

# ARCHEOLOGIA E CALCOLATORI

35.1

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*All'Insegna del Giglio*

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## THE NECROPOLIS AS A LANDSCAPE OF POWER: SOME REFLECTIONS

### 1. INTRODUCTION

Interpreting the funerary landscape of the Etruscan-Italic world through the lens of digital archaeology offers significant opportunities for discussion, and this issue of the journal clearly illustrates that spatial technologies (specifically spatial technologies for archaeology, with GIS the most widespread according to WHEATLEY, GILLINGS 2002, 1) have become an essential tool in the study of multi-scale contexts such as 1<sup>st</sup> millennium BC necropolises. The Venetian conference offered a space to discuss the digital methodologies adopted to study the most important necropolises of the 1<sup>st</sup> millennium BC, and one of the most interesting points, in my opinion, was the development of a methodological *koinè* characterised by adopting the same analytical package, with surveying and positioning techniques based on the use of drones and DGNS at the site scale and photogrammetry and laser scanning for individual monuments (GILOTTA, LUCCHETTI, PATRIZIANO; CONTI, MAZET, MICHETTI; TACCOLA, ROSSELLI, GRAVA in this volume), multifactorial spatial analysis in a GIS environment (MASSANOVA, PELLEGRINO in this volume), and experiments in using BIM (GOVI *et al.*; GAMBACURTA *et al.* in this volume), which catalysed the final discussion.

One of the points discussed in this paper and emphasised in the Conference title is a clear focus on the necropolis as a type of landscape. The recent proliferation of different-scapes (PITTS, VERSLUYS 2021), heritage-scapes (DI GIOVINE 2009), knowledge-scapes (JÜRCKE, MONTES-LANDA, CECCARELLI 2021) and even culinary-scapes (NOVELO-PÉREZ *et al.* 2019) underlines the importance that different types of landscape have been granted in the broader theoretical debate on landscape archaeology, each characterised by specific analytical categories. The funerary landscape is also analysed in the literature as a necroscape, deathscape, burialscape, mortuary landscape, sacred landscape, landscape of mortuary practices, landscape of ancestors, etc., with each specific approach shifting the focus of investigation to one of its main features.

In the following set of considerations, therefore, we will focus on the non-obvious relationship between digital archaeology and the hermeneutic possibilities offered by taking a phenomenological perspective on landscape. Digital archaeology has been concerned with landscape for more than 30 years (ALLEN, GREEN, ZUBROV 1990; GAFFNEY, STANČIČ 1991; LOCK, STANČIČ 1995; ALDENDERFER, MASCHNER 1996; MASCHNER 1996), employing increasingly sophisticated analytical tools. At the same time, however, it seems



obvious to me that considering necropolises a particular type of landscape invites us to turn our attention to the relationship between human groups and the space in which they lived and acted, a topic about which contextual archaeology (and especially scholars such as C. Tilley) has produced important reflections (TILLEY 1994, 2004, 2008, 2010; TILLEY, CAMERON DAUM 2017). The phenomenological approach requires a constant dialectic between ideas and empirical data, and invites researchers to keep in mind that studying landscape through sources (publications, maps, tables, graphs, or photographs, which are at best ‘representations’) can provide only partial knowledge: hence the demonisation of digital archaeology, which Tilley communicates in no uncertain terms: «Statistical analysis, Geographical Information Systems and simulations are, if anything, far worse» (TILLEY 2004, 218).

The last part of this paper addresses the combination of these two perspectives and analyses the concept of powerscape as interpreted by A. DE GUIO (1991, 2000, 2001, 2002).

