

Knowledge-scapes as Resources: An Archaeological Approach to the Construction of Cultural and Social Identities

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Abstract

Concepts of ‘cultural memory’ almost directly equate knowledge of the past with culture, usually referring to textual and/or mythological evidence. From this perspective, research on cultural knowledge has its focus on valuation and canonization in relation to the construction, sustaining or altering of identities, rather than on practical and useful skills securing subsistence. However, cultural knowledge is based not only on texts and myths, but also on things, monuments and landscapes, representations as well as body practices and emotions.

Thus, knowledge-scapes as networks or meshed bundles connecting knowledge with shaped things, designed spaces and monuments, as well as associated body practices directed at senses and emotions, can be seen as resources in which cultural memories are actualized, representations of social groups are constructed and social spaces are generated. It will be argued that knowledge-scapes conceptualized as resources of identity building are closely connected to sacred spaces in a broad sense of important public spaces set apart. From an archaeological perspective, different types of features related to sacred spaces can be analysed as evidence of knowledge-scapes. The Heroon of Poseidonia/Paestum is discussed as a case study of knowledge-scapes related to the construction of the past.

Knowledge of the past and collective identities

This contribution on knowledge-scapes focuses on the construction of cultural and social identities through recourse to the past. In concepts of ‘cultural memory’, knowledge of the past is almost directly equated to culture. These concepts usually refer to textual and/or mythical evidence: “What counts for cultural memory is not factual but remembered history. One might even say that cultural memory transforms factual into remembered history, thus turning it into myth. Myth is foundational history that is narrated in order to illuminate the present from the standpoint of its origins” (Assmann 2011a:

instrument	music	body	language	scripture	iconography	'material worlds'	
materiality mediality	voices musical instruments	gestures movements	voices	typefaces	pictures	things monuments	landscapes
circulation activation perception sensation	practices, staging of bodies		speaking, writing, shaping		use and presentation of pictures, things, monuments		
	hearing and reading						
	smell touch taste		sight		smell touch taste		
storage	embodiment (incorporation)		text (canon formation)		'visual text' context (structuring)		
knowledge- cultures	feast		culture of interpretation			feast	
	song culture		sacred spaces, spaces set apart			thing culture	
quantitative intensification	mass event		print		repetition		
qualitative	ritual, emotion		inscription		monumentality		

Table 1 Materiality and mediality of knowledge (following and modifying considerations of Assmann and Assmann 1994).

37–38). Narrated are “historical events transfigured by mythicization into unchanging and unchangeable substances” (Connerton 1989: 42). However, cultural knowledge in this sense is based not only on texts and myths, but also on uses of things, monuments and landscapes, textual and pictorial representations, as well as body practices with voices, gestures and movements (table 1). All these terms describe the materiality and mediality of cultural instruments like music, body, language, scripture, iconography and ‘material worlds’, or of practices of circulation and activation of cultural knowing and knowledge. The storage of tacit knowing occurs through embodiment and incorporation, that of codified knowledge through text and ‘visual text’. Both depend on context. Feasts and cultures of interpretation in sacred spaces or spaces set apart are knowledge-cultures of circulation, activation, perception or sensation of cultural knowing and knowledge. Both can be intensified quantitatively by mass event and repetition, and qualitatively by ritual, emotion or monumentality. ‘Cultural memory’, as defined by Aleida and Jan Assmann (1991, 2008, 2011a, 2011b), is precisely an explicitly formulated theoretical concept

of culture that connects the construction of identities with a specific perspective on the past and with particularly shaped media, spaces and things. Crucial is what they call ‘functional memory’, that is an “inhabited memory” with relevance to groups, selectivity, relations to shared values, orientation towards the future and identity building (Assmann and Assmann 1994: 123; Erll 2011: 36, table II3). From this perspective, research on cultural knowledge has its focus upon the valuation and formation of cultural canons (Assmann 2008). These are essential for constructing, sustaining or altering identities, not raw data of knowledge content or information about the past.

