When megaprojects meet archaeology: a research framework and case study from Yenikapi, Istanbul

Why should public managers care about heritage?

Lessons from Yenikapı, Turkey

Abstract

Since the 1980s privatization, outsourcing and decentralization have been hot topics in global public administration. Yet to date public management scholars have paid little attention to cultural heritage, a multibillion-euro industry with an increasing profile. This paper investigates the public policy and management implications of the rescue excavations at Yenikapi, Istanbul. From 2004-2012, 37 well-preserved Byzantine shipwrecks and an 8000-year old village were discovered, transforming Istanbul's history. Turkey's uncertain legal environment for rescue archaeology led to emergent, ad hoc management and funding solutions that mixed state and private involvement in novel ways. We analyze the case using two frameworks, the Heritage Chain and Structure-Conduct-Performance analysis, which highlight the complexity of heritage management, while linking administrative and professional issues. The case illustrates the rich insights that policymakers, heritage experts, and public management scholars can gain from increased attention to the institutional, administrative and managerial issues surrounding archaeology and heritage.

1. Introduction

Between 2004 and 2012, archaeological rescue excavations at Yenikapı, Istanbul, discovered 37 well-preserved Byzantine shipwrecks, the 4th-century walls of Constantinople, and a Neolithic village and cemetery. The excavation, at the meeting point of two new rail lines, was the largest urban rescue

archaeology project in Turkey's history (and among the most important ever in Europe), and took place in an environment of legal uncertainty that required innovative, ad hoc managerial solutions that mixed state-led and private-led development models, with both positive and negative effects. In this paper, we explore the Yenikapı case and highlight the insights it offers for public management scholars.

Despite its hold on the popular imagination, the public policy implications of archaeology are rarely examined. Conversely, few archaeologists are aware how public sector trajectories and administrative heritage shape their own professional outcomes. The major claim of this paper is that the institutional, administrative and managerial issues surrounding archaeology deserve more attention from policymakers, public management scholars and heritage experts because of their significant impacts both on professional practices and performance and on public policy outcomes.

Several initial considerations support this claim. First, archaeology is a multibillion-euro industry: to give just a few examples, Italy spends €250m annually only for archaeological preservation; France, €100m on preventive archaeology; Turkey, €60m on excavations and surveys (MEF, 2012; European Archaeological Council 2014; BLINDED QUOTATION). Archaeology is also strongly embedded in the public sector: indeed, until recently cultural heritage was a state monopoly in many countries. Though the global wave of outsourcing, decentralization and privatization known as New Public Management (Kickert 1997; Hood 1995; Pollitt and Bouckaert 2011) has increased the role of private parties in archaeology since the 1990s, the field remains strongly shaped by legal principles and bureaucratic routines that form an 'administrative heritage' that reflects different national approaches (BLINDED QUOTATION; BLINDED QUOTATION). A deep understanding of public sector dynamics, traditions and policies is thus fundamental to an understanding of the internal practices of archaeology; in turn, from the perspective of management scholars, archaeology can be considered a "laboratory" to study public sector changes. Finally, since World War II archaeological projects have frequently become grounds of conflict between preservation and urban development.

Archaeological finds in urban areas present risks: by definition unexpected, they add unknown (and unknowable) delays and costs to development projects. Time pressures create costs for developers, but also challenge archaeologists' professional values of meticulous and thorough recording. These issues require compromises between efficiency of development projects (costs and time) and effectiveness for heritage professionals (recovery of artifacts and data) that are not trivial either economically or in terms of the archaeological record. However, very few policymakers are aware of the role of archaeology in territorial governance, while few archaeologists have the administrative and managerial skills to face complex urban and engineering projects. Though they emerge in most countries, these problematics have received little attention either from scholars of public administration or from archaeologists.

2. A Composite Framework: The Heritage Chain and the Structure-Conduct-Performance Analysis

To approach the complexities of cultural heritage projects, we have developed a composite analytical framework rooted in management studies and industrial organization (BLINDED QUOTATION). First, drawing on the notion of the supply chain (the division of labor between producers from the acquisition of raw materials to the distribution of the final product: Lummus and Vokurka, 1999), we introduced the concept of "Heritage Chain" (HC), referring to the range of activities taking place in the heritage sector, from protection to excavation, conservation, research and public access. The intention is to understand the division of labor within the heritage sector, which is highly fragmented and rarely examined as an integrated system. Accordingly, our emphasis is not only on a single link of the chain (such as excavation or restoration), but on all the links involved, and the interrelations and interdependencies among them (see Figure 1).

Fig. 1 about here

Second, we investigate the inner dynamics of the sector (or a single case history as in this paper) across the various links of the HC by applying the "Structure, Conduct, Performance" (SCP) model (Bain, 1959). Simply put, the model asserts that competitive dynamics between actors are related to the *structure* and division of labor within the field, which influences the possible *conduct* of individual firms, and consequently their *performance*; in turn, performance has an impact on the structure. In "importing" the SCP model, of course we are creatively adapting it to the unique characteristics of the heritage sector (see BLINDED QUOTATION). Beyond competitive behavior, we are interested in long-term dynamics amongst the various actors defined by the structure, consider conduct in expansive ways (with a particular attention to professional practices and actions), and take a multidimensional view of performance that includes various forms of effectiveness and efficiency (BLINDED QUOTATION).

In this light, the Heritage Chain and SCP analysis become a roadmap to holistically describe the structure of cultural heritage in a particular context, and to understand the conduct and relative performance of various actors and institutions, while considering both administrative and professional issues within a unitary picture (Figure 2). We apply this approach in Section 4, where the Yenikapi excavation will be analyzed through the lenses of the heritage chain and SCP analysis, focusing on protection (4.1), excavation (4.2), conservation (4.3), research (4.4) and public access (4.5).

Fig. 2 about here

3. The Context

Before turning to the Yenikapi case, a brief contextualization at two levels is necessary: a short reconstruction of the international debate regarding the development of rescue excavation and an introduction to the idiosyncratic Turkish legal and administrative system for archaeology.

3.1 Archaeology and Development

Archaeological work can be roughly divided into two categories: research projects and rescue (or "preventive") archaeology. The former are carried out for study purposes. The latter aim to rescue data from sites that are threatened by development projects or disasters.

