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AN INNOVATIVE APPROACH TO RECENT INTERVENTIONS IN ARCHAEOLOGICAL SITES: RE-RESTORATION

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Abstract

The situation of interventions performed during the 20th century in archaeological sites demonstrated the necessity to define an approach for the restored architectural findings. It is important to sustain the intervened monuments as much as the new excavated architectural monuments. Like the ongoing process of preserving archaeological heritage, it should be discussed the future of recent interventions as well. In this research, the theoretical background of conservation and restoration of archaeological monuments carried on during the 20th century has been examined. After the chronological examination of conservation theories, the current situation of the recent interventions has been detected and most common issues categorized under two subtitles, i.e., physical problems and authenticity problems. Hence, a theoretical procedure for practice on archaeological sites based on re-restoration is proposed. The procedure consists on the following steps: i) documentation, ii) analysis, iii) planning of re-restoration, iv) practice of re-restoration, v) interpretation and presentation.

Keywords: Re-restoration, Archaeological Site, Conservation, Restoration

1. Introduction

An international attempt to identify objective principles on conservation and restoration of archaeological monuments has been made with the Sixth International Congress of Architects in Madrid in 1904 (Matero, 2008). In this congress, the monuments were classified into two classes: dead monuments and living monuments. Dead monuments, those belonging to a past civilization or serving obsolete purposes, were suggested to be preserved in order not to fall into ruin. The main target of preservation in articles is the importance of its historical and technical value, which disappears with lost monuments (Locke, 1904; Erder, 2007).

In the First International Congress of Architects and Technicians of Historic Monuments (Athens, 1931), the case of ancient monuments is more identified with recommendations on potential deteriorations, techniques, materials and interdisciplinary international collaborations (Kuban, 1962; ICOMOS, 1931). The use of modern materials more especially of reinforced concrete and techniques for the consolidation of ancient monuments was approved in the conference. The consolidation work was defined to be concealed in order to preserve aspect

and character of the restored monument (Erder, 2007; ICOMOS, 1931). In further recommendations, a scrupulous conservation was found necessary in ruins, and the new materials used for steps taken to reinstate any original fragments that might be recovered (anastylosis) was suggested to be recognizable (Erder, 2007; ICOMOS, 1931). The conference defined the case of impossibility of preservation, which is as much important as the articles defining how to preserve. An excavated ruin, which was found to be impossible to be preserved than the conference, recommended that it should be buried after detailed documentation (ICOMOS, 1931). In the General Conference of UNESCO (New Delhi, 1956), The Recommendation on International Principles Applicable to Archaeological Excavations was approved. For the first time international principles governing the protection and excavation of archaeological sites were established. In particular, the ninth article of the charter is as important as the charter itself. In the article, member States were considered to maintain, partially or totally, untouched witness areas, from different periods in order that their excavation might benefit from improved techniques and more advanced archaeological knowledge in the future. Furthermore, education, site visitors and interpretation of archaeological remains were mentioned (UNESCO, 1956).