Practices of making sense of the past have their epistemic setting, here considered as knowledge-scapes. The formation of knowledge-scapes as valued or sacred spaces set apart and comprising cultural canons is a way to create stable and lasting forms resistant to permanent change, albeit knowledge-scapes themselves are always subject to processes of change. The interdependencies of processes of change and of building stable structures were originally integrated into the concept of Aleida Assmann and Jan Assmann by the counter terms of communicative memory and cultural memory. For these opposites, connected to everyday communication on one hand, or to identity building on the other, Aleida Assmann once provided a list of homologous terms. She correlated communicative memory and cultural memory respectively with ‘fluid’ or ‘fixed’, ‘life world’ or ‘monument’, ‘everyday’ or ‘festive day’, ‘language’ or ‘text’, ‘communicative community’ or ‘cultural community’ and ‘socialization’ or ‘enculturation’ (Assmann 1991). Compared to the earlier focus on texts a more recently published version of ‘commemorative and cultural memory’ by Jan Assmann (Assmann 2011b) highlighted the aspects of performances and formalized media. In a similar way Connerton (1989) emphasized “commemorative ceremonies” and bodily practices for the remembering of societies. Accordingly, Erll (2011: 100) accentuated three dimensions of memory culture, the material dimension with artefacts and media, the social with practices and institutions, and the mental with codes and schemata of memory. In addition, the spatial dimension could be described by the terms memory-scape or knowledge-scape. This is in congruence with conceptualizations of landscapes that see them as “a physical and socio-cultural phenomenon”. Landscape in this sense is “endowed with values and meanings, with a specific identity, gaining a sense of territory, thus establishing the possibility for polities to identify themselves with it” (Gramsch 1996: 28–29).

Knowledgescapes and KnowledgeScapes

The term 'knowledgescapes' was first used by Syed Z. Shariq (1999) in a contribution on knowledge transfer, which is marked by the fact that knowledge transforms during its transfer (Shariq 1999: 244). Thereby, transfer of knowledge was seen as a fundamental element for the explanation of development "in institutions, organizations, technology and economy" (Shariq 1999: 243). According to Shariq (1999: 244), what was needed was a solid exposition of "human cognition situated in the broader context of dynamic interactions taking place during the transfer". He introduced the term 'knowledgescapes' referring to Arjun Appadurai's notions of 'ethnoscapes', 'mediascapes', 'technoscapes', 'finascapes' or 'ideoscapes' as "building blocks of [...] imagined worlds, that is, the multiple worlds that are constituted by the historically situated imaginations of persons and groups spread around the globe" (Appadurai 1990: 296–297). With these metaphorical scapes, Appadurai wanted to capture dimensions of global flows alongside or across national interests and—at the same time—the locality and historicity of these 'landscapes' of imagined worlds. For Appadurai, these global flows of "objects in motion", including "ideas and ideologies, people and goods, images and messages, technologies and techniques", have a counterpart in enduring and stable social structures and organizations. However, these "apparent stabilities" were taken by Appadurai (2000: 5) as "our devices for handling objects characterized by motion".

Based upon another theoretical framework, Shariq by contrast aimed at a cognitive theory of knowledgescapes. He was relying on the concept of 'external symbolic storage' as amended by Colin Renfrew (2001: 129) with an additional evolutionary stage of 'symbolic material culture', after which concepts do not precede material symbols. Shariq's (1999: 245) argumentation started with examples of the loss of knowledge, e.g. the difficulties NASA faced in rebuilding Saturn rockets in spite of having "codified knowledge, such as blueprints and recorded material for Saturn design". For Shariq, the tacit knowing of the original designers was missing. At a more general level, the knowledge lost was the implicit understanding that extends codified knowledge and cannot be recorded.

Summarizing his ideas, a knowledgescape comprises internal cognition, external cognition and their contextual or situational "dynamic temporal instantiation" (Shariq 1999: 247). Therefore, Shariq's theory of knowledgescapes comprehended internal cognition as "accessed knowing of tacit, codified abstractions and artefacts by an enactor in a particular situation" and external cognition

“as embodiment of the natural and the artefactual environment with which the enactor is interacting in that particular situation” (Shariq 1999: 245).