Though rescue archaeology has deep historical roots, it was incorporated into national laws only after the Second World War, when reconstruction in Europe and urban expansion in North America created widespread conflicts between development and preservation of historical sites. International organizations such as ICOMOS, UNESCO, and the Council of Europe have played a fundamental role in shaping international and national legal norms for the protection of cultural heritage.

Since the 1999 Council of Europe Valletta Convention, most European countries have also enacted "preventive" archaeology laws. A term borrowed from "preventive medicine" (Demoule 2012), preventive archaeology requires archaeological evaluation prior to approval of development projects, Bozóki-Ernyeny 2007). By contrast, rescue projects are reactive responses to emergency situations that threaten cultural heritage. Basically, while with rescue projects archaeologists are "behind the bulldozers and trying to save what they can", with preventive archaeology "archaeologists are now in front of the bulldozers" (Demoule, 2012, 612). In practice, however, the two are often used synonymously and real preventive projects remain uncommon.

Until recently, all over the world (with an exception of the US), the practice of archaeology – both research and rescue – was the exclusive duty of the state and its administrations (the so called 'state-led model'). However, starting from the 1990s many countries have introduced principles of

outsourcing, privatization and quasi-markets also in the archaeological field, allowing the creation of private cooperatives and enterprises which compete among each other to supply archaeological services to developers (the so called 'developer-led' model, Bradley et al. 2010).[1]

While many European countries now allow different forms of private archaeology (among them England, Italy, France and Spain), other countries not included in the Valletta convention still follow a State-led model: they have not yet developed a clear legislation on rescue (and especially preventive) archaeology, and maintain highly centralized heritage management systems in which the state has the full monopoly (and responsibility) for preservation and excavation. This mismatch between responsibility and legislation, however, can often complicate rescue archaeology projects – as has happened in Turkey.

3.2 Heritage & Archaeology Legislation in Turkey

Turkey's strong tradition of highly centralized public administration is also evident in the heritage sector, where the Ministry of Culture and Tourism (MoCT) plays the key role. Museum Directorates (MD), peripheral, non-autonomous branches of MoCT, oversee archaeological excavations and collections. Regional Conservation Councils (RCC) – also peripheral administrations of MoCT – have the sole right to grant protected status to historic buildings and archaeological sites, and must approve all conservation, research, or development interventions in protected area. As such, the RCCs play a crucial role in conflicts between development and archaeology (Law 2863 Articles, 7 and 8). When protected sites are placed in danger by looting, erosion, natural disasters, or construction, RCCs can request urgent intervention from the MD, usually in the form of rescue excavation.

[1] This model met opposition from many archaeologists, who see commercial competition as a threat to quality research, as it advantages the cheapest and quickest approach. In this framework the 'polluter pays' principle of preventive archaeology becomes a double-edged sword in the hands of developers, who use it to defend their economic interests by imposing time pressures and the use of non-scientific methodologies (for an interesting case in China see BLINDED QUOTATION).

From the 1960s through the 1980s, most rescue archaeology in Turkey was focused on dam construction areas in the east and southeast of the country, under a variety of improvised management models (Başgelen 2004). Urban rescue archaeology, by contrast, became prominent only in the 1990s (Gökçay 2010), and the first principles for urban archaeology were issued only in 1993 (Belge 2004). However, procedures for rescue archaeology are not specified in Turkey's cultural heritage law, but only mentioned in one Circular issued by the MoCT. The Circular specifies that rescue excavations take place within the existing museum structures. However, MD are not autonomous institutions: they cannot hire employees (both permanent and temporary staffing levels are decided by MoCT) or fully manage their own budgets. Moreover they have limited numbers of archaeologists who are already overloaded with normal routines of museum life, and no additional staffing or funding is allocated for rescue projects. These structures are not designed to cope with the special needs of rescue excavations, which have short time lines and may have very large financial and human resource requirements.

As a result, large rescue archaeology projects in Turkey exist in a legal-institutional vacuum that has been filled through improvised administrative structures. For the dam projects in southeast Anatolia, for instance, Middle East Technical University established an autonomous archaeological management unit to survey dam areas and execute rescue excavations (Erder 1978). Construction of the Baku-Tiflis-Ceyhan pipeline in the 1990s, by contrast, was accompanied by multinational archaeological investigations funded by oil companies and coordinated by the Smithsonian Institution (Taylor et al. 2010). The management models developed for these projects each respond to the special circumstances and funding structures of the respective projects and are not necessarily replicable (Çeziker 2011). As we shall see, Yenikapı represents another – perhaps even more extreme – case of managerial improvisation, with mixed results. To individuate areas of success and failure, the following section presents a case study of the project through the lens of the heritage chain and SCP analysis.

4. Case Study: the Heritage Chain at Yenikapi and a SCP analysis

At Yenikapı, the confluence of size (5.8 ha), duration (8 years), conservation challenges (wet wooden materials dating back more than a thousand years), and urban politics were unprecedented for Turkish rescue archaeology, especially because of its intersection with two of Turkey's largest ever engineering projects: the extension of the Istanbul Metro system and the construction of the Marmaray rail tunnel under the Bosphorus.[2] As such, Yenikapı is a uniquely interesting case study that combines rescue archaeology with the administration of cultural heritage and organizational engineering[3].

Yenikapı ('New Gate') is an industrial and residential area on the on the Sea of Marmara in Istanbul's Historic Peninsula, the geographical center of the city and thus an essential meeting point for mass transit systems. Yenikapı was selected in 1999 as the transfer station between the Marmaray (opened 2013) and Metro (opened 2014) rail lines. Marmaray was financed through €2 billion in loans from Japanese and European development banks and constructed by Japanese-Turkish partnership Taisei-Gama-Nurol (TGN) (Özmen 2007:23, Lykke and Belkaya 2005), while IMM selected a partnership led by Turkish firm Yüksel Proje A.Ş. to construct the Metro extension from Taksim Square across the Golden Horn to Yenikapı, (IMM 2012).

