



# EURAM 2016

*Manageable Cooperation?*  
JUNE 1-2-3 and 4, 2016 Paris /FRANCE

PROFESSIONAL UTOPIANISM AND ADMINISTRATIVE NAIVETÉ. UNCERTAINTY AND ARCHAEOLOGY IN THE SHIPWRECKS OF PISA (1998-20??)

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Category: 01 BUSINESS FOR SOCIETY >> 01\_03 INSTITUTIONAL CHANGE, POWER, RESISTANCE AND CRITICAL MANAGEMENT

#### Acknowledgements:

The authors would like to thank the Archaeological Superintendence of Tuscany for extensive access to its archives, and Dr. Andrea Camilli for several in-depth interviews.

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ISSN 2466-7498.

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ABSTRACT

Between 1998 and 2000 archaeologists discovered nine well-preserved Roman shipwrecks at San Rossore, Pisa, 500m from the leaning tower. Shortly afterward a grand vision for a “museum with three vertices” was articulated: a public excavation area plus a conservation laboratory and museum of Mediterranean navigation, to be constructed in a underused 16th century barracks nearby. But despite urgent conservation needs, neither the public excavation nor the laboratory opened until 2005, while the museum remained unfinished in 2015. Irregular and unpredictable budgets caused organizational chaos, while the inclusion of the project in the City of Pisa’s urban redevelopment efforts added complexity and delays. Moreover, the grand vision of three interconnected institutions became an obstacle in itself: in the absence of an administrative culture that was able to bring projects “down to earth”, the universalist and utopian tendencies of professional discourse fostered a tendency to choose the “best” project over the most feasible one, adding cost, risk, and uncertainty to an already challenging project. However, despite all messes, in the end the result is positive from the archaeologists’ point of view: a situation of professional effectiveness though missing efficiency. Based on extensive archival research, our paper reconstructs the 15-year history of the project and explores the emergent management issues at this unique site, including the role of professional optimism, bureaucratic myopia, urban planning, and uncertainty.

Keywords: Salvage archaeology; heritage management;

## **Professional Utopianism and Administrative Naiveté.**

### **Uncertainty and Archaeology in the Shipwrecks of Pisa (1998-20??)**

#### **ABSTRACT**

In 1998, archaeologists discovered the first of sixteen Roman shipwrecks at San Rossore, Pisa, 500m from the leaning tower. Shortly afterward a grand vision for a “museum with three vertices” was articulated: a public excavation area plus a conservation laboratory and museum of Mediterranean navigation, to be constructed in a underused 16<sup>th</sup> century barracks nearby. But despite urgent conservation needs, neither the public excavation nor the laboratory opened until 2005, while the museum remained unfinished in 2015. Irregular and unpredictable budgets caused organizational chaos, while the inclusion of the project in the City of Pisa’s urban redevelopment efforts added complexity and delays. Moreover, the grand vision of three interconnected institutions became an obstacle in itself: in the absence of an administrative culture that was able to bring projects “down to earth”, the universalist and utopian tendencies of professional discourse fostered a tendency to choose the “best” project over the most feasible one, adding costs, risks, and uncertainty to an already challenging project. However, despite these problems, the end result has been positive from the archaeologists’ point of view: a situation of professional effectiveness, though lacking efficiency. Based on extensive archival research, our paper reconstructs the 15-year history of the project and explores the emergent management issues at this unique site, including the role of professional optimism, bureaucratic myopia, urban planning, and uncertainty.

#### **Keywords**

Salvage archaeology; cultural heritage; Italy; professionals; uncertainty

#### **INTRODUCTION**

This paper examines the organizational dynamics that emerged from the discovery of a group of well-preserved Roman shipwrecks in Pisa, Italy. In December 1998, archaeologists

discovered the first of 16 shipwrecks during construction of a new directional center by the Italian State Railways at San Rossore, 1 km north of the center of Pisa. Known as the *Navi di Pisa* ('ships of Pisa'), the shipwrecks are globally important finds, but also highly fragile, requiring costly conservation interventions and access to extensive technical expertise. The excavation, conservation, and museification of the finds have now stretched over 17 years and represent an extremely complex example of organizational activity.

The discovery and its outcomes present numerous elements of interest for management scholars. It represents yet another example of the extension of economic and managerial discourse into other empirical contexts, in this case that of archaeology (and cultural heritage more generally). The field has been rarely examined in management research to date compared to sectors such as health care or education, but raises intriguing issues given the role played by strongly value-driven professional organizations that behave as "clans" (to quote Ouchi). This case in particular highlights how uncertainty is managed (and in some cases, increased) by the behavior of professionals, allowing us to explore issues of professional utopianism, bureaucratic myopia, professional naiveté, and uncertainty (both that inherent to archaeology, and that produced by the institutional setting of the project).

For the qualitative researcher, such situations also constitute ideal opportunities to apply phenomenon-driven approaches. Our sympathy for such an approach, affirmed in our research by a decade of substantive interest in the cultural heritage sector, is not simply due to the fact that interest in arts, archaeology, or heritage by management scholars is so infrequent that much of our research is relatively 'pioneering' (von Krogh et al., 2012). Rather, our approach contains the idea that understanding professional processes and dynamics cannot be easily structured *a priori*, and requires an approach to research that is open, loosely-structured, and sympathetic to the logics, values, and professional discourses of 'the natives'. In short, it has an ethnographic flavor, a sort of organizational ethnography (Brannan et al.,

2012), in which interesting research questions tend to emerge during field research, or even after its completion (Zan 2013), as it is often the case with qualitative research. We disagree with frequent-heard critiques that such research constitutes mere “description” (as if reconstructing the meaning of events and complex processes was unnecessary and should be discounted), or that exhibit the “so what” syndrome. Understanding, describing, and analyzing a situation is sufficiently “conceptual” for us, given our curiosity about and care for the empirical situation being examined, quite apart from the possibility of wider generalizations and implications.

Finding results that are more of a contribution to the profession in question – beyond being important theoretical contributions for management scholars – often accompanies an action-research agenda (Pfeffer, 2009). In parallel we share a desire for civic engagement, rather than working toward the sole end of speeding up our career results within an isolated and totally self-referential academic community, where selection of research topics is strongly characterized by cynicism (publishing papers rapidly, in mainstream journals, without any substantive interest or involvement in any particular issue).

The paper is structured as follows. In section 2 we provide a rapid overview of methodological aspects characterizing our approach to research in the heritage sector. In section 3 we introduce a few basic elements for better understanding the context, in terms of both the archaeological sector and the Italian public administration system. In section 4 we proceed to an in-depth reconstruction of events at San Rossore from 1998 to the present. In section 5 we attempt to analyze the case in terms of the relationship between professional utopianism, the myopia of Italian public administration in general, and the implications of this naive interaction for professionals. Conclusions follow.

## **LOOKING AT ARCHAEOLOGY WITHIN A PHENOMENON-BASED APPROACH**

As is often the case in phenomenon-driven research, our approach is to some extent eclectic, articulated through use diverse lenses that are useful for understanding the specificity of the phenomenon under investigation (Pettigrew, 1985). We are not particularly seduced by ‘current’ references to the literature, given the vagaries of fashion in the management field. With respect to management debates in general, we are close to the literature on ‘strategy as process’ (from Normann, 1977, onward) and strategic change (Mintzberg, 1978, 1994; Quinn, 1980; Pettigrew, 1987), and to research on elements of internal consistency in action and in processes of organizational becoming (with attention to processes but also to the notion of ‘fit’ in itself: Venkatraman and Camillus, 1984; Garlichs, 2011).

In more general terms, our perspective is non-positivist, open to interactions among subjects in which sense-making processes are crucial (Weick 1976, 1977). We are sympathetic to a contextualist approach (March, 1978), and consider the literature on decision-making processes a crucial element for understanding organizational dynamics. Distinct from many management scholars, we pay close attention to accounting and management accounting processes, using a both processual and critical lens (Hopwood, 1987).