Another conceptualization, one of ‘KnowledgeScapes’, was developed by Ulf Matthiesen (2005: 1, 2009: 10) looking at knowledge as a “human resource” with the “role of a—if not the—core issue for sociocultural developments and economic growth in Europe”. According to Matthiesen, spatial developments linked to knowledge are subject to context dependencies that should be considered in governance strategies and change management approaches. For Matthiesen (2005: 2), “in contrast to data and information”, knowledge concerns “cognitive operations” connected to “processes of sense making”. Taking up a notion of “knowledge as practiced—within structures, processes and environments that make up specific epistemic settings” (Knorr Cetina 1999: 8), his focus was on “coevolutionary pathways between socio-spatial and knowledge developments” (Matthiesen 2005: 1). Therefore, he coined three terms for spatially bounded levels of interaction related to knowledge: KnowledgeNetworks are ‘hard networks’ of strategic cooperation structures, “reaching from enduring bureaucratic organizations and science institutions to flexible project-bound temporary cooperation networks”. KnowledgeMilieus are ‘soft’ interaction groupings characterized by “self-organization by way [of] intensified internal communication processes and shared [...] knowledge” (Matthiesen 2005: 9–10). KnowledgeScapes are then described as spatially, “landscape-like forms” of interrelation between these formal networks and informal milieus connected to “social construction and application of decisive knowledge forms and knowledge bundles” (Matthiesen 2009: 13–14).

Thus, for one thing Shariq (1999: 243) focuses on educationally conceptualized knowledgescapes as “cognitive spaces we humans navigate as we pursue and are pursued by knowledge”. Secondly, Mathiesen’s KnowledgeScapes are defined as regional social fields with competing formal and informal knowledge-based relationships (Mathiesen 2005, 2009). From an archaeological perspective, their programmatic aspects regarding educational or political governance and change management are of course irrelevant. Both elements of the term, ‘knowledge’ and ‘scapes’, furthermore, need to be redefined, because the focus of this paper is neither on human cognition nor on relations between tacit knowing and explicit or codified knowledge. However, with different scopes and backgrounds, important points were made concerning knowing or knowledge and their social embedding in temporal or spatial contexts and thus on the connection of

knowledge and development. This is in congruence with the interest of this paper in socially bound and situated knowledge, i.e. orders of knowledge connected to experiences and practices, processes of valuation and sense making in temporally and spatially contingent material and social spaces. Thereby, the opposition of flows of “objects in motion” and of enduring and stable structures as “devices for handling objects characterized by motion” in Appadurai’s (2000: 5) characterization of scapes applies to knowledge-scapes. This is also a basic idea of the concept of ‘cultural memory’ as stated above: to create stable and lasting forms against permanent change, albeit always subject to processes of change.

Knowledge-scapes as resources of identities

Knowledge-scapes can be seen as resources of collective identities and memories within an extended conceptualization of resources as means to construct, sustain and alter social relations, entities and identities. Therefore, a resource is not only a raw material or a thing, but a contingent means of social practices of actors, that depends on cultural and social appropriation and valuation (cf. Hardenberg et al. 2017: 14–15). From this perspective, resources are integrated in networks or meshed in bundles of tangible and intangible elements of social and material spaces, which are not conceivable without each other. Their temporal development and spatial distribution can be analysed as ‘ResourceComplexes’, if seen as a network of distinctive purposeful linked elements, or as ‘ResourceAssemblages’, if the focus is more on relational contingent connections (Teuber and Schweizer 2020). These networks or bundles of elements can comprise the full range of components between raw materials and environments, techniques and infrastructure, religious, social and political representations, orders and practices, images, things and monuments, built and shaped spaces and scapes. The second half of the mentioned elements are especially important to the constitution of knowledge-scapes. Generally, discourses on resources cannot be confined to utility, scarcity, skills securing subsistence, technical innovation, or hierarchy. Understanding resources is to centre explanation upon correlation between practices, valuations, orders and representations of identities, and on integration in social communications, i.e. knowledge-scapes. This fits with a conceptualization that sees socially relevant resources of identity formation as being subjected to processes of sacralization (Bartelheim et al. 2015: 42) and, thus, to continuous negotiations and reevaluations in contexts which are highly valued or set apart from everyday life. These sacred spaces are important public spaces or venues of social practices (cf. Hölscher 1998, Pedley

