selecting the procedure.

For limiting the investigation process in the case studies, best method is division of activities into several certain categories to determine the purpose of each operation. Hence, these can be classified in four sections, "the equipment and solve the physical and functional crisis", "maintain or restore physical, cultural and social identity", "economical-social development" and " modern Tools and Methods". Furthermore, by advantaging this method in classifying new ideas used in the similar “case studies”, it can be possible to speed up the process and reduce the information overload [14].

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One of the most important steps in management of cultural landscape conservation is the identification and extraction of existing conditions and historical documents, in other words, the environmental factors and requirements. Surveillance and control in this sector due to conservation programs is essential to maintain the reliability and validity. Based on Burra charter, which was mentioned in “chart1”, the environmental work breakdown flowchart can be represented.

At first, defining and delimiting of stakeholders and charter (standards, resources, policies, principles, rules, etc.) and then identifying the needs and goals of the project and at last the documenting requirements, and in this phase the infrastructure of activities become clear.

Fig. 2: Stakeholders investigation and registration process for cultural heritage conservation (on the basis of PMBOK, project management), (resource: writer)

According to articles 7 and 12 of the burra charter and the first volume of World Heritage papers (UNESCO - ICOMOS), Tourism and communication Management of landscape and host society is considered as principle of
cultural heritage. Different ways are proposed to investigate and manage the scope of risk and communication, but an evaluation system must be used for categorizing the methods and propositions, that has been shown in “chart 4”.

So the term ‘risk’ can not necessarily be considered as a negative component, practically anything that causes a change in the process of sites conservation management as a “Moderator variable” or “Intervening variable” is considered “Risk”.

Within the risk management, the subject which is relevant to stakeholders, includes: 1)”case study and the ICOMOS reports”, 2)”identify stakeholders”, 3)”existing conditions”, 4)”extract threats and opportunities”, 5)”destructions” 6) "causes of damaging” and 7) ”schedule conserving plan” that also relates to project communications management.

The crucial point in the Cultural Landscapes risk Management Planning duration, risk factors and their effects are called as "needs” and the responses to these factors in order to control, develop or solve these threats on the basis of the Burra charter and ICCROM criteria, as "requirements" [15].

After preparing the requirements list, there are several ways to select the best solutions, meanwhile “fuzzy” evaluation and classification, on the basis of experts viewpoints, conservation standards and the useful methods that can be derived from similar study case (as a training data which are used in classifying program).

2.4. Control and verification

Controlling the scopes of management process and verifying their authenticity lead to further improvements of optimum project goals.

Control phase is considered as a way for project permanence, continuous monitoring and updating of documents cause high quality and accuracy of the results. For example at the cultural landscapes, stakeholders changes (the neighborhood in terms of variety and function, the number of visitors and the need for new services, etc.), unexpected events during the project, new restoration techniques, and technology or modern methods can be continuously entered the process of conservation management; if some certain needs are not being recorded, during continuous monitoring will be identified, and also the relevant requirements [16].

After Implementing of defined activities and achieved results in the planning and executing phases, it is turn to the review of the project comprehensiveness (validity and permanent). In this stage the question arises that is the process which was utilized to manage the conservation, will prepare all project objectives and the extent or which it is stable and there is the possibility of a negative feedback strategy in the near future, or not? According to Table 1, through the scope management, the inspection whether by software program (with training) or with experts viewpoint, analysis the connection between the "landscape conserving", "natural and cultural documents, case studies and …", "requirements matrix and suggested protecting and renovating methods at four proposed fields” and "purposes defined based on risk and damages (recorded in reports of existing conditions in cultural sites)” have been arranged and subsequently it will be possible to offer the new changes and up to dating of documents.
Then the project performance is evaluated in terms of variance from initial scope baseline. The most important parts of control stage are "identify variance", "determine causes" and "make decision regarding necessity or preventative actions".

Fig. 4: the risk management process on the basis of world heritage convention papers PMI (resource: writer)

Fig. 5: the hierarchies of project management operations through the cultural landscape conservation (source: writer)
3. Conclusion

Results of this project is a collection of executive processes of cultural sites management, that according to cultural and natural value of the project, it’s not so close to general principle and definitions of PMI project management institute. Determining operation limits and amount of modification in historical sites are very important issues that reveal the importance of management principles. Based on this research, through the overlapping of several studied layers, first, the principles of sites design (aesthetic principles, etc.) Second, the cultural sites design principles (based on the above mentioned charters), Third, the graphics planning (SWOT maps and chart that contains environmental and ecological condition), fourth, sustainable ecosystem and ecotourism, it would be possible to find the works and ideas scope and finally suggest some solutions for specified steps. These solutions can be categorized to four parts “equipment and resolving physical and functional disasters”, “protect or restore physical, cultural and social identity”, “economic - social development” and “modern tools and methods”; and then they can be applied. Of course, all these levels of project management are at the same level and they should be proceeded with each other, in fact the scope management without time, risk and equipment management is not complete. Definition of independent variables and risk causing factors, delimitate the scope of activities, under protection region of cultural sites and subsequently the five steps of management process (time, budget, quality, procurement, stakeholders).

According to process management flowchart, three basic knowledge are defined in association with project activities: “integration”, “communication” and “scope”.

4. Reference


