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Performance management change in archaeological sites: The case of Herculaneum Conservation Project

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Abstract This study focuses on the issues relating to the implementation of management accounting systems in complex settings such as archeological sites. The aim is to understand the conditions under which the implementation of performance management systems (PMS) may enable cultural organizations to fulfil their multiple objectives and the factors which play a crucial role in such dynamics. Focusing on the Herculaneum Conservation Project (HCP) the study explains how PMS came to be implemented having been made acceptable to all parties involved. The *Middle Range Theory* as developed by Broadbent and Laughlin (Accounting control and controlling accounting: interdisciplinary and critical perspectives, Bingley, Emerald, 2013) was utilized to explore how the PMS change took place in the HCP, and focus on the factors influencing this process. The findings reveal that the change in the PMS benefited from the involvement of a multidisciplinary Specialist Work Group. This involvement reduced the natural tendency to resist the forces of change and increased the commitment of the various groups of stakeholders to the new culture. The findings reveal how PMS were developed in the context of a multifaceted

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approach to change, allowing us to draw both theoretical and practical lessons that may be brought to bear in other complex contexts.

Keywords Performance management system · Management change · Middle Range Theory · Cultural organizations · Herculaneum

1 Introduction

In the course of the last thirty years an increasing amount of attention has been given to the topic of performance management systems[1] (PMS) change, its implications and the factors moulding it (Ferreira and Otley 2009; Broadbent and Laughlin 2009). Nevertheless, there is still ample scope for further empirical and theoretical enquiry (Hopper and Bui 2016). Liguori and Steccolini (2014), argue that research so far has substantially added to our knowledge of how and why PMS change faces obstacles and resistance, while neglecting crucial issues such how management accounting change may impact complex settings and, conversely, how contextual features shape management accounting change. A central issue remains to determine whether any change has actually occurred or whether the organization is simply functioning as it did previously (Brewer et al. 2015)

This is certainly the case in the cultural sector where in recent decades there has been both public anxiety and political and institutional pressure over heritage conservation in Italy. External pressures have led to increasing focus on accounting tools and practices that help to ensure management is coherent with social and economic issues. Cultural organizations are complex entities in which multiple contextual elements vie with each other to constrain or facilitate management accounting change (Ferri and Zan 2014; Chiaravalloti 2014; Manes-Rossi et al. 2015). A number of recent studies have discussed issues relating to performance measurement (Gilhespy 1999; Boorsma and Chiaravalloti 2010; Chiaravalloti 2014) and management accounting changes in response to regulatory interventions (Ferri and Zan 2014) and demands for greater accountability (Bakhshi and Throsby 2010; Leicester and Sharpe 2010; O'Brien 2010). These studies are in unison in their call for more work to be put into investigating questions relating to the implementation of integrated PMS in cultural organizations, a subject hitherto largely overlooked (Bagnoli and Megali 2011; Bonini Baraldi 2014), leaving questions unanswered in relation to how changes take place in this domain, and what factors may influence such processes.

The present paper aims to understand the conditions under which PMS implementation may enable cultural organizations to fulfil their multiple objectives and the factors that play a crucial role in such dynamics. The implementation of PMS in

[1] For the purposes of the paper we rely upon the conceptualisation of *performance management systems* suggested by Ferreira and Otley (2009). Their studies supersede the fragmentation of previous work on management accounting and management control, proposing an integrated non-normative framework that takes into account the interdependency between different elements within organisations as well as coherence of control models.

response to the impact of external influences will be dealt with in some detail. We will investigate the interactions between external influences and the cultural organization to understand how PMS, in the case of the Herculaneum archaeological site, was able to be implemented in a way that was substantially acceptable to all parties involved, and what factors helped determine this process of change.

The *Middle Range Theory* (MRT) as developed by Broadbent and Laughlin (2013) was utilized to explore management accounting change for the case study of the Herculaneum Archaeological Site. MRT's origins can be traced to the Frankfurt School. In this regard, as Laughlin (2007) contends, a major difference characterises the German and the French schools, despite their common Kantian/Hegelian matrix. French critical theory follows Nietzsche in its abandonment of concepts such as hope, a better state, or similar values and concerns (Laughlin 2007). Thus, French thinkers have a "low" critical emphasis of the *status quo* and the urgency for change is put aside through the removal of the above-cited underlying beliefs, whereas German critical theory has more (but still *medium*) attitude towards change. For this reasons, and following Campanale and Cinquini (2015), we find MRT appropriate as a vehicle owing to the nature of the management accounting changes that we examine.

The universally known site of Herculaneum, alongside its larger and more spectacular neighbour Pompeii, was awarded the status of UNESCO World Heritage site in 1997 at a time when material conditions in both sites and the safety of some of the artefacts conserved therein had reached a low ebb. In 2001, taking steps to ensure the conservation of the area, the State authority owning and managing the site, the *Soprintendenza Archeologica di Pompei*, hereafter Superintendence, and the Packard Humanities Institute (PHI), an American philanthropic foundation that provided financial support for the project, worked together to launch the Herculaneum Conservation Project (HCP), a programme of conservation, preservation, research and enhancement of the excavations. The project made it possible to run conservation work with a certain degree of independence, thanks to a distinctive public–private partnership scheme. Between 2004 and 2014 the British School at Rome, directly financed by the PHI, also participated in the project, which is now seen as one of the biggest, most innovative and successful examples of collaboration between public and private partners, working for the enhancement of archaeological heritage in Italy. The case study employs documentary sources and interviews to unpack and identify the changing processes that took place.

The remainder of the paper is organized as follows: the second section summarizes the background, the third section explains the theoretical framework and the fourth section focuses on the research design. The fifth section reports the findings while the main issues which emerge are discussed in section six together with concluding remarks.

2 Background

The literature has variously addressed either general trends of change (Innes and Mitchell 1990; Laughlin 1991) or, more specifically, the factors determining management accounting change processes (Miller and O'Leary 1987; Jacobs 1995;

Abernethy and Chua 1996; Libby and Waterhouse 1996; Burns and Scapens 2000; Baines and Langfield-Smith 2003; Ezzamel et al. 2007; Lukka 2007; Cinquini et al. 2015) the role played by influential actors and the mechanisms of control adopted (Etzioni 1961; Ouchi 1980; Dent 1991; Broadbent and Laughlin 2013).

A feature common to all these studies is that they call for more attention to the organization's contextual features, both internal and external, for a better overall view of the problems to be addressed and the setting of attainable objectives (Busco et al. 2015; Rodriguez et al., 2006). This is especially the case in the public sector given its intrinsically complex nature (Paarlberg and Bielefeld 2009; Ferlie 2007). Liguori and Steccolini (2014) point out that public sector studies should examine accounting as a social practice rather than merely as a technical tool. Some scholars have even proposed that management accounting change has to be addressed by considering culture, values and environmental conditions in order to pinpoint how management accounting tools shape complex settings and how contextual features shape management accounting tools (Liguori and Steccolini 2014; Hopper and Bui 2016). There has also been a clear call for further studies to place more focus on organizational level, rather than only macro level.

These issues become even more compelling in complex cultural sector organizations, where various contextual elements constrain or enable change (Chiaravalloti 2014; Ferri and Zan 2014; Manes-Rossi et al. 2015). Management questions in cultural organizations are now being given considerable attention (Vicente et al. 2012), whereas scant focus has been applied to the *processes* involved in effecting management accounting changes (e.g. Christiansen and Skaerbrek 1997; Townley et al. 2003), even though the latter have the potential to provide tools and techniques to support decision-making (Leicester and Sharpe 2010). These issues have yet to be examined in the literature and, as Hopper and Bui (2016) argue, "given the volume of management accounting in the public sector, the neglect of cultural organizations is both surprising and disappointing".

To understand the dynamics of management accounting change in the cultural sector several factors that could reduce the usefulness of PMS and even threaten the performance of such organisations—need to be carefully taken into account. Indeed, cultural organisations are notorious for their institutional complexity that can influence accounting changes and to shape PMS design and implementation. One aspect of cultural organisations is the multifaceted objectives pursued. On the one hand, there are cultural objectives (Amans et al. 2015) influencing decision-making (Oakes et al. 1998). Moreover, there sometimes appears to be an unwritten social contract between cultural organizations and the community which, however, may be considered effective only as long as the stakeholders' requirements are satisfied (Lord and Lord 1991; Edson and Dean 1996; Carnegie and Wolnizer 1996). On the other hand, economic and financial concerns must be given due consideration. There is also the question of how productivity gains are to be identified and quantified in the field of culture (Christiansen and Skaerbaek 1997).

The difficulties and obstacles deriving from the multifaceted decision-making emerging from this picture are mirrored in measurement uncertainties, and translate into lack of agreement on what needs to be measured and how, especially when there is dependence upon multiple incomplete alternative models. Although

Gilhespy (1999) puts forward a comprehensive list of objectives and indicators to measure everything, from quality to social cohesion, extant studies are mainly based on the measurement of cultural outcomes (Chiaravalloti 2014) and have tended to adopt the pecuniary dimension as a proxy of value, thus reducing a highly complex setting to a one-dimensional yardstick—money. Yet a range of performance indicators can provide valuable, albeit somewhat heterogeneous information (Bakhshi and Throsby 2010; Pignataro 2011). Boorsma and Chiaravalloti (2010) advocate a new direction, proposing a multidimensional performance model which, however, has not yet been tested on cultural organizations. Other scholars put forward the need for systems capable of orienting decision-making processes and ensuring the effectiveness of the actions undertaken (Bagnoli and Megali 2011). A systematic holistic approach fulfilling internal and external accountability needs is still lacking (Bakhshi and Throsby 2010; Leicester and Sharpe 2010; O'Brien 2010; Boorsma and Chiaravalloti 2010).

However, the literature does call for research to comprehend *how* changes in PMS routines and practices can be introduced and made to work throughout cultural organisations, especially when external influences play a major role. The present paper examines the conditions under which PMS implementation can foster change for cultural organizations enabling them to set and achieve their cultural and economic objectives. The focus is on the implementation of PMS in response to external pressures. We investigate the interactions between these influences and the organization to understand how the PMS may come to be implemented in ways acceptable to those involved, and what factors influence this process of change.

