

Article

The Spacetimes of the Scythian Dead: Rethinking Burial Mounds, Visibility, and Social Action in the Eurasian Iron Age and Beyond

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Abstract: The Eurasian Iron Age Scythians, in all their regional iterations, are known for their lavish burials found in various kinds of tumuli. These tumuli, of varying sizes, are located throughout the Eurasian steppe. Based, at least partially, on the amounts and types of grave goods found within these mounds, the Scythians are usually modeled as militant, patriarchal mobile pastoralists, with rigid social structures. Yet, such interpretations are also due to accounts of Scythian lifeways provided by “classical” societies from the Greeks to the Persians, who saw the Scythians largely as barbarians, much like their neighbors to the north of the Greeks, the “Celts”. Despite recent interrogations of the barbarian trope, and the opportunity to dissect the classic formula of large mounds = elevated status, I contend that many studies on Scythian mortuary practices remain monolithic and under-theorized, especially by Western scholars. Drawing upon different conceptual and methodological frameworks, I present alternative, multi-scalar understandings of Scythian mortuary landscapes. Utilizing a spacetime-oriented, dialogical approach supplemented with geographic information systems, I interrogate how and why various meanings and experiences may have intersected in these protean Scythian landscapes of the dead, rather than reducing them to monolithic symbolic proxies of ideological status.

Keywords: Scythians; mortuary practices; visibility; dialogics; multivalency



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A body’s symbolic effectiveness does not depend on it standing for one particular thing, however, for among the most important properties of bodies, especially dead ones, is their ambiguity, multivocality, or polysemy. Remains are concrete, yet protean; they do not have a single meaning but are open to different readings.

—Katherine Verdery (1999, p. 28), *The Political Lives of the Dead*.

1. Introduction

Burial mounds may be one of the most visible and yet complex and enigmatic forms of material culture found in archaeological records. While, ostensibly, burial mounds are constructed to memorialize, if not monumentalize, the dead, the overall sizes and locations of the mounds are usually understood as directly or indirectly related to “prevailing ideologies” as their material expression both singly and as groups or cemeteries (Arnold 2002; Ballmer 2018, p. 100; Parker Pearson 2005). For instance, in many, if not most, studies on burial mounds, larger monuments are seen to communicate elevated status via communal effort in comparison with smaller mounds (Arnold 1995, 2002; Ballmer 2018; Barfield 2020; Brown 1981, 1995; Branigan 1998; Buikstra and Charles 1999; Hanks 2002; Koryakova 1996; Morris 1987, 1991, 1992; Parker Pearson 2005; Parzinger 2017; Rolle 1989, 2011; Saxe 1970; Steinhaus et al. 2018; Tainter 1975; Voutsaki 1998). Yet, this tenuous connection to ideology is either too often taken for granted or overly reductionist in principle (and sometimes both). By this, I mean that the simplistic formula—the larger the burial mound, the more important the deceased—leads to a reliance on, which ultimately perpetuates, monolithic interpretive frameworks that omit a fuller range of experiences of

the mounds themselves. Indeed, Lynne Goldstein (1981, p. 56) stated that the result of such frameworks is the pigeon-holing of the (full) meaningfulness of mortuary practices and their studies, followed soon after by Ian Morris's (1991) testing of Saxe's Hypothesis 8 and Goldstein's expansion of it, finding that it did not fit in every social scenario.

While Goldstein (1981, pp. 56–57) praised Arthur Saxe's (1970) and Joseph Tainter's (1975) perspectives on measures of energy expenditure reflecting things like social organization and social structure, i.e., the importance and social positioning of the deceased, she also pointed out that we must not lose sight of the multi-dimensionality of mortuary practices, indicating that a more holistic approach is needed to explore the myriad meaning(s) of burial rites. At the same time, she rightly criticized fellow archaeologists for largely ignoring the spatial component of mortuary practices, including location. Since the publication of Chapman et al.'s (1981) *The Archaeology of Death*, the location of burial rites has, to a large degree, taken center stage, with a general focus on where mounds are situated in relation to other important archaeological sites, like settlements or other bigger mounds indicative of some sort of social positioning of the dead (Arnold 1995, 2002, 2010; Ballmer 2018; Buikstra and Charles 1999; Chapman 1981, 1995; Morris 1987, 1992). For instance, Bettina Arnold (1995, p. 43) noted that for early Iron Age societies in West Central Europe, social differences were not necessarily found among the living, e.g., houses and their sizes. Rather, burial rites, including the use of earthen tumuli, were not only emblematic of wealth-based ranking but also materially and symbolically signaled the presence of a broader spectrum of statuses. Arnold (1995, p. 45) further suggested that:

Tumuli were intended to function as highly visible communal monuments. They advertised the seniority and importance of the lineages associated with the late Iron Age populations that erected them. Their conspicuous location along major routes of transportation (often on terraces clearly visible from a considerable distance), and their additional demarcation by means of stone rings and stelae, supports this interpretation.

Arnold went on to suggest that other factors, much like what Goldstein suggested in terms of multi-dimensionality, including grave goods, need to be considered when interpreting Iron Age mortuary practices. The implication, then, is that burial mounds, while socially important pieces of architecture, can only be accurately interpreted via their contents. In other words, the formula of big = important remains prevalent in mortuary archaeology, especially if the contents mirror our expectations created and perpetuated through myopic considerations of individual mound size. Yet, if archaeologists are to interpret the multiple contextual dimensions of burial mounds, i.e., structure, contents, and multiple phases/periods of use and reuse, then should we also consider the multiple interpretive dimensions of the mounds themselves as complex, collective, and multivalent structures? Correspondingly, should we not more fully examine how and why the mounds were built, including how they were used and experienced differentially over time and space, not just singly but also as multi-scalar/sized groupings or even landscapes?

To begin answering these questions, we must confront the problematic epistemes, or supposed knowledge, entangled with the study of burial mounds. In a recent piece on the spatial configurations of Bronze Age burial mounds in Europe, Ariane Ballmer (2018, p. 107) suggests that it is unavoidable to “dive into the treacherous waters of interpretation” regarding burial mounds, as the results can only be hypothetical. But, if Ian Hodder (1999) is right (and I think he is), then the process of interpretation begins at the trowel's edge, not after fieldwork is completed. Rather than thinking of the interpretive dimension as treacherous, we might confront the episteme head-on, recognizing that our interpretation of burial mounds began before we even started excavations, and at times can mislead us in terms of scales of meaning. Our default assumption regarding burial mounds is that mounds and all their internal components, not to mention external links to other mounds, either reflect or are related to the status and/or social positioning of the dead by the living. This “interpretation” is so entrenched in our collective archaeological psyche, that few, if any, ever look beyond the mounds as proxies for status expression. We see each use of a

mound, or mounds in a group, as further concretizing the mound size = status formula. Yet, from Goldstein's (and others') perspectives, there are multiple dimensions to burial monuments and their associated rites that need to be accounted for. While I share Ballmer's chary mindset, I am open to exploring possibilities that have not been considered or tested yet regarding our shared interests in this subject. Ballmer, like Goldstein and Arnold, is correct in terms of (1) the spatiality of burial mounds being important (if not still understudied to a certain extent) and (2) the interpretive results being hypothetical. The past four decades of research into the "spaces/places" of the dead have revealed much that previous research had not illuminated. Goldstein's call for more attention to be paid to mortuary spaces seems to have been heeded on a much broader, if not global, scale ([Šmejda 2006](#); [Steinhaus et al. 2018](#)), even as it was largely hypothetical at the time that specific spaces or places became meaningful through the internment of the dead. It is through the proposal, and subsequent testing, of hypotheses that we come to engage with innovative ideas or expansions/revisions of old ideas, paring down our ideas and, hopefully, proposing more firmly grounded interpretations.

But an important aspect of testing in science is the use of multiple *competing* hypotheses. By competing hypotheses (at least in this study), I mean that we need to allow for the possibility (if not probability) that mounds had multiple, overlapping, if not protean, meanings. To engage with such protean meanings, multiple conceptual frameworks may need to be employed. In this article, I revise old ideas and engage with new frameworks that reveal under- or even completely unexplored possibilities. By "revise the old", I mean repurposing Goldstein's "multi-dimensionality" to focus on the multivalency of burial mounds as meaningful visual and material culture in and of themselves rather than dependent on their internal contents to derive meaning from, and the (related and continued) over-reliance on mono-causal interpretations of size equaling status (a point I will confront head-on in subsequent publications ([Johnson, forthcoming](#))). I also mean the social and temporal subject matter of this article: burial mounds from the Eurasian Iron Age steppe and the lower Dnipro/northern Pontic–Black Sea "Scythian epoch", all ca. 700–200 BCE, a region and time where burial monuments were unprecedented in size and complexity on the Eurasian steppe and beyond ([Polin et al. 2020](#); [Parzinger 2017](#)). By "engage with new frameworks", I mean employing conceptual frameworks that are not new per se, but rather new for the study of burial mounds. I combine ideas of performance and "spacetimes" with aspects of Carlos Severi's "Chimera Principle" with Mikhail Bakhtin's concepts of "dialogics" and "heteroglossia" to reconceptualize how diverse Eurasian Iron Age mortuary landscapes might have been experienced visually and became differentially (and dialectically) meaningful under various conditions and contexts, i.e., different spacetimes via different scales of audience. I open these Iron Age mounds to re-interpretation even as I put them in broader social, political, and economic contexts, following Renate [Rolle's](#) (1979, 1989, 2011) and, more recently, Hermann [Parzinger's](#) (2004, 2006, 2017), attempts to bring these fascinating cultural complexes to a wider, if not global, audience. Before undertaking this, however, I start with a much-needed interrogation of how burial mounds have been conceptualized and studied, especially as they are some of the primary loci from which archaeologists have collected material culture and data about the Eurasian societies of the first millennium BCE, including, but not limited to, the steppe "nomads".