However, the most influential international conservation document of all the times was defined in 1964, which is called Venice Charter (Ahunbay, 2011). In this Charter, most of the earlier recommendations on restoration were extended. In the fifteenth article related with excavations, the Recommendation on International Principles Applicable to Archaeological Excavations (New Delhi, 1956) was referred (Pedeli and Pulga, 2013). After the highly recommendation of modern techniques for conservation and construction in 1931, in Venice Charter, it was limited by the techniques, the efficacy of which, had been shown by scientific data and proved by experience and only in the case of where traditional techniques proved inadequate (Pedeli and Pulga, 2013). Charter for the Protection and Management of the Archaeological Heritage[1] (Lausanne, 1990), laid out general principles for investigation, maintenance, and conservation as well as reconstruction of architectural heritage and guidelines of archaeological heritage management (ICOMOS, 1990). The scope of archaeological heritage was enlarged into structures, constructions, groups of buildings, developed sites, moveable objects, monuments of other kinds as well as their context, whether situated on land or under water (ICOMOS, 1990). Finally, archaeological sites were considered as living cultural heritage with this Charter. After Sixth International Congress of Architects (Madrid, 1904), the archaeologists were held responsible for the conservation of archaeological heritage (Matero, 2008, ICOMOS, 1990). For the specific case of better interpretation for community knowledge and experimental research purposes, the Charter recommended reconstruction with defined restrictions (ICOMOS, 1990). International efforts on protection of archaeological heritage continued targeting the public awareness. Therefore, the tension and pressure on heritage had increased (Orbasli, 2000). The balance was tried to be found with International Cultural Tourism Charter, Managing Tourism at Places of Heritage Significance (Mexico, 1999) (ICOMOS, 1999). The Principles for the Analysis, Conservation and Structural Restoration of Architectural Heritage (Victoria Falls, 2003), explained the differences between a re-discovered building and an exposed building by pointing out the fragile nature of excavated structures (ICOMOS, 2003). The Charter on the Interpretation and Presentation of Cultural Heritage Sites (Québec, 2008), dwelled on interpretation, presentation of heritage, planning of sustainability, preservation of authenticity, understanding and appreciation of cultural heritage sites and fostering public awareness rather than formal, physico-chemical and structural protection of heritage (Matero, 2008; ICOMOS, 2008).

Considering all those charters[2], recommendations, regulations and guidelines in international level, it is clear that a long distance have been taken for the protection of

[1] Charter for the Protection and Management of the Archaeological Heritage (Lausanne) is revised in Valletta, in 1992 by European Council and called European Convention on the Protection of the Archaeological Heritage.

[2] Several of international legislations will be added to this list but above it is considered to examine the most efficient ones with breaking points for ongoing evolution.

archaeological heritage (Jokilehto, 1999). From being single dead monument, the definition of archaeological monument, has been enlarged into wide range of date, content, state and changed into a living cultural heritage that needs to be sustained (Eres, 2016). Protection of single artefact has been changed into site protection. Notion of archaeological areas changed from picturesque ruin view into well planned, managed and interpreted landscapes (Matero, 2008).

Furthermore, one of the most important points of international charters is becoming more specific on cases instead of declaring general statements. Within this period, the explanations about recognition of new additions, compatibility of modern materials, reconstruction, structural maintenance, conservation and presentation has become clearer for the specialists.

2. Why Re-Restoration?

The main purpose of interventions on archaeological heritage is to extend the life of the monument by preserving the meaning as much as possible after the excavations. Successful samples of interventions are those, which have survived until today without affecting the monument negatively (Pedeli and Pulga, 2013). From the Figure 1 to 11, unsuccessful samples of interventions are those, which have started to be deteriorated, with/without the monument, or expedited the deterioration process instead of protecting the monument. Hence, this research focused on unsuccessful samples that are the ground of re-restoration. The need for re-restoration should be considered as a new phase of preservation of archaeological heritage. Re-restoration phase is necessary for decelerating the deteriorations on monuments, extending the life of the monuments and avoiding the same mistakes in the future. Directly, local and single rehabilitations can also be applied to monuments but especially in the building and site scale, a re-restoration strategy should be developed.

In order to validate the research, samples from various ancient sites were examined, in particular: Athens Acropolis (condensation) as seen in the Figure 1, Herculaneum (biological colonization, static weakness) as seen in the Figure 2 and 3, Olympia (staining) as seen in the Figure 4, Perge (unqualified labor) as seen in the Figure 5, Pompeii (disproportionate of modern material) as seen in the Figure 6, Side (surface loss of modern material, incompatible interventions of different times) as seen in the Figure 7 and 8, Tárraco (efflorescing, detachment, re-use of spolia material in restoration) as seen in the Figure 9, 10 and 11. During the survey, the most common problems caused by recent interventions that architectural artefact in ancient sites are facing nowadays were reported. These problems are classified into two main headings: physical problems and authenticity problems. Physical problems are efflorescing, staining, biological colonization, detachment, static weakness, and condensation. Authenticity problems are spolia material usage, disproportionate of modern material, incompatible interventions, unqualified labor.

