

LANDSCAPES OF DEATH, MONUMENTS OF POWER: MORTUARY PRACTICE,
POWER, AND IDENTITY IN BRONZE- IRON AGE MONGOLIA.

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ABSTRACT

ERIK G. JOHANNESSON: Landscapes of Death, Monuments of Power: Mortuary Practice, Power, and Identity in Bronze-Iron Age Mongolia
(Under the direction of Dr. Carole Crumley)

This dissertation focuses on the material manifestation in mortuary practice of political centralization with the emergence of the first nomadic steppe empire in East Asia, the Xiongnu (209 BCE-200 CE). The formation of the Xiongnu polity entailed sweeping changes in technology, monument construction, and funerary behavior that radically transformed the mortuary landscape of Mongolia. Research on the Xiongnu Empire has typically centered on mortuary monuments and accompanying funerary assemblages. Most interpretive models have either sought to link materials found in graves with socio-economic processes or to historical narratives derived from ancient Chinese texts. This study contributes a new and somewhat challenging facet to these models by questioning the nature of the data itself and the range of behaviors and materials that are employed to create socially meaningful narratives that corroborate dead leaders. Here I assert the necessity to consider that mortuary monuments are mnemonic devices that commemorate both the dead and the living through ideologically and politically oriented symbolism. Using archaeological materials derived from survey and excavation at Baga Gazaryn Chuluu in Mongolia I demonstrate that political centralization is evident in the way social memory was created in mortuary practice. I employ a qualitative and conceptual framework that argues that commemorative narratives can be created at different scales. Using this paradigm, I illustrate how

Xiongnu mortuary practice restricted individuals' and communities' ability to create social memory in the long durée, as had previously been the norm, by shifting funerary practice towards emphasizing social memory on a micro-scale. I also emphasize the need to consider disruption events as an additional line of evidence and also illustrate how desecration was used as a political strategy before and during the Xiongnu period to alter social memory created by and for local lineages of leadership.

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trail across Mongolia for the rest of us to follow, which makes all of our present and future work possible, but he has been to me a steadfast supporter, mentor, and friend. I am forever grateful for the invitation and opportunity to work at BGC and being free to pursue my own research questions under his aegis. Thanks are also due to Mark Sorensen, Brian Billman, and Margaret Scarry for supporting me throughout this process and for offering comments and constructive feedback on previous drafts of this dissertation.

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Chapter 1

Introduction

With the blessings of Heaven, the fine quality of officials and soldiers, and the strength of horses, we have wiped out the Yuezhi, completely cutting them down and killing them. We have stabilized the Loulan, Wusun, Hujie and the twenty six kingdoms at our side, and all are considered Xiongnu (Shiji 110:2896).

The *Shiji*, or *Records of the Grand Historian*, a text written by Sima Qian for the Han court in China in the late 2nd early 1st century BC, relates that a century prior the steppe tribes of Mongolia were united into a powerful steppe confederacy. According to the *Shiji*, unification was achieved by the ambitious leader Modun who quickly brought other steppe factions under his control and positioned this newly formed polity in an overtly confrontational posture against the Chinese. Within a few years Modun sent the declaration above to the Han court announcing his subjugation of the region and ascendance to sole hegemon of the northern steppes. All were now considered Xiongnu. According to Sima Qian, henceforth the Han would have to contend with this, confrontational and aggressive polity, thus setting the stage for the next four centuries of intermittent war and diplomacy with the Xiongnu (Di Cosmo 2002). So important was this relationship with the northern steppes that Sima Qian dedicated an entire book of his

history to the Xiongnu. His narrative has since figured prominently in histories of the relationship between the Chinese and nomadic peoples on their northern frontier (Lattimore 1967; Grousset 1970; Sinor 1990; Frye 1996). In addition, it inspired scholars to find material evidence to corroborate the historical account provided by Sima Qian, assuming that the Xiongnu were a reality. As early as the late 19th century the Russian explorer Iury D. Ta'lko-Gryntzevich identified the Xiongnu polity described in *The Records of the Grand Historian* with large tomb complexes in southern Siberia near Lake Baikal, thereby initiating archaeological research on the people now simply referred to as the Xiongnu.

Xiongnu archaeology thus has a relatively old pedigree in terms of its historical trajectory in comparison with other fields of archaeological inquiry. In spite of this, Xiongnu archaeology, and Mongolian archaeology in general, is still very much in its developmental phase. Archaeological research and fieldwork in the last century has been conducted by a handful of scholars, often working with minimal budgets and resources, and it has not been until the last two decades that archaeology in Mongolia has truly come to the fore. As a result there are still a significant amount of unknowns as pertains to materials belonging to the Xiongnu and preceding periods. There are, for example, still comparatively few radiocarbon dates to attribute to and characterize the Xiongnu period. The historical dates for the polity, formed by Modun of 209 BC to the 2nd century AD are generally accepted, but have not been conclusively confirmed by radiometric dates (Brosseder 2009). The same is true for preceding periods, where a general chronological framework has been established using typological seriation supplemented

by few radiocarbon dates, but as-of-yet, high resolution chronological distributions of archaeological materials elude researchers working in this part of the world.

In spite of these challenges there have been significant advances in archaeological research on the Xiongnu polity. The work of Mongolian archaeologists in the last 50 years has been invaluable in confirming the existence of materials attributable to the polity described by Sima Qian (Dorsjuren 1961; Navaan 1975; Tseveendorj 1980, 1989; Torbat 2004). This pioneering work has laid the foundation for all current archaeological research on the subject and has served to inspire local and foreign archaeologists alike. Important historical research has also considered the textual sources concerning the Xiongnu polity and linking these to archaeological frameworks (Barfield 1981, 1989; Di Cosmo 1994, 1999, 2002). These have tended to privilege the textual evidence and describe the Xiongnu polity in historical terms. An important factor raised in these accounts is whether or not the Xiongnu state was the result of endogenous or exogenous socio-economic processes (Barfield 1989; Di Cosmo 2002). In other words, can nomadic pastoralists, assuming that the Xiongnu were such, form lasting complex political institutions without assistance of or influence from sedentary agrarian societies? Some researchers, for example, have contended that the Xiongnu was not a polity at all, but rather a large-scale tribal authority, embodied by Modun (Yamada 1982). These types of questions have permeated research on nomadic pastoralists for decades and have only recently been challenged and justifiably severely criticized as representative of ethnocentric, often western, theoretical paradigms that fundamentally mischaracterize and generalize nomadic pastoralist lifeways (Sneath 2007).

Important archaeological research has also been conducted that focuses primarily on material lines of evidence of the Xiongnu polity and linking these to textual sources. Miller's (2009) and Brosseder's (2009) work has been instrumental in identifying archaeological and chronological horizons within Xiongnu material culture and convincingly linking these to events referenced in Chinese texts. Torbat (2002, 2004) has described and provided a typology of Xiongnu mortuary assemblages and has sought to contextualize these against other funerary traditions in Mongolia. Other lines of research have also persuasively identified a technological horizon attributable to the formation of the Xiongnu polity in Mongolia close to the turn of the 3rd-2nd century BC (Park et al. 2011). These have focused on metallurgy and smelting technology to determine that iron and bronze production during the Xiongnu period was not only conducted on a regionally, but also that it was fundamentally of a different nature in comparison with preceding periods in its use of alloys, carbon content, and slag waste (Park 2011; 2010). Finally, two intensive high resolution pedestrian surveys conducted at Egiin Gol and Baga Gazaryn Chuluu [Fig. 1.1] have been critical to identify, describe, and catalogue stone monuments belonging to all periods of Mongolian archaeology to construct the first regional comparative databases of mortuary monuments in Mongolia (Honeychurch 2004; Wright 2006). The present study is an extension of this research and aims to contribute to a growing body of knowledge concerning the Xiongnu polity.

The Research Problem

The research mentioned above is not meant to be an exhaustive account of Xiongnu archaeology. A tremendous amount of work has been directed at the Xiongnu. However, what is missing from current research paradigms focusing on Xiongnu and

preceding periods is a meaningful assessment of mortuary practice and its implications for thinking about the nature of political processes at the advent of the Xiongnu period. Nomadic pastoralists leave ephemeral traces archaeologically, which somewhat constrains archaeological research to focus on mortuary contexts (Cribb 1990). Only a handful of Xiongnu habitation sites have been identified and excavated (Davydova 1995,



Figure 1.1 Map of Mongolia indicating location of Baga Gazaryn Chuluu and Egin Gol

1996; Ramseyer et al. 2009). Instead the vast majority of materials recovered from the Xiongnu period are derived from burials. Xiongnu mortuary monuments have, of course, been described and analyzed at length (Konovalov 1976, 2008; Miniaev and Sakharovskaia 2002, 2007a, 2007b; Torbat 2002, 2004; Honeychurch 2004; Miller 2009; Brosseder 2009), but rarely considered for what they really are, commemorative

structures conspicuously inscribed in a pre-existing landscape of mortuary stone monuments (exceptions see Honeychurch 2004; Wright 2006). Graves, their contents, and accompanying monuments constitute very particular kinds of archaeological material (Parker Pearson 1999). Mortuary contexts represent deliberate human actions and constructs. Therefore graves and funerary monuments are not a direct reflection or correlate of the society that produced them. They are inherently symbolic creations. As Härke (1997) has pointed out, mortuary contexts are merely a reflection, a mirror if you will, that reveals only the symbolic ideologies relevant or important to the individuals who constructed them. This fact makes burials complicated contexts to interpret.

On the one hand mortuary contexts are problematic because of their very nature of being symbolic, but on the other hand they are a valuable resource because they constitute very deliberate human actions and decisions. In this way graves are significant because they provide insights into a repertoire of behaviors and ways people looked at and represented their world that other archaeological contexts do not. Hence mortuary monuments are invaluable resources, but are invariably complex and pose significant problems to researchers attempting to use them to reconstruct prehistoric lifeways. In this dissertation I focus on mortuary stone monuments and accompanying burial assemblages belonging to Xiongnu and preceding periods. I start with a basic question, is the formation of a Xiongnu central polity somewhere in Mongolia visible archaeologically in mortuary practice? I will, like others mentioned above, argue that it is, but will also seek to identify and answer what changes in mortuary behavior suggests about political processes. This necessitates thinking about what mortuary contexts are and what they are created to accomplish.

Funerary monuments are deliberate. They are not unintentional consequences of economic behavior. They are intentional efforts to create socially meaningful narratives to commemorate individuals and the communities to which they belonged (Härke 1997; Parker Pearson 1999; Pearson and Shanks 2001). In this dissertation I will investigate the ways these narratives were created. The emphasis will not be on what burials look like, what is in them, or necessarily how to tell one apart from another. Instead, I take the stance that since mortuary monuments are about creating commemorative narratives, archaeological inquiry needs to focus on how monuments, their contents, and subsequent activities such as looting or desecration come together to produce or transform social memory. Hence this dissertation is primarily about how burials and stone monuments are used to construct meaningful places that inscribe and transmit information via mortuary landscapes. So the question is more than whether or not the formation of the Xiongnu polity is visible in changes in mortuary behavior. Fundamentally, this dissertation is about if the formation of the first nomadic state in East Asia is visible in the ways communities created commemorative narratives using stone monuments. In other words, are the narratives and how one produces them inherently different with the appearance of Xiongnu mortuary monuments? Here I aim to demonstrate that they are, and that Xiongnu mortuary traditions represent a conspicuous departure from preceding customs of creating lasting, usually idiosyncratic, commemorative narratives that produced social memory on a grand scale. Instead, Xiongnu funerary practices were imposed on local communities and created commemorative places locally that restricted the expression of individual narratives and only create social memory on a small often ephemeral scale.

In its emphasis on social memory and commemorative narratives, my dissertation research necessitates analysis of mortuary assemblages, the monuments constructed above them, the landscapes those monuments create and become a part of, and any subsequent disruptions of these as a result of looting or desecration. The data used in the present study are drawn from Baga Gazaryn Chuluu (hereafter BGC), an area situated just north of the Gobi Desert in the Dundgovi province of Mongolia. Here, an intensive pedestrian survey accompanied by extensive excavation was conducted by the Mongol-American Baga Gazaryn Chuluu Archaeological Survey Project under the direction of William Honeychurch, Chunag Amartüvshin, and Joshua Wright¹. This project ran from 2003 to 2008 and was itself an extension of a similar pedestrian survey conducted by the primary researchers at Egiin Gol in northern Mongolia (Honeychurch 2004; Wright 2006). The author was a contributing member of this project since its beginning and the research presented herein is the result of countless hours of fieldwork and analysis by me and other researchers. To date, in its emphasis on both systematic and intensive survey complemented by extensive excavation of archaeological materials belonging to all periods in the region, the work conducted at BGC is the first of its kind in Mongolia. Therefore, the research area and data derived from it constitute an ideal setting in which to address questions pertaining to mortuary practices associated with the formation of the Xiongnu polity.

The data collected at BGC are conducive to the present study for a number of reasons. First, the project involved intensive and systematic pedestrian survey. As a

¹ Portions of the data from this project that this dissertation draws from can be found in: Amartuvshin, Ch. and W. Honeychurch 2010 Dundgobi aimagt hiisen arkheologiin sudalгаа: Baga Gazaryn Chuluu [Archaeological Research in the Middle Gobi: Baga Gazaryn Chuluu]. Ulaanbaatar: Mongolian Academy of Sciences.

result an impressive amount of information has been gathered, particularly in regards to mortuary stone monuments, which allows for a reconstruction of mortuary landscapes and the use of space to create commemorative narratives. Second, the project did not necessarily privilege any particular time period in its excavation of mortuary contexts. Therefore there exists a comparatively significant amount of materials from all time periods to permit analysis of diachronic changes in mortuary practice. Third, from the outset, the project directors were cognizant of the fact that a significant amount of data collected would revolve around stone monuments. Therefore, the collection of data concerning monuments was built into project design from the beginning and as a result considerable information was generated pertinent to a qualitative assessment of mortuary monuments. Fourth, like elsewhere in Mongolia burials at BGC have been subject to extensive and comprehensive pillaging activity. This is important and something that figures prominently in this dissertation because whereas mortuary contexts represent deliberate acts to create commemorative narratives, subsequent disruptions constitute interference with and alterations to social memory created through mortuary behavior. Looting, or desecration as I will argue, thus constitutes another line of evidence by which to engage the creation and transformation of communal histories produced in mortuary practice that can transmit information about politically pertinent behavior or affiliation. In sum, the present study is only made possible by the work we conducted at BGC and in turn has significant potential to inform present and future research on mortuary practices relevant to Xiongnu and preceding periods.

By analyzing commemorative narratives this research necessitates qualitative and conceptual assessments of archaeological data. How does one identify or quantify social

narratives and memory? These are inherently abstract and unquantifiable concepts. Yet the way and character in which narratives are generated can be discernable, especially in the creation of monuments (Bradley 1993; Williams 2003). In what ways are memories and narratives produced? Is it something you see? Is it something you experience? Is it something you leave behind? Is it something you remove or even something you destroy? The latter is of course of particular importance to the manipulation of existing narratives that someone might strive to alter through desecration. In their very nature of being deliberate attempts to create social narratives mortuary monuments can be accessed to assess how this was done. Were objects important? Did directionality and orientation play a role in where and how items were placed? Was the place where a person was buried marked in an ostentatious way that created a particular kind of space in the landscape? All are but a part of how humans create socially meaningful constructs to commemorate individuals, their communities, and the way they think about the world (Metcalf and Huntingdon 1991). Therefore, the methods used in this dissertation research are inherently qualitative, meaning that they are invariably concerned with how objects and monuments transmit information and on what scale. I do not attempt to quantify the occurrence or frequency of particular material types as this is virtually impossible given the pervasive disruption of mortuary contexts in this part of the world. Instead, I adopt a diachronic perspective to focus on how different monuments and mortuary traditions are constructed to produce enduring narratives and how these create lasting impressions on different scales on the mortuary landscape in the research area.

This dissertation is organized into 9 chapters. The first, which you are reading, has set up the research problem, namely that whereas there has been a tremendous

Relative Chronology	Archaeological Monuments and Horizons Discussed in this Study	Dates
Neolithic		6000-3500 BC
Early Bronze Age		3500-1600 BC
Bronze Age		2000-1000/800 BC
Late Bronze Age	Shape-burials and Khirigsuurs	1600-800 BC
Terminal Late Bronze Age Early Iron Age	Slab Burials	800-300 BC
Iron Age	Xiongnu	300 BC-200 AD
Turk		7th-9th Century AD
Uighur		10th-11th Century AD
Mongol/Medieval		11th-14th Century AD

Table 1.1 Distribution of relative chronological horizons in Mongolian archaeology, including monuments discussed in this study

amount of research conducted on Xiongnu materials, nobody has actually considered the implication and significance of the contexts from which they derive and the potential consequences for how we think about the Xiongnu polity and socio-political change in Mongolia overall. In chapter 2 I introduce the units of analysis in this research, mortuary monuments belonging to Xiongnu and preceding periods. In order to contextualize changes in how commemorative narratives are transformed with the emergence of a central political polity during the Xiongnu period it is necessary to consider and describe preceding mortuary practices and traditions of inscribing social memory using stone monuments. In doing so I bookend the analysis presented herein arbitrarily. I start with a description of the first identifiable stone monuments in the research area, khirigsuurs and shape-burials [Table 1.1]. I continue to define and portray subsequent mortuary traditions in the research area which are represented by what are called slab burials,

which subsequently give way to Xiongnu mortuary monuments. In this subsequent description I pay and call attention to research conducted on these features elsewhere in Mongolia and how these inform the research presented here. This includes mortuary monuments not present at BGC such as the large square ramped tombs of what is considered to represent the uppermost echelon of the Xiongnu elite (Konovalov 1976, 2008; Miniaev and Sakharovskaia 2007a; Miller 2009; Brosseder 2009). Chapter 2 is thus meant to set the stage and introduce the reader to an overall pattern in Mongolia of creating commemorative landscapes using stone monuments.

In chapter 3 I situate the present study into a broader theoretical paradigm of archaeological research emphasizing landscapes. A tremendous amount of work has been conducted focusing on mortuary practices and accompanying efforts to construct social memory (e.g. Barrett 1990, 1993; Bradley 1993, 1998; Williams 2003; Van Dyke and Alcock 2003). These typically involve the inscription and creation of particular spaces in landscapes. I thus frame and situate the research herein as a component of landscape archaeology. However, the units of analysis in this dissertation, mortuary monuments, constitute features of a particular kind. Therefore this chapter also engages theoretical frameworks for how one thinks about monuments, particularly those commemorating the dead, and how these can be used to create lasting social narratives. The spaces created through these acts transmit information to other members of society, but in their monumentality also create material impressions that influence the thoughts and actions of subsequent generations (Basso 1996). Monuments produce sensory experiences to the viewer, which is also an integral component in the creation of social memories (Tilley 1994). If other people cannot experience them, the narratives

constructed through funerary ritual are inaccessible and lost. Therefore this chapter also engages phenomenology and the sensory attributes created by monuments in the landscape and how human made places function to create spaces that produce lasting impressions on subsequent populations inhabiting or interacting with those spaces.

Since the monuments and features under consideration in this dissertation are those that commemorate the dead, chapter 4 outlines, in rudimentary terms, mortuary analyses. As already mentioned, mortuary contexts constitute symbolic representations and ideologies of the societies that produced them. In this chapter I focus on a few specific aspects of mortuary behavior; how identity can or cannot be construed via funerary behavior, status, and how particular materials such as faunal remains can be used to construct commemorative narratives that convey ideological and potentially politically significant information. Chapter 4 thus sets the stage for the observations made in subsequent sections of this dissertation in how objects incorporated into funerary contexts transmit archaeologically significant information concerning how social memory can be constructed.

In chapter 5 I describe the methods used to collect and manage archaeological data in the research area. In doing so I also give an account of the geographical and topographic setting of BGC which in many ways influenced and affected our methods and how we thought about and engaged archaeological materials in the research area. BGC is part of a much broader ecological zone, not only in Mongolia, but one that extends across all of Central Asia. Therefore, I begin this chapter with a description of Central Asia as a whole and the qualities and attributes that ecologically define this part of the world. I then focus in on the geography of Mongolia to situate BGC within this

environmentally variable region. Finally, I discuss the landscape and topography of BGC itself to provide the setting in which our work was conducted. I go on to explain the methodology behind the pedestrian survey and some of the consequences of this process and adjustments made as our work progressed. This was very much an ongoing process and modifications and solutions often had to be made up as we went along. The framework used to collect information had consequences on how sites and monuments were defined, labeled, and organized into the database. Some of our initial decisions regarding site definitions turned out to be too broad, which led to questions, for example, about when a slab burial was really a slab burial. To mitigate some of these difficulties I conducted a qualitative survey to revisit and reassess monuments in the research area. This qualitative survey is also explained and described in this chapter. I then discuss our excavation methods and how our decision-making concerning what sites and monuments to excavate was affected by the archaeology of BGC itself. The project had to contend with relatively poor preservation as a result of environmental and geological conditions. In addition human disruption and disturbance of mortuary contexts was the ubiquitous background condition that affected every single archaeological context. In my description of our excavation methods I therefore also discuss how we met the challenge presented by the poor preservation in the research area. At the project's conclusion in 2008 240 km² had been intensively and completely surveyed and approximately 1750 sites had been identified in the research area. In addition, over 100 of these sites and monuments had been excavated. Hence, in spite of the various challenges faced at BGC, an impressive amount of data have been collected with which to engage mortuary

monuments and changing commemorative narratives with the formation of the Xiongnu polity.

Of the ca. 1750 sites identified and recorded by the project, 807 constituted stone monuments belonging to the Late Bronze-Early Iron Age and Xiongnu period, initially represented by 72 shape-burials, 317 khirigsuurs, 266 slab burials, and 158 Xiongnu ring tombs². In chapter 6 I describe and characterize the mortuary landscapes created by shape-burials and khirigsuurs at BGC. These are dynamic and visual constructs that emphasize idiosyncratic variation. In chapter 7 I discuss slab burials and the spaces they create in the research area. These too are visually prominent monuments, albeit in a very different way, and the spaces they create have a directional quality to them. They are supposed to be experienced in particular ways and create social memory on a grand scale. In chapter 8 I describe Xiongnu ring tombs at BGC emphasizing that these are primarily communal monuments, they occur in clusters or larger cemeteries, and are deprived of visually eminent components. Xiongnu ring tombs create social and commemorative narratives on a much smaller scale. Throughout these 3 chapters I focus on monument placement, visual components, the landscapes they create, and their assemblages and what these all suggest about how monuments, places, and objects were used symbolically to generate social memory. In each of these chapters I also discuss how disruption has affected each monument type demonstrating that these are deliberate desecrations aimed at the destruction or transformation of the social narrative created through mortuary ritual. Desecration is a pervasive activity that begins in the Bronze Age and continues

² The survey database concerning these site categories is still being edited and as a result some of these numbers may change as site definitions are refined. Consequently, the data presented herein should be considered preliminary until the database is published in full by the project directors.

through all time periods. However, slab burials, those monuments that immediately precede the Xiongnu period have been differentially affected by desecration, which has targeted the body, burial assemblage, and visible superstructure. These have been systematically targeted and their commemorative narratives disrupted and often destroyed. This peak in the scale of desecration at BGC and occurrence in commemorative mortuary monuments immediately predating the formation of the Xiongnu polity is important. Hence in all of these chapters I define and discuss social memory and commemorative narratives created in mortuary ritual involving the production of stone monuments. I also focus on how these narratives have been affected by desecration. Taken as a whole the creation, transformation, and sometimes destruction of these monuments can speak to identifying the scale and orientation of the decision-making involved in their production. In this way mortuary monuments at BGC have the potential to reveal information about political processes via the locus of decision-making regarding how to build and place monuments commemorating the dead in the research area.

In chapter 9 I pull the various lines of evidence together to discuss mortuary practice as political process at BGC. I demonstrate that the appearance of Xiongnu ring tombs in the area constitute a conspicuous separation from and discontinuity of preceding mortuary traditions. I will show that the locus of decision-making regarding this transformation was clearly extra-local signaling that BGC was being incorporated into an expansive Xiongnu political economy. This political economy manifested itself in mortuary practice involving the use of stone monuments to transmit social memory. Whereas prior to the Xiongnu period mortuary practice made use of very visible and

individualistic monuments that only loosely conformed to rigid regulation for how space and place could be used to create social memory, Xiongnu tombs on the other hand were visibly inconspicuous, highly formalized burials that created narratives using objects derived from outside the research area. Xiongnu funerary ideology restricts local individuals' ability to create enduring commemorative narratives, and emphasize standardization and uniformity. In this concluding chapter I then demonstrate the portentous and foreboding nature of Modun's declaration to the Han...and all were now considered Xiongnu.

Chapter 2

Stone Monuments in Mongolia

Introduction

In Mongolia, a tradition of constructing ritual and mortuary stone monuments emerges at the beginning of the Late Bronze Age (ca. 1600 BC) among communities argued to be transitioning from a mixed economy of foraging and small-scale agriculture to animal-husbandry. Although not much is known about preceding periods and the Mongolian Neolithic, the presence of tools associated with agriculture, such as grinding stones and pestles have been suggested to imply the existence of dispersed small-scale farming (Derevianko 1994; Volkov 1964). Experimentation with, and later adoption of, animal-husbandry during the Neolithic/Eneolithic Period (6000-3500 BC) thus gradually emerge from preceding traditions relying on mixed economies of foraging and some farming (Okladnikov and Derevianko 1970; Volkov 1995). The practice of constructing large stone monuments appears to accompany the adoption of pastoral subsistence strategies in Mongolia (Kovalev 2008; Volkov 1995; Wright 2006). However, it is as yet unclear when specialized pastoral practices that rely exclusively on rearing and herding livestock developed in Mongolia. It is further unclear if, and to what degree, other modes of subsistence were practiced in conjunction with mobile pastoralism both during the Bronze Age and in later periods. In any case, the appearance of stone monuments in

Mongolia follows a progressively increased presence and reliance on livestock and pastoral resources. However, the interpretation of this rich and diverse monumental tradition is complicated by an uneven application of definitions, terminology, and categorization of archaeological materials. Monuments are often defined differently by various researchers and in many cases terminology is used interchangeably to refer to a broad range of site types that may or may not be associated with one another. Here I will introduce the monument types that are the focus of this dissertation research and situate them against a wider backdrop of archaeological research in Mongolia. I begin with a description of Middle to Late Bronze Age monuments called khirigsuurs, shape-burials, and deer stones,³ and then go on to describe slab burials, which are mortuary contexts associated with the Early Iron Age. I finish the chapter with a description of Xiongnu tombs that are found not only at BGC but at other locales throughout Mongolia and southern Siberia. These are the large square ramped tombs of the uppermost elite of during the Xiongnu period and the more ubiquitous and smaller Xiongnu ring tombs.

Khirigsuurs

Of all the monuments in Mongolian antiquity, khirigsuurs belong to the largest and perhaps the most abundant, but probably also the most nebulous and enigmatic category. Khirigsuurs are typically defined as consisting of a central mound of unaltered stones of varying sizes which is often enclosed by a square or circular perimeter fence of aligned rocks. The central mound usually covers a stone cist, but this is not always the

³ There are no deer stones at BGC and they therefore only figure peripherally in this dissertation. They are discussed here to provide insight into some of the complexities that surround the Mongolian Bronze Age and to emphasize the regional variability among various monument traditions.

case. These monuments occur individually, in pairs, or in larger groups and can range in size from 10 to over 50 meters in diameter. On occasion, additional structures, or satellites, are found outside of the perimeter fence, usually to the east or south. These satellites are characteristically small mounds or circular alignments of rocks approximately one to two meters in diameter, but can sometimes assume other shapes. Some khirigsuurs, especially those with square perimeter fences, occasionally include a long rectangular structure of surface stones on their east or south side in addition to satellites or standing stones. Satellite features have been found to contain burned or crushed faunal remains and in a few cases horse crania oriented to the east (Allard and Erdenebaatar 2005; Allard et al 2006; Fitzhugh 2008; Houle 2010). Yet other khirigsuurs

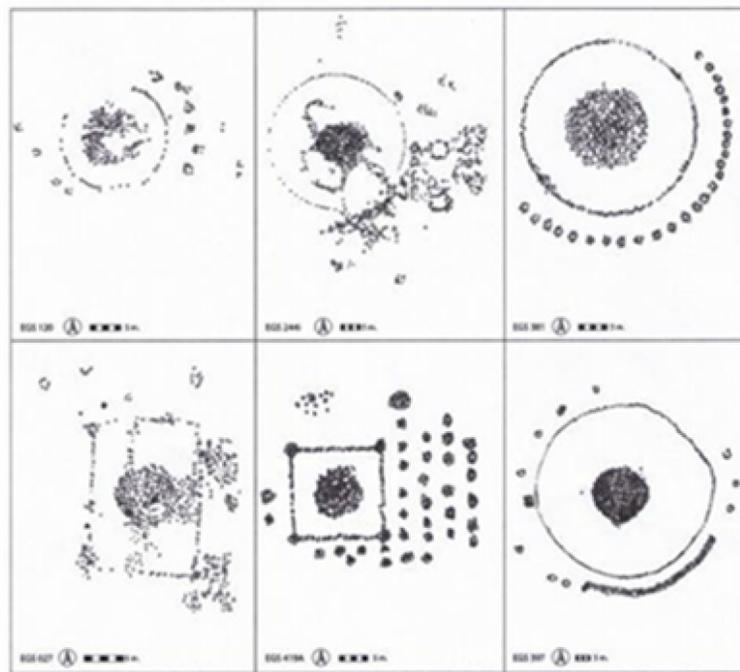


Figure 2.1 Different variations of khirigsuurs at Egiin Gol (Wright 2007).

contain large standing stones in their perimeter fences or include a range of linear features extending from the mound to the perimeter fence and beyond (Jacobson-Tepfer 2010). Khirigsuurs thus exhibit a tremendous diversity in construction and this, in part,

contributes to the large number of interpretations of their form and function by different scholars [Fig. 2.1, Fig 2.2]. There have been various attempts to categorize khirigsuurs into different types. However, most of these new types are constructed locally and do not



Figure Error! No text of specified style in document. **2.2** Khirigsuurs in Khovd showing diversity in construction at one locale.

take regional variation across Mongolia into account. Jacobson-Tepfer (2010), for example, argues that khirigsuurs in the Altai region of western Mongolia can be arranged broadly into three types: 1) those with square or circular fences that may have radii connecting the mound to the surrounding fence, 2) “platform” khirigsuurs where a pavement of surface stones surround the central mound and connect it to the surrounding fence, and 3) “boulder” khirigsuurs where the central mound is replaced or forms a “skirt” around a large naturally occurring boulder in the landscape. Frohlich et al. (2006; 2008) have opted to separate khirigsuurs into three “classes” based on elevation and size. Here class I khirigsuurs are large and located in low lying grasslands, while Class III are



Figure 2.3 Urt Bulagyn (Houle 2010).

small, difficult to see monuments, located in high lying areas, while Class II khirigsuurs are an intermediate category. Houle (2009; 2010), working in the Khanuy Valley in central Mongolia, makes a distinction between what he calls khirigsuurs and slope burials, arguing that the term khirigsuur should be reserved for those monuments with a massive central mound that exhibit evidence of peripheral ritual activity suggesting extensive communal participation. He assigns the term slope burial to smaller burials, also with square or circular fences, that lack a “massive” mound and contain few faunal remains. This sub-categorization of khirigsuurs is not only confusing, but can lead to serious problems with interpretation. For example, if the difference between khirigsuurs and “slope burials” is the scale and nature of accompanying ritual activity, how is that ritual activity defined? Peripheral or non-mortuary ritual activity at khirigsuurs is often based on the impressive khirigsuur at Urt Bulagyn in the Khanuy Valley in Central Mongolia [Fig. 2.3] (Allard and Erdenebaatar 2005; Fitzhugh 2009; Houle 2010). Allard

and Erdenebaatar (2005:3) have gone as far as to argue that this site “serves as a baseline from which to discuss Mongolia’s khirigsuurs.” Urt Bulagyn is a massive khirigsuur measuring ca 390x390 meters, with over 1700 small stone mounds to the east and south containing horse crania oriented to the east and an additional 1000 stone circles of varying sizes located to the west of the central mound. The central mound itself is 5 meters tall and 26 meters in diameter and surrounded by a square perimeter fence. It has been estimated that approximately half a million stones, some weighing as much as a ton, were used to construct Urt Bulagyn (Allard and Erdenebaatar 2005). In light of this site’s sheer size and scale the question must be raised of how representative Urt Bulagyn is of khirigsuurs across Mongolia? Given its uniqueness, is this site really suitable to act as a baseline for interpreting this monument type? Urt Bulagyn, although not the largest khirigsuur in Mongolia, is among the largest, and its accompanying suite of satellite mounds and stone circles is certainly of an unparalleled scale. In fact, other archaeologists researching khirigsuurs report that only 15% of these monuments actually have accompanying satellite features beyond the perimeter fence, usually not numbering more than 5-10, and an even fewer number of these have ever been found to contain horse crania (Frohlich et al. 2008). Urt Bulagyn is most definitely an example of extensive peripheral ritual activity, but the question is how pervasive such ritual activity was in the construction of other khirigsuurs in Mongolia? There are other sites that also exhibit evidence of extensive peripheral activity such as Ulaan Tolgoi in Khovsgol Aimag (Fitzhugh 2009). However, these are also not the norm and cannot be said to be representative of the typical khirigsuur in Mongolia. There are, for example, other very massive khirigsuurs in Mongolia that have no accompanying satellites at all. Similarly

there are small khirigsuurs with significant secondary features that seemingly enact a lot of peripheral ritual activity on a much smaller scale [Fig. 2.4]. Therefore, to what degree is the distinction that Houle (2009, 2010) makes between khirigsuurs and “slope burials” really a matter of scale and idiosyncratic choices of the monuments’ builders rather than function?

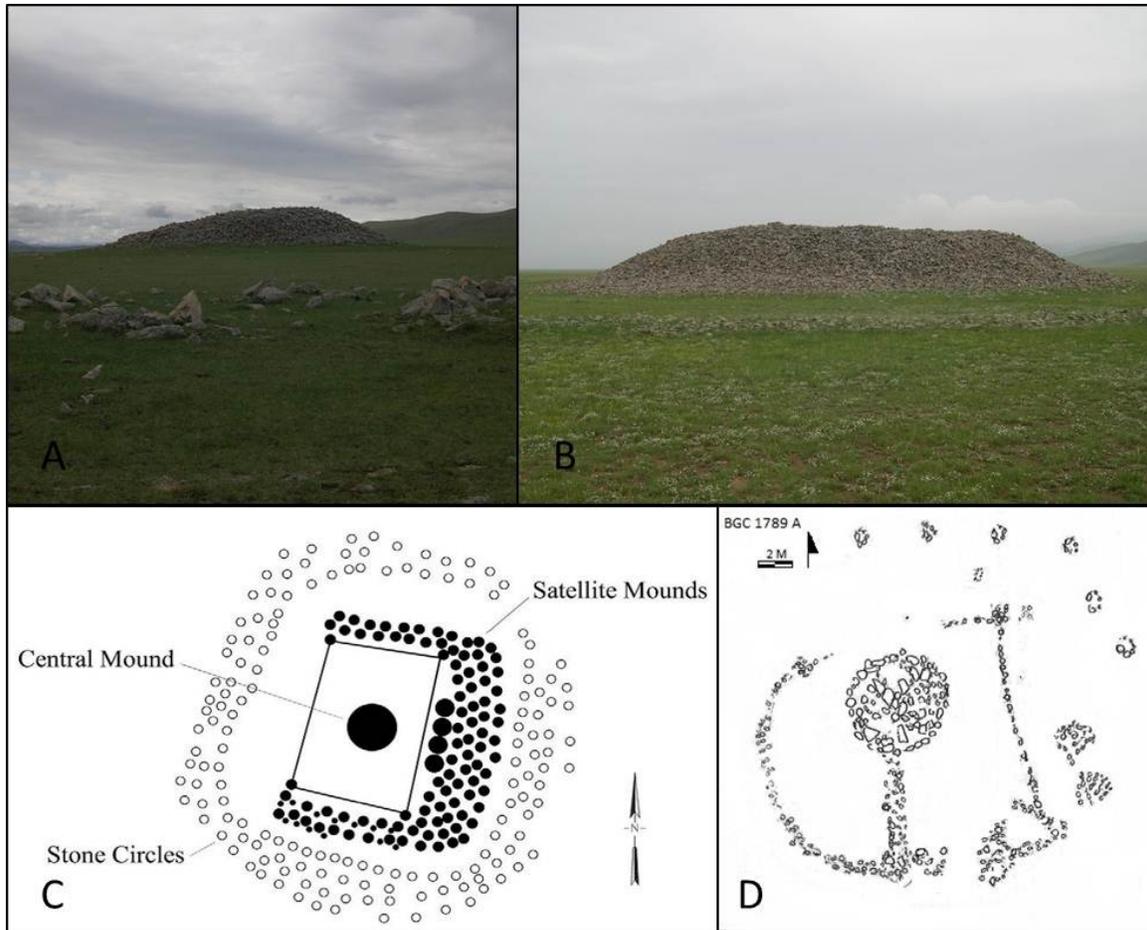


Figure 2.4 A) Urt Bulagyn; B) Large Khirigsuur near Khangai Mountains; C) Schematic drawing of Urt Bulagyn (Houle 2010); D) Schematic drawing of small khirigsuur at BGC.

The problem posed by khirigsuurs in terms of categorization and nature of peripheral ritual activity is compounded by the fact that these monuments have not been excavated systematically across Mongolia, but instead the preponderance of research, with some exceptions, has focused on pedestrian survey and spatial analysis. In fact, the

data used to construct the aforementioned khirigsuur categories are almost exclusively derived from survey (e.g. Houle 2010; Jacobson-Tepfer 2010; Wright 2006; note exception Frohlich et al. 2006; 2008)). The majority of research has thus not emphasized systematic excavation and as a result many interpretive models remain archaeologically untested in terms of subsurface materials.

Although problematic, the various khirigsuur categories constructed across Mongolia are nonetheless telling. The criteria used to construct them is variable, which is not only testament to the inherent diversity within this monument type, but also indicative of our current lack of understanding of the parameters that may have accounted for this variability. Moreover, they speak to the absence of a regionally inclusive mortuary and architectural narrative regulating how khirigsuurs should be constructed. Instead, what emerges is a regionally variable pattern where khirigsuurs in certain locales differ significantly from khirigsuurs in others. For example, there are no boulder khirigsuurs at BGC. Similarly, the platform khirigsuurs, or those where the space between the mound and the perimeter fence is paved with stones, are primarily a phenomenon found in western Mongolia. Khirigsuurs can thus be argued to constitute local variants and hence the khirigsuurs at BGC are not expected to conform structurally to khirigsuurs in Khovsgol and vice versa. They are inherently localized traditions [Fig. 2.5].

There is some disagreement whether khirigsuurs are mortuary monuments, communal ceremonial features, or both. The latter interpretation stems from a relative absence of human remains and associated funerary assemblages and focuses on activities associated with satellite features (Honeychurch 2004; Allard and Erdenebaatar 2005;

Wright 2006, 2007). As mentioned above, some of these models derive from extrapolating and transposing observations from Urt Bulagyn to features identified

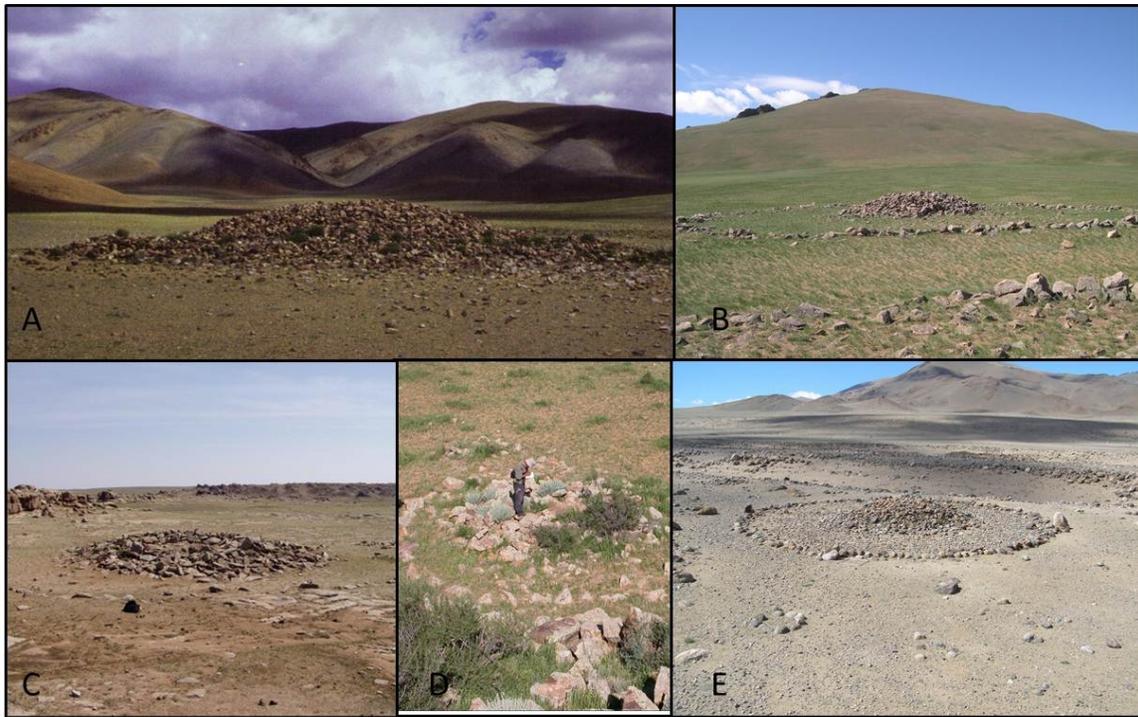


Figure 2.5 Khirigsuur types across Mongolia; A) Khirigsuur without fence near Khargantyn Gol (Jacobson-Tepfer 2010); B) Khirigsuur with square fence, Arkhangai aimag; C) Khirigsuur with cropped fence at BGC; D) Small khirigsuur at BGC; E) Khirigsuur with pavement near Khovd.

through pedestrian survey, but with few exceptions these models have not systematically explored materials from the central mounds themselves. Basing the interpretation of khirigsuurs as communal ceremonial sites on the absence of human remains is further problematic. The absence of human remains need not indicate that a monument is not a burial or meant to commemorate a deceased person (Parker Pearson 1999; 2008). When human remains are found in khirigsuurs they are found beneath the central mound and usually include a single inhumation with few, if any, associated funerary materials (Frohlich et al 2008). In addition, the body was typically placed within or just beneath the mound in a shallow cist grave. As a result of the body's location often above, but always close to the surface, as well as a general dearth of accompanying artifacts, looting

and adverse taphonomic processes can easily obliterate all evidence of human remains and associated funerary activities. Consequently, without systematic excavation of the central mounds of khirigsuurs and without careful consideration of adverse taphonomic processes, it is problematic to suggest that these sites are *not* mortuary monuments. It should also be noted that those archaeologists who have focused their research on identifying the function of khirigsuurs typically agree that they were graves, albeit with associated ritual practices (Frohlich et al. 2008; Takahama 2005; 2006). In addition, what are we to call monuments that contain human remains if not mortuary monuments (Frohlich personal communication)? I will return to the question regarding whether or not khirigsuurs are mortuary monuments in chapter 6.

