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Bridging management, organisational and accounting history with the industrial heritage debate

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Abstract

Past organizational, managerial, and accounting practices can be preserved through archives, the production of documentary movies, and the publication of articles and books. However, the history of these practices can be also preserved and narrated *in situ*, when remains of the past business activity are preserved, that is in industrial heritage sites. The paper provides an analysis of the interplay between industrial heritage and management, organizational and accounting (MOA) history research at two levels. First, at the level of the academic conversation about industrial heritage, we show of MOA history contributions have been quite marginal, despite the common focus on the past of business activities. Second, moving to the level of industrial heritage sites, we provide evidence of different degrees and ways of integrating MOA history into the presentation of a site. We illustrate how “walls” in their economic-organizational meanings; machinery and production cycle; raw materials and final products; and the representation of workers are employed in the presentation of six industrial heritage sites regenerated for different uses, showing how their combination enriches the narration of organizational, managerial and accounting practices. This paper is a call for research into industrial heritage sites as representations of the intangible meanings, and, by doing so, it deepens the link between managerial and accounting knowledge and material culture.

Key words: industrial heritage; interdisciplinarity; management, organizational and accounting history; intangible heritage

1. Introduction

Cultural heritage provides a case for integrating the past, the present, and the future. In fact, for UNESCO (2023) “heritage is the cultural legacy which we receive from the past, which we live in the present and which we will pass on to future generations” (see also Europe for Culture, 2021). In the last 25 years, research in management, organisation, and accounting has contributed to raising awareness on aspects relating to the financial viability of cultural organizations (e.g. Zan, 2000a, 2000b; Ferri et al, 2023) performance measurement (e.g. Abdullah et al., 2018; Gstraunthaler and Piber, 2007), accountability (e.g. Carnegie and Wolnizer, 1996; Woon et al., 2019), and governance-related aspects (Bonini and Ferri, 2019; Imperiale et al. 2023), also highlighting the potential danger of uncritically extending private sector accounting practices to cultural organisations (Ellwood and Greenwood, 2016; Ferri et al., 2021; Hooper et al., 2005; West and Carnegie, 2010).

This research stream focuses primarily on understanding contemporary managerial challenges cultural organizations face to help them thrive in the future. However, there is a particular area within the heritage landscape where the impact of management, organization, and accounting studies—especially those employing a historical approach—could be even more significant: industrial heritage.

According to TICCIH (2003), industrial heritage “consists of the remains of industrial culture which are of historical, technological, social, architectural or scientific value. These remains consist of buildings and machinery, workshops, mills and factories, [...], as well as places used for social activities related to industry such as housing, religious worship or education.” Compared to other forms of heritage, the peculiarity of industrial heritage is its focus on past business activities, which is also central to management, organizational, and accounting (hereinafter MOA) history. Indeed, the “studies of surviving business records of firms” (Carnegie and Napier, 1996) constitute a long-standing research stream for these academic communities.

Surprisingly, however, the perspective of MOA historians remains marginal in the current debate about industrial heritage, which is developed mainly by archaeologists or architects; urban planner (e.g., Vukmirović and Nikolić, 2023); economic historians (e.g. Fontana, et al, 2016); sociologists (e.g. Toura, 2023) and tourism scholars (e.g. Swensen and Stenbro Xie, 2015). For instance, accounting historians'

interest in sites now recognized as industrial heritage is minimal and limited to a handful of cases – for example, the Royal Tobacco Factory of Seville (e.g., Carmona et al., 1996), the Venice Arsenal (e.g., Zan, 2004), the Royal Factory of Silk in San Leucio (Antonelli et al., 2017), the Lardarello geothermal site (Boyns and Cerbioni, 2019). Notably, while these studies analyze the 'past' of now-dismissed industrial or proto-industrial organizations through accounting practices (i.e., Carmona et al., 1996), they do not consider the impact of their findings in becoming part of the narration of the sites.

The central argument of this paper is that the contributions of MOA historians can extend beyond understanding the site's past. They can also play a pivotal role in determining what should be preserved in the present and for the future, as well as in shaping how it is narrated to an audience. By participating in the special issue on how accounting contributes to society's past, present, and future, industrial heritage offers a case of continuous transformation from the past into the present, with the goal of preserving it for the future.

To raise awareness about industrial heritage among the MOA historian communities, this paper examines whether and how MOA history is preserved and represented in practices of regeneration of industrial heritage sites. We investigate six illustrative cases of former industrial sites repurposed for various uses.

A note on the scope of histories we are covering is necessary to introduce the study to an accounting history readership. Indeed, focusing on the representation of accounting history in industrial heritage sites would not have taken us very far. As claimed, even when studying entities that can now be considered as industrial heritage (i.e. Carmona et al., 1996; Zan, 2004) accounting historians have rarely engaged with the process of heritization itself. Additionally, accounting history studies focusing on architecture (see McKinstry, 2020 for a review) have considered other structures with a different research focus, examining, for instance, the status-building role of headquarters of professional bodies (McKinstry, 1997, 2000, 2008); the influence of standard pricing in the creation of the Georgian house (Jeacle, 2003); and the usefulness of accounting records to understand the architectural transformation of a sixteenth-century castle (Mussari and Mussari, 2006).

Furthermore, when dealing with an intrinsically multidisciplinary field like heritage – which involves disciplinary areas that are far from 'ours' – we should define and present our research community in a way that is meaningful to others. In our experience, it is questionable that average architecture scholars will clearly distinguish between economics, management, and accounting, not to mention subdisciplinary differences, such as between traditional and new accounting history, or critical and mainstream management traditions; these labels will sound completely esoteric to them. At least we shall try to minimize the effect of (over)fragmentation of business-related studies (management, accounting, marketing, organization) and take a more holistic point of view. This is why, in this paper, we will refer to MOA history in a very comprehensive way to establish a relationship with heritage studies.

This approach aligns with the call for a more holistic collaboration between scholars inside "commerce history" by Carnegie (2022) and Carnegie and Mc Bride (2023), as we share the call for collaboration and cross-fertilization between various streams of the field (business, accounting, management and organizational, economic history). However, our position in this paper is somewhat different, and commenting on some of these differences will help position the paper.

First, the definition of disciplinary boundaries itself is the result of a historical process, wherein European traditions tended to define their research focus in broader terms before the process of Americanization of business studies (Engwall, 1998). Coming from the tradition of *Economia Aziendale* (for a reconstruction, see Zan 1994; Zambon, 1996; Maran and Leoni, 2018), we also tend to approach history in a broader holistic view. Indeed, it sounds strange to us to talk about 'interdisciplinary' concerning business, accounting, or management as disciplines rather than as subfields within the overarching approach (Zappa, 1927). This also applies to their historical versions (business history, accounting history, management history).