Figure 1. Condensation, Athens Acropolis (Greece) archaeological site

Notes: Condensation has occurred under the shelter because of the sun.

Sources: Kocaman (2014a)

Figure 2. Biological colonization, Herculaneum (Italy) archaeological site

Note: The ground water causes biological colonization on the floors and walls. Humidity is one of the requirements for biological colonization for their habitat.

Source: Kocaman (2015a)

Figure 3. Static weakness, Herculaneum (Italy) archaeological site

Note: The addition of the roof construction to the monument started to have static problems itself and for the safety of the visitors metal supports are added.

Source: Kocaman (2015b)

Figure 4. Staining, Olympia (Greece) archaeological site

Note: After the use of metal supports, staining starts because of weather conditions if the monument does not put under maintenance regularly.

Source: Kocaman (2014b)

Figure 5. Unqualified labor, Perge (Turkey) archaeological site

Note: During the restoration and conservation practices, a qualified labor is important. Unqualified labor will cause physical deteriorations as well as esthetic loss.

Source: Kocaman (2017a)

Figure 6. Disproportionate of modern material, Pompeii (Italy) archaeological site
Note: During the restoration and conservation practices, proportionate of modern material is important for the monument not to lose its authenticity and value.
Source: Kocaman (2015c)

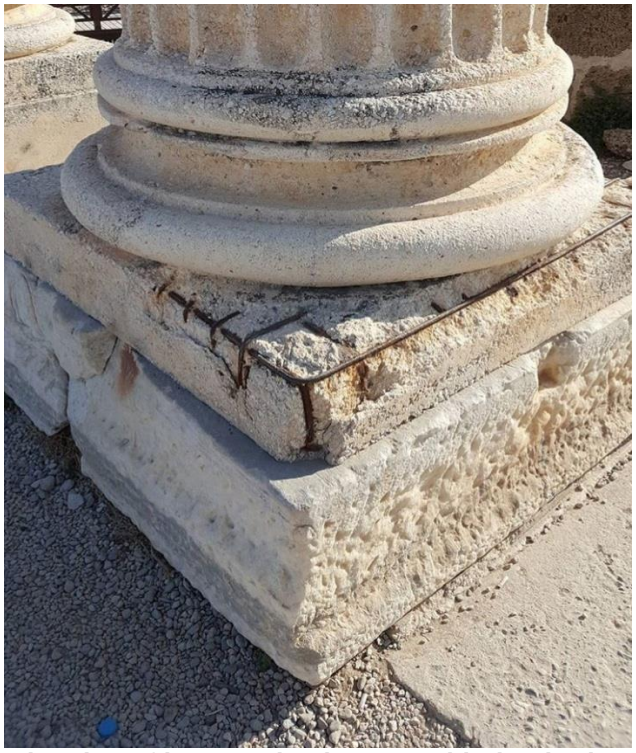

Figure 7. Current situation of intervention in 1983, Side (Turkey) archaeological site
Note: Loose of modern additions and materials after the interventions.
Source: Eyupgiller (2017a)