Frohlich's work on khirigsuurs in Khovsgol Aimag in western Mongolia is particularly noteworthy as it represents one of the few projects that has systematically surveyed and excavated khirigsuurs in the same area over several field seasons (Frohlich et al. 2004; Frohlich et al 2005; Frohlich et al 2008). This project has demonstrated, quite convincingly, that khirigsuurs are in fact burials and that every age category in the human growth cycle is represented in the excavated sample. Frohlich notes that there is no correlation between circular or square perimeter fences with the age or sex of the deceased or that the shape of this feature stems from temporal horizons of khirigsuur construction (Frohlich et al. 2008). In other words, the shape of the khirigsuur is based on criteria enacted by their builders that remain inaccessible to us, but that do not have chronological dimensions or that are seemingly not connected to the status of the deceased (Frohlich et al. 2008). The large number of khirigsuurs in that project's research area suggests that the entire population may be represented rather than one

particular segment. This does not run counter to other interpretations of khirigsuurs that do not see clear evidence of status differentiation among khirigsuurs based on spatial distribution (Allard 2006; Allard et al 2005; Houle 2010). Frohlich further notes that the deceased were interred without any accompanying artifacts, reporting an absence of artifacts in 100% of all excavated contexts, but in spite of this several khirigsuurs have nonetheless been disturbed by looting activities (Frohlich et al 2005; Frohlich et al 2008)⁴. In some cases the builders of khirigsuurs created “false” cists and have offset the placement of the body seemingly to forestall intrusion by looters and to prevent disturbance of the remains. In one instance the body of an 18 year old male was placed in a poorly articulated pit 35 cm below the assumed floor of the burial cist (Frohlich et al 2008:99). If such intentional interment was common practice to divert and forestall looting or desecration it may further explain why human remains are rarely recovered from khirigsuurs. For example, Houle (2010:19) reports that out of six “slope burials” excavated in the Khanuy Valley only half were found to contain human remains of any kind. Could this absence of human remains then be the result of both poor preservation *and* intentional placement of the body to prevent it being disturbed, which would consequently affect looters and archaeologists alike? The absence of human remains is thus likely due to poor preservation as well as intentional efforts to hide the location of the body, which in turn has implications for interpreting khirigsuurs as ceremonial sites

⁴ The absolute or relative absence of artifacts in the burial assemblages of khirigsuurs is also noted by other archaeologists elsewhere in Mongolia (Erdenebaatar 2002; Takahama 2005). The general picture that seems to be emerging of khirigsuurs is that the central mound, with few exceptions, contains the interment of the deceased and not much else. Most artifacts appear to be retrieved from the external components of khirigsuurs complexes, which raises interesting questions about their role in funerary ritual. At the same time, the presence of artifacts or burned bone in the external features can confuse the primary function of the monument if the contents of the central mound are not taken into account.

based on the absence of human remains. There are a number of factors that can contribute to the absence of human remains in khirigsuurs while leaving evidence of other activities associated with the funeral event such as accompanying satellite features intact. Furthermore, in light of the absence of grave goods in conjunction with intentional efforts to prevent pillaging on behalf of the builders of these monuments, intrusions are likely associated with desecration rather than actual looting (Frohlich et al. 2008). Such desecration events also appear to be pervasive and ubiquitous phenomena across Mongolia as most khirigsuur mounds exhibit evidence of disturbance⁵.

Given these observations, in this dissertation I have chosen to adopt a broad and inclusive interpretive framework for khirigsuurs. I do not make distinctions between different khirigsuur types, but instead treat them as adhering to a general architectural narrative that is enacted locally according to idiosyncratic choices made by their builders, the motives behind which are as-of-yet unknown to us. Accordingly, I do not place significance on the shape or size of perimeter fences or the presence or absence of accompanying satellite features. I take the position that khirigsuurs are funerary monuments and contend that more conclusive evidence needs to be presented in order to convincingly claim that they are not associated with mortuary activities. I also adopt this position since very few khirigsuurs have been excavated at BGC and none of these excavations have focused on the entirety of the monument, but have instead focused on satellite features or the trenching of the central mound. There is thus precious little subsurface evidence from khirigsuur contexts at BGC, and consequently, interpretation of

⁵ The prevalence of this disruption of mortuary contexts, where any clear economic incentives are not readily discernable, formed the inspiration behind this dissertation's endeavor to confront the nature of disruption commonly generalized by the term looting events. I will discuss this further in chapter 4.

these monuments must be drawn from research elsewhere in Mongolia. This research, some of which has been outlined above, indicates pervasive diversity in khirigsuur construction that is not indicative of chronological horizons or the status of interred individuals and that increasingly points to these monuments representing a mortuary tradition.

Shape-Burials and Alternative Mortuary Practices during the Bronze Age

I should also note that khirigsuurs are not the only Bronze Age mortuary monuments in Mongolia. Quadrangular burials and stone mounds dating to this period have been found throughout Mongolia and southern Siberia (e.g. Jacobsen 1993, 2010;



Figure 2.6 Shape-burial at BGC

Volkov 1995). Another little researched monument, the shape-burial [Fig. 2.6], is also

found interspersed across Siberia, eastern Mongolia, and Inner Mongolia (Volkov 1995; Amartuvshin and Jargalan 2008). Shape-burials are characterized by a surface demarcation of rocks in a shape resembling an “hour glass”, which covers a shallow burial pit in which the deceased is placed face down with the head oriented to the east. In some cases the vertical edges of the shape burial includes standing stone slabs. Materials included in the funerary assemblage range from bronzes and arrow heads, to polished stone and faunal remains (Okladnikov 1980; Amartuvshin and Jargalan 2008). Shape-burials have been dated to 1600-1200 BCE, which makes them partially contemporaneous with khirigsuurs, but the relationship between these monument types remains unknown. Shape-burials are found at BGC and thus represent an alternative mortuary tradition concurrent with early khirigsuur construction in this part of Mongolia. The description and significance of shape-burials at BGC will be addressed in full in chapter 6.

Deer Stones

Finally, standing stones with intricate carved motifs, or deer stones, belong to a type of Bronze Age monument that is found in the western half of Mongolia, and which has often been associated with khirigsuurs (Fitzhugh 2009). These are impressive megaliths that are usually found in central valleys or plains and are often accompanied by complex stone works that may include khirigsuurs. It is as yet uncertain what deer stones are meant to commemorate, if they are cenotaphs, communal structures, or another type of ceremonial site. It is also unclear to what extent they should be considered a pervasive or uniform cultural tradition in their own right. The designs found on deer stones,

namely distinctively arranged, stylized deer or stags, chevrons, circles, and lines are found throughout Mongolia, Tuva, and south Siberia on rock faces and other stone media [Fig. 2.7]. Certainly, deer stones represent a very specific and very organized use of this

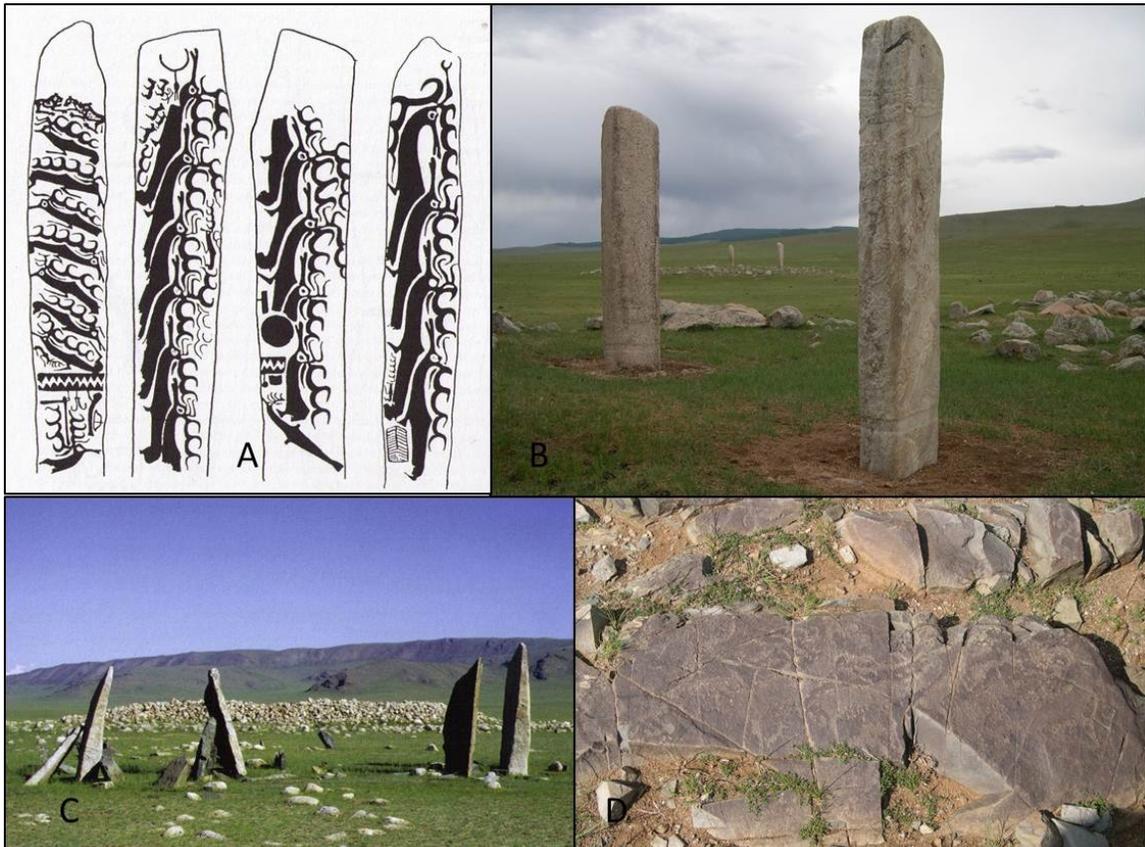


Figure Error! No text of specified style in document. 2.7 Deer stones and Bronze Age rock art A) Transbaikalian deer stones (Volkov 1995); B) Deer stones in Khanuy Valley; C) Deer stones by khirigsuur at Tsagaan Asgat (Jacobson-Tepfer 2010); D) Rock art depicting deer imagery at BGC.

imagery, but the figures and symbols are hardly exclusive to deer stones. Hence, deer stones are an enigmatic monument tradition to say the least, and importantly, their connection to khirigsuurs is tenuous at best. For example, at Urt Bulagyn, the site so often cited as an example of a khirigsuur with massive secondary ritual activity, there are no deer stones. There are deer stones in the Khanuy Valley, to be sure, but these are located several kilometers from Urt Bulagyn. Moreover, there are khirigsuurs near deer

stones in the Khanuy Valley, but these are typically of the variety that Houle would categorize as slope burials. Whether deer stones are ritual sites, cenotaphs, or both, remains to be seen, but they are geographically confined to the western half of Mongolia. Their association with khirigsuurs is as yet unknown, but what is clear is that the two monuments do not share the same geographical distribution since khirigsuurs can also be found much further east in Mongolia. Hence at BGC, there are no deer stones and therefore khirigsuurs in the research area must be interpreted separately from this otherwise quite interesting monument type.

Slab Burials

Another pervasive funerary monument type, the slab burial, appears approximately 800 BCE, although there is some overlap between these graves and khirigsuurs (Honeychurch 2004; Wright 2006). These monuments consist of a rectangular arrangement of standing stones, sometimes packed with smaller rocks for support, that cover a shallow burial pit oriented east to west that is often covered with massive stone slabs or a layer of rocks [Fig. 2.8]. The average size of slab burials usually ranges from 2-4 meters in length, but some can be substantially larger, measuring 10 meters on one side and with slabs standing 1.5 meters above the ground surface (Wright 2006). Grave goods have been reported to include faunal remains, horse bridles, and military equipment such as daggers, arrowheads, and bronze helmets. Other objects include personal decoration made of carnelian, cowries, turquoise, and mother-of-pearl as well as semi-spherical bronze bosses that would have been sown onto clothing (Erdenebaatar 2004; Volkov 1995). As a result of an increase in bronze and iron objects

in slab burials their appearance also marks the transition from the Late Bronze Age to the Early Iron Age, but due to poor resolution in absolute chronology the period during which slab burials are constructed is at present perhaps more appropriately viewed as a transitional one. Slab burials are also the first contexts in Mongolia to include definitive evidence of horse riding in the form of bridles, bits, and other equipment (Honeychurch 2004).



Figure 2.8 Slab burials; A) Large slab burial at BGC 554; B) Slab burial at BGC 057; C) Slab burial next to Urt Bulagyn in Khanuy Valley; D) Slab burials at Imgent Khosuu at Egiin Gol (Wright 2006).

Several archaeologists have noted a spatial relationship between slab burials and khirigsuurs (Erdenebaatar 2002; Wright 2006; Honeychurch et al. 2009). Erdenebaatar's work (2002) in northern Mongolia focused on excavation of khirigsuurs and slab burials

and emphasized the association of the two where slab burials were often found in the vicinity of khirigsuurs or sometimes incorporated into the actual structural components of khirigsuurs. Tsybiktarov (2003) has also noted that slab burials are occasionally intrusively built into khirigsuurs and in some instances use stones from khirigsuurs for their own construction and argues that this is the result of desecration. The use of rocks procured from khirigsuur enclosures in the construction of slab burials has been reported elsewhere in Mongolia (Batsaikhan 1996; Takahama 2005). At Egiin Gol, the distribution of slab burials is also indicative of their temporal relationship with khirigsuurs in that they are subsequent additions to the monumental landscape. If they are incorporated into linear clusters of khirigsuurs they are always at the terminus of the line. Similarly, if they occur in circular or dispersed clusters of khirigsuurs they are always found towards the cluster's edges (Wright 2006:212). The spatial affinity between khirigsuurs and slab burials has also been demonstrated mathematically. Using a Wilcoxon rank sums test Honeychurch et al. demonstrated that slab burials are non-randomly distributed in relation to khirigsuurs and that the vast majority of slab burials are located within 620 meters of a khirigsuur (2009:339). This study also demonstrated that slab burials tended to be built in proximity to larger khirigsuur clusters, which in turn might suggest that sites were re-used or incorporated into mortuary practice by groups emphasizing size as an important variable (Honeychurch et al. 2009).

These observations indicate that slab burials were indeed placed close to khirigsuurs. What is less clear is the reason behind this practice. It is possible that slab burials are intrusive elements in khirigsuur features such that they are built on top of them or use materials pilfered from them as acts of desecration. On the other hand, this

does not explain the distribution of slab burials that are located close to, but not within khirigsuur clusters. It is equally possible that khirigsuurs were incorporated into a mortuary ideology involving the construction of slab burials that may represent continuity with khirigsuurs or that slab burial builders included them in the construction of social memory. This latter interpretation of a conceptual or ideological connection between the two mortuary traditions is supported by the discovery of ceramics associated with slab burials intentionally placed on top of khirigsuur central mounds (Takahama 2005). The nature of the association between khirigsuurs and slab burials is complicated by the chronological overlap between these mortuary traditions in conjunction with an overall poor resolution in that chronology. It is further complicated by most archaeologists researching these monuments reporting a decrease in the number of slab burials in comparison with khirigsuurs in their respective research areas (Erdenebaatar 2002; Honeychurch 2004; Wright 2006; Houle 2010). This is significant in the context of mortuary practices, which often include politically oriented ideology. The apparent reduction in the number of mortuary stone monuments towards the Early Iron Age may thus be indicative of a radically changing socio-political landscape or the emergence of a distinctly elite segment of society.

Similarly to khirigsuurs, there have been numerous efforts to classify slab burials into various subcategories. Tsybiktarov (2003:82) has argued for three distinct types: 1) common, smaller, rectangular slab burials, 2) stone-slab tombs with concave walls, and 3) larger rectangular slab burials that have a greater frequency and number of burials goods that he calls the *Dvortsy* type. In this typology Tsybiktarov conflates rectangular slab burials with the above mentioned shape-burials and links these into a broader

tradition of stone monuments constructed with standing stone slabs. Volkov (1995:321) similarly includes shape-burials in a broader typology of slab burials. However, the link between these two burial traditions is never made clear. Neither Volkov nor Tsybiktarov make explicit whether the connection between these monuments is based on the structure of the monuments or the material assemblages. The composition of shape-burials is qualitatively and categorically quite different from slab burials and, importantly, does not always include standing slabs. Moreover, the placement of the body face down in many shape-burials and the absence of this occurrence in slab burials, is not discussed by either Volkov or Tsybiktarov. Linking these burial traditions draws a historical trajectory between shape-burials and slab burials that is distinctly different from khirigsuurs. This is consistent with the culture-historical paradigm adopted by Russian scholars that argues that separate burial traditions represent distinctly different peoples. Hence, what Volkov and Tsybiktarov are arguing by linking shape-burials and slab burials, is that these represent a contemporaneous but separate ethnic group from the builders of khirigsuurs that developed along an altogether separate trajectory.

At Egiin Gol, Honeychurch et al. (2009:350) argue for the existence of two separate groups of slab burials based on quantitative analysis of burial size and link this to the status of the interred or the influence of his or her lineage. This quantitative study argued for one smaller category of slab burial measuring 2.1-4.0 meters and another larger group ranging from 4.4-7.3 meters. At 86 burials, the data set used for this analysis is quite small and it is unclear how placement and available raw materials may have affected the differentiation in size, which could equally be argued represents a fairly smooth continuum. The reason these studies are important to the present dissertation is

not because of their conclusions, but rather because they illustrate the range of opinions on what constitutes a slab burial and what, if any, are the spatial or temporal horizons within this burial tradition. This is a question that is made all the more problematic by a difference in classification and meaning between the term slab burial in English and its Mongolian counterpart, *dörvölzhiin bulsh*, meaning quadrangular burial. This is significant as the English terminology implies the presence of upright slabs as a defining characteristic of these monuments whereas the Mongolian designation is slightly more ambiguous. Consequently, this raises the question of how these monuments are identified and designated as a matter of archaeological practice and if and in what way this impacts the local and regional identification and distribution of these monuments? It also raises questions about site distribution across Mongolia. Slab burials are traditionally recognized as being more common in eastern and central Mongolia and relatively absent in western portions of the country (Novgorodova 1989; Volkov 1995). A common conceptual schematic of site distribution places khirigsuurs and deer stones in the west and slab burials in the east (Novgorodova 1989; Tsybiktarov 2003; Wright 2006; Fitzhugh 2009). However, this distribution warrants additional qualification. What “type” of slab burial does it represent? Are these burials following an English discernment; one that identifies slab burials as quadrangular burials made from standing slabs, or does it include quadrangular burials in general that are contemporaneous? Jacobson-Tepfer (2010) has identified quadrangular burials in the Altai that date to the Late Bronze Age. These are rectangular burials with large boulders of sometimes contrasting colors marking their four corners and with the sides of the burials often aligned to the cardinal directions. These burials have rarely been excavated, but those

that have contain single inhumations in shallow pits with minimal grave goods (Jacobson-Tepfer 2010). In the context of slab burials, these burials warrant further discussion. Are these four-cornered graves qualitatively different than slab burials or quadrangular burials elsewhere in Mongolia [Fig. 2.9]? The seemingly structural differences could equally be the result of available raw materials, meaning a readily obtainable supply of large slabs. From my experience in western Mongolia, large stone

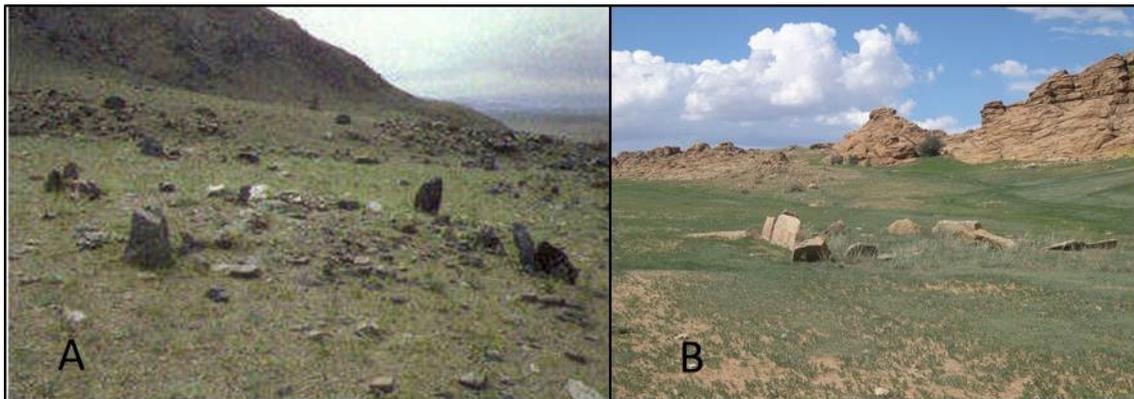


Figure 2.9Error! No text of specified style in document. A) Four-cornered quadrangular burial in the Sogoo Valley, western Mongolia (Jacobson-Tepfer 2010); B) Slab burial at BGC 028.

slabs are relatively rare occurrences in the geological landscape, especially in comparison with their frequency in central or eastern Mongolia at places such as BGC. Therefore, is it possible that differences in terminology are creating arbitrary and distinctive typologies of stone monument and obfuscating a much more dynamic and flexible practice of building mortuary monuments that is influenced by geological constraints as well as preferences by the monument builders? If the observed categories of each monument are rigid and real, what are their relationships with and between one another? Hence, what is the relationship between the four-corner graves and khirigsuurs, khirigsuurs and slab burials, or slab burials and four-cornered graves, or the relationship of all to shape-burials?

From the description above it should be evident that the Late Bronze Age and Early Iron Age in Mongolia is both dynamic and complex. Interpretation of this period is not straightforward and much more research is needed to flesh out the details of mortuary practices at this time. The regional distribution and local variations within these mortuary traditions and their implication for the period as a whole also require further study. In addition, interpretation is hampered by an overall lack of data from habitation sites, which makes assessments of population size, subsistence strategies, mobility, and territoriality difficult (Houle 2010). This in turn has an impact on a discussion of socio-economic complexity and the scale and dispersal and distribution of social and political hierarchies that can themselves affect mortuary ideology and practice.

Xiongnu Mortuary Monuments

The diverse and complex mortuary landscape of the Bronze-Iron Age transition in Mongolia is replaced in the 3rd Century BC by a new set of material culture regimes that spread rapidly across the steppes at this time and that include new technology, mortuary practices, and monument construction. As outlined in Chapter 1, this new archaeological horizon has been identified with the Xiongnu polity described in Chinese texts of the Han Dynasty. Unlike previous periods, which have not been studied in depth until the last few decades, Xiongnu materials have been known, excavated, and described since the early 20th century. The first excavations of Xiongnu material were conducted between 1896 and 1902 in Russian Buryatya by Yury Tal'ko-Gryntsevich. Although these excavations and descriptions did not meet modern scientific standards, they nevertheless constitute an important moment in Mongolian archaeology. The maps produced by

Tal'ko-Gryntsevich's expeditions have served as important references for subsequent archaeological surveys and excavations. He also produced the first drawing and detailed description of the surface structure of a royal Xiongnu square tomb (Tal'ko-Gryntsevich 1999). In 1912 a cemetery was identified and later excavated in 1924 at Noyon Uul in north central Mongolia by P.K. Kozlov. These excavations gained attention as a result of the large quantities of organic materials that were found. These had been preserved as a result of flooding and subsequent freezing of several tombs, which had created anaerobic environments similar to those found at Pazyryk in the Russian Altai (Rudenko 1969). Additional excavations were carried out in the 1930s by Voskreesenskii (1932) who described interments of the deceased in nested wooden structures draped with textiles, in which a great number of additional textiles and garments were recovered. World War II interrupted much of the pioneering archaeological work in Mongolia. It also acted as turning point in that in its aftermath and the resultant Cold War, research was conducted primarily by Russian and Mongolian researchers rather than international scholars. The Soviet period also saw the training of a new cadre of Mongolian archaeologists who came to the fore in the 1950s as Perlee and Dorsjuren returned to, and resumed, work at Noyon Uul (Merpert 1995). Their work in turn inspired and laid the groundwork for the next generation of Mongolian archaeologists who began to operate and publish in the 1970s (Navaan 1975; Tseveendorj 1980). These latter researchers, their students, and Russian colleagues can be said to have laid the foundation of present Xiongnu archaeological studies in Mongolia. They were also among the first scholars to direct their attention towards some of the less well known stone monuments that preceded the Xiongnu polity (see Tseveendorj 1989). Hence, the historical lineage of Xiongnu archaeology is

considerably longer than the majority of other archaeological enterprises in Mongolia. At the same time it is a lineage that is based on the original assessment by Tal'ko-Gryntzevich that square ramped tombs and accompanying ring tombs represent the Xiongnu mentioned in Chinese historical sources (Brosseder 2009).

Xiongnu mortuary monuments are dominated by two major tomb types, the circular ring tomb and the large square ramped tomb of the Xiongnu elite. Large tomb complexes of the Xiongnu elite have been documented in what has sometimes been argued to be the core of the Xiongnu confederacy in central Mongolia in the Khanuy River Valley and southern Siberia at Derestuy and Ivolga near Lake Baikal [2.10] (Rudenko 1969; Konovalov 1976; Miniaev and Sakharovskaia 2007a, 2007b). These were large, square mounds or terraces oriented north to south which were held together by stone walls that often bisected the structure, at right angles. In a number of cases the northern wall was slightly longer than the southern wall (Miniaev and Sakharovskaia 2007a; 2007b). An earthen ramp-like structure, often filled in and covered in stones, stretched out from the southern wall, but it is unclear whether or not this feature served as practical access to the tomb during funerary ritual or if it denoted a symbolic “funerary path” (Miller et al 2008). This ramp was, like the tomb itself, frequently cross-sectioned by additional perpendicular stone partitions. The ramp sloped gradually inward towards the center of the burial, but did not always reach the same depth as the burial pit, which further suggests that this feature was either symbolic or related to the construction of other parts of the burial (Miller et al 2008; Brosseder 2009).

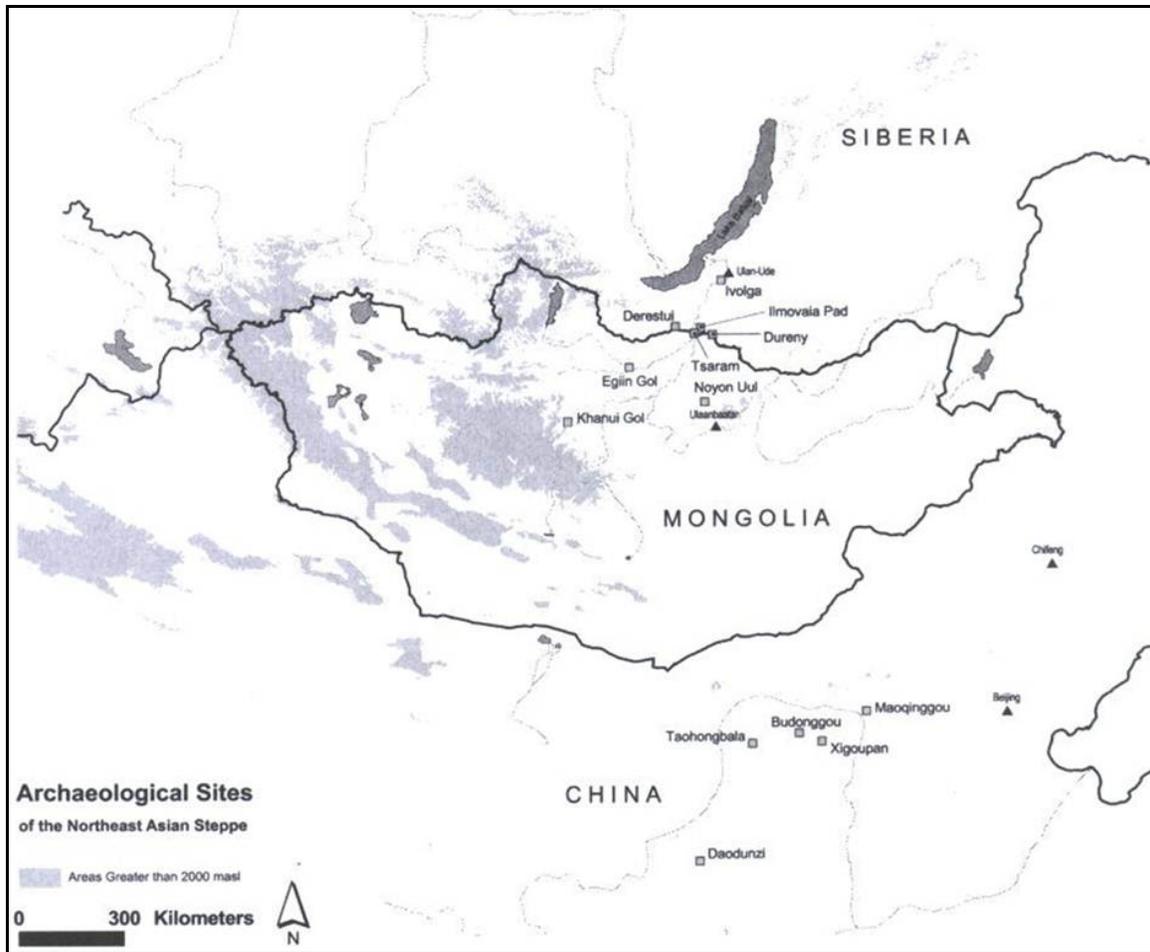


Figure 2.10 Map showing larger and well known Xiongnu cemetery sites (courtesy of W. Honeychurch).

A large number of these tombs were truly monumental structures [Fig 2.11] that could measure more than 25 meters in length and which were often accompanied by several satellite burials (Miniaev and Sakharovskaia 2002; Miller 2009). The superstructure covered a burial chamber that could be as deep as 18-24 meters containing a wooden coffin and a diverse mortuary assemblage. The burial shaft descended into a steep terraced pit with a varying number of compartments partitioned by horizontal layers of stones at the bottom of which was placed the coffin of the deceased. Many of the tombs excavated thus far all also exhibit layers of packed stone, wood, or vegetation that break the space above the coffin into separate sections. At Gol Mod some of the burial

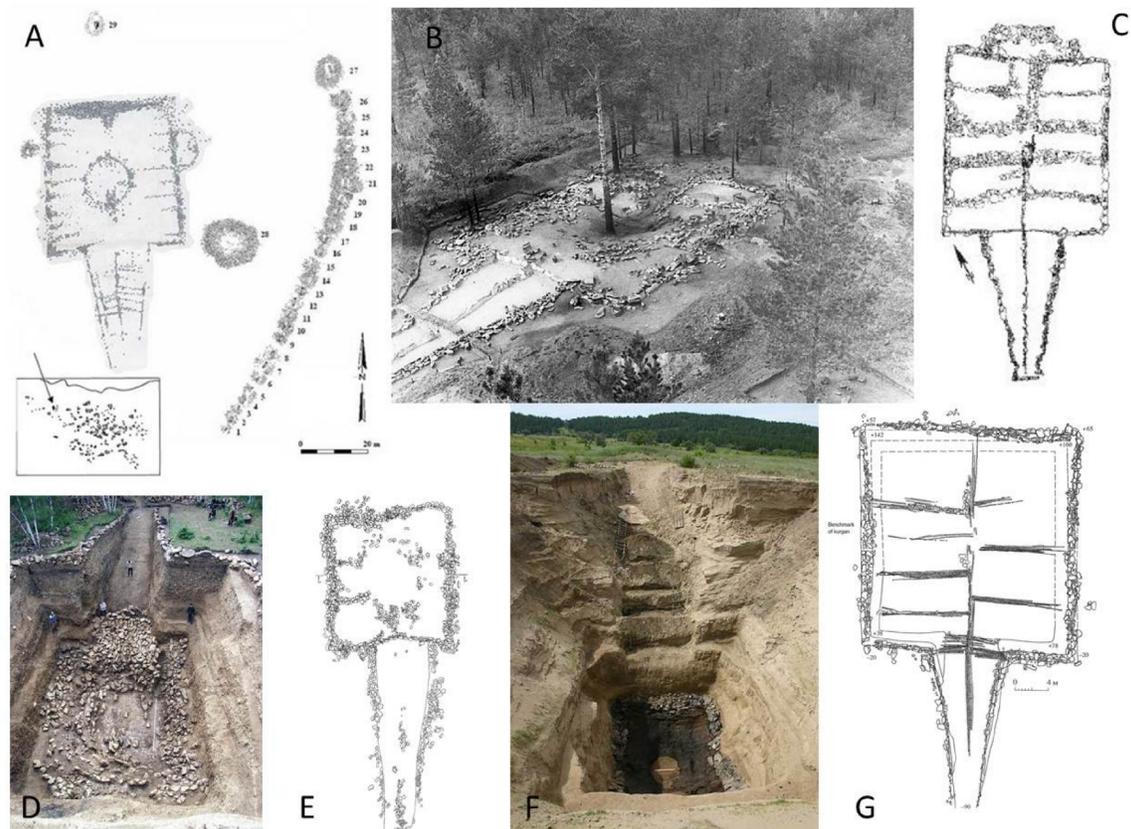


Figure 2.11 Square ramped tombs A) Gol Mod 2 (Miller et al. 2006); B) Kurgan 54 at Sudzha, Il'movaia Pad' (Konovalov 2008); C) Schematic of Kurgan 54 at Sudzha, Il'movaia Pad (Konovalov 2008); D) Kurgan 20 at Noyon Uul (Polos'mak et al. 2008); E) Schematic of Kurgan 20 at Noyon Uul (Polos'mak et al. 2008); Kurgan 7 at Tsaraam (Miniaev and Sakharovskaia 2007b); Schematic of Kurgan 7 at Tsaraam (Miniaev and Sakharovskaia 2007b).

pits are not stepped or terraced, but rather slope gradually inwards towards the center of the pit like a funnel. Ground penetrating radar has revealed similar cone shaped pit construction at other graves in the cemetery which have not yet been excavated (Desroches and Andrés 2007). A number of these tombs also contained a niche in the northern wall of the burial chamber which contained faunal remains. These typically consisted of crania of horses, goats, and cattle, but also cervical vertebrae, and the lower extremities of the legs (Miller et al 2008; Brosseder 2009). Faunal remains were also often present to the east of the coffin (Brosseder 2009).

The potential complexity of accompanying ritual behavior in the construction of these tombs is described by Konovalov (2008:30) at Il'movaia Pad where upon completion of the burial chamber and the interment of the body, the area above it was covered with pine cones, brush, and pine needles. Faunal remains had, as was typical, been placed at the northern section of the burial pit. The whole area had then been covered with an additional layer of vegetation and a thin layer of soil. This construction had subsequently been set on fire and been allowed to burn until it was naturally extinguished. Once the flames had burned out the pit was filled in, leaving a thick ash layer above the burial chamber. A similar feature of ash and charcoal including compressed birch bark, pine cones, and reeds was found at Tsaraam (Miniaev and Sakharovskaia 2007b). Burned features have also been found at Takhilt and near the surface of the largest square tomb at Gol Mod-2⁶ (Miller et al. 2008; Miller personal communication).

The funerary assemblages of these tombs are quite diverse and can include bronze vessels, beads, gold, quatrefoil lattice studded coffin constructions, ceramics, lacquered vessels, horse trappings, and various textiles. Two particular types of objects warrant further discussion. Chinese chariots have been recovered from tombs at Noyon Uul, Gol Mod, and Tsaraam (Andre 2007; Miniaev and Sakharovskaia 2007b; Polos'mak 2008). These were placed in the burial chamber some distance above the coffin level. In both tombs T1 and T20 at Gol Mod the chariots were interred disassembled (André 2007) and in the case of the former not the entire chariot was interred. Although looting activity has

⁶ The layer of ash at Gol Mod-2 is found near the surface of the tomb among the construction of the superstructure. The current interpretation of this layer is that it represents a desecration event associated with an incursion in later periods of a foreign element (Miller personal communication). However, without corroborative C14 dates it is difficult to rule out similar ritual conflagration at the site similar to that at Takhilt and Il'movaia Pad, Tsaram even if this layer is located near the surface.

disrupted burial 7 at Tsaraam the chariot included in that burial also appears to have been disassembled and incomplete at the time of its interment [Fig. 2.12] (Miniaev and Sakharovskaia 2007b). The prevalence of looting activities presents problems in

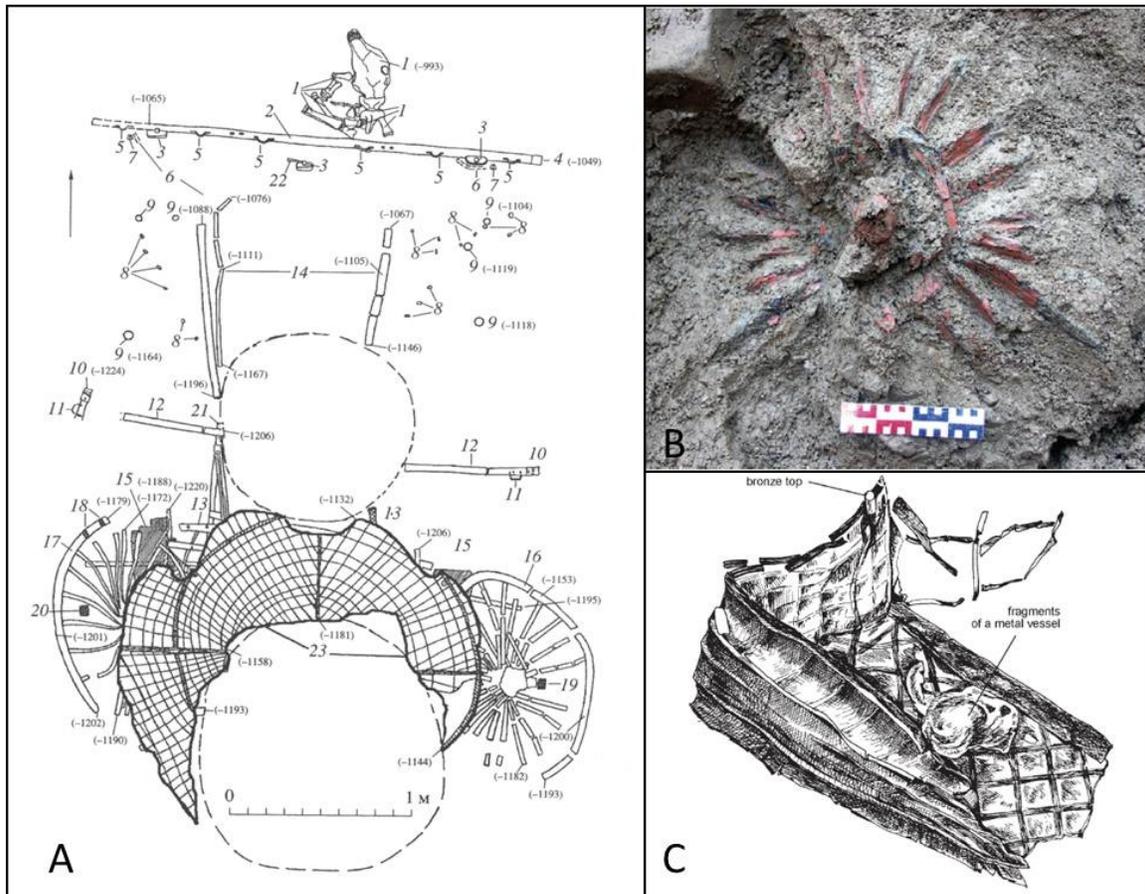


Figure 2.12 Chinese chariots in Xiongnu square ramped tombs; A) Kurgan 7 at Tsaraam (Miniaev and Sakharovskaia 2007a); B) Kurgan 20 at Noyon Uul (Polos'mak et al 2008); C) Partial reconstruction of chariot in kurgan 20 at Noyon Uul (Polos'mak et al. 2008).

interpretation since disruption and subsequent destruction results in incomplete inventories, but the disassembled condition of these chariots speaks to intentional fragmentation before or during deposition. Fragmentation is further evident in the case of bronze mirrors, most of them Chinese, which have been found in tombs 7 at Tsaraam, T1 and T20 at Gol Mod, T2 at Durlig Nars, K25 at Noyon Uul, Gol Mod 2, and Il'movaia Pad (Tal'ko Gryntsevich 1999; Miller et al. 2006; Miniaev and Sakharovskaia 2007b;

Konovalov 2008; Brosseder 2009). None of these mirrors have been found intact. At Tsaraam the bronze mirror, consisting of ten fragments that when cross-mended render the object incomplete, had been subjected to thermal action to enable its fragmentation (Miniaev and Sakharovskaia 2007b). The vast majority of mirrors found in Xiongnu mortuary contexts are found fragmented and incomplete suggesting a specific treatment for this object type during funerary ritual and deposition. The only mirror types found intact are Central Asian in origin further suggesting a differential treatment in mortuary ritual between foreign and domestic objects of the same variety (Miller 2009). The deliberate disassembly and fragmentation of chariots and bronze mirrors, both object types foreign in origin, adds a dimension to Xiongnu mortuary practices not seen in Mongolia prior to this time.

The square ramped tombs are only found in select locales in Mongolia and southern Siberia. However, when they do occur they are often found in large numbers. Notable locations are Gol Mod, and Gol Mod-2 in the Arkhangai Province of central Mongolia, both of which were investigated by Dorsjuren in the 1950s. Il'movaia Pad and Tsaraam in southern Siberia near Ulan Ude, Takhiltin Khotgor near Khovd in western Mongolia, Noyon Uul in north central Mongolia, and Duurlig Nars and Bor Bulag in eastern Mongolia. Gol Mod-2, in the Arkhangai province lies just 12 kilometers to the west of the Khanuy River Valley and 15 kilometers from Urt Bulagyn. This is an impressive cemetery containing 98 square ramped tombs across an area measuring 2.2 by 1.3 kilometers (Allard et al. 2002). Gol Mod-2 is also the site of the largest square ramped tomb found to date, measuring a total of 83 meters in length with a platform 3 meters high and measuring 46 meters in length with the visible portion of the ramp

extending 37 meters towards the south. Gol Mod-2 also features 335 circular burials with 250 of these acting as satellite burials for the larger square ramped tombs. These satellite burials often extend in an arc on the eastern side of the tomb with the size of the ring of the superstructure decreasing from north to south along the arc [Fig. 2.13] (Allard et al. 2002; Miller et al. 2004). Approximately 60 kilometers to the northeast, lies Gol Mod, another large cemetery comprised of a total of 393 in three clusters, of which roughly half are square ramped burials (Descroches and André 2009). The aforementioned cemetery at Noyon Uul, contains 212 burials arranged in separate western and eastern sections, but the vast majority of these burials are the circular ring tombs rather than the square ramped tombs (Rudenko 1969; Polos'mak et al. 2008). At Il'movaia Pad in Buryatia, square tombs are also outnumbered by circular ring tombs where the latter seems to dominate towards the cemetery's southeastern edge. The same is not true at Durlig Naars and Bor Bulag where square ramped tombs are more prevalent than circular tombs. Takhiltyn Khotgor in western Mongolia exhibits an even number of square ramped tombs to circular ring tombs which are all arranged in clustered groups (Miller et al. 2009).