Second, more than clear-cut issues of contents, approaches, or even epistemologies, the reference to separated areas of research seems to us more an issue of sociology of academia than anything else. For instance, see the already established debate around "management and organizational history" (Booth and Rowlinson, 2006), or the most complicated search for theoretical links with streams of management

research by business historians (Kipping and Üsdiken, 2007), or the peculiar juxtaposition between business *historians* and management *theorists* (O'Sullivan and Graham, 2010, p. 776: for a critique, see Zan, 2016). On the other hand, especially for papers that are broader in contents, individual scholars could opt for publishing in a variety of journals in or close to the MOA history field (e.g., Zan, 2016; Zambon Zan, 2007; Leoni, 2017; Maran and Leoni 2019), or even in more generalist journals (e.g. Zan, 1994, 2004). And we see many others doing research that are relevant to us or in tune with what we would like to do (take Forsellini, 1927, and the telling title of his paper almost a century ago: "The economic organization of the Venice Arsenal").

Third, and most importantly, even without these elements of distinction, the main difference in this paper is that, while Carnegie (2022) and Carnegie and McBride (2023) focuses on investigating differences and relations "inward," examining different streams inside "commerce history," we tend to look "outward," attempting to establish a dialogue with distant disciplinary traditions that focus on industrial heritage as an object of study. Finally, interdisciplinary also means that this paper aims to be readable and understandable by experts from various disciplines, serving as a tool to open up a dialogue. The aim is bridging two communities of scholars that had little interaction so far.

We articulate this agenda in the following steps. We start by providing a definition of industrial heritage as treated in the literature. Next, we present a framework of analysis that will guide the selection of cases and their interpretation. After the methodological section describing the sources used in our empirical investigation, in Section 4, we analyze a selection of six industrial heritage sites with a particular focus on the relationship between the history of past production organizations and the representation of history in the context of the reuse of what is now industrial heritage. Section 5 discusses major issues in terms of differences between the different examples, while some concluding remarks address possible implications for future research and practice.

2. Defining industrial heritage

At the end of the life cycle of businesses, industrial spaces typically face abandonment, and machinery and equipment that are no longer requisite are either sold, dismantled, or transferred. Additionally, the skills and expertise previously ingrained in the workforce are dispersed. Reflecting on the current and future trajectory of a former industrial space represents an anomaly rather than the norm. In such instances, the attribution of heritage significance aligns with the cessation of their original functionality or purpose (indeed, the concept of reuse is pivotal in the realm of industrial heritage). Put differently, what we now identify as industrial heritage was not originally designated as such. In contrast to artworks such as paintings or statues, former industrial sites undergo a transformation into heritage entities. Industrial heritage sites undergo a process of 're-semanticization' (Balzani, 2007): transitioning from production hubs, economic entities evolve into something different. In principle, the process of 're-semanticization' or 'heritization' of industrial sites concerns two dimensions: the tangible or material heritage and intangible heritage.¹ The material component includes immovable elements (i.e., walls), and movable objects (i.e., machinery, materials, documents). Intangible heritage, in turn, includes "technical know-how, the organization of work and workers, and the complex social and cultural legacy that shaped the life of communities and brought major organizational changes to entire societies and the world in general" (ICOMOS - TICCIH, 2011).

Industrial heritage is a relatively recent addition to the realm of heritage professionals. Indeed, this new form of heritage received scant attention for a considerable period. In the mid-1950s, a body of literature emerged around "industrial archaeology," a field dedicated to the study of industrial artifacts

¹ The current meaning of the term 'intangible' in accounting theory bears no resemblance to the meaning of the same term within cultural heritage studies. In this paper, when referring to intangible heritage, we adhere to UNESCO's (2003) definition, namely: "[intangible heritage] also includes traditions or living expressions inherited from our ancestors and passed on to our descendants, such as oral traditions, performing arts, social practices, rituals, festive events, knowledge and practices concerning nature and the universe or the knowledge and skills to produce traditional crafts." The notion of intangible heritage is often discussed as a complement – or in opposition – to the more traditional 'tangible' heritage, which refers to physical remains and artefacts.

such as machinery, buildings, technologies, and infrastructure. The awareness of the potential cultural value of industrial archaeology gained momentum, particularly following the controversies surrounding the demolition of Euston station in London in the mid-1960s. While the term "industrial archaeology" continues to be prevalent in the United Kingdom and the United States, the field is now more commonly known as Industrial Heritage studies, reflecting its broader scope beyond traditional archaeology (Martin, 2012). Lately, researchers, policy-makers, urban planners, and other cultural professionals, along with international organizations, become aware of the potential value heritage of the industrial period, particularly in periods of deindustrialization (Tiesdell et al., 1996; Dewulf et al., 2013; Presenza & Perfetto, 2015).

The majority of presentations at conferences on industrial heritage are typically led by architects who delve into matters of preservation and conservation concerning tangible relics of the past (e.g. Currà et al, 2017; Cenci, 2018; Asadi and Abedini, 2023). They explore the nuances of architectural interventions necessary to repurpose existing spaces for new functions. This emphasis is warranted due to the challenge of finding alternative uses for vacated industrial buildings, which may evolve from production sites into apartments, tourist attractions, spaces for commercial activities, or public services. The preservation of material heritage is intricately linked to the urban development of areas, a theme often addressed by urban planners (e.g., Oevermann and Mieg, 2015, 2021; Caignet, 2022; Vukmirović and Nikolić, 2023).

The preservation of industrial heritage has also been examined in the context of the social and economic transformations of territories. Sociologists explore the social repercussions of the closure of industrial sites and the role of local communities in conceiving reuse projects (e.g., Dicks, 2008; Cizler, 2012; Toura, 2023). From the latter half of the 1990s, scholars in tourism also turned their attention to industrial heritage tourism (e.g., Kerstetter et al., 1998; Mansfeld, 1992; Prentice et al., 1998; Xie, 2006), investigating the diverse reuses that can rejuvenate former industrial sites (e.g., Jonsen-Verbeke, 1999) and the impact of industrial heritage tourism on local development (e.g., Cohen, 2001; Perfetto & Presenza, 2017; Swensen & Stenbro Xie, 2015).