Since we focus on arts and heritage, we also draw on New Public Management literature (NPM), given the central role of public administration in this sector (at least in most of the world, which lies outside the Anglo-American common law tradition: Hood, 1991, 1995; Gruening, 2001). This might sound strange for a North American reader, used to a context where the role of the State is minimal compared to Europe, and where an emphasis on the public sector will sound quite separate, a sort of an aside. In our experience, even the label ‘NPM’ is rarely recognized by management scholars and students in the US.

Wirick (2009) provides a well-developed contribution to help public sector managers in better handling their tasks through a project management approach. However this, in turn, would sound strange to a European scholar, where in the debate on NPM, the imperative of

the 3 Es (efficiency, effectiveness, economizing: see for all quote) has been a strong arena for policy making in the last 30 years.

Without summarizing decades of debate on NPM (see quote for a reconstruction), two elements relevant here can be underlined. First, despite the huge differences between civil law and common law traditions (and their impacts in the structure and functioning of the public sector in their respective contexts) most attention in international journals has been on English-speaking countries. Second, health care has been most extensively investigated (quote?), followed by education (quote?) within the public sector management context. Other public services related to welfare – including cultural heritage – have received much less attention in the management literature worldwide.

In our study of the *Navi di Pisa*, we investigate professional values, public administration, and their interaction – understood as discrete but interconnected management phenomena – through field research, based on a systematic reading of the historical archives of the Archaeological Superintendence of Tuscany (*Soprintendenza per i Beni Archeologici della Toscana* or SBAT), plus a series of interviews with staff during 2012-2014, and the Superintendence. The very ways in which the archives are structured offer an interesting view on administrative practices (shared by all articulations of the Ministry of Culture). On the one hand, due to the huge amount of red tape, almost everything must be written down (applications, authorizations, reporting on individual items): from this point of view, the over-bureaucratized context offers a very interesting data set for the analyst. On the other hand, the attention is on individual items and transactions, with an attention to formal control and a relative disinterest in the “big picture”. Since no report providing a synoptic view of the project existed, the authors had to use primary and secondary sources to reconstruct the project’s chronology, budget, policy decisions, and organizational structures. Primary source material included 288 documents (including 62 financial spreadsheets) from the archives of

the Soprintendenza in Florence, spanning the period 1997-2012 and totaling more than 1900 pages. Documents before 2005 were organized chronologically in a paper archive; those from after 2005 were downloaded from the Ministry's internal database through searches for keywords related to the project. Andrea Camilli, project director, also supplied a number of working documents from his own computer.

## **MANAGEMENT RESEARCH & ARCHAEOLOGY: SOME PRELIMINARY NOTES**

The central phenomenon in our story is the discovery of the ancient shipwrecks themselves. Their exquisite preservation and complex cargoes allow the reconstruction of coastal trade routes and give insight into ancient maritime technology. Yet these meanings are the end process of a long and complex series of management phenomena, birthed – not without difficulty – from the encounter between professional values and administrative realities. To assist in understanding the series of events analyzed in this paper, the reader should understand some important contextual elements, starting from the distinction made within the sector between different types of archaeological excavations and discoveries, which also interest us for their organizational and managerial implications, given the different administrative tradition (see Zan et al., 2015 for a deeper discussion).

On the one hand there is research, or “on purpose” archaeology, where a specific organization develops an excavation or survey program in which the nature of the finds can confirm or disprove preselected hypotheses. Such projects are typically conducted by universities, foundations, or research institutes, who create a program and identify available resources. A successful project will lead to the discovery of artifacts or other types of archaeological information. This is the classic method of archaeological research, associated in the popular imagination with Indiana Jones and other orientalist adventurers.

However, in recent decades most global archaeology is ‘salvage archaeology’: excavation is conducted incidental to other projects such as housing developments, bridges,

subways, dams, or other infrastructure, in compliance with laws and regulations on cultural heritage. Here, archaeological surveys or excavations are conducted to verify that the proposed activity will not destroy important archaeological materials, or are initiated during a project, when archaeological deposits are found *during* construction and must be recovered before their destruction (“rescue archaeology”). Depending on the relevant laws and regulations, different actors conduct excavations: archaeologists in particular, but working for public agencies, construction companies, or private firms (predominantly the latter two in Anglo-American contexts such as the USA, UK, or Australia).

Salvage archaeology is particularly interesting, and not only for its huge and growing quantitative significance. From a qualitative view, the study of salvage archaeology is of interest due to the emergence of a direct conflict between time, resources, and the logic of site protection, and the construction of infrastructure related to economic development. It is perhaps unsurprising, therefore, that it is a highly regulated activity, and regulated in very different ways in different countries. Above all, it is the degree of uncertainty that distinguishes the two types of excavation. In an “on purpose” excavation the degree of uncertainty is high, in that it is unknown whether you will find what you are looking for; but at least you are looking for something specific on the base of previous studies and hypotheses. In preventive archaeology (or in rescue archaeology, as soon as a find emerges), there is no hypothesis to prove, nor do you know what it is you are looking for: the excavation attempts to understand “if” an archaeological deposit exists, and whether it deserves to be protected or recovered. In such cases uncertainty is an absolute, constitutive condition.

In the Italian tradition, the State plays a determinative role in the heritage sector, in both positive and negative ways. Regulation of “cultural goods” (*beni culturali*), as cultural heritage is conceptualized in Italian law, is among the most rigorous and generous in the world. The tradition of state involvement in cultural heritage dates back to the Renaissance, with the

Medici in Florence, the Venetian Republic, and the Vatican playing key roles in the evolution of archaeology and museology (Settis, 2002). Indeed, there is a centuries-old “administrative heritage” embedded within the current, highly centralized system. Any building older than 50 years is considered a historical building, and as such a public “cultural good”; thus any change to it requires the approval of the local branch of the Ministry of Culture (the Superintendence). Even where the good is private, some of its values (e.g. the view, the historical meanings) belong to the community and nation. While in other countries this is an exception (think of the list of protected buildings in the UK), here it is a rule embedded in centuries of professional tradition and administrative law: this explains why Italy has so many historical centers, wherein overall protection is better than many (or any) other countries.

However, this is only a part of the picture. On the “negative” side, Heritage is just one of many public services that the State provides, and from an administrative point of view the heritage sector is structured by the same general administrative rules applied to the rest of the public sector, where the lack of differentiation (a la Lawrence & Lorsh, 1967) is one of the most common problems. It is a law-driven system, based on the Roman code tradition, where administrative lawyers play a hegemonic role. The whole public sector is ruled by “one size fits all” regulations, particularly in terms of *human resource* management, which makes hiring, firing, or changing the composition of the labor force extremely complicated. The public sector uses a cash accounting system, which imposes obstacles to multi-year financing with serious problems in planning *financial resources*; even creating a new spending category within ministerial ordinary funds can take over a decade. The amount of red tape is simply astonishing, making administrative procedures incredibly complex and difficult to manage.

#### **THE NAVI DI PISA: A DISCOVERY WITHIN PREVENTIVE ARCHAEOLOGY**

The shipwrecks of San Rossore were sunk by periodic tsunami-like flooding events on the river Serchio between the 5<sup>th</sup> century BC and 7<sup>th</sup> century AD; deposition of the ships in

oxygen-free mud almost perfectly preserved the wood and other organic materials such as rope, cloth, and baskets (Table 1). Though this is the final understanding after 15 years, it is the result of a hyper-complex set of events and issues resulting from the discovery. From its beginnings as a routine preventive archaeology investigation, the project quickly transformed into an emergency excavation, then was institutionalized as a combination of excavation, conservation, and museum project (though with serious inconsistencies and problems).

Here we outline the four main phases of the project, based on interviews and archival research at the entity in charge, the local branch of the Ministry of Culture for Archaeological affairs (*Soprintendenza ai Beni Archeologici della Toscana*, hereafter SBAT) in Florence.

What emerges in the reconstruction is the huge amount of uncertainty characterizing the whole story, where predictions and forecasting appear totally misplaced when looking back at the end of the process. Though many academic publications have emerged from the project, none of them present a simple chronological description, which forced us to reconstruct the timelines of basic activities – such as the discovery, excavation, and removal of ships – from primary sources. This is an interesting observation in itself: why was it outside researchers, and not the protagonists, who had to create a holistic view of the project?