A discernable pattern across all these sites is that square Xiongnu tombs typically occur in larger cemetery sites that also include smaller burial types of the ring tomb variety. Only 20 square ramped tombs have been excavated to date, which represents a very small overall sample given the total number of these tombs found at sites mentioned

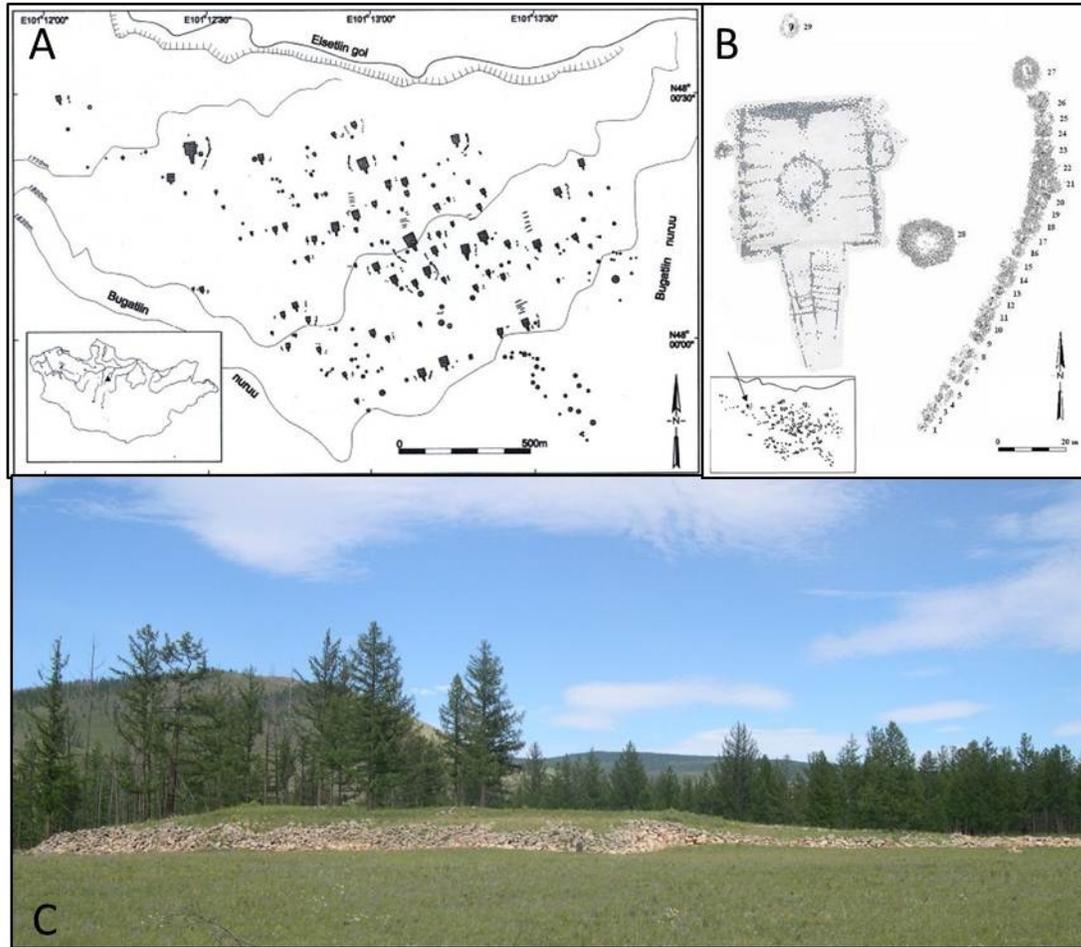


Figure 2.13 Gol Mod 2; A) Layout of cemetery (Miller et al. 2006); B) Site plan of burial 1 at Gol Mod 2 showing arc of satellite ring tomb burials (Miller et al. 2006); C) Burial 1 at Gol Mod 2.

above. The interpretation of this small sample is also hampered by an uneven publication of data (Brosseder 2009). Reports from the mid-20th century or earlier typically contain less information than those published in the last few decades, but in the case of some of these more recent studies, full reports of the excavations are still pending. Nevertheless, enough information exists with which to formulate a general understanding of tomb construction and funerary assemblage. As a result of the monumentality of some square ramped tombs and the wealth and diversity of their funerary assemblages they have been

labeled elite Xiongnu tombs and occasionally attributed to *chanyu*⁷ leaders (Miniaev and Sakharovskaia 2007a; Polos'mak et al. 2008). This assessment is of course very likely for at least some of these tombs, but it should be noted that square ramped tombs number in the hundreds across Mongolia and Siberia, which raises serious questions about what we mean by “elite” (see Brosseder 2009). I will return to the question of designating these burials elite in the discussion below.

Xiongnu Ring Tombs

In spite of their relatively high frequency at the aforementioned localities, square ramped tombs are the exception rather than the norm in Mongolia and southern Siberia and are certainly not representative of the majority of the overall population. Instead another monument type, the Xiongnu ring tomb, came to replace khirigsuurs and slab burials throughout Mongolia. These graves are marked on the surface by a broad band of stones ranging between 4 and 10 meters in diameter that cover a burial shaft that ranges in depth from one to three meters [2.14]. The grave was almost always oriented north-south and the body was placed in a supine position with the head to the north (Torbat 2004). The burial sometimes included a coffin, a stone lined pit, or a combination of both. Xiongnu tombs typically occur in clusters or larger cemeteries, although single occurrences are known (Miller 2009) and lack the visual prominence of khirigsuurs and slab burials (Honeychurch 2004; Wright 2006). In fact, relatively little investment appears to have been made in the superstructure of these monuments and instead a great

⁷ The term *chanyu* derives from Chinese historical texts and refers to the uppermost leadership position in the Xiongnu polity, which is further described as being hereditary.



Figure 2.14 Xiongnu ring tomb at Alag Tolgoi at BGC. Note the low visibility of the ring tombs in the background that have not been cleared.

deal of resources were spent on the funerary assemblage itself. Xiongnu tombs typically include extensive mortuary assemblages consisting of ceramics, faunal remains, bone-plate bows, semi-precious stones and metals, beads, and imported long-distance luxury goods from China, Central Asia, and the Middle East. Chinese bronze mirrors are occasionally found in ring tombs as well and then also in a deliberately fragmentary state thus following the same pattern seen in the squared tombs. The inclusion of faunal remains also mirrors the larger square tombs in their placement in the northern section of the burial, often outside the actual burial chamber, or to the east (Torbat et al. 2003). Osteological elements typically included crania and leg bones with proximal long bones and the innominate being relatively rare occurrences. Ceramic vessels were often placed near or among these faunal inclusions and sometimes included chopsticks. Lacquered

vessels, birch bark objects, and textiles were also commonly included in Xiongnu circular tombs, but due to taphonomic processes they are only rarely recovered archaeologically. Ring tombs occur throughout Mongolia and are more often than not found independently of the square ramped tombs. When found in cemeteries with the latter, ring tombs occur both as satellite burials and as independent burials in their own right (Allard et al. 2002; Miller et al 2006). Almost a hundred different cemetery sites containing ring tombs have been identified and excavated, at least partially (Miller 2009). In spite of this, less than half have resulted in published reports. Attention has primarily been directed at ring tombs in the larger cemeteries mentioned above or at larger aggregates of tombs⁸ such as Egiin Gol and Derestuy. These latter two locales represent some of the most well studied Xiongnu cemeteries and constitute a substantial portion of collected research on this monument type (Torbat et al. 2003; Torbat 2004; Miniaev 1998). The cemetery at Egiin Gol, consisting of over 100 burials, has been excavated in its entirety and represents ring tombs spanning 500 years from the 3rd century BC to the 2nd century AD and thus offers the opportunity to investigate Xiongnu mortuary practices diachronically (Torbat et al. 2003; Honeychurch 2004; Honeychurch et al. 2007). The Egiin Gol cemetery has also been included in broader surveys of the Egiin Gol River Valley (Honeychurch 2004; Wright 2006), which has made possible the investigation local social relationships (see Honeychurch et al 2007). Derestuy is also comprised of over a hundred burials, but does not benefit from having been incorporated into a regional survey the way Egiin Gol has. Nevertheless the site has yielded invaluable information both from the fact that it too has

⁸ Notable exceptions to this are the excavations conducted at BGC and Shombuuziin belchir, which have focused on smaller clusters of graves. At Egiin Gol in northern Mongolia a number of smaller tomb clusters have also been reported and excavated (Honeychurch 2004; Torbat 2003; 2004; Wright 2006).

been excavated in its entirety, but also because of its proximity to other well studied sites such as Ivolga, which thus provides good comparative data of Xiongnu mortuary practice in an area which may be associated with the core of the polity.

BGC thus represents another location in Mongolia where Xiongnu cemeteries are present. Importantly there are no square ramped tombs in the research area, which is itself geographically distant from sites where these occur or areas traditionally associated with the political core of the Xiongnu polity. In addition all the monuments described in this chapter co-occur at BGC, which makes possible a diachronic study of mortuary practices in the area from the Late Bronze Age through the Xiongnu period. BGC thus denotes an important locale in which to investigate the relationships between these various monuments and how these are affected by the appearance of the Xiongnu polity elsewhere in Mongolia.

Chapter 3

Landscapes and Monuments

Introduction

Khirigsuurs, slab burials, Xiongnu tombs and other stone features of the Mongolian Late Bronze-Iron Age can be said to constitute a landscape of mortuary stone monuments. Landscapes have been used in archaeology as heuristic devices to infer social practices and social structures through human use and understanding of place and space. This dissertation uses a landscape approach that synthesizes spatial data collected from archaeological survey to assess landscape use and conception of space. Since the majority of the sites in the research area constitute elite⁹ funerary monuments and since mortuary assemblages are by nature symbolic, these assemblages enable an assessment of socio-political ideologies on display in funerary practice. In this chapter I describe what I mean by mortuary landscapes, how this approach is useful in analyzing changing mortuary practice during this period, and how I situate my research in a broader body of

⁹ The term “elite” is quite nebulous and it is sometimes unclear what it is meant to connote in the context of Xiongnu archaeology. This is a question that has already been raised by Brosseder (2009) and Miller (2009) in regard to the larger square ramped tombs discussed above, but the same question is warranted for Xiongnu ring tombs as well as khirigsuurs, slab burials, and other Bronze Age monuments. Here, I take the position that these latter monument types were built for people who in some way were considered elite, or at least distinct from, the rest of the population. As I will explain below in chapter 4 and 8, there are simply too few monuments in each category to be representative of a genetically sustainable, living population in the research area. That being said, I am not making a generalized claim that *all* Xiongnu ring tombs, khirigsuurs, or slab burials are “elite” across Mongolia and maintain that concepts of status or rank need to be further explored in this part of the world. At BGC, however, these monuments are simply too few in number to be regarded as belonging to the entirety of the population.

archaeological theory of landscapes. Stone monuments are the principal components, or units of analysis, in the landscape that makes up the research area at BGC. I will consequently center my discussion of landscapes around mortuary monuments and how these act as vehicles to convey politically oriented information and ideologies and how they can be used strategically to create, alter, or disrupt social memories. I approach monuments as mediums for social memory and how commemorative practices can transmit information to subsequent generations.

Landscape Paradigms in Archaeology

Over the last few decades landscape archaeology has become a major theoretical focus of archaeological inquiry (Binford 1982; Ashmore and Knapp 1999; Redman 1999; Anschuetz et al 2001). The initial inspiration for exploring archaeological landscapes can be found in the early aerial photography of the English countryside and surface surveys that focused on human impact and material impressions on the natural landscape (e.g. Fox 1923). Gordon Willey and (1956) and Robert Adams (1965) built on this concept and situated their analysis of settlement patterns around the relationship between human activities and the environment. Based on a historical trajectory from these initial studies one can broadly identify two schools of theoretical thought on landscapes that have shaped archaeological discourse in recent years (Joyce 2009). The first is an ecological tradition that takes an adaptationist perspective that emphasizes human-environmental relationships. This school of archaeological thought has its roots in “New Archaeology” and emphasizes human ecological relationships as factors in the evolution of human societies (see Sanders et al. 1979). Common themes underscored by ecological

approaches involve how different environments impact human subsistence practices, households, economies, and socio-political hierarchies (e.g., Adams and Nissen 1972; Binford 1982; Redman 1999; Billman and Feinman 1999). Ecological approaches to landscapes have been useful in delineating long-term land use, the environmental impact of human action, and the recursivity between human behavior and the natural environment (Fischer 2009). More recent examples of ecological models emphasize the dynamic interplay between humans and their environment. Hastorf (2009), for example, has demonstrated how agricultural technology and land use in the Andes can serve as metaphor for state power through imbedded political and ritual messages.

The other major tradition that also grows out of Willey and Adam's settlement analyses is a symbolic approach which emphasizes the social, political, and symbolic dimensions of landscapes, including distinctions between the "built" and "natural" environment¹⁰. This symbolic paradigm particularly gained traction in the 1990s with the growing body of literature on social process and agent-centered models (Yoffee 1993; Richards and Van Buren 2000; Ashmore 2002). Research questions that are central to this approach include the creation of sacred places, the connection between identity and place, and how changing political relationships can transform landscapes over time (Crumley and Marquardt 1987; Ashmore 1991; Gillespie 1991; Snead 1995; Joyce 2000). There is an implicit connection between symbolic landscape approaches and post-structuralist theories of Giddens and Bourdieu (Joyce 2009). By recognizing that

¹⁰ These distinctions can be traced to the conceptual image of landscape in the English sense of the word, which finds its origins in the Romantic Movement and 16th century painters' depiction of scenery (see Falconer and Redman 2009). In Dutch the term *landschap* denotes a defined piece of land, but when transcribed into English the word *landscape* intimates a human representation of land. Therefore, landscape always carries with it a connotation of land in the physical sense, but also in the sense that it has been shaped by people and exists in the minds of those people.

landscapes often result from human ritual activity and the latter's connection to social structure and *habitus*, landscapes become reflections of broader social configurations that can carry a range of meanings involving hierarchy, gender, age, life and death, and identity.

Within these two broad paradigms one can further distinguish three categories of topical emphasis. The first category concerns human relations to nature or the environment in general (Binford, 1980; Butzer, 1982; Hodder, 1990; Grant, 1995; McGlade, 1995; Jones, 1998; Spikins, 2000). These typically consider natural vs. cultural spaces or human response to environmental change. The second category focuses on the use of space and place to understand relationships between different groups of people, to identify group boundaries, and explore issues of territoriality (Renfrew, 1973; Richards, 1993; Thomas, 1993; Tilley, 1994; Zvelebil, 1993; Barrett, 1994; Fraser, 1998; Fleming, 1999; Gartner, 1999; Chapman 2000). Finally, the third category uses landscapes and the use of place to hypothesize about how the people who used and produced those landscapes viewed themselves and their place in the world (Tilley, 1994, 2004; Llobera 1996, 2001 Richards 1996; Artelius, 1999; Fleming, 1999). Ecological paradigms have been criticized for not adequately addressing or effectively engaging in an analysis of social change (Brumfiel 1992). Symbolic models have also been criticized for swinging the pendulum too far away from ecology and ignoring valuable lessons learned from earlier ecosystems based research (Fischer 2009). Algaze (2001:199) has argued that too much emphasis on symbolic aspects of human behavior results in "social process viewed in a vacuum that is tantamount to social determinism." Understanding that characterizing approaches to landscapes as ecological and symbolic

traditions constitutes generalized and essentialized categories and that there are a range of very diverse perspectives on the topic of landscapes represented by each approach (see Sanders and Nichols 1988; Blanton 1990) as well as commonalities between these perspectives (Crumley 1994) I nevertheless favor an approach that is more aligned with viewing landscapes as created and symbolic spaces. This is because the landscape under investigation involves mortuary stone monuments and is therefore, by default, connected to ritual, symbolic expressions of identity, and sacred places. Mortuary monuments are not created as byproducts of other behaviors, but are instead deliberate constructs resulting from premeditated choices and actions. Therefore an ecological approach is not suitable as a basis for engaging the landscape at BGC because it has not been produced as a result of humans interacting with their environment for subsistence or economic exploitation, but rather through deliberate choices within a topographical environment that pertain to human symbolic expression. I am also cautious about adopting models from human ecology that deal with human-environment interaction to avoid evolutionist perspectives that can often misrepresent nomadic pastoralists, especially in regard to their ability to form lasting and complex political polities.

Pastoral Landscapes and the Essentialized Nomad

Sneath (2007) has recently demonstrated how evolutionist models of interpreting nomadic pastoralists have resulted in the depiction of nomads as forming monolithic, mobile, timeless, tribal societies in which emergence of state society has to be explained away by these groups' association and contact with urban, sedentary, and agricultural societies on their borders. Barfield's concept of the "shadow empires" in which Central

Asian polities wax and wane in tandem with the formation and collapse of Chinese dynasties is but one example of such depictions (Barfield 1981; 1989; 2001). Common misconceptions have been that nomadic pastoralist societies are organized around kinship based structures or tribes (e.g. Evans-Pritchard 1940; Goldschmidt 1965; Barth et al. 1969; Spooner 1969). A number of these misconceptions have been disassembled by Sneath who demonstrates that pastoralists organize themselves around a diverse set of principles and that the very concept of tribe is one that has been formulated and superimposed by contemporary Western and Russian researchers (Sneath 2007). Many Central Asian pastoralist groups exhibit aristocratic orders that are reminiscent of modern bureaucratic industrial states in which permanent power relations are invariably present. Among Central Asian nomads the relationship between aristocratic and common orders acted to produce substrata of power that were structured variously according to historical contingencies (i.e. different historical nomadic polities). Sneath argues that through an analysis of these substrata one is confronted with power structures that exhibit the same strategies and characteristics as those of centralized settled states, such as military conscription, taxation, territoriality, corvee labor, and socio-political stratification. These were, according to Sneath, always present on the local level regardless of political centralization (Sneath 2007). Hence, distinctions between state-organized or state-less society become meaningless as centralization on the steppes can instead be viewed as a matter of scale rather than functionary or discreet difference in power relationships. The existence of these substrata in Central Asian societies, which in turn make large scale centralization possible, constitutes what Sneath calls “the headless state” since virtually

all aspects of the state exists on the local level independent of the existence of a central bureaucratic authority (2007:5).

Unrelated, but equally important, has been evolutionary ecology's environmentally deterministic connection between pastoralism and mobility. Nomadic pastoralism emerged as an ideal type of human subsistence strategy that relied on animal husbandry foddered by grasslands, which in turn requires spatial mobility (Dyson-Hudson and Dyson-Hudson 1980). Goldschmidt (1979:19) argued that because nomadic pastoralists are constrained by their mobility, which in turn is determined by subsistence, there will be, "certain degrees of homogeneity in the general character of the societies." Among these degrees of homogeneity Goldschmidt then listed segmented patrilineality, contractual clientship, and transhumance, which subsequently were condensed and simplified as characteristics of social adaptations to specific subsistence strategies and livelihood. The intention behind these were to offer generalized rules by which to interpret human behavior based on human-environment relationships, in particular, subsistence strategies. Two persistent characteristics were that nomads were highly mobile and largely egalitarian, both traits that were argued to discourage or prevent centralization and social stratification (Irons 1979; Dahl 1979; Burnham 1979). Various explanations have been put forth for why mobile herding should result in egalitarian political structures or why socio-political stratification could only be ephemeral. Several assumptions have been applied such as herding is household based and therefore constrained by the number of people who could oversee the herd (Dahl 1979). Household herding would also require geographic dispersal of herds to maximize production and avoid territorial disputes. In such scenarios property based stratification

would be unfeasible since property was based on herd size, which itself was constrained by environmental conditions in semi-arid milieus and by the number of family members available to manage the herd. Property based relationships and hierarchies thus could not form in nomadic societies because property was household based and therefore any property that exceeded management on the household level would be redistributed to families that were less well off (Dahl 1979). The underlying assumption here is of course, and follows the ideal type of nomadic society, that nomadic pastoralists are by default egalitarian. Another assumption is that herding can only be practiced on the household level and that corporate strategies would be discouraged because, again, nomadic pastoralists are intrinsically egalitarian. Therefore, no other alternatives can be available and property based hierarchies beyond the household level cannot develop. There is also a flawed assumption that livestock constitutes the only source of wealth in pastoral societies. One could only imagine the objection if a similar argument was leveled at agricultural societies to argue that the only viable source of wealth or commodity is their crops. However, I think such an analogy reveals exactly how idealized and essentialized the concept of nomadic pastoralism becomes in ecology-centered paradigms.

Mobility has also been proposed to counteract the formation of socio-political hierarchies among pastoralists. As Burnham (1979) has argued, mobility can be used strategically to minimize a central authority's ability to control people and resources because a mobile agent can avoid socio-political coercion through movement by moving away. However, such "movement-for-freedom" is contingent that those in control are not equally mobile in which case an individual is as constrained as any sedentary agent

would be. As Sneath (2007) has pointed out, Burnham's research was conducted among African pastoralists and his observations may very well be accurate in his research area. The application of these observations to pastoral societies elsewhere is an altogether different matter however, and when attributed to Eurasian or Middle Eastern pastoralists constitutes a perpetuation of an ideal type of nomadic pastoralism. Various scholars have criticized the generalization of nomadic subsistence practices into such an ideal type of nomadic pastoralist (Asad 1979; Dyson-Hudson and Dyson-Hudson 1980). More recent ethnographic research on nomadic pastoralists has avoided ideal types and ascribing observations in one area to pastoralists in other parts of the world (Smith 1992, 2005; McCabe and Fratkin 1994). In spite of this, adopting ecological models to mortuary landscapes in Mongolia is problematic because the impact of subsistence strategies on mortuary practice and mortuary monuments constitutes an unknown variable. Large, complex, stone monuments have been produced across the world by people practicing a range of different subsistence strategies. This includes impressive monuments and earthworks like Stone Henge, itself a product of a pastoral society (Parker Pearson 2008). A range of Bronze and Early Iron Age northern European stone monuments are also attributed to pastoralist and agro-pastoralists with varying degrees of mobility (Sherratt 1997; Thurston 2001). As a result, it becomes difficult to discern qualitative and functional differences in monuments based on the subsistence and/or mobility of their creators. Another problem that results from ecological models is a conceptual one that links residential mobility to understandings of place. Humphrey (1997) has argued that for pastoralists in Mongolia, *place* is wherever they happen to be. It is wherever people decide to pitch their tents and thus their world is perceived as a romanticized and ever-

shifting sphere in which there is never any actual sense of place. Similarly, transhumant populations have elsewhere been argued to have a bi-nodal understanding of *place* that is connected to their seasonal and semi-permanent habitation areas (Field 2009). It seems to me, however, that both Field and Humphrey are conflating *place* with *home*. Humans create and travel through many types of space and conceive of places that have nothing to do with residence or a notion of home. Emphasizing place as referring to residential spaces unnecessarily constrains discussion of other types of place that can be equally important to a group, mobile or not, and their understandings of landscape. This point can be further illustrated in Mongolia. Mongolia is comprised of a number of ecological zones and locational variables in pasture, rainfall, and aridity. Across these varied ecologies transhumant practices and residential mobility strategies are diverse. In the rich Khanuy Valley herders move back and forth between summer camps near the river and winter camps in the foothills of the valley across an average distance of four to six kilometers. Preliminary research on Bronze Age habitation sites in the area has revealed that similar transhumant mobility patterns were practiced during that period (Houle 2010). However, in more arid regions such as the north Gobi or more seasonally variable areas in the Altai foothills in western Mongolia seasonal movements can involve distances of 50-100 kilometers or more. This, of course, does not mean that each area is comprised of a different type of Mongol that is quantifiably and qualitatively different from Mongols elsewhere in other parts of the country. In other words, mobility need not have a significant influence over, or impact on, other aspects culture or ideas about places in the landscape. In spite of varying degrees of mobility, Mongols maintain very similar belief systems and ideas about livestock, identity, and their place in the world.

Ovoos, large mounds built to mark important places in the landscape, are still constructed throughout Mongolia and their meaning and connotation does not change as a result of each family's range of mobility. For these reasons I am hesitant to adopt ecological models as hermeneutic paradigms to investigate distinctly symbolic constructs and landscapes. That is not to say that they do not constitute important avenues of investigation, especially for future research, but rather that at the outset of an analysis of changing mortuary practices it is vital to establish the parameters of what is actually changing. That centers the research squarely on the mortuary monuments themselves and associated activities, and they are unambiguously, first and foremost, ritual and symbolic constructs.

Mortuary Landscapes

In line with a symbolic approach, I adopt Hood's (1996) concept of a cultural landscape in which landscapes are created through action and perception and are imbued with meaning through a range of historical contexts. In a cultural landscape, "whatever the objective or functional organization of space within a society might mean in terms of rational economic models, this same spatial organization will have cultural meaning that is not necessarily reducible to function" (Hood 1996:123). The notion of a cultural landscape also makes explicit that ascribing significance to a landscape or a particular set of features or constellations within a topographic area is never self-evident, but always culturally constructed (Hirsch 1995). There is thus a dual aspect to interpreting cultural landscapes which includes the meaning and import placed on specific features within that landscape by the people who constructed it and the perception and impression of those

features by people viewing that landscape today. Monuments are durable in that they often outlive the society that created them (Schreiber 2009). Therefore, an integral component to understanding diachronic landscapes, those produced over a long period of time by a range of different societies, is the role of social memory and how people in later societies experienced those landscapes, assigned meaning to them, and made physical use of them (Bradley 2002). Khirigsuurs were already part of the landscape as it existed to the people who built slab burials and those who later built Xiongnu ring tombs. This is parallel to Bronze Age monuments in Europe, which endured to become “Iron Age” monuments where they continued as distinguishable elements of the Iron Age landscape and were presumably recognized and incorporated into an understanding of that landscape (Barrett 1999:258). It is thus important to recognize that monuments in a landscape constitute more than different types or categories of monuments. This is particularly apropos in circumstances in which landscapes are transformed in the way they are in both the European and Mongolian Bronze and Iron Age. For each generation would have been confronted with the accumulated cultural landscape of previous generations and would have had to contextualize their choices and activities against the backdrop of the world they inhabited. Therefore, as Barrett (1999) points out, Iron Age monuments, or in the case of the materials in this dissertation, Xiongnu tombs, could only have developed via an interpretation or contextualization by their creators of their own landscape heritage. From this perspective the transformation of landscapes involves inhabitants’ ability to reference other times and other places imbedded in that landscape while creating their own material narratives and social memories that they too inscribe on the landscape. A study of Xiongnu ring tombs thus necessitates a study of preceding

monuments to assess in what way the former are situated in the context of what existed before them. Social memory is an essential element in this process and one that should be underscored by the fact that the landscapes discussed in this dissertation are comprised almost exclusively of mortuary stone monuments. What are funerary activities if not overt acts of social memory and commemoration? In light of this I want to center the concept of cultural landscape to concentrate specifically on mortuary landscapes. Mortuary landscapes are distinctive in that they are invariably, and often deliberately, imbued with social memory. Studying mortuary practices as landscapes is useful since memory and commemoration are closely connected to place (Nora 1989; Van Dyke and Alcock 2003). Funerary activities represent opportunities to commemorate the dead, but also for the living to reify or transform social norms, relationships, and identities (Metcalf 1991; Parker Pearson 1999). As such, a landscape that involves change in mortuary monuments represents transformations in how people choose to inscribe memory and commemoration through communal acts. Therefore, I view landscapes of mortuary stone monuments as forming constellations of commemorative acts where monuments function as media of memory creation and remembrance.

Social Memory and Mortuary Practice

It has only been relatively recently that archaeologists have begun in earnest to explore the significance of social memory in the creation of the archaeological record (Barrett 1999; Williams 2003; Van Dyke and Alcock 2003). Emphasizing social memory in the creation of mortuary landscapes is important for the reasons mentioned above, namely that the creators of monuments inhabit landscapes populated by monuments from

preceding generations against which they produce and contextualize their own. The creation of social memory can involve attempts to link individuals, past and present, with ancestors in a remembered past, or it can involve imagined or claimed connections to a vague or imagined mythological past, which may be based on a reinterpretation or appropriation of existing monuments in the landscape (Gosden and Lock 1998; Meskell 2003). Social memory also forms an important facet in the creation, maintenance, and support of both individual and communal identities (Basso 1996). These are important factors to take into account in Mongolia where mortuary monuments are often associated with leadership, albeit at different levels of authority. Changes in mortuary practice in the context of leadership add another dimension where the creation of memory becomes politically oriented and can involve the manipulation of symbols and visual ideology for socio-political ends. It is this angle that I will focus on in this dissertation. The landscape at BGC is comprised of monuments built to commemorate particular individuals in society and the construction of those monuments provided an opportunity for the living to inscribe those individuals into an existing political landscape of mortuary monuments. In doing so they made conscious choices that affected the placement of those monuments and how they were experienced by the living in the landscape of which they became a part. Monuments constituted individual parts of an evolving landscape that commemorated leadership, but which also necessitated that subsequent leaders and communities respond and relate to them in order to situate and contextualize their own mortuary traditions. An important aspect of this process involves not only the creation of memory and the manipulation of material symbols and ideologies, but the obliteration of other memories and the active attempt to forget previous acts of commemoration.

Landscape Clearance and Social Memory

A number of scholars have demonstrated the importance of “clearance” or the abandonment of places (Smith and Gazin-Schwartz et al. 2008). The way in which people abandoned their places is as important as the activities they were involved with while they lived in or constructed them (Orser, 2005:47). There are a number of studies that deal with empty places and explaining how landscapes are “cleared” through either abandonment or emptying (e.g. Cameron and Tomka 1993; Cunliff 2000). Abandonment, expulsion, and avoidance are the most commonly invoked causes for how landscapes become empty or vacant (Gazin-Schwartz 2008). Abandonment involves the leaving of a place as a result of environmental or social changes. The key component of abandonment as described by Gazin-Schwartz (2008:30) is in the locus of decision-making in determining the reason to leave. Abandonment is a direct and deliberate decision arrived at by a particular group of people in response to perceived problems or complications. The decision to abandon a place can be made by individuals, families, households, or communities and the decision may be contested at various levels in a variety of institutions. The decision itself, however, is autonomous in that it is arrived at by the people doing the abandoning and as such is not imposed by others. This is true even if the decision to abandon results from external pressures, because ultimately the choice to abandon or stay is made by the people confronted with that option. Expulsion represents the opposite side of this process of abandonment in that it is the product of conflict or dispute that culminates in people’s loss of rights to land and space. Expulsion involves a restriction of choices that makes departure the only viable option. For people being expelled the choice may be experienced as one between life and death and not as

choices about how to live (Gazin-Schwartz 2008:31). Expulsion also implies legal or coercive power, which further constrains the response by those who are evicted and their ability to resist. The aspect that sets this apart from abandonment is that the locus of decision making is external to the community that is being expelled. Abandonment and expulsion are thus actions that are defined through agency. Avoidance represents another cause for landscapes becoming empty that results from ideological beliefs about features or places in the landscape that prohibits or restricts their use. Landscapes may be avoided because they have become associated with disease or death where eschewal is a means of self-preservation. Landscapes may also be imbued with natural as well as supernatural forces that need to be circumvented or temporarily left alone. Avoidance usually involves rules about access to specific places where access could be limited, available to select individuals, or altogether restricted. While the reasons for avoidance are found in ideology and social directives, the locus of decision making can be both restricted to individuals vested with authority or available to any member of society. In either case individuals have some agency regarding whether or not they should adhere to the rules that is inversely proportional to the authority of the decision-makers (Gazin-Schwartz 2008).

Most studies emphasizing cleared landscapes focus on habitation sites (Bender and Winer 2001; Orser, 2005; Read 2008). I would like to extend this concept to include the “clearing” of places for the dead or, more specifically, mortuary monuments and accompanying symbolic narratives. Mortuary landscapes are not directly lived places and in a way are static and permanent. Nevertheless the concept of clearance can be applied in that people constructing monuments can be compelled for various reasons to

alter the repertoire that goes into building them. Changes in mortuary landscapes need to be explained in the context of loci of decision making. Why were slab burials replaced with Xiongnu ring-tombs? Did this involve an expulsion of peoples per culture-historical explanations proposed by Tsybiktarov (2003)? Or does the end of slab burial construction represent an abandonment of that practice in the face of an emergent Xiongnu polity? In either case, the locus of decision-making is essential to elucidating this process. In this view mortuary landscapes can be abandoned because the builders of a particular monument type decide to stop building them. Similarly there can be an expulsion of certain monuments caused by an external agent or authority that prohibits their construction. This process can also involve desecration and the destruction of monuments. Mortuary landscapes can also be avoided where certain localities are not suitable places for certain monuments because of their association with other monuments and/or other features or qualities in the landscape. In this sense the notion of emptied landscapes can be applied to mortuary landscapes as well, albeit the agents are not people, but rather cognitive constructs manifested in the creation of stone monuments.

Since mortuary monuments are commemorative devices, the abandonment or discontinuation of the process of constructing particular burials, by default, involves changes in memory-making and remembrance. In this context abandonment, expulsion, or avoidance of landscapes or graves take on additional meaning. Changes in commemoration potentially transform memory itself. By choosing to abandon their own funerary traditions, communities alter the process and ability to recognize commemorative acts and features that govern how individuals interred in pre-existing burials are remembered. Hence, new funerary practices represent new ways to create

memory, but also acts of forgetting as subsequent generations increasingly lose the ability to recognize previous commemorative devices. The decision to alter or abandon mortuary traditions as a result of internal socio-political dynamics is thus two-fold since new commemorative practices necessitate or at the very least jeopardize the perpetuation of preexisting knowledge and memory. Avoidance of preexisting mortuary monuments, or the spaces they occupy, can also affect social memory in different ways. The reason for eschewing or restricting access to places of the dead can change diachronically and can also affect places that members of a group build themselves. The tendency to avoid Christian cemeteries at night, and especially after midnight, is but one example. When the locus of decision-making is external however, it does not guarantee that social memory will be affected. Individuals can still pass on knowledge and memory of these places to other members of the group in spite of access being restricted. In addition, graves and spaces for the dead can be visited in secret thus preserving their memory and meaning.

Expulsion, however, is a much more complicated process when viewed as a means to prevent a group from creating burials and mortuary landscapes that commemorate deceased individuals and create or maintain social memory. A group can be coerced to abandon funerary traditions and overt performances that perpetuate social memory, but to altogether alter or destroy memory requires concerted and deliberate action. External efforts to transform or eliminate social memory resulting from mortuary practices of other groups can take the form of propaganda, restrictions on the ability to bury the dead, the imposition of new funerary customs and ideology, the elimination of non-mortuary commemorative mechanisms, restrictions on access to funerary spaces, and the destruction of preexisting mortuary monuments. In light of these observations,

abandonment and avoidance alone should not result in the destruction of mortuary monuments, their contents, or the landscapes they collectively comprise. There are, of course, a number of factors that can contribute to the damage or destruction of funerary monuments such as seismic events, erosion, bioturbation, vandalism, and reuse, and it should be noted that each cause still results in the potential loss of knowledge and memory of the affected monument. However, deliberate removal, damage, or defamation of a mortuary monument constitutes a particular act that targets the monument's ability to transmit social memory through time.

Using a landscape approach is useful for a number of reasons. First and foremost it enables an examination of monuments at BGC using spatial data collected by pedestrian survey. Second, it allows for an investigation of the differences and similarities in the placing and spacing of monuments by the people who built them and to explore the relationships between them. Monuments are places on the landscape and therefore the interrelations of those places both spatially and temporally carry information about how their producers used and conceived of that landscape (Ingold, 1993). Third, it allows for a view of the landscape as a whole rather than a series of snap-shots or site distributions for each monument type. Using a chronological series of site-distribution maps has the effect of reducing change to a series of snapshots that do not account for the time spent between them (Brück and Goodman, 1999). This is particularly important in Mongolia and at BGC where there are still relatively few radiocarbon dates and where high resolution absolute chronological sequences are absent. Therefore, approaching monuments as inscribed features of a landscape enables a view of each monument type as a new addition to an expanding landscape of stone monuments

where the producers of each type were placing new features into a pre-existing landscape. A landscape approach is also useful to engage mortuary analysis from the perspective of the space and place of death (Carr, 1995; Goldstein, 2002). This situates research on mortuary activities themselves and emphasizes questions about treatment of the dead and the rituals and ideologies surrounding their burial in a broader context in which the final resting place was open to view, memory, and commemoration (Chapman and Randsborg, 1981; Parker Pearson, 1993; Carr, 1995; Charles and Buikstra, 2002; Goldstein 2002).

Mortuary Monuments and Social Memory

Whereas the conceptual approach used in this dissertation emphasizes mortuary landscapes, the actual units of analysis that make up these landscapes are stone monuments. Monuments are most commonly conceived of as commemorative devices relating to a person(s) or an event such as a graveyard, statue, or war memorial (Rainbird 2008). The monuments in this dissertation are mortuary monuments that commemorate the dead. More specifically they commemorate dead elites. This can be a contentious issue in that the actual status of individuals interred in monuments in Mongolia at this time cannot be fully assessed. That is to say that it is as yet impossible to determine if their interment in monumental tombs were the result of them holding a particular office or if they played some other role or social function such as shaman. I will return to this question in the final discussion below, but would like to preface here that at least individuals buried in slab burials and Xiongnu ring tombs were not common everyday individuals. Questions of elites in monumental landscapes have been raised elsewhere cautioning against assumptions of social stratification through monuments (Earle 2002;

Fleming 2004). That being said, a significant portion of these cautionary tales pertain to monuments that are not graves, such as henges and cairns (e.g. Edmonds 1999; Pollard and Reynolds 2002; Hayden 2003). These are very different types of monuments than those that commemorate individuals via burial. Monuments require a significant amount of labor and resource investment and their construction needs to be organized (Parker Pearson 2008). Somebody has to decide on the time and place of construction, potential participants need to be notified, any animals or items to be included in the funerary ritual need to be selected and brought, logistics to feed and house attendant people need to be put in place, and somebody needs to oversee and direct the construction of the monument itself (Bradley 1998; Parker Pearson 2008). The construction of monuments therefore always implies an authority, even if it is a temporary one. What this means is that monuments need not be indicative of socially stratified societies, but their construction necessitates hierarchy in decision making. What is further important here is when such activity, organization, and decision making revolves around the commemoration of an individual. If the construction of monuments involves a hierarchy in decision making, then the ideology that regulates how monuments and accompanying funerary rites are produced involves a locus-of-decision-making that can be both internal and external.

Creating monuments involves the production of social memory, which pertains to collective ideas about the past, present, and future and when individuals are included in this narrative they too are inscribed into a communal sense of history. Whatever these individuals' status in life, in death they become significant components in how a group of people conceive of the places they inhabit. A mortuary monument thus embodies several narratives: 1) A commemoration of the deceased and accompanying ideologies pertaining

to the rules of their interment, 2) a commemoration of the labor and activities by the living members of society who built the monument, 3) commemoration and reification of cosmological narratives relating to the community's worldview and sense of belonging in the world. These can further be viewed as creating social memories of varying scales relating to the length of time that specific knowledge created by commemoration endures.

Scales of Social Memory

Social memory in archaeology has been discussed in various arenas (see Williams 2003). I would like to propose that social memory can be produced at different scales, which is particularly apropos for knowledge and memory created via mortuary practices that have the power to transmit knowledge in the long durée. At various scales memory and knowledge created through commemorative acts can endure, transform, be replaced with other narratives, or be lost entirely. I argue that social memory pertaining to mortuary contexts can be created at three different scales, micro, meso, and macro. The first, *micro-scale*, refers to memory created in personal and often intimate settings. In mortuary contexts, social memory at the micro-scale refers to information and knowledge transmitted to and from individuals who may have been related to or known the deceased, were notified of their death, attended the funeral, were involved in the construction of the funerary monument, knew where objects placed in the grave came from, and potentially the life histories of some of those specific objects. For example, the memory of the labor and activities of the people who built a particular monument can be considered *micro-scale* in that it will last only a few generations as it is remembered and reproduced primarily by the agents involved and their next-of-kin. These are largely personal

narratives that people share with one another as a result of having participated in the construction of the monument, the funerary ritual, and through living in proximity to the new monument they thus created. Over time, these personal narratives are likely to be forgotten or transformed as the original agents are no longer alive to verify or reiterate them. At the *micro-scale*, deceased individuals, including their names and lived lives, will be remembered and circulated in the community of which they were a part. The efficacious nature of monumental commemoration may allow this information to survive for several generations. In the long *durée* however, this knowledge will be forgotten or transformed. New narratives may be used, added, or removed.

At this point mortuary contexts transition into a realm of creating or maintaining memory at the *meso-scale*. At this scale of social memory there is a recognition of group membership through the use of similar ritual ideologies in funerary repertoires. What this means is that although an individual or a group may not know some of the specifics that transpired at a particular burial site, they nonetheless recognize the rules, patterns, and meanings that govern how an individual is buried because they bury their dead the same way using similar ideological frameworks. Slab burial builders, for example, would be able to recognize other slab burials in the landscape and identify them as belonging to their own mortuary tradition even if they did not know precisely who built them or who was buried there. Similarly they would be able to discern the meaning and symbolism behind constituent parts of the monument, including its topographical placement and orientation. They would also be able to recognize and relate to any cosmological or ideological narratives relating to that society's worldview, attitudes towards death, and sense of belonging in the world. The *meso-scale* of social memory thus largely results

from the fact that members of a society are able to recognize and identify with commemorative acts of other members. However, social memory at this scale need not involve members of the same society as commemorative devices have the ability to pass information beyond the immediate agents involved. Outsiders can get a sense of commemorative narratives of neighboring groups through interaction and in turn transmit those narratives elsewhere. It should be noted, however, that regardless of whether *meso-scale* social memory is endogenous or exogenous, it typically involves the loss and/or transformation of some aspects of the narrative. Personal narratives such as who is buried in a particular grave and who was present at the funeral may soon pass out of memory and can possibly be replaced with new narratives. In this way certain graves can become associated with imagined or mythical individuals, conceivably also claimed as ancestors, or deaths resulting from particular events or circumstances.