It is also necessary to bear in mind that in complex organizational settings attempts from the outside to impose controls may lead individuals within the organization to resist innovation in PMS, especially if they cannot comprehend the objectives of the new systems (Robson 2006). Useful parallels are to be found in public sector literature (Fiondella et al. 2016; Agyemang and Broadbent 2015; Campanale and Cinquini 2015). These three studies propose an interesting approach to management accounting change that can usefully be transposed to examine the dynamics taking place in other cultural organizations. In fact these organizations have strikingly analogous complexities: external influences, financial constraints, bureaucratic approaches, multiple rationalities and the divergent professional specializations of the people involved.

The present study is therefore informed by a research approach called Middle Range Thinking and relies upon the Middle Range Theory (MRT). MRT is suitable because of its potential for providing not only an understanding of the nature and functioning of accounting in society and organisations, but also as it is a vehicle to facilitate critical policy and practical recommendations (Broadbent and Laughlin 2013). MRT is a skeletal theory of organisational change, set in the context of societal change (Broadbent et al. 2010; Laughlin 1991), developed by Broadbent and Laughlin (2013). Indeed, the MRT framework chosen is also able to address the aforementioned issues of complexity and possible resistance to the introduction of PMS. The theory also acknowledges that an institutional attempt to promote change in the organisational systems will provide a disturbance, which will have the possibility of working through the organisation in a number of different ways. Eventually

MRT allows us to understand if and how the PMS have been able to translate these influences towards the creation of a business culture.

3 Theoretical framework

MRT represents an operationalization of Jürgen Habermas' Critical theory and was a long-term task of approximation involving the development of theoretical elements (Power 2013). Broadbent and Laughlin traced complex connections between the language of accounting and how these ideas are integrated in current social systems (Lehman 2006, 2013).

Habermas (1984) regards society as the combination of three elements: *lifeworld* (i.e. a symbolic dynamic space, a normative context within which culture, tradition and identity can be reproduced), *systems* (i.e. a functionally definable arrangement of operations, such as organisations, which represent the tangible expressions of the lifeworld), and *steering media* using mechanisms such as power, money, and law that steer the interface and interaction between lifeworld and systems, and play a role in ensuring that the latter reflect the former. In the event of the increasing complexity of the systems, there is the likelihood of decoupling between them and the lifeworld. If this is the case, the steering media possibly follow the systems instead of the lifeworld, thus leading to a colonisation of the lifeworld by those systems. Building on this view and adopting Habermas' concept of steering, Broadbent and Laughlin (1997, 2009, 2013) argue that the internal colonisation of the lifeworld/interpretative scheme arises not only at societal but also at organisational level, and propose a valuable model to interpret accounting changes based on the following elements.

- Steering media are considered such as "societal institutions" (e.g. government).
- Systems of actions are considered as "societal organisations" (e.g. corporations, local health authorities, schools and universities).
- Every societal organisation has its own lifeworld, systems and steering media, which are denoted as interpretative scheme, subsystems and design archetypes, where the design archetypes (such as PMS) attempt to balance and make coherent the interpretative scheme and subsystems.[2]

While this model of societal development is not value-free, it does make possible an open and less predetermined means of evaluating particular societal and institutional changes (Sharma and Lawrence 2015).

Broadbent and Laughlin (2013) explain that considering the rationality of the controllers who are able to influence the nature of PMS and the context in which the systems operate as underlying forces playing an important role in moulding the

[2] More specifically, Broadbent and Laughlin (2013) adopt the term *design archetypes* from Greenwood and Hinings (1988) explaining that these are compositions of structures and systems given coherence and orientation by an underlying set of value and beliefs that the authors define as *interpretive schemes*.

PMS. Building on Weber's and Habermas' thinking, they claim that two main categories of rationality can be identified as *instrumental* or *communicative* and that any differences in the PMS design depends on the rationalities that are in action (Broadbent and Laughlin 2009).

According to Broadbent and Laughlin (2009) *instrumental rationality* in the Weberian sense is based on rational calculation of the specific means of achieving definite ends and is based on the search for efficiency. They highlight that Habermas (1984) questions whether rationalisation is solely the diffusion of an instrumental rationality or purposive-rational action. Habermas puts forward his theory of communicative action, arguing that ends, in whatever form, should not be predefined but should find their definition, and legitimacy, through the discursive processes. Broadbent and Laughlin (2013) contend that instrumental rationality may lead to *transactional* steering mechanisms which implies narrowly defined outputs and outcomes (the ends), and often a specification of the means to be used to achieve these ends. They exemplify this circumstance through reference to a contract to undertake a particular project over a definable period of time, in which the (instrumental) objectives, the process and the rewards (usually financial) are defined. Transactional approaches are characterised by a command and control style and a 'something for something' logic, which does not admit negotiation between stakeholders. *Communicative rationality* may lead to *relational* steering approaches less, if not, prescriptive and agreed thanks to deliberation and discourse between stakeholders. Usually relational steering is considered regulative and justifiable (Broadbent and Laughlin 2009) as it ensures more freedom to actors in comparison to transactional steering. However, although the framework proposed by Broadbent and Laughlin (2013) allows researchers to distinguish different categories of PMS from a broader conceptual perspective, the two ideal types of relational and transactional PMS should be regarded as extremes of a continuum, and it is likely that a number of PMS can empirically have both transactional and relational characteristics. For example, instrumental rationality may lead to a transactional adoption of the PMS due to precise and pervasive mandatory regulation, but then the PMS is implemented through relational approaches to the process of change and holds relational (less prescriptive) characteristics in relation to ends and means. This clearly remains an empirical issue.

Going further, Laughlin points out that any condition of equilibrium achieved within organizations tends to become *inertia* and such inertia can be interrupted only by an environmental disturbance (Laughlin 1991). Laughlin argues that any process of change triggered by environmental disturbance can impact the organization in different ways, according to the ability of its design archetypes to maintain balance and coherence in the interpretive schemes and subsystems. A number of features may influence change. Organizations with strong ideologies tend to resist changes in the interpretive scheme while those with less resilient ideologies are more subject to manipulation and substantial changes (Brunsson 1989). Greenwood and Hinings (1988) found that contingencies creating contradictions between circumstances/context and organization engender greater propensity for change, which may be diminished by commitment to previous schemes and favoured or hindered by the dominant coalition's interpretive scheme. An important factor to be taken into

account is the skill and ability of the management. Change may benefit from shared vision and collaborative approaches (Dunphy and Doug 1988; Smith 1982).

Encompassing all these features, Laughlin (1991) proposes two basic categorizations of change.

1. *Morphostasis* (first order change) Morphostasis occurs when the change affects neither the heart of the organization, which is conservative and tends towards the pre-existing conditions, nor the interpretive scheme. It can arise as a result of *rebuttal*—usually when an environmental disturbance is dealt with through changes to the design archetype, with a later reversion to the original situation. Morphostasis occurs in resilient, value-driven organizations, and is able to prevent the disturbance from making any long-term impact (Broadbent and Laughlin 2013). Morphostasis can be the result of a *reorientation*—when an environmental disturbance is internalized due to compulsory external demands and affect subsystems but not the interpretive scheme. It can be the result of absorption and also boundary management. Reorientation through *absorption* implies that any change that is perceived as a threat to the ethos, values and activities of the organization and cannot be rebutted is internalized in such a way as not to affect its 'real work' and its interpretive scheme remains as before. Reorientation through absorption requires that a *Specialist Work Group* with the task of complying with the new external imposition is able to demonstrate compliance while at the same time ensuring that the disturbance does not impinge on what is perceived as the essential work of the organization and its interpretive schemes (Broadbent et al. 2010). This absorption is dynamic and uncertain and becomes more difficult to resist if the changes imposed are precisely detailed and intrusive (Broadbent and Laughlin 2013). Reorientation through *boundary management* occurs at the boundary between the organization and its regulatory environment. In this case accounting controls enforced by law cannot be rebutted due to the obligation to comply to the external demands. Those charged with implementing accounting control (the Specialist Work Group) show formal recognition of this obligation and ensure that the changes become embedded in the organizational design and in the day-to-day activities, while the organization's interpretive scheme remains as before. The Specialist Work Group in this case is a conduit for the requirements coming from the outside, to ensure that the changes are embedded in the real work of the organization which seeks to leave the interpretive schemes unchanged. Reorientation through boundary management is based on the cautious acceptance of the disturbance, and relies upon the specific skills of the Specialist Work Group that may or may not want to use accounting controls as a colonising lever, or to foster an evolutionary process of change only at the periphery of the interpretive schemes. Previous studies have observed that the provision of clear guidelines and the commitment of the Specialist Work Group, to unifying people from different fields in a common purpose, are essential elements of pathway leading to hybridisation, the creation of a common language and eventually to evolutionary reorientation (Fiondella et al. 2016; Agyemang and Broadbent 2015; Campanale and Cinquini 2015).

2. *Morphogenesis* (second order change) Morphogenesis is a change that influences the interpretive scheme because it permeates the essence of the organization and brings lasting changes. These may occur as *colonisation* or as *evolution*. Colonisation is an internalized change brought about by a group of significant stakeholders. It is usually seen as a failure from the perspective of the organization as a whole and as a triumph by the colonisers (Broadbent and Laughlin 2013). The new interpretive schemes are the values and ethos of an authoritative minority. In this case, as shown by Dent, both positional power and the use of subtle tactics are likely to be employed to bring about change (Dent 1991). Evolution, on the other hand, involves a deliberate choice by all stakeholders in a free and open discursive exchange until consensus is achieved (Laughlin 1991).

We draw on this theoretical framework, considering the HCP as a *societal organization* and the regulatory agent (the Superintendence) as a *societal institution*. We examine the relations and the interactions between societal organizations and societal institutions with the awareness that any attempt by an institutional steering medium to promote change in one of the organizational systems may constitute a disturbance, which may impact the organization in the different ways described above (Broadbent and Laughlin 1997, 2013). We consider the changes at the institutional level to understand how the PMS as *design archetypes* of the organizations, capable of assimilating influences from the external environment fostered by evolving environmental conditions, can translate these influences into the *interpretive schemes* of societal organizations. We also examine whether internal changes at the organizational level are sufficient to re-direct institutional action.