### **Phase 1- State of Emergency: Making Sense of the Discovery (1998-2000)**

In October 1997, Italian State Railways (hereafter FS, *Ferrovie dello Stato*) began routine preventive archaeology investigations for a new directional center at San Rossore, 1 km northwest of Pisa's city center. A private archaeological cooperative under the supervision of SBAT discovered a Roman-era archaeological deposit 2m below ground surface, which it excavated between November 1997 and December 1998 – far exceeding the initial time estimate of 3-4 months, even *before* the discoveries that made the site famous.

The first ship of the *navi di Pisa* was discovered 3m below ground surface on December 7, 1998, followed by further discoveries in January and March. By August 1999,

nine well-preserved ships (referred to as Ships A-I, in order of their discovery) and fragments of eight more had been discovered and partially uncovered. After two years of work, the project had transformed from a routine preventive excavation to a site of international importance for Mediterranean maritime history.

But even before the scale of the finds was understood, a grand institutional vision was articulated for the ships of San Rossore. In January 1999, Superintendent Bottini updated the Ministry of Cultural Goods & Environment about the discovery of the first three ships and presented the concept of a ‘museum with three vertices’: the excavation site, a conservation laboratory, and a museum “dedicated to the history of Pisa on the sea”, all of which would open to the public. Bottini also suggested that the laboratory and museum be located in the *Arsenali Medicei* in Pisa, a dilapidated 17<sup>th</sup> century cavalry stables on the north side of the Arno, about 500m from the famous leaning tower and 800m from the excavation site. In his vision, the three-fold museum would leverage the archaeological finds to also redevelop another, previously unconnected cultural heritage site (Bottini, 1999a).

Bottini’s complex vision belied the uncertainty of the project during 1999 – an unavoidable situation given the complexity and rapidly-expanding nature of the discovery. SBAT budgeted of €300,000 for excavation and €250,00 for conservation in a January 1999 letter to the Ministry – on top of the main excavation costs, which were still covered by FS. This budget was only partially accepted by the Ministry in February, requiring the work plan to be revised. At the same time, a temporary conservation laboratory had to be found, since the Arsenali structures also required extensive restoration before they could be used as a conservation laboratory in accordance with Bottini’s vision. In March 1999 the local company Teseco offered an industrial warehouse in the village of Ospidaletto (20km away) for one year, corresponding to the initial estimated timeline for lifting the ships.

The overall project timeline in March 1999 anticipated the completion of stratigraphic excavation of the first two or three ships by February 2000, transfer of the ships to the Teseco building for conservation by December 2000, and installation of the ships in a new museum in the Arsenali Medicei by December 2003 (Bottini, 1999b). The SBAT estimated a cost of €1 million for ship conservation, and the regional Superintendence for Architectural Resources (*Soprintendenza ai beni architettonici*, a sister organization within the Ministry) estimated €2.5 million for refurbishing the Arsenali building (Bottini, 1999c). Yet in December 2015 the museum was not yet open, and spending on both projects well exceeds €10 million. In retrospect, the naiveté of the early time and cost estimates prefigure the constant uncertainty that has characterized the project.

As these discussions were taking place within the Ministry, the period of preventive excavation was ending. The FS had hoped as late as February 1999 that the “archaeological problems” could be resolved on a “less than geological time scale”, but by August decided to cancel the directional center project, withdraw all funding, and formally cede the site to the SBAT. From now on, the site would be under the ownership of the Ministry of Culture.

FS had provided large-scale funding for emergency excavation of the ships, which led to rapid discoveries and the exposure of a large mass of ancient wood. But when waterlogged wood is allowed to dry, it may shrink by as much as 50% or simply disintegrate. The sudden slowdown in the pace of excavation thus caused major problems: archaeologists had to constantly irrigate the exposed wood, which in turn caused problems with fungal growth. The worksite, moreover, was over 6m deep and criss-crossed by a series of groundwater faults, requiring retaining walls and an elaborate pumping system to protect against risks of collapse.

Plans to manage the complex and costly infrastructural needs of the site were developed in early 2000. In consultation with experts from Italy’s Central Institute for Conservation (*Istituto Centrale per il Restauro*, or ICR), it was decided to encase the ships in

water-filled fiberglass caskets before lifting them from the site; in the laboratory they were later to be impregnated with a formaldehyde-melamine resin that replaces the natural cellulose that degrades in waterlogged wood (ICR, 2000). To manage the geotechnical problems, an agreement was signed with the Public Works Agency of Tuscany (OOPP) to manage the safety and engineering issues for the excavation site. Finally, the design for the new (temporary) laboratory in the Teseco warehouse was completed.

In the midst of stops and starts at the excavation site, now known as the *Cantiere delle navi* (“worksite of the ships”), cost estimates were constantly growing. In Bottini’s budget for 2000, €727,000 was budgeted for infrastructure out of a total of €1,813,000, including removal of only three ships (C, D, E). However, the Ministry of Culture allocated only €1,033,000 for 2000, so the remainder of the spending had to be deferred to 2001 (Bottini, 2000).

In the midst of these emergency measures in Pisa, the Ministry began planning the “museum with three vertices”. The Ministry’s “Scientific Study Committee for the Museum of the Shipwrecks of Pisa” confirmed Bottini’s vision in its September 2000 report, which became the key conceptual document that guided the project for the next decade. The project would include a museum, a conservation lab, and the excavation site, all connected and all open to the public. The laboratory would function as a national training and consulting center for waterlogged archaeological materials, while the museum would focus not only on the discovery at San Rossore but would concern the whole history of Mediterranean navigation. The entire structure of the Arsenali Medicei (6,000 m<sup>2</sup>) was identified as necessary for these purposes, even though the University of Pisa was leasing part of the complex and the whole would require major investments in restoration. The report also included the suggestion of establishing an ad hoc administrative structure to run the whole threefold entity.

Not a single number accompanied this grand plan. Bottini himself, though more than sympathetic with the vision, made the point that crucial funding decisions had to be taken,

and presented a €6.3 million budget for 2001-2003 –exclusive of the restoration of the Arsenali buildings. Bottini also sought funds from the Italian Lottery with a request of €1 million in October 2000, and asked for 32 additional staff posts for the Pisa project within the SBAT. Even as these grand plans were circulating, the operational needs of the project seem to have been both more urgent and more mundane: Bottini had to request €25,000 of emergency funds to deal with damage to the excavation site from a huge rainstorm in November 2000. The contrast is instructive: securing even small amounts to deal with emergencies was difficult, but the huge investments required by the larger vision were never budgeted at all – and the issue of operating costs was not even addressed.

### **Phase 2 - The “Dirty Job”: Professional challenges and solutions (2001-2003)**

By 2000, the San Rossore project had transformed from a short salvage excavation to an open-ended excavation organized around the visionary idea of an interconnected museum, excavation site, and conservation laboratory. The huge scale and technical complexity of the finds required human, organizational, and financial resources that had not yet been identified. As a result, and paradoxically, the end of the emergency excavations led to the emergence of an even greater crisis. The period 2001-2003 was characterized by modest progress at the *cantiere*, but little headway on institutional design; the first hints appear that the grand vision began to impede the management (‘getting things done’) of the excavation project itself.

By early 2001 €1 million in funding had been secured from the Italian state lottery (hereafter ‘Lotto’) to continue excavation and hire specialized firms to address the conservation threats to the exposed wood. Ships F and C (the ‘Alkedo’) were lifted and transferred to the Teseco laboratory in the second half of 2001. Another ship (the ‘Barsicci’) was covered with soil to protect it in October. Funding problems, however, caused excavation work to be suspended in late 2001 and early 2002, causing tensions with the contractors. In

2003 excavation work continued. Most of Ships A and H and the prows of P and G were excavated and lifted and taken to the Teseco laboratory by the end of 2004.

2002 saw a change in management and a new governance structure. Archaeologist Andrea Camilli was appointed director of the excavation site and the proposed restoration center at the beginning of the year. A staff archaeologist working for the soprintendenza since 2001, Camilli remains director of the two institutions and was the central figure in the management of the whole project. About the same time as Camilli's appointment, in early 2002 the Ministry proposed to create an autonomous entity and governance structure, within a private law organization to manage the project. Fani, then administrative director of the Superintendence, was concerned that the creation of this new institution would create delays and also lead to the Ministry withdrawing funding, which was urgently needed for shoring, water pumps, and rent on the Teseco laboratory building. Fani concludes by encouraging the Ministry to include activities at San Rossore as an ongoing project within its regular budget.