Since monuments have the ability to endure longer than the societies that create them they have an attributable agency that may influence the worldview of people living during later periods and their understanding of the landscape (Tilley 1994; Barrett 1998). This is what I would like to call *macro-scale* social memory. At a *macro-scale*, which is usually the scale at which archaeologists and prehistorians operate, most information regarding the specifics of who is buried at a particular site, the meaning behind constituent parts of the monument and any associated funerary assemblage, and how these relate to an overarching cosmology and worldview will typically be lost. The deceased will have become nameless subjects whose lived lives are only peripherally accessible, if at all. Social memory at the *macro-scale* is possible primarily because of a monument's ability to endure and thus continue to be experienced, interpreted, and

reinterpreted by subsequent generations long after its creators have passed on. *Macro-scale* social memory is a two-fold process in which commemorative narratives are forgotten, created, and transformed. At this scale there is a potential loss of knowledge regarding a monument's affiliation to particular groups, significance of placement and construction, and overall ideological significance. For example, at present the information regarding who actually built khirigsuurs, the significance of different parts of the monument, what factors affected decisions that resulted in that monument tradition's inherent variability, and any accompanying ideologies has been entirely lost. The distinction between different types of khirigsuurs and their relationship with other monument traditions such as shape-burials and deer stones has also been lost. At the same time, *large-scale* social memory involves the appropriation or incorporation of monuments into new commemorative narratives, some which archaeologists are now helping to create. Hence, khirigsuurs, including the naming of that monument tradition, their definition, the distinctive components of their construction, and potential association with other monuments are all modern constructs. The contemporary discussion about whether or not khirigsuurs are burials is only possible because the original narrative, whose creators knew exactly what khirigsuurs were meant to commemorate, has been lost. Therefore it is vital for archaeologists to consider that they are always involved in a process of creating new social memories, which may differ widely from the original narratives. It is also for this reason that I adopt a qualitative or conceptual framework, since before doing anything else it is necessary to identify how and in what way social memory was inscribed in commemorative narratives in mortuary practices. Or put

another way, it would be imprudent to analyze something before knowing what it is or what it does.

The Past in the Past

A concept associated with the observation that social memory can be created or maintained at different scales, is how the past was perceived in the past and is a line of thinking that has gained traction in the last decade (Barrett 1998; Petts 2003; Williams 2003). To illustrate a few instances in which landscapes and monuments can take on new meanings in the past I will turn to Western Europe and Scandinavia. In Anglo-Saxon England burial mounds and barrows, regardless of what period they actually derived from, became embodiments of danger and associated with fear and evil. Bronze Age burial mounds and Neolithic long barrows were consistently referred to as dwelling places of dragons; described using adjectives such as “ravager”, “evil”, and “waster of people” (Semple 1998:110). Occupying or entering these mounds could invoke the wrath of the dragon residing there and bring ruin upon the perpetrator and society at large. The imagery in *Beowulf* emphasizes the terror of the dragon and points to burial mounds as being its abode. Incidentally it is from such a dragon that *Beowulf* himself meets his end (Leslie 1988). These imageries and metaphors form a descriptive link between sacred or historical narrative and superstitious attributes to features in the landscape (Semple 1998). Similar links to the supernatural that invoke danger and malevolence can be found in place-names dating to the Anglo-Saxon period that have been applied to both monuments of that and preceding periods. That these names and aforementioned metaphors were applied to not only Anglo-Saxon graves, but to monuments from

preceding periods as well is important. This demonstrates how the beliefs and worldviews of one society can incorporate the material vestiges of former groups and transform the meaning behind that group's monuments into something new. In this case all burial mounds and barrows in the landscape became associated with the danger and the supernatural regardless of *whose* burials they were.

There are numerous other examples of this kind of conceptual transformation. The mortuary landscape of Bronze and Iron Age Scandinavia is also comprised of a diverse set of mortuary stone monuments. Texts and beliefs attributed to the Viking period demonstrate an equally varied perception of the afterlife and what happens to the soul of a deceased person (Ström 1990; Roesdahl 1991). However, a recurring theme is that the dead still physically reside in the graves into which they were placed. The dead still inhabit the landscape. Icelandic sagas contain numerous instances where individuals enter burial mounds to find the dead still living there and often have to fight them as a result (Jones 1984). The physical presence of the dead in burial mounds is also attested by the living hearing the sounds of fighting and merrymaking from within (Davidson 1996). There is also evidence that the accession of new kings and chiefs sometimes took place on ancestral burial mounds so the dead could witness, sanction, and participate in the succession (Davidson 1996). The burial place of the kings of Uppsala in Sweden in time also became the place of public assembly to manage local affairs thus further emphasizing the importance of the role of the dead in the lives of the living (Roesdahl 1991). With the advent of Christianity in Scandinavia these beliefs changed and so did the mortuary landscape. Burials became organized around churchyard cemeteries and graves were arranged according to sex and sometimes age where previously these had

been less well defined spatially and materially (Nilsson 1994; Kieffer-Olsen 1997). The adoption of Christian ideologies also transformed the understanding and perception of the mortuary landscape, including that of previous burial mounds. The dead, although their corporal vestiges still remained in the ground were not there themselves. Their souls had departed for the afterlife. The funerary landscape was now one of remembrance. Where social memory and pagan customs persisted, churches and church cemeteries were often placed on top of them thereby appropriating and subverting any social memory they could impart (Thurston 2001). In some cases this proved difficult and Norse customs and perceptions of the dead persisted as indicated by beliefs that Scandinavian kings could bear or be possessed with the spirit of previous pagan rulers with whom they shared a name if they were in the proximity of their graves (Davidson 1996).

Mortuary monuments can be imbued with new memories and connotations in more subtle and transitory ways as well. The death of the Swedish archaeologist Gabriel Wilhelm Ekman who died in an unfortunate accident when a boulder fell and crushed him while he was excavating a passage grave on the island of Orust in 1915 changed the social memory of that burial (Holtorf 2003). This particular passage grave would thereafter be associated both with burial practices from the past and with Ekman's death. In this manner that grave became unique and distinct from all other passage graves in Sweden because of events that unfolded there long after its construction.

Phenomenology and Mortuary Landscapes

The examples above serve to illustrate the role that social memory can play in how landscapes and mortuary monuments can be inscribed with different meanings at

different moments in time, from whole landscapes to singular monuments. These further serve to point out that even when the connection between memory and meaning is partially lost, as would also be the case if ritual is maintained, but the original meaning behind it has changed or been forgotten, information is still transmitted to future generations who subsequently use it to forge their own narratives (Barrett 1994; Crumley 1999). Central to this concept is monuments' ability to endure as symbols in any given landscape. Therefore the impression and type of impact a monument has on the landscape is an important factor in its potential role to transmit, transform, and influence social memory. In the last few decades there has been a growing interest in how monuments were constructed to create specific experiences by people who encountered them (Thomas 1993; Barrett 1994; Tilley 1994 Richards 1996; Cummings 2003). Inspired by the philosophy of Merleau-Ponty, a key contribution to this approach has come from Christopher Tilley's who has applied the concept of phenomenology to landscape archaeology. Tilley (1994) argued that landscapes are structures of consciousness that are invariably encountered and interpreted in terms of first-person experience. In this context culturally constructed spaces have the ability to intentionally direct interpretation towards a particular outcome by manipulating specific sensory experiences. This is a step away from viewing landscapes as aggregates of symbols and signs that encode meaning and reflect social ideologies, towards a view of landscapes and monuments as agents that in-and-of-themselves have the potential to produce meaning, identities, and ideologies (Tilley 2004). Therefore to understand landscapes archaeologically there is a need to explore how they produce experiences for the viewer. What sensory experiences do monuments and their placement in the landscape produce

for people who encounter them? What is seen vs. unseen? From what direction are monuments visible or approachable? Where is the viewer's body in relation to the monument? Phenomenology has been criticized for being subjective in such a way as to prove problematic from a methodological standpoint (Scarre 2002). How does one operationalize phenomenology scientifically? Fleming (1999) has also pointed out that if sensory experience is key to interpreting monumental landscapes then archaeologists must also consider monuments in relation to topographical features that may no longer be recoverable such as landforms, trees, and sacred groves. Thus phenomenology will always be a subjective approach to an experience that may potentially be very different in time and place. Yet phenomenology cuts straight to the heart of reconstructing prehistoric landscapes in that it specifically posits what experiences, feelings, and responses they evoke. If archaeology endeavors to recreate past human behavior then archaeologists are obliged to establish the original association of meaning whenever possible (Scarre 2002). Phenomenology is also useful in that it avoids presenting an authoritative rhetoric and acknowledges the subjective and interpretive nature of archaeological inquiry from the outset. There is not any *one* or *better* way to experience a landscape than others. "Standard archaeological texts with their plans, diagrams, and figures usually represent a rhetoric of authority in which closure is created and debate shut down: 'It was like this, here are the results.'....Standard texts protect themselves and their own (always shaky) internal coherence from criticism by systematically filtering out the manner in which some interpretative possibilities come to be preferred to others, by excluding from discussion or debate the very processes by which we arrive at certain understandings rather than others" (Bender et al. 2007:28). Phenomenology may be

subjective, but it is effective precisely because it is up front about its subjectivity and because it strives to identify particular ways in which monuments and landscapes can be experienced to produce an actual human response.

Phenomenology has been applied by various researchers, but I think two particular studies are noteworthy in the context of the present study, even if they do not overtly claim to be phenomenological. Laporte et al. (2002) approached the study of megalithic monuments near the coast of west-central France from the standpoint of how space and geometry were used in the construction of Neolithic tumuli to create specific perspectives and experiences at those graves. At the site of Prissé-la-Charrière all tumuli exhibit a series of very specific architectural dimensions that are too consistent to have been produced by chance. These include asymmetry in the construction of a long tomb chamber that manifests in the end of the mound not being symmetrically placed in relation to its long axis where one side is straight and the other exhibits a change in direction half-way along its length (Laporte et al. 2002:78). This asymmetry is also represented in the angle of the opposing sides of the cairn where one side is significantly steeper than the other. This steeply sloping side is also the one that provides the façade that the passage to the grave is on [Fig. 3.1]. Hence the slight differentiation in tumulus and mound construction can be linked to the asymmetry that results from the presence of the passage and the opening on one side of the mound that leads to the burial chamber. These and other design features manipulate space and the manner in which the monuments could be perceived in their spatial and landscape setting. Such visual design features at Prisse-la-Charrière include the decrease in the height of the mound from the

broader end of the cairn to the narrower, which causes lines-of-sight to converge consequently producing the impression of greater length.

This visual impression appears to have been intentionally reinforced by the creation of steps into the bedrock alongside the monument, which decrease in width as the height of the monument is reduced, which further accentuates the impression of

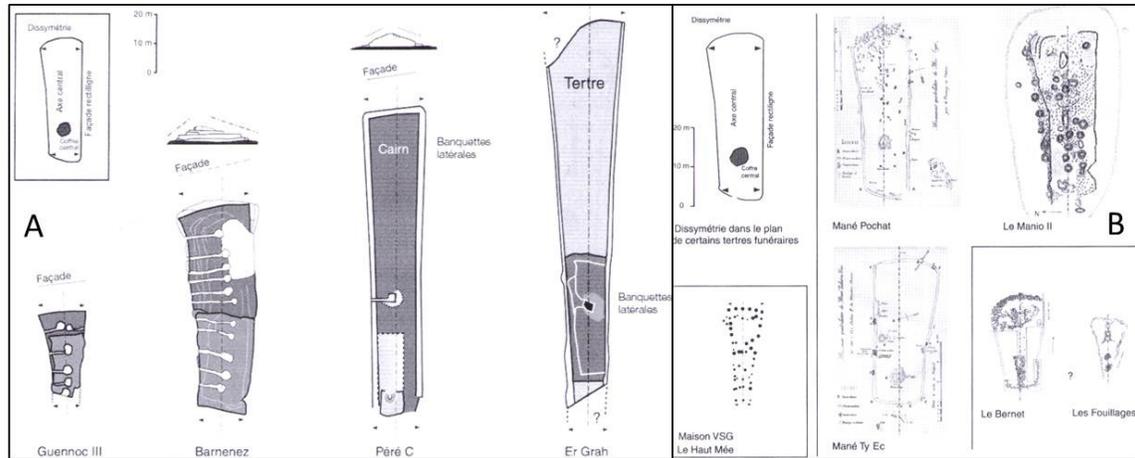


Figure 3.1 Neolithic long mounds in France A) Neolithic long mounds on the Atlantic façade of France showing asymmetry in their plans (after Laporte 2002) B) Asymmetry shown in the funerary construction of tombs in western France (after Laporte 2002)

exaggerated length of the monument (Laporte et al. 2002:80). These monuments are testament to a conscious relationship with, and manipulation of space in the creation of mortuary places and were likely done to produce very specific effects to the observer or visitor in that space.

Similar studies of the visual impression on the landscape made by prehistoric monuments have been presented elsewhere (see. Joussaume 1997). This is particularly true in England where there is a long tradition of studying stone monuments. Here it has been noted that there is a difference in placement of Early and Late Neolithic as well as Bronze Age monuments, which includes the visual impression these structures leave on the landscape. Most of the Early Neolithic monuments are found on slopes that avoid

valley bottoms and if approached from that direction would have been sky-lined (Hodder 1990; Cummings 2003). Their viewsheds are invariably restricted and tend to be directional in that they can usually only be seen from certain viewpoints or directions (Richards 1996). However, later Neolithic monuments tend to create “circular” impressions on the landscape and exhibit unrestricted viewsheds while Bronze Age monuments are located on hillcrests and also have unrestricted views in any direction (Cummings 2003). These observations suggest that their placement in the landscape is due to careful selection, but also that instances where view was restricted was both intentional and had a temporal component. The overall visual impression caused by restricted viewsheds is similar throughout western England. Monuments are located away from settlements in marginal areas and with rougher highland areas nearby (Cummings 2003). When facing the entrance, the façade, or the forecourt to these cairns the landscape appears very different on each side of the monument giving a “sidedness” to the landscape with the monument at the center. It is not only the view of the landscape and the monument’s position in the landscape that were selected with direction and viewshed in mind, but the structure itself has often been built in such a way that opposing sides are very different from one another. For example, at Carreg Samson in southwest Wales rough and smooth stones define the ends of the chamber while at Cairnholy 1 the visual opposition of the monument is achieved by using different shapes in the facade at either end the monument. These are but two examples, but this dual and oppositional aspect of early Neolithic monuments in England is pervasive [Fig. 3.2] suggesting that when people encounter these monuments they have similar experiences; monuments that have opposing sides. In the context of social memory Cummings (2003:36) has

suggested that the series of effects created at these monuments may have produced similar effects within specific cultural contexts for the people building and using these monuments. These were replicated using roughly parallel ideas, but may have differed in specifics methods due to builders having seen and experienced monuments in one locale,

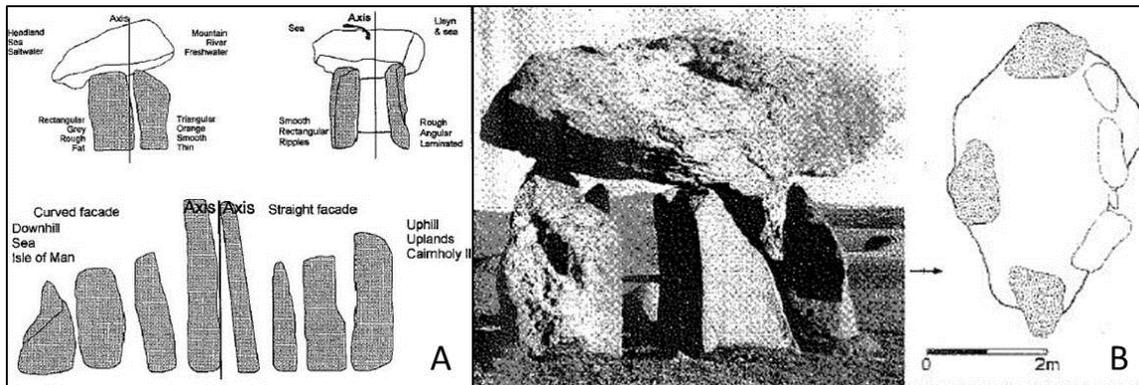


Figure 3.2 Schematic showing spatial differences in construction and composition at four different monuments in Britain; A) Top left, Carreg Coetan in southwestern Wales; Top right, Dyffryn Ardudwy, northeastern Wales; Cairnholy in southwestern Wales (Cummings 2003); B) Carreg Samson in southwestern Wales (Cummings 2003).

but had to recreate them in another without necessarily knowing exactly how. Hence the monument created conformed to the necessary frameworks to create an effect of sidedness, but the particulars of how sidedness was produced differed.

In both cases mentioned above, viewsheds and the effects generated by the monuments depending from which side one encounters them, are key to a discussion of their intentional placement in space and means of construction to create a very distinct place. Using viewsheds to analyze prehistoric monuments have a long history in archaeology (see Renfrew 1979; Fraser 1983; Wheatley 1995, 1996). However, viewshed analysis has been criticized for failing to combine the analysis with statistical testing of the results (Fisher et al. 1997). Lagerås (2002) further argues that statistical testing of viewshed materials is required to strengthen arguments as to why certain directions or views seem to have been preferred. It is unclear to me how the question

why can be answered statistically other than to confirm the observation that there is a viewshed. In her own study, Lagerås uses statistics to identify particular locales from which most mounds on the west coast of southern Sweden could be seen, but her analysis still cannot account for why that should be the case. That step she takes herself and whereas the locale indicated by the analysis clearly indicates that most mounds are visible from the sea, Lagerås decides that this is unlikely and therefore that it is the mounds themselves that should have a view of the sea. There are other problems in this approach given that a large number of burials were not included in the analysis for reasons that are not clearly explained [Fig. 3.3]. I think it is precisely in a scenario like this where a phenomenological approach may be helpful. Is the view to or from the sea the only possible outcome and the only possibility for how the mounds' locales were chosen and the effects they were meant to create? What effect do the mounds create for an individual who encounters them? In this case it seems as though the use of statistics only serves to eliminate other possibilities without vetting them in any meaningful way, thus assuming that very authoritative narrative that Bender et al. (2008) caution against¹¹.

I find a phenomenological approach appealing for the following reasons: 1) It has the ability to synthesize specific places, in this case stone monuments, and broader topographic landscapes, 2) structural components of monuments can be engaged from the perspective of the experiential effect they have on the viewer, and 3) it allows for a

¹¹ In addition, given that a large number of mounds were left out of the analysis, it is far from certain that the emergent pattern seen by Lagerås is real and not the result of selection, both in terms of mounds sampled, and the type of analysis used.

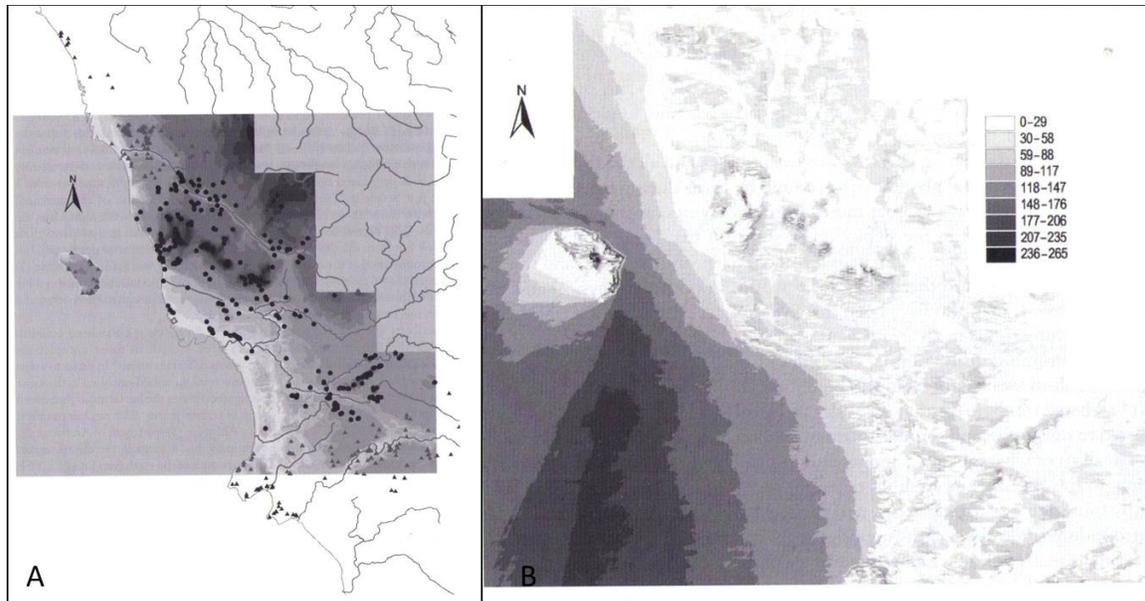


Figure 3.3 Mounds and viewsheds in southern Sweden; A) Study area in southwest Scania, Sweden. Filled in circles indicate mounds used in Lagerås' study while triangles are those excluded (Lagerås 2002); B) Viewsheds created by Lagerås' study. Shading indicates number of mounds theoretically visible from each cell of the digital terrain model where darker areas designate high values and lighter areas lower values (Lagerås 2002).

diachronic understanding of monuments in relation to other monuments. By this last point I mean that the builders of particular monument types may not have known exactly when preceding monuments had been built, but were nonetheless responding to the effects those monuments produced in the landscape that they inhabited and were creating their own monuments within. In other words, phenomenology can offer a glimpse into social memory in the past that may not otherwise be recoverable precisely because they stem from the creation of similar emotional or experiential narratives.

Summation

In sum, I approach BGC as comprised of a range of different monument types that collectively constitute a landscape of mortuary places set within the broader topographical expanse of the research area itself. These monuments have the potential to

impart various degrees of social memory pertaining to commemorative performances including the meaning behind structural components of the tombs themselves. The capacity for a monument to convey this information will to some extent be dependent on the overall and lasting visual impact it has on the landscape, but also in its relationship to other monuments. Accessing and identifying visually prominent monuments and the impression they have on the landscape or the effect they produce in the viewer can be done effectively using a phenomenological approach. Therefore, as I will explain in chapter 4, in addition to survey and excavation I will also consider impressionistic qualities exhibited by the monuments in the research area. The purpose behind this is to employ a framework for engaging the landscape at BGC in both a systematic and flexible way to identify qualitative differences at various levels between monuments that may reflect changes in politically oriented ideologies associated with the formation of the first nomadic polity in East Asia.

Chapter 4

Mortuary Contexts

Introduction

In chapter 3 I discussed how mortuary stone monuments can be viewed as constituting mortuary landscapes capable of transmitting social memory at various scales to subsequent inhabitants of a locale. The monuments at BGC are mortuary structures and thus constitute a distinct type of archaeological material that is inherently connected with ritual and symbolic behavior (Härke, 1997). In this chapter I discuss mortuary analysis and how I approach archaeological data recovered from funerary contexts. I center this discussion on three particular topics of interest to the present study; identity, status, and the inclusion of faunal remains in mortuary ritual. I then address the issue of disruption and argue that the reopening and disturbance seen in tombs at BGC is the result of desecration rather than looting or multi-stage mortuary activities as the latter two are inconsistent with expected material outcomes.

Assessing Identity in Mortuary Contexts

Identity is an integral component to archaeological research as it is necessary to formulate some idea of who the subjects under investigation are. As some researchers have pointed out, virtually all types of archaeological inquiry are in some way concerned

with identity (Insoll 2007). While assessing changes in mortuary behavior at BGC, it is thus imperative to explore the identities of the individuals buried in the area. This is particularly important apropos to how one approaches the appearance of Xiongnu tombs across Mongolia. Xiongnu material culture regimes are associated with descriptions of the Xiongnu polity mentioned in Chinese historical records. In turn, much of archaeological interpretation in Eurasia and Central Asia follows Russian archaeological paradigms that posit that archaeologically homogeneous and geographically bounded materials constitute historically known culture groups. In other words, it follows a culture-historical paradigm. In this context Xiongnu materials are seen to represent the material remains of an ethnically distinct cultural group (see e.g. Tsybiktarov 1998, 2003). This has significant implications for engaging changes in mortuary practice since culture-historical paradigms tend to explain material change via change in cultural groups or people rather than behavior. Hence the appearance of Xiongnu mortuary practices is simply explained as the arrival of “Xiongnu people”. This observation necessitates a discussion of identity and the assessment thereof in mortuary contexts.

Since its earliest inception, identity and historical lineage have been a central element in archaeology. Throughout the history of archaeology material remains have been attributed to various peoples and historical groups while historical genealogies have been created in attempts to link modern societies with their assumed primordial origins (Hides 1996; Jones 1997; also see Gillespie 2001; Insoll 2007). Over the years, the orientation of research has changed with greater emphasis placed on social actors’ self-identification, the processes involved in the construction of group boundaries, and interaction between socio-cultural groups (Jones 1997:5; Trigger 2006:211-250). The

multivalent nature of identities has also been emphasized to demonstrate that they are not fixed, homogeneous, or bounded, but rather fluid, dynamic and contested (Fardon 1987; Handler 1988). Identity can also be said to constitute a relationship, or a constellation of relationships, between the individual and the social world (Pohl 2008). Social and/or ethnic identities also have a dual dimension in that they are concurrently created through self-identification or are ascribed by others (Rowlands 1994). This involves behavior in which individuals intentionally affirm their membership to a particular group through self-ascription as well as the identification and recognition of those individuals by other members of that group or by outsiders, which includes the archaeologists who study their material culture (Sanz et al. 2008: 24). Hence, it is important to recognize that there is a binary construction of identity, which involves actors in the past who assumed, enacted, and replicated their own identities on the one hand, and contemporary actors (including archaeologists), who now identify, interpret, and assign identities to the past on the other. However, it should also be noted that identities are multidimensional (Insoll 2007). People embody several identities at once, at various levels, ranging from gender, status, age, parenthood etc., which can all manifest materially in different ways depending on the social understandings and expressions of those identities. As a result of these observations, reconstructing identities in the past is not a straightforward exercise and involves incorporating various facets of identity from an archaeological record that is invariably incomplete and ascribing them to categories that can be meaningful in terms of an individual's or group's distinctiveness and relationship to others.

The term identity itself also necessitates some attention. In recent years, especially in the western world where society has become more focused on individual

expressions of self, identity has come to connote the impression of individuality. Yet this is a relatively recent development and in most dictionary definitions of identity there is an implication of sameness or of sharing identical characteristics (Bergquist et al. 1975:250; see also Fowler and Fowler 1986:311). This distinction is important since it suggests that identity can be accessed archaeologically through materials that are identical in nature, form, function, and distribution or through those materials that stand out as unique in comparison with others. However, that is not to say that archaeological uniformity necessarily implies identical personhood, character, or ethnicity because the archaeological record is produced through actions and practice. Therefore archaeological homogeneity cannot implicitly be construed to result from people being the same, but only from people acting the same. Archaeological identity is thus an exercise in identifying similarity in behaviors, acts, and practices, which in themselves may be indicative of particular expressions of identity. Thus in the context of Mongolian archaeology, material congruence during the Xiongnu period does not denote that people are Xiongnu, but rather that they act in ways that produce a seemingly uniform material signature.

Assessing identity during the Late Bronze and Early Iron Ages in Mongolia (1500-200 BC) is further complicated by the fact that the bulk of archaeological materials are derived from mortuary contexts. Mortuary remains occupy a particular, if not unique, role for reconstructing the identity of the deceased as well as that of attendant mourners and society at large, which may be reflected in the choices enacted in the construction of graves, placement of accompanying objects, and arrangement of human remains. Mortuary practice thus represents an important nexus at which the identity of the

deceased as well as that of the surviving community can be reaffirmed or transformed. However, the inherent symbolic nature of mortuary contexts renders straightforward explanation and assessment of identity problematic. Burials are not a direct reflection of the society that produced them, but instead constitute multiple reflections resulting from choices and behaviors enacted in funerary ritual and our interpretations and understandings of those actions. As Härke (1997:23) emphasizes, burials are created as an act of ritual, and hence the context of funerary data is always, by default, also ritual. The significance of this innate correlation with ritual cannot be overstated. From a structural-functionalist perspective as proposed by Radcliffe-Brown (1965) and Evans-Pritchard (1970), ritual serves to reify common ideals and values in a society. Yet, ritual also intermediates or reconciles social ideals and actual behavior where ritual represents a society's "ideal" reflection of itself (Leach 1965). In each case, ritual can be understood to embody and reflect human thought, or at least conceptual information represented through deliberate acts symbolizing emotional and cognitive understandings of the world in the context of broader social norms (Härke 1997:23). Both Bourdieu (1977) and Giddens (1979) further point out that social norms and organizations are embedded in, and underlie, ritual behavior and that rituals are the performance and enactment of social structure. Therefore, although mortuary contexts are symbolic and not direct correlates of the societies that produced them, they are the material result of ritual behaviors, which in turn are manifestations of social structure as well as collective thought, emotions, and understanding of the world. As a result, although it is impossible to infer identity directly through mortuary remains, the question of identity can still be addressed through a qualitative assessment of the collective enactment of ritual by the creators of mortuary

monuments. Hence, regardless of how difficult it may be to access, aspects of social identities of the deceased, as well as the builders of mortuary monuments, are recoverable through funerary remains.

Pohl (2008) makes a number of interesting observations about expressions of identity archaeologically especially as it pertains to group affiliation and ethnicity. Namely, identities that are self-evident need not be expressed precisely because they are known. There is thus no need to state the obvious. Hence material statements confirming identity and group membership are most needed where such distinction is unexpected or unremarkable and not immediately self-evident. Mortuary contexts further present difficulties in that they may represent materials representing individual as well as communal identities (Pohl 2008). Hence certain objects or features in a burial may very well be there to commemorate something unique about that individual. However, in most cases archaeologists focus on those objects that are characteristic, typical, and indicative of things people share such as funerary rites, ceramics, or dress. Therefore, mortuary contexts represent instances where archaeologists must strike a balance between idiosyncratic variation associated with individual identity and where such expressions may be combined with communal identities.

In light of these observations, I contend that mortuary monuments at BGC (and by extension, elsewhere in Mongolia) should not be directly attributed to specific ethné or peoples. In other words, the term Xiongnu or slab burial builders should not be construed as ethnonyms to qualify material culture or to connote historical genealogy. Instead I view mortuary monuments as material manifestations of social structure and ideology on display in funerary ritual. These are, of course, related to ethnicity, but not in a direct

way since both are affected by social actions rather than social beings. Similar social norms, symbolism, and ritual, especially as pertains to power, can and are adopted by groups of various tribal or ethnic affiliation (for examples see Earle 1997; Stein 1998) for a host of different reasons. Therefore the appearance of new mortuary monument types involves human actors adopting new frameworks of reference in regard to mortuary ritual and ideology which need not have anything to do with ethnicity. Instead, given the symbolic nature of burials and their innate association with ritual, uniformity in Xiongnu mortuary practice is more likely associated with ideological and political identity. A pivotal point here as it pertains to identity is the status of the deceased. This is particularly true given the implications of identities that may be connected to political identity or politically oriented ideologies.

Status and Rank in Mortuary Contexts

As stated above, an individual's identity can be considered a bundle of social relationships embodied by that person such as gender, age, and kinship, as well as identities directed toward other groups such as political affiliation, wealth, and rank. Funerary events constitute important venues at which relationships and identities of both the deceased and the living can be reified or transformed. In this way mortuary data can result from both the identity of the living and that of the deceased. Since funerary rituals are conducted by the living, mortuary patterning can reveal internal differentiation in rank in prehistoric societies (Trinkhaus 1995). However, identifying ranked hierarchies through mortuary analysis is not straightforward. The broad range of variation in funerary behavior combined with a general lack of secure identification and classification

archaeologically of social groups and social distinctions can problematize the issue (Shanks and Tilley 1982). Other problems include the differential treatment of children, older aged individuals, social deviants, or anyone else who may have accumulated a disproportionate amount of material wealth or reverence (Shay 1985; Crawford 2008). Evidence of rank may also have been destroyed such as in cremation or exposure (Brown 1979). In some cases status may not have been expressed materially or in a few cases may have been reversed where high status in life corresponded with relatively simple treatment in death (Cannon 1989 in Trinkhaus 1995). But it is not only the diversity in mortuary behavior that renders identification of rank difficult.

What also warrants discussion is how rank is conceived. Rank can take the form of vertical hierarchies with asymmetrical relationships of power from top to bottom. Vertical hierarchies may be evident in qualitative and quantifiable differences in investment in funerary practices ranging from size and quality of the mortuary assemblage, grave architecture, or accompanying ritual performances (Tainter 1977, 1978). Vertical hierarchies need not be permanent and there are many different ways in which asymmetrical relationships of power can be expressed. The concept of heterarchy has been employed as an alternative to normative notions of power to emphasize that power relationships are impermanent and multifaceted (Crumley 1995). Heterarchy underscores that in ranked societies there are often horizontal changes in power structures that ensure that even permanent groups or positions of power are re-ranked and transformed. In this way various identities and ranks may be long-lasting while at the same time moving between different levels of hierarchy (Brumfiel 1995). The implication of this is that if and when hierarchy is identifiable, it is uncertain if any status

or rank remains the same diachronically even if the material manifestations of the position do not change. This is particularly important for contexts that are produced through ritual since the practice of doing something may endure even though the meaning or implication behind it is lost (Crumley 1999). What is further problematic is how to identify and distinguish between hierarchy and heterarchy as well as vertical and horizontal differences in rank (O'Shea 1984). In graves, rank of many different kinds can be expressed in multiple loci and it may not be possible to distinguish what type of status is being conveyed. It may further be difficult to distinguish between the rank of the deceased and the rank of the living since both may be expressed simultaneously especially in ranked positions that are not at the top of the hierarchy.

Finally, identifying status or rank archaeologically is predicated on what archaeologists understand as being indicative of rank. This is a problem which necessitates archaeologists to think reflexively about how current events and contemporary understandings of status and rank may affect interpretation of status in prehistory (Johannesson and Machicek 2010). The idea that status and rank should be expressed via wealth and investment of labor can be argued to be relatively recent and grounded in worldviews formulated in Western capitalist societies. The same can be said for the size of funerary architecture which may equally reflect contemporary Western worldviews that bigger equals better or more prestigious (Park 2008). The size and structure of funerary architecture and mortuary monuments may also reflect the size of corporate kin groups at the time of construction or accumulated labor over time as a result of reuse (Trinkaus 1995). In other words, identifying status as a form of identity in mortuary analysis can be problematic. Nevertheless it is necessary in order to establish

some of the parameters that govern why monuments and specific mortuary behavior were necessary.

At present, there is little doubt that the truly monumental squared ramped tombs during the Xiongnu period should be identified as belonging to an elite echelon of society (Torbat 2004; Brosseder 2009)¹². The question is how to interpret the smaller ring tombs and their qualitative relationship to these larger tombs? There are some who interpret Xiongnu ramped tombs as elite and ring tombs as belonging to commoners (Torbat 2004). However, others have argued that ring tombs simply represent the more common type of Xiongnu burial across Mongolia and that they thus still represent a form of local elite (Miller 2009). This further raises questions about how to approach preceding monument types. If only squared ramped tombs are elite then are khirigsuurs or slab burials graves of commoners as well? Frohlich et al. (2008) have contended that this is true for khirigsuurs at Khovsgol and argue that the number of khirigsuurs in this area is sufficient to be representative of the entire population. As a result, this dissertation must contend with the possibility that monuments at BGC move from commemorating non-elite social structures to memorializing elites. There is also a possibility that all burial types in the research area are non-elite or a combination of different statuses each idiosyncratically expressed in mortuary practice.

¹² Given the relatively large number of these tombs at specific locales in central Mongolia and southern Siberia, coupled with the fact that only 20 of these have ever been excavated in full, it is possible that this interpretation may change. However, presently there is such a significant difference in size, depth, quantity and quality of grave goods, and labor investment between square ramped tombs and circular tombs that elite is the most appropriate term to apply to the former. That being said, in the future it will be necessary to determine the relationship between these square ramped tombs and the more common circular tombs to identify the criteria governing what determined which of these an individual would be buried in. Such inquiries should also explore additional implications of large scale monumental works that involve large aggregates of people, and identify what precisely is meant by elite.

In light of this, I think it is counter-productive and potentially misleading to privilege any one material type category over another as indicative of rank. There are simply too many possibilities to definitively identify one or more object types or material categories to be indicative of rank over others. Choosing among object types may also introduce contemporary bias that favors certain materials, such as gold, over others because those are valuable commodities today, but could have been included in the funerary assemblage for a host of reasons none which have anything to do with the status of the deceased. Similarly, I will not use labor investment or monument size as indicative of status for the reasons mentioned above (see Trinkaus 1995). Not only does size have more to do with the number of people involved in producing the monument than it does a direct correlate with the status of the deceased, but it also follows very contemporary cognitive frameworks mentioned above that “bigger is better”. As with material categories there are also concerns as to what is meant by size in each monument type. What is a “big” khirigsuur? For the rare and very massive khirigsuurs such as Urt Bulagyn that seems fairly clear, but size is a much more complicated issue as it pertains to smaller and more numerically common khirigsuurs. Should size be correlated with the height or diameter of the central mound? With the number of satellites? The diameter or dimensions of the perimeter fence? The same ambiguity can be applied to slab burials. Are “big” slab burials those that are comprised of large stone slabs? Or should size be indicated by the overall dimensions and layout of the burial? If the size of stone slabs is what matters then how should large slabs that can form the horizontal cover of the burial, those slabs that would not be visible, be treated? What should constitute size in Xiongnu ring tombs? Should it be the size of the surface ring or should it be the depth of the burial

shaft? Should the size of any of these monument types further be correlated with the number and quality of objects in the funerary assemblage? If so, then how does one account for disruption of burials in any category as a result of looting events which may have removed or destroyed objects in the assemblage?

Basing rank on size is therefore problematic. It is further complicated by the qualitative differences between each type of monument. If identifying rank through size is a thorny issue for each monument type then assessing the significance of changes in size between them is even more difficult. I therefore think that rank and the implications thereof for interpreting socio-political change on both the local and regional level is best addressed through qualitative differences between each monument type. In what manner are identities expressed and are these articulations projected outward in terms of externally visible components or are they embodied in commemorative acts known only to those who participated in them or who may have had knowledge of them as a result of social memory? Are commemorative narratives constructed in monument construction at the *micro* or *macro* scale? If so, what are the implications regarding changes in mortuary practice and potential loci of decision-making? In other words, whether it is connected to rank or not, how are identities embodied and expressed in shape-burials, khirigsuurs, slab burials, and Xiongnu ring tombs respectively? What are the qualitative differences between these monuments in terms of structure, placement in the landscape, and internal components of the funerary assemblage and what do these suggest about how identity, and by extension, rank was expressed? Identifying the nature and implications of what is actually changing must precede any attempt to assess rank through quantitative variation within and between these monument types.

Here I will argue that by examining these qualitative differences it is possible to address changes in how identity and rank were expressed. I will further argue that monuments at BGC are constructed to commemorate local lineages of leadership. I will demonstrate this through an assessment of demography via the number of monuments of each type in the research area. From the Late Bronze Age to the end of the Xiongnu period there is a marked decrease in the number of monuments at BGC. This reduction is so distinct that if one is to argue that each monument type represents the entirety of the population then the research area experiences a comprehensive depopulation by the Xiongnu period. Paradoxically, any such depopulation would have left a sufficient number of people in the area to construct only a handful of monuments for each generation. It is in other words implausible that at least by the advent of the Xiongnu polity that mortuary monuments did not commemorate individuals who were not in some way considered elite at least locally. I will present the calculations behind this conclusion in chapter 8.

Identity and conspicuous displays are also going to have implications on both the local and the regional level. What range of choices was available to express identity and rank before and after the formation of a central Xiongnu polity somewhere in Mongolia? In addition to a decrease in commemorative monuments for local elites I will argue that the variety of externally visible and ostentatious displays of distinction decrease with the appearance of Xiongnu mortuary practices. This has consequences for thinking about how local groups at BGC responded to or were incorporated into a broader Xiongnu political economy. Consequently, I will demonstrate that Xiongnu elites on the regional level sought to reduce local leaders' ability to express status and rank by limiting the

choices available to commemorate individuals through the construction of visually prominent monuments. I will do this by demonstrating that Xiongnu ring tombs project an identity of uniformity while any idiosyncratic expressions of identity occur in the funerary assemblage, which would have been invisible and unknown to anyone not in attendance at the interment of the deceased. In this way I will argue that the scale of commemoration, the potential for social memory to endure, was reduced for local leaders during the Xiongnu period.

Faunal Remains in Mortuary Contexts

The inclusion of faunal materials in funerary ritual constitutes an important line of evidence in this dissertation research. However, as pertains to faunal remains, mortuary contexts again present a different set of parameters that upend traditional approaches to faunal analysis and interpretation which tend to view faunal remains as derivatives of economic activities (Crabtree 1989; Driver 1990). Since funerary assemblages represent intentionally deposited materials, faunal remains in burials cannot be interpreted in the same manner as refuse or vestiges of domestic economic activities (Pearson and Shanks 2001; Marciniak 2006). Instead they must be recognized as symbolic and material manifestations of the role that certain animals played in the worldview of the people who incorporated them into their funerary repertoire and are therefore reflective of idiosyncratic discernments of human-animal relationships. Nevertheless, a strong tendency remains in archaeology to view faunal remains as primarily indicative of economic or dietary activities without equally addressing these additional possibilities. In spite of these obstacles, it should be possible to identify alterations in animal

exploitation and ideology from funerary contexts. This may be carried out by relying on multiple lines of evidence that examine faunal remains within broader material culture regimes and by adopting a diachronic perspective that traces material change over time. In addition, since mortuary remains are inherently symbolic the inclusion of faunal remains in funerary assemblages represents a useful means to assess how animals may be used to transmit ideological information and social distinctions.

In the last century, archaeology in Central Asia and Mongolia has centered primarily on the excavation of monumental burial mounds, or kurgans (Yablonsky 2001; Christian 2001). Yet, faunal remains have rarely been the focus of systematic archaeological research and have played only a minor role in the interpretation of material change. A notable exception to this has been a large-scale focus on the domestication of the horse (Levine et al. 2004; Olsen 2006; Anthony 2007). This general lack of consideration is conspicuous due to the fact that faunal remains are virtually omnipresent in Central Asian burial contexts. Moreover, most burials have been disrupted as a result of extensive pillaging activities, but faunal remains have often been left undisturbed by looters. As a result, faunal remains represent a largely untouched archaeological resource for interpreting diachronic change in mortuary practice.