Following the approach outlined by Broadbent and Laughlin (2013), the present study seeks to understand the changes that occurred as a result of PMS adopted in the HCP, in the wake of external influences. These influences include the demand for increased accountability from partners, sponsors and institutions and the arrival of both financial and managerial resources from the private sector. Also to be considered are the *organizational responses* to these influences, the composition of the *Specialist Work Group* charged with carrying out the process of change and the *strategies* used by them with particular regard to PMS implementation.

We identify which factors initially tended to hinder the process of change. We also describe how the obstacles were at least in part overcome by a well-conceived preparatory phase in which mutual understanding between the organizational actors was developed. We then observe how the Specialist Work Group achieved reorientation through boundary management and implemented PMS (Broadbent and Laughlin 2013). We attempt to explain how informal communication between the organization and institutions and professionals helped to achieve this development. We use recorded data to provide evidence of a process of reorientation through boundary management, moving along a pathway towards an evolutionary change in the interpretive scheme (Dent 1991; Broadbent and Laughlin 2013; Fiondella et al. 2016). Finally, comment is made on how internal changes at organizational level may lead to redirecting institutional actions and on the role of PMS as a means of mediation not only at organizational level, but also beyond organizational boundaries.

4 Research design

The research approach that informs our study is Middle Range Thinking. It implies a number of choices in relation to aspects such as ontological assumptions and choice of data collection methods (Broadbent and Laughlin 1997).

Middle Range Thinking is rooted in the view that a skeletal theory, namely a Middle Range Theory has to be fleshed out by empirical detail to be meaningful, as in the context of the social sciences a theory will never be "all defining and all encompassing". The Middle Range Theory used in this paper provides a conceptual language for analysing empirical situations, whilst still recognising the differences between them (cf. Laughlin 2007). More precisely, such a theory provides as a conceptual language that enables discussion of the empirical situation. In turn, the empirics contribute to enrich and broaden the framework (Broadbent and Laughlin 2013; Broadbent 2013),

Another important issue to take into account is that, the research approach of the Middle Range Thinking maintains that subjectivity and structured formality can operate together towards a meaningful way to draw from skeletal theories to engage with empirical situations (Laughlin 2007). Thus, in this research the above-cited Broadbent and Laughlin's MRT is employed for both the data collection and the interpretation of the results. MRT is regarded here as a lens to interpret the results, and not as a rigid framework to be confirmed or refuted to test severe hypothesis.

Methodologically, Middle Range Thinking provides a procedural outline, but does not determine the methods in detail (Broadbent and Laughlin 1997). More specifically, for the purpose of this study, it is crucial to comprehend the inter-subjective understandings that are created and re-created in the context of every-day-life within the organization (Broadbent and Unerman 2011) and to highlight the social, inter-personal and inter-organizational relationships that a positivist approach usually fails to reveal (Lodh and Gaffkin 1997). The study benefits from multiple sources such as documentary evidence, interviews and participant observation, to examine the social system of reference (Scapens 1990).

There are few studies analyzing archaeological sites from a managerial perspective (Zan 2002; Ferri and Zan 2014, 2017). We have chosen Herculaneum not only for its unique archaeological importance, but also because it is an example of an innovative public–private partnership involving different partners in management and conservation challenges. In 2001 the Superintendence and the Packard Humanities Institute launched the Herculaneum Conservation Project (HCP), a programme of conservation, research and enhancement of the site. This project is one of the biggest and most innovative collaborations between public and private, working for the preservation of archaeological heritage in Italy (Ferri and Zan 2017).

Severe maintenance and conservation problems occurred in the 1990s, such that in 2002 the site was described as *the worst example of archaeological conservation in a non-war torn country* [Pisa Med Conference in Roma, cited by Pesaresi (2013), 185]. The decline of the archaeological site appeared to be

Table 1 Documentary sources

Publicly available documents	Internal documents
David W. Packard's speech at the Lubeck Award 2013	Information flows procedures
2001 Agreement between the superintendence for the archaeological heritage and the Packard Humanities Institute	Herculaneum Conservation Project report (2008–2009)
2004 Renewed agreement between the Superintendence for the Archaeological Heritage, the Packard Humanities Institute and the British School at Rome	Herculaneum Conservation Project report (2009–2010)
2006 Renewed agreement between the Superintendence for the Archaeological Heritage, the Packard Humanities Institute and the British School at Rome	Annual report of the Herculaneum Conservation Project report (2010–2011)
2014 "*Via Mare*" Agreement between the Istituto Packard per i Beni Culturali (the Italian branch of the Packard Humanities Institute), the Superintendence for the Archaeological Heritage, the Local Government, the Ministry of Culture and the Ministry for Territorial Cohesion	Organizational and governance structure

commensurate with the decline of the surrounding modern neighbourhoods (Biggi et al. 2014). The HCP led Herculaneum to become one of the best excavated areas—awarded with a prize in 2013 for Best Practice in Public-Managed Heritage, sponsored by Patrimoni PA Net (Laino 2014).

The present case study addresses the process of change resulting in the implementation of a PMS in the HCP taking place between 2001 and 2015. To understand changes that occurred, examination of a longer period is advisable as these processes are the product of multiple iterative and oscillatory factors. The case study is carried out ex-post, both reconstructing the antecedents of the change and by interviewing the main actors before the research began (Liguori and Steccolini 2011). Since retrospective reconstruction can suffer a bias in terms of ex-post rationalization (Trochim and Donnelly 2006), we triangulated multiple data sources. Data collection involved semi-structured interviews carried out between 2014 and 2016, archival analyses, and, when possible, participant observation.

A preliminary step was to review archival records, examining official and publicly available documents, as well as internal documents (Table 1). After defining key categories of relevant themes, we analyzed these sources to collect evidence which, together with the theoretical model, formed the basis for the semi-structured interviews.

Interviews were conducted with the following actors: the HCP Project Manager, the HCP Information Manager, other HCP team members and the Manager of the Herculaneum Centre (a sister project that was launched with the help of the HCP, whose founding partners were the Superintendence and the local town council). The latter were included because the HCP's approach was to actively involve these figures in the change, as members of the Specialist Work Group. This enabled us to obtain a more complete reconstruction of the process. Concerning the perceptions of other important categories, such as visitors to the

Table 2 Interviews

Categories of individuals interviewed	Individuals interviewed (2015)	Repeated interviews (2015/2016)	Total interviews
HCP Project Manager	1	1	2
HCP Information Manager (GIS)	1	1	2
Herculaneum Centre Managers	2	2	4
HCP Archaeologists	2	0	2
Total interviews	6	4	10

site and the residents of the neighbouring areas, data was extrapolated from site records.

Following the procedure of Ahrens and Chapman (2006), each interview (10 in total) lasted around one hour and thirty minutes. The interviews took place with two researchers present and were recorded and transcribed. To improve clarity and limit misunderstandings, at the beginning of each interview the researchers clarified that interviewees were to answer frankly and not to provide the answers they thought they *ought to* be making. At some points interviewees were asked to provide examples, or to re-phrase in their own words, so that their grasp of the issues could be confirmed. The interviews with the representatives of the organization were held at the site between June 2014 and February 2016. Follow-up phone calls were made when necessary for clarification and confirmation. To enhance reliability, supplementary sources were collected and triangulated with data drawn from the interviews (Table 2). Information was also obtained through e-mail correspondence with the representatives.

The data gathered were interpreted by creating categories of relevant themes. As in Ahrens and Chapman (2006), the areas of agreement between the interviews and the categories of analysis were identified. Any area of disagreement was reviewed and discussed in the light of other sources available. The issues that could not be inserted in the model were considered separately, and used to better explain the phenomena. Following the procedure developed by Yin (2014) and Ragin et al. (2006), the data were codified to identify significant patterns in the implementation and development of the PMS.

To avoid normativity, the themes (explained below) were not considered a priori categories to judge the goodness of the PMS. Put simply, the categories constituted general descriptors to guide the preparation of the interviews, and the questions were constructed with the intention of maintaining a neutral stance as far as possible. This involved adapting the set of descriptors of a PMS proposed by Ferreira and Otley (2009) to the archaeological settings[3] . The same set of descriptors was also

[3] Ferreira and Otley (2009) list 12 key questions intended as a heuristic tool to facilitate the description of PMS They include questions about organisational vision, mission and goals as well as the processes, and the design of the PMS.

used at a subsequent stage to interpret the transcripts, and to identify any emerging questions.

To complement this approach, it was necessary to investigate the "how" issues. This involved looking at additional contextual elements to understand the internal and external challenges and opportunities and to ascertain what the PMS was intended to control. We considered changing regulations and shifting power coalitions and their consequences in terms of *culture of control* and *beliefs*, *transparency of the processes*, *participation of change agents*. Data was then collected from the archival material, the interviews and official reports. This approach made it possible for us to understand the types of rationality that characterised each period and how they shaped the PMS operationalisation. To understand the types of rationality and the characteristics of the PMS we needed to identify several boundaries. We referred to the operationalisation built on previous work by Broadbent and Laughlin (2009, 2013) summarized in Sect. 3. These issues were considered to further refine the coding of the interviews to identify trends arising in the course of time.

In summary, in adherence with MRT and in line with previous research by Fiondella et al. (2016) and Broadbent and Laughlin (2009) the course of events at Herculaneum is interpreted looking at its main phases: the *preparation*, the *implementation* and the *consolidation* of the PMS. For each phase the following themes were considered:

- the regulatory pressures and the interactions between the institutional actors involved.
- the tools introduced, the implications for people, and any resisting subjects;
- the role played by the specialist work group in overcoming the upcoming difficulties;
- the strategies to engage the various actors involved to foster hybridisation;

Following the coding of relevant themes, to understand these dynamics we looked at the external influences triggering the change, the issues relating to the institutional actors, the contextual factors, the rationalities involved in the changes taking place, as well as at the achievements of the Specialist Work Group charged with the task of implementing the change, and at the means by which they were secured.

5 Findings

5.1 The preparatory phase: 2001–2004

The management system for the Herculaneum Site underwent considerable changes in the period between 2001 and 2015, thanks to the involvement of David W. Packard, President of the Packard Humanities Institute (PHI), that since 2001, has invested €25 million ($28.5 million) on specific initiatives as the occasion demanded. The cooperation between the various public and private actors involved in these years brought about a number of initiatives and can be divided into three

different periods, within which processes and activities underwent considerable change.