Archaeological excavations at Yenikapı yielded archaeological finds beyond anyone's wildest expectations, creating delays of over 5 years, imposing substantial additional costs, and requiring the development of complex management systems. Law and regulations played a minor role in shaping project administration, which instead emerged from a series of improvised institutional, organizational,

[2] Excavations were carried out for all five of the new stations in these projects (Sirkeci, Üsküdar, Şehzadebaşı, Yenikapı and Aksaray), of which Yenikapı was by far the largest and most significant. Though this paper focuses on Yenikapı, the issues, problems, and solutions that emerge here are relevant to the other projects as well.

3 Although a large archive of field reports, meeting minutes, and budget documents from the Yenikapı project exists, our repeated approaches to the responsible administrations were unsuccessful at gaining access. The reconstruction of the case study is therefore based on interviews with managers and staff involved in the excavations, review of the voluminous press coverage, and review of published articles and books about Yenikapı.

financial and managerial solutions. In this section we describe the organizational structures that shaped the project at each stage of the heritage chain based on the structure-conduct-performance model, with particular attention to the complex relationship between Turkish law and the unpredictable nature of the finds (Figure 3).

Fig 3 around here

4.1 Protection

Protection is the first link in the heritage chain, and creates the framework for excavation, conservation, and interpretation of heritage sites. The whole Historic Peninsula of Istanbul was declared a protected area in 1995 (RCC Decision 6848, 12.7.1995). However, enforcement has been a challenge: a conservation zoning plan was approved only in 2012 after years of lawsuits (IMM 2012). In the absence of a formal zoning plan, the RCC was been responsible for approving land use decisions at Yenikapı on an ad hoc basis for 17 years.

Planning efforts for the Marmaray project sought to minimize impacts on cultural heritage (Lykke and Belkaya 2005:601). IAM archaeologists were aware that the Port of Theodosius (4^{th}-12^{th} centuries) had been located in the area, but believed the proposed station site was less archaeologically sensitive because it had been open water during antiquity. As IAM Director İsmail Karamut reflected, "we were going to excavate in the middle of a harbor, so we thought that mud and sand were going to come out."[4] Since shipwrecks had never previously been found on land in Turkey, the possibility seems not to have been considered.

After Yenikapı was chosen as the station site in 1999, the RCC required test excavations at the construction area. IAM conducted georadar testing and core sampling between 2001 and 2003, after which the RCC asked for full-scale excavations (Özdamar and Nakanishi 2010:77). The RCC's role as

[4] Interview with İsmail Karamut, 02.05.2011.

land use authority continued even after excavations began: when the Constantinian walls of the ancient city were discovered 2005, it ordered archaeological excavations to stop and declared a conservation zone (Güvemli 2006). In 2006, the RCC ordered removal of an exit from the Marmaray station design (Karabaş 2008).

Despite these measures, there are serious questions about the effectiveness of heritage protection at Yenikapı. On the positive side, the discovery of the shipwrecks, Constantinian walls, and Neolithic village have transformed knowledge of Istanbul's history and Byzantine seafaring and trade. Without the Marmaray and Metro projects, these finds would never have occurred. Yet the limits of the RCC as land use regulator were revealed at Yenikapı: the largest collection of ancient shipwrecks ever found in Europe on land were removed hastily, while only two architectural features – a Byzantine church and the Constantinian wall – were preserved. Under a preventive archaeology system, the dramatic shipwreck finds might have led to relocation of the transport hub and preservation of a deposit that could have provided scholars with a century of research opportunities.

4.2 Archaeological Excavation

Archaeological excavations for the Metro and Marmaray stations began in November 2004 on 5.8 hectares (see Table 1). Directed by IAM archaeologists, the excavation included around 40 freelance archaeologists, 200 unskilled workmen, and other professionals including conservators, photographers, and architects. Though spatially contiguous, the Metro and Marmaray excavations had separate administration, financing, and personnel. Excavation for the stations took place contemporaneously with tunnel boring work, which created pressure to finish the archaeological work quickly.

The excavations are a remarkable story of continuously increasing drama stretching over seven years. Initial finds in 2005 included Ottoman and Byzantine houses and market gardens. The first Byzantine shipwreck emerged in April 2005, and six more by January 2006 (Erdem 2005). These were

the first shipwrecks found on land in Turkey and one of only a handful of such sites in Europe. Later in 2006, part of Constantinople's first city wall and an early Byzantine church were discovered (Erbil 2006). Finds at Yenikapı then went from unusual to extraordinary: 24 shipwrecks had been found by June 2007, 32 by May 2008, and 37 by the conclusion of excavations in June 2012. Yenikapı yielded the largest collection of ancient shipwrecks ever found in the Mediterranean (Erbil 2008a).

The drama of Yenikapı heightened again in late 2008, when excavation below the shipwrecks in the Metro uncovered a village of wooden houses and cemetery dating to 6000 BC, extending the history of Istanbul by over 5000 years (Kınalı 2007). Just before completion of the Metro excavations in February 2012, a Neolithic clay surface that preserved hundreds of human footprints was discovered, adding further delays (CNN Türk 2012). The excavations at Marmaray were completed in June 2009, after which tunnel and station work began. (Yuksekhizlitren 2009). Archaeological excavation continued on the adjacent Metro site until June 2012, after which station construction began.

Insert Table 1 here

The completely unexpected nature and scale of the discoveries at Yenikapı made it impossible to plan timelines and resources (human or financial) in advance and highlighted the shortcomings of Turkey's rescue archaeology system. The Istanbul Archaeology Museum was thrown into crisis: with only 30 archaeologists on staff and no discretionary budget, it was responsible for excavations at Yenikapı and four other train stations (Üsküdar, Sirkeci, Şehzadebaşı, and Aksaray), but lacked the legal authority to hire temporary employees.

After consultation with Ministry of Transportation (MoT) and Istanbul Metropolitan Municipalit (IMM), human and financial resources were outsourced to the two construction contractors, who hired several professionals. The 30-50 freelance archaeologists, 20 specialists, and

200-300 workmen were supervised by 6-10 archaeologists from IAM, who managed all decisions related to archaeological issues (Table 2). The result was a dual administrative system where scientific-professional issues were managed by the IAM and organizational-logistical issues by the contractors. This system produced conflict: archaeologists value careful, meticulous recording, but the contractors were paid by the cubic meter of soil excavated, making them value speed over accuracy. The constantly increasing number of shipwrecks, moreover, created progressively greater delays in construction of the stations – ultimately delaying the opening of the system by five years.