2005: 11–12) with things, pictures and monuments connected to ritual and religious exaltation. Media used to construct, maintain, and alter identities as well as symbolic representations of that media can be themselves converted into sacred things through rituals within sacred spaces. Moreover, with regard to ritual action and media of ‘memory storage’, sacred spaces themselves can be considered as knowledge-scapes and thus as resources of identities. Shaped things, designed spaces and associated body practices directed at senses and emotions, can be seen as media of cultural ascriptions of meaning and value related to identity building. In ritual performances cultural memories are actualized, social representations are constructed and social spaces are generated. This is based on correlations of actors, things, and images in spatial order. Participation and involvement is required. ‘Embodiment’ can convey their knowledge and negotiation. Ritual and emotion are qualitative elements of intensification of cultural knowledge. However, these correlations are simultaneously altered and in turn affect actors, individuals and groups. Of importance for the formation of ancient societies is dealing with things and images in central public knowledge-spaces. Therefore, archaeological contexts are archives of knowledge relating to spheres of social activities and valuations. A look at pictures, monuments, spaces and related rituals allows one to focus on specific processes of valuation, but also on the actors and their ideas, discourses and knowledge in different power relationships. “To study the social formation of memory is to study those acts of transfer that make remembering in common possible” (Connerton 1989: 39).

Case study: The Heroon of Poseidonia/Paestum

According to the archaeological evidence in necropoleis and settlement, Poseidonia was founded just before 600 BC (Greco 2014: 27) on the Gulf of Salerno. The city had an eventful history from Archaic to Hellenistic times (Gualtieri 2013; Mele 1996a, b). Greek Poseidonia was from the beginning a settlement of large dimensions (fig. 1), both in terms of residential areas and central sacred and communal spaces (Longo 2012: figs. 449–450; Mertens 2006: 164–169, fig. 287). A first city wall was built in the fifth century BC, possibly in the wake of conflicts with other Greek cities or tribes of the hinterland. A conquest by the Lucanians reported by Strabo (6, 1, 3) is archeologically linked to a change noted primarily via burial customs at the end of the fifth century BC (e.g. Mele 1996a: 18; criticized by Nowak 2014: 41–50). The wall as it can be seen today was erected in the late fourth century with a second phase of construction in the early third century BC.

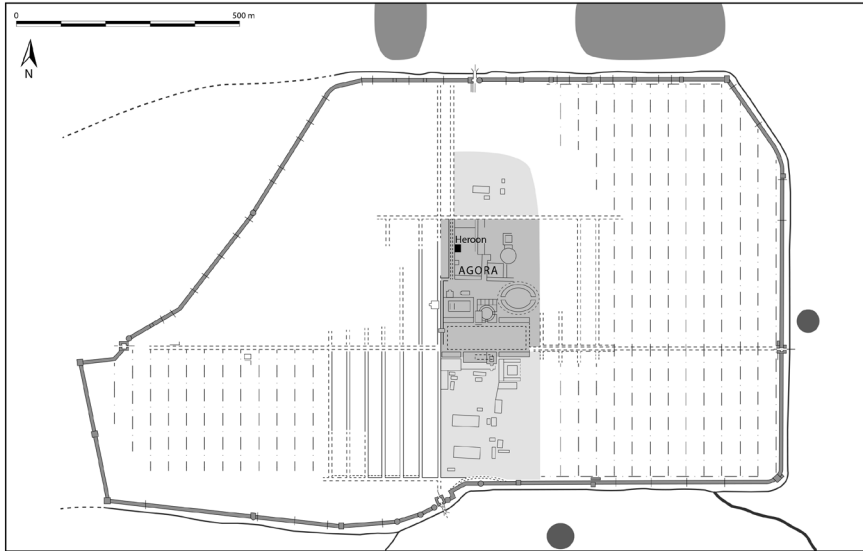


Figure 1 City-plan of Poseidonia, showing the Heroon in its urban setting of the sixth/fifth century BC in the middle of a central space originally set apart for religious and communal buildings (simplified after Mertens 2006, 166 fig. 287; redrawing by Stefano Cespa, reproduced with permission of Stefano Cespa).