## 2. THE NECROPOLIS AS A LANDSCAPE OF THE ANCESTORS

Many of the funerary contexts studied in Italian and European late prehistory demonstrate the value of the necropolis as an ‘ancestral landscape’, a place where «the ancestors were embodied by the very earth, becoming landscapes themselves» (MURRAY 2016, 149). The close relationship between ancestors and their burial place is also reflected in the title A. Harding gave to his keynote address at the Conference *Ancestral Landscape: Burial Mounds in the Copper and Bronze Ages (Central and Eastern Europe-Balkans-Adriatic-Aegean, 4<sup>th</sup>-2<sup>nd</sup> Millennium B.C.)* held in Udine in 2008: *The Tumulus in European Prehistory: Covering the Body, Housing the Soul* and in the resulting paper he wrote for the Conference Proceedings (HARDING 2012). In the Friuli region, the monumental funerary landscape of *tumuli* was created at the beginning of the 2<sup>nd</sup> millennium BC (CÀSSOLA GUIDA 2012); the discovery of several Chalcolithic contexts in areas subsequently marked by the construction of important Early Bronze Age (EBA) *tumuli* in this region shows that the landscape held an important and long-term role in terms of ritual purposes and only later underwent a phase of monumentalisation (BORGNA *et al.* 2019). Towards the end of the Early Bronze Age, when the landscape of *tumuli* was still under construction, the first fortified sites featuring an earthen embankment with a wooden supporting structure and surrounding ditch (*castellieri*) were built in the Upper Friulian plain: in the Sedegliano hillfort, below the still-massive Late Bronze Age (LBA) earthwork embankment, researchers found traces of a first smaller embankment containing four graves. The small necropolis was radiocarbon dated to between the 19<sup>th</sup> and 16<sup>th</sup> centuries, thus identifying the period of use of the first embankment



2020) focus on the role of practices both material (from the preparation of grave goods to the construction of burial mounds and ancillary stone structures) and immaterial (from construction techniques to the conscious decision to reuse structures in the Sasanian period) in creating a social and cultural memory intimately linked to the landscape of the necropolis itself. For the different cultural groups that buried their dead in the three necropolises studied, the burials had to be visible to those travelling along the main roads (the *widyān* or fossil beds of ancient rivers): the position of the more monumental tombs at the highest points of the ridges and simpler ones along the relative slopes, the almost total absence of structures at some distance from the edges of the terraces, and the entrances of the graves almost always facing the wadi, are thus read as evidence of a cultural memory that shaped locals' relationship with the landscape (LAURENZA, BIANCHI, DI MICHELE 2020, 354).

A key point in the arguments of Laurenza and colleagues is that a necropolis consists of both material practices (funerary monuments and grave goods) and immaterial practices (funerary rituals and the will to continue using the same space): while the former can be studied using the tools of stratigraphic excavation, delving into the latter requires asking how people interacted with a given environment.

### 3. THE PHENOMENOLOGICAL APPROACH TO LANDSCAPE

The immaterial practices discussed above are nothing more than the «generalisations about meaningful social action» which I. HODDER (1985) suggests may not be possible within the framework of processual archaeology. Rejecting a timeless world in which man passively suffers the laws of his environment, Hodder hopes that man: «the passive and efficient animal [...] controlled by laws that he cannot usurp [may] be replaced by the individual, actively and meaningfully creating his or her world» (HODDER 1985, 23). Although it is now difficult to disagree with Hodder's critique of processual archaeology's desire to reduce everything to numbers and rules, it is also worth noting that works such as *Spatial Archaeology* (CLARKE 1977) and *Spatial Analysis in Archaeology* (HODDER, ORTON 1976), genuine manifestos of what Tilley with thinly disguised annoyance refers to as «mathematical spatial archaeology» (TILLEY 1994), now form the basis of many of GIS' analytical tools.