Insert table 2 here

To accelerate the archaeological work in the Marmaray area, the MoT demanded in April 2007 a 24-hour, seven-day excavation schedule. However working at night, especially in rainy or snowy conditions, posed problems. Only 2 IAM and 6 freelance archaeologists were available on the night shift to supervise 200 workers, compromising excavation quality and creating opportunities for artifact theft (Erbil 2008b). Marmaray workmen and freelance archaeologists went on strike in 2008, 2009, and a whole month in 2010 over unpaid wages, unpaid social insurance, and pressure to work fast at the expense of scientific accuracy (Archaeologists' Association 2008).

Though IAM archaeologists managed Yenikapı as if it were a single project, time pressure was higher in the Marmaray side of the project, illustrating how the two organizational and financial structures could create both coordination problems and incompatible scientific results. As one freelance archaeologist at Marmaray reflected:

> The Metro excavations are working much slower than we were... Our company [at Marmaray] was paid by the cubic meter, but the municipality had some kind of different

system. The speed of work was different. I was excavating like mad with 100 workers, and my friend was digging 5 trenches with 3 workers. They were brushing and we were drilling!

The importance of coordination led Karamut to spend 20 hours per week in meetings with construction firms, engineering firms, the MoT, and the IMM. Nonetheless, Karamut felt that the IAM had been successful in managing the excavation as a single scientific project, and in diverting resources from one side of the project to the other when needed. This claim is perhaps borne out by the project's impressive publication record (see 4.4 below).[5]

4.3 Conservation

Like excavation, conservation at Yenikapı required significant organizational innovation, with artifact and shipwreck conservation under different management structures. The excavations yielded tens of thousands of artifacts, including large volumes of wood, cordage, and other organic materials with complex conservation needs. About 12 freelance conservators cleaned, photographed, and catalogued artifacts in an onsite laboratory, supported by workmen.[6] IAM archaeologists then chose artifacts for the museum's collections, including over 35,000 objects by 2012 (Özdamar and Nakanishi 2010, Eyigün 2010). Despite the presence of freelance employees and the huge quantities of artifacts, this system seems to have interfaced smoothly with existing law and administrative routines, under which MDs have authority over archaeological artifacts (Law 2863, Articles 24-25, 41).

The Yenikapı shipwrecks, by contrast, were a much greater challenge. Previous experience in excavating shipwrecks on land was limited in Turkey, and there were no contingency plans for such

[5] Interview with İsmail Karamut, 16.05.2011.
[6] From a formal point of view there were two laboratories, one for Marmaray and one for Metro, but it is unclear from our sources whether they were located in practice in the same structure.

finds: as Karamut reflected, "we were not ready... as the boats were coming out, we wondered who would remove them, who would pay for them."[7] In consultation with IAM, the Metro and Marmaray contractors outsourced shipwreck conservation to a consortium of İstanbul University and Texas A&M University in 2006. Behind the contract was an understanding that Texas A&M would help Turkish scholars develop the necessary facilities and technical skills. By 2012, the Texas A&M team had removed and conserved 9 shipwrecks in the Metro area, while the remaining 27 shipwrecks (13 in the Marmaray and 14 in the Metro area) were managed by Istanbul University (HDN 2011). Both groups were ultimately supervised by Karamut, the IAM director.[8]

The shipwrecks created significant logistical problems. Wood and other organic materials must be kept wet constantly during the slow process of uncovering, recording, lifting, and transportation to desalination tanks. Irrigation systems alone were a complex challenge. Moreover, excavation around the ships often left them raised on pedestals up to 6 meters high, creating obstacles to movement, and complicating scientific recording.[9]

The contractors and engineering firms were reluctant to accept the time and cost associated with the shipwrecks. As Karamut reflected:

> As we were building the [desalinization] pools… it was hard for them to understand, why are you making this? What will it be? [The IMM and MoT] were not expecting that we would find 35 shipwrecks.[10]

Government contracts are not public documents in Turkey, making it difficult to understand the overall conservation costs, but a few data points are indicative: each of the first four shipwrecks cost

[7] Interview with İsmail Karamut, 16.05.2011.
[8] Interview with Metin Gökçay, 20.05.2011, Istanbul
[9] Interview with Ahu Çeziker, 12.5.2011, Istanbul
[10] Interview with İsmail Karamut, 16.05.2011, Istanbul

460,000 TL (€20,000 each) to lift, and the next ten 1,430,000 TL (€62,000 in total). Desalinization pools for the Metro shipwrecks alone cost over €1 million by 2008 (Eyigün 2010).

With the conclusion of the Metro excavation in mid-2012, all 37 shipwrecks have been moved to desalinization pools. Istanbul University's Ufuk Kocabaş, however, estimated that conservation work would require 10 more years (HDN 2011). Institutional fragmentation will also continue, as financial responsibility for the ships will be divided between the IMM and Ministry of Transportation according to where the ships were found. Shipwreck conservation, therefore, added yet another parallel organizational structure to the already complex excavation system, with a separation between operation, financial issues, and scientific supervision.

4.4 Research

Under Turkish law Museum Directorates have publication rights to rescue archaeology projects, but may share them at their discretion (MoCT 2011, Article 14(f)). At Yenikapı, IAM Director Karamut actively recruited Turkish and international universities for specialized studies in geophysics, dendrochronology, palaeogeology, palaeodemography, and other fields. This had important results in terms of the speed and number of publications: as Karamut noted, "for the first time in urban archaeology done by the Ministry of Culture, there was a book published before the end of the excavations."[11] As a result, publication has been rapid compared to purely academic projects: five major volumes, 40 academic articles, and at least 6 academic conferences were produced before the end of excavations in 2012. Major publications on the archaeological aspects of the project have been largely produced by IAM staff archaeologists.

4.5 Public Access

[11] Interview with İsmail Karamut, 9.05.2011, Istanbul

The last link in the heritage chain is public access, which includes media coverage, museification, and other means of popularizing the past. At Yenikapı, this link has been strong in respect to exhibition and media coverage during the excavation.