In response to ongoing funding problems, Camilli also produced an alternatives assessment for the *Cantiere* in early 2002 that presented three possible options: closing the *cantiere* to the public, only using it for visitors by appointment; stopping the excavations for 2 or 3 years; or closing the site forever. Though the existence of the document demonstrates the potential for an effective discussion around these alternatives, it seems to have been only *pro forma*: after a very opaque set of calculations the report concludes by affirming that with only “€1,000,000 in the first three years and a minimal amount thereafter, it will be possible to recover all of the ships already found, conduct additional excavations, and discover the right bank of the [ancient] river bed.”

The working group on the new museum met in parallel during 2002 and 2003 to discuss the organizational statute and communication strategy of the new entity (Proietti, 2004). However, no budget estimations nor commitments of resources can be found in these

discussions. A special commission by the Ministry for wet wood archaeology was established in September; the commission's November 2003 meeting noted the desirability of combining the laboratory and museum in a single visitor itinerary within the Arsenali Medicei; however it was also clear that the conservation laboratory could not be constructed at the Arsenali quickly enough to meet the immediate need to conserve the wood from the ships. The Arsenali plan was put on hold: the new national conservation center would be located inside the temporary Teseco warehouse while the Arsenali were being renovated.

Although the nature of the finds required long-term commitments to conservation, budgets for the work at San Rossore came from extraordinary funds. €6.6 million in Lotto funding was granted to the project from 2000-2003, but applications had to be made on a yearly basis and the totals granted changed each year. The Ministry, by contrast, made no allocations to the project from its ordinary budget.

### **Phase 3 - Jan 2004-Dec 2008: Instability and improvisation: digesting the discovery**

After 2004, the initial sense of discovery had faded, and the excavation was now understood as a long-term project – but was hampered by unstable funding, requiring innovative management solutions. The excavation area and laboratory were finally opened to the public after overcoming obstacles related to path dependence on the concept of “threefold museum”. Major themes in 2004-2008 include the construction of a permanent conservation laboratory adjacent to the excavation area, major budget instability and resulting management improvisation, major academic publication efforts, and a revival of the museum project.

*Building the Centro di Restauro.* The high rents at the TESECO warehouse, the continuing arrival of new finds, the long timelines required for conservation of wet wood, and the imminent arrival of equipment donated by ICR made a working conservation lab even more essential. The decision to abandon the Arsenali and build the Wet Wood Conservation Center (*Centro di Restauro del Legno Bagnato*, or CRLB) next to the *cantiere* required some

logistical changes to the excavation site itself, including the abandonment of an area proposed for excavation. Once this decision was taken, the SBAT moved quickly: by January 2004 Camilli had prepared a project for excavation work, construction of the laboratory, and general management of the cantiere (Camilli, 2004). Construction of the CRLB then moved rapidly: by September 2005, it was open to visitors, and was functioning by that December (Camilli, 2007, 2009), and ships C and F were moved to the new facility in early 2006 (Camilli et al. 2007). Between December 2005/April 2009, the CRLB carried out conservation treatments on over 8000 artifacts.

*Budget Fluctuation: Instability.* The lack of a regular funding stream for the project resulted in radical budget cuts during this period that threatened the destruction of the finds (see Table 3). The first of these crises came in 2004. After consistent Lotto funding from 2000-2003 and despite the preparation of multi-year budgets that clearly expressed needs for substantial sustained funding (Camilli, 2004), Lotto funds were reduced from €2,580,000 in 2003 to €225,000 in 2004. In the end, an emergency allocation of leftover Lotto 2003 funds allowed the project to proceed without major disruption. Lotto funding fluctuated wildly again in 2005-2006, from €1,143,000 to €3,179,000 (and also included a new funding source). After 2006, however, Lotto funds were reduced permanently, with allocations of only €369,000 for 2007 and €290,000 for 2008. The unpredictability and fluctuations in the budget created serious operational problems: as Superintendent Fulvia Lo Schiavo reported in 2007, such low levels of funding would completely stop the activities at both the CNP and CRLB except for basic maintenance, and harm the international partnerships and conservation projects already underway (Lo Schiavo, 2007a).

*Managing the Cantiere: Improvisation.* This climate of budget fluctuation and uncertainty led to a slower pace of work and a series of management improvisations by SBAT staff. By 2006, seven of the nine mostly intact ships had been removed, though Ships B, I, and a part of A

remained in the excavation area until at least 2011 (10 years after the initial estimate for their removal). The technique for removing ships – uncovering a small piece then covering it with a thin layer of fiberglass and irrigating the area beneath with a small tube – was by this point well-developed and allowed up to 36 months of excavation time without damage to the wet wood (Camilli, 2007a). At the end of 2004, SBAT renewed its agreement with OOPP for five years to manage “the management and worksite operations at the archaeological site” including hiring outside guards and cleaning staff, and maintaining the pumps, well-points, and shoring more generally – a move that represents a sort of informal outsourcing of some site management functions (quote). In September 2005 the Cantiere opened to the public and was receiving circa 1000 visitors per month (Camilli et al., 2007), fulfilling, six years later, Bottini’s 1999 vision but ironically coming as the excavation was nearing its end. A guest house for visiting students and scholars was begun in 2005 and completed in 2007 (Camilli & Setari, 2005:83; Camilli, 2009), as part of Camilli’s conscious strategy to reduce excavation to “costo zero” by inviting university researchers to work at the site. By 2007, 22 universities had participated in excavation or conservation at San Rossore (Camilli, 2009) – indeed, these teams proved essential for completing any work at all in 2007 and 2008, when the total budgets dropped to €369,000 and €290,000 respectively.

*The Research Machine*. Despite uncertain budgets and a slower pace of work, a torrent of academic activities emerged from the San Rossore project between 2004 and 2008, including a book-length academic guide, numerous papers, several major conferences, a traveling museum exhibit, and theatrical performances at the site (Camilli, 2007b). Beyond this, the CRLB began to fulfill the role of ‘national reference point’ for wet archaeological materials by providing consulting services to other Superintendencies. There is a surprising contrast between the instability of funding and the volume and importance of the academic materials.

*Reviving the Museum.* Though the original plans to host the CRLB in the Arsenali were permanently cancelled in late 2003, the notion of a museum there did not die. The Assessor for Culture for the City of Pisa said that the city could support the project, but needed a feasibility study with definite times and costs for the whole project (Lolli Ghetti, 2003). To “overcome this impasse” in museum construction, the CaRiPi Foundation commissioned cultural management scholars at Bocconi University to create a feasibility study for the museum (ASK, 2005). The 2004 study proposed three phases: *adjustment* (2006-2008), *anchoring* (2009-2010), and *museification* (2011-2015). A central aspect of the report is how to coordinate restoration times of the Arsenali with the needed conservation times of the ships, work that obviously needed to proceed in parallel. The report suggested the *Fondazione di Partecipazione* as a governance structure (echoing the 2001 proposal of the Ministry), and estimated restoration costs at €12,295,000 for the buildings alone and €7,176,000 for the installation of the exhibits (ASK, 2005:45, 68). Compare this to the 1999 estimate that foresaw total costs for completing the excavation, conservation, and museum at less than €1 million! The report also estimated running costs for the museum, which were at €2.6 million annually from 2013 onward, compared to estimated revenues of €500,000, an operating loss for the museum of €2.1 million per year (ASK Report p.98). Five years after the museum was first proposed, this is the first estimate of running costs in any of the project documents – and, notably, prepared by an external organization not directly connected to the project.

In February 2007 the official agreement on creating the museum was concluded between SBAT, City of Pisa, and OOPP. The SBAT had €2 million available between CIPE, Lotto 2006 and Lotto 2007; would design and install the museum and manage museum construction using staff from the SBAT; and would coordinate with the Superintendance of Architecture about the use of the building itself (Lo Schiavo, 2007b).

