From Conservation to Archaeological Sites

a survey of the conservator-restorer practice in safeguarding of Portuguese Luso-Roman archaeological ruins in 20th Century.

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Resumo

O fascínio pelos vestígios do passado manifestou-se, desde cedo, como uma caraterística intrínseca dos povos ocidentais, sendo nesta linha de pensamento que surge a Arqueologia, enquanto ciência, alicerçada na própria necessidade de estudo e preservação dos vestígios encontrados. Portugal não foi exceção, sendo que a par da própria consolidação e evolução da Arqueologia, enquanto área científica e profissional, foram emergindo as preocupações associadas à preservação, salvaguarda e musealização do património arqueológico, fruto das próprias campanhas arqueológicas. Foi neste contexto que surgiu paulatinamente a figura do conservador-restaurador, cuja evolução, aplicada aos bens arqueológicos, acompanhou o desenvolvimento desta área científica sobretudo no pós 25 de abril de 1974.

Palavras-chave

Sítios Arqueológicos | Luso-romano | Conservador-restaurador de Bens Arqueológicos

Abstract

The fascination with the past remains began already many centuries ago, and became an intrinsic characteristic of Western peoples, and it was under this framework that Archaeology arose as a science, based on the need for the study and preservation of the traces found. Portugal was no exception, and along with the consolidation and evolution of Archaeology as a scientific and professional area, concerns associated with the preservation, safeguarding, and museumization of archaeological heritage appeared because of the archaeological campaigns themselves. It was in this context that the figure of the conservator-restorer gradually emerged, whose evolution, applied to archaeological goods, accompanied the development of this scientific area, especially after April 25, 1974.

Keywords

Archaeological Sites | Luso-Roman | Conservator-Restorer of Archaeological heritage

1. Introduction

In Portugal, the need to preserve and safeguard archaeological heritage, specifically archaeological sites, has always been present in the practice of Archaeology. However, there is a "documentary void" regarding both the materials and techniques used, as well as the profile of the professionals who carried out the few identified interventions. This reality only began to dissipate from the early 1980s-90s of the 20th century[1].

Thus, the primary premise of this research focused on conducting a brief survey on the professional profiles and conservation actions practiced in Luso-Roman archaeological sites from 1950 to 2022 (the year of the study). Based on this main objective, three more specific objectives were determined: (1) characterization of different professional profiles associated with the practice of conservation and restoration of archaeological sites; (2) the type of professional training associated with their practice (and the locations where they were taught); (3) identification of the main techniques and materials used (as well as their evolution).

All the information is the result of a bibliographic review, as exhaustive as possible, strengthened by conducting interviews with relevant personalities for the research (such as Ana Ravara, Isabel Marques,

[1]This article summarizes where the main topics of our master dissertation presented at the School of Arts of Universidade Católica Portuguesa in January 2023 (Durana, 2022).

Vítor Hugo Torres, and Lino Tavares Dias).

2. The role of Conservator-Restorer in the intervention of archaeological sites between 1950 and 2022

As previously reinforced, one of the main motivations/difficulties in conducting this study was the lack of technical documentation (e.g., technical reports) and non-technical documentation on the first interventions of conservation and restoration of archaeological sites. However, it is the Luso-Roman context that has the most associated documentation, due to being one of the privileged contexts, from an early stage, by Portuguese archeologists.

Thus, prior to 1950, two of the earliest Luso-Roman examples of this reality stand out: the removal and relocation of the mosaics of Conímbriga by the Coimbra Institute, still in the late 19th century (Alarcão, 1999; Cardoso, 2000), and the lifting and placement of the so-called Apollo mosaic of Póvoa de Cós (Alcobaça), still in 1905. These two examples are a sample of the reality of the period prior to 1950, in which most of the immovable vestiges (mainly mosaics) were lifted and transported to the National Museum of Archaeology, in Lisbon (Beloto, 2005), therefore privileging *ex situ* over *in situ*. Exemplifying this reality we can quote the figurative mosaics of the archaeological ruins of Torre de Palma, which, in 1950, were removed and transported to the National Museum of Archaeology (with some specimens remaining in the Madalena Chapel in Monforte), while the geometrically decorated mosaics remained *in situ*, protected with a canvas and soil (Lancha & André, 1994, p. 170).