David W. Packard visited the Herculaneum excavations in 2000 and witnessed the dreadful condition of the whole site. He then decided to launch a long-range project aiming to stop the rot and realize the site's extraordinary potential. David W. Packard has often been asked about his reasons for undertaking this 15 year-long project. He recently declared at the Lubeck awards ceremony that his involvement in the Herculaneum turnaround was mainly based on a natural human desire to do something useful for the good of society, not driven by hunger for profit, but the desire to see cultural heritage flourish in Italy (David W. Packard 2013).

Before David Packard's intervention, the dreadful conditions of the site were compounded by a lack of coordination among the participants involved and scarce financial resources. Moreover, a constant proliferation of regulation and administrative measures affected the sector in general and the study site in particular, thus stopping any activities exceeding the ordinary daily management. Therefore, legal requirements on the one hand, and limited financial stability on the other hand (Bonini Baraldi 2014), were factors leading to increasing discouragement and dissatisfaction for archeologists and managers, unable and not motivated to undertake the necessary concerted action.

In the first period of the private–public collaboration (years 2001–2005) we can identify an exploratory approach among all the subjects involved. Over this phase the issue of financial gain was addressed only incidentally as part of the question of sustainable models of site management, in accordance with the philanthropic agenda of the private partners. Indeed, at the very outset an agreement was signed between the Superintendence and the PHI, stipulating conditions for the reimbursement of Superintendence's works.

In the first agreement in 2001, in the form of a Memorandum of Understanding, took place at a favourable moment, as the Superintendence for the Vesuvian sites had recently gained scientific, administrative, and financial autonomy from the Ministry for Culture and a new Site Director had been appointed for Herculaneum. This agreement was rooted in the idea of halting the decay affecting the archaeological site and developing a conservation strategy *to ensure its long-term survival and enhancement* (Brizzi et al. 2005). Furthermore, the agreement was made as a result of pressure from outraged public opinion condemning the decay of the site and demanding protection and restoration.

The 2001 agreement represents the tool through which new financial resources available were made for work already planned by the Superintendence. However, it stated that the PHI planned *to begin with several pilot projects and then, after reviewing the situation, to consider the best organizational structure for supporting the longer term goals of the project* (Thompson 2007).

Action was taken as follows:

- case study on the *Insula Orientalis I* was carried out, with pilot interventions employed as learning tools to test models for continuous care;
- subsequently, deferring long-term conservation proposals for the *Insula Orientalis I*, the partners embarked upon a site-wide campaign of emergency works that

focused on reducing decay across the entire site. This initiative was characterised by a flexible but wholly comprehensive approach, essential to offer a faster response time and to reduce sporadic, makeshift, and costly work carried out in isolation;

- such joint actions were carried out on the understanding that once the emergency situations had been dealt with, planning for longer term sustainability would be put in place. Efforts were then focused on establishing long-term maintenance programmes that could be carried out by the Superintendence. In order to achieve this goal it was recognized that fully functioning infrastructure, especially water drainage, was essential and funds were allocated to this area.

These preliminary actions paved the way for the HCP, a more ambitious conservation programme, that was outlined in late 2004 and included a sponsorship agreement which allowed the private partner to act directly on site.

The following sub-sections will explain the changes that took place in the wake of these new developments in greater detail.

5.2 The initial steps towards the PMS: 2004–2006

The change phase that took place between 2004 and 2006 can be interpreted through the concept of *instrumental rationality* (Broadbent and Laughlin 2009). This phase was embryonic in the change process; here, the Specialist Work Group slowly began committing to the new logics to achieve *morphostatic* change—specifically, *reorientation* (Broadbent and Laughlin 2013)—as at the end of 2005, acceptance of the new logics increased but operationalisation did not yet appear.

More specifically, after the initial phase, a pivotal role was played by the partnership of 2004 with the British School at Rome, which was granted the authority to intervene directly on the site with conservation works. This led to the British School at Rome becoming the operative arm of the PHI. The involvement of the British School had a twofold importance.

First, it was David W. Packard's express wish to have Italian specialists working for the project with an eye to the longer-term sustainability of the site and its neighbouring areas. However, given the bureaucratic nature of Italian policy and legislation for public sector works, particularly with regard to labour law and institutional competencies, an innovative approach was required. Collaboration with the British School was identified as the best solution. It offered both the flexibility of the private-sector partner in concluding contracts with specialist consultants and contractors, and the specialized knowledge of the site of the public-sector partner. The possibility to use private commissioning with a heritage specialist endorsed the creation of a collaborative task force, the Specialist Work Group, charged with managing the PMS change. The SWG included archaeologists, conservators, architects, engineers, IT specialists and a project manager. Second, the flexibility of being able to outsource made it possible to improve standards both technically and organizationally at short notice.

Under the 2004 agreement considerable importance was attributed to issues relating to planning interventions and to mapping and monitoring site conditions. From the outset, a flexible and informal management approach was introduced, with regular meetings and systematic pre- and post-meeting procedures, to record improvements in annual outputs accurately and to confirm adherence to the strategies approved by the project partners. The combination of the new policies: clear procedures, systematic meetings, exploratory implementation of a performance management and the expertise of the Specialist Work Group was crucial in dealing with the needs and issues concerning the conservation project. The Specialist Work Group set up a circular process of data acquisition, based on the continuous exchange of information through systematic distribution of documents and reports, as well as regular meetings in which open discussion among the members was encouraged (Thompson 2007). The approach followed in the decision-making process was based on a preliminary assessment of the priorities identified, re-evaluated throughout the course of the work, with each decision delegated to the right person and then properly recorded and implemented.

The preparatory phase of PMS was not free from resistance. Until the end of 2005 constraints such as the severe financial deficit, demands for accountability and financial restraint, excessive bureaucracy, fractious and unstable power coalitions, a shifting regulatory environment, and embedded systemic problems including hierarchical relationships, scarce autonomy and poor communication, appeared to be the order of the day. The *instrumental rationality* (Broadbent and Laughlin 2009) exhibited in this period stemmed mainly from the rational calculation of specific means for achieving definite ends and efficiency efforts. This rationality, reliant on transactional steering mechanisms, led to narrowly defined outputs and outcomes and the specification of the means to be used to achieve these ends. As such, this stage did not allow the identification of definitive changes in PMS from an MRT perspective.

Nonetheless, there was no outright *rebuttal*, indeed it was in this period that the way was paved for PMS implementation. In fact, David Packard from the very beginning ardently wished to put in place a team of individuals strongly committed to the HCP. To this end, he required periodic reports not only on financial issues, but also encompassing the managerialization of the monitoring and interventions relating to decay, conservation, and restoration. Also, updates on the relationships with partners and local parties were considered paramount by Packard, who had also long been interested in the flourishing of the community as a whole, and in the acceptance of the site by local community.

The usefulness of the procedures introduced and the prioritisation of the interventions in order of urgency, enacted by the Specialist Work Group were crucial to foster fresh thinking throughout the archaeological site. The Specialist Work Group drew on expertise in manifold fields and being interdisciplinary in nature, was able to bring greater awareness and experience to a shared decision-making process.

At this stage, we can recognise only limited changes resulting in the *morphostasis* response. The change that took place during the observed years falls under the *reorientation* change type (Broadbent and Laughlin 2013), which arises when an environmental disturbance is internalised due to compulsory external demands, affecting subsystems but not (or not yet) the interpretive scheme. Indeed, at the end of

2005 the new rationale and policies introduced had yet to be applied fully in practice despite their increasing acceptance by those involved.

5.3 Implementing the PMS: 2006–2008

The phase between 2006 and 2008 featured several actions, enacted by the Specialist Work Group, that relied on relational steering mechanisms derived from a prevailing communicative rationality, leading to reorientation through *boundary management* (Broadbent and Laughlin 2013).

More specifically, the year 2006 was a watershed between the positive but still unsystematic actions of the first five years and new efforts to implement a holistic PMS. More specifically, the HCP started to feel the need to monitor not only the social perspectives, but also to encompass financial viability with regard to the financial sustainability of the site (Court et al. 2016). Thus, having identified the regulatory and contextual pressures demanding root and branch improvement of the site, action was taken by the Specialist Work Group to implement PMS.

Bearing in mind the general descriptors of the PMS, we can observe the phases of the implementation of its constituent elements.

The first inevitable problem regarding PMS concerns the communication of the *vision* and the *mission* of the organization. In 2006 the updated HPC agreement became a point of reference to define the vision and the mission of the project with greater clarity.

The new contract identified six specific objectives:

1. To halt the widespread decay and to keep the site in good maintenance in a sustainable manner;
2. To experiment and implement a long term strategy for conservation, suitable for Herculaneum, but also applicable to other archaeological sites;
3. To elaborate an information system to facilitate the management of the site in the future;
4. To build on archaeological knowledge of Herculaneum based on conservation activities;
5. To preserve, document and publicize artefacts discovered during the excavation activities and enhance access to them;
6. To promote wider knowledge and awareness amongst the scientific community, the local community and the public of the Herculaneum site (Thompson and D'Andrea 2009, 238).

Interviews conducted with the HCP archaeologist confirmed that the objectives stated in the new agreement had been crystal clear to all actors concerned. The vision and mission were imparted to all the people involved who, thanks to a participative, informal and flexible approach, were aware of the importance of the project and worked accordingly. This is particularly important given that representatives from the local public authorities were also on board, leading the urban planning department to abandon habitual bureaucratic attitudes. The dialogues

show that the key success factors of the whole project were fully recognized by the participants, thus helping to identify areas of common interest on which to focus their efforts. The link between the *vision* and the *key success factors* was clearly forthcoming from the majority of interviewees and is summed up by the following quotation:

> The key to our mission is the enhancement of the site from many points of view, that is conservation and restoration, development of financial and management capabilities, development of efficient information systems and archives, knowledge sharing, as well as whole community flourishing (HCP Archaeologist).