One of the interpretive perspectives on space that have followed these critiques is Tilley's phenomenological approach to landscape: he sets off from the idea that space must be seen as an agent in itself rather than a mere

the late Iron Age as well as multiple reuses in the Sasanian period. The Author participated in this project in the role of topographical surveyor (PUTZOLU *et al.* 2020).

container of action. If space is involved in the action of human groups, then it cannot exist outside of the events and activities that affect it: one cannot speak of space in absolute terms but must instead consider multiple spaces. Both the human agents who experience it and the ways in which this experience takes place contribute to defining individual spaces. Experiencing space is not a neutral fact; rather, it is shaped by different power roles based on age, gender, social status and interpersonal relationships. In a recent work entitled *An Anthropology of Landscape* (TILLEY, CAMERON DAUM 2017), the Authors point to several aspects that determine everyone's relationship with landscape:

- Biography (how does landscape enter into people's biographies?);
- Place (how do humans 'create' places?);
- Motility (how do humans move through the landscape?);
- Mediation (how is our perception of landscape mediated by the ways in which we move through it?);
- Agency, aesthetics, and well-being (what does the landscape 'do' for us?);
- Conflict and contestation (how does our perception of landscape change depending on our values and priorities?);
- Nature and culture (what do these terms mean within a given landscape?).

If we try to answer these questions by considering the different relationship each person has with a cemetery, we can perhaps appreciate how many and what interpretative insights such an approach can provide.

Adopting a phenomenological perspective to the study of landscape therefore means:

- Privileging the direct experience of the landscape studied in its physicality and considering sources on the landscape (photos, maps, texts, etc.) as secondary (materiality);
- Recognising the physicality of the environment in its interaction with humans and, at the same time, feeling part of a larger body (embodiment);
- Realising that different people, or different human groups, see (or have seen) the same environment with different eyes, sometimes even from conflicting points of view (contestation);
- Taking into account that pre-modern societies had a significantly different relationship with nature (and thus with the environment) than we do, and how important a balance with the environment was for many (emotion).

In the light of these considerations, the thoughts outlined above regarding the immaterial aspects of a landscape as peculiar as the cemetery take on a new hermeneutic perspective.

The question of the materiality of landscape deserves special mention, and indeed the implications of this assertion for digital archaeology have

already been clearly expressed by Tilley: «Ancient stones in landscapes, the subject matter of this book, cannot be known or understood simply from publications, from maps, diagrams, photographs and descriptions, because these are only representations. As representations they necessarily fail in conveying a bodily understanding of prehistoric remains. Statistical analysis, Geographical Information Systems and simulations are, if anything, far worse. There can be no substitute for the human experience of place – of being there – and it is only after this that the various technologies of representation come into play» (TILLEY 2004, 218).

#### 4. THE POWERSCAPE AS AN INTERSECTION BETWEEN LANDSCAPE PHENOMENOLOGY AND SPATIAL TECHNOLOGIES

The physical relationship between humans and the environment has certainly been of fundamental importance in the past as a component of the funerary landscape. How can we bring together the study of this landscape with GIS analyses that explore a person's modes of perception (especially visual and auditory) within the necropolis? The element of synthesis between these two apparently irreconcilable approaches is found in the theoretical framework of the powerscape<sup>2</sup>, as theorised by A. De Guio since the 1990s (Fig. 1). «The main object of political archaeology is the attempt to glean, from a reading of the archaeological record, the spatial/functional articulation and formative processes (genesis, maintenance, collapse, 'rebirth' ...) of the political organisation of geographical space in antiquity, defined in the associated terminology as landscape of power or powerscape» (DE GUIO 2002, 82-83; translated from Italian by the Author). De Guio's reference to the «political organisation of geographical space in antiquity» closely resembles what Tilley wrote at the beginning of his *A Phenomenology of Landscape*: «Spatial experience is not innocent and neutral, but invested with power relating to age, gender, social position and relationships with others» (TILLEY 1994, 11).