National and international media covered Yenikapı intensely: Turkish newspapers and television produced hundreds of articles, while the New York Times, Archaeology Magazine, National Geographic, CBC, and the Discovery Channel brought Yenikapı to millions internationally. Several major museum exhibits also focused on the site even before excavations were complete. In 2007, the IAM sponsored 'In the Daylight: 8000 Years of Istanbul', exhibiting hundreds of artifacts. The Sakip Sabancı Museum also displayed finds from Yenikapı in 'Istanbul of Legend: 8000 Years of a Capital' (2010). A collection of excavation photographs were shown in 2012 at the Rahmi M. Koç Museum's 'Yenikapı's Ancient Boats' exhibit. Two further exhibitions, both entitled 'Yenikapı: Transfer Point', focused on architectural and museum design for the Yenikapı area.

Plans for a permanent museum facility, however, have met repeated and perhaps indefinite delays (Table 3). Plans for a 'Museum Station' – a Yenikapı museum located inside the train stations – were announced by İstanbul's mayor in 2005 (IMM 2005), but the rapid increase in the number of shipwrecks during 2007 led the IMM Urban Design Group to suggest a multi-story museum building instead in January 2008, since it would be " impossible to exhibit 30 shipwrecks inside a station museum" (Erbil 2008a). Plans changed again in 2009 when the IMM outsourced an architectural design competition for the museum to the special agency formed to manage Istanbul's turn as 2010 European Capital of Culture. However, Istanbul 2010's approach was highly theoretical: the Yenikapı archaeo-park was now to be a "symbol of the city", a "transfer point" that would "deal with the meaning and purpose of the city itself" (Keskin 2009). Notably, the term "museum" had disappeared from the title.

Istanbul 2010 was anyhow dissolved in January 2011, before launching the competition whereupon the IMM Urban Design Group resumed responsibility (Özdamar and Nakanishi 2010). IMM finally announced the 'Yenikapı Transfer Point and Archaeo-Park International Preliminary Architecture Project'. Three finalist designs were chosen in April 2012 (IMM 2013), but the project seems to have stalled since then: the project webpage was taken down in early 2014 and the IMM website has no information about future plans. In the meantime, other grandiose visions for developing the area around Yenikapı have emerged, including a space for million-person political rallies and a waterfront park (Table 3).

Table 3 about here

The transformation of the project from a single museum building to a grandiose urban design plan raised concerns among archaeologists, who were not included in the planning process. Some found the design competition absurd, while others debated whether it was safe to exhibit artifacts in train stations at all. Uncertainty about which institution 'owned' the project was rife: in 2010, the MoCT suggested that the Ministry of Transportation pay for the museum; the MoT declared this legally impossible, and instead asked the Japanese investors in Marmaray for funds (Özdamar and Nakanishi 2010:110, 116). Though the rapid evolution of finds scotched the initial, modest 'station-museum' plans, IMM's failed attempt to 'outsource' the museum to Istanbul 2010 was equally responsible for delays and ambiguities: the opportunity to reduce administrative fragmentation by entrusting the project to a well-funded, autonomous agency was sabotaged by ineffective management and its very nature as a temporary institution. But on another level, the failure of the museum project is connected to the new trend for Turkish municipalities to use heritage sites in prestige projects, without consulting

professionals or considering crucial issues such as institutional status, staffing, construction costs and operating costs (BLINDED QUOTATION).

5. Discussion

As in other professional activities, evaluating results in archaeological projects is not an easy task. The complexity of the Yenikapi case makes its assessment even more difficult. Archaeologists and heritage scholars pay little attention to administrative issues compared to more 'trendy' issues such as inclusion of local communities or indigenous rights. Yet the legal, administrative and managerial system fundamentally impacts both professional and public policy outcomes. In the Yenikapi case, for example, administering a unique site as two separate projects brought serious problems such as duplication of decisions, delays in decision-making, added organizational costs, and likely differences in timing, quality and level of maintenance for materials found in the same archaeological area. Also, the role of the two construction companies in managing workers and archaeologists led to the emergence of several conflicts, with delays in project construction and harms to the preservation of the archaeological site.

Ignoring such issues only perpetuates misunderstandings and perhaps "misbehaviors". The HC and SCP analysis allows for a more balanced discussion of the case focusing on managerial and organizational aspects, linking them to multidimensional results. The discussion will focus on three major issues: the asymmetry of performance within the heritage chain (5.1); the conflict between state-led and development led archaeology, with the emergence of a sort of hybrid solution (5.2); and the debate between preventive and rescue archaeology (5.3).

5.1 Asymmetries within the Heritage Chain at Yenikapi

The case study illuminates asymmetries in performance within the heritage chain. Some 'links' in the chain are well-developed, others less so, and levels of performance vary considerably. Architectural remains were preserved in situ, even at the cost of altering the Marmaray station construction plans. Excavation, despite considerable time pressures and personnel issues, recovered huge quantities of delicate artifacts. Research has been published rapidly in high-quality journals and books, while field conservation of ships, their cargoes, and the Neolithic village were highly successful. Yenikapı was communicated effectively to the public, with intensive media coverage and several major museum exhibits even before completion of the excavations themselves.

Yet, finding a permanent home for the 37 shipwrecks and tens of thousands of small finds from Yenikapı, has been a great challenge: eight years of discussion and project delays has succeeded only in removing museum construction from the center of the agenda. The sense of emergency that motivated the excavation extended to publication, but not to conservation facilities or museum construction. Here institutional design plays a key role: Turkish public administration may be ill-adapted to quick decision-making. The situation resembles the discovery of over 30 Roman shipwrecks in Pisa, Italy in 1999 (BLINDED QUOTATION), where despite good performance in salvage archaeology and field conservation, 15 years later the museum project still faces institutional uncertainty and uneven financing. But such problems are not inevitable: in the case of the Horse & Chariot Museum (Luoyang, China) a museum for the spectacular discoveries of ancient chariot burials was built 18 months after excavations began (BLINDED QUOTATION). Here the decentralization and fiscal autonomy enjoyed by Chinese local administrations – in contrast to the more centralized structures in Turkey and Italy – may have played a determining role. The ultimate fate of the preserved areas at Yenikapı also remains unclear: paradoxically, the two areas of Byzantine architecture that received official protection (the walls of Constantine and a small church) are not shown in renderings of the 'archaeological park' and are disconnected from the main visions for public access.