2. Reviewing the Study of Burial Mounds

While this contribution to the Special Issue, "Situating Eurasia in Antiquity: Nomadic Material Culture in the First Millennium BCE", focuses on the mortuary practices of the Eurasian Iron Age steppe and Scythian epoch of central Ukraine–lower Dnipro region, more specifically, it also engages with larger topics like how burial mounds should be treated as visual/material culture and how these mounds were experienced variably. It is necessary to recognize that the use of burial mounds, tumuli, barrows, kurgans, and mohyla (terms used interchangeably to symbolize monuments made primarily from soil with human internments, usually, found within them) is a near-global phenomenon and,

as such, requires a brief synopsis of the general trends in which the studies of tumuli are entangled. By “studies of tumuli”, I mean the targeted study of the (often) monumental structures themselves, which sometimes, but not always, contain burials within (a primarily methodological and epistemological problem I expand upon later in this section). When [Goldstein \(1981\)](#) mentioned not losing sight of the multidimensionality of mortuary practices, which, again, we can take to mean not being overly essentialist or monolithic when investigating burial rites, I suggest that more conceptually driven studies of burial mounds (in whatever form and with whatever terminology, mound, tumulus, kurgan, mohyla, etc.) are needed, studies that move beyond mounds as places, if not containers, for allegedly more socially important factors like burials. The mounds themselves may be multivalent and socio-politically (if not symbolically) charged material and visual culture. Indeed, one of the arguments I am making here is that meanings may change based on the number of burial mounds present, and subsequently, the visual experiences of the mounds by diverse types, if not scales, of “audiences” or participatory communities. There may be a cumulative effect of how the mounds as integral components in the production, if not performance, of a “landscape” are experienced, with meanings subsequently produced, performed, and carried away.

Despite the many similarities that exist in the use of burial mounds, such as the use of layering, the interment/deposition of bodies and grave goods, and the use of other ritual loci in association with the mounds, we should by no means consider mound use (and possible reuse seen through later burials), to be universal, and, therefore, the meanings of mounds should not be taken for granted. For instance, [Arnold \(2002, p. 130\)](#) suggests that “While not usually considered material culture in the same sense as grave goods, the mortuary landscape must be taken into account in the decoding of the syntax and vocabulary of death in past societies”. She notes both similarities and differences in mound structures, uses, and locations in the early Iron Age of present-day Southwest Germany, ca. 650–450/400 BCE. Some are located near settlements, others farther away. Some are designed with external features such as ditches, post rows, and stone circles demarcating the ritual space. Others appear individually or in very loose groupings, while others are densely clustered. For mound groups closer to the Heuneburg, one of the larger early Iron Age hillforts in Southwest Germany, constructed between 600 and 530 BCE, no basal demarcation is present. However, the mounds constructed between 530 and 440 BCE and within view of the Heuneburg, include some form of demarcation ([Arnold 2002, p. 130](#)). In addition to proximity to large settlements (in some cases), other mounds are usually found located along high ridges and waterways such as rivers ([Arnold 1995](#)).

Another study is [Buikstra and Charles’s \(1999\)](#) regional examination of the use of burial mounds in west-central Illinois, primarily along the Mississippi River in the American Midwest. [Buikstra and Charles \(1999\)](#) note that Native American populations used the flood plains and bluff crests as the primary locations for their burial mounds. By the Middle Woodland/Hopewellian period, ca. 2100–1500 BP, rather than placing single mounds along rivers, Hopewell populations began focusing almost entirely on bluff crests that eventually led to formal mounds clustered in linear patterns ([Buikstra and Charles 1999, p. 212](#)). Mound designs/shapes changed as well, with some of the later clustered mounds exhibiting more of an oval shape, 100 m in length and 6 meters in height, and located back on the floodplains (*ibid.*). Other, more recently studied, examples in other parts of the world can be found in abundance in [Steinhaus et al.’s \(2018\)](#) volume on burial mounds. It is important to note that both similarities to and differences from the case studies noted above are found in most regional examples covered in their volume. Geographic location, structural design, and change in use over time seem to be the most common attributes of prehistoric burial mounds, along with the obvious factor, that most mounds contain burials with bodies and grave goods. But this brings us back to the fact that despite geographic and symbolic differences (and similarities), burial mounds should be considered as meaningful material culture regardless of their cultural context or the types of things that they contain.

Despite this admission, I contend that there are still fundamental problems with how we conceptualize, and ultimately investigate, the role of burial mounds in prehistoric societies. One such problem is assuming the scale of action involved in a mound's use, and by extension, the meanings associated with different scales of action. Mike [Parker Pearson \(1993, 2005\)](#) stated numerous times that the dead do not bury themselves, implicating (commonsensically) that a community of living individuals must have not only arranged for the burial (along with any goods deposited with the body) but also that the very same community (or family/kin group) would have come together to build the mound to memorialize/commemorate the deceased individual(s). This has dramatic implications, and we can think of those implications as being multi-scalar. First, initial scales of action can be thought of as local or immediate in terms of proximity. While living individuals (kin or not) may well have traveled various distances to attend the funeral and/or burial, the effect would have remained largely local. This is especially salient in the case of a single mound being constructed, where an immediate kin group likely would have undertaken the post-mortem activities. Local, kin-based involvement can be important when we begin thinking about stratigraphy and how the mound layers might have been added through time, along with additional burials and other features. The mound then becomes emblematic of the types of sociality that the deceased individual(s) participated in when they were alive and again once they were dead. Perhaps the addition of layers to the mound structure is not only symbolic but links varying times and community engagements to these specific accretional locales.

For example, as archaeologists on the Landscape of Ancestors (LOA) Project directed by Bettina Arnold and Matthew Murray, and funded primarily by the National Geographic Society and the University of Wisconsin–Milwaukee (USA), Seth Schneider and I wrote about the connections between “curated” materials like ceramics and their performative relationship with the mound's stratigraphic layers and the audiences of early Iron Age communities of living building and (re)using tumuli in the Speckhau mound group located in Southwest Germany (expanding upon [Schneider \(2003\)](#) and [Johnson and Schneider \(2013\)](#)). In [Schneider's \(2003\)](#) master's thesis, he established that the ceramics in question, a small number of pottery sherds collected from a smashed vessel from the central grave in Tumulus 17 before the grave was sealed, were curated for some 150 years and then added to the last stratum of the mound. We argued that beyond just legitimating durable social positions and venerating ancestors, this curation performatively linked communities over time and space ([Johnson and Schneider 2013](#)). What we missed at the time was that performance links “spacetimes”, the connections of experiences, memory, imagination, and possibility in producing engagements with the world around us ([Franklin 2021](#), p. 12), implicating distinct types and scales of social action. Where we fell short in our interpretive framework was reducing the mound itself to a stage upon which performances happened, rather than more fully exploring the role of audiences in terms of meaning making over space and time. In addition, we failed to recognize that for all the discussion of “landscapes”, we treated experiences with a mound or two as representative of landscapes of tumuli.

We were following an ongoing trend in the various iterations of archaeology (anthropological, classical, historical, etc.) that were, at the time, moving toward ideas of performance ([Bauman 1977](#); [Goffman 1959](#)), which in turn was leading to archaeologies of performance ([Bradley 1998](#); [Joyce 2004](#); [Inomata and Coben 2006](#); [Laneri 2008](#); [Johnson 2009](#); [Pearson and Shanks 2001](#)). More specifically, archaeologists were exploring the “staging” or “performing” of death in terms of burial mounds, which, in turn, became an enduring focus on theorizing social action in relation to the places/spaces of death and burial, not to mention subsequent commemoration ([Arnold 2011](#); [Dakouri-Hild and Boyd 2016](#); [Johnson and Schneider 2013](#); [Laneri 2008](#); [Parker Pearson 2005](#); [Panagiotopoulos and Santo 2019](#)). While performance is an intriguing, if not provocative, lens through which to explore the funeral rites associated with the use and reuse of burial monuments in terms of the production of meaning, it also reifies the idea of tumuli as spaces/places, or even stages, where social death is recognized and performed, with the identity of the deceased

celebrated, i.e., status. Interestingly, because of the centrality of the primary–central burial, we, as archaeologists, assume that the meaning of the mound, then, must also center on that individual. But, from a performative perspective, we need to account for how meanings are made and carried away by different audiences, sometimes symbolized by the addition of strata or features to stratum, and sometimes meanings that were created beyond such evidentiary actions.

This brings us back to the quote from the beginning of this article. While not discussing burial mounds per se, Verdery (1999, pp. 26–29) uses the dead body as a locus for political expression and action, protean capacities for meaning making. The quote is a part of Verdery’s discussion of the enchantment of the politics surrounding and embedded in the use of the dead. Indeed, she (Verdery 1999, p. 26) astutely observes, “Where else, I ask, might we look for “politics”, in perhaps unexpected places that arrest the imagination?” Focusing on the body, a growing trend at the time (one which, for the past two decades, has been a compelling topic in archaeology (Boric and Robb 2008; Gramsch 2013; Giles 2013)), Verdery (1999, p. 27) states “Bodies have the advantage of concreteness that nonetheless transcends time, making past immediately present”. Ultimately, Verdery explores the body’s materiality or capacity to create and express meaning. This capacity to generate and express different meanings in various contexts is the heart of what is being discussed. However, rather than the body, the focus here is how burial mounds generate and sustain protean expressions through interactions with them. Questions central to such an undertaking include the following: Does materiality change in terms of differing numbers of mounds? Can landscapes or groups of burial mounds affect spacetimes, or meaning making, in terms of how different audiences experienced the mounds? Finally, how does the visual experience of a single burial mound differ from traversing and viewing landscapes of the dead? Such questions emphasize an important epistemological point that spacetimes created through visual, interactive experiences with a single mound versus a landscape or “cemetery” should be considered fundamentally different or, at the very least, potentially different.

Following this, I come back to the concept of spacetimes, which acts as a natural springboard for exploring the protean nature of burial mounds. Nancy Munn (1986, pp. 10–11) suggests that:

In sum, an intersubjective spacetime is a multidimensional, symbolic order and process—a spacetime of self-other relations constituted in terms of and by means of specific types of practice. A given type of act or practice forms a spatiotemporal process, a particular *mode* of spacetime. Defined abstractly, the specifically spatiotemporal features of this process consist of relations, such as those of distance, location (including geographical domains of space), and directionality; duration or continuance, succession, timing (including temporal coordination and relative speed of activities), and so forth.

Kate Franklin (2021, p. 12), drawing upon Nancy Munn’s (1986) work, notes that spacetimes allow her to think of how the plural worlds generated by the Silk Road were made and subsequently allowed for a shared cultural cosmos, yet co-existing with “difference at multiple scales”. She (ibid.) goes on to describe spacetimes as “happenings; a spacetime is the world of possibilities for actions, thoughts, dreams within it”. The idea of spacetimes is relevant to what is being discussed here as it implicates travel in how people, or *audiences*, experience different things, different worlds (if we think of people moving through these landscapes as being on a spectrum of local and non-local) that must be interpreted, or the meanings of which inferred, usually from our own experiences or “worlds”. The lingering question, then, is how we account for the protean, or mutable, nature of burial mounds as single and group entities. If spacetimes are worlds of possibilities for actions and thoughts, imaginary or otherwise, then we can begin to explore the various and different structural components, scales, tempos, and types of actions surrounding or interpenetrating mound use, and possible reuse, as material culture in single and group instances in the first millennium BCE on the Eurasian steppe.