In terms of *strategies* enacted by the Specialist Work Group, the HCP was also driven by the notion that the regeneration of the site should go hand in hand with the regeneration of the surrounding town and community. As a result of this, in 2007 the HCP launched a sister project, the Herculaneum Centre, between the municipality of Ercolano and the Superintendence, with the support of other private and public partners on specific projects (Biggi et al. 2014). The involvement of other stakeholders—in particular, the local community—was intended as a key factor to contribute to the conservation of the archaeological site (Court and Biggi 2010). This is explained by the Centre Manager as follows:

> to become a reference point for the local community and to foster the involvement of people in the preservation of the historical heritage of Herculaneum through the development of partnerships, facilitating physical and intellectual access to the historic environment and stimulating responses to the cultural and archaeological heritage of Herculaneum (Centre Manager).

Another objective of this initiative was to gain support for the actions undertaken within the site, and to create a positive impact on the areas surrounding it, assigning even greater importance to the need to answer the pressures coming from the local community. For example, work was carried out on the *Basilica Noniana,* which is close to Via *Mare*, a neglected residential area. Also advantageous for the area would be the involvement of the international community of archaeologists and experts dealing with conservation and restoration. Presenting the objectives of the HCP clearly and resolutely resulted in significant improvements in both organizational structure and strategic planning.

From the *organizational* point of view, during the interviews the Project Manager noted that the macro-objectives defined under the renewed agreement of 2006 improved the pre-existing approach. The improvement consisted mainly in the enlargement of the Specialist Work Group contractually appointed to reinforce strategic thinking case by case for the specific issues addressed. The new structure was exactly what was needed to build *trust* and *collaboration* among members. It made it possible through collaboration with a private partner that was able to hire people in the Italian public sector quickly to deal with urgent jobs.

To encourage cooperation through knowledge sharing with other specialists of the cultural sector, and in line with the effort to involve international specialists,

the HCP supported the collaboration with the International Centre for the study of the Preservation and Restoration of Cultural Property (ICCROM). ICCROM played a crucial mentoring role because the Herculaneum site was introduced in a training exercise. This collaboration made it possible to acquire knowledge and consolidated practices for both conservation and restoration, as well as new management skills, by-passing glacially slow bureaucratic procedures.

As far as *strategic planning* is concerned, the site continued to hold regular coordination meetings with systematic pre- and post-meeting procedures to identify and discuss upcoming priorities. The improvement is related to the fact that decisions were now clearly placed within a complete outline of macro-objectives with full consensus and approval within the organization. This approach became progressively more familiar to employees. Improvements in annual outputs were recorded and coherence with the strategies was verified. Over this period the Specialist Work Group enjoyed the full support of the Scientific Committee, including representatives of the ICCROM and the director of the British School at Rome.

However, the need to support strategic planning with tools to organize the data and documentation collected became even more pressing than before. One of the most complex tasks to be carried out was to recognize, classify and catalogue the data available, as well as to interpret the linkages between them. To this end, a Geographic Information System (GIS),[4] already experimented in the *Insula Orientalis I*, was extended for the entire site as a support for the PMS. It is continually updated and serves as a key tool for planning and monitoring maintenance by the Specialist Work Group. The GIS helps co-relate data, thus supporting the interdisciplinary and cooperative managerial approach adopted from the outset (Brizzi et al. 2005; Thompson and D'Andrea 2009). In the period 2006–2008, increases in capital funding from the European Union caused unexpected difficulties for the Superintendence who lacked management capacity to spend both their normal funding, as well as these new resources. The correct prioritization of the interventions was a key issue in this period. Hence, the GIS was used by the Specialist Work Group as base on which to progressively enlarge and enhance the re-organization of all activities related to conservation, restoration, classification and maintenance within a centralised archive. It became a data warehouse able to define specific interventions on structures and decorations, giving priority to those of greater artistic and historical value (Pesaresi and Martelli 2007).

As summarized by the Information Manager during the interviews, the steps planned (and today achieved) were defined as follows:

> We first realized a complete map of the archaeological site, divided according to the houses, streets and areas, similar to a cadastre, recognizing the specific need of maintenance and repair, and creating a scale to determine the level of

[4] The GIS is "a geodatabase that ensures the indexation of the entities and the topographical relationships between them. The development environment (MicrosoftTM SQL Server) has allowed the creation of a robust database structure that guarantees the integrity of the data as it is entered, the archiving of historical data, and complex querying of attributes, geographical and topographical locations". (Brizzi et al. 2005, 5).

> urgency, specifically for buildings and decorative features in individual buildings, namely a decay mapping with decay indices. This mapping was also employed as a monitoring tool with regular updates. In this regard, the team elaborated indices and statistics to take into account the effects in terms of deterioration produced by visitors, to get a full comprehension of such dynamics. Moreover, emergency works were followed up by measures to face the causes of decay (water, consolidation works, etc.). Then, we identified the archaeological value of every single area and artefact, as a preparatory activity to define plans and priorities. (HCP Information Manager).

Thus, the management of data helps decision making by finding a balance between risk, values, costs of intervention, and resources available. The needs relating to the peak season, which starts in spring and ends in middle-autumn, when it is advisable to open up parts of the site otherwise closed to tourists, must also be taken into account. The Specialist Work Group does not plan works on a geographical basis i.e., complete intervention and upgrade for a single specific area, as is often the case in conservation work. Instead, it attempts to meet the specific long-term needs of the site and improves the management of the site through a process of rationalization of expenditure.

> We could know the cost of each kind of intervention. This approach fostered the provision of outsourcing contracts and made it possible to make a better estimate of the total cost of each intervention, supporting the necessary triangulation with the resources available and the purchase processes. (HCP Information Manager).

Thanks to the information gathered through the GIS, the Specialist Work Group began to register efficiency and effectiveness in *targets* and *indicators*, mainly focused on the cultural dimension.

> The criteria considered to assess the performance and monitor the activities vary in accordance with the specific activities carried out. These can range from the linear meters of Roman sewer reinstated to the number of children of the local community participating in the heritage workshops. A crucial role is assigned to the cost-quality-time ratio for maintenance interventions on an urban scale that makes it possible to optimize the public tendering procedures to avoid disputes and secure success for project proposals developed by the HCP. In addition, the issues relating to knowledge dissemination are monitored by taking into account the number of academic articles published by the HCP and the number of TV companies and TV time given to Herculaneum broadcasting. (HCP Project Manager)

Despite the valuable contribution of the GIS in supporting the Specialist Work Group in decision-making and strategic planning, at the end of 2008, performance assessment procedures were still underdeveloped and not routinized. This situation diminished the usefulness of existing *targets* and *indicators*, especially with regard to the economic perspective and visitor satisfaction. Thus, the PMS was not yet fully coherent with internal needs. It was based too much on conservation and cultural

perspectives, which were at this stage internalised, but unable to offer a holistic assessment of the organization.

Over this period the Specialist Work Group adopted a different approach in decision-making, breaking the silos of their specific tasks), with changes in the PMS progressively affecting daily activities. The main factors surrounding the changes were: the reduction in financial deficit and the improvements in conservation achieved thanks to the intervention of the PPP; relatively stable coalitions both inside the organization and in institutional field; the consultation processes for decision making activated by the Specialist Work Group; the relatively stable regulatory framework. (e.g., regulation changes made to answer to exigencies expressed as a result of deliberative processes). This brought about renewed attention to cultural and economic issues (e.g., progressive changes in the beliefs of managers and archaeologists) and a *communicative rationality* (Broadbent and Laughlin 2009) based on reduced hierarchical relationships, improved autonomy, open communication and cooperation.

In summary, the change realised over this phase demonstrated the characteristics of reorientation through *boundary management* (Broadbent and Laughlin 2013). This type of reorientation occurs at the boundary between the organisation and its regulatory environment, and the role of the Specialist Work Group is paramount to its success. In this phase, the Specialist Work Group recognised its obligation to ensure changes were incorporated into the organisational design and day-to-day activities without altering the organisation's interpretive scheme. Further, the path to a relational steering mechanism (such as PMS) was implemented.

5.4 Consolidating the PMS: 2009–2014

The *consolidating* phase, which took place between 2009 and 2014, can be understood as a period in which the actions of the Specialist Work Group continuously enhanced the breadth and relevance of the relational steering PMS to achieve the following change: *reorientation through boundary management towards evolution* (Broadbent and Laughlin 2013). All stakeholders consciously reached a consensus.

Firstly, the last phase of the change in the PMS was characterized by a *renewed mission* in terms of more effort to increase the involvement of the communities and the improvement of the economic performance of both the site and the surrounding areas.

This process began slowly in 2009 but significant changes began to be detectable only in 2013.

2009 started with a reduction of direct conservation and maintenance works by the British School at Rome and the development of cooperation with the Superintendence which was due to take back the leading role in the safeguarding activities. This objective was pursued by the Herculaneum Centre. The Centre developed research with both local and international interest groups, and partners covering several areas such as *conservation of mosaics, visitor management, conservation of marbles, local community participation, archaeological research, documenting archaeology, heritage legislation, cultural districts, and the maintenance of*

archaeological sites (Court and Biggi 2009, 3). These activities are directed to a number of stakeholders connected to the local community and involving intergenerational efforts. A good example is the activities directed to young people, for whom it is difficult to receive practical training in this field.

The leading idea of the Specialist Work Group was to develop a strategy of long-term conservation of the archaeological site, by raising awareness and building highly specialized skills on the territory, thus looking beyond the handover of the HCP to the Superintendence.

Later, in 2013 the *Istituto Packard per i Beni Culturali* became the new operative arm of PHI in Italy and so the British School at Rome's role became redundant. This replacement was made because the provision of an Italian operative branch of the PHI in Italy allowed the HCP to better manage the flexibility needs formerly assigned to the British School at Rome, by itself. This change was crucial to information flows due to proximity to the territory, thus facilitating and speeding up the activities of the Specialist Work Group (especially with regard to the financial transfers necessary to fund the planned works).

Moreover, in January 2014 a new public–private partnership (PPP) was set up involving the HCP in the redevelopment of the modern town. The PPP contract was signed between the HCP, the Local Government, the Ministry of Culture and the Ministry for Territorial Cohesion, with the main aim of upgrading Via *Mare*, a road overlooking the ruins of Herculaneum, historically threatened by social and economic problems. The need to address the problematic issues of Via *Mare* was already noted in 2006, but in 2013 there came the recognition of the need for a broader and more systematic redevelopment. Although there was already awareness of the need to upgrade Via *Mare* in 2006 (it had already been regarded as a key success factor), the practical effort to achieve this aim began only in 2013.