Economic and business historians have also entered this debate. Economic historians scrutinize the historical significance of industrial artifacts in the development of areas, examining the evolution of industries before the industrial revolutions (e.g., Çizakça, 1980; Fontana et al., 2016). They explore the role of industrial revolutions in the economic development of industries or territories (Koistinen, 2000; Freer, 2001), sometimes concentrating on specific industrial sites (e.g., Celetti, 2005; Fontana and Riello, 2005). While this line of research primarily focuses on the 'past', its impact extends to advocacy on the topic. On the other hand, business historians have actively contributed to the establishment of the professional community of industrial heritage. A noteworthy example is AIPAI, the Italian association of industrial heritage, which features numerous contributions to research (e.g., Del Prete, 2013; Felice and Lepore, 2017).²

Looking at the plurality of not connected views on industrial heritage (architects, urban planners, tourist scholars, economic and business historians) what can be underlined is their distinct temporal focus. While economist and business historians tend to focus on the 'past' of industrial heritage sites, sociologists and tourism scholars are mainly concerned with their 'present', in terms of impacts on a local community or territory. Architects and urban planners are perhaps the only professional community trying to connect past, present and future, as they are often involved both in studying the old structures, their preservation,

² Business historians have also played an active role in the realm of corporate museums (e.g., Nissley & Casey, 2002; Stigliani & Ravasi, 2007). However, the phenomenon of corporate museums differs from the field of industrial heritage. Specifically, a corporate museum exhibits the history of a still-functioning business, whereas an industrial heritage site delves into the history of a company that no longer exists. This distinction has implications for the narratives that can be presented. In a corporate museum, the top management is responsible for deciding what to showcase and what to omit, manipulating history for marketing, legitimization, or the construction of organizational identity. Conversely, the process of heritization for businesses that no longer exist involves a different approach, addressing the significance of that specific historical experience at a broader level, devoid of any instrumental purpose. In other words, within regeneration projects for industrial heritage sites, there is typically less room for hagiographic uses of history.

while adapting them for new uses. In any case, what can be pointed out again is the marginal involvement of MOA history scholars in this debate.

3. Integrating MOA history in industrial heritage

When contemplating research perspectives converging in industrial heritage studies, a crucial aspect demands specific attention: the distinct levels of abstraction and generalization that characterize Management, Organization, and Administration (MOA) history studies, as opposed to architecture or urban planning. MOA studies typically operate at a substantial level of abstraction; concepts like ‘ongoing concern’ or ‘economic (or administrative) coordination’ may not be immediately intuitive and easy to relate to one's daily life experiences. Even more specific notions, such as production factors and raw materials, are often treated in highly abstract terms, emphasizing their conceptual meanings.

It is noteworthy that management and accounting textbooks, papers, and presentations in MOA studies tend to be text-intensive, seldom incorporating photos or references to tangible representations of concepts. In contrast, when collaborating with architects, one quickly discerns a distinct approach to ‘theorizing’, where the narrative is conveyed to the reader through images and models.

When the two approaches converge on a common object, such as industrial heritage, the risk of false integration may emerge. Often, MOA historians present their research results in the form of textual descriptions, sometime accompanied by photos of archival documents. On the other hand, architects engaged in industrial heritage are captivated by their own analytical dimensions, usually guided by the conservation of walls and buildings, making their presentations and discussions more image-intensive. As an illustration, in Figure 1, we showcase previews of two PowerPoint presentations concerning the same industrial heritage site. The presentation on the left was crafted by an architect, while the one on the right was done by a MOA history scholar. Well before delving into content-related issues, what is striking are the differences in terms of visual and textual components between the two presentations. Inside interdisciplinary collaborations, in particular within process of heritization and the representation of history, this difference needs to be acknowledged and handled with care.

[Figure 1 about here]

In search of possible paths of interaction with the broader community of heritage scholars, according to Zan (2022) MOA historians (or MOA scholars doing historical research) can contribute to industrial heritage at three different levels (Fig. 2), namely in the:

- a) *Research on past activities in historical uses.* As they implicitly do already, MOA historians/scholars can study and disseminate the original significance of the site in its historical uses, focusing in particular on the managerial, organizational, and accounting issues of the entity's original production processes.
- b) *Narration of past history inside the context of new re-uses.* MOA historians/scholars can be involved in the process of preserving the original significance of the industrial heritage site within regeneration projects, and assist in ways of narrating that history.
- c) *Management of new re-uses entities.* Lastly, knowledge developed by organizational, management or accounting scholars, even without a focus on history, is crucial in running the current operations of the newly established heritage site.

[Figure 2 about here]

Issues a) and c) are to some extent already present in the literature, though separately and not always with a focus on industrial heritage. The paper by Boyns and Cerbioni (2019) is a good example of historical (accounting) research on the organization managing a site which is now recognized as industrial heritage (i.e., Lardarello geothermic site). More in general, there is a stream of research looking at the history of management or accounting practices among arts or heritage-related organizations (e.g. Antonelli et al. 2007; Balucchi et al. 2021; Ciambotti et al., 2023). Moving to level c) of the framework, insights on the managerial challenges relating to new uses could be drawn from the broader literature on arts

management or accounting for the arts (e.g. Carnegie and Wolnizer, 1996; Coblence et al. 2014; Ferri et al., 2023).

On the other hand, at present the potential of issue b) remains unexplored. The issue is to understand whether, to what extent, and in which ways the MOA history can be narrated, or what can be said about the *ongoing* practices (at that time) of what is now industrial heritage, in the context of new re-uses.

The framework of Fig.2 itself is a way of linking the past, the present and the future: while others provide a more general approach to the issue (e.g., McBride and Verma, 2021), here the focus is on structures originating in the past that are instilled with new values in the present to ensure their preservation into the future.

4. Methodological notes

To investigate the representation of MOA history in industrial heritage sites, we present a selection of six former industrial or proto-industrial structures. These cases are chosen for their illustrative value rather than being deemed representative. They exemplify distinct combinations of the two dimensions outlined in the preceding paragraph, namely a) research on past activities and b) narration of the past history within the reuse concept.

The first combination pertains to sites where research in MOA history has been undertaken, yet its representation is either absent or exceedingly marginal. The selected examples are the Royal Tobacco Factory of Seville, currently housing the Rectorate of the University of Seville, and the Venice Arsenal, repurposed for different uses but not accessible to the public.

A second group of sites involves situations where the representation of MOA history is present, though it certainly does not constitute the primary *raison d'être* of the place (indeed, it could be quite marginal). While industrial heritage buildings are repurposed in various ways (housing, cultural centres, public services), for the sake of consistency, we examine three former production sites recently transformed into university campuses. These are the former San Giobbe slaughterhouse in Venice, now home to the Venice School of Management; the *Cotonificio Veneziano* (Cotton mill) in Venice, now hosting the University of Architecture (IUAV); and lastly, the Santa Marta provision centre in Verona, currently housing the teaching and research facilities of the University of Verona.

The final combination concerns the museification of a former production site. In this scenario, unlike the previous combinations, the current use is closely tied to the historical understanding of the site as a place of production. As an illustrative example, we have chosen the Tuna Florio Plant in Favignana, Sicily.

For each chosen site, we gathered pertinent literature addressing the site's history as a production location. Instead of undertaking archival research on the former entity, we relied on existing secondary sources. This choice aligns with the scope of the paper: we are not examining the past of these organizations directly, but rather investigating how their past has been studied and how it is represented in the process of heritization. During the analysis of the bibliographical material, our focus extended to the content, with particular attention given to the author(s) – distinguishing between accounting historians, business historians, and others; the publication venue – whether it be an academic journal or an edited book within the project framework; and the publication date – indicating whether it predates or postdates the reuse project.

Next, the authors visited the sites, located in Italy. During these visits, comprehensive notes were taken, capturing the experience of the visit, including observations on the displayed items, their arrangement, location, and any accompanying textual explanations. Furthermore, photographs and videos were captured to facilitate subsequent analysis. On occasion, additional materials such as brochures and fliers were collected during the visits. There is an exception to note: the Royal Tobacco Factory in Seville was not visited in person.