5.2 The Yenikapi Solution: between State-led and Private-led Archaeology

At Yenikapi, the silence of Turkish law on emergency archaeology combined with the Ministry of Culture and Tourism's 'informal' procedures for managing emergency situations shaped project's unique, ad hoc management structure, but also gave rise to many of the uncertainties surrounding the project.

In theory, archaeology in Turkey is state-led: the MoCT permits or carries out rescue archaeology, with no formal role for private entities. However, the absence of legislation defining the institutional, financial and organizational framework for rescue archaeology weakens state control in practice, opening the way for participation by other actors. In this context, a multi-layered outsourcing approach at different links of the heritage chain emerged at Yenikapı, with a new and 'unplanned' role for private developers.

For the archaeological excavation, the IAM's inability to hire temporary staff led archaeological labor to be outsourced to IMM (for the Metro project) and the MoT (for the Marmaray project). Both IMM and MoT then (re)outsourced to construction contractors and subcontractors (under two different models). But these firms had no archaeological experience, so they too had to outsource to free-lance archaeologists, photographers, architects and other specialists. Conservation of the ships was also outsourced by IAM to the consortium of Istanbul University and Texas A&M University, while from the financial and organizational point of view responsibility for conservation will be split between the central government (which will take care of ships found in the Marmaray area), and the IMM, which will be responsible for those discovered in the Metro area. The saga of the 'Station-Museum' is another case of complex outsourcing: from the state to the municipality, from the municipality to Istanbul 2010, and then back to the municipality before to be outsourced again to an external architectural competition.

This chaotic picture calls into question state control of heritage preservation, archaeological preservation and planning of public access. What emerges is a peculiar mix of State-led and private-led archaeology made possible by a multi-layered approach to outsourcing. This approach can be seen as "accidental" (or emerging – to cite Mintzberg 1978): none of the outsourcing decisions were planned, but rather resulted from improvisation due to "gaps" in the law (rescue archaeology procedures are not legally defined), the absence of expertise (in the case of ship conservation), or administrative rigidity (the museum's inability to hire new staff).

The consequences are both positive and negative. On the positive side, the absence of legal rigidity allowed the creation of customized management solutions that suit the unique financial and logistical problems of the site. Yet, the lack of legal clarity created jurisdictional conflicts between RCC and IAM over archaeological methodology, raising the question of who, in fact, was in charge of decisions on the excavation. Also, though the outsourcing of ship conservation seems to have 'worked', the contract details were secret: who paid for the conservation, the responsibilities of the contractor, or who exactly is in charge remains opaque, even to those involved. In terms of public access, both the initial 'Station-Museum' and later 'Archaeological Park and Transfer Point' were suggested by IMM, representing an assumption of responsibilities traditionally the domain of MoCT – a contributing element, no doubt, to the ongoing uncertainty about the nature of the museum institution and the responsibility for protecting Yenikapı as a whole.

More in general, the emergent outsourcing solutions seem to have increased the overall complexity, cost, and level of conflict within the system.[12] At the excavation professional control remained with the IAM, but forms of the "contractual" outsourcing created conflicts over working conditions, pay rates, and the speed of work, resulting in several strikes and questions about the quality

[12] The absence of a clearly legally established routine for rescue archaeology also inhibits learning from experience: the important management precedents set in the Atatürk Dam or Baku-Tbilisi-Ceyhun Pipeline rescue archaeology projects were not transferable to the Yenikapı context.

of archaeological work and for the development of the construction project. Moreover, excavation work was outsourced to the companies already under contract to build the Metro and Marmaray stations, raising potential conflicts of interest and doubts about the transparency of the process. Finally, asymmetries in power (and knowledge) are evident: the director of the museum – without any background in project management or costing – had to singlehandedly confront his counterparts in the construction firms, IMM, and Ministry of Transportation over issues that affected the completion of time-sensitive multibillion-dollar construction projects.

5.3 Rescue vs. Preventive Archaeology at Yenikapi: Tradeoffs between Protection and Development

The Yenikapı project also highlights the differences between rescue and preventive archaeology. As a rescue archaeology project, Yenikapı was quite a success: hugely significant finds were recovered intact, while allowing a major construction project to proceed. From a preventive archaeology point of view, however, the project appears less unambiguously positive, as it led to the destruction of a site with unique potential. Under preventive archaeology legislation, a project such as the Marmaray and Metro stations might never have been designed in this location, preserving the archaeological deposit.

Yet under a preventive archaeology regime, the major discoveries at Yenikapı would likely never have been made: who would have paid for the moving of thousands of cubic meters of soil in the absence of serious financial pressures? And indeed, despite the almost certain presence of more thrilling finds in the area, no one is seriously proposing further ‘on-purpose’ archaeological investigations in the area, despite its extreme academic interest. From this point of view, the whole event seems like a mega-case of the trade-off between preservation and economic development.

6. Conclusions

Yenikapi demonstrates the potential multidimensional complexity of archaeological projects and their link with urban and development policies. This complexity includes scientific and professional aspects (which excavation methods should be used? How to preserve and restore the artifacts?), but also management issues (how to administer the project, with what timing, resources, and responsibilities?) and urban planning and governance aspects (how will archaeology impacts infrastructure plans? Will an on-site museum or an archaeological park be built, and by whom?). While Yenikapi's scale is exceptional, the issues it raises are common in urban archaeological projects: metro construction in Rome, Athens, and San Francisco or underground parking in historical cities raised similar issues (for a Chinese example, see BLINDED QUOTATION). The Yenikapı project thus allows us to develop observations that can be generalized.

6.1 Implications for administrators and professionals

Archaeology can interact strongly but subtly with the work of public managers and administrators, sometimes more powerfully than expected. Archaeology's strong discursive inertia (the professional and legal rules characterizing it) can significantly impact public policy outcomes. At Yenikapı, a small group of archaeologists (without training in project management, budget, or human resources) were able to "halt" a multibillion-euro project for more than five years, despite a virtual legal vacuum coving rescue archaeology. If the IMM and Ministry of Transportation had understood the implicit discursive strength of heritage protection, they might have been able to conduct a risk assessment and develop design alternatives that avoided the site, avoiding the path dependence that forced a multi-year excavation. Moreover, archaeological excavations can constitute an opportunity for local governments in terms of visibility and possible tourist attraction (e.g. an archaeological park in the historic center of the city) – even if, as in this case, the proposed museum remains stuck in an administrative and

financial limbo. Yet too often these issues are not sufficiently addressed, presenting recurring conflicts and requiring ambiguous *post facto* solutions.