3. Epistemology of Eurasian Iron Age Burial Mounds

3.1. The Spacetimes of Individual Tumuli: Single and/or Proximate Instances

In *The Chimera Principle*, Carlos Severi (2015, p. 4) employs Wittgenstein's visual illusion of a rabbit–duck to demonstrate that what one sees (and, by extension, experiences) is largely dependent on how our vision and memory are culturally shaped and usually overlap. Indeed, without any external adornment such as menhir (standing stones) or stelae on top or situated around the exterior of the mound, burial mounds can look (more or less) like natural hills. Interestingly enough, and perhaps this is one of the points Wittgenstein was trying to make, without having much internal detail (or external detail besides an outline) at our disposal, it becomes a matter of experience and memory in terms of identifying one thing or another. In the study presented here, it is much the same, except replacing a hill and burial mound for a rabbit and duck. Severi's point is that without direct experience of the one (ritual and cultural in nature) over the other (being naturally made), we might mistake one for the other. But with cultural memory and imagination firmly in mind via specific ritual events that remind or even emphasize specific spacetimes to certain audiences, we can begin to fill in the burial mound's outline. From a close, exterior perspective, burial mounds reveal little evidence of different intentions in terms of single uses and/or reuse over time (Figure 1). Their outlines, beyond overall size, are often similar if not identical in shape, and from a diachronic perspective with the effects of time taking their toll on mounds (like slumping), match those of natural hills. But these different spacetimes (cultural and natural) are often more distinct at certain times and elusive in others. For instance, the primary difference emerges right after a mound's construction. Following its immediate use, and possibly reuse, the mound lays bare, denuded of most of the vegetation that would have grown on the surface, just as various types of plants take root on hills. Over time, the mound will increasingly take on the appearance of a hill, especially as natural forces and elements take hold. The growth of vegetation, erosion, and slumping might change the shape of the mound and may, in fact, change the internal composition as well, i.e., bioturbation (Figures 1 and 2). We might imagine that at least upon completion, and shortly after, the intentions of the "container" form itself were protean, signaling an artificial form at the start but becoming increasingly naturalized over time, perhaps an artifice to further protect the interior from intentional disturbance, like looting.

Those internal components, however, are what distinguish a hill from a tumulus for the local, and perhaps even regional, living communities. With the durable memories generated and maintained by past, present, and future burial rites, the mounds can be seen as different, fundamentally ritual, forms that persist through time. Severi (2015, p. 4) further notes that the relationship between culture and vision is balanced between narrative (and ritual) speech and memory. This fits well with the past two or more decades of research into burial mounds (or monuments in general) as mnemonic devices, ones intended to encapsulate, if not evoke, memories of past or present burial events, or even those that might happen in the future (Lillios and Tsamis 2010). Yet, somehow it still seems as if the general view of mounds as, at least in design and form, generic containers, and loci for meaningful, "proximate" (near in time and space) activities within persists. For our purposes here, it is worthwhile to return to Goldstein's perspective on multi-dimensionality to extend out from the interior components of the mounds to a broader scale of interaction with landscapes clearly populated by burial mounds.



Figure 1. Photo of a tumulus of the Speckhau mound group in Southwest Germany (photo credit: James A. Johnson).



Figure 2. Iron Age kurgan in the steppe below the Ural mountain range (photo credit: James A. Johnson).

The issue here is one of methodology and method. By this, I mean our methodology, or the justification for the application of specific methods to research problems, is that we often assume a certain degree of representativeness of one mound and its capacity to stand as a proxy for whole groups of tumuli. Our methods, correspondingly, focus on the excavation of one or two mounds, and often the revealing and reading of the mound's internal stratigraphy. Tumuli, depending on size, scale, and complexity (number and connections between internal, stratigraphically situated components, such as features), can take a field season or more to fully excavate, with each stratum and its constituent parts being treated as separate, but often temporally, if not spatially linked, entities. Thus, stratigraphy, the natural and cultural levels revealed through excavation, with different strata signaled by (usually) differently colored and textured layers of soil and other materials, can often attest to the intentional design and timing of the use of the mound, emphasizing the simple point that the layers below are older than the ones above (Renfrew and Bahn 2008, p. 122). The stratigraphy of burial mounds reveals how (and perhaps why) the mounds might have been used/reused over time. The emphasis on stratigraphy, of course, is highly dependent on the national archaeological tradition of excavation and the equipment used.

For example, the Landscape of Ancestors Project excavated two tumuli (T17 and T18), each one measuring approximately 20 m in diameter and 2 to 4 m in height, over the course of three seasons in Southwest Germany (Arnold 2003). While a small trackhoe was used, the employed method called for shallow (1–2 cm) scrapes, going down gradually, if not incrementally, from the top of the mound to the ancient ground surface, following the mound stratigraphy. Each resultant mound stratum floor and profile was then cleaned by hand, using trowels and tile shovels (Arnold and Murray, forthcoming). This was carried out so that the project could account for any materials that were added to the mound core and fill, and one might go so far as to say that these materials were forms of temper (cultural additives) for the mound. Hundreds of pottery sherds were recovered ($n = 1086$ sherds), with dozens appearing in each of the mound "floors" or plana that were cleaned, while others were found in various mound features including the burials. Pottery sherds were mapped, collected, and later analyzed (Schneider 2003). Of course, during excavation, graves were identified and excavated, as well as other small ritual features, including but not limited to small charcoal "packets" and charcoal stains with pottery, not to mention larger places of burning adjacent to the central burials (Arnold and Murray, forthcoming; Schneider 2003). Despite an identical methodology in place for the 2000 season excavations of T17 and then the 2002 season for T18, the internal components of the mound strata, especially in terms of materials present in the mound fill, were different (Arnold and Murray, forthcoming). But, in both cases, the mound stratigraphy was complex, revealing socio-cultural nuances in the use and reuse of the mounds over time, with their earliest use dating to between 650 and 600 BCE. In fact, despite the haphazard and partial excavation of the Hohmichele mound (the second largest burial mound in central Europe as well as the largest in the Speckhau mound group) (Figure 3), the stratigraphy of the Hohmichele mound, as complex and nuanced as T17 and 18, seems to have played an important role in terms of symbolizing community investment and participation over decades, if not generations, but later than the other two smaller mounds. Such matters are pertinent to the discussion of Eurasian Iron Age mounds as there are both similar and different foci in terms of the methodologies and methods involved in the excavation of the mounds and the widespread interpretations of single monuments as proxies for much larger groupings, or even landscapes, of funerary monuments like tumuli.

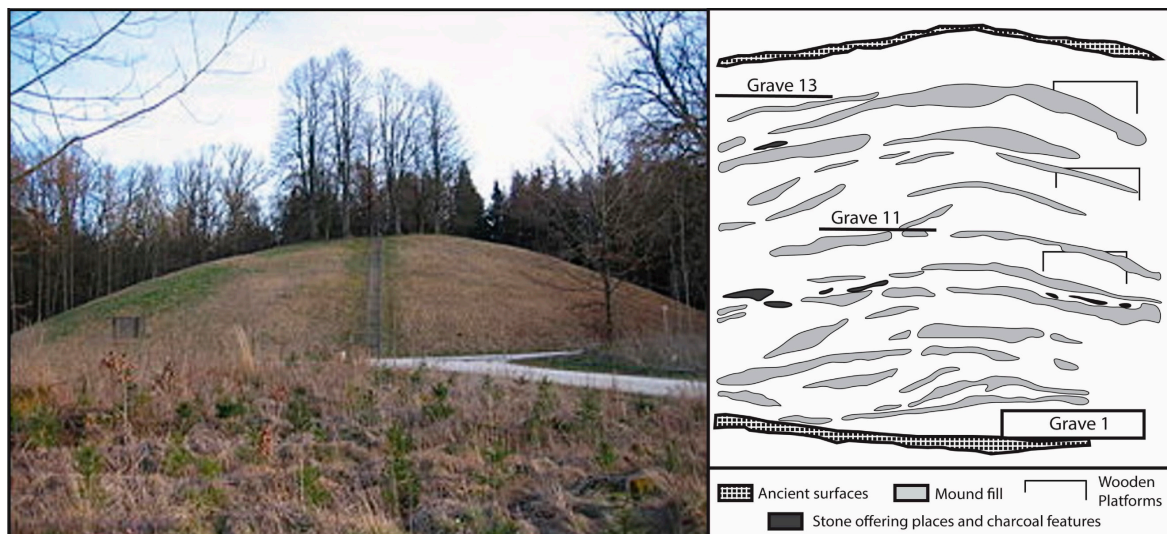


Figure 3. Image of the Hohmichele mound (reconstructed) and profile drawing (adapted from Johnson 2016).

In the case of the earliest examples of Eurasian Iron Age mounds, Arzhan 1 and 2 stand out. While, as burial monuments, there are clear similarities, such as each monumental form being at its core a ritualistic monument where burial rites took place, there are also clear differences between the burial mounds of Iron Age West-Central Europe and the burial monuments of the eastern Eurasian steppe, especially in the Tuva region and the Altai and Sayan mountain ranges. Arzhan 1, excavated in the 1970s by Mikhail Gryaznov, is composed of a reinforced stone foundation or platform, 100 m in diameter and 3–5 m in height, covering a wooden structural complex beneath (Bokovenko 1995a, p. 265; Parzinger 2017). The monument contains numerous and varied burial chambers, with the best known among them being Chamber 1—the “Tsar” and “Tsarina” burial. Dendrochronology conducted on the chamber planks and beams indicates that the monument was used as early as the end of the 9th century and early 8th century BCE (Parzinger 2017, p. 38), one of the earliest Iron Age monuments dated so far. Another nearby burial monument, Arzhan 2, is similar in design style but with a slightly later date close to the 7th century BCE. Arzhan 2, excavated in 2000–2003, also has a stone platform or foundation over the top of the burial chambers, like Arzhan 1 (Chugunov 2020; Parzinger 2017, pp. 338–39). Parzinger (ibid.) further notes that of the hundreds of Iron Age burial mounds ascribed to this period, only four were built using these types of stone platforms, with the mounds distanced 3–4 km from each other and arranged in a row. I am especially intrigued by his (ibid.) suggestion that “Members of this rider-nomad ruling class were buried in Arzhan over a longer time span; perhaps the beginning of dynasties even developed there”. Maybe even more than a “ruling dynasty”, this was the beginning of a monumental tradition, one which was intended to protect and/or make durable the monuments themselves and, by extension, their associated spacetimes. This tradition, the use of stone, became increasingly associated with the broader tradition of Iron Age tumuli, including those of the Scythian epoch to the west, even as its use declined in scale through time (and geographic space) as the overall custom of mound use became more widely used westward across the steppe.