The documentary material and observations were supplemented by interviews in three instances: Venice Arsenal, Royal Tobacco Factory, and Tuna Florio plant sites. In the case of the Venice Arsenal, interviews were conducted to gain a deeper understanding of the absence of MOA history representation

in the current use of the site. Interviews involved one of the authors of the most pertinent MOA history work on the site and a former responsible of the Arsenal for over two decades within the Venice heritage office (Soprintendenza). Interviews at the Royal Tobacco Factory served the same purpose and, crucially, to compensate for the lack of an on-site visit. Two authors of MOA history papers on the Royal Tobacco Factory provided relevant information on the recent history of the site, including pictures and references to newspaper articles.³ Additionally, interviews were conducted with key figures involved in the development of the Tuna Florio plant as a museum site. In this case, the interviews aimed to enhance understanding of the process translating MOA history research into a museum concept. For this purpose, we interviewed the economic historian who conducted the research and the architect who coordinated the development of the museum concept and layout.

The following section presents the results of the analysis. It begins by offering information about the former function as a production site, the current use, and the events that happened in between. Subsequently, it includes details about available MOA history research and describes what can or cannot be observed on site, based on our visit experience and the visual materials collected.

5. MOA history in the transformation of industrial heritage sites: a few examples

5.1 Industrial heritage sites with no narratives on the past activities

Two well-known studies in accounting history – the Royal Tobacco factory and the Venice Arsenal – offer a good starting point for discussing examples where a rich understanding of history from a MOA perspective is accompanied by little or no narration of that history. Additionally, these two examples underscore the existing gap between accounting historians and the heritage experts' community.

The Royal Tobacco Factory

There is a long-standing tradition of research about the Royal Tobacco Factory in Seville (RTF hereinafter) from various perspectives, as evidenced by a Google scholar search yielding 436 results. Without attempting to summarize the extensive literature, it is noteworthy that numerous papers have been published on the accounting history of this entity over a prolonged period (e.g., Carmona et al., 1997, 1998; Alvarez et al., 2002). This body of research has the potential to reconstruct the stratigraphy of the site over time, offering diverse perspectives. For example, Carmona et al. (1998) used a sociological framework to analyze changes in accounting practices around 1760, while Carmona et al. (1997) focused on a Foucauldian analysis of the relationship between accounting practices and spatial practices. Carmona and Macias (2001) employed an institutional perspective to understand the implementation of the cost accounting system in a later period.

Zooming out, a few data points can provide an idea of the main transformations of the factory itself, marked by the decline in tobacco production activity. Built between 1737 and 1758, the factory initially produced snuff tobacco and later shifted to cigars and cigarettes (a more manual form of transformation). Over time, production at the RTF declined and eventually moved to other plants. In the search for reuses, part of the building was allocated to the army from 1880 to 1950. Subsequently, the University was gradually installed there, while a small tobacco production continued until 1962 when it was transferred to another factory. Interestingly, the history of the late stage of production, abandonment, and transformation of the site can be found in the debate between architects and urban planners (for a reconstruction, see Tejido Jiménez, 2017; Universidad de Seville).

The conversion of the site into a university required significant alterations to the building, carried out before the approval of a national law on conservation (published in 1959 but active only from 1959). Unfortunately, as stated on the University of Seville website, "the demolitions went far beyond what would have been permissible today under the *Carta del Restauro*."

The question arises about how much of the previous historical uses of the factory are narrated in the current context under new uses (as a university). The answer is almost nothing: just one piece of machinery (Fig.3), no plants, and no map of the industrial production site. Several explanations could

³ We thank Marta Macias and Salvador Carmona for their active help.

account for this: the likely poor mechanization of the factory itself (mostly involving manual production of cigarettes and cigars), the extended period of intermediate post-historical uses by the army (since 1880!), and probably the lack of a cultural preservation mindset in Spain at that time, particularly regarding industrial heritage.

Regardless, even though the representation of the production history is generally absent, the impact of accounting historians in this regard is even less evident. There is no trace of the significant stream of research developed in the last 30 years. For illustrative purposes, Box 1 displays the description of the Royal Tobacco Factory of Seville as published on the city's tourism office website, highlighting the terms used to describe the site from an architectural point of view and those used to describe it as a production site. As shown, architectural terms outnumber the terminology used to discuss the site as a factory. One could argue that concepts like "production cost" or the Foucauldian concept of "discipline" may be challenging for a general audience to understand. However, we contend that the same concern applies to terms like "tympanum" or "Baroque style." From our perspective, the strong architectural focus of the text indicates the varying degree of involvement of distinct scholarly points of view in shaping the presentation of sites that could be preserved to provide evidence of the managerial and accounting practices enacted within their premises.

In short, much has been achieved in terms of "a" in the framework of Figure 1, but almost nothing is reflected in the ways the history of the site is represented (no "b" in our framework).

Fig. 3 Royal Tobacco Factory

Insert box 1 here

The Venice Arsenal

The Venice Arsenal has been the subject of historical studies for a long time (e.g., Lane, 1934; Davis, 1991) and is understandably well-explored by architectural historians, given its significance as a vast architectural complex (Bellavitis, 1980; Concina, 1984).

In this case as well, accounting historians have contributed to several publications (Zan, 2004; Zambon and Zan, 2007), although some are not yet available in English (Zan, Rossi e Zambon, 2006), describing the establishment of a discourse on management (*discorso del maneggio*) and costing well before what is normally assumed, around the turn of the XVI century. Although the case itself provides a substantial opportunity for a long-term longitudinal history over the 850 years of production activity, so far, accounting scholars have analyzed a specific period, at the turn of the 16th and 17th centuries, rather than a stratigraphy over time, which still awaits investigation (Fig. 4). More recently, a collaboration with architects and urban planners has emerged (Zan, 2022), prompting accounting and management scholars to investigate reuse projects, their nature – particularly in relation to the narrative of the previous MOA history – and their evolution.

The current situation of the site is particularly complicated, serving as a good example of worst practice. In simple terms, two main reuse projects have emerged over time. An elaborate project for a Museum of the Arsenal was developed (The National Museum of Naval History: ISMM, 2007), with 19,000 square meters devoted to the history of naval construction, mostly from an engineering/architectural perspective. Interestingly for our discussion, no insight on the '*discorso del maneggio*' could be found there, nor other narratives on MOA history elements for the later period. In turn, the Master Plan of the Arsenal (2014) totally ignored the Navy's project and presented no solution at all for supporting the interpretation of the site for a potential visitor. All in all, nothing happened: not only were neither of the two projects executed, but the Arsenal is still inaccessible to the citizens (with a serious controversy on the role of the Municipality, the Biennale, and the Navy: Mancuso et al., 2022a, 2002b).