In a letter from Manuel Heleno addressed the President of the Institute of High Culture (Heleno, 1952)[2], two of the possible methods for extracting the mosaics from their original location (for subsequent workshop intervention) are also mentioned: (1) the roll method: removing the *tessellae* by wrapping a canvas, glued to them, around a cylinder; (2) by removing the mosaic in sections, and then trimming the *opus signinum*.

This reality was also extended to the remains of mural painting, often also removed to be exhibited or stored inside buildings. The methodologies surrounding the removal and conservation of Roman frescoes in Portugal are poorly documented in contrast to the musive pavements (probably the most privileged applied art by archaeologists at the time) (Durana, 2022).

However, *in situ* conservation and restoration interventions were also performed in Portugal, having as main objective the increase of the longevity of archaeological sites, which remains to the present. An example of an intervention prior to the 1950s is recorded in the *Boletim DGEMN n.º 52-53 – Oppidum Romano de Conímbriga* –, in which it is subdivided into 11 main stages (1948, pp. 30–32).

Based on this framework, in Portugal, it is possible to date or subdivide the conservation and restoration interventions applied to archaeological sites into three main historical periods (Cosentini, 2008): the first, between the 1950s and 1970s; the second, between the 1980s and 2000; and the third, from the beginning of the present century until 2022 (year of completion of this research).

This subdivision was based on the three previously identified professional profiles: archaeologists and scholars who performed restoration interventions (1950-1979); Conservation and Restoration Technicians (1980-1999); and Conservator-Restorers (2000-2022). Throughout the following chapters, it will be possible to observe how the evolution/emergence of these profiles has modified and enhanced the practice of conservation and restoration of Luso-Roman archaeological sites in Portugal (Durana, 2022).

[2] The letter was written in 1952 and was later published in "O Arqueólogo Português" in 1956, where it was consulted.

2.1 1950 to 1979: From absence to necessity

In the first phase, which we believe occurred between the 1950s and 1970s of the 20th century, conservation and restoration interventions applied to archaeological sites were typically under the responsibility of the archaeologists who coordinated the excavation and/or the architects who undertook their presentation to the public (Alarcão, 1999).

The absence of the Conservator-Restorer profile or a specialized professional in the conservation areas (Monteiro & Rodrigues, 2006), led to interventions oscillating between two types of actions: either pure abandonment (after the archaeological excavation) or romanticized reconstruction (performed with little theoretical foundation) (Alarcão, 1999; Monteiro & Rodrigues, 2006). On the other hand, the interventions carried out were almost always executed to solve visible urgent problems, without any prior planning or long-term application (Cosentini, 2008, p. 12).

Similar to what was happening in Archaeology itself (Bugalhão, 2017), the absence of systematic written and photographic records was a constant (Cosentini, 2008), since there was no obligation or requirement on the part of the authorities. From the 1950s onwards, they began to be gradually recommended at an international level (Alarcão, 1999).

One of the greatest milestones of this period occurred in the early 1960s with the inauguration of the *Museu Monográfico de Conímbriga* and subsequently, the creation of the *Oficina de Restauro de Conímbriga* in 1962, which became the first center for conservation and restoration of archaeological assets under the responsibility of its two directors, João Manuel Bairrão Oleiro and Adília Alarcão (Remígio, 2016, p. 9). The *Oficina de Restauro de Conímbriga* played a decisive role in the application of new methods and techniques used in the conservation of both Conímbriga and other Luso-Roman archaeological sites in the country, as its technicians were recruited for consulting and intervention in other locations (Abraços, 2005; Alarcão, 1999).

During the 1960s, conservation and restoration interventions continued to be characterized by a lack of specialized labor, the use of local materials (such as elements from the dismantling of other nearby archaeological structures), supervision by an architect or archaeologist responsible for the monument, widespread capping, and a practice of installing coverings (Monteiro & Rodrigues, 2006). Most of these actions were merely conservative and protective, although reconstructions were also common, both those based on archaeological evidence and those that were "romanticized" (without great scientific bases) (Raposo, 2003), as previously mentioned.