**Phase 4 - Jan 2009-2020(?): Managerialization and urban politics**

By 2009, excavation was largely finished, while recovery of the final three ships proceeded slowly, concluding in 2011. This period also saw the proposed museum at the Arsenali subsumed into a larger urban redevelopment project led by the City of Pisa, with the introduction of managerial rhetoric and generic strategic planning tools in museum planning documents. Finally, the notion of running costs (including large forecasted operating losses) appears in a wide variety of project documents. The addition of an urban planning project led to an explosion of administrative complexity on a formal level, though in practice archaeologists seem to have remained in charge of the museum project, which began substantial construction efforts in 2011 but was not yet complete at the end of 2015.

*Urban Politics Arrives at the Museum.* The renovation of the Arsenali and construction of the Museo delle Navi gained momentum in early 2009. A coordination agreement for the project was concluded in March of 2009 under the rubric of PIUSS [Piani Integrati di Sviluppo Urbano], a program to promote urban sustainability in Tuscany funded by European Regional Development Funds. Signatories included not only SBAT and Pisa, but 45 other entities (mostly government bodies and foundations) who were to work together under four different coordination plans, reflecting the change in project scope from constructing a museum to a redevelopment plan for the Arsenali complex and adjacent properties, which was to connect the area to the city center and its millions of annual visitors (quote).

*Continued Unpredictability at the Cantiere.* Meanwhile, at the cantiere, unpredictability still stalked the *Cantiere* and CRLB. After a major redesign of the shoring system costing €330,000, the OOPP withdrew from management of the engineering aspects of site at the end of 2009, adding a new responsibility to SBAT staff (Gaddi & Puccetti, 2009). The withdrawal of the OOPP coincided, ironically, with major rainstorms in December 2009 that caused the pumps to fail and led to major flooding of the excavation area, causing €50,000 in damage to equipment. The next month, the *Cantiere*/CRLB complex experienced another budget crisis:

against the €1,000,000 budgeted for 2010, €290,000 was allocated from Lotto funds and €0 from the Arcus fund. Meanwhile, delays in construction at the museum created additional costs of €120,000, in addition to the costs of coping with the flood. Given this problem, Camilli threatened to close the cantiere and stop restoration work when the 2009 funding ran out in April 2010 (Camilli, 2010). Despite efforts by Camilli and Superintendent Ragni to secure emergency funds from the Ministry for the various active projects, none seems to have been forthcoming. Following this year of virtual standstill, in 2011 the Ministry for the first time allocated significant sums from its Ordinary Funds (that is, its normal annual budget) to the project, totaling €2,410,000.

*Managerializing the Museum.* The PIUSS agreement inserted the project into the urban politics of Pisa, adding elements outside the ‘tre vertici’, the increasing use of managerial language in project planning documents, and a new and sometimes politicized approach to budgeting. The first major PIUSS report, the “Executive Management Plan”, March 2009, proposed a dual management structure for the Citadella area, which now would include not only the museum in the *Arsenali* but also three other buildings within the historic Citadel of Pisa. The complex as a whole would have a managing director and a technical-scientific director working together with about 10 permanent staff, with outsourced services. The *Piano Esecutivo*, prepared by City staff, included work on the *Museo delle Navi* and surrounding buildings, but no funding for archaeology or conservation. It projected completion of all project elements by 2014, with annual operating costs of €1.5 million mostly offset by €1.3 million in projected annual income from tickets, gift shops, and restaurants, for an operating loss of less than €200,000 (City of Pisa, 2009). This new managerial approach to planning and budgeting is also visible in the SBAT’s “Strategic Analysis and Business Plan” (2010) for the excavation site, conservation laboratory, and museum. The document leans heavily on generic strategic management tools, including a mission statement, resource analysis, SWOT analysis,

demand analysis, analysis of competitors, and critical success factors. The budget section estimates that the three institutions will require €3.4 million in investment, with an annual operating cost of €1.61 million, of which only 35% could be self-funded through restoration consulting services (though, curiously, museum tickets are not considered as an income source) (Camilli et al., 2010). The business plan makes for peculiar reading, given that this type of managerial language had never been used before over the 10 years of the project; some of the discussions, moreover, seem strangely artificial. It also shows a fundamentally different logic than the previous budgets of the SBAT: like the PIUSS report, the document moves beyond simple cost centers and attempts to distinguish between operating costs and investment costs over time and estimate the long-term running costs of permanent institutions. *Building the Museum*. Despite the contradictions in the various plans prepared by PIUSS and SBAT, the new money allocated to the SBAT for 2011 seems to have made it possible to proceed with substantial museum construction. By January 2011 over €1 million of restoration work had been completed at the museum, including light and heating systems, the courtyard, entrance hall, bathrooms and ticket area (Ferretti, 2011). In 2011, a €2 million tender was prepared (Miccio et al., 2011) to cover removal of the final ships from the excavation site (A and B) and restoration of the removed ships and their installation in the museum (C, D, F, H). In 2012 Camilli was actively seeking private sponsors for individual sections of the project, and estimated costs for individual ships. Throughout this period, and despite the increased role of managerial rhetoric and extensive involvement of the City of Pisa and its PIUSS partners, it appears that the SBAT archaeologists stayed in firm control of museum programming, development, and active management.

## **DISCUSSION: PROFESSIONALS AND BUREAUCRACY**

The long-term story the *Navi di Pisa* represents a fascinating history, incredibly complex, full of uncertainty and unstable solutions, and many stops and starts. As usual, already in crafting

a narrative of the whole story we ourselves – as analysts – have tried to make sense of a complex set of data, while crafting the relationships between issues and individual elements within the picture. Far from being a neutral/objective picture of facts – as a naïve positivist would perceive – this representation already brings in our preliminary interpretation and sensemaking. However in this section we would like to better understand what happened, providing a deeper explanation of variables and processes at work.

The phenomenon under investigation is interesting from a management point of view: In the end, its achievements are significant. Far from the worst examples of salvage excavation, the project recovered and conserved nine mostly-complete Roman shipwrecks, fragments of 20 more, and thousands of stunning small finds, conserved them with innovative and successful techniques, and designed a museum to display them, which will (perhaps) open in 2016. Yet these successes were reached in the midst of constant organizational conflicts and lack of systematic planning. Throughout the whole narrative, there is a striking contradiction between the grand vision of the ‘museum with three vertices’, proposed within a few days of the initial discovery, and the (in)ability of professionals to implement it within the context of the Italian public sector. Funding for even basic operations remained problematic and irregular for more than a decade, delaying the realization of the vision, and creating fundamental uncertainty about the ultimate outcome of the project.

All in all, the story could be defined as one where substantive and professional effectiveness was achieved, despite a general lack of efficiency. How was this possible? What are the conditions under which even inefficient approaches can end up being effective? The answer to such a question is difficult from several points of view: it is hard for those that are missing relevant pieces of tacit knowledge, either about Italy or archaeology; but it is also a challenging puzzle for those – like the authors – that have spent long efforts in field work on heritage in different countries, including Italy, who have to explain how the “tacit” plays a

role. Indeed what seems to matter is the relationship between actors' behavior and the specific context of their action: similar behaviors in a different context (say, archeological survey in the US) would have probably resulted in a less unusual situation, where lack of efficiency would have probably led to lack of effectiveness as well.

The story tells us interesting things about decision making: if management is an issue of addressing attention (March, 1978), in what ways is the Pisa situation likely to address attention (or mis-address it)? To understand the issue, a closer look at the conditions of uncertainty characterizing archaeological excavations of this type may be useful prior to further discussion of the specific dynamics between professionals and the state at Pisa.