In 273 BC, the city was re-established as the Latin *colonia* Paestum (cf. Torelli 1999). While the central place was fundamentally redesigned, part of the sacred spaces—temple buildings and the Heroon—were preserved.

Still visible today is the architectural core of the founder's Heroon (Greco 2014; Mertens 2006: 166–167, figs. 288–289) in the centre of the city, the *agora*. Erected in the late sixth century BC as a burial chamber, it has survived changes of population and the transformation of the Greek *agora* into a Roman *forum*. Originally, the tomb was covered by a tumulus (Greco 2014: 32, figs. 28–29). When the Latin colony Paestum was founded, the tomb was repaired, fitted with a new roof and enclosed within an open courtyard (fig. 2). However, the things found inside the tomb during the 1950s excavations (cf. Ficuciello 2018 on the history of research) date back to the sixth century BC.

The 'grave goods' consisted of eight bronze vessels on the sides of the chamber, iron spits on a stone table in the centre, as well as an Attic painted amphora (Greco 2014: 8–15 figs. 7–16, 50–57 figs. 42–47). The images on this vessel, representing the introduction of Hercules into Olympus and



Figure 2 The Heroon of Poseidonia/Paestum, seen from North in the conserved state of its third century BC phase (photograph by Beat Schweizer).

Dionysus with Hermes, can be considered as metaphors for heroization. The iron spits represented animal sacrifice, the consumption of the divided meat. The bronze vessels—two types in larger numbers—were filled with honey, a substance that is seen in connection with the process of heroization. A familiar grave form monumentalized in the centre of the city and ‘common’ things in unusual combination and function show how material was used to create a central monument of urban or settler identity and at the same time a central place of civic cult. As a symbol of the community and as a resource of citizens, the tomb already was a fictional grave during the time of its origin.

On an abstract level, the Heroon can thus be interpreted in the sense of a ResourceComplex (fig. 3), in which not only materials, things and images, but also social spaces, religious imaginations, ritual practices, and imaginations of urban and extraurban landscapes were included. A knowledge-scape was constituted and centred on the Heroon, sustained by regularly held feasts, which commemorated the foundation myth.

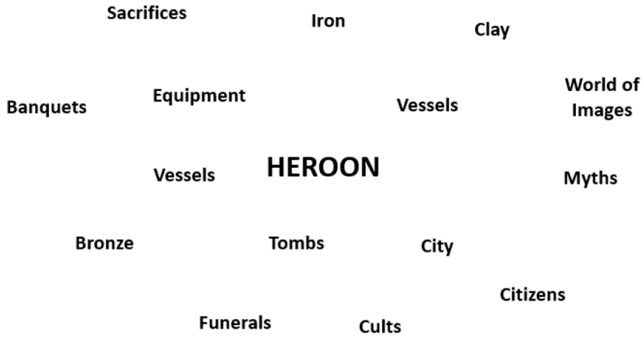


Figure 3 Materiality and mediality of a knowledge-scape centred on the Heroon. Tangible and/or intangible elements of a ResourceComplex.

Different tangible and intangible elements referring to one another were used to construct a civic resource in the late sixth century BC, a time for which other monumental buildings in the central urban area have been documented. Three large temples can be dated between the middle of the sixth and the middle of the fifth century BC, an *ekklesiasterion*, an assembly building of the citizenship was also constructed in c.470 BC. The larger cultural embedding of these elements of religious and civic urbanization is represented in grave pictures and grave furnishings. A banquet in Greek style was depicted in the so-called Tomba del Tuffatore (e.g. Zuchtriegel 2018), in other tombs equipment and vessels represented the realm of athletics (e.g. Cipriani 1989). In contrast, in tombs of the late fifth century BC bronze helmets, breastplates and belts like those of the warriors pictured in fourth century BC grave paintings of Poseidonia were discovered. These weapons and warriors were connected to some kind of ‘decolonization’ of Poseidonia, at least to an integration of Lucanians (cf. Nowak 2014: 41–50). At the same time the city centre, the temples and the *agora* were characterized by a continuous use or further development with the construction of buildings that can be associated to political and religious functions of the *Polis* (cf. Longo 2012: fig. 450, 2014: 255–256; Svoboda-Baas 2019, 19–54). However, in the fourth century BC, an altar with an Oscan inscription was added to the *ekklesiasterion* (Mertens 2006: 337–338). Furthermore, a literary text with a core part going back to the late fourth century BC criticizes that the inhabitants of Poseidonia had completely abandoned their Greek language and customs:

Aristoxenus, in his book entitled *Promiscuous Banquets*, says: We act in a manner similar to the people of Paestum who dwell in the Tyrrhenian Gulf; for it happened to them, though they were originally Greeks, to have become at last completely barbarized, becoming Tyrrhenians or Romans, and to have changed their language, and all the rest of their national habits. But one Greek festival they do celebrate even to the present day, in which they meet and recollect all their ancient names and customs, and bewail their loss to one another, and then, when they have wept for them, they go home (Athenaeus, *The Deipnosophists* XIV 632; translation by Yonge 1854).

This passage was directly related to the Heroon (e.g. Ficuciello 2014: 49; see Gualtieri 2013: 380–382 also on other interpretations), which was retained with the things of the late sixth century BC through these political changes. However, with the establishment of Paestum the Heroon was included in a completely changed social and cultural context. The *agora* in particular was fundamentally redesigned (Longo 2012, 2014). The *ekklesiasterion*, the former meeting place of the Greek community, was abandoned and served as a quarry. A *forum* with a *comitium* and a *curia* was installed, followed also by an amphitheatre and a bath as well as several buildings of the cult of the emperors and gods (Torelli 1999: 46–49). Nevertheless, the Heroon was preserved, albeit architecturally recast, and was subjected to a kind of historic conservation. Thus, over a time frame of about 300 years the Heroon was part of different cultural contexts, which were represented in different knowledge-scapes. Breaks and continuities between these knowledge-scapes attest historicity and contingency of the Heroon in the sense of ResourceAssemblages (table 2).

Conclusion

The Heroon of Poseidonia was built in the late sixth century BC. It was part of the monumentalization of public and sacred spaces sometime after the foundation of the Greek city. Thereby, a civic cult around the city founder was instituted and knowledge of the past became part of the cultural memory of Poseidonia. At the beginning, not only was a monument built, but artefacts were laid down. These were preserved over a long period characterized by changes of populations and then deliberately restored in connection to the new foundation of the Latin colony Paestum. Thus, the Heroon was a civic and communal resource, which in its entirety can be analyzed as ResourceComplex or ResourceAssemblage, depending on whether the focus is on functional and intentional networks or on

Century BC	Special burial equipment	Images in graves	Heroon	Cults of gods	Political centre	Language	Name
6 th /5 th	Athletics	Banquet	Tumulus	Athena Hera	<i>Agora Ekklesiasterion</i>	Greek	Poseidonia
5 th /4 th	Warrior	Warrior	Tumulus	Athena Hera	<i>Agora Ekklesiasterion</i>	Greek Oscan	?
3 rd	-	-	Enclosure	Minerva Juno	<i>Forum Comitium Curia</i>	Latin	Paestum

Table 2 The Heroon integrated in larger knowledge-scapes of Poseidonia/Paestum. The Heroon in ResourceAssemblages shaped by breaks and continuities.

contingent bundles of tangible or intangible elements. Furthermore, the concept of knowledge-scapes allows the description of the spatial dimension of these socially bound and situated orders of knowledge of the past, i.e. the local embedding of imagined knowledge and knowing. These were codified through sacred and/or political monuments in sacred spaces and memorized through mental, political and ritual knowing activated and actualized by body practices in feasts (cf. table 1), which, in words of P. Connerton (1989: 45) for other cases, “do not simply imply continuity with the past but explicitly claim such continuity”. This is congruent to Aleida Assmann’s perspective on cultural memory. According to her conceptualization, cultures maintain and produce themselves in processes of recursions. And generally, cultures can be defined as memory systems kept going with great effort, that allow forms of belonging and construction of identities in long-term communication and meaning horizons, encompassing past and future (Assmann 2011c: 286). However, within memory theory, the past is precisely not what remains constant and identical to itself, but, conversely, something that changes with the respective conditions of the present (Assmann 2011c: 283).

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