In terms of materials, Portland cement mortar was the most characteristic and widely used during this period, for consolidation, settlement, and reconstruction operations of the structures. At the time, it was considered the most cohesive mortar on the market, which fostered the perspective of greater durability and resistance. However, today, factors such as high hardness, the presence of soluble salts, and the creation of internal and external tensions in the original materials have led to question the compatibility of cementitious mortars with stone (Abraços, 2005).

The use of reinforced cement to resettle mosaics was widely employed until the mid-1970s[3] (Hauschild, 2008, pp. 18–19). Later, it was replaced by the use of synthetic resins, specifically of the epoxy type, without the need for rigid structures (Beloto, 1994). The first mosaic to be transferred and reset onto a lightweight support was the Oceano de Faro mosaic in 1976. Subsequently, this methodology was also applied to several other mosaics, such as the ones of Paço das Escolas (in Coimbra), Meia-Praia dos Lagos, Coriscada (in Meda), two of the mosaics of Paço dos Vasconcelos (in Santiago da Guarda), and Abicada (in the municipality of Portimão), among others (Sales, n.d.-a, p. 2).

This paradigm underwent some changes with the publication of the Venice Charter (in 1964), where conservation policies carried out until then were questioned, encouraging a new, more conservative, responsible, and materially compatible approach with the original, in favor of restoration interventions.

In 1972, Jorge Alarcão prepared a report for the Ministry of National Education[4], in which he asked for

[3] Some examples of the application of this technique were in Torre de Palma (since 1948), Conímbriga (since 1951), *Villa Cardílio* (since 1964), among others (Sales, n.d.-a, p. 1).

[4] Opinion of Jorge Alarcão for the National Ministry of Education (National Education Board) on June 26, 1972. Available for consultation at the Archive of the Monographic Museum of Conímbriga.

the creation of a team of conservation specialists to study and solve conservation problems associated with mosaics and wall paintings present in Conímbriga, as well as in other Luso-Roman archaeological stations with similar problems, such as the frescoes of Troia de Setúbal, mosaics of Villa Cardílio in Torres Novas, and Herdade de Pisões in Beja. This archaeologist also recommended that the team should integrate a conservation specialist to survey and restore the frescos, a specialist in stone conservation, an architect in charge of a preliminary project for covering, the Director of the Monographic Museum of Conímbriga, and other specialists chosen by the Minister.

After the report, a paradigm shift was observed in the conservation of archaeological sites, both by demonstrating the need for "a conservation specialist" and by insisting on the use of photographic and graphic recording in conservation and restoration operations. However, *ex situ* preservation continues to be privileged in some cases in favor of *in situ*. All these issues were reaffirmed and questioned throughout the 1980s and into the 2000s, as discussed below.

2.2 1980 to 1999: From awareness to technical training

Starting from the 1980s, a new scenario in the conservation of archaeological ruins emerges, marked by the inclusion of a specialized conservation and restoration technician in the interventions themselves (Matos, 2008). This became possible due to the creation of the first technical and higher education courses in conservation and restoration, with a specialization in archaeological assets, including courses taught at the following institutions: *Instituto José de Figueiredo* (1981), *Museu Monográfico de Conímbriga*[5] (1982), *Escola Superior de Tecnologia de Tomar* (1989), and *Escola Superior de Conservação e Restauro de Lisboa* (1989) (Figueira, 2015, pp. 42–43; Remígio, 2010, p. 44).

Curiously, one of the first internships (or practical activities) carried out during the first technical course in Conservation and Restoration promoted by the *Museu Monográfico de Conímbriga* was the removal of the Torre de Palma mosaics reassembled with cement in the 1950s inside the National Museum of Archaeology (in the Jerónimos Monastery), as previously referenced. This operation was carried out in 1982, under the guidance of Carlos Beloto.