Archaeologists, too, are placed in a difficult position. At Yenikapi, excavation directors had to improvise the management of a hyper-complex project, dialogue with public and private entities, manage contractual, budget and human resource issues, and find quick solutions to logistical problems in an environment of unclear responsibility. A greater awareness of and attention to administrative and managerial issues, and the development of a legal system that facilitates the management of such complexity, are essential for a more effective development of contemporary archaeology.

6.2 Implications for Managerial Research

Greater attention from management scholars to the heritage field will bring better knowledge about public sector as a whole, while allowing learning processes in cross sectors (and cross-countries) comparison (BLINDED QUOTATION). Our answer to this issue is a direct commitment to this research field, and its intrinsic issues and questions. More than a random selection of sectors and topics for new research papers, as usually with management fashions, we have become "experts" in this field, working in depth on its specific phenomena, often within action research projects.

As always with "phenomenon driven" research (Pfeffer 2009; Von Krogh et al 2012), the starting point is not a "theory gap". Rather than building spectacularly new theories, we aim at better understanding the sector. In this regards we are continuously but incrementally inventing something, creatively drawing on already available frameworks (such as the supply chain, and the SCP).

On the one hand, we are innovating by "importing" the notion of chain that is not normally used (or intrinsically perceived) in the sector. Both lawyers and professionals tend to have a direct focus on a narrow definition of the field or subfields (protection; archaeology; conservation; museology in themselves); while management scholars have rarely any interest in the heritage sector, and its

qualitative features. On the other hand, by linking the notion of chain with the SCP analysis we are already "reinventing" what was already available in the industrial organization and strategic management fields, where there has been a premature forgetting of the SCP framework (which is definitely not a "hot new topic"). We are innovating by applying these two frameworks to the heritage field, tailoring them to the specific features of the sector.

The notion of *structure* in this case incorporates legal aspects, yet without giving them the role of "the" only/most important element, but rather as one of the possible driving forces in the sector. Laws are crucial, in this sector as elsewhere, but they do not mechanistically determine all outcomes (BLINDED QUOTATION).

The notion of *conduct* here bridges two important traditions of research in the management field, both weakening any deterministic impact of structural elements (law included). Policies as well as strategies tend to some extent to "happen", to "emerge" in Mintzberg's words, rather than being deterministically shaped by policy makers. Actors indeed can make things happen, even individual actors, despite/in contrast to policy makers. Policies must be "managed" themselves, to be transformed into results, through managerial choices and actions (BLINDED QUOTATION). Moreover, the notion of conduct is easy to relate with the notion of practices, particularly in case of professional contexts where hidden values tend to shape behaviors more than any explicit textual form.

Finally, the notion of *performance* tries to incorporate important elements that can be found both in public management literature, as well as the ideas of visitors in the new museology and community involvement in postmodern archaeology. However this takes place without forgetting boarder conditions of viability of heritage organizations, articulating in this sense conditions of effectiveness and efficiency (BLINDED QUOTATION).

We do not think that these theoretical developments are revolutionary in themselves. But they are not trivial, in the direction of making sense of the dynamics inside a too often overlooked sector.

More than looking at “theory gaps”, we are in a sense “crafting theories” to better understand phenomena.

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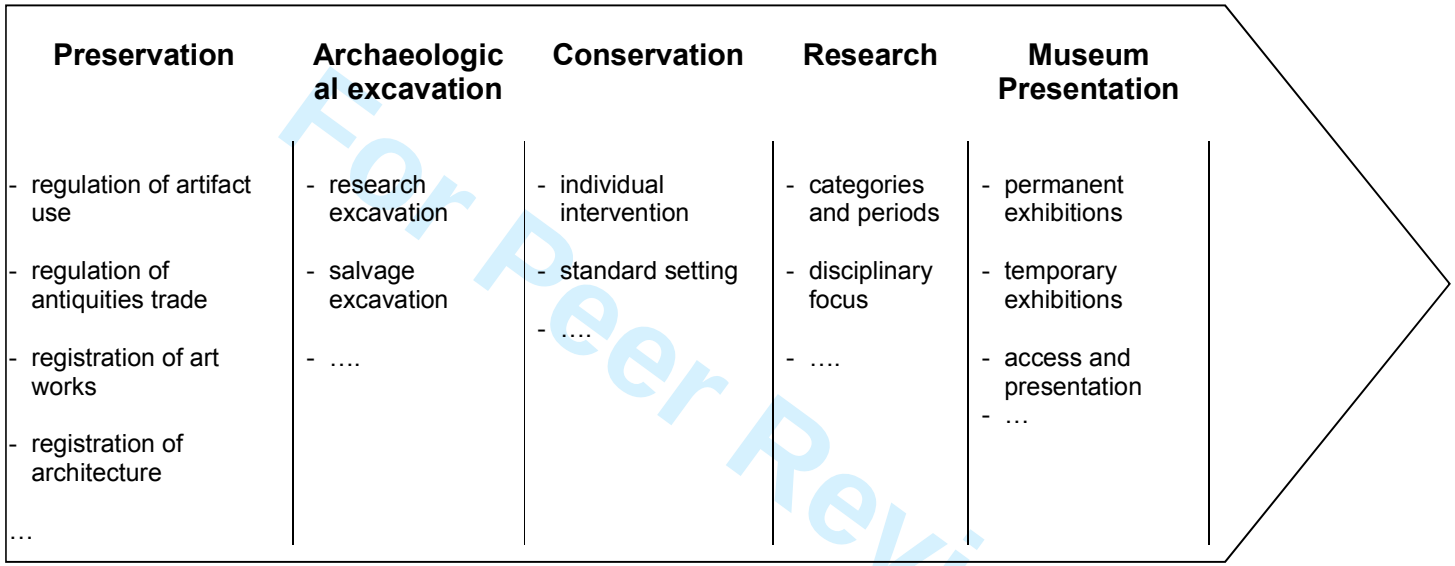
Figure 1- The Heritage Chain: Major Macro-Activities