This period can be regarded as a crucial moment for the definition of a number of factors discussed hereafter, that contributed to operationalize the changes taking place. These were internalized and perceived by people involved as amenable to substantive justification and thus, neither rebutted nor confined to the periphery of the consolidated practices.

First, the Specialist Work Group improved communication with the institutional parties involved and among the team members, promoted collaboration, transparent and timely information flows, further reinforcing the driving *communicative rationality* (Broadbent and Laughlin 2013). People involved with different backgrounds progressively acquired common interdisciplinary knowledge and began to employ the same specialized language, revealing a process of hybridization. This was also useful to support an increasingly broader approach to conservation, cultural and economic issues, which is reflected in the characteristics of the information system and in the assessment procedures.

Second, the Specialist Work Group gradually made further improvements to the GIS to guarantee the systematic archiving and accessibility of project results in order to assess the effectiveness of the activities undertaken.

Third, the GIS reinforced the Specialist Work Group's ability to deliver regular progress reports which map the evolution of the initiatives at two, four, and six week intervals, established at the outset of the project, thus improving the routines of the

archaeological site. The Specialist Work Group continues to update and improve the GIS in a twofold manner:

- increasing its appropriateness from the managerial perspective;
- examining ways to improve procedures to process information before rendering it available to all participants.

Fourth, performance assessment - strictly linked to the GIS dataset - increasingly encompasses multidimensional aspects of performance, in search of a balance between objective and quantifiable measures of financial performance and the qualitative aspects relating to cultural aspects. The process was undertaken mainly building on a set of key performance indicators that can be further refined based on the specificities of the projects undertaken. The definition of any criteria is formulated in a participative manner.

More in depth, the Specialist Work Group attempted to realize a set of performance indicators and related targets to monitor the following aspects: site-wide mapping of archaeological features, modern architectural elements, wider infrastructure, decay situations, and areas open to the public, together with monitoring of the cost, timeframes, quality, and performance of interventions carried out. The aim is to achieve full coverage of efficiency and effectiveness for conservation interventions and the deployment of human, financial, and intellectual resources.

This set of key performance indicators showed that at the end of 2014 the HCP was able to repair or replace eighty per cent of collapsing protective shelters, with PHI and/or public funding. In addition, the HCP repaired or replaced 990 m of drainage out of a total of 2360 m stemming the major cause of decay on the site. In sum, the total number of interventions carried out by the HCP at the site amounted to 1009 jobs, for each of which the PHI examined the respective costs to assess efficiency. The data also provided insights into the areas open to visitors, crucially co-related to user-satisfaction. At the end of 2006 only 32% of the site was physically accessible to visitors. However, thanks to works carried out by the HCP, in 2014 69% of the site was open to the public. This proportion is constantly monitored and the HCP has targeted the opening of the 80% of the site by 2018. Being able to measure such achievements may be considered at least as significant as being able to read balance sheets showing trends in tourism and ticket sales. In addition to this, visitor segmentation, experience and satisfaction need to be assessed. The HCP has undertaken a survey to gain more details on visitors which, however, was still unfinished when the interviews were carried out.

Routinization, achieved thanks to the efforts of the Specialist Work Group, is important because it reinforces the informal approach in the relationships between people, easing the way to a general re-think of the strategic priorities of the site. The evidence suggests that the Specialist Work Group has succeeded in making clear its mission and aligning the various strategies with its operational program. The mission, strategies and goals were communicated, shared and fully comprehended by the different actors, and this has enabled a productive interaction between them. This has also favoured greater transparency and clarity in terms of assessment procedures, criteria and indicators, as well as the creation of

a well-working information system. Moreover, despite the absence of established reward/sanction measures, the co-operative approach helped to render the PMS coherent. This coherence can be detected in the ability of the subjects involved to create a common language to negotiate their interests, favouring effectiveness and constant improvement of the PMS.

The changes operationalized do not represent the conclusion of the process, which is still on-going, and still in search of improvement. Indeed, the objectives for the next three-year cycle, starting at the end of 2014, are listed as follows:

- *Plan a campaign of works of a simple and repeatable type on the cultural heritage of a particularly challenging nature, reducing to a minimum the adverse events;*
- *Where possible and as much as possible, intervene in a uniform way, but without losing sight of the specific demands of archaeological conservation;*
- *Operate according to seasonal needs and, at times, also on the basis of visitor needs;*
- *Establish the average financial outlay for maintenance, with due consideration for specific costs related to site logistics, increased operational caution, and managing risks and the need for quality control;*
- *Deliver constant monitoring and control of conservation conditions, without weighing further on the public authority;*
- *Guarantee the quality of interventions and ensure an upward spiral of continuous improvement to conservation approaches, fostering approaches advanced by the HCP;*
- *Experiment procedural innovation in the heritage sector which draws from experience in other sectors, an example being the 'accordi quadro pluriennali' time-based contracts unifying works, supplies and services;*
- *Secure effective documentation and an effective information management approach to inform future planning and monitoring (Pesaresi 2013, 186–187).*

Despite the value of the results achieved so far (see Table 3 below for a synthesis), the Specialist Work Group is aware that there is further need to improve the target setting and the assessment procedures for the question of visitors. In fact, between 2013 and 2014 a large survey was conducted on individual visitors coordinated by the HCP, assessing demographic data and collecting information on motivation, as well as opinions on the visit experience and on the quality and suitability of additional services provided. The results are useful to improve some services (such as the choice of the languages for the explanatory brochures). However, a current limitation is that the Superintendence alone continues to manage visitors issues.

In addition to this, the Superintendence has sole charge of the security personnel. Problems raised by the labour unions often create evident inconvenience to visitors. It is still too early to present a full picture of how the efforts put into conserving and maintaining the archaeological site have impacted the visitor experience, promoting deeper knowledge of the site and creating a unique experience. Visitor satisfaction is surely an important element for the assessment of site performance and for strategic redirection when necessary.

Table 3 The PMS change process in Herculaneum Archaeological site

Period	2001–2005	2006–2008	2009–2014
Main Institutional Actors	PHI Superintendence for the Archaeological Heritage British School at Rome	PHI Superintendence for the Archaeological Heritage British School at Rome ICCROM (for some training activities) Herculaneum Centre Local government	PHI Superintendence for the Archaeological Heritage British School at Rome (until 2013) IPBC (Italian branch of PHI) Local Government Ministry of Culture Ministry for Territorial Cohesion Herculaneum Centre Superintendence for Architectural Heritage
Context and rationality	Severe financial deficit and relating accountability demand (emphasis on financial constraints) Bureaucratic approaches in the field and unstable dominant power coalitions Fast changing regulation Instrumental rationality (hierarchical relationships, scarce autonomy, limited communication)	Reduction in financial deficits and improvements of the conservation Stable dominant power coalitions Deliberative processes Relatively reduced changing regulation (e.g. regulation changes are made to answer to exigencies expressed thanks to deliberative processes) Attention for cultural and economic issues (e.g. progressive changes in beliefs of managers and archaeologists) Communicative rationality (reduced hierarchical relationships, improved autonomy, open communication, cooperation)	Reduction in financial deficits and full control of the conservation priorities Stable dominant power coalitions Deliberative processes with prioritisation of the intervention Consolidated attention for cultural and economic issues (e.g. progressive changes in beliefs of managers and archaeologists towards hybridisation) Consolidated communicative rationality (informal relationships, autonomy, open communication, cooperation)

Table 3 (continued)

Period	2001–2005	2006–2008	2009–2014
Specialist work group's achievements	The PMS was not yet developed, still looking for clarification of the mission and vision	Well-developed and shared features: Mission and vision Key success factors Organizational structures Strategies and plans Information flows, systems and networks Aspects deserving more effort: KPI Target setting Performance assessment activities Control information	Well-developed and shared features: Mission and vision Key success factors Organizational structures Strategies and plans Information flows, systems and networks Performance assessment activities Control information Aspects deserving more effort: KPI Target setting for visitors
Organizational responses	None	Reorientation through boundary management	Reorientation through boundary management towards evolution

The main effort of the Specialist Work Group will be to improve the PMS so as to gather information useful to provide better services, to enhance the enjoyment of the site, and to prepare the way for further projects involving the local community in the life of the heritage site.

In this phase, despite the continued presence of *morphostatic* change, some elements of *morphogenesis* were recognised: namely, all stakeholders consciously strove towards consensus and evolutionary perspectives (Laughlin 1991). The Specialist Work Group realised a further step in the change process: *reorientation through boundary management towards evolution* (Broadbent and Laughlin 2013). This included changes to PMS, affecting not only the daily activities of the people involved but also touching on their interpretive schemes and unifying people from different fields through a common purpose and language.

The data recorded also show that the PMS over this period was fully developed in relation to the aspects of Mission and Vision, Key success factors, Organizational structures, Strategies and plans, Information flows, systems and networks, Performance assessment activities, Control information.

The main factors leading to this situation can be ascribed to the reduction in financial deficits and the full control of the conservation priorities, the stability in the dominant power coalitions, both inside the organization and in institutional field, the consolidated deliberative processes activated by the Specialist Work Group with special regard to the prioritisation of interventions. This brought about even more consolidated attention for cultural and economic issues (E.g., progressive changes in the beliefs of managers and archaeologists towards hybridisation) and a communicative rationality based on informal relationships, autonomy, open communication, cooperation.

Despite this, certain aspects of KPI and target setting for visitors still require more attention, but the effort put in planning activities aiming to address this issue can nonetheless be considered as important progress towards a more comprehensive PMS.

6 Discussion and conclusions

The empirics presented in Table 3 illustrate the PMS developments, highlighting how the interactions between the organisation and external influences took place and what future challenges the site will have to deal with.