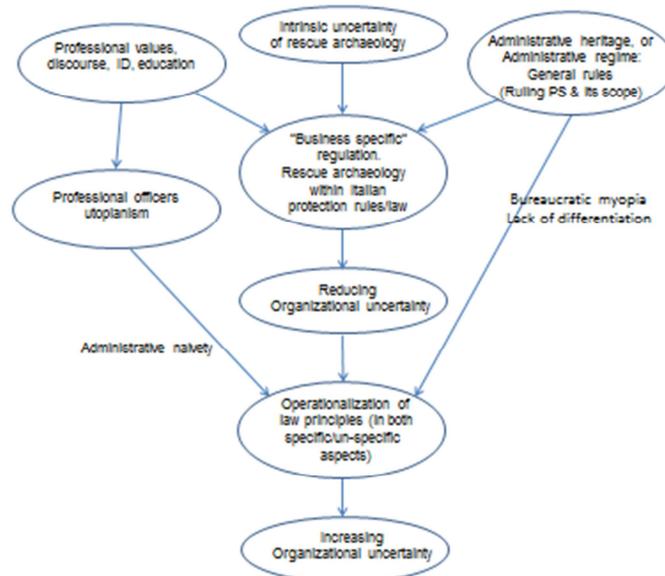


Figure 1

Many of these professional and administrative issues are unknown, and perhaps surprising, to those whose view of 'how things work' is shaped by Anglo-American public institutions and management scholarship traditions. What we hope to show here is how an understanding of 'tacit' knowledge – including knowledge about the administrative context – combined with empirical data, can lead to surprising insights. Far from being an 'irrelevant' adjunct to theoretical musings, collecting empirical data presents an interesting opportunity to

investigate the logics underlying organizational action, with particular reference to ways in which professionals (archaeologists, art historians, and conservators) behave and the problems they encounter in understanding the rules, logics, and functions of the bureaucratic institutions in which they are embedded – and in which they participate (Figure 1).

### **Archaeological excavation, intrinsic uncertainty, and organizational uncertainty**

What characterizes the *Navi di Pisa* story is the high degree of uncertainty throughout all the stages of development. Uncertainty is unavoidable in archaeology: by definition, preventive (or salvage) archaeology is characterized by an inability to know what will be found (and thus, time and cost involved). Excavations are carried out to determine if something that deserves protection is buried in the ground; yet even if something is found, its significance is not always apparent until after substantial work has been done. Important finds tend to imply high excavation costs, but also may impose additional degrees of professional or organizational complexity, as in the case of wet organic materials that require specialized treatment.

However, though uncertainty is in itself unavoidable in these situations (by nature, all over the world), its impacts can be better or worse depending on how the intrinsic uncertainty is approached in systematic ways, according to administrative and professional traditions, which tend to differ in different countries. In other words, there is an intrinsic component, which cannot be eliminated; but there is additional component of uncertainty related to the organizational context. We refer to this as “organizational uncertainty”, that is the uncertainty originating in organizational dynamics (and thus the ways in which things are done), and which increases or decreases uncertainty depending on the conducts adopted in different contexts.

In our view, the enormous organizational uncertainty surrounding the *Navi di Pisa* affected the project negatively, due to a less-than-positive interaction between archaeological professionals and their own bureaucracy (the Ministry itself): still, the long term influence of

professionalism on the state bureaucracy in terms of heritage protection plays a more hidden, yet crucial, positive role.

### **The long-term professionalism in a law-driven country**

If the heritage system as a whole is highly protected in the country, as a result of heritage professionals' ability to shape a law that is perceived with favor, rescue archaeology is part of this heavy administrative apparatus, which is also highly influenced (shaped) by professional values. Italian archaeologists are proud of the Italian protection law: they share the values that characterize such "business specific" regulation of heritage – i.e. issues that are related to archaeology and protection, including salvage archaeology. Indeed, historically speaking, professionals were able to impose their views and values in law making, and indispensable element in such a law driven country. This long-lasting tradition, with the whole set of organizational tools, structures and resources resulting from its evolution, is a professional-friendly way of reducing uncertainty in archaeology (and salvage archaeology) in defining ad hoc administrative routines, and provides a suite of solutions that are usually quite effective in protecting heritage resources over the long term, regardless of mistakes and misbehaviors which might occur on a "short term" basis.

### **Uncertainty and bureaucratic myopia**

But despite the strengths of this tradition, this is only a part of the picture. Because when you are part of the public sector, it is not only "business specific" rules that apply, but the general rules for any public entity: and here some of the major cons emerge, with the lack of differentiation, as we argued above, and a lack of understanding of intrinsic elements characterizing heritage, and salvage archaeology in particular.

This combination of inflexibility and structural limitations gives the centralized administrative system an inability to "see" and cope with individual, non-generalizable problems, which we call "bureaucratic myopia". Any individual cultural heritage problem that

might emerge (say, the discovery of a shipwreck, or emergency repairs at Pompeii), must navigate the same generic administrative regulations that might rule any other public sector project, before it is possible to address the intrinsic, substantive and specific needs and values of an individual discovery. This administrative incapacity persists even when the Ministry provides political support to a project and its aims.

In short, in the operationalization of business specific and general law principles, administrative action in the heritage field can be characterized by the sum of business-specific rules and regulation, deeply embedded in the value of heritage professionals, and day to day general procedures affecting the Italian public sector as such: the problem is that you cannot separate the baby from the dark water (in both directions: either you keep the whole, or get rid of the whole).

### ***Professional Utopianism***

In the context of the bureaucratic myopia that characterizes the Italian public sector in general, the professional optimism of archaeologists can create problems, despite the positive role in long term regulation of business specific elements. At San Rossore, archaeologists pursued their own professional values but did not foresee the likely reactions and behavior of their own bureaucratic institutions, showing a lack of “strategic” attitude.

At San Rossore professional optimism, manifested through the visionary idea of three open, interconnected institutions, created an initial condition of extreme complexity that became a barrier to action for a long period. Reading the project correspondence and meeting memos, it seems as if the more (or most) complicated solution was repeatedly chosen: a museum not only for the ships of San Rossore but one focusing on 4000 years of Mediterranean navigation; not a temporary conservation lab to process the ships and associated finds, but a permanent international center of reference for the study of wet archaeological materials; and a museum plan that did not just focus on an appropriate space

for the ships, but included the redevelopment of a whole district of Pisa in partnership with 47(!) different entities. Adding the notion that the three institutions should be ‘transparent’ and immediately open to the public – even before the full scope of the finds or their conservation needs was understood – added yet another element of complexity that slowed progress. Rather than the Anglo-American acronym KISS (‘keep it simple, stupid!’), the motto appears to have been to keep it as complicated as possible, whenever possible.

Three elements in professional decision-making can be highlighted here, each of which had huge consequences: the lack of an orientation toward assessing alternatives; the lack of a notion of internal consistency; the lack of a (realistic) notion of flow of resources.

- The lack of attention to alternatives is here strictly linked to professional choices.

Excavations started over a large area, and even when the first ships were discovered, other possible ways of running archaeological excavations were not seriously debated: for instance slowing the process, focusing on only one ship at a time, or selecting methodologies for excavating, conserving, moving the ship *before* extensive excavations. Though Superintendent Cordaro suggested in 2000 that “it seems useful to suggest the creation of multiple proposals for recovery and restoration in this preliminary phase, so as to take overall effectiveness into consideration” (Istituto Centrale per il Restauro, 2000), alternatives to fast, large-scale work – such as stopping the excavations and protecting the site through reburial – a normal procedure in contemporary archaeology – were never seriously considered. The reburial argument was used rhetorically in a couple of situations – but simply as a threat in order to get money from the Ministry. Rapid work during the emergency phase created a structure for future costs and decision-making: having exposed the ships, it became impossible to stop working. Alternative patterns in conservation, or in the idea itself of creating a permanent conservation institution, were not discussed in depth (despite the different priorities of ICR, which were successively ignored).