In the eastern Altai Mountains, adjacent to the Tuva region, the well-known Pazyryk mounds (Mounds 1–5) were discovered and excavated; the first (Pazyryk 1) between 1925 and 1929 by M. Gryaznov, and the other four (Pazyryk 2–5) between 1947 and 1949 by Sergei Rudenko (Bokovenko 1995b; Rudenko 1970). Rudenko (1970, p. 14) notes that all the larger Pazyryk tumuli were composed of “low earthen mounds covered by cairn of rocks” and were likely to have been in use in the 5th century BCE, although Rubinson and Linduff (2024) suggest a broader date range for the culture and its burial monuments, ca. the 5th to 3rd centuries BCE. Rudenko further notes (ibid.) that small tumuli were likely to

be 13–15 m in diameter and medium mounds to be 24 m in diameter, and that the great barrows of Pazyryk were between 36 and 46 m in diameter. Rudenko also stated that the ratio of height to diameter was 1:10, indicating that the height of the barrows likely fell between just over 1 m to just under 5 m. Much like with the mounds of Arzhan, what we are primarily interested in is not so much size, except as it relates to stratigraphy. In the case of both the Arzhan and Pazyryk mounds, despite one group (Arzhan) being much earlier than the other (Pazyryk), there is a clear architectural style or tradition being maintained, one that focuses less on the reuse of the mound and the resultant buildup of stratigraphy emphasizing each mound's single use and then capping with the stone covering of the lower earthen level.

An interesting transition in mound design happens as one moves out of the permafrost-affected areas of the Tuva and Altai/Sayan regions and into the steppe grasslands to the south and west. There is a general shift away from stone cairn-capped tumuli to the use of earthen mounds over large central (and sometimes secondary) burials, with secondary uses of the stone. At the Issyk cemetery approximately 50 km east of Almaty in Kazakhstan, some 45 tumuli were found. These 4th- to 3rd-century BCE tumuli measure between 30 and 90 m across and 4 and 15 m in height ([Satubaldin et al. 2020](#)). [Satubaldin et al. \(2020, p. 503\)](#) describe the excavation of an unlooted mound, 60 m in diameter and 6 meters in height, as revealing that the tumulus had been built up over time in three or four stages, consisting of pebbles alternating with crushed stone and clay. This type of stratigraphy is reminiscent of, at least in part, the tumuli design and construction materials used earlier and to the east. Another well-known burial complex, the Taksai cemetery, in Northwest Kazakhstan is located just below the Ural mountain range and consists of numerous groups of mounds, including Taksai 1. This mound group comprises six mounds that form an interrupted or jagged row, with the excavated mounds dated to the 6th–5th centuries BCE ([Satubaldin et al. 2020, p. 498](#)). In the case of the Taksai 1 mound group, the excavations of the mounds revealed that their primary construction material was soil. If this is the case, then some time and somewhere between the construction of Issyk and Taksai, the burial mound design in terms of construction materials, and, possibly, stratigraphy in terms of the use and reuse of the monuments, may have shifted. This is a generalization, but one worth noting.

Moving further west, the Kelermes mound group—without a doubt one of the best-known Eurasian Iron Age, if not Scythian epoch, cemeteries on or adjacent to the steppe of the North Caucasus region—has been the subject of study for multiple decades. [Ryabkoba \(2020, p. 484\)](#) suggests that the earlier mounds of the group should be dated to pre-670 BCE and possibly even into the 8th century BCE. The later mounds, she thinks, should be dated to sometime between 650 and 600 BCE, although she does add the caveat that there are different perspectives on the dating of the mounds. Unfortunately, there are not as many descriptions of the mounds themselves in the broader set of publications, especially since many of the tumuli were excavated in the late 19th century, with a focus on the grave goods found in the mounds' burials. That said, there is some indication that the mounds themselves were constructed with soil, whereas the burial chambers consisted of wood, and, in nearby tumuli (Sultan-Bryk Kurgan), there is evidence of ashlar masonry ([Galanina 1997](#); [Parzinger 2017](#)).

With the steppe ending for the most part in central and southern Ukraine, it is not surprising, then, that some of the largest and “richest” tumuli are found there, especially in the 5th–3rd centuries BCE. The Scythian epoch tumuli of the northern Black Sea steppe range in size between 10 m and 150 m in diameter and between 2 m and 25 m in height. Aleksandropol, the largest excavated kurgan, was the first “royal” Scythian mound to be excavated purely for scientific purposes between 1852 and 1855, with subsequent excavations continuing up to 2009 ([Polin and Daragan 2020, p. 444](#)). Other royal, but smaller, mounds include the Solokha, Chertomlyk, and Tovsta mohyla, among others. Aleksandropol stands out though, not only because of its massive size and complexity in the lower structural design, i.e., burial chambers, but also its later date (probably up to

the end of the 3rd century BCE) and its construction materials, including turf sods, i.e., humus, with the sod mound covered by a layer of stone “cladding”, or tiling, covering its sides up to the top (Polin and Daragan 2020, p. 463). Because of the early excavations, the information regarding its upper stratigraphy remains somewhat uncertain. However, other tumuli provide some insight into the importance of the relationship between the mound and its construction/use phases beyond being a monumental top for the burials beneath.

The Vodyana and Babina tumuli, both excavated in 1986, offer insights into how Scythian epoch tumuli can offer insights into the construction, use, and reuse phases of mounds (Mozolevskiy and Polin 2005). In the case of Vodyana (Figure 4), there is clear stratigraphy and, however slight but useful, the use of stone packing around the edge of the mound to protect it from major slumping, though this does not necessarily imply diachronic use. As we can see in Figure 4, this was only partially successful as the mound itself looks to have experienced some run-off and slumping from layer 4, which contained the stone packing at the base. In the Babina mohyla, again there is clear stratigraphy, seen in the numerous additions to the original mound, with several of those additional layers propped up by the stone packing around the slopes and bases in at least the last two or three strata. Also, in Figure 4, you can see that at least one of the outer layers would have consisted not only of a stratum of soil or humus but also of stone tiling, similar to what was recorded for Aleksandropol (Mozolevskiy and Polin 2005, p. 96).

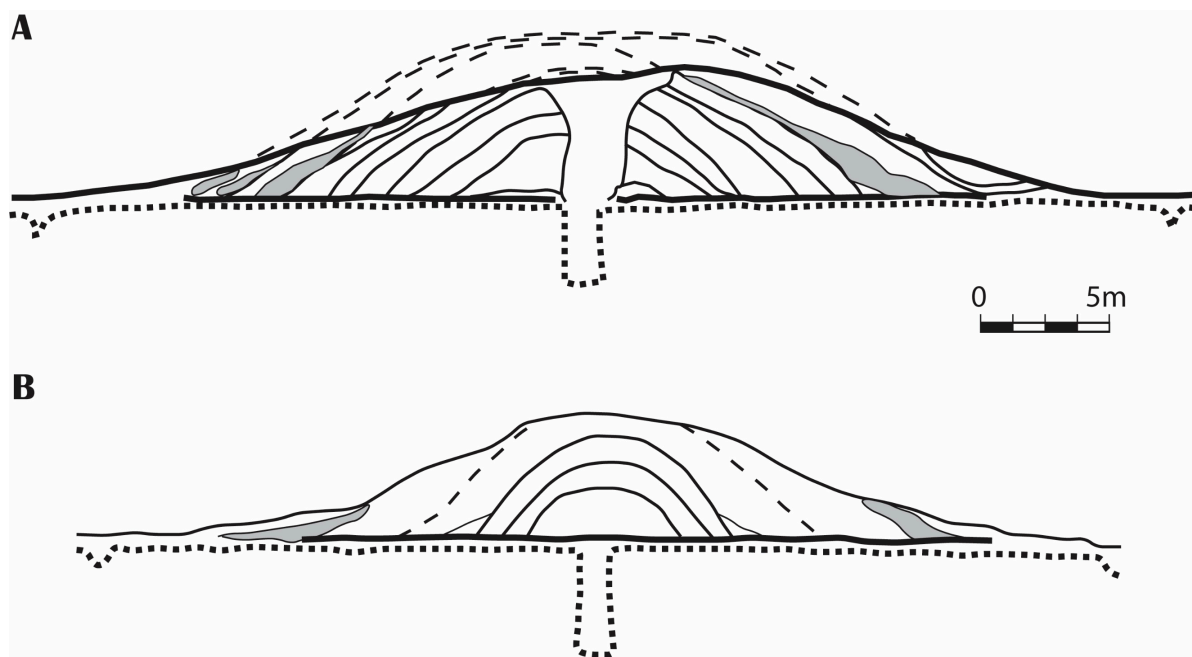


Figure 4. Scythian period burial mound stratigraphy. (A)—Babina (after Mozolevskiy and Polin 2005, p. 96) and (B)—Vodyana (after Mozolevskiy and Polin 2005, p. 74).

Of course, there is so much more to be said about mound design and, of interest for many of the readers of this Special Issue, the relationship between the design and the contents of the mounds. I have intentionally skipped over discussing the burials and the goods from within the mounds in each of the regional examples, not because the burials and grave goods are unimportant but because very few, if anyone, questions their status as material, or even visual, culture, not to mention that the mound burials and their contents are covered in great detail in numerous regional publications and I explore them in a forthcoming piece (Johnson, forthcoming). But the mounds themselves, and when I say this, I mean the mound structure on and above the ancient ground surface would have been as important as the burials. From those in the Tuva and Altai (and Sayan) regions, with their stone platforms consisting of thousands of stones built into a mound over the primary–

central and secondary, non-central burials, to those in Kazakhstan, where soil and some stone tiling appear in the North Caucasus region and the Kelermes mound group, where, again, the mounds appear to be a mix of soil/sod and stone. Finally, we end up in the northern Pontic steppe/lower Dnipro region, where many royal tumuli appear, attesting to that potent mix of sod and stone in the design of Scythian tumuli. But, unlike some of their predecessors, some relatively intact mounds, at least before excavation, demonstrate a clear tendency toward a staged construction design visible through the addition of multiple layers or strata in the Vodyana and Babina mounds, but not quite as clearly at the Soboleva mohyla (Mozolevskiy and Polin 2005). There are some major differences in mound designs, seen in the ancient efforts to protect the mounds from looting and natural forces (slumping, etc.), as well as the buildup of the mound itself over time. But the meaning for each mound would have been localized, as only the community members that were a part of the burial rites and construction of the mound would have had insight into each mound's particular structural design.