What could not be more different, however, is the approach to landscape analysis: to Tilley's demonisation of digital archaeology (see above), De Guio responds with an invitation to use various GIS-based analytical methods he defines as 'hammers of power' (DE GUIO 2002, 84; translated from Italian by the Author). The toolbox suggested by De Guio (and it should be noted that, even today, the most frequently used GIS software, ESRI ArcGIS Pro, organises numerous analytical tools into dedicated menus called toolboxes) refers to the extremely articulated analytical repertoire made available «in the healthy

<sup>2</sup> The two most important references, cited by DE GUIO itself (2002) in his definition of 'archaeology of power', are *The Archaeology of Government* (TRIGGER 1974) and *Landscape of Power* (RENFREW 1984).

delirium of new-archaeological omnipotence and its epigonic streams» (DE GUIO 2002, 84; translated from Italian by the Author): along with the models then most widely used by spatial archaeology, De Guio proposes some models expressly codified for studying Landscapes of Power and suggests researchers use of the «multiform repertoire of Geographic Information Systems» (DE GUIO 2002, 85; translated from Italian by the Author).

Similar confidence in the analytical potential of GIS, including on the phenomenological side, can be found in the definition of GIS itself given by D. Wheatley and M. Gillings. Discussing the variety of data typically collected by archaeologists, they state that these: «could relate equally to archaeological artefacts, environmental factors, modern cultural boundaries, perceptual fields, etc.: in effect, an environment in which to think and explore ideas. GIS has the potential to provide precisely this type of environment of integration and exploration» (WHEATLEY, GILLINGS 2002, 15; emphasis added by the Author).

Having established that it is possible to analyse a necropolis as a specific form of landscape (the funerary one, in fact) using the most sophisticated geostatistical algorithms, we can then turn our attention to its value as a spatial construct and the political implications of its articulation within a given local area. One of the most recent publications on the perceptual analysis of the landscape in this context is J. Ortoleva's work reconstructing aural engagement within Etruscan necropolises, and between the necropolis and settlement, through acoustic modelling (ORTOLEVA 2021, 2022, 2023; ORTOLEVA, BARNARD 2021). It should be emphasised that Ortoleva applies the same approach in other work as well, both at the macro level of the land between a settlement and necropolis (Pian di Civita and Monterozzi in Tarquinia, respectively) and at the micro level of individual tombs, thereby providing interesting insights into the not-only-visual connection between the landscape of the living and that of the dead in the Etruscan world, as well as the importance of the sound component in the internal structuring of hypogean tombs.

An approach which is certainly more widely used but has produced interesting new insights in recent years is viewshed analysis (for an up-to-date bibliography on viewshed analysis in archaeology, GILLINGS, WHEATLEY 2020). It should be noted that this approach was first applied within archaeology in Renfrew's work on the Neolithic cemetery landscape of Orkney (RENFREW 1979). Following an analysis initially based on a fundamentally binary concept of visible and non-visible cells (WHEATLEY, GILLINGS 2000), more recent work has introduced concepts such as degradation of visibility as a function of distance (fuzzy viewshed analysis, MURPHY, GITTINGS, CROW 2018), the uncertainty associated with the imprecision of the DEM (probable viewshed analysis, MURPHY, GITTINGS, CROW 2018), and the differential ability to recognise an individual depending on the colours of their clothing and contrast

between them and the colours of their surroundings (Individual Distance Viewshed, IDV, FABREGAS-ALVAREZ, PARCERO-OUBIÑA 2019; GALMÉS-ALBA, CALVO-TRIAS 2022). Such work has shown that it is possible to reconcile, at least at the level of modelling, the use of increasingly sophisticated analytical methods, attention to phenomenological aspects of the human-environment relationship, and the use of ever-new ‘hammers of power’.