In short, in terms of our framework, a lot of interesting work has been produced by MOA scholars on "a" (still deserving research for more recent periods); discussions (though conflicting) were implicitly present in one of the projects about "b", ways of representing the past history of the site. Nothing in terms of 'getting things done', but at least, MOA scholars were able to join the community of heritage people and become part of a critical movement within civil society for more access to citizens (Mancuso et al., 2023).

Fig 4. Venice Arsenal

5.2 Industrial heritage sites presenting a (difficult) dialogue between past and new activities

In this section, three examples are provided that show some degree of interaction between the new reuses and the representation of the site's past history. The fact that the reuse is essentially the same (the three sites have recently been transformed into university campuses) offers interesting insights into possible variations on the theme.

The Cotonificio Veneziano

The Cotonificio – cotton spinning mill – was once an important production plant in Venice (Fig. 5). Built in 1883 near the Maritime Station, the Cotonificio Veneziano was operational for 90 years until its closure in 1972. Left abandoned for over a decade, it underwent restoration in 1985 through a project led by Gino Valle and Paolo Macola, which was completed in 1996. The site now houses the Architecture University in Venice (IUAV).

The restoration can be described as closely aligned with rigorous conservation principles. Only the slabs of some buildings had to be rebuilt to comply with current anti-earthquake regulations. According to Giorgio Malara, one of the architects involved, "it is the building itself with its history more than the architect that speaks, in this case." Some critics at the time found the intervention "too basic" and "not refined enough" strictly from an architectural standpoint. The Cotonificio was entirely vacant when the project began, devoid of machinery, plants, or any remnants of its past production. There were no artifacts to trace the history of its industrial activities.

However, the current industrial heritage site of Cotonificio Veneziano does not incorporate any references to its past use, except for its name. There is a complete absence of traces related to the company's economic history and, naturally, no reference to MOA history. Even in terms of the mere evolution of "walls," there is no effort to narrate the history of the spaces. In a somewhat decontextualized manner, students and teachers have no insight into the history of the building they now occupy or the activities that once took place there. Interestingly, despite being a location for the Architecture University in Venice, this site does not exemplify best practices in the conservation of industrial heritage.⁴

In this context, it is interesting to note that before the readaptation project, the University did not feel the need to commission ad hoc research from economic/business or MOA historians. The bibliographical references provided by the open call were general works on industrial history in Venice, not specifically focused on the Cotonificio (Bolzani and Paolini, 1988, p. 24). The history of the Cotonificio Cantoni is more focused on the multi-unit company itself than on individual factories. For example, Romano (1975, p. 472 and 488) dedicates only a couple of footnotes to the Cotonificio Veneziano that Cantoni controlled until his death.

More systematic research on the Cotonificio Veneziano from a social history perspective was carried out a few years later (Sega and Filippini, 2008), almost ten years after the architectural intervention. This research provided interesting information about the general evolution of the company, with a focus on labor relations. As one of the many Limited Liability companies funded by Eugenio Cantoni, it involved around 1,000 workers (700 women) and was integrated with other plants (Filatura of Pordenone, Cespi in Verona, and later Cotonificio Amman of Pordenone), becoming one of the largest cotton producers in the country up to World War II. Changes in the ownership structure followed, and from 1948, it was controlled by Snia Viscosa. Within the group, its importance decreased, and eventually, it was sold to Cotonificio Olcese. Some interesting elements also emerge about the late period ("the agony": p. 145) and the epilogue ("from factory to a university": p.146-150). One notable aspect is highlighted: the prevention of bulldozing the entire complex to construct new buildings, thanks to its listing by the Superintendency as industrial heritage.

⁴ Before appointing Valle and Macola, IUAV initiated an open call among its professors and students for a competition of ideas. However, no winner was selected among the few participants (4 teams). The tender did not provide specific indications about how to handle any artifacts from the original use as a cotton mill. Nevertheless, an important reference was made to the desire to be listed as industrial heritage to safeguard the building.

Apart from the conservation of the building (the "walls," despite all the changes required for the new use), almost nothing of the previous history is incorporated into the heritage site (no "a" and no "b") in the words of our framework.

Fig. 5 Cotonificio Veneziano

The San Giobbe slaughterhouse

The Slaughterhouse at San Giobbe opened in 1843 with the aim of consolidating the cattle slaughter activities previously scattered across small workshops in the city. Operational for over a century, it underwent architectural and technological transformations in 1878 and 1900. In 1972, the municipal slaughterhouse relocated to the mainland, leaving the building vacant. A few years later, a grassroots association of Venetian rowers began squatting part of it. In 1986, a restoration project was approved (architects Romeo Ballardini and Vittorio Spigai), repurposing it as one of the venues for Ca' Foscari University (Departments of Economics and Management, now Venice School of Management). The City Council granted the building on a 90-year free loan, and the campus opened in 2008.

The reuse project aimed to preserve the 19th-century part of the complex, with new additions in the eastern part. Historical buildings were adapted internally to serve as classrooms or offices while preserving their structural and external aspects. Interestingly, some traces of the production activity were retained, notably the sorting tracks used in the slaughterhouse to move animal carcasses within the production line (Fig. 6). This can be observed in the northern part of the building, albeit in a less visible area outside the normal paths of students and teachers, and inside the Aula Magna (Fig. 8b). Unfortunately, no explanation of their functioning and meanings is provided (the authors themselves have visited this campus several times, and only recently, when engaged in research on industrial heritage, did they realize the conservation intervention at San Giobbe's campus).

Of particular interest for our paper is the "permanent exhibition" that was inaugurated in 2005, consisting of a dozen panels along a marginal corridor in the complex (as an ethnographical note, one of the authors that worked there was unaware of its existence for more than a decade!), based on a research book (Caniato and Dalla Venezia, 2006). Both the exhibition and the book are characterized as a "diachronic and pluri-disciplinary study of the urban, economic, and social evolution of this part of the city" (p. 16). Various chapters focus on the area in the XI-XIV centuries and in the middle age; on slaughter and guilts in the Venetian Republic; on society and history of the area and on toponymy. One chapter focuses the construction of the slaughterhouse, while a couple of chapters deal with the reusing concept.⁵

As MOA historians, though, we would question the actual pluri-disciplinary nature of these materials, and the meaning of such too long-term perspective, rather than focusing on the history of the slaughterhouse itself. Out of 249 pages talking about many aspects along the century-old history of the area, only 15 are devoted to the functioning of the slaughterhouse when it was active (Antonetti, 2006). The author, a veterinary scholar, presents however only a few data relating to the production process, and marginal information on the functioning of the slaughterhouse itself. This seems somewhat ironic for an economic and management study venue like Ca' Foscari at the San Giobbe campus. There is much more to learn from a different approach (see Hoyt, 2003), where explicit references can be found to Henry Ford gaining inspiration for the assembly line by visiting the Chicago slaughterhouse and its "disassembly line" and the quest for increased productivity over time. The opportunity to conduct research on the historical use of what is now the slaughterhouse industrial heritage site was largely overlooked.