This is also an epistemological problem for archaeologists as, again, we tend to treat the mounds that we excavate as stand-ins for the ones left uninvestigated. This, in turn, creates a kind of hyper-focus on the immediate or local perspective, whereby we tend to emphasize the connection between what is within the mound and, more often than not, mound size. Up to this point, I have focused on how the Iron Age steppe mounds from the Tuva and Altai/Sayan regions in the east compare with those in the west (Central Ukraine) and might be considered material culture more broadly. But I have left their possible status as visual culture relatively unexplored, at least beyond the immediate or local sense. To undertake this, I come back to the idea of spacetimes, where each mound, and, in some cases, mound strata, would have had its own relational spacetimes associated with it. But, again, this emphasizes, if not (over)privileges, a more proximate sense of meaning making rather than accounting for how not only single mounds or groups but also landscapes of tumuli might have been experienced and, ultimately, produced various meanings.

Again, I draw inspiration from Franklin (2021), employing the work of Mikhail Bakhtin (1981) to help elucidate how and why spacetimes become not only possible lens through which meaning is inferred from the presence of a single burial mound or groups of them, but also a potent political tool upon which observers of the mounds, especially in greater numbers and densities, could have experienced a shared, multi-scalar collection of meanings. Even as Franklin (2021) discusses the concept of spacetimes and worlds connected through the different times/chronotopes of Bakhtin, all integral to her idea of everyday cosmopolitanism (and travel) in medieval Armenia, I draw upon Bakhtin's ideas of novelization to illustrate how meanings may have changed depending on the participants, travel route, scale, and visibility.

3.2. *Beyond the Proximate: Engagements with Scythian Period Tumuli as Visual Culture*

As a theorist of the novel, Bakhtin (1981, p. 7) was especially interested in how different meanings could be extracted from the same text via the process of novelization. When discussing the novelization of genres, he stated that:

They become more free and flexible, their language renews itself by incorporating extraliterary heteroglossia and the “novelistic” layers of literary language, they become dialogized, permeated with laughter, irony, humor, elements of self-parody and finally—this is the most important thing—the novel inserts into these other genres an indeterminacy, a certain semantic openendedness, a living contact with unfinished, still-evolving contemporary reality (the openended present).

Indeed, Bakhtin is most strongly associated with two concepts that grew largely out of his work on novelization: heteroglossia and dialogics. Heteroglossia is commonly understood to be two or more voices expressing viewpoints regarding a text or other work of art. With dialogics, there is a clear overlap as it basically contends that by using conversation or discourse, those involved can explore the meaning of... something (text, art, etc.). One of the best examples I can think of is a personal anecdote, concerning my

brother's first gallery showing of his art. Before the gallery opened, he said to me that he wondered if the audience would comprehend the meaning of his work. I responded that it was more important for the audience to feel that they could derive their own meaning of the work than reduce the work to a single meaning, even that of the artist. Even though this is a personal story, its lesson (at least for me) rings true. In this case, the process of novelization, according to Bakhtin (1981), is rooted in open-ended imagination, as groups of people will experience the novel and bring to that experience their own background stories, identities, and understandings of the world (spacetimes). That said, the flipside of the novelization coin is the *epic*, which Bakhtin saw as connected to a national, heroic past, full of peak times (firsts and bests) (Bakhtin 1981, p. 13). He (ibid.) states that, "The world of the epic is the national heroic past: it is a world of "beginnings" and "peak times" in the national history, a world of fathers and founders of families, a world of "firsts" and "bests". The important point here is not that the past constitutes the content of the epic. The formally constitutive feature of the epic as a genre is rather the transferal of a represented world into the past, and the degree to which this world participates in that past.

This is where the hyper-focus on single mounds comes into methodological, and possibly epistemological, play. Archaeologists tend to valorize the deceased found in the earliest mounds and then elevate their status through the number and types of goods with which the individual was interred. This is then reified by connecting it to mound size. I am not saying that it is necessarily wrong to make these assumptions, but, rather, I am suggesting that there are other dimensions that might be equally relevant when studying tumuli, especially Scythian period mounds.

Even though as archaeologists, we cannot always rely on texts (and sometimes we should not, even when they are available) or treat material culture as text *sensu* Tilley (1991), there is a potential here to use the understanding of spacetime in tandem with heteroglossia, brought together in a dialogical approach to more fully explore the meaningful worlds of the Eurasian Iron Age and, more specifically, Scythian epoch burial mounds. For instance, we might think of each mound and its contents as being related more to the epic than the process of novelization. For both ancient groups and the archaeologists who excavate their activities, we are talking about the application or transferal of a "constructed world" into the past, which, in turn, shapes how that world engages with the past. Each successive stratum, then, is an encapsulation of that world in the past, including the burial chambers below the mound itself, and is often framed within archaeological discourse as "beginnings", "origins", and "firsts", if not "bests". This might, too, have held true for community members on the local or proximate scale, as they interacted with the monuments containing the dead on a regular basis, i.e., often involving periodic ritual events. On another scale, we can think of the production of whole landscapes of tumuli as a form of novelization, where meaning making was open-ended and left to the imagination of the viewer, visitor, audience member.

A key component for this type of framework is not just the treatment of mounds as examples of material culture but also tumuli as fundamentally *visual* culture. While often beyond the traditional purview of archaeologists, visual culture, at least in the terms of Marita Sturken and Lisa Cartwright (authors of *Practices of Looking*), focuses on the shared practices of a group, community, or society, through which meaning is made from the visual, aural, and textual world of representations (Sturken and Cartwright 2001, p. 3). In other words, at play here are aspects of culture that are captured, framed, and expressed via visual imagery. In this case, I treat tumuli as visual culture due to their representativeness of an evolving intersection between multiple pasts, the present, and open-ended futures encapsulated in sometimes visually compelling imagery that unfolds as one travels through "produced" landscapes of the dead. But, unlike modern or current uses of *visual culture*, utilizing the conceptual framework to explore the distant past requires some use of the imagination and a focus on the possible rather than the provable.

For example, we can certainly discuss the arrangement of Iron Age burial mounds in the area surrounding the Heuneburg hillfort in Southwest Germany. Some of the

mound groups identified in that landscape are arranged in such a way as to indicate certain ways of moving through the mound group and/or broader landscape (Arnold 2010, 2011; Johnson 2016). However, I think the Via Appia Antica or “Appian Way” is a striking, if not provocative, example of funerary monuments situated on a travel route. Along with the movement of people and goods to and from ancient Rome (beginning in 312 BCE), the road became a focus for different types and sizes of funerary monuments celebrating or commemorating a range of individuals from various classes, elites–sub-elites or commoners (Borg 2019; Toynbee 1971). While the Appian Way is usually discussed in terms of it being the location of specific funerary monuments, it is rarely discussed or investigated collectively (in terms of the monuments), nor is it connected to broader social changes, such as the eventual transition from the Roman Republic to the Roman Empire. What seems clear is that while each monument can be individually engaged with by both travelers to and from Rome, not to mention by modern scholars, traveling through what can only be considered a landscape of the dead before entering or after leaving the city surely was a meaningful, if not protean (and profound!), “gateway” visual experience. I believe that this type of structured, or produced, visual engagement may have also been in play with the use and location of Iron Age steppe tumuli. To help explore this notion, I use viewsheds as a window into how and what could be seen, moving from the earliest stone-built tombs of the Arzhan groups to those constructed primarily of soil and sod culminating in the densely populated landscapes of royal and non-royal Scythian tumuli that dominate the lower Dnipro region of central Ukraine.

3.2.1. Travel, Visibility, and the Eurasian Iron Age Burial Mounds

While I spent much of the previous section discussing the binary character of the “epic” and “novelized” nature of mounds and their stratigraphy (when present), I did not explore one of the most basic considerations of Eurasian Iron Age burial mounds from across the steppe: their size and location in relation to their visibility. Following the comparative work already done on Iron Age mounds across the steppe (Ochir-Goryaeva 2014; Parzinger 2017), I focus on the scalar nature of the visual engagements with such mounds from the Tuva–Altai–Sayan region to the lower Dnipro of central Ukraine (Figure 5). I used Viewshed Analysis (ESRI/ArcGIS 10.8.1) to explore how visible some of these monuments would have been, moving from the local/proximate scale to the regional and the supra-local/pan-regional scales. Of course, the hope was that patterns in visibility would emerge, and if not patterns, then at least some compelling points related to location could be more thoroughly explored.

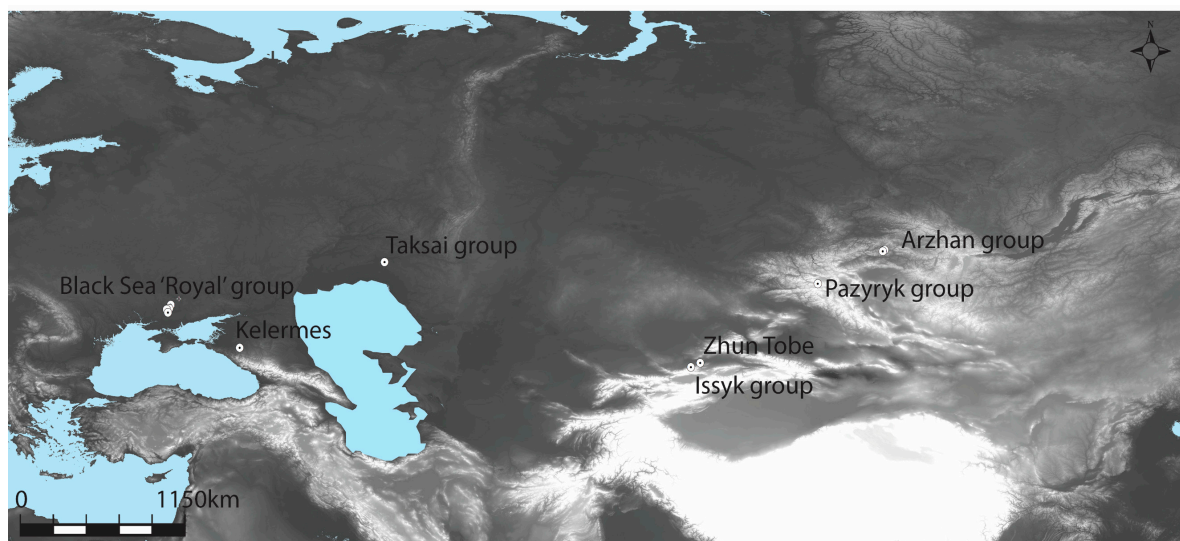


Figure 5. Map of the Eurasian steppe Iron Age burial mound sites and areas analyzed in the following section (map produced by James A. Johnson).