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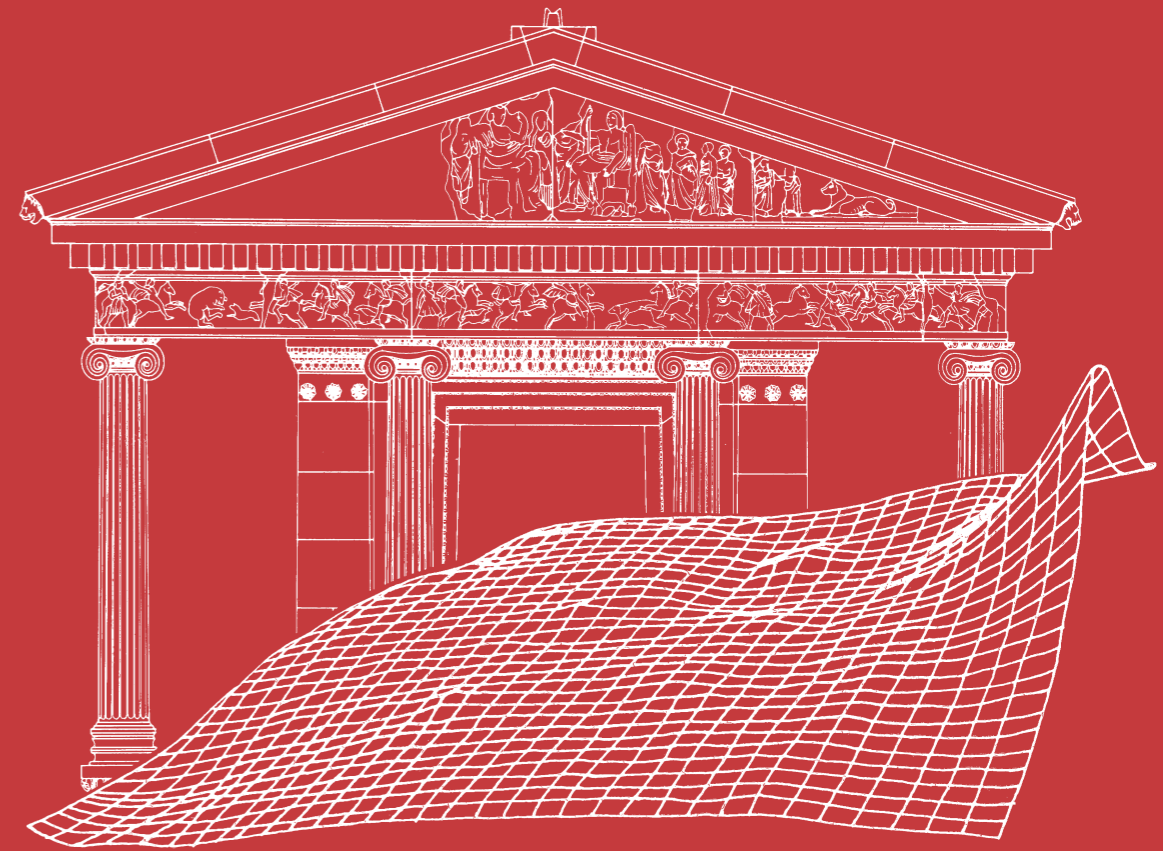


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## ABSTRACT

This paper focuses on some methodological approaches specific to digital archaeology in the analysis of a particular type of landscape, namely Etruscan-Italic necropolises. First, it highlights the interpretation of a necropolis as a landscape of ancestors and the importance of material and immaterial practices in the formation of such a space. Then it addresses the theoretical framework of phenomenological landscape analysis, developed in recent decades by C. Tilley, as a privileged way to address both aspects. In order to reconcile the phenomenological approach to landscape with the use of digital spatial technologies, which according to Tilley are insufficient because they are at best 'representations' of landscape, A. De Guio's reading of the Powerscape concept is introduced. De Guio presents various spatial analysis algorithms, as fundamental 'hammers' to shape our knowledge of multifaceted landscapes such as powerscapes (an example of which is funerary landscapes). The reconciliation between the phenomenological approach to landscape and GIS-based spatial analyses of perceptual fields (especially vision and hearing) allows us to confidently rely on new perspectives, such as J. Ortoleva's recent research on auditory perception in Etruscan necropolises or the latest approaches to viewshed analysis.

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