Fig. 6 San Giobbe

Santa Marta provision centre

⁵ An intriguing chapter focuses on the famous New Hospital project by Le Corbusier in the 1960es, which was going to turn down the whole complex. In the book the project is presented as an opportunity lost: in fact, for administrative reasons, the project was never implemented. Quite differently, from an industrial heritage preservation point of view, one could see the project as one of the most dangerous threats for the survival of the site.

The Santa Marta complex was a former provision centre build by the Austrian Army between 1863 and 1865 in Verona, northern Italy. The military bakery continued its operations until 1957. After that, a gradual dismissal of bakery activities took place. The building was used for other military purposes (offices, laboratories, lodging) until 1998 (Ferrari, 2017). From 2015, the site is used as a teaching and research facility of the University of Verona, hosting the economics and law departments of the University ⁶.

Santa Marta as a site of production has been analysed by an economic historian from the University of Verona, Maria Luisa Ferrari. Her book on the site was published after the opening of the new university campus and retraces the history of the provision centre from under Austrian and Italian rule (Ferrari, 2017). In fact, the centre passed under Italian control after the Battle of Custoza in 1866, where the Austrian army was defeated. The work of Ferrari (2017) contextualizes the origin of the provision centre, underlining the benefit of direct and highly integrated bread production over outsourcing in terms of cost and production control. The book presents data relating to the physical structure and explains how it was functional to the production process. It displays information about capital investment required for construction costs and details concerning production capacity, in particular under the Italian army, when “the mill was able to produce 20 tons of flour in 24 hours” (p. 26).

Part of Ferrari’s (2017) book is dedicated to the renovation process (Fig. 7), which is defined as “a good (even excellent) example of architectural best practice, giving new value to the industrial heritage” (p. 40). Not many structural alterations have been introduced and the need to re-adapt spaces for new uses was met with some innovative solutions, such as the use of “glass partitions to create rooms whilst allowing the eye to roam freely over the entire structure” (p.40). Even more interestingly, a few original machineries are exhibited throughout the whole structure. In addition, the basement hosts a permanent exhibition displaying iconographic material (photos, maps, and original documents) from its original productive function to the present day. Part of the exhibition is dedicated to the relationship between military and food. Alongside paintings and war propaganda posters, the visitor can listen to excerpts from diaries and letters talking about military provisions.

Fig 7 Santa Marta

5.3 More developed narration of past activities

A very interesting example of industrial heritage preservation is provided by a little-known case, which deserves a special attention as an example of huge effort in conservation, where heritization leads to the musealization of the site, with innovative solutions.

The Tuna Florio Plant in Favignana: heritization into an industrial site museum

From ancient times, tuna fishing is a crucial component of the history and economy of the Favignana island in Sicily. In the XIX century, the Florio family industrialized once a traditional craft activity, tuna production (Inzerillo & Russo, 2013). Following an early period of managing the site on a contract base (1842-1859), the family bought the Egadi islands in 1874, then implementing a profound process of modernization and development of the old Tuna Florio plant on the shore, near to the ancient tuna-fishing nets. Until the 1960s, the plant was the largest and more technologically advanced tuna factory in Italy (Lentini, 2011). The production was discontinued in 1982, the site was abandoned, falling into decay. The plant was then purchased by the regional administration in 1991. Thanks to a well-structured project and the European Commission funding (about 14 million euro), with work started in 2003, the site reopened as a museum dedicated to the history of the industry and the plant was inaugurated in 2009.

The regeneration project concerned the careful restoration of two-thirds of the site, returning the majority of spaces to their original appearance while adapting them for the new uses. The important role within the museum itinerary is left to the preservation of its history, which is narrated in an all-encompassing way both by following the historical evolution of the plant and through different points of view. The careful recovery of spaces, though a rigorous conservation restoration approach; the plaques indicating their past uses; and the many artefacts disposed in their original locations (boats, harpoons,

⁶ The Santa Marta complex was the venue of the 9th Accounting History conference.

nets): all these aspects contribute to the preservation of the meanings incorporated in the past uses of spaces. This narration is enriched with photos, videos, and guided tours that help understand how the site and the various spaces were functioning in the past.

Particular attention is dedicated to the narration of the production cycle: photos, maps, and textual panels illustrate different stages of the tuna processing process and show the original location of the machinery (most of which has not been preserved). A documentary “Tuna fishing 1924-1931” by *Istituto Luce* illustrates production cycles and the immaterial aspects of tuna fishing in terms of skills and tacit knowledge. A video installation “the Death Room” (the dramatic final steps of tuna fishing) introduces the Favignana trap to the visitors through a sequence of large format screens.

The materials (old tin cans) used in the tuna production are exposed in the oil room, which in the past was used for tuna canning (Fig. 8). All over the museum old photos show workers at work (which paradoxically seems the exception more than the rule). Particularly interesting as an example of ‘showing’ an oral history approach, is the video “Torino installation” (from the traditional name of the department where the installation is located) that shows the testimonies of former workers on eighteen large-format screens, under directional speakers for each individual screen (18 hours in total). They talk about their professions and responsibilities within the plant, the work organization, and the relationship with entrepreneurs and trade unions.

In this case therefore, huge amount of information about the working of the plant is narrated from both the entrepreneurial point of view (through an exhibition on the Florio family) and from the point of view of the workers (through the video installation “Torino Installation”).

A few additional insights on the process deserve some attention. Despite a vast literature about the Florio family (e.g., Candela, 1986; VV.AA., 1991) exist – one of the most important entrepreneur’s dynasties in Sicily – not that much was available referring in specific to the Tuna plant of Favignana. Thus, in-depth research was commissioned in 2001 to Rosario Lentini, an Economic historian. A book issued by the Heritage authorities a few years later (Soprintendenza di Trapani, 2008) on the recovery project included this heavy research report (Lentini, 2008, pp. 15-109) and his rich documentary appendix (pp. 110-257), including original documents, tables, sources, bibliography, cartography, postcards and pictures, glossary and index.⁷ Further documents by other archives were also presented in the book, plus architectural reliefs, and picture of tuna fishing).

Despite this, Lentini himself was not involved in the team designing the setting up of the museum. Moreover, the most innovative solution of the museum – the Torino installation – was not even included in the 2008 book. What we – as MOA scholars – tend to see as an interesting example of presentation of oral history and prosopography (Carnegie and McBride, 2023), or at least bits of prosopography, was motivated by a completely different agenda by Renato Alongi and the team in Trapani. What they cared of was a discourse on inclusion of the local community – following a quite widespread approach in heritage studies, and felt the need to involve old workers as an effort to build identity in the community.