Despite the remarkable turnaround mapped out and explained in the above sections, several caveats require discussion. At present, the site relies strongly on the personal knowledge, trust and common purpose of the professionals involved in its management. Future challenges include the need to reinforce the existing management system and identify more clearly the human, financial and intellectual resources necessary for the site's future management. The lack of a prior clear-cut, open-ended commitment by the PHI and the possible exit of the Foundation raises the serious question of what will happen if key members of the team decide to leave (Ferri and Zan 2017). Effort will also be required to update the information in the GIS to render it available to other operators, thus facilitating the transfer of

knowledge and experience. More effort should also be invested in the management of visitor activities and satisfaction. Finally, the archaeological site requires integration with the surrounding town and community. These issues not only represent challenges for the study site at Herculaneum but also unveil further potential areas of investigation.

Alongside the identified challenges, however, this study offers interesting insights in terms of the positive achievements already realised. For one, the Herculaneum partnership's resolute abandonment of short-termism played a major role in the change process. The shared long-term vision of experts with different backgrounds and skills improved the use of both private and public funds and resources, not only on-site but also in the larger community. The adoption of soft skills to manage the Herculaneum archaeological site was also of considerable importance. Although formal governance and control mechanisms have become increasingly structured over the years, the site's management still requires more flexibility than formal collaboration. To this end, the open dialogue and informal relationships promoted on all sides by the Specialist Work Group were key to PMS implementation. These factors contributed to the recognition and understanding of a common vision, which in turn reflected a sense of organisational identity (Ouchi 1980) and caused a shift towards the acceptance of PMS.

This form of involvement intrinsically motivates individuals to do what is best for the site. Such behaviour facilitates a circular decision-making process, *allowing decisions to be based on actual needs and not compromised by hierarchical filters, a risk faced by projects that lack a connection between site needs and decisions made by specialists* (Biggi et al. 2014, 46). Collaboration and trust secured the functioning of the information system (GIS), allowing it to become a tool for promoting a collaborative, flexible and circular decision-making process. The value of such an information system lies not only in the opportunity to pinpoint the maintenance and conservation needs during planning, implementation and monitoring, but also in the ability to foster communication, knowledge sharing and transparency, thus increasing mutual trust.

The Specialist Work Group's use of GIS is of even greater significance if we compare the Herculaneum archaeological site with the neighbouring site of Pompeii. As Ferri and Zan (2014) pointed out, the PPP for Pompeii, while being innovative in some respects, lacked integrative administration and did not favour collaboration through common aims and shared practices by different professionals. This suggests that in the case of Pompeii, the pathway of change increased the use of performance measurements as political, top-down driven processes to satisfy external accountability and compliance. In contrast, PMS at the Herculaneum archaeological site enabled internalised, shared change towards performance improvement. Central to this approach is the fresh and multifaceted concept of extending accountability well beyond financial requirements to cultural questions and the flourishing of the community.

Based on these observations, the present case study offers diverse contributions. First, it contributes to the management accounting change literature by providing rich evidence on what factors in a change process facilitate the fulfilment of multifaceted performance improvement (Liguori and Steccolini 2014; Hopper

and Bui 2016). Second, it adds to the literature on PMS implementation with specific focus on culture. This study is unique in that it presents a holistic picture of the PMS change in the Herculaneum archaeological site and the HCP. The findings identify the factors that enabled change and highlight the role played by the Specialist Work Group (Ferri and Zan 2014; Chiaravalloti 2014; Manes-Rossi et al. 2015). In doing so, the paper shows that even in complex settings, PMS may be implemented in a manner deemed acceptable by those involved when factors such as trust, collaboration, shared vision, open dialogue, informal relationships and willingness to cooperate are present. Under such circumstances, PMS challenges pre-defined a priori models and schemes towards more interdisciplinary and multifaceted reflections. The present study not only reinforces existing understandings of the roles played by the cited elements (Ouchi 1980; Dent 1991; Broadbent and Laughlin 2013) but also enables the identification of more interesting dynamics. In the case of Herculaneum, the process of change—unlike those investigated in previous studies (e.g., Ferri and Zan 2014)—was driven primarily by actions taken at the very outset by the major actor involved (i.e. PHI), spurring changes most significantly through the agency of the Specialist Work Group. As a result, the site's change process has been quite unusual in its freedom from political disagreement and overwhelming bureaucracy, resulting in the progressive improvement of the skills of all subjects involved.

The findings of the present study also offer empirical evidence for understanding change as a *reorientation through boundary management* to foster *evolution* and *development* (Broadbent and Laughlin 2013). This kind of change has only been described to date in reference to healthcare and higher education settings (Fiondella et al. 2016; Agyemang and Broadbent 2015; Campanale and Cinquini 2015). Thus, the present empirics offer a fresh contribution to the literature by drawing from MRT. The findings unveil the potential of MRT as a powerful vehicle for exploring and interpreting cultural sector dynamics. They explain how interrelated elements, cultures and values promoted by the Specialist Work Group, coupled with environmental conditions, produced a *reorientation through boundary management* and fostered *evolution,* thus prompting a transformative process that could lead from *morphostasis* to *morphogenesis* (Laughlin 1991; Broadbent and Laughlin 2013). This change, in accordance with previous studies (Fiondella et al. 2016; Agyemang and Broadbent 2015; Campanale and Cinquini 2015), demonstrates the pivotal role played by the Specialist Work Group, though their efforts will need to be consolidated and expanded to cover visitor participation and satisfaction if the lasting evolutionary (i.e. *morphogenetic*) changes in the organisational lifeworld are to be identified.

The theoretical and practical relevancies of the positive synergies observed at the study site are not limited to the archaeological and cultural domains. Rather, they can be extended to other contexts subject to increasing demands on efficiency, effectiveness and accountability, while at the same time featured by multifaceted stakeholder relationships and power issues.

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References

Abernethy, M. A., & Chua, W. F. (1996). A field study of control system redesign: The impact of institutional processes on strategic choice. *Contemporary Accounting Research, 13*(2), 569–606.

Agyemang, G., & Broadbent, J. (2015). Management control systems and research management in universities: An empirical and conceptual exploration. *Accounting, Auditing and Accountability Journal, 28*(7), 1018–1046.

Ahrens, T., & Chapman, C. S. (2006). Doing qualitative field research in management accounting: Positioning data to contribute to theory. *Accounting, Organisations and Society, 31*(8), 819–841.

Amans, P., Mazars-Chapelon, A., & Villesèque-Dubus, F. (2015). Budgeting in institutional complexity: The case of performing arts organizations. *Management Accounting Research, 27,* 47–66.

Bagnoli, L., & Megali, C. (2011). Measuring performance in social enterprises. *Nonprofit and Voluntary Sector Quarterly, 40*(1), 149–165.

Baines, A., & Langfield-Smith, K. (2003). Antecedents to management accounting change: A structural equation approach. *Accounting, Organizations and Society, 28*(7/8), 675–698.

Bakhshi, H., & Throsby D. (2010). *Culture of innovation, an economic analysis of innovation in arts and cultural organizations*, NESTA Research Report

Biggi, C., D'Andrea A. & Pesaresi P. (2014). Herculaneum: Joining forces to secure heritage benefits for the ancient and the modern towns/herculaneum : Antik ve Modern Kentlerin Mirastan Kazanımlarını Korumak için Güçlerin Birleştirilmesi, in Bachmann, M,. Maner, C., Tezer, S. and Göçmen, D. (a c.) HERITAGE IN CONTEXT. Conservation and Site Management within Natural, Urban and Social Frameworks/Doğal, Kentsel ve Sosyal Çerçevede Koruma ve Alan Yönetimi. Istanbul: Ege Yayınları.

Bonini Baraldi, S. (2014). Evaluating results of public sector reforms in Rechtsstaat countries: The role of context and processes in the reform of the Italian and French cultural heritage system. *International Public Management Journal, 17*(3), 411–432.

Boorsma, M., & Chiaravalloti, F. (2010). Arts marketing performance: An artistic-mission-led approach to evaluation. *The Journal of Arts Management, Law, and Society, 40*(4), 297–317.

Brewer, B., Leung, J. Y., & Scott, I. (2015). Value-based integrity management and bureaucratic organizations: Changing the mix. *International Public Management Journal, 18*(3), 390–410.

Brizzi, M., D'Andrea A., Sepio D., De Silvia M., & Court S. (2005). Planning a conservation project: The information system of the Insula Orientalis I. In S. Dequal (a c.) *International Cooperation to Save the World's Heritage: CIPA 2005 XX Symposium*, 26 September–1 October 2005, Italy: Torino, p. 691

Broadbent, J. (2013). Building on foundations: Analysing and developing the work of Richard Laughlin. *Critical Perspectives on Accounting, 3*(24), 173–175.

Broadbent, J., Gallop, C., & Laughlin, R. (2010). Analysing societal regulatory control systems with specific reference to higher education in England. *Accounting, Auditing and Accountability Journal, 23*(4), 506–531.

Broadbent, J., & Laughlin, R. (1997). Developing empirical research: An example informed by a Habermasian approach. *Accounting, Auditing and Accountability Journal, 10*(5), 622–648.

Broadbent, J., & Laughlin, R. (2009). Performance management systems: A conceptual model. *Management Accounting Research, 20*(4), 283–295.

Broadbent, J., & Laughlin, R. (2013). *Accounting control and controlling accounting: Interdisciplinary and critical perspectives*. Emerald: Bingley.

Broadbent, J., & Unerman, J. (2011). Developing the relevance of the accounting academy: The importance of drawing from the diversity of research approaches. *Meditari Accountancy Research, 19*(1/2), 7–21.

Brunsson, N. (1989). *The organisation of hypocrisy*. New York: Wiley.

Burns, J., & Scapens, R. (2000). Conceptualizing management accounting change: an institutional framework. *Management Accounting Research, 11*(1), 3–25.

Busco, C., Caglio, A., & Scapens, R. (2015). Management and accounting innovations: reflecting on what they are and why they are adopted. *Journal of Management and Governance, 19*(3), 495–524.

Campanale, C., & Cinquini, L. (2015). Emerging pathways of colonization in healthcare from participative approaches to management accounting. *Critical Perspectives on Accounting, 39,* 59–74.

Carnegie, G., & Wolnitzer, P. (1996). Enabling accountability in museums. *Accounting, Auditing and Accountability Journal, 9*(5), 84–99.