Traditional zooarchaeological approaches to faunal remains have not been particularly informative in Mongolia. Age sets of domesticated animals, particularly of very young animals, have been used to identify seasonality and scheduling or herding practices as well as the season in which a particular burial may have been constructed. However, identifying the time of year a burial and/or attendant funeral took place carries with it the assumption this was indeed significant and this may not always have been the

case (Parker Pearson 1999). Cribb (1985) has cautioned against drawing a direct correspondence between species composition and age structure of animals from archaeological contexts and the herds they once derived from. In mortuary contexts this is even more problematic. Determining the health and stature of animals in mortuary contexts is also problematic for the same reason. It is simply unknown if there were healthier, larger, or smaller animals to choose from. It is further problematic to infer herd size or composition from mortuary contexts without determining if remains represent animals from one or multiple herds. This is a particularly important question considering that funerals are often communal gatherings during which the living reaffirm or realign socio-political alliances. It is therefore possible that animals included in the faunal assemblages were brought by different people who attended the funeral rites. This in turn raises the question if faunal remains were the result of ritual feasting during the funeral itself or the events that surrounded it. Feasting has been suggested in both Central Asia and Mongolia especially when faunal remains constitute the less meat yielding parts of an animal such as the cranium, hooves, and cervical vertebrae (Kuzmina 2008; Miller 2008). However, this may privilege the interpretation of faunal remains as being inherently of nutritional and economic value and disregards the symbolic nature of mortuary contexts. Such assumptions may conceal other activities or functions of these particular elements especially in the absence of other parts of the skeleton. The head and hooves are also the most portable portions of an animal's carcass. It is thus equally possible that animals were slaughtered and consumed elsewhere and the crania and hooves substituted as symbolic representations of each animal. Hence there are demonstrated assumptions made about the significance of faunal remains in mortuary

contexts, particularly those that include livestock, which are in fact unknowns and which have significant impact upon archaeological interpretation¹³.

Perhaps the greatest assumption is that the presence of livestock suggests pastoral lifeways. This need not be the case at all since it is by no means certain where animals in mortuary contexts were actually derived from. The presence of livestock more accurately signals a preference for pastoral resources in mortuary practice. The significance of this observation is best demonstrated by the archaeological evidence itself. Xiongnu material culture, which is under consideration here, is commonly attributed to nomadic pastoralist groups (Di Cosmo 2002; Honeychurch 2004). However, Xiongnu sites such as Ivolga near Lake Baikal in southern Siberia constitute settlement sites complete with fortifications and farming implements (Davydova 1995; 1996). Yet the burials at Ivolga exhibit the same prevalence of livestock and pastoral resources in their funerary assemblages as Xiongnu tombs elsewhere in Mongolia and southern Siberia. Similarly, preliminary isotopic analysis to reconstruct and compare diet of Xiongnu populations at BGC and Burkhan Tolgoi in northern Mongolia has demonstrated a divergence in subsistence strategies. Individuals at Burkhan Tolgoi were found to have a diet more consistent with a mixed economy of herding, hunting, and fishing whereas individuals at BGC had a primarily pastoral diet (Machicek 2011). Again, the burial practices in each locale are strikingly uniform with livestock constituting the majority of animals

¹³ To date, no evidence has been uncovered that speaks to what may have happened to those portions of the animals that were not included in the funerary assemblage. No evidence has been found that suggests consumption at the grave site. Therefore, although it cannot by any means be ruled out, feasting can equally not be considered a default background condition until it is firmly demonstrated.

represented. Given these observations the presence of livestock in burials, regardless of their frequency, cannot be used to infer nomadic pastoralism.

It is important to note that archaeological discourse is conceived of and framed within the context our own contemporary understanding of the world (Holtorf 2007). For example, the distinction between the wild and domesticated species is often drawn by archaeologists because we believe that distinction to be important. However, it is not certain that it was equally important to prehistoric peoples, especially in the early stages of the domestication process. With this in mind I suggest that the nature and implication of these categorical designations warrants further scrutiny.

Bioarchaeology and zooarchaeology constitute different sub-disciplines of archaeology each with its own respective theoretical and methodological frameworks. This disciplinary separation reflects a modern understanding of the world in which humans are placed outside and above nature (Shepard 1996). Institutionalized differentiation in university curricula between human and mammalian osteology often results in human and faunal remains being studied in exclusion of one another even when derived from the same archaeological contexts. Therefore, a partition between the human world and the natural world exists and is continually reinforced through archaeological practice and organization. Humans are almost always privileged in these studies. Diet or pathology in human populations is interpreted as resulting from human choices and behavior while diet and pathology in animals is also attributed to human behavior and exploitation. Humans are thus vested with an agency not attributed to animals. Animals instead become passive economic and dietary units that exist to better

inform us about human behavioral practices. The focus tends to be not what animals were doing in prehistory, but rather what humans were doing to them.

Humans' perception of animals is largely structured by how we choose to name, categorize, and organize the natural world. Modern classification systems follow a Linnaean taxonomy and seek to assign faunal remains to specific species, genus, family, order, class, division, and kingdom (Medin and Atran 1999). However, this obfuscates the existence of several other classification systems, labeled folk taxonomies, that are developed by local communities that need not follow a Linnaean system at all (Berlin et al 1973; Wapnish 1995; Marciniak 2006). Smith (1991) has pointed out folk taxonomies in India, for example, that classify animals by how they reproduce, by whether or not they are domestic or wild, or by being edible or inedible. Although a detailed reconstruction of prehistoric animal classification systems is hardly possible, it is likely these were more akin to folk taxonomies than our Western Linnaean taxonomy (Clark 1988). Archaeologists also draw distinctions between wild and domestic animals. Domestic animals are further subdivided into livestock, pets, and feral categories with the shared characteristic that they all represent a break in ancestry with their wild counterparts (Shepard 1996). These distinctions are an important facet in understanding human-animal interaction, but like reconstructing prehistoric taxonomy it is difficult to determine if people in the past adhered to similar frameworks of reference. Modern archaeologists are, of course, aware of the increasing compartmentalization of the discipline and of the relativity, in a world of cultural difference, of their own Western scientific paradigms (Willis 1994). Nevertheless zooarchaeological methodology

continues to follow a Linnaean model that assumes and is partial to a Western understanding of nature.

Systematic categorization is not confined to the natural world. There is a long-standing tradition in anthropology and archaeology of classifying human societies according to their modes of subsistence, social organization, and language (to name but a few). Hence, nomadic pastoralism is a distinction drawn by archaeologists to distinguish between sedentary animal husbandry and herding strategies that are reliant on mobility and itinerancy. However, the archaeological signatures used to differentiate between nomadic pastoralism and sedentary husbandry practices are not well defined in Central Asian archaeology. Nomadic pastoralism is often implied in the absence of known settlement sites and on the presence in burials of horse trappings and livestock such as cattle, sheep/goats, and horses (Yablonsky 2001; Kuzmina 2008). This can be problematic since it assumes that animals found in mortuary contexts are a direct reflection of subsistence strategies among the living. Furthermore, it also presumes an overall dearth in settlements and hence where habitation sites are found they are more often than not assigned to different sedentary cultural groups. In addition, mobility and transhumance of prehistoric nomadic pastoralists is often assumed rather than demonstrated (although for exceptions see Chang 2006; Houle 2010). These factors combine to pose a significant obstacle to the interpretation of mortuary data in Central Asia and Mongolia.

In order to mitigate some of these problems, I approach faunal remains in mortuary contexts as one line of evidence, among many, that should be engaged in conjunction with other aspects of material culture in order to glean a more nuanced

perspective of how faunal resources were employed in mortuary practice. Consistent with the aforementioned observation about faunal remains in mortuary contexts the number and quality of animals included in the funerary assemblage cannot be used to indicate economic practices or wealth. As a result I will not attempt to infer the presence of nomadic pastoralism or changes in subsistence strategies from faunal remains in funerary assemblages. I will also not be using faunal remains to infer rank since as mentioned above it risks a number of assumptions all which are at best tenuous. Such assumptions are that livestock or animals can reflect the wealth or prestige of the interred. As with other artifact types, the number and quality of animals, can result from a range of other factors such as the number of attendant mourners at the funeral, the wealth or agency of the individual(s) organizing the event, or overall availability of particular animals. It is also difficult to assess the inherent “value” or “esteem” attributed to any one type of livestock or animal in comparison with another. What is the worth of a perissodactyl (e.g. horse) in comparison with an artiodactyl (e.g. a goat or a deer)? This does not become any clearer with greater or smaller numbers of each animal type. Instead, I will engage the entire repertoire of mortuary behavior, to the extent possible, and how faunal remains were incorporated into those practices. I will argue that with the advent of the Xiongnu polity ritual behavior in mortuary practice, which included the use of faunal resources, became more standardized and uniform across Mongolia and is also evident at BGC. Faunal remains and especially livestock were a symbolic currency in mortuary ritual and were increasingly integrated in communal ritual to emphasize unity and alliance with the Xiongnu central polity. Therefore the emphasis will be on choices available in the inclusion of mortuary remains, but these choices cannot be considered in

the absence of those that governed other types of materials. Faunal materials are given particular attention in this dissertation primarily because they constitute one of the more common types of materials in all funerary assemblages because they have been subject to less disruption as a result of pillaging activities. No definitively undisturbed contexts from the time period under consideration here have to date been encountered at BGC and therefore faunal remains constitute a valuable line of evidence since they received less attention from looters. Whereas many other areas of the funerary assemblages have been disrupted those areas that contained faunal remains are occasionally found intact. It is primarily for this reason that faunal remains have been privileged somewhat in the present study.

Looting and Desecration

Most research on prehistoric monuments and mortuary contexts has to contend with disruption to some extent whether this is caused by bioturbation, geomorphology, or looting and desecration events. The latter is typical for most funerary monuments and warrants some discussion here since practically every single context at BGC exhibits evidence of disruption by human activity. Looting and desecration are common occurrences in mortuary archaeology (Arnold 1995; Shimada et al. 2004). In spite of its ubiquitous nature looting and desecration in antiquity has rarely received the same attention as contemporary pillaging of archaeological sites and modern trade in illicit artifacts. A search for available literature on the subject produces a wealth of material pertaining to contemporary aspects of looting, ethics of mortuary archaeology, and discussion on custodianship or “ownership” of human cultural and material heritage, but

archaeologists are largely tacit in terms of assessing these activities in the past. In most cases disruption caused by looting is treated as a background condition that hampers the reconstruction of funerary ritual and obscures original burial environments. Rarely are the looting events themselves accorded much attention beyond that they occurred and what their impact on the original context might have been. Motives are attributed to retrieving valuable artifacts and/or desecration, but only in a few cases are these explored at any length (for exception see Graves 2008). Disruption as a result of pillaging activities is a ubiquitous phenomenon across Mongolia in the Late Bronze and Early Iron Age. As mentioned in chapter 2, Frohlich et al. (2008) are identifying the intentional disruption of khirigsuurs including the removal or destruction of the body of the deceased. So extensive were these activities in antiquity that overt attempts to hide the body to forestall desecration have been identified. Given that there are few to no artifacts recovered from khirigsuur contexts these pillaging episodes are best characterized as desecration events. Desecration is also evident in slab burial contexts, which not only reuse khirigsuur locales, but also incorporate stones and stele from khirigsuurs as architectural elements (Tsybiktarov 2003). Slab burials themselves are also looted (Torbat 2006). Xiongnu contexts further exhibit pervasive evidence of pillaging activities (Honeychurch 2004; Torbat 2004; Brosseder 2009). The motives for these are less clear. Whereas there is ample evidence of intrusion in Xiongnu tombs there are still significant number and quality of materials recovered from the funerary assemblage (Brosseder 2009; Nelson et al 2011).

Disruption of mortuary contexts is further complicated by the observation that not all disruption results from violation, but can also involve veneration (Duncan 2008).

There are numerous examples archaeologically of multi-stage burial practices that involve interment, re-interment, destruction, and displacement of the body and/or accompanying funerary assemblages (Conklin 1995; Parker Pearson 1999). In addition, a range of circumstances can result in differential treatment of the deceased that can manifest in the interment of various parts of the body at different locations, excarnation, evisceration, cremation, or boiling of the corpse, which in turn can be confused with violation and desecration. During the medieval period in Europe for example, long-distance warfare, pilgrimages, inter-dynastic marriages, and the Crusades resulted in a very mobile elite (Weiss-Krejci 2008). Yet many of these individuals chose, for various reasons, to be interred at locations that were either important politically or for personal reasons, but then subsequently died far from these locations. As a result, decomposition and decay of the corpse posed a dilemma to the living who were now tasked to bring kings, queens, and noblemen to their final resting place. Consequently, new mortuary practices emerged that occasionally saw the entire corpse transported, sometimes only the bones, and in some instances the body was eviscerated and the organs were buried in one location while the body was buried somewhere else (Weiss-Krejci 2008). Hence, Richard I Plantagenet's entrails were buried at Chalet, where he died, his heart at Rouen, and his body at Anjou where his father was also buried. Weiss-Krejci (2008) argues that these practices were largely governed by factors such as the distance the body had to be transported to its final destination as well as what time of year the journey would have to be made. A short journey in early spring might only require embalming, while transport during summer months might necessitate evisceration and the removal of the entrails to forestall the unsightly and malodorous byproducts of corporal decay. Very long

distances would require excarnation, boiling, and the transport of the skeleton only. The outcome of this variable burial regime is an uneven mortuary record. Furthermore, if texts explaining the existence of these practices were absent, it is likely that, especially excarnation and boiling, could be interpreted as violation or disruption. Transport of the bones over long distances might also result in the loss of smaller skeletal elements, which in turn might give the appearance of disruption. In each case, it is the archaeologist who is charged with determining the causes responsible for the state of mortuary materials, which necessitates an assessment of some of the factors that can affect the mortuary record.

Human remains can enter the archaeological record in many different ways, but the result is either an articulated, disarticulated, or cremated corpse (Weiss-Krejci 2008). However, in contexts that appear to exhibit disruption, it is imperative for archaeologists to determine if this results from veneration in funerary practice or violation through desecration and looting. The aforementioned scenario indicates that what might appear as violation can in reality be a product of veneration and careful attention to the proper treatment of the body in accordance with the wishes of the deceased. Hence, a question that needs to be addressed is whether or not the disruption of mortuary contexts at BGC is indeed indicative of violation and desecration and not representative of a multi-phase burial program. As Duncan (2008) has pointed out, many archaeologists note the presence of disruption, but avoid distinguishing between veneration or violation. Walker (1998) has also cautioned that what may constitute violation in one society may be veneration in another. At BGC, I argue that disruption results from violation that represents intentional desecration of the deceased in a deliberate effort to affect the social

memory of the mortuary monument. I contend that the nature and condition of the mortuary assemblages at BGC and elsewhere in Mongolia are incompatible with multi-phase mortuary regimes or disarticulation resulting from veneration for the following reasons. 1) Multi-phase burial practices, however complex, are regulated by ideological frameworks that should produce non-random contexts. Consequently, disruption should manifest in similar practices involving specific and recurring activities affecting and targeting the same elements of the body. The very fact that there are some undisturbed burials in Mongolia speaks against the notion that disruption was part of a process of venerating the dead by manipulating the corpse after initial interment. In addition, there are no discernable patterns to how mortuary contexts have been manipulated during post-depositional intrusions. Sometimes the entire skeleton is present but severely disarticulated. In other cases, different percentages of the skeleton are present or absent and affected elements are not predictable. Subsequent manipulation is random and can involve intentional destruction of various parts of the skeleton. This all speaks against the existence of ideological rules expected in multi-phase burial rituals.

2) Interment and disinterment is also unlikely since these practices, especially if they are repetitive and when a body is in a state of dry decay, typically result, over time, in the loss of smaller osteological elements such as phalanges, metacarpals, metatarsals, carpals, tarsals, ribs, and vertebrae. Small elements are often found in burials in Mongolia while long bones and larger elements may or may not be present. Similar to evidence against multi-phase burial regimes, the random occurrence of both long bones and smaller osteological elements speaks against periodic interment and re-interment of the body.

3) Variable burial practices such as those involving European nobility during the Middle Ages who died abroad are also not compatible with the evidence in funerary contexts in Mongolia. Excarination manifests in discernable cut marks on the skeleton from the defleshing process. Such markers have not been reported on skeletons in Mongolia from any time period. Similarly, evidence of boiling, burning, or other treatments of the body are also absent. The possibility that different parts of the body were interred at various locales cannot be ruled out, but is nonetheless unlikely. As with multi-stage burial regimes, there is an expectation that there should be some regulation as to what body parts were interred at which locale? Again, the material in Mongolia from any time period does not bear this out. In addition, the presence of person-sized coffins and stone cists during the Xiongnu period suggests that they were intended to hold an entire person rather than just parts of the body. The presence of undisturbed tombs is also problematic if bodies were expected to be buried in many different locations. Finally, the disarticulation of the body for the potential purpose of being buried in multiple locales does not explain the disruption of other parts of the burial assemblage such as the coffin, accompanying artifacts, and faunal remains.

4) Although multi-stage burial practices, veneration involving the manipulation or destruction of the body, or periodic disinterment are tempting but tenuous explanations for the condition of the bodies of the deceased, they are insufficient to explain attendant damage and destruction to both the assemblage and the superstructure of the monument. Ritual breaking in funerary practice is one possibility that ought to be considered since this activity has been reported ethnographically in Central Asia (Vitebsky 2005). Furthermore, the inclusion of disassembled Chinese chariots and broken bronze mirrors

mentioned in chapter 2 seem to suggest that some form of destruction was customary in Xiongnu mortuary ritual at least for some objects. The key phrase here is, for some objects. Chinese bronze mirrors have never been found intact in Xiongnu tombs (Miller 2009). Chinese chariots similarly appear to constitute an object type that typically entered the funerary assemblage in a disassembled state. Hence, ritual breaking or taking apart does appear to affect these two object types. However, this is not the case for other types of objects. In undisturbed tombs, bronze and ceramic vessels are found intact and undamaged (Torbat 2004). The same is true for other types of objects, whether they be coffins, bows, chopsticks, jewelry, or weapons. However, when graves have been reopened these objects are often severely damaged if not entirely destroyed (Brosseder 2009). Again, the presence of regulations governing the treatment of objects in funerary ritual is evident in the patterns produced. Bronze mirrors are broken and never found intact, while ceramic vessels, to name just one example, are sometimes intact, sometimes slightly damaged, and sometimes entirely destroyed. Hence there appears to be, at least during the Xiongnu period, an ideology in funerary ritual that governed the breaking of bronze mirrors and the disassembly of Chinese chariots, but this ideology did not extend to other materials placed in the grave.

5) There is emerging evidence that at least during the Late Bronze Age, builders of khirigsuurs went to great lengths to conceal the body of the deceased by building fake cists and depositing the body in another part of the burial (Frohlich et al. 2008). This speaks volumes about the concern those who buried the dead had that the body should *not* be disturbed. It also implies that as early as the advent of building stone monuments to commemorate the dead in Mongolia, there were concerted efforts to disrupt and violate

those places. For these reasons, veneration is not a viable cause of the disruption of mortuary contexts across Mongolia and instead these intrusions are best characterized as violation involving looting and desecration.

Disruption resulting from violation can take many forms. Pillaging and desecration of monuments commemorating elites can be viewed as both economic enterprise and political acts. Yet, looting and desecration alters the nature of mortuary data as well as the form and structure of funerary monuments. As a result, desecration has the potential to transform social memory of a particular monument and locale. As such, pillaging activities are a latent resource to access different dimensions of political processes. This necessitates reconstructing pillaging activities to the extent that it is possible, but also how those events have transformed the mortuary contexts themselves and affected the qualitative aspects of the data. Hence it is important to determine when pillaging events occurred, the nature of the disruption, the objects and materials targeted, and overall results on interpretative potential of archaeological data.

In this dissertation research I treat looting activities as a background condition that has affected every excavated monument in the research area and that therefore requires additional attention. I demonstrate that desecration rather than looting was the primary motive for disrupting mortuary contexts. This is evident in extensive damage to the visible components of funerary monuments, the intentional destruction of the body of the deceased, and the fact that not all valuable materials were removed. I will further argue that most of these desecration events occurred in relatively close proximity to the time that these monuments were constructed. In other words, desecration represented intentional attempts to humiliate, destroy, and alter the social memory surrounding

particular monuments in the landscape. Hence, desecration and disruption of mortuary monuments would have had a greater impact and would have been more meaningful if they occurred during the same time period that they were constructed or shortly thereafter. However, before turning to the methods and data generated for this research it is necessary to elaborate on how disruptive processes affect mortuary data.

Pillaging and desecration affects mortuary data by 1) removing some or all of the funerary assemblage, 2) moving or displacing some or all of the assemblage, 3) destroying some or all materials in the assemblage, and 4) altering or destroying the visible components of the funerary monument. An important aspect is determining what materials are affected by secondary intrusion and disruption. Looting that is aimed at the retrieval of valuable objects for economic gain should result in the removal of most or all objects of value. Similarly, looting motivated by financial rewards should rarely result in the destruction of non-valuable materials beyond what is necessary to gain access to the funerary assemblage. Disruption that results from desecration is likely to result in damage and destruction to various components of mortuary assemblages, but is likely to target the body of the deceased, the monument itself, or other objects associated with funerary ritual that need not be of any obvious or intrinsic value. Determining when pillaging episodes occurred is not a straightforward exercise and can be further complicated in the event of multiple disruptions. Skeletal materials can be one source of evidence as various states of decay result in different levels of disarticulation. In other words, a body that is in wet decay is still going to be held together by flesh and tissue and if manipulated is going to remain relatively intact or be moved as a whole. Conversely, once a body is in dry decay, manipulation is going to affect individual elements rather

than the entirety of the skeleton. Other indicators of when pillaging episodes took place can be seen in secondary burials that place a terminus ante quem for the pillaging episode (Nelson et al. 2011). Reburial or subsequent reconsecration of disrupted monuments is also an effective marker before which looting events must have occurred (Johannesson and Machicek 2008).

At BGC the pillaging episodes are suggestive of desecration for the following reasons. The bodies of the deceased are invariably targeted in the event. This results not only in the complete disarticulation of the body, but also in extensive destruction of particular elements of the skeleton, especially the skull. Breaking a human cranium into small pieces takes some effort and does not result randomly from accidental damage as a result of digging into the burial. The same can be said of damage caused to other components of the funerary assemblage. Ceramics are friable, but the reduction of ceramic vessels to scattered fragmentary shards indicates deliberate and forceful destruction. In addition the superstructure of the monuments themselves often exhibit evidence of damage, disruption, or collapse, which can only be attributed to human intervention. A great number of slab burials at BGC are entirely collapsed. Whereas this could be explained to some extent by geomorphological forces, instances where every upright slab of a monument has been upended are conspicuous. These are made even more conspicuous by the fact that while excavating this type of burial it typically required several individuals working in unison to simply shift individual slabs let alone bring them down entirely. Hence it seems unlikely that slab burials that are entirely collapsed are the result of natural forces alone. Finally, desecration appears evident since in spite of widespread disruption, semi-precious objects such as beads, bronzes, lacquer, and gold

are still recoverable, especially from Xiongnu period graves. If pillaging was motivated by materialistic acquisition then looters must either be viewed as rushed at best or at worst inept. The former begs the question, that if time was of the essence during looting, why bother investing in the destruction of other elements of the burial? In light of these observations, I approach the disruption of mortuary monuments at BGC as evidence of desecration that may have had the added benefit of material reward, but was otherwise motivated by ideological and political factors. Consequently, desecration of monuments was part of a socio-political process that pertained to the creation, maintenance, and destruction of particular narratives embodied by commemorative monuments.

Desecration and disruption of both monuments and their accompanying assemblages have further impact on the interpretation of archaeological data at BGC because it constrains available analytical methods. The disruption of Xiongnu ring tombs have resulted in the “lopsided” or asymmetrical appearance of surface ring as rocks used in the superstructure have been thrown aside. As a result, ring diameter cannot be approached as representative of the original size or shape of the burial. Hence, quantifying methods using ring diameter are a poor analytical tool since it is unclear if what is being measured is the original size of the superstructure or the subsequent pillaging horizon. The same can be said for those slab burials in which one or more slabs is no longer standing. There are no qualitative controls in these cases that can identify with any certainty what is actually being measured and if those measurements are indicative of the original structure and layout of the monument. This applies to funerary assemblages as well. It is not possible to determine with great precision the quantity and quality of materials originally present in the assemblage and therefore using quantifying

methods that seek to determine status or “complexity” of disrupted contexts is at best misleading. It is primarily for this reason that I have chosen not to employ statistical or quantitative methods to analyze monuments at BGC and have instead chosen to rely on qualitative assessments that necessitate defining what, how, and in what way mortuary practices and any associated pillaging activities change during the Late Bronze and Early Iron Age.

Chapter 5

Excavation and Survey at Baga Gazaryn Chuluu

Introduction

Whereas the first part of this dissertation discussed the theoretical perspectives upon which this research rests, the second part concerns the archaeological methods used to obtain the data necessary to address the primary research objectives. Here I will outline the methods employed to collect the necessary data to address the research questions posed in chapter 1. In this chapter I will also introduce the geography of Mongolia via Central Asia, the region of which it is a part, focusing on the topographical and environmental features that have shaped this part of the world. In a geographical sense, Mongolia cannot be treated separately from other nearby regions because Mongolia itself is so much part of the cultural and environmental world of Central Asia. I will begin with a general discussion of the geographic definition of Central Asia and will then move on to describe the geography of Mongolia specifically. I will then situate BGC in the geography of Mongolia and will proceed to describe the overall layout and topography of the research area. Finally I will describe the survey methods used to locate, identify and document archaeological sites at BGC and the basis for choosing to excavate specific monuments.

Central Asia

In writing about Africa, Robertshaw (2009) explains that the exercise invariably involves discussing judgments of the status of Africa vis-à-vis the developed world. I would argue that this attribute can be extended to Central Asia as well, which is commonly approached as a vast abstruse area between the civilizations of the Greco-Roman world and China. For example, Christian (2001) makes a distinction between Inner Eurasia (Central Asia) and Outer Eurasia (comprised of southern Europe, Middle East, India, and Southeast Asia). The latter he argues were the sites of the world's first urban, literate societies which have been privileged based on the wealth of written documentation emanating from these areas, which in turn influence contemporary historiographies. Hence, prevailing logocentric (bias towards literate sources and literate societies) and agrocentric (bias towards agrarian, urban societies) attitudes among contemporary scholars have focused historical research overwhelmingly on the regions of "Outer Eurasia" (Christian 2000:xvi). As a result, Central Asia has conceptually become the geographical expanse *between* text producing agrarian societies. In this same vein, Schoeberlein (1999:23) has pointed out the irony that geographical regions imbued with the title "Central" are often marginal and usually treated as peripheries in academic discourse. This is particularly true for Central Asia, which in spite of its epithet has often been excluded in geographical definitions of both Asia and Europe. Central Asia also has a peculiar location both geographically and abstractly placing it *above* traditionally recognized, complex, and agrarian states such as Rome, India, and China. However, Central Asia's position between and above civilization is further complicated by poor definitions of the boundaries that frame East and West. If the borders of Asia and Europe

are fluid and not well delineated, how is the space between them any more precise? This is an important point given the historical traditions that developed in Greece, Rome, and China respectively, which included discourse on Central Asian peoples who, to their authors, represented the *other*. These *others* were by default designated as western, eastern, or northern entities depending on the geographical setting each author was writing in.

Defining Central Asia in a strict sense can be problematic because the term is too imprecise to permit specific definition. It is comprised of most of the Eurasian landmass excluding the regions that constitute its shorelines. In other words, Central Asia is that part of Eurasia without a coastline, or more precisely, everything with the exception of the peninsulas of Europe, West Asia, South and Southeast Asia, and East Asia. This definition may appear to derive from a process of elimination, but there are features of climate, geography, and habitation that anchor the region and that confer a certain degree of geographical commonality. At first glance, Central Asia may appear diverse and nebulous, but is in fact readily definable both geographically and historically. In spite of its size, Central Asia is a region that is circumscribed in all the cardinal directions by several barriers that isolate and separate it from the rest of Eurasia. Central Asia is bounded to the west by the Pripyat Marshes at the border between Poland and Russia. This western boundary extends south via the Carpathian Mountains that stretch in an arc across most of what is modern day Eastern Europe. Together, the Pripyat Marshes and the Carpathian Mountains do not only hinder movement of peoples, but also have a significant environmental impact. The tall ridges of the Carpathians impede the flow of Atlantic winds to western Central Asia while the extensive forests on their western slopes

as well as in Germany and Poland around the Pripyat Marshes draw most of the moisture from Atlantic weather systems before they penetrate into Russia. Consequently this westernmost boundary of Central Asia not only frames the area, but contributes significantly to the aridity of the region.

Central Asia is bordered along its entire southern boundary by an immense chain of mountains that stretches from Turkey to the Pacific. This chain is made up of the Caucasus Mountains in the west; the Elburz Mountains which together with the Hindu Kush form an almost unbroken line across northern Iran until the Hindu Kush merge with the Pamirs in Afghanistan. The Pamir massif is itself divided into two separate parts where one part stretches south to form the Himalayas, while the other extends in a northeasterly direction to form the Tien Shan Mountains that eventually give way to the Altai and Sayan ranges that form the western and northwestern boundary of Mongolia respectively. The southern boundary of Central Asia presents a formidable and largely impenetrable barrier, which has further contributed to the region's isolation from areas to its south. Like the Carpathian Mountains in the west, these formidable mountains shield Central Asia from weather fronts originating from the continental coasts with the result that little moisture reaches the region.

The northern periphery of Central Asia consists of the great tracts of tundra that form a narrow band across the Siberian Arctic coastline and the largest single expanse of forest in the world (Moses 1985). The Siberian *taiga*, consisting of closed forests and lichen woodlands, stretches in an unbroken swathe from the Baltic to the Pacific Basin and the Sea of Okhotsk. The *taiga* is dominated by coniferous trees, but some broad leafed deciduous trees such as birch, aspen, and willow can be quite common and a

number of small herbaceous plants also thrive closer to the ground. These forests form their own type of barrier as they encumber movement and prevent agriculture on a large scale without massive clearing requiring significant labor investment (Humphrey and Sneath 1999). The forest zone also affects pastoralists as it hampers horse transportation and herd management. Like other expansive arboreal terrain the *taiga* absorbs much of the moisture and wind carried in from the arctic.

Together, the barriers that form the western, southern, and northern boundaries of Central Asia contribute to the great aridity of the region. Most of Central Asia receives less than 40cm of precipitation annually with much of it receiving an average of 20-25cm (Moses 1985). Moving beyond the impermeable boundaries of Central Asia towards its interior the *taiga* gives way to a narrow corridor of mixed forest and grassland known as the forest-steppe zone. This subsequently extends into the grassland steppes for which Central Asia is perhaps best known. This expansive grassland belt stretches from the Danube River in the west to the Ordos Plateau in the east. Like the southern mountain ranges the steppe is an unbroken and pervasive feature of the Central Asian environment and winds itself around and between numerous other barriers within the region such as the Ural Mountains, the Dzungarian passes of Chinese Turkestan, and finally into the central highlands of Mongolia. South of the grassland belt between the steppe and the southern mountain chains lies a band of semi-desert and desert. These arid expanses are concentrated east of the Caspian Sea to the Pacific Basin. As a result these have sometimes been used to define Central Asia in contrast to other geographical locales in Inner Asia, which effectively constrains the area to only include the modern day countries of Uzbekistan, Afghanistan, Tajikistan, Kazakhstan, Kyrgyzstan, Turkmenistan, and

Mongolia. However, this ignores some of the pervasive features and boundaries mentioned above that inherently define and, more importantly, shape the region. Thus delimiting the scope of Central Asia is misleading as it erroneously separates the arid semi-deserts and deserts from the rest of the region.

In sum, Central Asia is a dry region with long winters and with relatively sparse rainfall during the short summer months. The region can be divided into three separate environmental zones that together are bounded by extensive and largely impassable mountain ranges. From north to south these are the *taiga* forests, the grassland steppe zone, and the narrow semi-desert and desert plateaus to the south. The horizontal bands formed by these zones are intermittently broken up by a network of rivers that criss-cross Central Asia in a south-to-north direction. These act as vertical boundaries in their own right and encumber east-to-west movement. This pattern is uniform across the region and it is for this reason that Central Asia should be defined as stretching from the Carpathians in the west, to Manchuria in the east and from the Arctic tundra in the north, to the chain of mountains in the south that separates the region from peninsular South Asia and Southeast Asia. Other nomenclature has a tendency to unnecessarily compartmentalize the region or include areas that lie outside the mountainous boundaries outlined above and therefore lie outside the previously mentioned climatic zones.

Mongolia

The geography of Mongolia somewhat mirrors that of Central Asia in that it can be divided from north to south by the same three horizontal environmental zones that characterize Central Asia. Namely, *taiga* forests in the north, which give way to steppe,

and finally the Gobi Desert in the south. However, there is significant diversity both within and between these geographical zones reflected by the mountain tundra in the northwest and the salt marshes of the south east. As a whole Mongolia can be viewed as a plateau that is tilted from the northwest to the southeast with the higher rim formed by the Altai mountains, the center or lowest part by the Gobi Desert, and the lower rim in the southeast by the highland plateaus of Chinese Inner Mongolia. The altitudes of the western rim average 4600 meters while the eastern rim averages about 750 meters. The wide expanses of the Gobi Desert also lie on average approximately 600 meters above sea level.

Mongolia today is approximately twice as long as it is wide. From east to west the country measures approximately 2400 km while at its greatest extent the distance from north to south measures circa 1280 km. As of 2003 there was only 120 km of paved roads in Mongolia and therefore these distances are primarily traversed by un-paved dirt tracks and trails (Jeffries 2007). Mongolia's central parts can be divided into two major zones, the Khangai zone of the north and the Gobi of the south. The former is largely alpine territory with drainages leading north out of Mongolia towards Siberia. The latter is a steppe and desert region with a limited drainage that is entirely internal. These two major regions can in turn be divided into five ecological zones: the Altai mountainous regions, the Great lakes district in the north-central Khangai-Khentii mountainous region, the plains in the east, and the entire Gobi region of the south (Murzaev 1968). The Altai is an extensive mountain system with parallel ridges to the northwest and southeast, and a large spur, the Gobi-Altai, in the south. The Altai include the highest peaks in Mongolia with altitudes as high as 5000 meters, but with approximate ranges of 1300-4500 meters.

Smaller, yet nonetheless impressive, are the Khangai-Khentii ranges in north and central Mongolia. These mountain ranges average from 1200-3000 meters and give rise to all of

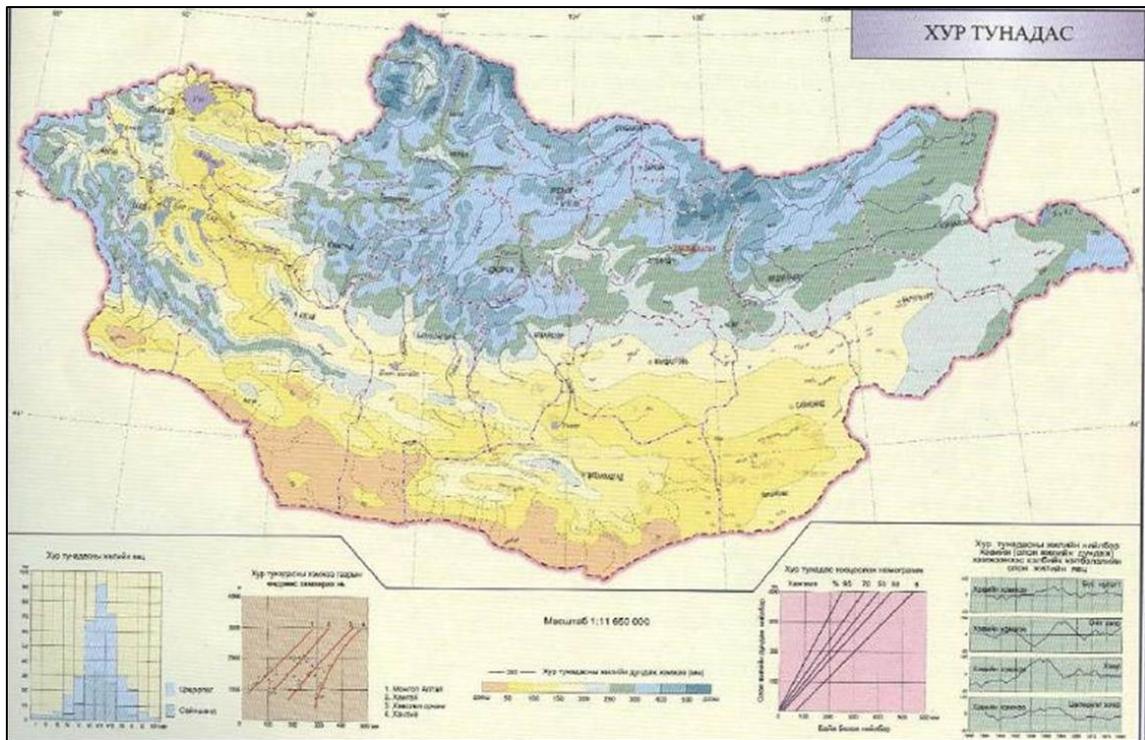


Figure 5.1 Map of Mongolia showing regional annual averages in precipitation (Tsanjid 2004)

Mongolia's major rivers. All these rivers flow in a northerly direction away from the Gobi, but contribute to the formation of lush grasslands in central Mongolia. There are more than 2000 lakes throughout the northern half of Mongolia although most are quite shallow and some can be saline. As a result of its rivers and lakes the northern portions of Mongolia are well watered and comprise lush meadows, forest zones, and *taiga*. On the other hand, the northern mountain ranges block moisture laden winds from Siberia from reaching down to southern Mongolia. The absence of moisture driven in from the north and the lack of river drainages towards the south ensure that the Gobi and surrounding desert-steppes are arid [Fig. 5.1]. The term Gobi can be somewhat misleading as it is the Mongolian word for *steppe* and therefore also applied to regions

not associated with what is commonly known as the Gobi Desert. Therefore I use the term Gobi to refer to the grassland steppes and desert steppes that lie to the north of the Gobi Desert proper. These arid expanses are comprised of shallow and often gravel-filled soils with sparse vegetation that in the south give way to sand and rock desert. The Gobi Desert itself stretches beyond modern day Mongolia into China and is bordered in the east by the Khingan Mountains on the border of Manchuria, the Pamirs in the west, and the Kunlun, Qilian Shan, and Altun Shan ranges to the southwest. The Gobi Desert presents a formidable barrier to the southeast and has acted to effectively separate Mongolia from other parts of Asia and Southeast Asia, particularly from China.

In summation, Mongolia is a part of the overall environment and ecology of Central Asia and is effectively isolated geographically from the cultures and climates that define Southeast Asia. Mongolia is situated at the eastern end of Central Asia and completes the great arc of the grassy steppe that connects it to the rest of the region as far west as Hungary. Mongolia shares, and embodies, the tripartite ecological zones of *taiga* in the north, followed by grassland steppes, and deserts to the south, which define Central Asian ecology.

Baga Gazaryn Chuluu

BGC is a constellation of cliffs and ridges measuring approximately 85 km² that rise out of a vast expanse of desert steppe just north of the Gobi Desert in the Dundgovi Aimag of Mongolia (46.20° N 106.02° E) [Fig. 5.2]. The area lies between 1400 and 1760 m a.s.l. and is a principal landmark in an otherwise relatively flat landscape. The ridge system is dominated by a central valley extending in a northwesterly direction from the center of the massif and is flanked to the west and south by some of the tallest peaks in

the area, characterized by steep rock faces and cliffs [Fig. 5.3]. Erosion and exfoliation have created a labyrinthine system of valleys, channels, and gulches circumscribed and

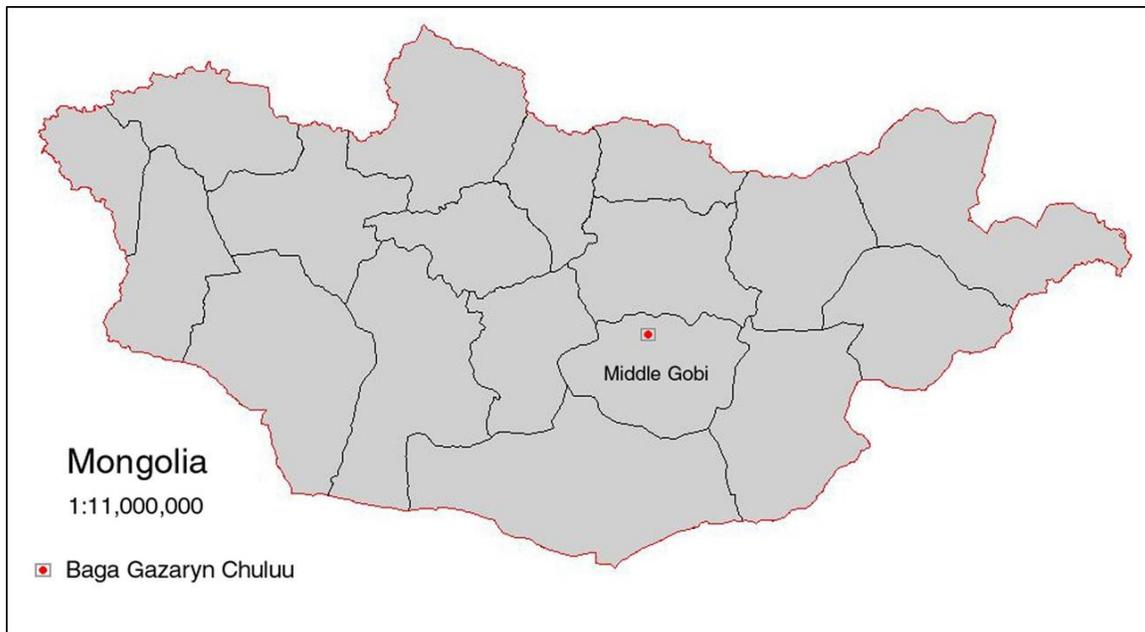


Figure 5.2 Map of Mongolia showing location of BGC.

intersected by granite tors and knolls. The soil itself consists of shallow deposits of windblown loess and sandy soil derived from the decay of the underlying granite bedrock that also comprises the ridge system. Soil deposition is not uniform around BGC and is quite shallow close to the rocks with greater accretion in the valleys and along the system's edges. The terrain consists of rock desert with sparse vegetation comprised of steppe grasses, shrubs, and the occasional birch tree. The sparse vegetation also limits top soil formation with the result that artifacts left on the surface often remain there and do not get worked below the surface as a result of bioturbation. This fact has contributed to the project's ability to detect artifacts and activity areas with fairly high confidence that what is observed represents high resolution recovery.

At the edges of BGC and beyond the area is characterized by low lying basalt formations created via subaerial pyroclastic flows that have been subject to ample weathering and exfoliation. These occasionally form horizontal rock faces with flat



Figure 5.3 The rocky terrain at BGC

surfaces that have periodically been subject to rock carvings at various points in time. Annual precipitation is low averaging approximately 150-250 mm and in years of drought the landscape lies almost entirely barren. In spite of the low rainfall shallow drainages and horizontal shelves act as reservoirs in which water collects to form small pools while the soil itself is conducive to water retention resulting in a fairly high water table. Groundwater has accumulated in the wider more sedimented valleys and has formed underground reservoirs in the central valley and in the eastern edges of BGC and

these areas are now the locations of the two major wells in the area. As a result of its conduciveness to retain water BGC constitutes a relatively stable source of water that support limited pastures and acts as a refugium in an otherwise arid landscape. The region's hydrology has contributed to the area becoming a natural staging point for travel into the Gobi Desert and may have been a factor that influenced habitation in prehistory.