The Arzhan Group and Pazyryk Groups

While the image depicts the collected viewsheds from three monuments of the group (Arzhan 1, Arzhan 2, and Tunnug 1) (Figure 6), there is clear indication that the mounds within the group, while several km apart, could have been seen from up to 80–120 km away, representing a regional engagement in terms of visibility, memory, and cultural imagination. Located in the Tuva region, Iron Age pastoralists would not have had to travel too far to find a vantage point within the immediate or even extended area to visually engage with the mounds, with the viewsheds themselves being suggestive of a broader east–west orientation.

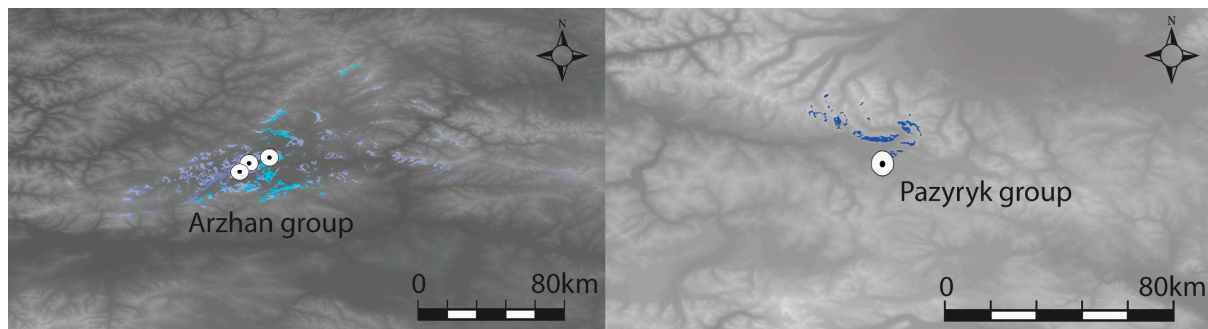


Figure 6. Viewshed analysis of the Arzhan mound group, including Arzhan 0/Tunnug 1 (per Caspari et al. 2018), Arzhan 1, and Arzhan 2 to the left and the Pazyryk group/Mound 5 to the right.

In the case of the Pazyryk group, I chose Mound 5 to explore its visibility. Located in the Pazyryk Valley of the Altai Mountains, the general visibility of the mounds is somewhat restricted by the valley slopes and surrounding mountains, perhaps indicative of a (micro)regional sub-culture, as mentioned by Robinson and Linduff (2024). That said, there is a clear ridgeline atop the valley running east–west from which the mound/mound groups could clearly be seen for at least a few dozen kilometers, perhaps indicating a pathway to the mound group itself.

The Issyk, Zhun Tobe, and Taksai Groups

Moving west, the Issyk and Zhun Tobe mound groups reveal some interesting patterns in terms of visual engagement (or lack thereof) (Figure 7). For the “royal” grave of Issyk, a mound that is part of a larger mound group, the visibility is limited due to the steep slopes of the surrounding hills and mountains, not unlike the Pazyryk Mound 5. The viewshed for Zhun Tobe, however, reveals a much larger field of visibility, one that rivals those of the Arzhan group. With an overall east–west orientation, the Zhun Tobe mound would have been visible from a great distance given certain vantage points, indicative of a regional or supra-local visual engagement.

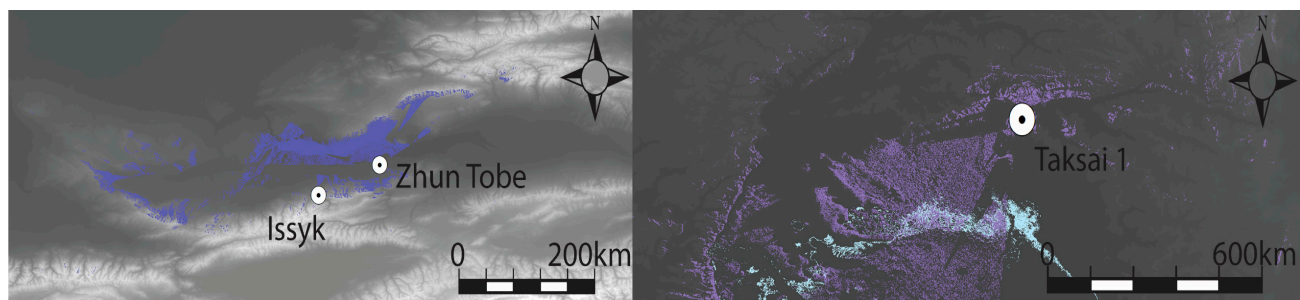


Figure 7. Viewshed analysis of Issyk and Zhun Tobe with the visible viewshed generated from Zhun Tobe. To the right, is the viewshed of Takasi 1.

Moving west across the steppe, the Taksai mound group in Northwest Kazakhstan, situated right below but slightly to the west of the southern extension of the Ural Mountains, reveals a dramatic change in the amount of area visible from the mound and general orientation. The mound, made up primarily of soil/sod, has a viewshed that initially starts more locally and regionally east–west, but becomes pan-regional to the south along the Caspian Sea and terminating on the slopes of the North Caucasus mountain range. This is likely due to being squarely on the steppe grassland where visibility increases a great deal.

Kelermes Mound Group

The Kelermes mound group, located in the foothills of the North Caucasus mountain range, has a blocked view to the south but one that opens to the north, where some of the coastlines of the Azov Sea are visible, as well as the steppe grasslands to the east and west (Figure 8). Given the designation of the Kelermes mound group as “royal”, it makes sense that its viewshed would be much larger than others. At the same time, the Kelermes mound is an anomaly, given that even as we move west across the steppe, we also move up through time. But with Kelermes, we return to the 7th century BCE, slightly after the Arzhan group (for the most part), but earlier than most of the other mounds discussed here.

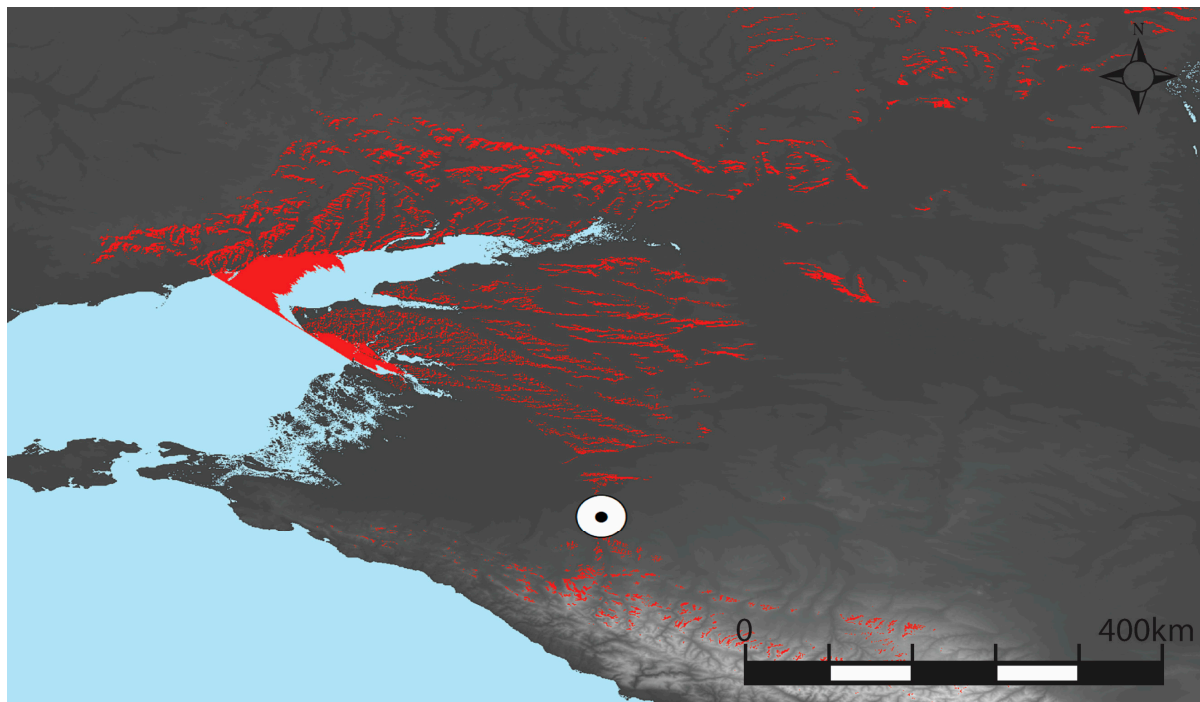


Figure 8. Viewshed of the Kelermes mound group in the foothills of the North Caucasus mountain range.

Leading up to the royal mounds of central Ukraine, some patterns become visible. For the most part, the areas of visibility around the Iron Age, probably Scythian epoch, mounds can be thought of as moving from a predominately local and regional focus in the mountainous areas of the east to a regional and pan-regional focus on the steppe grasslands further to the west. This is to be expected, as hilly and mountainous areas highly restrict visibility in various directions. But the fact that the mound-building traditions change from being stone-focused to soil/sod-focused, with smaller stages or phases of stone additions complementing the changes in visibility, suggests that there are some general, changing trends as we move through space (to the west) and time (from the 8th century BCE onward). It should also be noted that while I chose the mounds to be analyzed in terms of their location and visibility, for the most part, their selection was based (more or less) on a line moving from the Arzhan group to the tumuli of central Ukraine. In just about all the

instances mentioned here, we are talking about single mounds chosen from smaller groups of tumuli, often containing from up to ten or so mounds to large cemeteries containing 60–70 mounds.