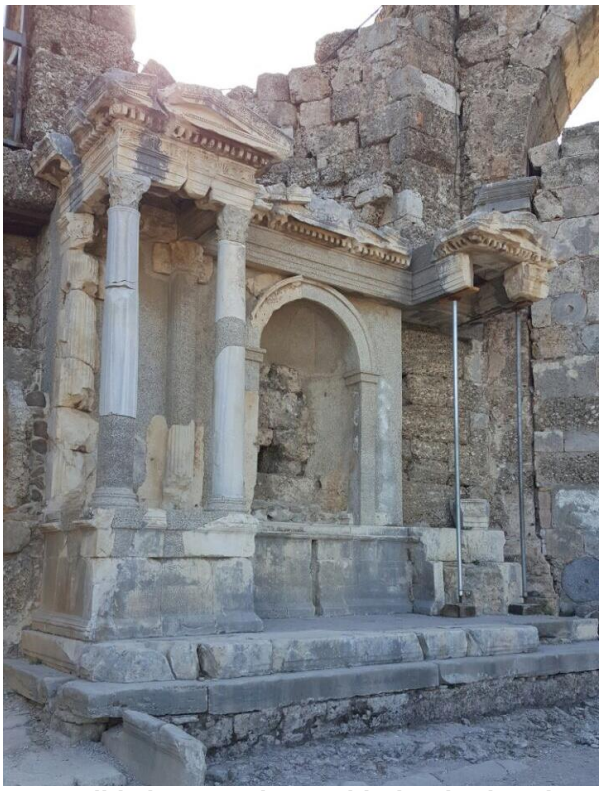

Figure 8. Incompatible interventions, Side (Turkey) archaeological site

Note: After the interventions, use of incompatible modern materials causes confusion for the visitors and professionals.

Source: Eyupgiller (2017b)

Figure 9. Effloresc ing, The Archaeological Ensemble of Tárraco (Spain)

Note: Modern materials should be practiced before applying to the whole monument. The salt and mineral density inside the material used for intervention will cause effloresc ing on the surface.

Source: Kocaman (2015d)

Figure 10. Detachment, the Archaeological Ensemble of Tárraco (Spain)
Note: If the strength and behavior is different between modern material and authentic material, connections will damage the monument.
Source: Kocaman (2015e)

Figure 11. Re-use of spolia material, The Archaeological Ensemble of Tárraco (Spain)
Source: Kocaman (2015f)

3. The Procedure for Re-Restoration

Taking into account all these considerations above, a new approach to recent interventions is a must. A theoretical procedure for practice on archaeological sites based on re-restoration is proposed which consists of following steps in the Figure 12.

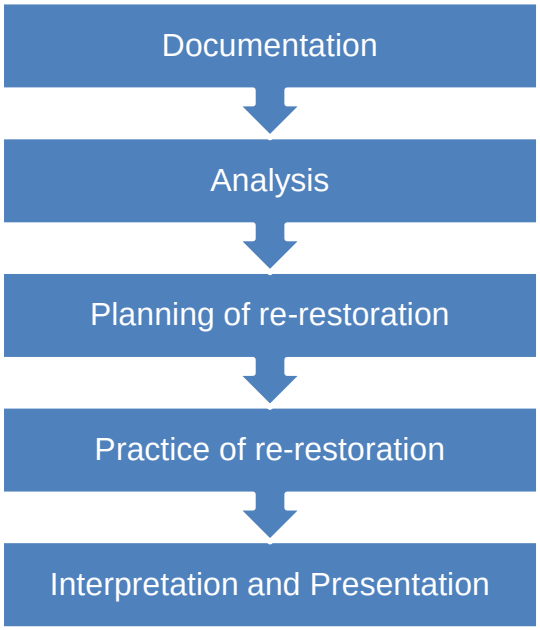

Figure 12. Re-restoration steps

The re-restoration process should start with documentation, continue with scientific analysis, management plan, practices and finish with interpretation and presentation to public (Orbasli, 2008). The first step should consist of documentation of monument's and interventions' current situation which is as important as the protection of the monument. In case of an in-situ protection, the conditions of the site, e.i. climate, day-night time, seismicity, water and soil structure should be reported. In case of an ex-situ protection, the conditions of the place, e.i lighting, air conditioners, and visitor numbers should be reported as well. Documentation of any detail taken part during the re-restoration first makes it easier to follow the effects and behaviors of the interventions on the monument and secondly sheds light on researches in the future.