The Baga Gazaryn Chuluu Archaeological Survey Project

The Baga Gazaryn Chuluu Archaeological Survey Project was initiated by William Honeychurch, Chunag Amartuvshin, and Joshua Wright as a comparative venture for a similar survey they conducted at Egiin Gol in northern Mongolia between 1996 and 2002. Both areas were originally selected for survey because monuments that characterize the Bronze and Iron Ages in Mongolia, khirigsuurs, slab burials, and Xiongnu ring tombs co-occur in both locales. Therefore Egiin Gol and BGC represented suitable locations at which to investigate the spatial and temporal relationships between these monument types in order to obtain a finer resolution of the socio-economic, political, and ideological processes that produced them. The project consisted of the principal investigators and a number of other members whose involvement in the project varied from year to year. The crew was primarily composed of students from the National University of Mongolia and the Institute of Archaeology in Ulaanbaatar. The crew additionally consisted of foreign undergraduate and graduate students, specialists in various disciplines of archaeology, geology, and anthropology, and non-specialist volunteers. The size of the crew varied each year from 15-30 people. All fieldwork was conducted during the summer months of June through August and typically each field

season was divided into two 3-4 week sessions with a 1-2 week interim period between each session. The weather in Mongolia during this time of year is quite hot (ca. 90° F) with little precipitation, which makes for conditions favorable to both archaeological survey and excavation. However, conditions were affected each season by varying degrees of strong winds, drought, and rain. Nevertheless, the project was able to conduct work during 95% of each field season.

From the outset methods were designed to be flexible and versatile as it was then still unknown what materials and circumstances the project was going to have to contend with. The survey was aimed to be a full-coverage survey that would include archaeological material of all types and from all time-periods. Full-coverage survey was also necessary for flexibility since the extent and diversity of archaeological materials at BGC were not known at the project's inception. The goal was to collect data covering as much ground as possible with sufficient precision to allow for the detection, identification, and recovery of the majority of the region's archaeology (Kowalewski and Fish 1990). An important question that had to be solved before the survey began was how to define sites. This was fairly straightforward as it pertained to stone monuments where principal parameters involved identifying and distinguishing individual and clusters of monuments and any boundaries between them. For artifacts this was a far more complicated and tenuous issue. The concept of site in archaeology has caused some debate (Willey and Philips 1958; Dunnell and Dancey 1983; Dunnell 1992; Drennan 2003). Hence we were confronted with the issue of how the project was to define sites and the analytical consequences of that choice. Site-less archaeology where individual artifacts become the units of analysis and sites are only reconstructed once all data have

been collected and analyzed was one option (Dunnell and Dancey 1983). Another was to collect artifacts in zones and let these larger zones become the units of analysis. Ultimately the decision was made to follow site-definitions used in the Egiin Gol Survey where sites were defined as artifact clusters of 5 artifacts or more (Honeychurch 2004; Wright 2006). This decision was of course based on the successful use of that definition at Egiin Gol, but also by the fact that the major focus of the survey was on stone monuments and by the expectation that artifact density was going to be low. Whereas site-less archaeology has been proposed as an alternative to mitigate the potential problem of arbitrary site definition, having a low artifact threshold for site definition, allowed for somewhat easier management of artifact recovery. The low artifact threshold also avoided lumping objects into larger and by default arbitrary units of analysis constructed around the idea of a site, but also sidestepped the possibility by using site-less survey of creating maps with the same “sites” represented by more artifacts which would also be far more time-consuming in the collection phase.

Another problem, which did not become evident until the survey was underway was the terminology used to define sites. To facilitate and standardize the collection and recording of data the project used a set number of categories to define monuments. For the Bronze-Iron Age these categories consisted of shape-burials, khirigsuurs, slab burials, and Xiongnu ring tombs and catch-all terms such as stone feature or ring burial. Whereas this ensured consistency and ease of data management, the categories created proved to be problematic in their rigidity. The monuments encountered by the survey and especially during excavation proved to exhibit a range of diversity that made these categories somewhat imperfect and which necessitated questions of how to qualify each

monument and account for diversity within each type¹⁴. What is a slab burial? What is a khirigsuur and what is the variability within this monument type? These are questions that to some extent frame the present study since to these are germane to answering the broader question of the nature of change in mortuary traditions at BGC at the advent of the Xiongnu polity. Ultimately these questions had to be addressed through excavation and through a phenomenological approach to the placement and characteristics of each monument type.

Finally a problem with the use of the term site, and one which somewhat inspired the current research, was how to account for places in the landscape that may have had cultural significance, but which were not visible archaeologically. As described in Chapter 3, certain characteristics of stone monuments and their spatial distribution in Europe have been used to identify significance of places that would otherwise be unrecoverable archaeologically. The hope, both at Egiin Gol and at BGC, was that the results of the surveys and the ensuing site distribution would yield information from which to derive such spatial significance (Wright 2006). However, at BGC it became clear that there was not sufficient topographical resolution in the resultant site distribution maps to allow for this kind of reconstruction. As a consequence I began to explore other avenues to access that type of information and increasingly turned to the idea of phenomenology (Tilley 1994). This in turn led to thinking about how phenomenology could be operationalized in the context of the primary survey of archaeological sites in the area. These ideas were approached while the principal survey was already in progress

¹⁴ A number of these excavations involved monuments that fall outside the chronological range of this dissertation and are thus not discussed here. Nonetheless this was a phenomenon that required reconsideration of how sites were to be defined.

and other project participants were also formulating their own ideas of how to answer questions generated by its initial results. The outcome was that once the primary survey was complete a series of other surveys would be initiated by individual researchers to address concerns specific to their research interests. In my case, that entailed conducting what I call *qualitative survey*, which I will describe below. This entailed not treating monuments as sites, but instead as places with potential agency. In other words, treating places at BGC as having the ability to influence and affect the experience of an individual traversing the landscape in which that monument could be found. In this way monuments were unshackled from the concept of site and from the distribution maps created by the primary survey and became specific places to be visited and experienced in relation to their setting and relationship to other features in the landscape.

The initial archaeological survey of BGC employed the same general framework that the principal investigators had employed at Egiin Gol (Honeychurch 2004; Wright 2006). The project obtained both topographical maps of the area and aerial photographs taken by the Russians during the 1970s and 80s. The topographical maps were used to tentatively outline the extent of the survey [Fig. 5.4]. Although it was known beforehand that archaeological sites concentrated at BGC, it was unclear how far beyond the ridge system these sites extended. Therefore, two cordons were thrown around the research area forming an interior and exterior boundary. The interior area comprising 104 km² covered BGC itself and some of its hinterland while the larger cordon extended beyond this horizon into the surrounding desert-steppe and formed an exterior area of 66 km². The objective was to intensively survey the interior area comprising BGC and its hinterland and to extensively survey the exterior area to identify the edges and boundaries

of site distribution¹⁵. The project also aimed to conduct reconnaissance beyond these two areas to assess the extent of archaeological site distribution on a more regional scale to address the research area’s potential broad scale significance.

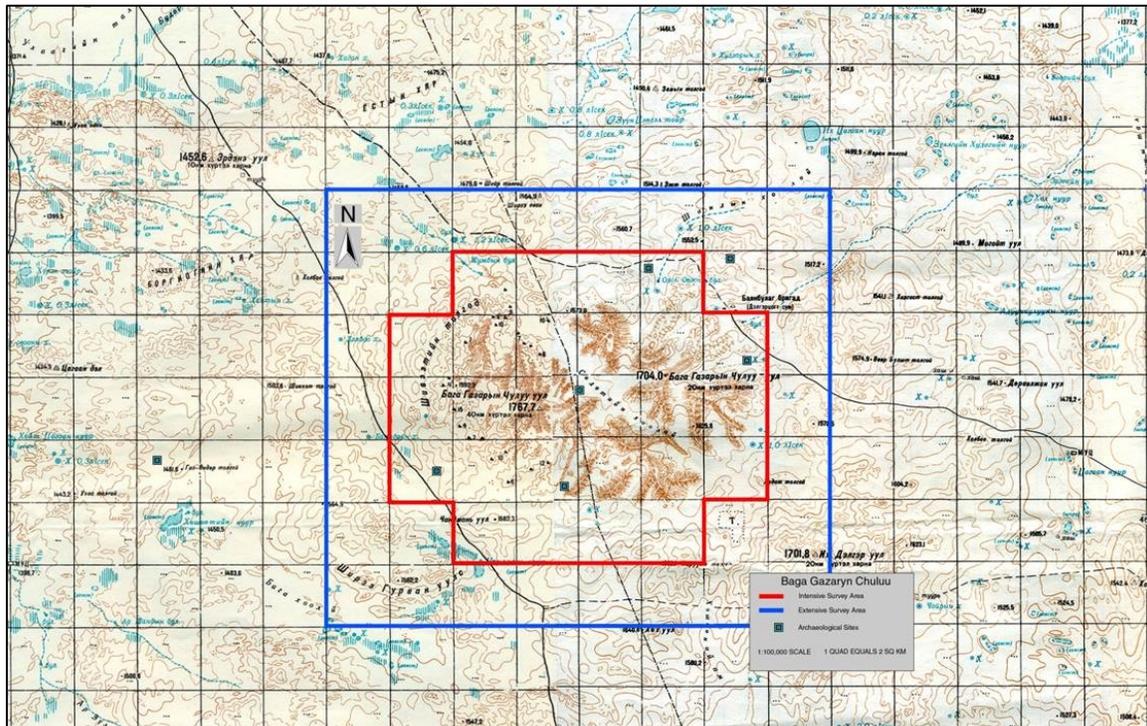


Figure 5.4 Topographic map of BGC and surrounding environs illustrating areas originally planned to be surveyed. Red outline indicates area of the intensive survey while the blue indicates the extensive survey area.

The aerial photographs were scanned and formatted in order to digitally stitch them together to produce one larger cohesive image of the research area. This larger image was then divided into four sections comprising the NW, NE, SE, and SW portions of BGC. A grid of survey blocks measuring 1 km² was then laid out across each section representing the individual units to be surveyed by the project [Fig. 5.5]. As the survey got underway, groups consisting of between 5-10 individuals systematically walked

¹⁵ This schematic of an interior and exterior area to be surveyed intensively and extensively ultimately changed as the survey got underway. In the end, all of the rocky terrain of BGC was intensively surveyed with extensive survey conducted in the hinterland and at targeted locations some distance away from the core of the research area.

across each 1 km² unit in straight lines (transects) oriented along the cardinal directions of the grid with approximately a 20-50 meter distance between each person, scanning the ground until the entirety of each survey unit had been covered. In spite of using various methods to stay “on transect”, which included handheld GPS units, sometimes topography prevented crews from traversing a unit in a straight line. This was particularly true in the western and southern sections of BGC where cliffs and ridges form formidable obstacles. In these instances the crew abandoned the use of transects

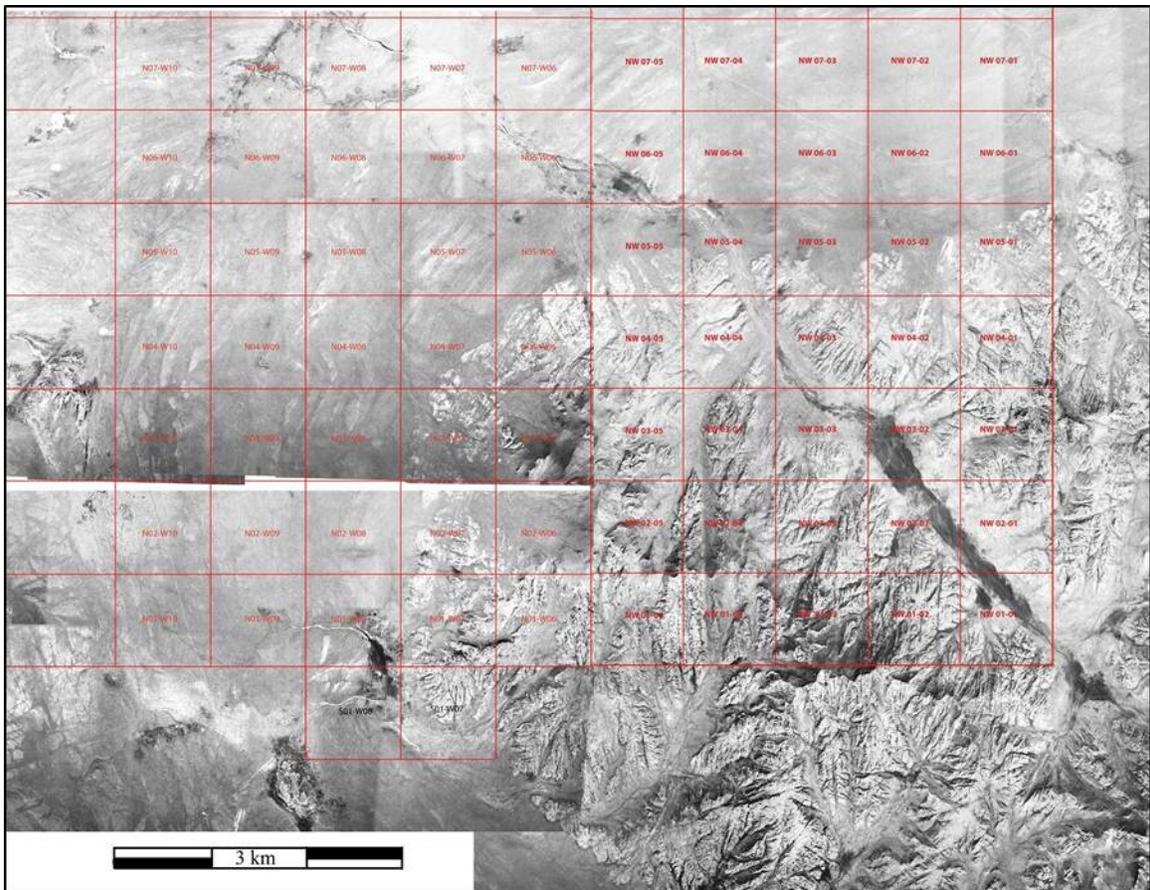


Figure 5.5 Aerial photographs of northwestern portion of BGC stitched together and overlaid with survey grid measuring 1 km² units.

and instead made use of more accessible routes across the terrain. Once obstacles had been traversed, the crew spread out to the degree that it was safe and continued the

survey. In spite of occasionally abandoning transects, crews were nevertheless able to cover each survey unit in full.

As artifacts were encountered, crew members would call out to indicate the find and in the event that several such calls were made in quick succession the entire survey line would stop, assemble, and begin a more concentrated search in the general vicinity where the calls originated. In the event that less than five artifacts were recovered these finds were labeled and bagged as “transect finds”. Where more than five artifacts were recovered the location was deemed a site and its GPS coordinates (using UTM's) were recorded. In the event that the survey crew encountered extensive and/or dense artifact scatters a method of “dog-leashing” was used. This entailed identifying one or more areas of the site where artifacts appeared to cluster. A stake was driven into the ground to which a string was tied and then measured to a length of 1-2 meters. This string was used to create a circle around the stake within which every artifact was collected. This method proved useful because it both permits the identification of artifact clusters within a site and, at sites that are spatially extensive or where artifact density is so high that not all artifacts are likely to be recovered, it permits a selective yet high precision collection of artifacts. When a monument was encountered the crew would stop walking and convene to record and document the feature as well as search for additional sites or artifacts nearby. The monument's location was recorded using GPS, a general description was made and included dimensions, a sketch map, photographs, and discussion of topographical setting and association with other nearby sites. Once the monument had been documented the crew resumed its transect until the survey of the unit was complete.

Once the interior area marked for intensive survey had been completed the project also conducted extensive survey into the expanses of desert steppe that surround BGC. This was similar to the intensive survey in that aerial maps were used to identify target areas and a grid of 1 km² blocks was laid out representing each unit to be surveyed. However, during the extensive survey the interval between crew members' transects was extended to 100 meters so the team could cover more ground. Since the transects were spaced further apart, the success of this type of survey was often contingent on the crew's knowledge of in what settings one might expect to find certain sites. Therefore, the extensive survey teams were comprised of a greater number of individuals with prior experience with survey or with some knowledge of BGC in general. Apart from this, sites were identified and recorded in the same way as in the intensive survey. As mentioned above the extensive survey was meant to identify any potential boundaries in site distribution at BGC and overall it did just that as the number of sites dropped off remarkably about one or two kilometers from the rocks.

Reconnaissance

Finally, the project carried out general reconnaissance in areas that lie outside BGC and its immediate surroundings. This informal type of survey was generally conducted by vehicle in areas where topography stood out from the surrounding landscape such as rocky outcrops and ridges or along dry riverbeds and drainages, but also along areas that are still used by local horse riders to pasture their livestock. In some cases reconnaissance was conducted based on information obtained from local herders about the existence of potential sites. Upon receiving such information a small crew

would assemble and drive to the destination where sites had been said to be located. In many cases this was easier said than done since there are only dirt roads, if any roads at all, in this part of Mongolia, and the directions to sites were often subjective and vague. However, upon finding the locales in question, the crew would disembark and survey the immediate area and record and document any sites that the team could locate. Reconnaissance was rarely systematic and transects and the intervals at which they were placed was almost always arbitrary. However, sites were treated and recorded in the same manner as in intensive or extensive survey. Reconnaissance was particularly intensive at Bayanunjil, which is another water rich area roughly 90 km north of the research area where local herders occasionally retreat to when droughts reduce pastures at BGC.

Using intensive and extensive survey as well as reconnaissance, the project systematically surveyed 240 km² within an area of 1200 km² and identified and recorded approximately 1750 sites ranging in date from a century ago to the middle Holocene. Of these roughly 807 were initially identified as belonging to the Late Bronze Age to the end of the Xiongnu period. These in turn broke down to 72 shape-burials, 317 khirigsuurs, 266 slab burials, and 158 Xiongnu ring tombs. It should be noted however, that there are a number of monuments of uncertain distinction that although they could be ruled out as being any of the aforementioned variety could still be contemporaneous with them.

Qualitative Survey

As I mentioned above, survey methods were adjusted as new findings came to light. In 2006 it was noted that adherence to a grid of survey blocks was a factor that

hampered the resolution and quality of data collected. The number and flexibility of monument types used by the project was too imprecise to account for the diversity encountered in monument construction, especially for Bronze and Iron Age features. The three categories of khirigsuur, slab burial, and Xiongnu ring tomb had been used to classify monuments belonging to this period, but the criteria used to assign monuments to each type was unclear and poorly defined. Furthermore, each principal investigator had their own conception of what the defining characteristics of each monument type should be. This phenomenon did not greatly affect khirigsuurs. The complex composition of these monuments necessitated detailed visual descriptions that could be referenced and used to differentiate between different types of khirigsuurs as well as to set them apart from other types of monuments. Slab burials on the other hand appeared to be a far more imprecise category. A total of 260 monuments had been identified as slab burials. However, while referencing the project database it became apparent that the range of variation in size, orientation, and composition of features in this category was so encompassing that it begged the question, when is a slab burial a slab burial? The demand for an answer to this question was further emphasized by the plan drawings and photographs of each site. Upon examination it appeared that almost any monument comprised of large slabs of rock had been categorized as slab burials. This necessitated a qualitative reassessment of slab burials at BGC.

In the summer of 2008 I revisited all monuments that had been classified as slab burials in the project database as part of what I call *qualitative survey*. The focus of this survey was the monuments themselves, their relationship to one another, and their placement within the broader landscape of BGC. My approach was largely a

phenomenological one (Tilley, 1994) with particular emphasis on structure, viewsheds, accessibility, and overall placement in regard to surrounding topography. Although this survey was largely experiential, I was able to develop a set of criteria to supplement information about slab burials at BGC. Slab burials whose classification was never in doubt and whose orientation lay closer to the east-west axis exhibited a number of remarkable features. These monuments were visible when approached from the west, but not from the east [Fig. 5.6]. Most were in fact only accessible if approached from the west. This observation was emphasized during the survey when, even while using a GPS

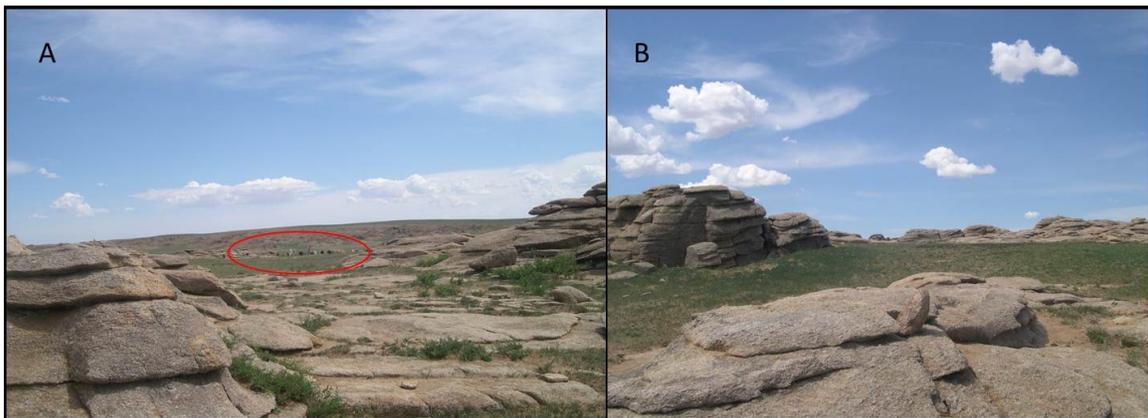


Figure 5.6 Slab burial visibility; A) BGC 554 visible at 200 meters from the west; B) BGC 554 no longer visible at 50 meters to the east.

to relocate slab burials, I invariably overshot or failed to detect them if I approached the sites from the east. Another observation was that slab burials formed much larger clusters than had previously been thought. This was due to the fact that a number of these features had been arbitrarily separated by the original survey grid and identified and recorded at different times, but also because their association was not necessarily based on spatial distance, but rather contingent on monuments' association with similar topographical features. The entire northeastern section of the central valley, for example, is one large cemetery of slab burials in which burials are interconnected (albeit spatially

distant from one another), and that stretches hundreds of meters along the western slopes of the eastern boundary of the valley. These and other observations will be enumerated and described in full below.

Excavation

From the outset of the project excavation was conducted concurrently with the main survey in order to establish some measure of chronological control and to investigate sites that were of particular interest. As the general layout of archaeological sites at BGC became clearer with each successive field season excavations became increasingly focused, targeting specific locales. It became evident early on that Xiongnu sites were located in small clusters usually towards the edges of the main rocks of the research area. Several of these clusters were excavated either in part or in full in order to glean a better picture of the progressive formation of the mortuary landscape at BGC during the Xiongnu period. In the summer of 2006 when the primary survey was complete the project shifted focus and began a comprehensive excavation phase that became the main objective until the project's completion in 2008. During part of this phase the project focused heavily on slab burials, Xiongnu ring tombs, Medieval Period monuments, and features deemed anomalies in need of further investigation. Multiple slab burials were excavated during this time with mixed results primarily caused by poor preservation and disruption. Most slab burial contexts were remarkably sparse and in many cases entirely devoid of materials. This apparent dearth of artifacts from slab burials raised my interests in thinking about the monuments themselves and the parameters that may have contributed to their current lack of assemblages. At the

forefront of this rationale was that overall preservation at BGC was extremely poor. The same qualities that contribute to the good hydrology of the region, the soil's retention of water, also ensure that shallow burial pits will be washed out resulting in the nearly complete deterioration of all organic materials. However, this condition alone cannot easily explain the absence of all other types of material as well, particularly metal and ceramics. In addition, any materials recovered were invariably fragmentary in the extreme and every slab burial context exhibited evidence of disruption from human intrusion. In comparison with other contexts the absence of materials from slab burials was conspicuous; especially considering that recovery of materials was often greater from contexts that pre-dated slab burial construction. However, because of the poor preservation from slab burials and other contexts, sites began to be selected for their potential to have somewhat better preservation. Hence, monuments within the ridges and valleys of the research area where ground water was more likely to wash through were abandoned in favor of sites where soil accumulation was greater and the water table lower. Archaeological recovery from khirigsuurs proved to be so low that the project chose primarily to excavate satellites in order to establish chronological framework for their construction and occasionally to trench the central mound rather than excavate the monument in full. This was primarily due to the time and manpower necessary to excavate khirigsuurs where low artifact recovery made extensive excavation senseless and in some ways counter-productive. However, as part of the project crew focused on Medieval Period monuments, a number of these proved to be khirigsuurs that had been mis-categorized during the survey either because they lacked a perimeter fence or because the fence had been sedimented. In addition to these "accidental" khirigsuurs that

are indicative of how diverse and potentially confusing the archaeology at BGC can be the project also identified a number of irregular monuments that were deemed necessary to excavate. A few of these turned out to predate the Xiongnu period and to be contemporaneous with khirigsuurs and slab burials. This in turn affected the perception of the Late Bronze-Early Iron Age landscape and raised additional questions about the initial monument types used to assess and characterize this period at BGC.

Similarly to the primary survey, excavation and the decisions that affected it changed as the project progressed. It was to a large extent the result of slab burial excavation that provided the impetus to conduct the qualitative survey. In the end the excavation phase raised more questions than it answered, but in conjunction with the survey produced a robust dataset with which to engage the Late Bronze-Iron Age in Mongolia. At the project's conclusion 3 shape-burials, 8 khirigsuur contexts, 20 slab burials, 3 Late Bronze Age-Early Iron age features, and 31 Xiongnu contexts had been excavated. This represents a fairly small sample of the entirety of monuments at BGC dating to the period under investigation here, but nonetheless reveals sufficient information to address changing mortuary practices, commemoration, and identity on display in funerary ritual. I will describe the results of the survey and excavation in the chapters below.

Methods

My decision to take a qualitative and phenomenological approach can arguably be said to be due to a process of elimination. What I mean by a qualitative approach is that I focus primarily on discussing the nature of change in mortuary practice by asking what is

actually changing? Change cannot necessarily be quantified. For example, how do khirigsuurs, slab burials, and Xiongnu ring tombs differ from one another? At first glance the answer is obvious. Khirigsuurs are circular mounds, slab burials are rectangular arrangements of standing stones, and Xiongnu ring tombs are circular rings of stone covering a deeper shaft burial. One can also count the number of each monument type, calculate distances between them, and a host of other statistical analyses related to size, viewshed, orientation, etc. These monuments are so distinctly different from one another that it warrants further reasoning and explication about the nature of those differences. *How* they are different. What are the consequences of this change in terms of how each monument is inscribed on the landscape? What are the implications for how social memory and commemoration can be transmitted through the act of building each type of funerary monument? Is social memory created on a *micro* or *macro* scale? I am firmly convinced that these questions are not quantifiable, but must be assessed by qualitatively assessing in what way the characteristics of each monument are different from, or relate to, other monuments in the research area. What exactly is a slab burial and how is it different from a khirigsuur or a Xiongnu ring tomb? What does this suggest about the motives and reasons behind its construction? When these monuments have been disrupted as a result of human activities related to looting and desecration how have they been affected?

There are a range of factors at BGC that defy straightforward interpretation and which make me apprehensive about using statistical analytical methods. 1) First and foremost the datasets are incomplete either as a result of sample size or disruption. Consequently it must be asked, what is being quantified? Without original contexts there

is no qualitative control to the application of quantitative methods, which makes them potentially misrepresentative. 2) Statistical or quantitative analysis cannot account for all variables. For example, slab burials are readily visible in the landscape across great distances, but Xiongnu ring tombs are not. In that same vein, slab burials that have been knocked down are not as visible as those that remain standing. 3) More problematic are the categories chosen for analysis. Are all khirigsuurs quantifiably the same? How does one quantify alternative mortuary practices that are contemporaneous with khirigsuurs in a meaningful way, especially if the range of diversity is unknown? 4) The varied topography of BGC makes quantitative spatial analysis problematic. This is largely due to the absence of high resolution data of topographic variability in the research area. The project did not have access to accurate 3 dimensional representations of topographic variation at BGC. As a result, spatial analysis is hampered by the fact that topography cannot be taken into account in determining spatial relationships between monuments. Spatial analysis has been used at Egiin Gol to demonstrate the spatial affinity of khirigsuurs and slab burials (Honeychurch et al. 2009). However, this cannot readily be done at BGC since monuments that are quantifiably close to one another are often physically separated by ridges, cliffs, bluffs, and so on. There is thus a host of reasons that make statistical approaches to mortuary monuments at BGC cumbersome and problematic.

In addition, the archaeology of the Bronze-Iron Age transition has proven stubbornly inaccessible to quantification elsewhere in Mongolia. For example the shape, size, and “complexity” of khirigsuurs have not been securely linked with any other attribute relating to that monument type (Wright 2006; Frohlich et al. 2008). The size of

Xiongnu ring tombs relative to their depth has also been demonstrated to only show a weak relationship, as has depth versus the size of the assemblage (Miller 2009). At Egiin Gol, a spatial relationship between khirigsuurs and slab burials has been quantifiably demonstrated using Wilcoxon rank sums to illustrate that this relationship cannot result from random distribution (Honeychurch et al. 2009:339). However, on the sub-regional level, consisting of the entire Egiin Gol valley it is evident that slab burials are clustered along the Egiin Gol River and its tributaries and not necessarily around khirigsuurs, although khirigsuurs are also found along these tributaries [Fig. 5.7]. The question then becomes, does the observed spatial relationship result from slab burials being built in locales deemed important because khirigsuurs were found there or because the locales themselves were important for some other reason? The quantitative spatial relationship between khirigsuurs and slab burials is indeed a powerful and authoritative illustration, but is it the only one? Based on the distribution of slab burials along the Egiin Gol and its tributaries, it stands to reason that the spatial relationship between these monuments and the water courses might actually be stronger than it is to khirigsuurs. If that is true, what does that imply about the significance of these monuments vis-à-vis their spacing in relation to each other? In other words, how would interpretation of the monuments change if the subjects being quantified changed? And finally, are these relationships and others not equally demonstrable using a distribution map of the research area? Statistical approaches are, of course, quite useful in their ability to demonstrate potential relationships. However they also have a demonstrated capacity to mask other possibilities and privilege particular relationships over others (Ammerman 1992). In Mongolia where there are presently so many unknowns this can have serious

consequences and steer future research in directions that obfuscate other lines of inquiry. It is for this reason that at this juncture of research at BGC I will not employ quantitative

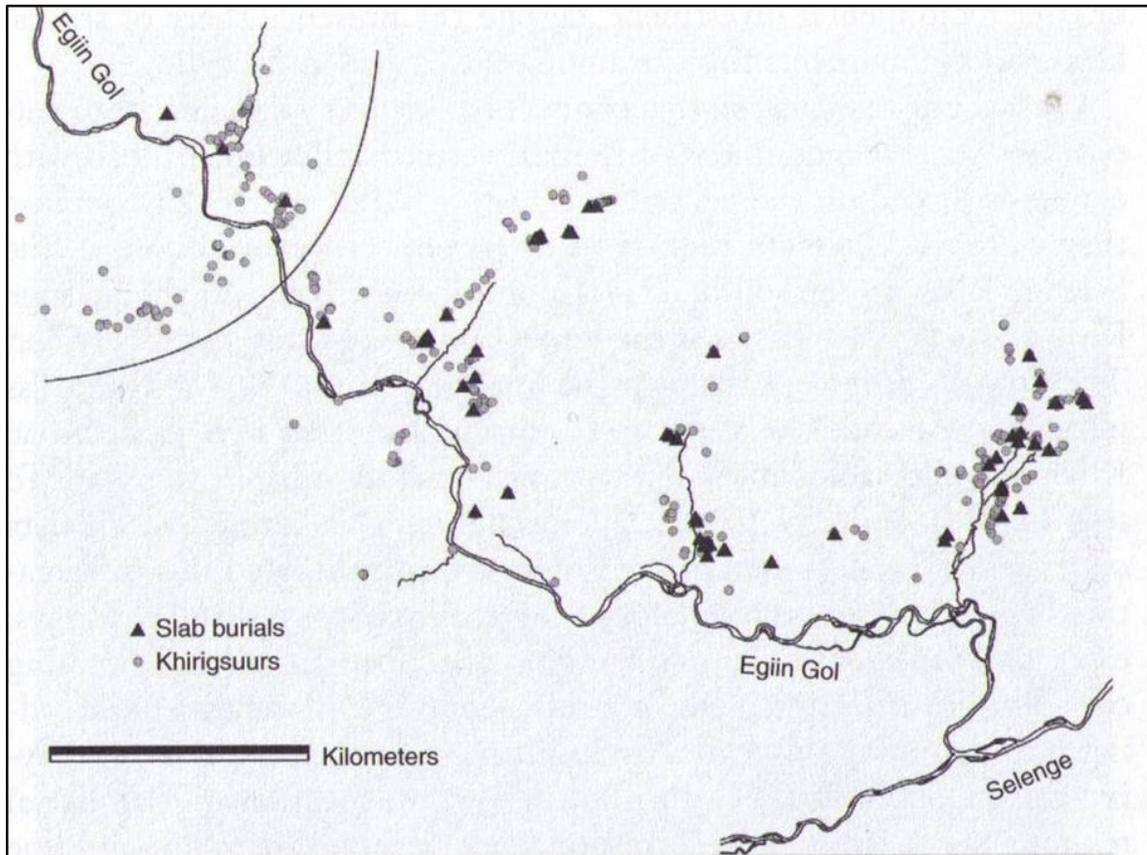


Figure 5.7 Egiin Gol River Valley showing tributaries and distribution of khirigsuurs and slab burials (Honeychurch et al 2009).

methods as an analytical tool, but rather will use them sparsely and only as demonstrative devices.

Instead I will use a bottom-up analytical approach that starts with very simple questions. Graves and mortuary monuments are commemorative devices that inscribe the social memory of the deceased and the living community who built the monument into the landscape (Barrett 1990; Metcalf 1991). I will ask how this is done by each monument type and how it becomes a commemorative device. As such I will investigate

different scales of commemoration and memory creation and how these are affected through mortuary practice. The pervasive disruption of monuments at BGC demands more attention. It does not suffice to simply state that mortuary contexts have been looted or disturbed because disruption and destruction affects social memory and a monument's potential to transmit information. Hence I will examine in what ways human disruption of monuments at BGC have affected them. What was done to the monument and its contents and in what ways has this potentially affected the social memory of the site and at what scales? Therefore I will now enumerate the major monument types at BGC dating to the Late Bronze Age to the end of the Xiongnu period (1500 BC-200AD) and describe each in full.

Chapter 6

Bronze Age Monuments at BGC

Introduction

In chapter 5 I briefly described the methods used to collect data at BGC, which included intensive and extensive pedestrian survey and archaeological excavation. At its conclusion the project was left with a robust comparative database of mortuary stone monuments in the research area. Here I will describe the nature of archaeological materials dating to the Late Bronze Age (ca 1500-800 BC), the methods used to analyze them, and their implications for interpreting changing mortuary practices in the region with the formation of a central Xiongnu political polity somewhere in Mongolia. I will begin with an overview of the two major monument types of the Late Bronze Age, shape-burials and khirigsuurs. The focus here will be on elucidating what is actually changing in each monument category and what this suggests about how identity was inscribed on the landscape and how social memory was created using stone monuments. In describing the two monument types I will focus on their placement in the overall topography of the research area, their visual impact on the landscape, their funerary assemblages, and finally I will discuss the impact of looting and desecration events. Through this enumeration I will demonstrate in subsequent chapters that mortuary practices at BGC change dramatically with the appearance of Xiongnu ring tombs. Whereas the Late

Bronze-Early Iron Age (1500-300 BC) can be characterized as a period during which mortuary monuments exhibit idiosyncratic diversity in construction and placement with a range of options available for commemoration in death, Xiongnu monuments become seemingly more standardized and avoid visual displays of commemoration in monument construction. Instead, I will argue that Xiongnu mortuary practices exhibit greater investment in the funerary assemblage rather than visual aspects of the monument and that commemoration appears to be a synchronic event associated with the funerary ritual itself. In doing so I will argue for a differentiation in the potential scale of social memory between Xiongnu and preceding monument types where Xiongnu period monuments exhibit little potential for transmitting social memory beyond a few generations and appear intentionally constructed to constrain individual commemoration. Viewed against the backdrop of the formation of the first nomadic state in East Asia this implies that local lineages of leadership adopted Xiongnu mortuary practices, whether by co-option or coercion, which in turn forestalled the expression of identity and power locally in favor of a normalized and distinctly Xiongnu identity.

Shape-Burials

Shape-burials are represented by 72 monuments in the research area. Most of these monuments were identified via their “hour-glass” shape in which a rectangular form tapers towards the center. These range in size from a few meters to spectacularly large and monumental structures measuring 35 meters in length. In spite of this broad variation in size, most shape-burials in the area are between 5 and 12 meters in length (see appendix A). The edges of shape-burials often consist of larger stones that are

occasionally raised upright while the interior is filled in with a thick layer of unaltered stones. The border of the monument is often built with larger stones and can sometimes be composed of multiple rows of aligned stones to demarcate the borders of the monument. The short ends of the monument are occasionally composed of larger

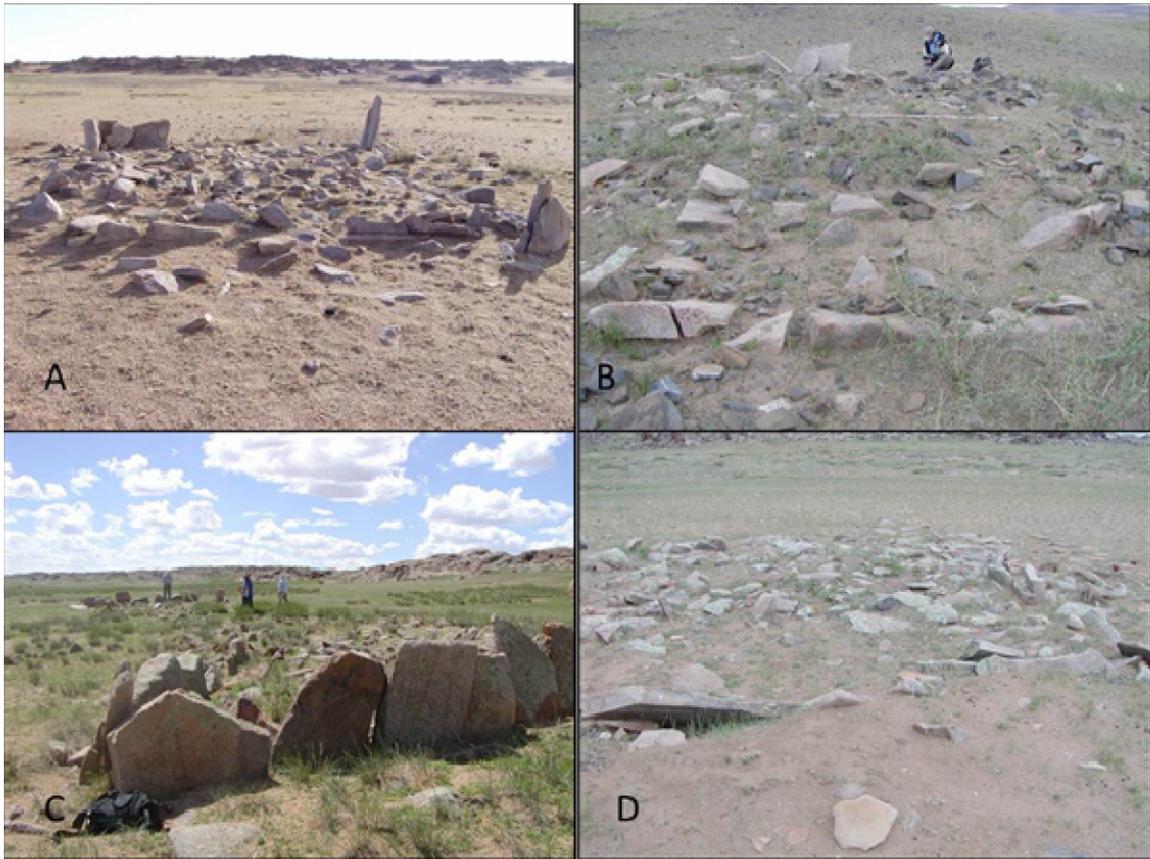


Figure 6.1 Variability in shape burial construction; A) BGC 577 with standing stones at the corners; B) BGC 1253 Hour-glass outline; C) BGC 1552 with large slabs on the short ends; D) BGC 1254 with slabs along the exterior.

standing slabs and in a few cases similar slabs are arranged around the edges of the entire monument. These standing stones can be of substantial size reaching heights between 1-1.5 meters above the ground surface. For the most part, however, shape-burials have some standing stones, typically at their corners, but usually only as high as 50cm from the surface and sometimes none at all. There is a frequent style of shape-burials with

vertically standing slabs on the short ends and slabs placed horizontally along the length of the monument [Fig 6.1]. When this type of construction is combined with double rows of rocks along the edges it has sometimes been described as masonry type construction (Kovalev and Erdenebaatar 2009). While the aforementioned styles are the most prevalent type at BGC there are a number of shape-burials that do not correspond in any way shape or form to this design. These can take on forms that are funnel-shaped or sometimes key-hole-shaped [Fig. 6.2]. Shaped-burials are typically oriented to the Northeast with a tendency to be slightly more easterly with most facing approximately 60-75° east of north.

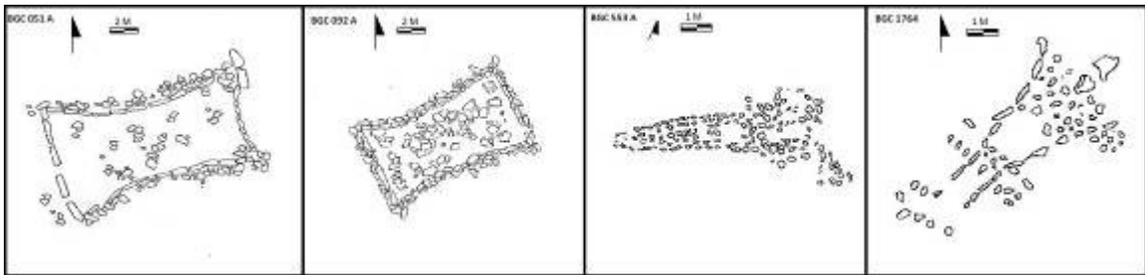


Figure 6.2 Different forms of shape burials

However, not all shape-burials conform to this standard and can be found facing north as well as entirely to the east. The orientation can therefore be said to be somewhere between 0-90° of north and there does not appear to be a set pattern that determines why a particular burial exhibits the orientation that it does. By this I mean that topographical variation such as the direction of the valley or drainage the monument is found in does not affect its orientation, nor do these burials appear to be directed at particular features in the landscape such as ridges, peaks, slopes or other monuments. Where precisely the orientation falls within a somewhat northeasterly range thus appears

entirely idiosyncratic, but there nevertheless appears to be an underlying framework that orients these burials roughly northeast.