- The lack of attention to internal consistency (or to put in other words, to logical consequences) is also at issue. It was many years before the visionary dream of the threefold museum was thought of in terms of feasibility. But early operations (and decisions about the laboratory) focused on “investments” (capital expenditure, e.g. instruments and tools that will be used for years or decades), without addressing the issue of the resources needed for running operations on a day-to-day basis. Indeed the concept of current costs first appears in 2005 for the museum (the ASK study) and 2010 (in the 2010 budget by Camilli) for the excavation and conservation lab. Estimates of the operating deficit of the museum *a regime* ranged from €1.9 to 2.6 million – nearly as much as was spent each year on the excavation in its highest-funded years – a cost which in theory, would be permanent. If such an estimate had been available in 1999, would the excavation have proceeded to invest such huge sums in a project that would require such large, continuing operating subsidies?
- The lack of a notion of a flow of resources (that is, the relationship between resources and time), also characterized the original vision of the three-fold museum. That two of the components had a different natures – from an organizational point of view – compared to the core function of a museum never appears in the discussion. The *cantiere aperti*, for instance, could never have been a permanent institution, since excavations would only last for a limited period. The conservation laboratory was also needed for only a finite period, with nothing in the long run for the visitor to see after primary conservation of the finds from San Rossore was finished. Yet from the beginning, the plan was for three permanent institutions open to the public. While this is far from the stereotype of the ‘ivory tower’ archaeologist, heritage professionals’ naïve obsession with the project as public spectacle seems to have corrupted it in a certain sense, as they failed to consider the investments, logistics, and urban planning required to create new institutions open to visitors.

### **Administrative naiveté: increasing organizational uncertainty**

At San Rossore, professional utopianism combined with bureaucratic myopia to produce what we call ‘administrative naiveté’, that is an inability to forecast problems, costs, and obstacles associated with the project. The grandiose initial vision of the ‘museum with three vertices’ created a situation of extreme path dependence that was exacerbated by the inability of the State bureaucracies to bring the project ‘down to earth’.

Funding patterns for the project clearly demonstrate the lack of managerial logic, which is consonant with the overall practice of the Italian heritage bureaucracy. For the decade 2001-2010, the whole project was funded almost exclusively with extraordinary funds from Lotto (only once, in 2006, did the Ministry grant ordinary funds to the project). Lottery funds are unstable by nature and subject to politicization, which had serious impacts on the ways in which activities could be run. This happened with respect to the operating costs of the excavation and conservation lab, which were all in all not so huge compared to the cost of opening (and running) the visionary museum that the Ministry itself also wanted to open. But the problems of the Italian public sector are knowable (and in fact known) to archaeologists, who are themselves mostly public employees; and if you know of a problem, you can avoid it, or at least try to minimize its perverse effects.

This is exactly what the archaeologists were unable to do: their own value-driven professional utopianism ended up increasing confusion, rather than helping to find an effective solution that could support their operating (professional) needs in day-to-day activities. This was true both with reference to the three-fold museum (what could have been done earlier and more effectively in terms of conservation, if the obsession with the Arsenali as a conservation lab had never emerged?), but also with reference to initial professional choices (the decision to excavate over a large area and uncover numerous ships in the early period substantially

predetermined the structure of costs for the following decade). Professional optimism, linked with an inability (or unwillingness) to understand their own organizational, institutional and bureaucratic context caused troubles, costs, and risks, adding huge doses of organizational uncertainty to the unavoidable uncertainties of rescue excavation.

The uncertainty was evident early in the project: as Bottini observed in 1999 “the excavation was intended to last six months, and instead we will be running it for who knows how long” (Bottini 1999c). As another observer put it, “In sum, the *Navi di Pisa* have represented, and continue to represent, a paragon of all the principle and complex problems that can arise... for those who are required to care for our archaeological heritage as part of their institutional duties” (Archaeological Superintendence of Tuscany, 2007).

### ***Learning to KISS***

The incompatibility (or at least the loose connection) between vision and reality created consequences that made the life of professionals themselves harder than necessary (and extremely risky, also from a professional values point of view). It took years to understand (or perhaps admit) that the time, costs, and logistics to restore the Arsenali for use as a laboratory were incompatible with the timelines of restoring the ships, and that the laboratory project needed to be thought of, and designed, under different assumptions. Ironically, when the *Cantiere* was finally opened to the public in 2005, most of the excavation activities were finished or on hold.

In one way or another, it seems that professionals (and particularly professionals inside the SBAT) learned their lessons. In fact, as soon as the institutional and organizational confusion declined, things began to “get done”. The “optimistic” and beautiful plan for hybrid, public laboratory-museum in the Arsenali, placed the conservation facilities in a four-year period of limbo, but once the initial plan was abandoned it took less than 2 years to build the new structure and get to work. Conservation work, moreover, seems to have done

efficiently and effectively, with 8000 artifacts treated in 4 years and huge research achievements throughout the process. In terms of museum construction, things also seemed to move swiftly once structural decisions were made: the PIUSS agreement was signed in March 2009, major work had already been completed by the end of 2010, and the museum is partially constructed (though we are skeptical about its proposed opening in 2016). Moreover, the managerial approach of PIUSS and the City of Pisa began to include realistic estimates of investments and running costs, allowing projection of costs into the future – generating much-delayed political controversy over the operating subsidies required.

When things are kept simpler, professional optimism was able to play a much more positive role: archaeological managers could pursue clever survival practices vis-à-vis a less than responsive bureaucracy to achieve their professional goals, such as informally outsourcing maintenance of the site to another government agency and research to a consortium of universities, “a costo zero”. But despite these relative successes, we cannot resist comparing the *Navi di Pisa* to an archaeological find of similar magnitude in Luoyang, China, where excavation and conservation were completed, and a museum opened to the public, within *18 months* of the initial discovery – rather than 18 years (Zan and Bonini Baraldi 2012).

Though the turn toward ‘modern’ managerial rhetoric approach in project documents after 2010 is reassuring in some ways, some doubts remain about its efficacy: for instance when the SBAT’s 2010 business plan undertakes a “competitor analysis” for the CRLB’s wet wood restoration services; or the manipulation of cost and revenue estimates within the PIUSS project to make the museum project more politically appealing. Furthermore, the actual meanings associated with the museum constantly changed over time, without making the underlying assumptions explicit (for instance, to what extent the exhibitions within the *Arsenali Medicei* will coincide with Settis’ 2000 idea of a general museum of Mediterranean navigation, rather than just of the San Rossore ships, is still unclear to us). The agenda of the

“Settis commission”, which affirmed and developed Bottini’s 1999 proposal for three interconnected museums, created a situation of ‘professional optimism’ against which the archaeologists of the SBAT constantly had to struggle. The City of Pisa also attempted to change the agenda of the project by subsuming it into overall urban planning projects; however the City’s insistence that the State fund the museum project seems to have allowed professionals within the SBAT to substantially control the process of museum development.

## **CONCLUSIONS**

In academic management studies, authors are commonly asked to identify the implications of their research at the end of a paper; most of the time they seek to highlight the theoretical contribution of the research or the paper (the “so-what” syndrome, or analysis, echoing the famous mainstream SWOT analysis tool). Though we will try to respond to this request here, we must confess that we find the theoretical implications of our study to be not so obvious: our first answer, therefore, is to problematize it, contributing to the discussion on ways of conducting phenomenon-driven research.

### *An embarrassment with the “So-What Analysis” from a phenomenon driven approach*

In our understanding, one of the characteristics of phenomenon-driven research is precisely to give up the obsession with theory in management studies – what Hambrick (2007) refers to as “devotion” and “hyper commitment” to theory – and simply address attention to phenomena in themselves, for what they are, for their local meanings, in the specific context of the organizations under research, even in their ordinary (not necessarily new or surprising) meanings. In this sense, the idea itself of generalization (and “the requirement that every article must contribute to theory”: Hambrick, 2007: 1351) seems to us in contradiction with some constitutive aspects of phenomenon-driven research. On the one hand the search for general conditions forces zooming out from the specific context of interest that the researcher would like to understand using the perspectives of management studies. On the other hand, in the

process of theorizing understandings and explanations will tend to lose their substantive meanings for inside actors, and acquire a more decontextualized meaning for people that know little about the sector and the context (in our case archaeology, particularly in Roman code countries). This is once again part of the process through which “management knowledge” becomes a generic kind of expertise, a complex set of notions and issues aiming at a specific kind of “know how” while losing the contextual “know what”, as discussed in the larger debate on rigor and relevance (see Hodgkinson and Rousseau, 2009; Kieser and Leiner, 2009; Wensley, 2011; and Hulme, 2014 on the knowing-doing gap while Kipping and Üsdiken, 2007, refer to the historical process of scientization of strategic management in recent decades), and moreover losing connections to and interest in the impact on actual practices.