In any case, whatever the authorships and motivation, according to our framework, in terms of “a” this is an example of a somehow articulated stratigraphy of MOA history; for the last periods, it also represents a pluralist reconstruction of the past company’s though oral history approach of workers.⁸

Figure 8 Tuna Florio plant in Favignana

6. Discussion

One of the elements that emerges from the investigation of how MOA history is preserved and represented in industrial heritage sites is the great variety of solutions that can be found, particularly in terms of the space covered by MOA history. These solutions can be positioned along a continuum: from minimal conditions, where the sense of the historical use is just outlines, up to a maximum, where the new use is

⁷ Despite general interest in the whole tuna business in Sicily, Lentini (2008) was adopting a mixture of approaches, including a micro view on “Production and innovation”, as the title of chapter 3.

⁸ Unfortunately, a study employing part “c” of the framework observed serious shortcomings in the current management of the site, with difficulties in finding solutions to ensure the financial viability of the site: see self quotation, 2024.

almost totally devoted to the celebration of the past history. This is the case of the Tuna Florio plant in Favignana, a museum “of itself”. The expression “in terms of space” can be read both literally or figuratively. In the former sense, this means how many squared meters are devoted to the historical narrative: e.g. the majority of spaces recovered in Favignana as opposed to no space at all for Cotonificio, with an intermediate solutions of Santa Marta, with a couple of rooms out of 23.000 square meters for the exhibition. This provides a rough but very direct ‘metric’ of the kind of the transformation process of the site. In the latter sense, that means how much attention is dedicated to the narrative of the past use: which opens the door to softer elements involved.

Reviewing the presented case studies, an initial observation pertains to the research on past activities in historical uses. The gathered evidence affirms the diversity of perspectives converging on industrial heritage sites, encompassing accounting historians (Venice Arsenal and RTF), historians (Cotonificio Veneziano), veterinary scholars (San Giobbe slaughterhouse), and economic historians (Santa Marta and Tuna Florio plant). Interestingly, the only two sites in our selection researched by accounting historians also happen to be the least developed in terms of MOA history presentation.

When comparing various instances of how research on past activities informs re-use projects, a pattern emerges: in cases where the representation of past activities is marginal, research tends to be conducted after the re-use project (RTF, Cotonificio Veneziano, San Giobbe), offering limited opportunities to influence it. On the contrary, when research is undertaken during the re-use project (Santa Marta) or is an integral part of it (Tuna Florio plant), the narration of MOA history on site tends to be more prominent. The Venice Arsenal stands as an exception, where research occurs in the absence of an overarching project for reuse.

Second, aside from differences in the nature of historical research conducted, the sites vary significantly in terms of the visibility of the history of past activities. There is an opportunity cost associated with allocating square meters to the narration of past activities. For example, for a university, allocating space to an exhibition may mean losing a classroom. In cases where industrial sites are situated in urban centers with lucrative real estate opportunities, the opportunity cost could be prohibitive. This is why the typical response to the closure of industrial sites is their demolition or merely the preservation of the façade: in this sense, even the least narrated site in our selection is already a “good practice” in heritage conservation.

Unsurprisingly, the preservation of MOA history is more pronounced when industrial sites are converted into museums (e.g., the Florio Tuna plant). However, this transformation can occur only if public or private stakeholders have no expectations in terms of return on investment and can devise means to ensure the financial viability of the newly established entities. Notably, these entities, particularly in the West, are unlikely to achieve financial sustainability solely through earned income (i.e., ticket sales). In this context, contributions from managerial, organizational, and accounting perspectives are particularly valuable and needed (recall point c. in Zan, 2022, scheme).

Narrating the history of former production activities in industrial heritage sites involves not only the allocation of space—determining 'how much' in square meters—but also concerns the method of presentation—'how' it is done. The examined sites provide a spectrum of approaches to showcasing MOA history on-site, ranging from the least to the most comprehensive forms of narration. While all six cases preserve walls, only the most meticulous attempt at representing MOA history incorporates walls as functional elements in the production layout, depicting the movement of materials and workers within the spaces of the former organization.

Machinery plays a crucial role in presenting MOA history when available on-site, serving as powerful tools to elucidate aspects of the production flow characterizing the former productive activity. Furthermore, the presentation of raw materials and products can contribute to the understanding of the entire production process. Lastly, narrating the professions, workers, and work itself represents perhaps the most challenging aspect to convey to the audience on-site. Nonetheless, some of our cases showcase noteworthy attempts at integrating oral history into the site's presentation. We can regard walls, machinery, raw materials, and the representation of work experiences as narrating artifacts employed in the effort to portray the traces of managerial actions in an industrial heritage site. As observed,

musealization utilizes a diverse array of narrating artifacts. On the other hand, when the history of previous firms must 'negotiate' space with other uses, careful selection becomes a critical consideration.

In our examination of key actors involved in MOA history research and its presentation on site, our focus has predominantly centered on MOA history scholars and architects. A third crucial actor has emerged through our exploratory research: the site's owner, encompassing entities such as the City councils or universities. The site's owner plays a pivotal role in facilitating the preservation of MOA history on-site, commencing from the stage of historical research on past activities. Beyond being a matter of research timing (before vs. during, vs. after the re-use project), what appears pivotal is the willingness of the site owner to commission research on past productive activities. Subsequently, inputs concerning MOA history presentation (both in terms of quantity and method) must be incorporated into the project terms of reference. If this step is overlooked, architects overseeing the re-use project may primarily focus on preserving the physical structure of buildings. In this context, the experiences of the Cotonificio Veneziano and the Florio Tuna plant represent two contrasting examples.

7. Conclusion

Cultural heritage plays a pivotal role in establishing a connection between the past, the present, and the future. Industrial heritage, in particular, offers opportunities for MOA historians to shape what will be preserved and how. However, these opportunities cannot be fully realized in isolation. This paper serves as a 'call' for deeper collaboration among diverse academic perspectives involved in the restoration of industrial heritage sites. While most interdisciplinary efforts in accounting history have been directed towards engaging with the nearby fields of history, management and economics (Baskerville et al. 2017), in the present paper we articulated a collaborative space with academic communities that are seldom considered in accounting history discussions about interdisciplinary, namely disciplines in the field of the humanities (i.e., archaeologist) and at the crossroad between art, humanities, and the sciences – i.e., architecture and urban planning.

Experts in heritage studies are encouraged to delve into the intangible meanings of industrial heritage sites that represent instances of managerial, organizational and accounting practices, aiming for a better local understanding and preservation. Conversely, MOA history experts are prompted to question the ahistorical abstraction that often characterizes former industrial sites repurposed for new uses.

One critical issue that emerged in multiple examples is the delicate nature of researching past uses of industrial heritage. Heritage tends to be associated with an individual plant or site, while the business's history makes sense within the overarching governance of the competitive dynamics of the company that controlled or used it. This is often within the context of a multi-business, multi-unit, and multi-plant organization (as seen in Cotonificio Veneziano vs. Cotonificio Cantoni, the Slaughterhouse, and the Municipal slaughter department). Our specific knowledge of group practices and governance dynamics could provide crucial insights into the overall picture.