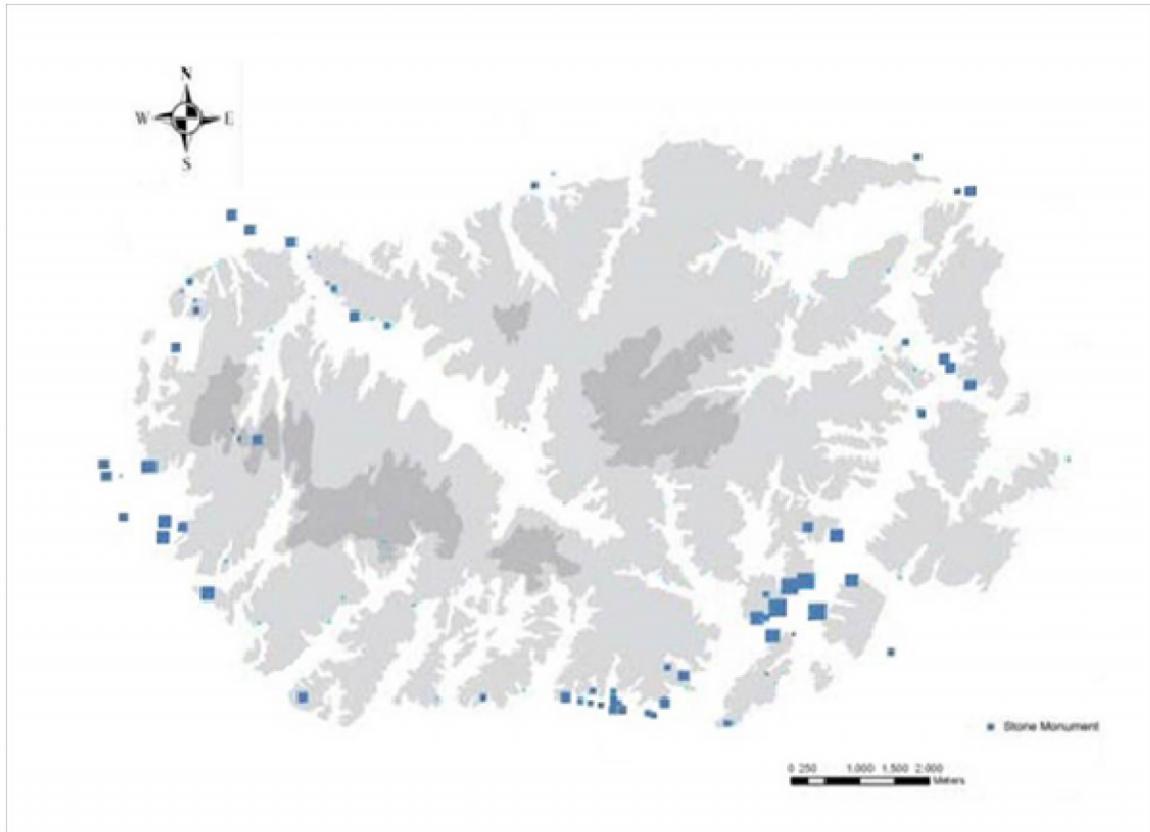


Figure 6.3 Distribution of shape burials at BGC (adapted and modified from Wright 2007)

Shape-burials are primarily distributed around the edges of the rocks. They are typically located at the mouths of wide valleys and are common sights as one enters or leaves particular drainages that access BGC itself [Fig. 6.3]. As mentioned in chapter 2 these monuments have not received much attention and have only been recently studied. As a result not much is known about them and at BGC they were originally viewed as representing a transitional phase between late Neolithic mixed-economies and monument building Bronze-Age communities. In this schematic, shape-burials were thought to pre-date khirigsuur construction and thus represent some of the first mortuary monuments at

BGC. This perception may now have to be revised. The project excavated four shape-burials and although the results are far from conclusive they present a number of significant observations.

Of the four sites, BGC 238.A and BGC 767 at Baga Mongol and Dund Shand respectively, are of particular interest here. Both of these sites had not originally or definitively been identified as shape-burials during the survey. BGC 767 had been classified as a slab burial while BGC 238.A had been only tentatively designated a shape-burial. It was not until these sites were excavated that their status as shape-burials actually became clear. BGC 238 was a multi-component site located in the northwestern part of the research area just below the end of the northern ridgeline of BGC in an area called Baga Mongol. The other features comprising this site consist of a Turk period quadrangular burial, a small circular burial (to be discussed in the section on slab burials below), a small stone feature, a corral, and an associated pile of rocks. The superstructure of BGC 238.A exhibited ample disturbance, which ultimately is what resulted in the confusion regarding its designation. The monument was oriented 80° east of north and measured 4.2m by 3m. The entire northern edge of the superstructure had been disrupted and only a few horizontal stone slabs were visible above the surface on along the southern edge. Two larger standing stones protruded at the center of the eastern short end. Overall the monument was not intact with a large number of the stones in the center of the monument upended or scattered about. In spite of this the contours of the monument could be discerned and these were quadrangular rather than the more common hour-glass shape, which further may have contributed to the confusion surrounding this feature.

Upon excavation, BGC 238.A's status as a shape-burial became undeniable. The edges of the burial structure were double-layered and exhibited an almost masonry like construction. However, it was the burial itself and the accompanying assemblage that confirmed the monument as a shape-burial. This was an inhumation in a shallow 63 cm deep pit measuring 180cm by 62cm that had been placed face-down in supine position facing east, which is consistent with shape-burials elsewhere in Mongolia (Okladnikov 1980; Amartuvshin and Jargalan 2008; Kovalev and Erdenebaatar 2009). The body had not been placed in a coffin or cist, but directly into the pit [Fig. 6.4]. The faunal remains

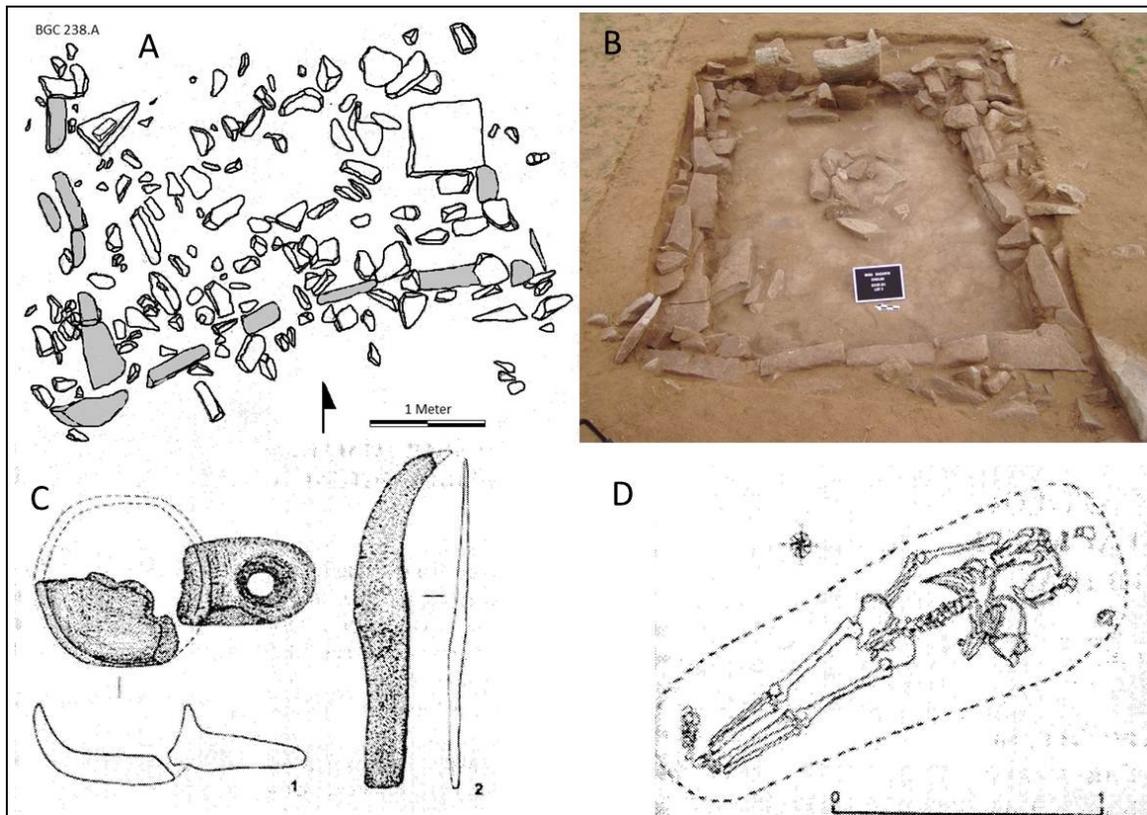


Figure 6.4 BGC 238.A; A) Planview of surface stones (adapted from Amartuvshin and Jargalan 2008); B) Subsurface construction showing double-layer masonry stone outline; C) Drawing of broken stone dipper (Amartuvshin and Jargalan 2008); D) Burial plan (Amartuvshin and Jargalan 2008).

recovered from the burial pit were considerable, but in spite of this the MNI count stands at 1 sheep, 1 goat, 1 horse, and 1 cow (Johannesson and Hite 2007). These faunal

remains constitute only a fraction of the animals represented and are comprised primarily of teeth and distal hind limbs. They do however indicate that the full repertoire of

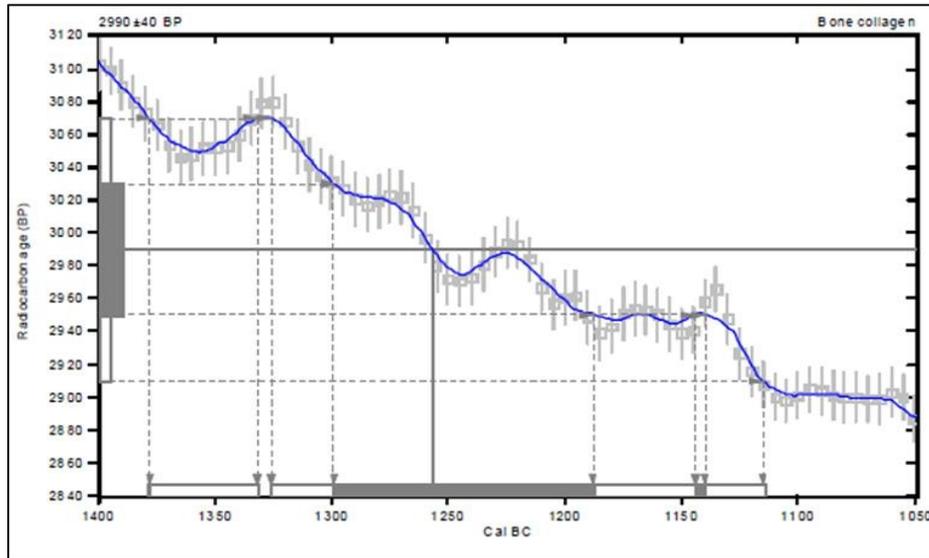


Figure 6.5 Radiocarbon date for BGC 238.A

livestock traditionally used by nomadic pastoralists was being incorporated to some degree into funerary rituals at this time. The assemblage also included a broken stone dipper, a bronze knife, and ceramic fragments that are all diagnostic of Bronze Age period typologies¹⁶. Radiocarbon analysis on bone collagen from BGC 238.A yielded a calibrated date of 3230 ± 50 BP placing the shape-burial well within the known horizon for khirigsuur construction [Fig. 6.5]. This chronological overlap between the shape-burials and khirigsuurs at BGC required rethinking the overall sequence of monument construction in the research area. Given the relatively low number of shape-burials at BGC it is now possible that at least a portion of these are contemporaneous with khirigsuurs and therefore constitute an alternative mortuary tradition alongside the latter.

¹⁶ For a full report of BGC 238.A and BGC 767 see (Amartuvshin and Jargalan 2008).

BGC 238.A is also noteworthy because of the disruption or pillaging that has afflicted this feature. The aforementioned inhumation exhibited ample evidence of intentional disturbance. The skeleton was not intact and was missing several elements. The entire cranium, cervical vertebrae, clavicles, upper thoracic vertebrae, left fibula and tibia, and both the tarsal and carpal phalanges were missing (Nelson et al. 2007). The scapulae and upper ribs, elements adjoining or close to those that are missing, are also in a state of slight disarticulation. In place of where the head should have been was an inverted sheep cranium in conspicuously close proximity and placement to the rest of the skeleton that it is difficult to reconcile that its placement was accidental [Fig 6.6]. In conjunction with the ostensible removal of the deceased's head and neck area this points to overt desecration playing a part in the disruption of the burial. Desecration is also



Figure 6.6 BGC 238.A illustrating nature of disruption which has resulted in the removal of the cranium and the placement in its stead of a goat's head.

evident in the fragmentary nature of the funerary assemblage. The stone dipper was broken at the handle and the base and all ceramic sherds recovered were no more than a few centimeters in diameter. There is no intentional fragmentation of mortuary artifacts known in Mongolia at this time and therefore damage should more appropriately be associated with the pillaging event. As described in chapter 4 it would take some effort, including some premeditation, to disrupt both the human remains and artifacts to the extent exhibited in BGC 238.A. In other words, these artifacts have been smashed, the head and neck of the deceased have been removed and these have been replaced with a sheep's cranium. The visible portions of the mortuary monument have also been intentionally damaged. The entire northern section of the monument has been destroyed either by complete removal or by tossing the stones that made up this edge somewhere else where they are no longer archaeologically visible (see Fig 6.4-A above). Similarly to the disruption of the burial chamber itself this takes some effort and indicates that destruction and desecration played a key part in the motives behind the disruption of the burial. It is also worth noting that burials from this period in Mongolia rarely contain extensive high-value objects beyond what is already represented in this context. Most Bronze Age burials that possess objects contain knives, beads, awls, and ceramics, and only rarely gold or carnelian (Kovalev and Erdenebaatar 2009). It would thus be odd that the motives for targeting this burial be stimulated by pecuniary gain, which would further not explain the effort expended on destroying and tampering with the monument, body, and low-valued artifacts to the extent seen here. Instead desecration is a more appropriate designation for what occurred at this monument.

BGC 767 was also a shape-burial located in the northern section of BGC, but unlike BGC 238 was located east of the central valley in an area called Dund Shand. The superstructure of this feature was comprehensively disrupted to such an extent that it was

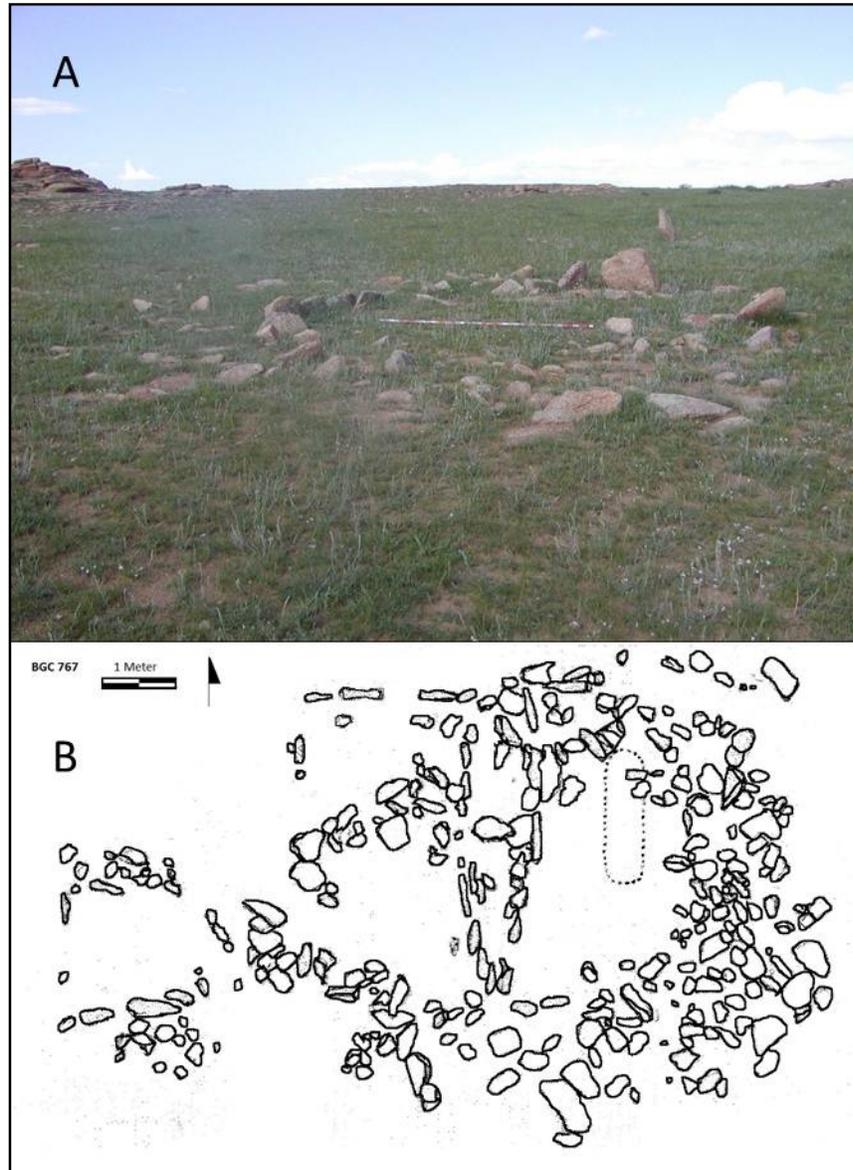


Figure 6.7 BGC 767; A) Superstructure of burial as it appeared during survey; B) Plan view of burial during excavation (adapted from Amartuvshin and Jargalan 2008).

virtually impossible to distinguish the original contours of the monument [Fig. 6.7]. As

mentioned above, this feature was originally classified as a slab burial during survey as a result of the presence of large horizontal slabs. At the same time the monument was confounding as there was only a vague impression of rectangular structure. There was subsequently some speculation that it could be khirigsuur due to the seemingly orbicular distribution of rocks on the surface, which seemed to resemble surface features in some of the more complex monuments of this type. The uncertainty of BGC 767's identity warranted further investigation, but also highlights how the disruption of mortuary architecture can be misleading to archaeologists during survey thus stressing the necessity to conduct subsurface testing. Upon excavation this feature exhibited the typical layered masonry-like perimeter common in shape-burials and there was no coffin or cist-like structure and instead the body had been placed face-down directly into a shallow pit. The skeleton was in a very poor state of preservation with signs of advanced dry decay. The skeleton was also extremely incomplete with all elements missing with the exception of the left and right femur, right tibia, part of the right iliac crest, proximal and distal mid-shaft of the left humerus, and the skull [Fig 6.8]. The only artifact recovered was a diagnostic bronze arrow head placing the feature at the terminus between the 1st and 2nd millennium BC.

There are a number of observations about disruption at BGC 767 that are worth pointing out here. Although the majority of the skeleton is missing, that which remains is articulated in relative anatomical order. The state of decay of the remains recovered suggests that the elements have disintegrated as a result of taphonomic processes rather than human intervention (Nelson et al. 2008). This is further indicated by the presence of the left humerus mid-shaft ends with the center piece missing as decay is the most

feasible explanation for this configuration while the element is still in approximate anatomical position. The friable state of the remains that were recoverable also point to decay as the likely cause behind the absence of the other elements. The lack of



Figure 6.8 Human remains at BGC 767; A) Cranium illustrating high degree of exfoliation and fragmentation; B) Remains during excavation noting absence of smaller elements and the long bones still in anatomical order; C) Schematic drawing of remains in situ (Amartuvshin and Jargalan 2008).

disturbance of the burial itself is in stark contrast to the state of the monument, which is in complete disarray to such an extent that the monument is barely identifiable from a visual examination of its surface components. The other two shape-burials excavated by the project were located at the site of Sudutiin Adag. Neither of these yielded any human remains, but did contain isolated faunal elements. Even if one factors in that faunal bone is typically denser than human bone the complete absence of human remains, especially teeth, is conspicuous. Both of these burials also exhibited ample disturbance of the monuments' superstructure with scores of the rocks comprising the paved center of the monument strewn about around the site. As such they have likely been looted. However,

given the sparse nature of the funerary assemblage of these tombs and the conspicuous absence of human remains may suggest that the target of the looters was the body interred within rather than precious objects.

Both BGC 238.A and BGC 767 are important because they have pushed the date of shape-burials well into the range of khirigsuur construction. At least one khirigsuur context excavated by the project yielded a radiocarbon date that was contemporaneous with BGC 238.A. The perception of shape-burials predating khirigsuurs at BGC is therefore in need of revising and these monument types likely represent alternative burial practices for at least a portion of the monuments. The desecration and re-opening of the burials are also interesting in that they include intentional disruption of the monument's superstructure. That part which would be visible to others inhabiting or traversing the area. In at least the case of BGC 238.A the body of the deceased was also desecrated. It is unclear what happened to the human remains at the two shape-burials at Sudutiin Adag, but the fact that faunal elements are still present is suggestive that they may have been removed as a result of human intervention.

Although shape-burials are by far the least abundant monument type at BGC, their physical presence on the landscape is arresting. This is particularly true for those shape-burials that contain standing stones. These are visible across vast distances especially in the southern valleys of the research area. Although the qualitative survey did not specifically target shape-burials, their prominent presence in the landscape ensured that they were inevitably encountered as I traversed the landscape on route to slab burials and khirigsuurs. The overall impression the larger of these monuments leave on the landscape is one of immense monumentality. They dominate the topography in

which they are placed and in many ways dwarf other monuments, even if these are placed in close proximity to them. Theirs is a lasting and enduring imprint on the landscape; social memory created on the *macro-scale*. At the same time it is difficult not to note an overall intimation of ruin and fragmentation. All shape-burials that still have visual components exhibit such disturbance and disruption that they convey an image of being “broken”. Large boulders are often found hurled to the side of the monument. Standing stones lean precariously among others that have toppled over [Fig. 6.9]. Some are

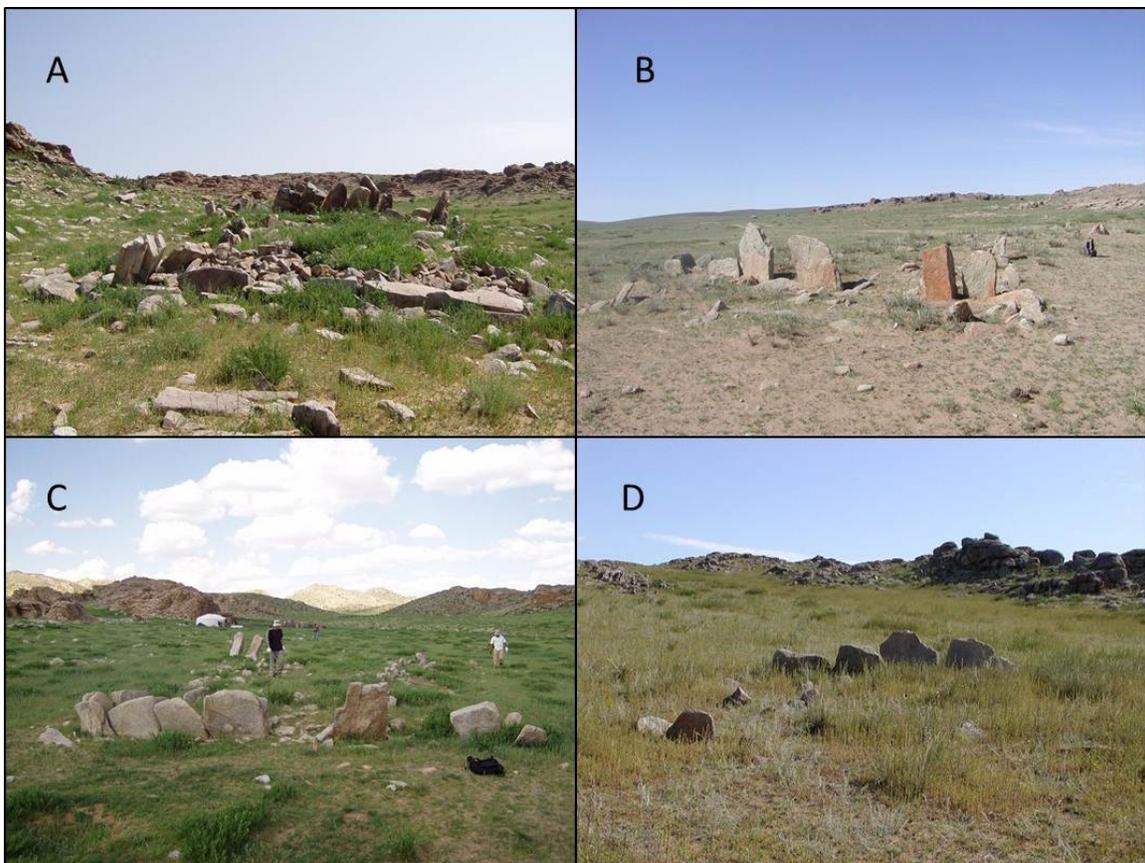


Figure 6.9 The ruined or fragmented state of shape burials; A) BGC 092; B) BGC 1564; C) BGC 058; D) BGC 343

collapsed and cracked. Although some of this deterioration can be explained by the passage of time, erosion, and bioturbation, it is worth reiterating the often double layered construction of slabs in these monuments, which makes upending them extremely

difficult. The smaller shape-burials in the area are, like BGC 767 and BGC 238.A, significantly disrupted by human activity to such an extent that they are only visible as wide, somewhat dense, scatters of rocks with a few stones standing to indicate that they once were cultural constructs [Fig. 6.10]. In this sense the landscape of shape-burials is

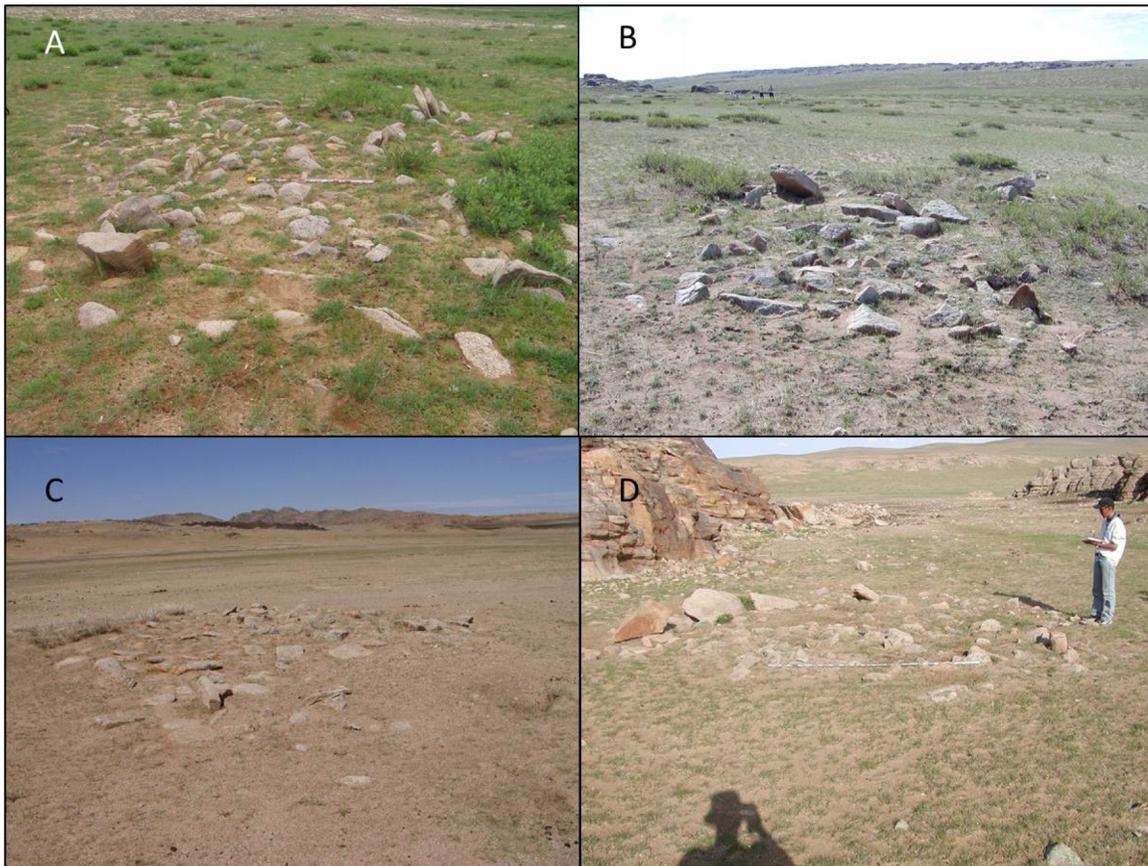


Figure 6.10 Smaller shape burials at BGC illustrating extent of damage to superstructure; A) BGC 523; B) BGC 656; C) BGC 584; D) BGC 1460.

one that is fractured or destroyed. The larger of these monuments have endured primarily as a result of their monumentality while the smaller have been disturbed to such an extent that they are barely recognizable as shape-burials. What this signals then, is that some human agent(s) went to considerable lengths to alter the visible components of shape burials in the research area. Shape burials create commemorative narratives on the

macro-scale that have the potential to transmit social memory in the long durée. Consequently, disruption and desecration also targeted those components of the monument that generated social memory; the ostentatious and monumental portions of the monument.

Khirigsuurs

Khirigsuurs are easily the most common monument type in the research area. In spite of this they are the least excavated Bronze-Iron Age monument type at BGC. This may seem counter-intuitive, but is a function of the research objectives of the co-directors and staff, which were primarily aimed at the transition to the Xiongnu period while researchers focusing on the Bronze Age were largely interested in and relying on analysis of data collected by survey. The effects of this were not immediately apparent and the project members could hardly anticipate the outcome and results of the survey and excavations. Circumstances were such that the nature of the Bronze-Iron Age transition at BGC, and by extension Mongolia, changed with each field season. When the project started, khirigsuurs represented the Late Bronze Age (1200-800 BC), shape-burials belonged to the Early-Mid Bronze Age (1500-1200 BC), and slab burials occupied the transition to the Early Iron Age (800-300 BC) and the horizon before the advent of Xiongnu at 200 BC. Some overlap between each monument category had already been noted, but the extent of this overlap to include two or more centuries was surprising. At the same time, the appearance of alternative burial practices kept the focus on other features deemed anomalous and in need of further investigation. Poor preservation and low archaeological recovery, especially from slab burial contexts, also contributed to the

orientation of inquiry departing from khirigsuurs, which in contrast appeared a much more “established” or “known” monument type. Research on khirigsuurs elsewhere in Mongolia also changed perceptions of this monument during the duration of the project. When the project started there was still some debate as to whether or not khirigsuurs were mortuary monuments or whether they represented communal structures¹⁷. Taken together, these factors seemed to change circumstances underfoot and as the project drew to a close, khirigsuurs stood out as warranting additional investigation at BGC. In retrospect it would be helpful to the present study if we had excavated more khirigsuurs, but all things considered, the project had limited resources and applied those where they were needed most. Despite the low number of excavated khirigsuurs at BGC, there are still a lot of available data collected from the survey that is useful in the present study. The major and distinguishing components of khirigsuurs are fortunately encompassed in their visual surface components and in this way subsurface excavation, though an important factor, does not irrevocably impair analysis.

Khirigsuurs as Mortuary Monuments

As mentioned elsewhere in this dissertation, there has been some speculation about whether or not khirigsuurs are mortuary monuments or if they are ceremonial constructs that serve some other function. This necessitates some discussion for how to treat these monuments at BGC considering that so few of them have been excavated. I consider all khirigsuurs in the research area to be mortuary monuments. I have briefly

¹⁷ One can note the trajectory of the development of this debate in the available literature. The ceremonial nature of khirigsuurs receives frequent mention a little less than a decade ago (see Allard and Erdenebaatar 2005; Wright 2006, 2007). At present, researchers working with khirigsuurs recognize that many of them (even if they choose to call them something else) are mortuary monuments with ceremonial aspects unrelated to mortuary practices only attributed to large complex khirigsuurs that include deer stones located in flat valleys or open expanses (Frohlich et al. 2008; Fitzhugh 2009; Houle 2009, 2010).

explained in chapter 2 why I take this stand, but I think it appropriate to reiterate some of those points here. The arguments for the majority of khirigsuurs not being mortuary monuments are problematic for a number of reasons. These are usually based on what is argued to be a low recovery of human remains from khirigsuur contexts (Wright 2006). Yet researchers focusing on khirigsuurs acknowledge the existence of human remains in as many as 40-50% of khirigsuurs across Mongolia and southern Siberia (Allard and Erdenebaatar 2005; Wright 2006). In comparison with slab burials, whose status as



Figure 6.11 Khirigsuur under excavation in Khovd showing the burial cist's location partially above ground surface.

mortuary monuments is not questioned, the percentage of human remains is roughly the same. Recovery of human remains in slab burial contexts is hence equally poor and fragmentary as they are in khirigsuurs. Why should khirigsuurs then be treated as having

a different function? In the instances where empty slab burials have been speculated to be cenotaphs (see Houle 2010), why are empty khirigsuurs not cenotaphs as well? The inverse is even more telling. If khirigsuurs are communal ritual monuments then why is this function not attributed to slab burials? What is also problematic with this comparison is that in khirigsuurs the burial cist is often located above the ground surface within the central mound itself [Fig. 6.11]. As such any remains are more exposed to deteriorating condition from rain seepage than had they been placed even a few decimeters below the ground. The potentially catastrophic and certainly detrimental effects of this on preservation cannot be ignored. Considering this fact it is not surprising that little to no remains are recovered from khirigsuur mounds.

Other arguments for khirigsuurs as non-mortuary monuments include the fractured nature of human remains and absence of grave goods (Wright 2006). This argument is also problematic because it ignores factors other than decay as possible sources of fragmentation and absence of human elements. Pillaging and desecration is a widely recognized phenomenon during the Bronze Age and clearly already manifests in shape-burials. Khirigsuurs elsewhere in Mongolia have been identified as being graves containing inhumations (see Frohlich 2008; Takahama 2005). Frohlich's research (2008; 2009) at Khovsgol is also revealing that builders of khirigsuurs were actively hiding bodies and creating fake cists to prevent desecration. Moreover, the relative absence of grave goods in many khirigsuur contexts in Mongolia and Siberia further make an argument for the deliberate targeting of the body of the deceased during looting events rather than other objects (Tsybiktarov 1998; Frohlich et al. 2008; Houle 2010). Therefore, other factors than human decay must also be taken into account to explain the

absence of human remains in khirigsuurs before an argument towards non-mortuary activities will be convincing. One must also question why grave goods are necessary in order for a feature to be considered a burial. This seems like an odd and extraneous prerequisite since there is a profound number of mortuary features around the world that do not contain any accompanying artifacts (Parker Pearson 1999). The absence of grave goods or human remains does not automatically make a monument a non-mortuary feature. The argument for khirigsuurs as non-mortuary features thus cannot rest on the absence of human remains and accompanying artifacts. Moreover, the actual presence of human remains in khirigsuurs also severely weakens this line of reasoning.

The major case for khirigsuurs as non-mortuary features beyond the intermittent absence of human remains then revolves around secondary features such as satellites, perimeter fences, corner mounds, pavements, and platforms (Allard and Erdenebaatar 2005; Wright 2006, 2007; Fitzhugh 2008). However, not all khirigsuurs exhibit these features. At Khovsgol only 15% of khirigsuurs have satellites. At BGC that number is 30%, which leaves the vast majority of khirigsuurs without these features. That the presence of these features constitutes potential peripheral ritual activity is undeniable. That khirigsuurs embody externally visible characteristics that are projected outward to be seen is also not in question here. However, the presence of these features does not make khirigsuurs non-mortuary monuments. They instead indicate additional or associated activities connected with the central mound that pertain to the creation of commemorative narratives. The fact that the central mound often contains human remains thus changes the nature of these activities. Placing human remains, fragmentary or not, into a monument is not a cavalier act. It is by default mortuary activity. The

presence of human skeletal elements in as many as 50% of khirigsuurs cannot therefore be casually dismissed. Instead the result of pillaging, desecration, and taphonomic processes need to be studied in detail before a non-mortuary function for the monument can be considered. An additional note here is that the argument for khirigsuurs as non-mortuary monuments largely derives from excavation of satellites at Urt Bulagyn and associated monuments in the Khanuy Valley as well as at Ulaan Tolgoi (Allard and Erdenebaatar 2005; Fitzhugh 2009) and from pedestrian surveys with little to no excavation of the central mounds (Wright 2006, 2007). In contrast, archaeologists who conduct systematic excavation of khirigsuurs (Takahama 2005; Frohlich et al. 2008) consistently identify them as graves. It would thus seem that at least some of the questions about the function of khirigsuurs result from discrepancies in archaeological methods and practice.

In the current state of research most khirigsuurs are identified as burials even though some are given other monikers (Frohlich et al 2008; Houle 2010). Where uncertainty remains revolves around khirigsuurs associated with deer stones or those that form large complexes located in central valleys or open areas that contain multipart features that are unrelated to mortuary activities (Takahama 2004; Fitzhugh 2009; Houle 2010). Hence, as more sub surface research has been conducted on khirigsuurs, their status as mortuary monuments is becoming increasingly apparent. What is further important to the present study is that those khirigsuurs around which doubt still remains are not present at BGC. It is for this reason in conjunction with the above discussion that I treat khirigsuurs in the research area as mortuary monuments and argue that until

arguments to the contrary can be convincingly substantiated that that is the only appropriate designation.

Khiriguurs at BGC

Khiriguurs are found throughout the research area. They are a fundamental part of the landscape at BGC to such an extent that to traverse the area is to travel through a landscape populated by khiriguurs. These monuments were built to be seen and are often visible over large distances. They are usually located in prominent areas within

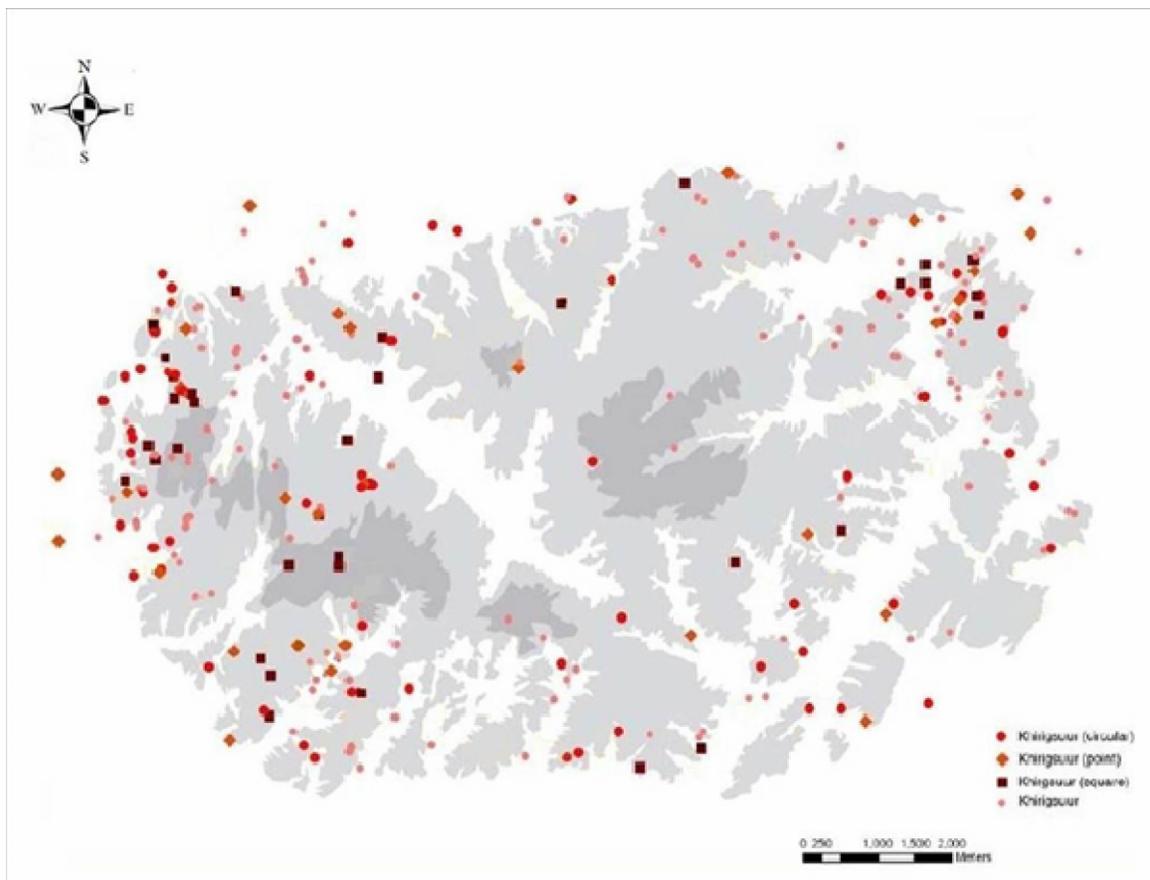


Figure 6.12 Distribution of khiriguurs at BGC (adapted and modified from Wright 2007).

BGC's varied topography where they are found on bluffs, along ridge lines, along valley floors and edges, at promontories, and around the taller peaks. The only location where they do not proliferate is in the middle and upper reaches of the central valley.

Khirigsuurs also appear to cluster in the northwestern and the eastern sections of the research area [Fig 6.12].