Scythian Royal Mounds of the Lower Dnipro River Region of Central Ukraine

It probably makes a great deal of sense to start with one of the largest mounds in the Scythian world, and that is Aleksandropol. The visibility associated with Aleksandropol is nearly unprecedented as it offers a commanding view of the Black Sea region. The mound itself, which would have been some 22–25 m high, would also have been visible for some distance, representing a much greater field of visual engagement with the mound. It would have towered over its neighboring mounds in the lower Dnipro region and was likely related to a large Scythian settlement. Even though Aleksandropol's viewshed is nearly unprecedented in size, Chertomlyk, another of the famous royal Scythian mounds, has a nearly identical viewshed in terms of scale and the field of visual engagement centered on that location. In each of these two cases, both overlook the entirety of the immediate Black Sea region and some of its adjacent areas (Figure 9).

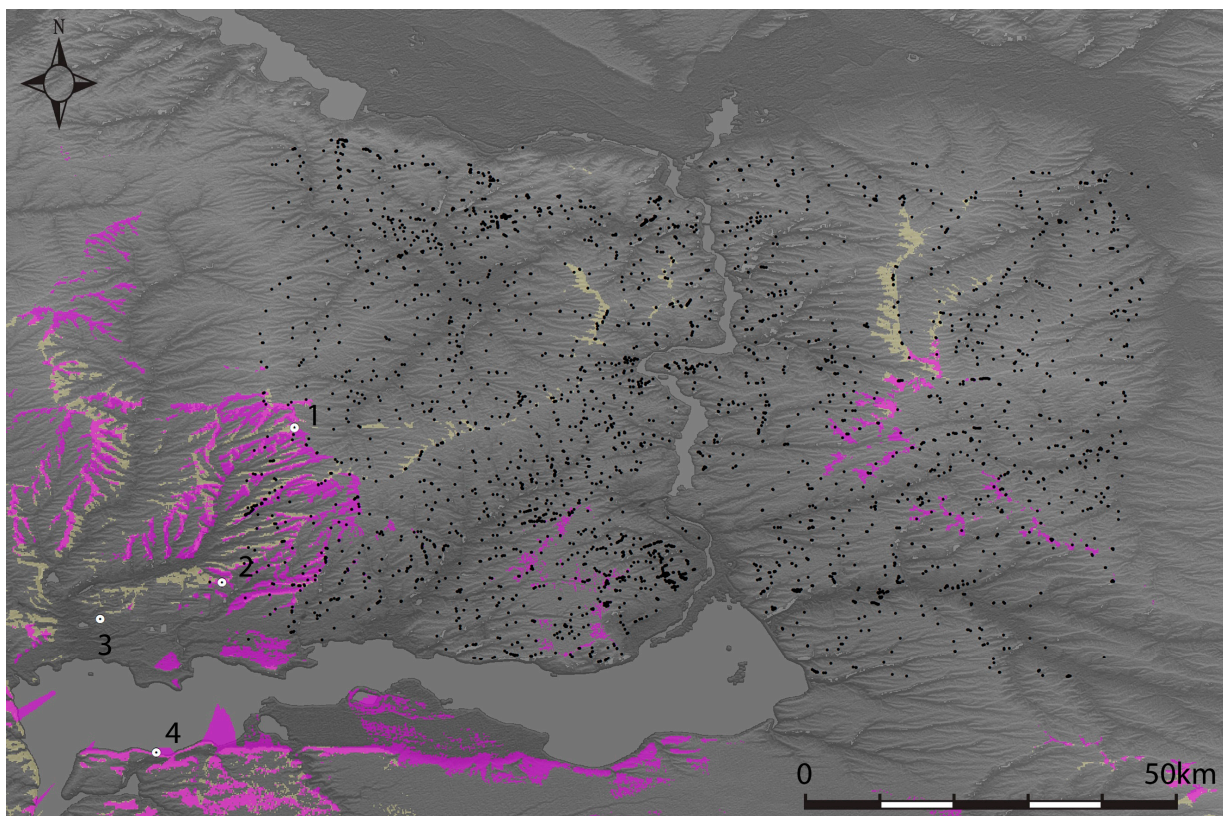


Figure 9. Combined viewshed analysis of Aleksandropol (no. 1, in light brown) and Chertomlyk (no. 2, in purple). Nos. 3—Tovsta Mohyla and 4—Solokha did not have viewshed analysis conducted on them. Black dots are Scythian burial monuments with visible mounds (sometimes, each dot represents groups of mounds due to their proximity).

As compelling as those viewsheds are, the patterns we have identified as we move west across the steppe, with the viewsheds becoming ever larger along with the mound themselves, generate some testable hypotheses regarding the “wealth” found within the mounds, the sizes of the mounds, and their viewsheds. Yet, we still have not discussed much about how the mounds might be seen as visual culture beyond the local, proximal, or even regional audiences/communities. Indeed, while I have mentioned several times movement across the steppe, what is missing is the visual engagement with not only

the mounds themselves but also the connection between movement/travel and visual engagement as travelers move through landscapes densely populated by Scythian tumuli.

For this purpose, a grid was created in Google Earth Pro, using satellite imagery of central Ukraine, and the lower Dnipro region more specifically, from the Chertomlyk mound extending to the bank of the Dnipro River to the north, south, and east, and then onto the opposite bank of the Dnipro for an approximately equal distance. In the end, the grid contained some 120 squares, covering an area of approximately 18,000 sq. km. This was carried out to help identify the presence of Iron Age “Scythian” mounds within each square and explore how this might happen using a widely available program like Google Earth Pro. This was also in large part driven by the some of the compelling work that Marina Daragan (2013, 2016; Polin and Daragan 2020; Polin et al. 2020) has been undertaking with Geographic Information Systems (GIS) in relation to Iron Age cultural phenomena. I was likely more conservative in my identification of Scythian mounds; however, I only counted those tumuli with visible mounds, rather than counting the monuments with no mounds but clearly visible sub-surface architecture, including circular ditches. As it turned out, an analysis of the grid squares yielded a total of 3474 Scythian burial mounds (Figure 9).

Of course, this must be taken with a grain of salt as some of the mounds might not be Scythian in date or nature, not to mention that there are numerous villages, towns, and cities that may well have been built on top of the Scythian mortuary landscapes. But, overall, the method proved successful in terms of offering an insightful, if not provocative, picture of just how densely populated the lower Dnipro region is with Iron Age Scythian burial mounds, which also correlates well with Daragan’s work mapping out the micro-region around Aleksandropol (Polin and Daragan 2020, p. 468). Beyond just putting dots on the map, I also ran the point density tool in ArcGIS to better determine clusters (or neighborhoods with densities of points) (Figure 10).

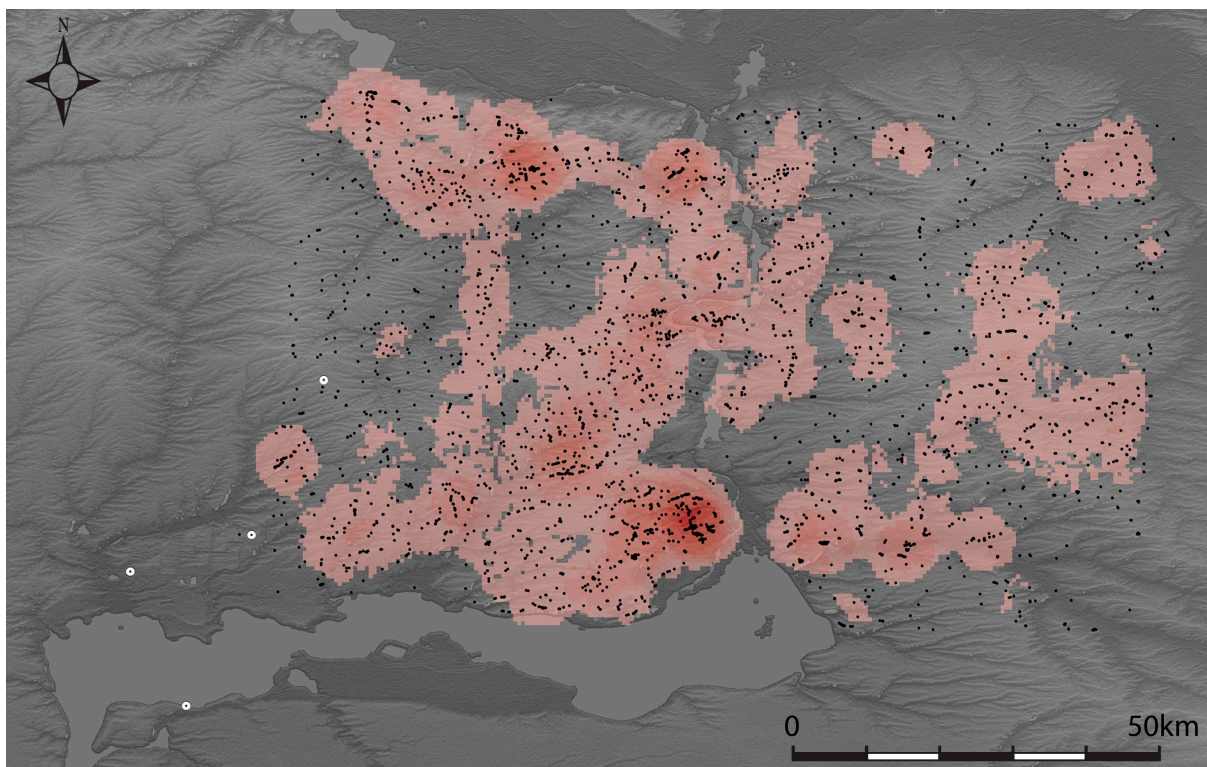


Figure 10. Lower Dnipro region/Scythian mortuary landscape with point density plots.

What came of this painstaking work was not only a better idea of just how densely packed the broader lower Dnipro landscape was with Scythian mounds, but also that they would have been nearly impossible to avoid seeing depending on the travel routes used. In

a previous publication (Johnson 2020), I mapped out possible trade/travel routes between the forest-steppe hillforts/fortified settlements (such as Bil'sk and Trakhtemirov) and the Greek colonies along the Black Sea coastline using the tools associated with least-cost pathways using ArcGIS. I did not weigh the pathways (in terms of known obstacles). But one of those pathways stood out, moving from one part of the lower Dnipro to the southern part of the Dnipro (Johnson 2020, p. 206). Whether or not that “pathway” would have been used, it was a surprise to see that once the point density tool was run on the identified Scythian mounds, a line in approximately the same place running north–south appeared. This, then, sparked my interest in wondering how many mounds would be visible if one were to travel through this dense landscape of Scythian mounds. To better assess this, I placed points (symbolized by orange stars) at approximately equal distances from each other running from the north to the south. I then ran viewshed analyses based on each of these points. The results can be seen in Figure 11, indicating that as you move either north–south or south–north along the black line (which covers the orange stars), it would be nearly impossible to avoid visually engaging with this densely packed landscape.