Source: BLINDED QUOTATION

Figure 3 – HC and SCP analysis in Yenikapı

	Protection	Archaeological excavation	Conservation	Research	Museum Presentation
Structure	- RCC registers urban archaeological sites and defines possible interventions - No law for preventive archaeology - Rescue archaeology only regulated in circular - Rescue archaeology can be initiated by RCC, Museum Directorate or MOCT	- Circular specifies museum directorates will conduct rescue excavation with MOCT permission - Rescue excavations are carried out within existing museum structure and resources (no specific structures/ resources for urban archaeology) - Turkish museums are non-autonomous institutions that cannot hire temporary employees	- Law 2863 gives museums responsibility for artifact cataloguing and preservation - Excavation director can be supported by external experts on specific scientific matters	- Law 2863 grants publication rights to the excavation director, who can grant it to other experts on specific scientific issues	- State Museums are managed by the Central Ministry through Museum Directorates - 2004: new laws open up the possibility of a new role for Municipalities in the Museum and heritage system
Conduct	- In 1999 Yenikapı is selected as Marmaray and Metro transfer point without preventive excavation before the location decision - Underestimation of potential finds (by archaeologists also)	- 2003: MoCT gives IAM responsibility for rescue excavation at 5 train stations (including Yenikapı) - Ad hoc solution for Yenikapı excavation: freelance archaeologists and other specialists are hired by construction firms - "Per cubic meter payment" at Marmaray - Double hierarchy: Split between professional and logistical-organizational responsibility (Marmaray/Metro)	- Artifacts: The museum is supported by a on-site laboratory crew of freelancers and workmen - Shipwrecks: Lack of skills within the museum leads the director to ask Texas A&M university and Istanbul University experts for advice and cooperation	- Open approach of the excavation director who gives publication rights to various professionals involved in the project	- Initial agreement (2006) between IAM and IMM to build an onsite museum - Proactive role of IMM - 2008: Change of plan toward "transfer point" - 2009: involvement of Istanbul 2010 Agency - 2010: museum project returns to IMM - 2012 Design competition
Performances	- Success from the rescue archaeology POV: thanks to the construction the ancient port and shipwrecks are found → development of knowledge - Unsuccessful from the preventive archaeology POV: the deposit is destroyed and the transport hub is created - RCC intervention saves only 2 small parts of the site (church and wall)	- Conflicts between scientific values and incentives of construction firms - 24-hour work leads to quality and control problems in the excavation - Strike of archaeologists and workmen leads to delays in excavation - Difficult working environment - Overload of work for the excavation director and museum staff as a whole - Though site is successfully managed as a single scientific project the two double hierarchies (Marmaray and Metro) lead to coordination problems - Conflicts between RCC and IAM over excavation techniques	- Artifact conservation is successfully included within Museum routines - Shipwrecks: o Good cooperation and transfer of knowledge between universities o Additional layer of organizational complexity o Conflicts between professional values and contractors (to find resources) o Logistical problems to excavate and conserve the ships contemporaneously o What about conservation in the long term?	- Very rapid publication even before excavation ends	- Important media coverage - 3 temporary exhibitions on Yenikapı + 2 on architectural projects - Museum: Yenikapı o delays and ambiguity in the overall in the process o no museum has been built or budgeted to date o new role of IMM in museum privileges architecture over archaeology

Source: authors' elaboration

Table 2 - Human resources, Yenikapı											
	2005	June 2006	July 2006	Sept 2006	April 2007	July 2007	Mar 2008 (Night Shifts)	July 2008	Late 2010	Nov 2010	2011
IAM Archaeologists	3	14		17	?		2		6	50	several
Other MoCT Archaeologists					6						
Freelance Archaeologists	~10	50			30	~50	6		46		
Photographers									4		
Conservators											
Architects				3					5		
"Professionals"								50			
Workmen		200		250	100			300		600	200+
Total		**264**	**219**	**270**	**136**	**500**		**350**		**650**	
Source: authors' reconstruction from academic and journalistic sources (many figures are incomplete).											

Table 3 - The Istanbul 2010 / Yenikapı Urban Design Competition	
January 2008	IMM Urban Design Group takes over museum concept
May 2008	IMM Urban Design Group begins work on a tender for invited architecture competition in 2010 (Ozdamar, Arkitera Jan 2009)
January 2009	IMM decides to apply to Istanbul 2010 to fund the international architecture project (Arkitera article, YKUD website)
March 2009	Tender plans are underway
Late 2009	Istanbul 2010 Budget Committee approves a tender for the competition (Özdamar)
January 2010	IMM and Istanbul 2010 agree in principle on the cooperation protocol
October 22 2010	Contract between BİMTAŞ and Istanbul 2010 is signed
January 2011	Istanbul 2010 Agency is dissolved; IMM Urban Design Group takes over its projects including Yenikapı
June 30 2011	Press release announces Yenikapı Transfer Point and Archaeopark Area International Design Competition
October 2011	Official announcement of competition, pre-applications begin. 42 applications received.
December 2011	Announcement of 9 shortlisted projects, site visits
April 2012	300m TL is estimated as cost for museum station project. 'Transfer center' final shortlist of 3 announced. Topbaş estimates that the project will cost 300 million TL.
June 2012	Forum at SALT gallery discusses progress of the project so far.
Source: reconstruction from news articles	

Figure 2: The Heritage Chain and the Structure / Conduct / performance analysis

Structure	Actors and activities related to preservation	Actors and activities related to archaeological	Actors and activities related to conservation	Actors and activities related to research	Actors and activities related to museum presentation
	Who does what: Division of labour, tasks, duties, and responsibility between actors in various links of the chain as defined by the legal and institutional system				
Coduct	Actual practices and actions related to	Actual practices and actions related to	Actual practices and actions related to	Actual practices and actions related to research	Actual practices and actions related to museum presentation
	How? How things are done along the chain: actual practices and actions				
Performance	Efficiency and effectiveness of preservation	Efficiency and effectiveness of archaeological	Efficiency and effectiveness of conservation	Efficiency and effectiveness of research activities	Efficiency and effectiveness of museum presentation activities
	Results: What are the professional and organizational implications deriving from structure and behaviors?				

Source: authors' elaboration