While part of this discussion is well known and has been around for a while – see the systematic analysis of decades of attention to qualitative research by Miles et al., 2014 – it should be noticed how this criticism of the idea of theoretical implication and generalization in mainstream theory-driven research is one of the elements of identity of phenomenon-based research within management studies. Also, we think that the justification of phenomenon-based research as a useful tool in case of new, under-investigated issues, in their “early phase in scientific inquiry” (van Krogh et al: 279) within a sort of contingency life cycle model substantially undervalues it. We would like to go on for years in better understanding heritage field, its organizations and dynamics, using a similar bottom-up, ethnographic kind of approach; indeed it is strange to think of the ethnographic approach as a temporary, initial and explanatory one, rather than a specific way to approach the field in itself (Brannan et al, 2012).

The problem relates to the possible ways to define a phenomenon itself at a variety of levels. In this sense we will try to answer the “so what analysis”, in ways that are consistent to our epistemological premises and approaches, but could serve as bridge also for scholars with broader research interest (and possibly the referees’ viewpoint). In our case, the phenomenon

we are interested in the Pisa discovery and its evolution, seen from a management/organizational point of view. But this phenomenon could be zoomed out while still maintaining the management/organizational viewpoint: archaeological excavation per se; archeological issues in public sector contexts; archaeological excavation specifically in Italy; or, broadening the issue in different directions, the public sector in Italy, or in general; and so on, up to general management (management reflection which has little to do with any of the previous articulations). Accordingly, we could address implications from our research that have different orders of relevance. Amongst these, we would like to refer to three possible directions.

*1<sup>st</sup> order implications*

First we would like to speculate a bit more on implications that could have a direct relevance and interest for actors inside the field, i.e. heritage entities and professional organizations.

From this point of view, all in all, the Pisa discovery could be defined as a story with a happy ending: a success, despite the mess; professional effectiveness despite an overall lack of efficiency. Our analysis however underlines the risks that were taken: there was the risk of failure not only as a general administrative event, but specifically from the point of view of professional values; and despite being effective, they could have been even more effective under a professional lens (in the specific ways excavation was run, and protection operationalized). Finally, the delicate and contradictory role played by professional values in dealing with uncertainty is the hidden part of the story, with long-term professional values creating a positive (and professional empathetic) way of reducing uncertainty, while professional utopianism in the short terms with its associated administrative naiveté tending to have a professionally dangerous effect of increasing complexity.

A couple of comments are possible here. Italian heritage professionals seems to have “resisted” what is normally perceived as a kind of hostile attack to professional jurisdiction by “non-experts”, i.e. the bearers of general management knowledge. So far at least, they have

been able to keep control of the overall process, with their persistent love for complexity and radical resistance to any need for systematic reporting. Interesting enough, however, they indeed appear very open to the “new” notion of client orientation which is normally perceived as positive in NPM literature, and whose lack characterized the old-fashioned approach of heritage professionals, according to the NPM rhetoric. But this enthusiastic adoption of a client-oriented approach appears to have been too much, and too early in Pisa: less obsession with public access (to the cantiere, the conservation center, and the universalist museum) would have reduced risk and simplified achievement of professional results.

In addition, it is interesting to notice how, paradoxically, the end of the emergency situation (the pressure of the discovery itself, and the need to preserve and understand the meanings of what discovered) makes things harder. In other words, emergencies seem to allow organizational behaviors and decisions that are difficult to put forward in current issues and in day-to-day routines. By the way, this also explains the better performance achieved in our case in excavation and protection compared to the museum (a more routinized activity in itself).

### *2<sup>nd</sup> order implications*

Broadening up the perspective, we would like to underline the disinterest among management scholars (and journals) in important fields of research, such as heritage organizations, which can nonetheless offer a variety of potentially refreshing contributions.

Heritage entities, like most arts and cultural entities, are professional organizations, where professional values play a crucial (sometimes counterproductive) role. Understanding such processes would help to better understand the thousands of organizations that could be labeled as “professional”, and the hidden processes in sensemaking and the reproduction of meaning. This would perhaps help in overcoming the recent seduction of management by a small part of the arts sector, the so called “creative” industries, which are looked at instrumentally, as ways to understand how creativity works for better (general) management

uses (quote). In addition to understanding value-driven aspects of creativity, the issue of how professional values are engaged in coping with uncertainty is likely to open up interesting venues for general reflections. More specifically, salvage excavation appears to us as an extremely promising research laboratory, for comparing the functioning of public sector in different countries, given the (recurrent) clash between tendentially universalist professional practices and the values and idiosyncratic features of administration in a context of high conflicts, often during complex and extremely expensive infrastructure, dam, metro, and similar projects.

The call for research on heritage organizations could also open a totally missing comparison in the evolution of public administration traditions in different sectors and in different countries: comparing elements of resistance and change in the heritage (or arts) field with the more investigated areas of health care and education would add some interesting elements in explaining the variety of processes and results. Additionally, adding to this inter-sectoral analysis the lenses of international comparison in the NPM debate will also contribute to better understanding the kind of (general) change we have experienced in recent decades (e.g., what are similarities and differences in the ways that Italian archaeologists and, say, GPs in Italy or the UK cope with change?)

For what our paper seems to corroborate is the (relatively speaking) weak impact of managerial discourse in Italy: unlike other sectors/countries, the case here is still a situation of a lack of accountization (Power 20xx). Despite (or thanks to) this, the system produced not only grandiose plans, but also the institutional will to realize them: a path dependence that, despite its twists and turns, was extremely positive for archaeology. Moreover, the “primitive” aspects of the management system – cash accounting, lack of a feasibility approach, absence of ordinary funds – were in the end not inimical to management, understood as “getting things done” or “addressing attention” (March, 1978). Further research

might help to clarify whether such phenomena are generalizable to the Italian public sector as a whole: is the Italian public administration (and not only archeology) calibrated to be effective, rather than efficient? If so, this represents a different cultural bias than that found in the Anglo-American context, where an obsession with efficiency (think of budget-cutting, an *idée fixe* of neoliberalism) often eclipses any consideration of effectiveness. In an academic climate where the ‘convergence’ of public sector management under the rhetoric of New Public Management is often taken for granted, it may be useful to search for further examples of such ‘cultural diversity’ within public administration. Such research, however, will depend on the ability to understand both empirical data and its ‘tacit’ contexts.

### *3<sup>rd</sup> order implications*

A final set of implications refer to what could be labeled as the social responsibility of (public) management scholars, in other words our historical capability to have an impact in processes of change in public sector across the world: or focusing the attention on how public sector has been (is being) transformed in ways that are far from what management is conceptualized or represented in current management debates.

Here the lack of focus of management literature on its own consolidated management knowledge is astonishing, a price to pay for fashions in the field. Back to Lawrence & Lorsh (1967), a contribution that should be taught to anyone working in public sector all over the world, is the problematic dialogue between differentiation and integration. The issue tends to reappear in many contexts, but it is too old to be remembered and investigated by our PhD students as they search for updated, and more “sexy”, research streams.

More generally, it is interesting to notice how ineffective we (as the community of management scholars) have been in making professionals understand what management is all about. There has been a lack of parsimony in “promoting” issues that are crucial to management on our side (alternatives, consistency, resources), how to deal with these notions

in specific contexts, and how these elements could be embedded in the day-today activities of professionals rather than turning to “Management” as a discrete set of practices.

An issue of listening also emerges, understanding general management as an ancillary body of knowledge in professional organizations, given the central role of substantive and local meanings, tasks, situations etc.. This also reminds us that field work is desperately needed, even if it conflicts with the logic of ‘publish or perish’. In parallel to the ‘slow food’, a call for a “slow research” movement is here involved, perhaps a common aspect in all phenomenon-based research.

Finally, there is the issue of management literature and linguistic hegemony, a well-known issue in the European context (see the wonderful title of Engwall’s 1998 paper), and its implications. The fact that the central state has a minor role in the US, and a marginal role in the arts sector, creates dangerous risks of decontextualization when exporting (North American) management to countries with stronger traditions of a direct state participation. Listening to Chinese experts in China debating on arts management with the alternative of profit & nonprofit organizations – while forgetting the role still played by the state and the Communist party – would sound ironic, if it were not a serious sign of lack of understanding of the local contexts.

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