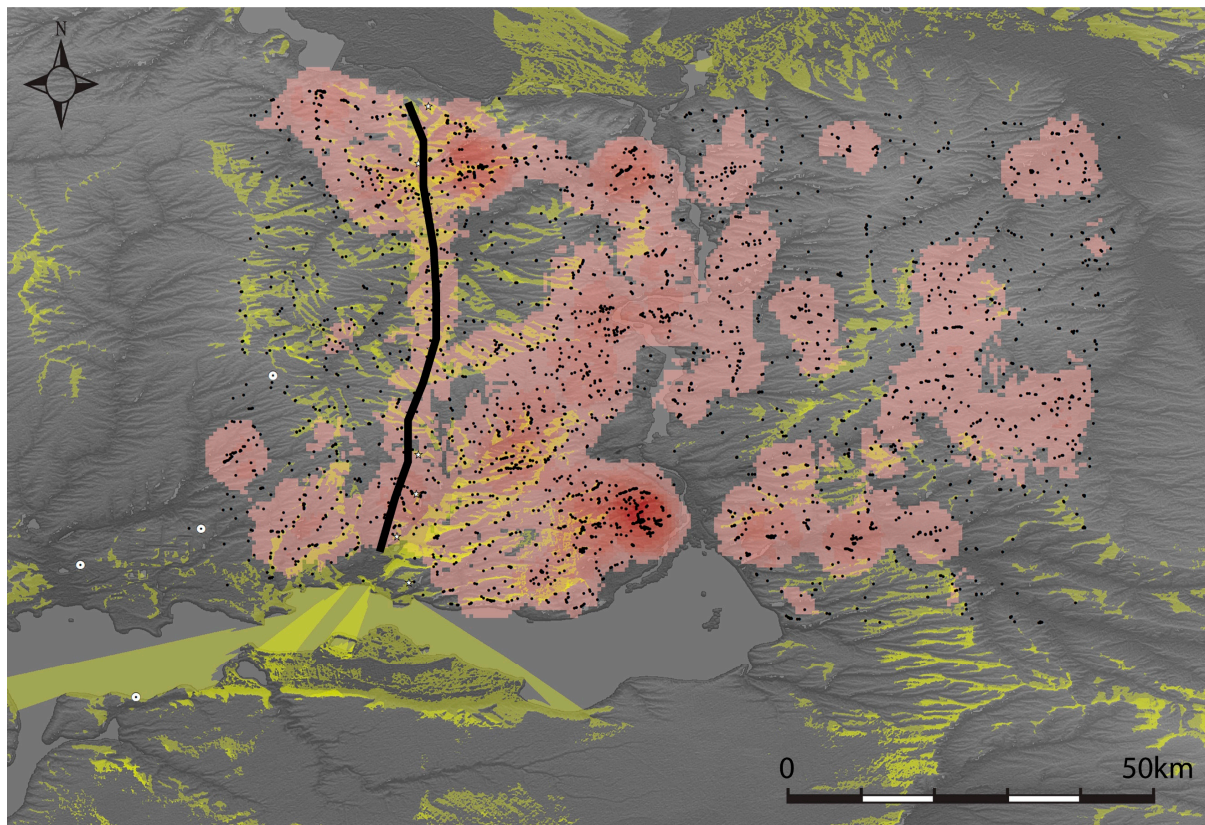


Figure 11. Viewshed analysis (in yellow) of ten points spread equidistant from within the Scythian point density mound landscape following the previously identified route (identified with a black line) (Johnson 2020).

Each mound, singly, would have been less important in relation to the cumulative effect. This experiment also led me to question how many of the mounds might be seen from a river-based pathway following the Dnipro downstream to the Black Sea Greek colonies. To examine the possibility of a similar visual engagement, I placed white stars along the river and ran viewsheds based on their locations (Figure 12). This did not yield the compelling picture that the overland route generated in terms of numbers of mounds, but it does suggest that travelers along the Iron Age Dnipro most likely would have been aware they were moving through this monumental landscape, as the viewsheds focused almost exclusively on the Dnipro River shoreline and yet still showed visual engagements

were possible with the tumuli. Both routes and their viewsheds indicate that travelers would have been acutely aware of the fact that they were traveling through this “produced” Scythian landscape.

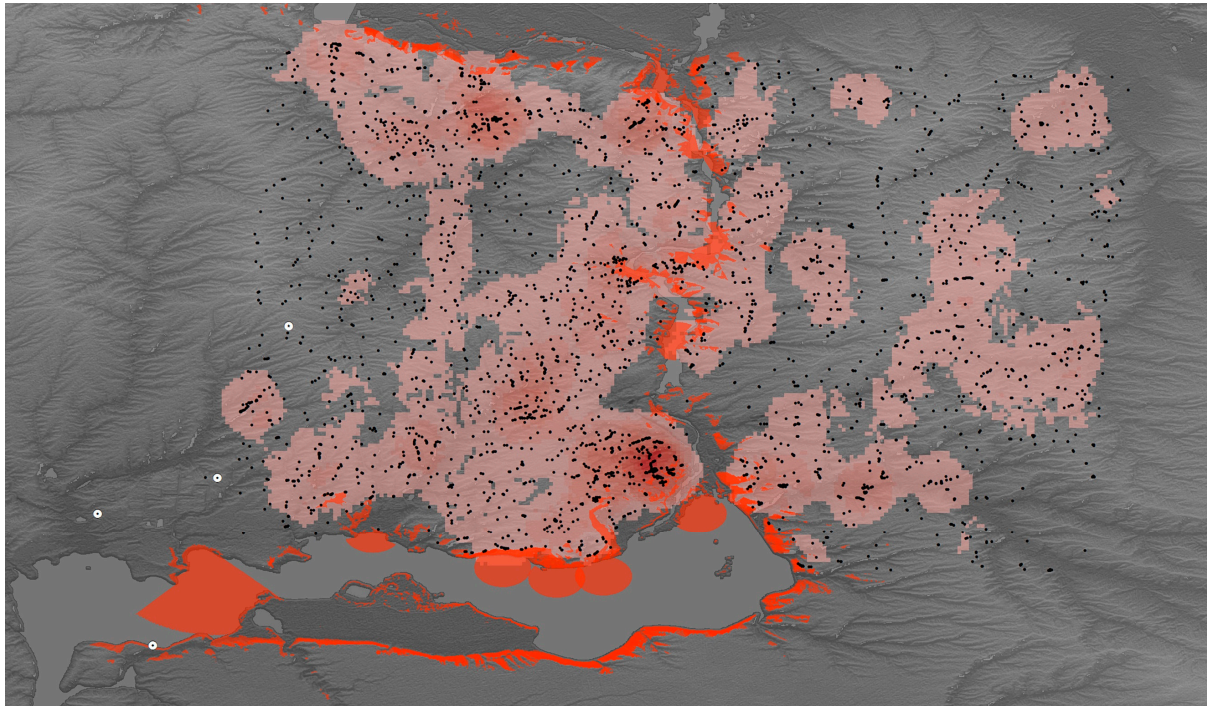


Figure 12. Viewshed analysis (in solid orange) of 15 points along the Dnipro River moving north–south with the point density-analyzed Scythian mound landscape in black dots and density/heat clusters in reddish orange.

As archaeologists, we can think of how impressionable and memorable individual funerary monuments may be, especially as we excavate them. But to see a landscape so densely populated with these monuments would have been quite a distinct experience. The experiences of the mounds, and the meanings generated through those engagements, would have been highly dependent on the background (ethnic, cultural, age, gender, etc.) of the viewing audience. For non-locals (maybe Greek travelers/traders or those from the forest-steppe urban centers), the densities of these mounds in this region alone would have been less about firsts and origins, and more about scale, if not the scope of the landscape, creating durable memories from what could probably be considered an uncommon experience in an unusual place by different travelers.

4. Discussion and Conclusions

My contribution to this Special Issue is primarily meant to be more of a heuristic stepping stone, one that builds upon the exceptional work already being undertaken within the Institute of Archaeology in Kyiv, rather than setting out to conclusively demonstrate a new solution to an old problem. I have spent the better part of two and half decades (on and off) working on issues related to burial mounds and, more recently (the past decade), on the pastoralists of the steppe, from the Bronze Age to the Iron Age. There are, without a doubt, some issues that can emerge alongside some of the analyses presented here. Viewsheds are notoriously tricky, as they can be manipulated via several factors and/or variables. But I ran them with the same factors/variables so that, all else being equal, we obtained a clearer picture in terms of the scale of the possible range of the viewsheds themselves. Given that at least one of the factors usually brought up in the literature on burial mounds is their size, this puts size and location together into perspective.

Perhaps more importantly, in this piece, I have attempted to move the study of Eurasian Iron Age burial mounds more generally, and those of the Scythian epoch more specifically, into other (perhaps broader) considerations of just status and wealth, in what I hope is a successful attempt at thinking in Goldstein's terms of multi-dimensionality and Arnold's ideas of burial mounds as material culture. Indeed, given the long-term debate regarding the applicability of the term "Scythian" to all Eurasian Iron Age cultural developments (Rubinson and Linduff 2024; Yablonsky 2000; Yablonsky and Bashilov 2000), the description of the single mounds and the application of viewshed analysis to each case study indicates important regional differences (and some similarities) from the Altai Mountains to the central Dnipro region of Ukraine. This provides support to the idea that while there may have been cultural similarities between the mobile pastoral populations of the Iron Age steppe, there were also equally important differences, enough to argue that the term "Scythian" may only have limited value when moving beyond the immediate environs of central Ukraine.

Methodologically and theoretically speaking, when we back away from our myopic focus on the internal components of tumuli and begin to see the mounds themselves not just as single entities or even as groups, but rather as whole landscapes, we might see where a new approach, or set of approaches, that focuses on exploring the visual engagements with the mounds via myriad audiences might be useful in identifying the multivalency of landscapes. This suggestion is not just for archaeologists, but rather provides a more holistic and fleshed out picture based on heteroglossia in thinking about how such landscapes would have been differentially experienced as different audiences/groups traveled through them, creating durable, potent engagements with the different spacetimes represented by the travelers and the mounds, producing worlds rooted in the imagination, memory, and possibility.

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