In 1980, the *Decreto-Lei* 245/80 of July 22nd was published. This document introduced the structure of careers associated with conservation and restoration, integrated into public offices within IPPC (Instituto Português do Património Cultural), allowing for the consolidation of the title "conservation and restoration technician" in favor of "restorer". Seven areas of specialization in the professional training of a conservation and restoration technician were also determined: Tiles, Faience, Porcelain and Vitral; Sculpture; Mural Painting; Graphic Documents; Textiles; Painting; and Archaeological and Ethnographic Goods (Article 10) (Remigio, 2016, p. 11).

In 1990, the International Charter for the Protection and Management of the Archaeological Heritage (Charter of Lausanne) was published by ICOMOS, and as a consequence, new intervention methodologies with criteria based on the study, compatibility, and reversibility of materials used in sites arose, valuing the written and photographic records of interventions, which became mandatory (Correia, 1991; Cosentini, 2008).

This new attitude towards archaeological sites is summarized in the publication "Conservation of Archaeological Sites" by Virgílio Hipólito Correia (1991), in which the author subdivides the conservation of archaeological sites in two phases: the first associated with the documentation of the state of conservation, and the second associated with the techniques that may be executed. He identifies and characterizes five stages or methods of intervention that may be carried out: rebuilding of the site; consolidation of the structures; coverings; restoration, reconstructions and musealization of the sites; and maintenance.

Throughout the same publication, it is possible to verify a global perspective on the values and intervention criteria for an archaeological site, and this same approach will be maintained and deepened until the end of the 20th century. The values argued by the author were strengthened a year later in the Malta Convention

[5] The museum launches the first two specialized technical courses in Conservation and Restoration of Archaeological and Ethnographic Objects. The first course took place between 1981 and 1983, and the second between 1987 and 1989 (Remígio, 2016, p. 12; Sales, n.d.-b).

(1992) for the Protection of the Archaeological Heritage, approved in Portugal by the Resolution of the Assembly of the Republic No. 71/97.

In 1995, the first association of conservators-restorers in Portugal was created – the *Associação Profissional de Conservadores-Restauradores de Portugal (ARP)* – which operates until today (Remígio, 2010, p. 44).

2.3 2000 to 2022: From higher education to new technologies

Starting in the 2000s, the role of the Conservator-Restorer, as a higher-education level technician (Remígio, 2010, p. 43), became increasingly present in interventions targeted to the valorization and safeguarding of archaeological sites. The *Instituto Politécnico de Tomar* (IPT) (1989), the *Universidade Nova de Lisboa* (UNL) (1999), and the *Universidade Católica Portuguesa* (UCP) (2002) played a significant role in higher education in conservation and restoration, introducing training in several conservation -restoration areas, both traditional and emerging, with a focus on the conservation of archaeological assets, especially at UCP and IPT. In addition to these three institutions, it must be highlighted other trainings that have been discontinued in recent years at the *Universidade Portucalense Infante D. Henrique* (2006), the *Escola Superior de Artes Decorativas da Fundação Ricardo Espírito Santo Silva* (2009), and the *Universidade de Coimbra* (Remígio, 2016, pp. 15–16).

In the year 2000, the Krakow Charter was published, outlining the principles for the conservation and restoration of built heritage. This charter reformed and updated the principles mentioned in the Venice Charter (1964), highlighting Article 5.

A year later, in 2001, Decree-Law no. 55/2001 (of February 15th) was published, defining the professional careers related to museology, conservation and restoration of human resources in museums, palaces, monuments, and sites, as well as services and branches of central administration in museology and conservation and restoration of cultural heritage under the tutelage of the Ministry of Culture. Another legislative advance in Portugal occurred in 2009 with the publication of Decree-Law no. 140/2009 (of June 15th). This decree not only defined the mandatory preparation of "preliminary reports" before a conservation and restoration intervention but also stipulated that the management of the work or interventions applied to any type of classified cultural heritage would be the responsibility of a qualified technician with five years of higher education in conservation and restoration, encouraging the pursuit of higher education to practice the profession.