Chiaravalloti, F. (2014). Performance evaluation in the arts and cultural sector: A story of accounting at its margins. *The Journal of Arts Management, Law and Society, 44*(2), 61–89.

Christiansen, J. K., & Skærbæk, P. (1997). Implementing budgetary control in the performing arts: Games in the organizational theatre. *Management Accounting Research, 8*(4), 405–438.

Cinquini, L., Collini, P., Marelli, A., & Tenucci, A. (2015). Change in the relevance of cost information and costing systems: Evidence from two Italian surveys. *Journal of Management and Governance, 19*(3), 557–587.

Court, S., & Biggi C. (2009). Young people in conservation: international and local participation in safeguarding the cultural heritage of Ercolano, In Macchia, A., Borrelli, E. and Campanella, L. (Eds.) *Proceedings of the first international meeting of youth in conservation of cultural heritage*, (pp. 1–8). Rome, 24–25 November 2008. Rome, IA-CS.

Court, S., & Biggi C. (2010). Separated from heritage: Local community perceptions of Herculaneum's values. In *Second HERITY international conference measuring the value of material cultural heritage* (pp. 165–169). Rome, 3–5 December 2008. Rome, Herity.

Court, S., D'Andrea, A., Del Duca, F., Pesaresi, P., & Thompson, J. (2016). Benefits for people and places: bringing together residents, visitors and non-visitors for Herculaneum. In P. F. Biehl, C. Prescott, & H. A. Soderland (Eds.), *Sustainability and heritage tourism*. London: Maney.

Dent, J. F. (1991). Accounting and organisational cultures: A field study of the emergence of a new organisational reality. *Accounting, Organisations and Society, 16*(8), 705–732.

Dunphy, D. C., & Doug, A. S. (1988). Transformational and coercive strategies for planned organisational change: Beyond the O.D. model. *Organization Studies, 9*(3), 317–334.

Edson, G., & Dean, D. (1996). *The handbook for museums*. London: Routledge.

Etzioni, A. (1961). *Complex organizations : A sociological reader*. New York: Holt, Rinehart and Winston.

Ezzamel, M., Robson, K., Stapleton, P., & McLeanb, C. (2007). Discourse and institutional change: Giving accounts and accountability. *Management Accounting Research, 18,* 150–171.

Ferlie, E. (2007). Complex organisations and contemporary public sector organisations. *International Public Management Journal, 10*(2), 153–165.

Ferreira, A., & Otley, D. (2009). The design and use of performance management systems: An extended framework for analysis. *Management Accounting Research, 20*(4), 263–282.

Ferri, P., & Zan, L. (2014). Ten years after: The rise and fall of managerial autonomy in Pompeii. *Critical Perspectives on Accounting, 25*(4), 368–387.

Ferri, P., & Zan, L. (2017). Partnerships for heritage conservation: Evidence from the archeological site of Herculaneum. *Journal of Management and Governance, 21*(1), 1–25.

Fiondella, C., Macchioni, R., Maffei, M., & Spanò, R. (2016). Successful changes in management accounting systems: A healthcare case study. *Accounting Forum, 40*(4), 186–204.

Gilhespy, I. (1999). Measuring the performance of cultural organizations: A model. *International Journal of Arts Management, 2*(1), 38–52.

Greenwood, R., & Hinings, C. R. (1988). Organizational design types, tracks and the dynamics of strategic change. *Organization Studies, 9*(3), 293–316.

Habermas, J. (1984). *The theory of communicative action* (T. McCarthy, Trans.). Cambridge: Cambridge Polity Press.

Hopper, T., & Bui, B. (2016). Has management accounting research been critical? *Management Accounting Research, 31,* 10–30.

Innes, J., & Mitchell, F. (1990). The process of change in management accounting: some field study evidence. *Management Accounting Research, 1*(1), 3–19.

Jacobs, K. (1995). Budgets: A medium of organizational transformation. *Management Accounting Research, 6*(1), 59–75.

Laino, A. (2014). La partnership pubblico-privato per la conservazione, la manutenzione e la valorizzazione di Ercolano. *Facility Management Italia, 25,* 28–34.

Laughlin, R. (1991). Environmental disturbances and organizational transitions and transformations: Some alternative models. *Organization Studies, 12*(2), 209–232.

Laughlin, R. (2007). Critical reflections on research approaches, accounting regulation and the regulation of accounting. *The British Accounting Review, 39*(4), 271–289.
Lehman, G. (2006). Perspectives on language, accountability and critical accounting: An interpretative perspective. *Critical Perspectives on Accounting, 17*(6), 755–779.
Lehman, G. (2013). Critical reflections on Laughlin's middle range research approach: Language not mysterious? *Critical Perspectives on Accounting, 24*(3), 211–224.
Leicester, G., & Sharpe, B. (2010). *Producing the future. Understanding watershed's role in ecosystems of cultural innovation. International futures forum*. Bristol: Watershed.
Libby, T., & Waterhouse, J. H. (1996). Predicting change in management accounting systems. *Journal of Management Accounting Research, 8,* 37–150.
Liguori, M., & Steccolini, I. (2011). Accounting change: Explaining the outcomes, interpreting the process. *Accounting, Auditing and Accountability Journal, 25*(1), 27–70.
Liguori, M., & Steccolini, I. (2014). Accounting, innovation and public-sector change. Translating reforms into change? *Critical Perspectives on Accounting, 25*(4/5), 319–323.
Lodh, S. C., & Gaffkin, M. J. R. (1997). Critical studies in accounting research rationality and Habermas: A methodological reflection. *Critical Perspectives on Accounting, 8*(10), 433–474.
Lord, B., & Lord, G. D. (1991). *Manual of museum planning*. London: HMSO.
Lukka, K. (2007). Management accounting change and stability: Loosely coupled rules and routines in action. *Management Accounting Research, 18*(1), 76–101.
Manes-Rossi, F., Allini, A., & Dainelli, F. (2015). Innovations in the measurement of cultural value the British Museum. In P. De Lancer Julnes & E. Gibbson (Eds.), *Innovation in public and non profit sectors* (pp. 35–55). New York: Routledge.
Miller, P., & O'Leary, T. (1987). Accounting and the construction of the governable person. *Accounting, Organizations and Society, 12*(3), 235–265.
O'Brien, D. (2010). *Measuring the value of culture: A report to the Department for Culture Media and Sport*. Available at https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/77933/measuring-the-value-culture-report.pdf. Accessed 10 Sept 2017.
Oakes, L. S., Townley, B., & Cooper, D. J. (1998). Business planning as pedagogy: Language and control in a changing institutional field. *Administrative Science Quarterly, 43,* 257–292.
Ouchi, W. G. (1980). Markets, bureaucracies, and clans. *Administrative Science Quarterly, 25*(1), 129–141. https://doi.org/10.2307/2392231.
Paarlberg, L. E., & Bielefeld, W. (2009). Complexity science—An alternative framework for understanding strategic management in public serving organizations. *International Public Management Journal, 12*(2), 236–260.
Pesaresi, P. (2013). The Herculaneum conservation project's programmed maintenance cycles for the archaeological site of Herculaneum. In M. Boriani, R. Gabaglio, & D. Gulotta (Eds.) *Online proceedings of the conference built heritage 2013. Monitoring conservation and management*. (pp. 184–193). Milan, Nov 18–20 2013, at: http://www.bh2013.polimi.it/papers/bh2013_paper_292.pdf Accessed 10 Sept 2017.
Pesaresi, P., & Martelli, Castaldi M. (2007). Conservation measures for an archaeological site at risk (Herculaneum, Italy): From emergency to maintenance. *Conservation and Management of Archaeological Sites, 8*(4), 215–236.
Pignataro, G. (2011). Performance indicators. In R. Towse (Ed.), *A handbook of cultural economics* (pp. 366–372). UK: E. Elgar Pub.
Power, M. (2013). Theory and theorization: A comment on Laughlin and Habermas. *Critical Perspectives on Accounting, 24*(3), 225–227.
Ragin, C., Drass, K., & Davey, S. (2006). *Fuzzy-set/qualitative comparative analysis 2.0. Tucson*. Arizona: Department of Sociology, University of Arizona.
Robson, N. (2006). The road to uniformity: Accounting change in UK voluntary hospitals. *Accounting and Business Research, 36*(4), 271–288.
Rodríguez, D. O., Galera, A. N., & López Hernández, A. M. (2006). Consensus among public managers as strategy for standardization of performance indicators. *International Public Management Journal, 9*(4), 371–398.
Scapens, R. (1990). Researching management accounting practice: The role of case study methods. *The British Accounting Review, 22*(3), 259–281.
Sharma, U., & Lawrence, S. (2015). Power, politics and privatization: A tale of a telecommunications company. *Critical Perspectives on Accounting, 28,* 13–29.

Smith, K. (1982). Philosophical problems in thinking about organisational change. In P. S. Goodman, P. S. Goodman, et al. (Eds.), *Change in organizations* (pp. 316–374). San Francisco: Jossey-Bass.

Thompson, J. (2007). Conservation and management challenges in a public-private partnership for a large archaeological site (Herculaneum, Italy). *Conservation and Management of Archaeological Sites, 8*(4), 191–204.

Thompson, J., & D'Andrea D. (2009). Gestione di un progetto multidisciplinare in un sito archeologico complesso. In Coralini, A. (Ed.) *Atti del convegno internazionale Vesuviana: archeologie a confronto*, Bologna, 14–16 gennaio 2008, (pp. 237–251). Bologna, Edizioni Antequem.

Townley, B., Cooper, D. J., & Oakes, L. (2003). Performance measures and the rationalization of organizations. *Organization Studies, 24*(7), 1045–1071.

Trochim, W. M. K., & Donnelly, J. P. (2006). *The research methods knowledge base* (Vol. 3). Cincinnati, OH: Atomic Dog Publishing.

Vicente, E., Camarero, C., & Garrido, M. J. (2012). Insights into Innovation in European Museums: The impact of cultural policy and museum characteristics. *Public Management Review, 14*(5), 649–679.

Yin, R. K. (2014). *Case study research. Design and methods*. USA: Sage Inc.

Zan, L. (2002). Renewing Pompeii, Year Zero. Promises and expectations from new approaches to museum management and accountability. *Critical perspectives on accounting, 13*(1), 89–137.

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