The second step should consist of analyzing on the heritage and recent interventions. Physical changes, chemical changes and changes in authenticity, legibility and meaning should be investigated in a very detailed way (Riegl, 1903). For the physical and chemical analysis, visual observations, non-destructive (if possible) tests and laboratory tests should be done. Cooperation of specialists from many disciplines plays an important role in this stage. Modern technology gives chance to develop many solutions for cases. For the changes in authenticity, legibility and meaning, questionnaires should be done with stakeholders, interest groups, participants, visitors, working team, professionals, and non-professionals. Results of those questionnaires lead to new approaches.

After the detailed analysis, a chart as the sample given above in Table 1 and 2 should be established. The chart will help to see the needs and problems easier and help to figure out planning the re-restoration progress which is Step 3.

Table 1. A chart to figure out physical problems

		Physical problems					
		efflorescing	staining	biological colonization	detachment	static weakness	condensation
Name of the Ancient Site	Monument #1	X	-	-	-	-	X
	Monument #2	-	X	X	-	-	-
	Monument #3	-	-	-	-	X	-

Note: The chart starts, on the left, with the name of the site and number of the monuments, which are supposed to be re-restored. The detailed name of the monuments also should be recorded. The physical problems are written one by one to be used in the next step. The monument is matched with the physical problem and signed as X, which means problem exists. One monument will be matched more than one problem.

Table 2. A chart to figure out authenticity problems

		Authenticity problems			
		spolia material	disproportionate of modern material	incompatible interventions	unqualified labor
Name of the Ancient Site	Monument #1	X	-	-	X
	Monument #2	-	X	X	-
	Monument #3	X	-	X	-

Note: The chart starts, on the left, with the name of the site and number of the monuments, which is supposed to be re-restored. The detailed name of the monuments also should be recorded. The authenticity problems are written one by one to be used in the next step. The monument is matched with the authenticity problem and signed as X which means problem exists. One monument will be matched more than one problem.

The third step should consist of preparing a management plan before practicing on the monuments (Gulersoy and Ayranci, 2011). It should be unnecessary to mention that the management plan should be prepared case by case for each monument under defined general principles. There should be three main headings in the plan: first heading for urgent re-restorations, second heading for short-term re-restoration plans and the last heading for long-term re-restoration plans and maintenance. Collaboration between disciplines is important also in this step as the other steps.

The fourth step should consist of practicing the decisions taken for re-restoration. In this step, as an addition to headings counted above, there should be two more subheadings: the recent interventions that can be reversed and the recent interventions that cannot be reversed. Re-restoration implementations should start as they projected in the previous step with the recent interventions that can be reversed. In the case of recent interventions that cannot be reversed, the recommendation is, at least, presenting them to public. Thus, professionals and non-professionals can easily recognize the issue. In this case, the last step becomes even more important.

The fifth and the last step should consist of presenting recent and lately interventions on or in front of the heritage by movable boards, LCD screens, 3D visual tools, kiosks and any other solutions. Presentation and interpretation improves legibility of the heritage so visitors will be advocates for archaeological and architectural research and conservation instead of confused tourists (De la Torre and MacLean, 1997). The idea started with leaving reserved areas for future researches should be evaluated also for interventions on heritages.

4. Conclusion

Despite the fragile nature of excavated heritage, minimum intervention should be done to protect its authenticity and legibility for the next generations. The future of recent interventions should be discussed as well as ongoing process of preserving archaeological heritage. The

contemporary philosophy of conservation and restoration in archaeological sites and physico-chemical improvements of modern materials give a different point of view to stabilize the state of the cultural heritage with less deterioration even the excavations are known as the first destruction to an archaeological monument. In this paper, theoretical progress is summarized to give a background, the current situations of recent interventions are mentioned with samples and the necessity of re-restoration implementations is discussed. Then, a procedure for practicing re-restoration is specified according to five steps. This formulization intends to propose a guide for further interventions on archaeological sites.

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