Currently, and following the Bologna Declaration (in 1999), five years of education generally correspond to a bachelor's and master's degree in the field of conservation and restoration, similar to what is advocated within the European level (Remígio, 2010, pp. 43–45).

Thus, the interventions become more methodical, taking into account their different stages of intervention, as mentioned below as an example (Machado et al., 2012) (in execution order): deforestation and cleaning (using nylon brushes, spatulas, and scoops); consolidation, fixation, and filling of gaps and joints (with a mortar compatible with the original support); disassembly and reassembly (only of damaged areas); restoration; and protection (e.g., leveling the ground, applying a geotextile mat, and placing a gravel layer). Currently, this is generally the most adopted methodology, following chronologically the stages mentioned above (Alves, 2017, 2020; Ferreira, 2021; Hipólito, 2019; Silva & Silva, 2008, pp. 94–105).

In 2021, the Resolution of the Portuguese Parliament No. 188/2021 (on June 18), was recommended to define the profile of the conservator-restorer, as it is the professional class that acts most directly with cultural heritage. In this recommendation, the importance of legally defining their title, qualifications, and competencies, as well as identifying their responsibilities (to be signed by the Portuguese State), was also emphasized.

On January 7, 2022, the inclusion of the conservator-restorer in the activity classification table was published in Order No. 23/2022. Despite the inclusion of new methodologies accompanied by new methods of surveying and analyzing materials (Machado, 2005; Machado et al., 2012), a new mentality that favors a more preventive and sustainable approach to cultural heritage is gradually emerging (Cadeco *et al.*, 2015; Gonçalves, 2008).

Thus, alongside curative conservation and restoration interventions, the concept of Preventive Conservation is associated, which, although recent (its scientific foundations were only defined in the 1990s with the systematization of a set of degradation agents (Michalski, 1990), is a methodology defined and applied mainly to movable assets or those inserted in buildings, where total or partial control of surrounding deterioration factors is possible, with the ABC method being the most commonly used (Perdersoli Jr. *et al.*, 2017).

Recently, some publications have confirmed the application of the concept to build and archaeological heritage in Italy (Merello et al., 2012; Osanna & Rinaldi, 2018; Veneranda *et al.*, 2017), England (Drury & McPherson, 2008; Pickles *et al.*, 2011; Williams *et al.*, 2016), and Spain (Dirección General de Bienes Culturales, 1997; Gutiérrez-Carrillo *et al.*, 2020; Herráez *et al.*, 2018; Sinde Vázquez, 2013), highlighting Carrera Ramírez (2006, 2014, 2018), and the Plan de Conservacíon Preventiva applied to the Altamira Cave (Guichen, 2014). In Portugal, only the European project STORM linked the study of the consequences of climate change with the conservation of the Troia Ruins (Revez *et al.*, 2016).

3. Conclusion

Conservation and restoration, in their various actions, have as their primary objective the preservation and safeguarding of any type of heritage for future generations. Criteria such as reversibility, compatibility, and "minimum intervention" were not always fundamental concepts in conservation and restoration, especially when associated with archaeological sites. The absence of intervention criteria or criteria based on durability and restoration was a reality between the 1950s and 1980s, a period when the profile of the conservator-restorer associated with archaeology was almost non-existent. The paradigm shift came with the strengthening of educational offerings in the field of conservation-restoration in Portugal, first in the 1980s with technical training, and secondly, at the turn of the century, with higher education training.

The inclusion of conservation and restoration in the academic environment allowed the introduction of written, photographic, and graphic records (e.g., mappings) of conservation and restoration interventions, as well as the integration of new aspects and methods, such as the use of analytical techniques and lab analysis, materials and techniques that are more compatible with the original and sustainable for the environment, and the implementation of monitoring and maintenance measures, although still infrequent and unsystematic.

This has strengthened and solidified the profile of the conservator-restorer at the national level, given the current challenges such as the impact of mass tourism, climate change, and successive reductions in funding available for the sector. The role of the conservator-restorer in the cultural heritage sector is increasingly in demand and reaffirmed.

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