Our research also issues a 'call' for MOA historians to view industrial heritage sites not only as empirical settings for historical research but as sites where they can act as curators (refer to levels a. and b. in Figure 2). Involvement in the preservation and narration of an industrial heritage site could offer MOA historians an avenue to bring their research to a broader audience, contributing to the dissemination of a more informed historical understanding of these places for future generations.

This challenge might necessitate a shift in the emphasis of historical research: from a sole focus on archival materials to a focus on the site itself, encompassing its remnants, artifacts, and walls along with their intrinsic meanings (also from a MOA perspective). This is likely to require forms of engagement with architects and urban planners within re-use projects. Linking historical sense-making with our abstract categories to the narration of meanings of artifacts constitutes a starting point for developing a dialogue with other professionals and disciplines. Additionally, it presents an opportunity for new forms of disseminating MOA research.

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Box 1: Presentation of the Royal Tobacco Factory of Seville

Note: In the text below, taken from the website of the RTF, we underlined in bold the words used to describe the architectural features of the factory. On the other hand, words in italics describe the factory as a place of production.

The *first tobacco factory* that is established in Europe

It's a building made of stone during the 18th century as the *first tobacco factory* established in Europe. It is one of the most splendid representations of the industrial architecture of the Old Regime. Since the middle of the 20th century, it has housed the headquarters of the rectorship of the University of Seville and some of its faculties. The **industrial building** of the 18th century is one of the **largest and best architectural buildings** of its kind in Spain, as well as one of the oldest of its kind in Europe, from the time of the Ancient Regime. As a building, it extends over a rectangular surface measuring 185 x 147 metres, with slight projections at its angles.

In Spain, only the monastery of El Escorial, which occupies an area of 207 x 162 metres, exceeds its size. The **enclosure** is surrounded on three sides by a moat that isolates it from the outside, has a **two-storey elevation and mezzanines** in the residential areas. **Architecturally** is notable for its general scheme of Renaissance references, with the courtyards and details of the facades, without forgetting the similarities with the motives of the **architects Sebastiano Serlio and Palladio**. Its **facades** are made of stone, are shaped by **columns** that rise on a **pedestal** that crosses the building. Its main **façade** is influenced by the **Baroque style**, with a double-column façade on each side and on the upper floor, a **balustraded balcony** and a top with a **tympanum** decorated with royal attributes. Above, there is a **statue** of fame, and vases of lilies, made by Cajetan of Acosta; to the same Portuguese author, there are also the white **marble fountains** of the two **interior courtyards** and the **pinnacles** that decorate the four corners of the building. In the entrance arch there are reliefs with themes concerning the *history and production of tobacco*. The property is surrounded by a moat in most of its **perimeter** due to its construction outside the walls of the city in this area. These characteristics make it worthy of being mentioned by the English traveller Richard Ford as El Escorial tabaquero and more modernly as: The Palace of Industry. In 1956 Antonio Cano Correa and his wife Carmen Jiménez Serrano sculptured the **ornamentation** of the new doors that were opened on **the east, south and west façades** of the old Royal Factory to be used as facades of the new faculties of the University of Seville, corresponding to Law, Science and Philosophy and Letters.

Source: <https://visitasevilla.es/en/monuments-and-culture/royal-tobacco-factory-university-seville>

Figure 1: Different visual approaches to the same objects: architectural and MOA history presentation

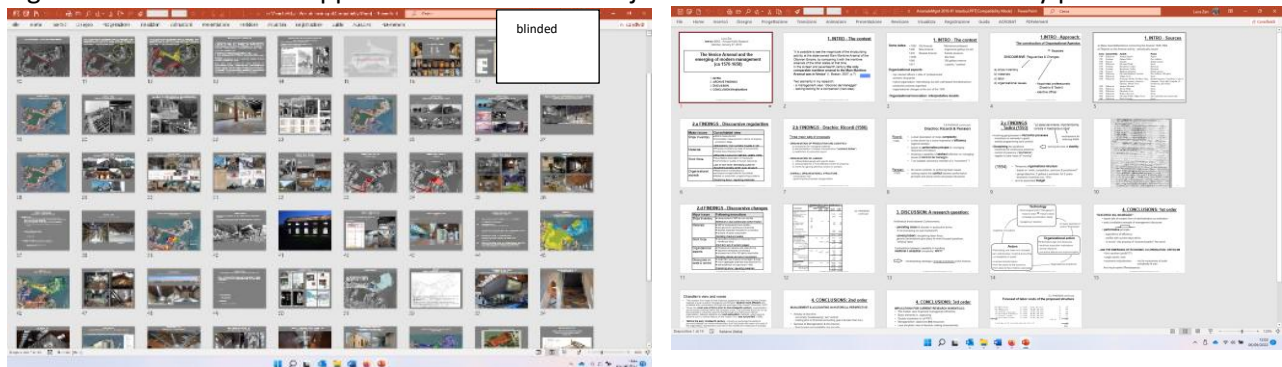


Figure 2. The management cycle and steps in heritization processes (Selfquotation, 2022).

The relevance cycle of management in industrial heritage:
 (a) management as experienced in historical production
 (b) retaining the intangible significance in possible reuses;
 (c) the feasibility of management in reuse projects

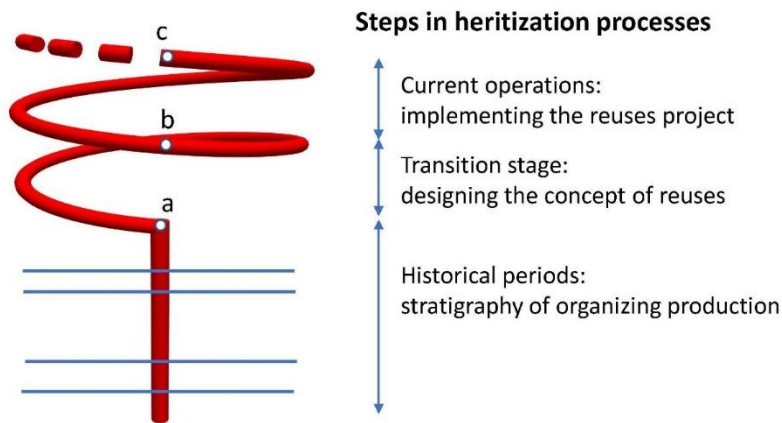


Figure 3. University of Seville: A machine from the Royal Tobacco Factory



Figure 4: The Armstrong crain at the Venice Arsenal



Figure 5. Universities in industrial heritage sites: IUAV in Venice



Figure 6. Universities in industrial heritage sites: San Giobbe campus of Ca' Foscari University of Venice

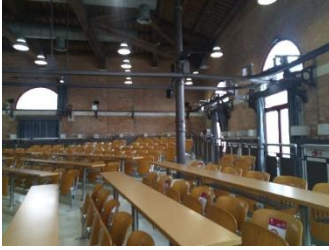


Figure 7. Universities in industrial heritage sites: The economic and law departments of the University of Verona



Figure 8: Tuna Florio plant: museum hall, and video installation on workers memories