The overwhelming majority of khirigsuurs in the research area are fairly simple in construction, consisting of only the stone mound and a narrow perimeter fence. Most of these monuments are small ranging in size from 6-11 meters in diameter with mounds no more than 1-1.5 meter in height. At the same time the size of the perimeter fence can vary widely. The circular or square alignments of rocks that constitute these fences can extend anywhere from 1-55 meters from the center of the monument. The size of the central mound also does not correspond to the size the perimeter fence showing only a weak relationship [Fig. 6.13]. Although these relatively simple khirigsuurs appear superficially uniform, it is their placement in the landscape that makes them each unique. Their presence is typically an architectural statement that inscribes the monument onto the landscape in a very visible way. Yet placement seems to follow an attempt not to break with the natural topography. Khirigsuurs are not placed in straight or geometrical arrangements, but instead follow the contours of the features in the particular locale they

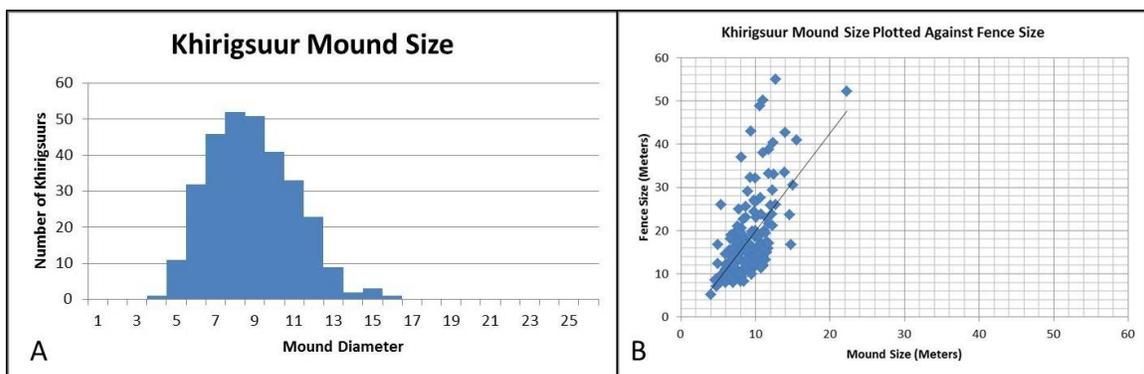


Figure 6.13 The size and frequency of khirigsuurs at BGC; A) Mound diameter (in meters); B) Diameter of mounds plotted against diameter of corresponding fences showing only a weak relationship between the two (see also Appendix B).

are built in. This seems to apply to the overall shape of the mound as well. If there are rounded promontories in the area, the khirigsuurs' central mounds tend to be vertical and rounded as well. If the overall topography is flat then the height of the mound also tends to be subdued. Where there are jagged edges to the rocks or boulders distributed on the

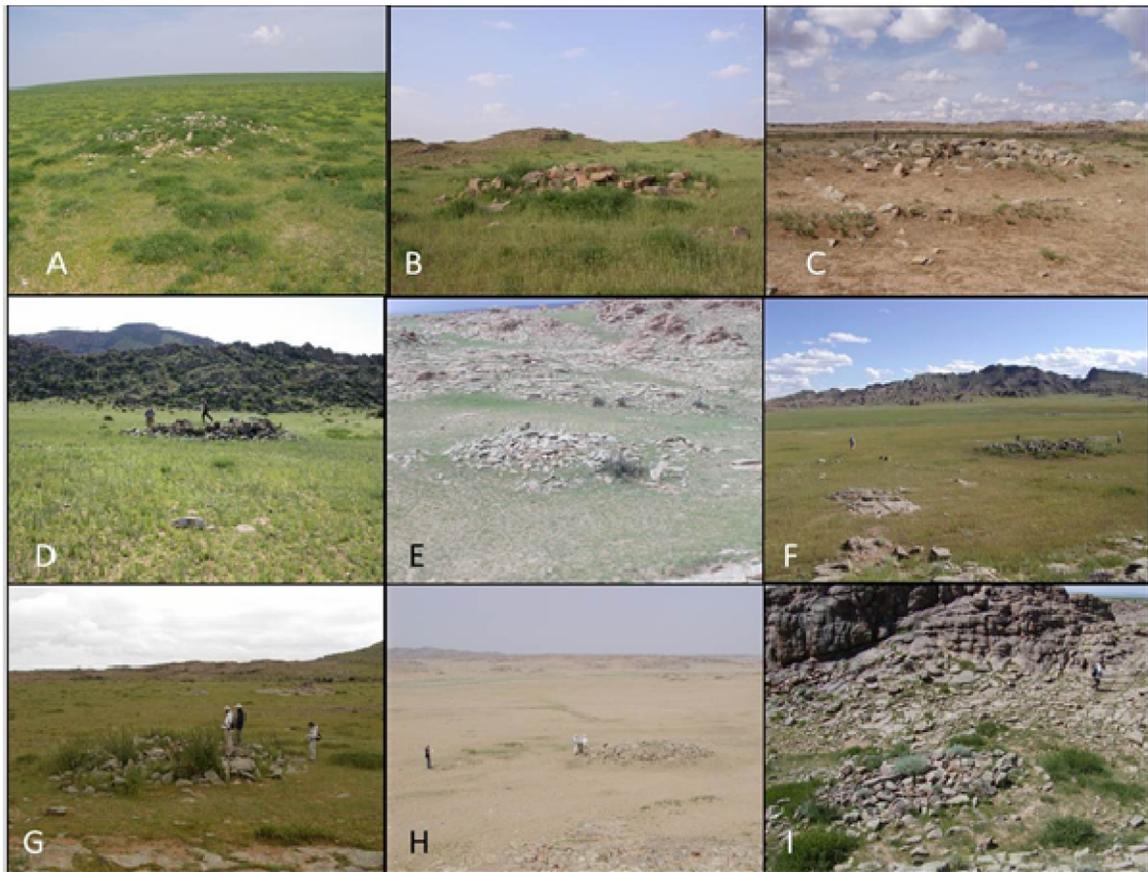


Figure 6.14 Illustration of how khirigsuurs often take on the quality of the topography into which they are built; A) BGC 042; B) BGC 160; C) BGC 599; D) BGC 285; E) BGC 683; F) BGC 326; G) BGC 239; H) BGC 329; I) BGC 064.

landscape, khirigsuurs can exhibit some stones placed vertically within their component features. In this way khirigsuurs very much take on the quality and character of the environment into which they are placed. Nevertheless, I do not want to go as far as to say that khirigsuurs are built to mimic the natural topography. Not all khirigsuurs are built this way and the very fact that they are noticeable actually implies the opposite. That

they were not meant to blend in, but to be seen. The ostentatiousness of their visibility and architectural display is subdued, though, and some effort has been made to not make them break entirely with the environment in which they are found. In this way they give the impression that they are both meant to be seen and appear as natural features on the landscape. One could characterize khirigsuurs as monuments that project their presence outward, but at the same time they are not foreign elements in the natural topography and in that way are meant to be part of that landscape [Fig. 6.14].

The external expression of identity and commemoration of funerary ritual on display in khirigsuurs is also evident in the few khirigsuurs that have been excavated at BGC. One of the critical aspects for the project in terms of confronting the Bronze Age chronology was to establish the scope of khirigsuur construction during that period. For this reason and because of the uncertainty of encountering organic remains in the central mound excavation focused mostly on satellites. However, of the satellites excavated by the project only a few were found to contain organic remains and over half were devoid of any material whatsoever. This is consistent with finds from khirigsuurs elsewhere in Mongolia where beyond human or faunal remains artifact recovery is also reported as being low or nonexistent (Tsybiktarov 1998; Takahama 2004, 2005; Frohlich et al. 2008).

At the site of Mukharyn Am, the project excavated a khirigsuur with a square fence with standing stones in each corner. This khirigsuur was found to contain 69 very fragmented ceramic sherds and a small distaff [Table 6.1]. Small friable bones of either sheep or goat were also recovered and in addition a horse tooth. The finds at Mukharyn Am are important in the context of khirigsuurs at BGC and elsewhere in Mongolia because it indicates that at least some burial goods could be included in funerary rituals.

It is further important that this entire assemblage has been disrupted to such an extent that it must be considered intentionally destroyed. The absence of human remains would further indicate that these have likely been removed during the disruption event, the evidence of which is clearly visible on the monument itself where stones from the monument have been scattered around the site and the central mound exhibits unevenness consistent with intrusion. A satellite associated with this monument was excavated and found to yield no artifacts and no faunal remains.

Site	Ceramics	Human Remains	Faunal Remains	Other Finds
Mukharyn Am (central mound)	69 sherds		1 tooth (<i>equus</i>), 1%< (<i>capra</i>)	1 Distaff
Mukharyn Am (satellite 1)				
Undur Khond (central mound)				
Undur Khond (satellite 1)				
Undur Khond (satellite 3)				
Undur Khond (satellite 7)				
Undur Khond (satellite 11)			1 cranium (<i>equus</i>)	
Mongol Ar (central mound)				
Mongol Ar (satellite 1)				
Mongol Ar (satellite 2)			L+R metacarpal (<i>bos</i>)	

Table 6.1 Finds at khirigsuur sites Mukharyn Am, Undur Khond, and Mongol Ar

Another khirigsuur site partly excavated by the project was located at Undur Khond and consisted of a low-lying central mound surrounded by a narrow perimeter fence and circumscribed by 11 satellites. Due to time and labor constraints at this site it was decided not to excavate the khirigsuur in full. Instead the central mound was

trenched with a one meter wide channel running across the center of the feature from the edge of the perimeter fence. Four of the satellites were also selected for excavation based on the intactness of their contour stones and because they were located on the southern and eastern sides of the khirigsuur which is where faunal remains are usually encountered in satellites elsewhere in Mongolia (see Allard and Erdenebaatar 2005). The central mound was completely sterile and no stone cist was encountered [see table 6.1]. Three of the four satellites were also sterile with only one yielding a horse cranium. Radiocarbon analysis of this skull yielded a date identical to the shape-burial at BGC 238 making these monuments contemporaneous.

Finally, another khirigsuur at the site of Mongol Ar (BGC 217) in the northwestern section of the research was excavated. This was a multicomponent site that also included 12 slab burials and will be described in full below. This khirigsuur consisted of a central mound measuring 10.1 meters in diameter with a square perimeter fence and four satellites arranged along its northwestern perimeter. The central mound was again trenched by placing a one meter wide channel from the edge of the perimeter fence through the central portion of the mound. The trench yielded no artifacts and no human or faunal remains. In addition two of the satellites were excavated with one being completely sterile while the second yielded two cattle fore-limbs. The entire site, including the slab burials to be discussed below, exhibited significant disturbance. The central mound of the khirigsuur has a pronounced depression in the center indicating that it had been dug into and rocks belonging to the central mound were also strewn about the surrounding ground surface.

Beyond these, six other satellites were excavated at other locales around the research area. Of these only three were found to contain any remains consisting of small fragments of faunal remains. No additional horse heads were recovered and faunal remains consisted of small fragments of elements from cattle, sheep, and goat. This is important for a couple of reasons. It indicates that there were a range of options available pertaining to what is placed into accompanying satellites. Much attention has been paid to the plethora of horse-heads encountered at sites like Urt Bulagyn and Ulaan Tolgoi, but this phenomenon is far from ubiquitous in Mongolia (Frohlich et al. 2008). The recovery of only one horse cranium at BGC in conjunction with the presence of other faunal remains in satellites indicates that the practice of putting horse heads in satellites was probably not standardized practice. The absence of material remains in the majority of satellites further suggests that the function of these features may have more to do with display than what is actually placed into them. The organic remains that were recovered from satellites were carbon-dated and yielded dates placing the construction of these khirigsuurs between 1200-800 BC, which again makes the early horizon of khirigsuurs contemporaneous with shape-burials (see Appendix E).

The sample of excavated khirigsuur contexts is admittedly very small at BGC, but nonetheless suggestive of what can be expected to be recovered from this type of monument especially in comparison with khirigsuurs elsewhere in Mongolia. At BGC khirigsuurs do seem to contain some artifacts at least at one locale. No extensive assemblages, but certainly not entirely empty like those described at Khovsgol (Frohlich et al. 2008). The absence of human remains at BGC should be viewed against the fact that only three central mounds were actually excavated and of these two were only

excavated partially. When viewed against the fact that pillaging and desecration was widespread during this period this absence does not give much weight to the notion that khirigsuurs should not be viewed as burials at BGC. Especially not given the small sample excavated where most attention was directed at satellites.

There are a number of observations to be made about khirigsuurs at BGC. First and foremost they are by far the most prolific monument type in the entire area from any time period. Second, they figure prominently into the landscape in the research area and confer a distinct visual impact on the landscape. Third, even if pillaging and taphonomic processes are considered in assessing the size and quality of the funerary assemblages of khirigsuurs it becomes clear that the majority of investment in the construction of these burials was directed at the monument itself. Fourth, diversity and idiosyncratic variation seems to be the standard by which to characterize khirigsuurs. These monuments are only superficially alike in that most are mounds with a perimeter fence. Their placement, visual impact, secondary features, or any other attribute, however, is entirely unique. They very much confer a sense of individuality and distinctiveness. Hence khirigsuurs appear to be built to project identity outward and onto the landscape via the monument itself. The inclusions or events surrounding the interment itself seem to be of less significance than the placement and configuration of the externally visible components of the monument. The importance of the monuments' visual qualities is further emphasized in that a number of khirigsuurs are constructed using stones of different colors put together in an alternating pattern to create a specific visual effect. In other cases stones of varying sizes are used to deliberately produce optical effects, which can include

placing upright corner stones or pointed rocks in the central mound, but which is entirely idiosyncratic to each khirigsuur.

On the one hand, as I mentioned above, only 30% of khirigsuurs at BGC include satellite features. On the other hand, of these a great number exhibit visual elements and secondary features that speak to a tremendous range of available options in creating khirigsuurs. Whereas the general components of khirigsuurs that have been discussed thus far include a central mound, a perimeter fence, pavements, and satellite features, the range of features encountered in these more “complex” khirigsuurs defy expectation. Not only are satellites arranged in various configurations, but perimeter fences take on a host of new qualities. In some cases they contain corner mounds, in other instances only a partial fence is constructed. In yet others, the fence is square on one side only to give way to a circular configuration on the other [Fig. 6.15]. These various and always visually creative features not only make khirigsuurs individually unique, but further indicates that the range of options available to create these burials is far broader than the

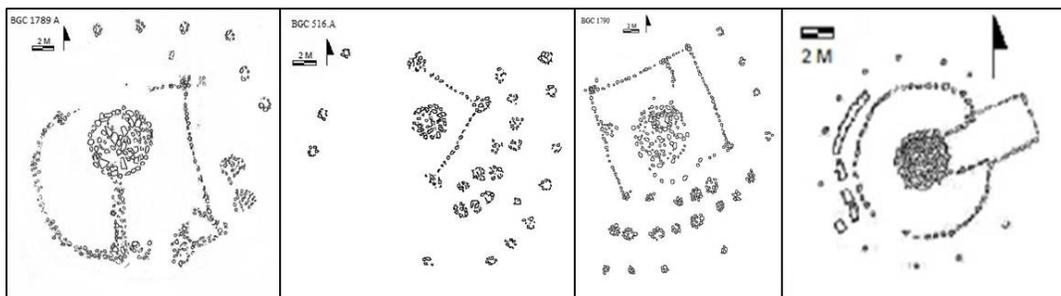


Figure 6.15 Variation in externally visible components of khirigsuurs at BGC.

typical descriptions of khirigsuurs attest to.

Finally, I want to note that pillaging and desecration is evident among almost all the khirigsuurs in the research area. The vast majority of these monuments exhibit

depressions in the central mound indicating that they have been intruded upon. However, in most cases disturbance concentrates on the central mounds and satellites only rarely exhibit evidence of disruption. It would thus appear that like elsewhere in Mongolia looters targeted the actual burial in khirigsuurs and since these assemblages are not extensive it follows to imply that the objective was the destruction or removal of the body of the deceased or any potential object immediately on the person. In many cases pillaging episodes have caused catastrophic damage to the khirigsuur, but due to the sheer number of stones that comprise these features and their general lack of standing stones or slabs, complete obliteration of the monument would be difficult to effect.

Conclusion

The mortuary landscape of the Late Bronze Age at BGC can be summarized as follows. It involves the sometimes contemporaneous use of at least two distinct mortuary traditions, shape-burials and khirigsuurs. Given that typologies and chronological distribution of the latter are still in the developmental phases it is possible that there are additional funerary practices embodied within the rubric of khirigsuur construction. It is as of yet impossible to say whether or not these different mortuary traditions result from different populations inhabiting the same area or they stem from social norms or identities expressed differently in death. Suffice it to say that alternative burial practices were certainly possible during the earlier portions of the Late Bronze Age. The resulting mortuary landscape of this period is inherently one that is visual and enduring. In terms of commemoration and the creation of social memory both shape-burials and khirigsuurs were able to achieve lasting impressions on the landscape that have survived to the present day. Viewing this as a spectrum of scales of social memory the meaning behind

these monuments is lost. The rules and reasons that regulated their construction are also lost. However, it is abundantly clear that in each case the intention behind building the monuments was to create a lasting and visual impact on the landscape. The memory of the individuals interred, embodied in the monuments themselves, was meant to endure.

In light of what these monuments are; visually arresting graves that leave indelible marks on the landscape, the looting and desecration events that have affected them can also be viewed in a different light. Here the social memories created by the builders of the monuments have been attacked in different ways. On one scale of commemoration and social memory the bodies of the deceased have been deliberately targeted and desecrated. The motives behind these events may be difficult to access in their entirety, but it would be difficult to reconcile looters taking the time and effort to destroy, humiliate, or damage the body and accompanying artifacts purposelessly. These actions would have resonated with more impact had they occurred when the memory of the deceased and of those who built the monument and participated in the funerary rituals were still known by the local communities. It is of course conceivable that desecration was secondary and random, but when viewed in the context of social memory one must question why looters would continue to target monuments in which there are no objects of intrinsic economic value beyond a skeleton and sparse artifacts of low quality. The destruction and disruption of the monuments' visible superstructure is also significant. Since these monuments were built to be seen, to leave an impression, the deliberate and wanton disruption of that structure also becomes a socio-political statement in the context of the production and destruction of social memory. I will return to this observation in chapter 8 below.

Chapter 7

Slab Burials

Introduction

In this chapter I describe the Early Iron Age (800-300 BC) period materials from BGC. This period is of particular interest to the present study since it culminates with the formation of the Xiongnu polity somewhere in Mongolia in the 3rd century BC. Whereas chapter 6 provided background information for mortuary practices during the Bronze Age this chapter will present data regarding changes in mortuary traditions ahead of the formation of the first nomadic state in East Asia. Hence, I continue the description of funerary monuments in the research area during the transition from the Late Bronze Age to the Early Iron Age and subsequently how these are transformed by the advent of the Xiongnu period. The focus will continue to be on qualitative differences between various monument types and what these suggest about the creation of social memory and commemoration and what that in turn implies about how socio-political identity is expressed.

I will start by describing the appearance of slab burials at BGC and providing a detailed account of how they manifest in the landscape and their overall characteristics. I will continue with a discussion of 4 particular slab burial sites, BGC 217, BGC 846, BGC 854, and BGC 143 to emphasize how these locales illustrate the overall features and

qualities that make slab burials unique and those that connect them with preceding mortuary traditions from the Late Bronze Age. In doing so I will be referencing khirigsuurs and shape-burials described in chapter 6 as well as reports of the Late Bronze-Early Iron Age transition elsewhere in Mongolia. I will also discuss how looting and desecration have affected this monument tradition and what this suggests about political processes at BGC during this and subsequent Xiongnu period. Throughout this discussion I will emphasize that slab burials follow a general tradition established in preceding periods of building visually prominent burials where the majority of investment is directed at the monument rather than the funerary assemblage. At the same time slab burials expand the visual components of monuments by creating spaces that produce very particular visual experiences. Like khirigsuurs and shape-burials, slab burials are meant to be seen, but they are meant to be seen in particular ways or at least their construction generates very specific optical experiences. I will thus argue that they represent a new and very distinct way of commemorating the deceased. Finally, I will argue that slab burials have been the target of prolific and politically motivated desecration events that have systematically been enacted in the research area. These involve the attempted complete destruction and obliteration of the body of the deceased and often overt attempts at the elimination of the monument itself. I will argue that whereas looting and desecration was part and parcel of mortuary behavior during this and preceding periods, the funerary monuments immediately predating the Xiongnu period have been systematically desecrated and destroyed. Apparent attempts have been made to erase social memory and commemoration at every scale.

Slab Burials

Slab burials at BGC are relatively small, but ostentatious monuments. They are typically composed of large, flat rectangular slabs of stone arranged in a rectangular formation oriented east to northeast. Most slab burials range in size from 2 to 6 meters in length with the vast majority measuring about 4 meters in length and a handful that are considerably larger [Fig. 7.1]. The slabs that form the corners of the superstructure are often somewhat larger than the rest and in some cases the slab forming the entirety of the short ends are significantly larger or are placed upright on their short ends while the rocks

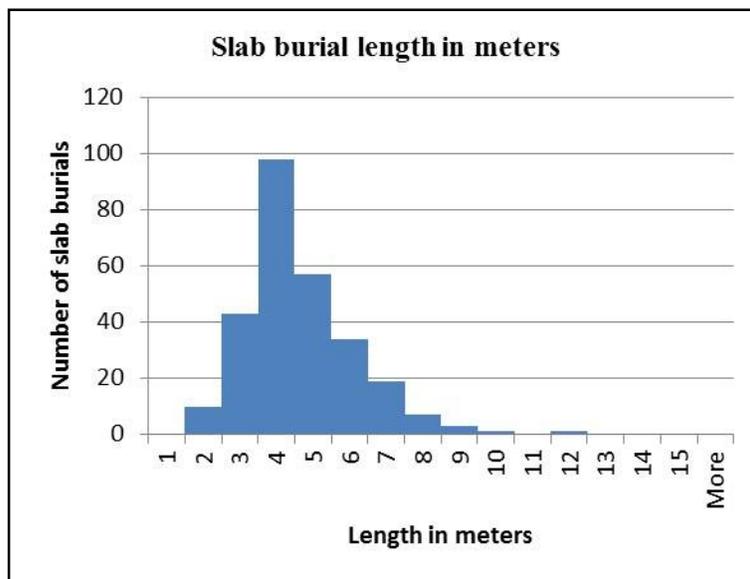


Figure 7.1 Size and frequency of slab burials at BGC

comprising the long sides are placed horizontally. The overall impression is one in which the short ends or the corners of the monument rise above the rest to create a bedstead-like or cradle-esque structure. The environs of BGC influence the appearance of these monuments in the region. The ridges and knolls in the research area are subject to erosion by wind and rain that result in horizontal exfoliation of the rocks that over time

collect at the foot of BGC's peaks and slopes. There is thus a ready supply of large blocks of granite suitable for building monuments that include standing stones. Consequently, in comparison with slab burials elsewhere in Mongolia, those at BGC tend to be more impressive with larger slabs and are visually prominent; qualities thus made possible by the geology of the research area. Like khirigsuurs, slab burials are located

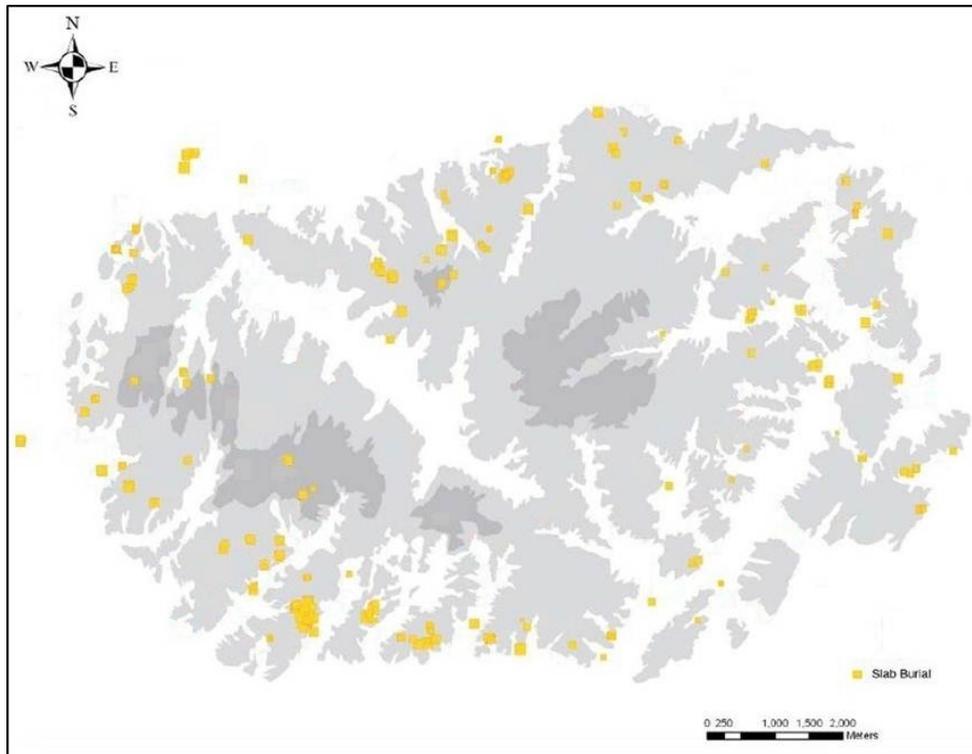


Figure 7.2 Slab burial distribution at BGC (adapted and modified from Wright 2007)

throughout BGC and tend to be placed in valleys, along promontories, or shallow slopes, but are typically absent in wide open spaces. At BGC, slab burial locations typically involve gradients, pitches, and somewhat variable terrain. They are found individually or in small clusters and only rarely in aggregates of more than 4-5 monuments [Fig 7.2].

The spatial association between khirigsuurs and slab burials noted elsewhere in Mongolia (Tsybiktarov 1998; Torbat 2004; Honeychurch et al. 2009) reoccurs at BGC. This is evident both via distribution maps of the two monument types and by the fact that many

slab burial and khirigsuur sites were recorded as singular multi-feature sites in the project database [Fig. 7.3]. Hence they were recognized as co-occurring at various locales as surveyors encountered them. When looked at individually, slab burials are found in

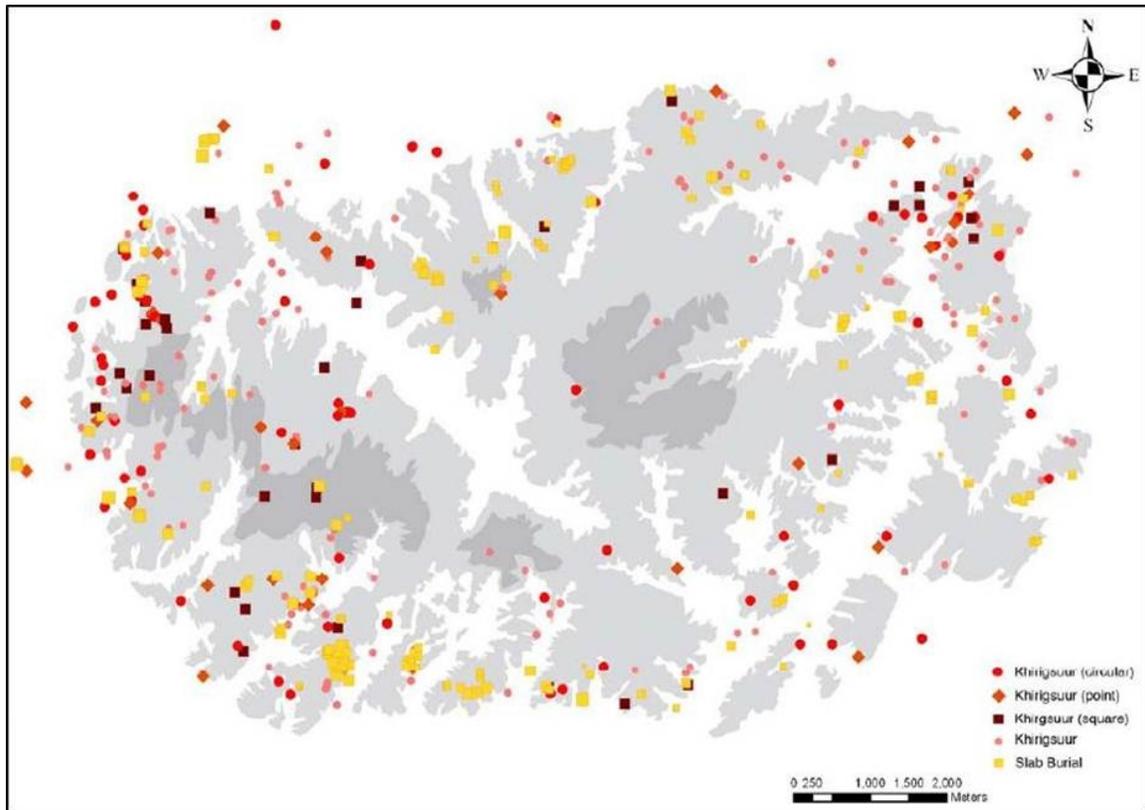


Figure 7.3 Slab burial and khirigsuur distribution illustrating convergence in placement at BGC (after Wright 2007)

somewhat greater numbers in the western and southern sections of the research area. This prevalence for a western and southern distribution is further expressed in slab burials' tendency to be placed on the western slopes of ridge or in valleys and gullies that open to the west or the south. This is true for those slab burials located in the eastern portions of BGC where it is exceedingly rare to find these monuments on eastern gradients or in valleys and basin facing east or north. Hence, although slab burials are found throughout the research area there is a decidedly westerly aspect to their placement.

As mentioned in chapter 2 the quadrangular structure of slab burials makes them superficially similar to rectangular burials from other time periods. In addition, the use of the term “slab burial” in English compared to *dörvölzhiin bulsh*, or quadrangular burial in Mongolian, has the potential to cause some confusion and disparity in the identification of these monuments. In chapter 2 I also briefly recounted a number of studies that attempt to arrange slab burials into various categories based on size, appearance, or chronology or to identify characteristics by which to set them apart. I chose not to do this at BGC. Instead, I decided to approach this monument type by asking the question, what is a slab burial? When is a rectangular monument a slab burial and what makes it so? To answer this question necessitated rethinking a definition of slab burials. Clearly, it is not sufficient to make the qualifying characteristics a rectangular shape made of slabs since this does not automatically set the monument apart from others. Nor would it be appropriate to use the standing slabs as criteria for identifying monuments as slab burials since the superstructures of these features are often disrupted and can result in overturned and heavily sedimented components that are not readily visible during survey. As an alternative, I considered the creation of social memory through the construction of visible stone monuments. If these monuments were used as commemorative devices, and assuming they were not trying to entirely imitate or recreate other monument types, how would their creators distinguish them from other albeit similar monuments? It is possible that collective memory within a group was maintained over generations such that the community knew intrinsically what monuments had been built by them or their forebears. However, I rationalized that in the event that social memory could not be maintained with such accuracy then the rules for where and how to construct these monuments,

themselves derivatives of social memory, should allow a community to identify monuments consistent with their worldview and sense of self through the visual attributes of those monuments. I also presumed that the way a community might be able to identify structures as “theirs” may have less to do with the physical structure of the monument and more with its appearance and the experience it creates for the viewer. It was largely with this in mind that I decided to initiate a qualitative and phenomenological survey of BGC focusing in particular on monuments labeled slab burials in the project database.

The inspiration for the qualitative slab burial came about as a result of my collection of soil samples for future use in the creation of a baseline of strontium signatures for BGC. This entailed walking 15 kilometers out in the cardinal and ordinal directions from the center of the research area and stopping every 3 kilometers to collect a sample. While thus traversing much of BGC and walking far out into its hinterland, I had an opportunity to observe and experience the landscape and its monuments in a different way; “off the grid” so to speak. Since I was not actively looking for sites (as the primary survey was complete), and having little to do but to walk between sampling locations, I had ample time to experience the environments that I traveled through. In so doing, I encountered numerous stone monuments of every variety. By this time, having already worked at BGC for several field seasons I was already familiar with the monuments and sites in the research area. Nevertheless, these encounters with various monuments along the transects further moved me to go over the database each morning before leaving, to identify beforehand additional locations that might be worth visiting in between collection points. It was during these long hikes that I became aware of the differential in slab burials’ impact on the landscape in comparison with other monuments.

Slab burials really stood out in the landscape. They could often be seen for hundreds of meters and in some cases several kilometers. Other monuments such as khirigsuurs and shape-burials certainly conferred a visual impact as well, but not on the same order as that of slab burials. In this quality they were exceptional. It was in making this observation that I decided that it would be worthwhile to revisit slab burials throughout the research area to assess if there were differences or variety to this visual quality between slab burials and also in comparison with other monument types.

As described in chapter 5, the qualitative survey involved using GPS to relocate and revisit slab burials in the research area. However, the coordinates were only used as a guideline for the location of each slab burial site. The idea was to identify and locate each site by sight and take note of the monument's placement in, and impact on, the landscape in which it was situated. Additionally, this assessment aimed to identify qualities or characteristics that further defined slab burials as a monument type in comparison with other monuments that may be were superficially or externally similar. The results of this qualitative appraisal were both astounding and informative.

The first impression upon revisiting a number of sites classified as slab burials in the project database was that there was seemingly no rhyme or reason to the criteria used to identify some of these monuments as slab burials. The category appeared to be a catch-all for any monument that had a square shape or that contained large slab-like stones in its construction. In some cases monuments were neither square nor contained slab like rocks [Fig 7.4]. BGC 032, for example, was a circular arrangement of stones with a hollow in its center and was located on a gently easterly sloping plateau, tucked away behind two northeasterly ridge lines. There was nothing about this monument's



Figure 7.4 Variability in categorization of sites as slab burials during survey; A) Actual slab burials at BGC 057; B) Square feature with slabs incorrectly labeled slab burial, BGC 539; C) Burial marked by rectangular stone scatter incorrectly labeled slab burial, BGC 1717; D) Circular arrangement of stones incorrectly labeled slab burial, BGC 032.

construction that indicated that it should be a slab burial. There were a few larger stones that with some imagination could be thought of as being slabs that had fallen over, but these were fitted under other rocks in a masonry-like construction. In fact, the entire monument appeared to be a carefully constructed stone circle with rows of overlapping rocks. The criteria used for identifying some of these monuments during survey thus seemed to conform neither to English nor Mongolian terminology for describing the monument type.

As the qualitative survey progressed some consistent characteristics began to emerge that were conducive to redefining slab burials at BGC. Those monuments that

were clearly rectangular in shape and that were at one time constructed with rows of standing stones or with standing stones at their corners were also consistently oriented within 30-40° of an East-West axis. These monuments were predictably placed on western facing slopes or in valleys that opened to the west or to the south or in areas where there was invariably some topographical attribute in a westerly or southerly direction. This western facing quality became even more apparent if these slab burials were approached from the east. By coincidence, in 2008 the project's basecamp and excavations were located on the eastern side of the research area. As a result, during the qualitative survey I set off from the eastern portions of BGC and walked west only to return in the late afternoon or early evening and encounter monuments from the opposite direction. When approaching slab burial sites from the east they were conspicuously hidden from view. Even knowing beforehand where these sites were found, and using GPS to precisely locate them if they proved difficult to find, it was nonetheless frustratingly difficult to relocate slab burial sites if approaching them from an easterly direction. Countless times I would find myself walking right past even larger clusters of slab burials only to turn around to retrace my steps and be confronted with their rather obvious presence. The frequency with which this happened was surprising. Slab burial sites were continually overshot if approached from the east only to feature prominently if one turned around to face west. This phenomenon was also apparent on the return back to basecamp each day. When trekking across the landscape from a westerly direction, slab burials were easily visible over large distances. Upon entering a new valley or traversing a new ridgeline slab burials honed into view, situated on the opposite end along the western or southern slopes of the topography ahead. However, upon passing

them and turning around they were soon gone from view. Often within no more than 20-40 meters [Fig. 7.5]. This directionality to slab burial viewshed and placement was typically only found in those slab burials oriented within 40° of the East-West axis (see Appendix C).



Figure 7.5 Western viewshed of BGC 455; A) Site visible from the west at a distance of ca. 2km; B) Site visible from west at close range; C) Site disappears from view ca. 40 meters to the east in spite of its large size.

When applied to monuments whose designation as slab burials was uncertain some of the above observations proved compelling. All monuments around which there was doubt were not oriented in an East-West direction and invariably exceeded the 30-40° standard of deviation. Moreover they were placed primarily on eastern slopes or in valleys that opened east or north. Thus placed, they typically had eastern viewsheds, but were also readily seen if approached from the east. In this way it became apparent that slab burials at BGC could be defined via their construction, their placement, and the visual experience they projected onto the landscape. Invariably those monuments that did not fulfill all of these criteria were those around which doubt remained. Hence, slab burials at BGC can be defined as follows. They are visually arresting monuments constructed of upright slabs placed in a rectangular formation. The short ends or corners are typically the tallest parts of the monument. They are oriented in a roughly east-west

direction and are usually placed on the western or southern side of ridges, slopes, and gradients. This westerly placement creates a visual effect that makes slab burials in the

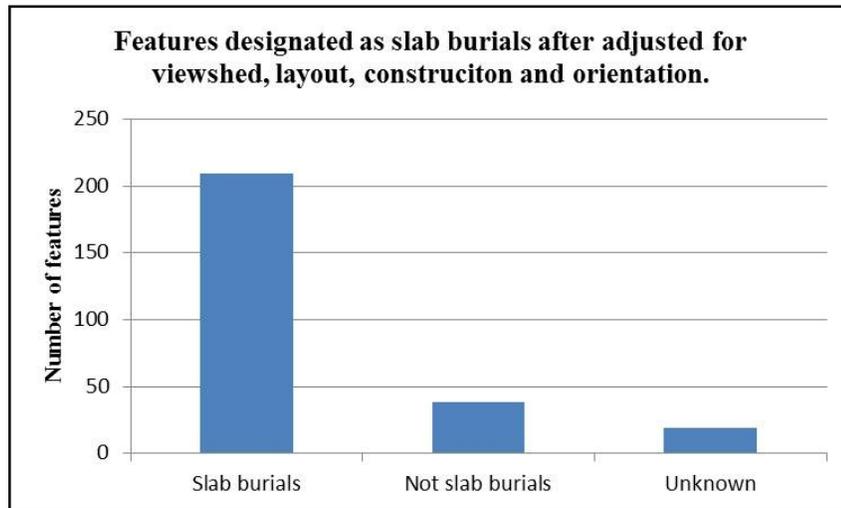


Figure 7.6 Slab burials and monuments removed from that category as a result of not satisfying criteria pertaining to viewshed, layout, construction, and orientation.

research area accessible and visible from the west, but not from the east from which they are virtually invisible. Based on these observations, I decided that monuments that do not conform to any of these aforementioned qualities are probably not slab burials and need to be reconsidered to ascertain what they are. Hence, of the 266 features originally designated slab burials 57 were eliminated as either not being slab burials (38) or as monuments around which doubt remained (19) [Fig. 7.6] (see Appendix C). Monuments were only eliminated if they fulfilled at least 3 of the following: 1) they were not rectangular, 2) they were not oriented within 45° of the East-West axis, 3) they did not contain slabs, 4) they did not possess a western viewshed. That does not mean that monuments thus removed are not contemporaneous with slab burial construction, but it is fairly clear that they do not correspond to the overall pattern and characteristics of the majority of slab burials at BGC. However, when monuments had been eliminated based

on the criteria outlined above the percentage of slab burials exhibiting a westerly visibility increased significantly [Fig. 7.7]. The predominance of this characteristic thus suggests quite forcefully that slab burials at BGC were not only built to be seen, but were built to be seen from the west.

During the qualitative survey it also became apparent that slab burials have been subjected to a tremendous amount of damage (see Appendix C). A large number of these

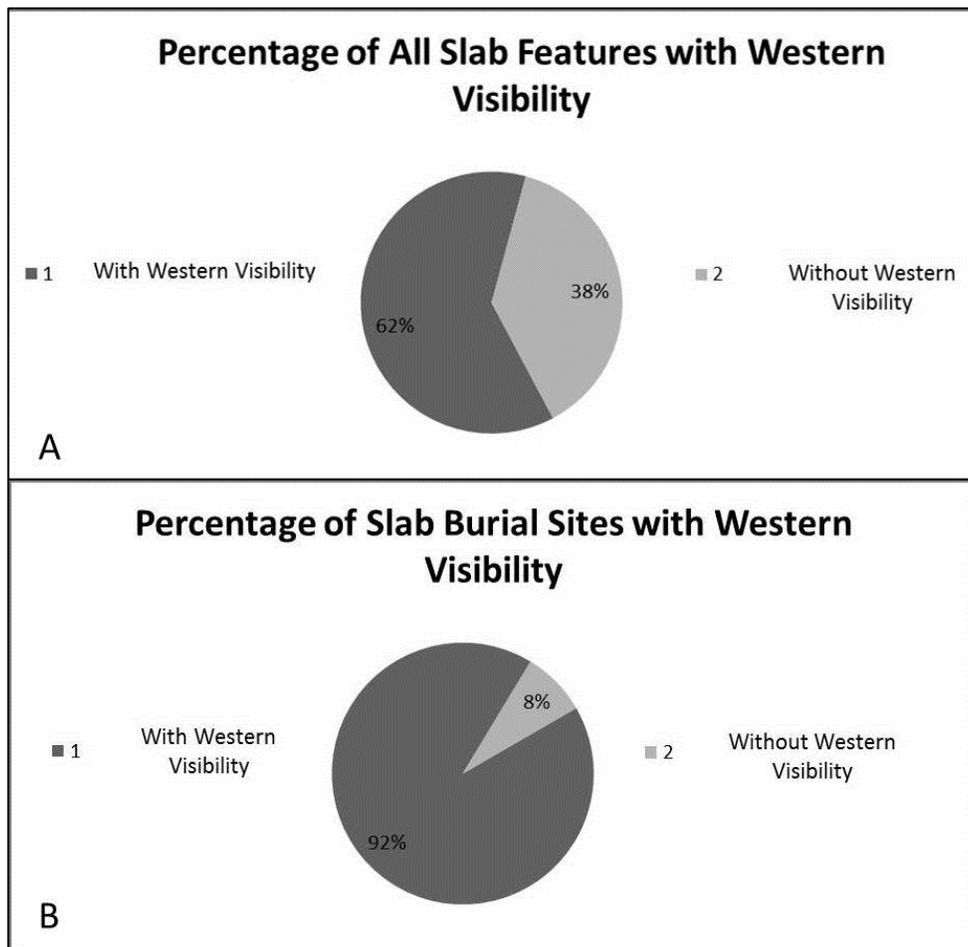


Figure 7.7 Charts showing percentage of features exhibiting a western visibility; A) Out of all 266 monuments originally designated slab burials during survey; B) Out of slab burials after adjusting for orientation, layout, and construction.

sites have been completely collapsed and exhibit smaller stones strewn around the monuments in wide arcs. All monuments at BGC exhibit signs of deterioration and are in some way dislocated or disordered. This is often the result of erosion, sedimentation, bioturbation, or apparent intentional dismantling. Marmots have a tendency to build their burrows near or in burials and thus undermine the structural integrity of monuments causing disruption and partial collapse. These nests can also contribute to the removal of some stones as well as disruption of the mortuary assemblages below. Similarly, dismantling as a result of reuse of rocks from the monument for new structures such as corrals can also contribute to the gradual destruction and collapse of a monument. However, the destruction evident in slab burials far surpasses that seen in any other monument type in the research area save for a handful of shape-burials. The stones used to construct slab burial perimeters are typically large. The standing slabs are even larger and are usually dug deep into the ground and are further stabilized with smaller rocks. To completely collapse even one slab in one of these burials requires a tremendous application of effort or force. During excavation it often took 8-10 crew members to simply shift the position of slab, let alone entirely move them [Fig. 7.8]. Those slab burials that have been completely collapsed are thus conspicuous. Hence this is a monument type that has clearly been disrupted and where the monument itself has been specifically targeted. I will now discuss 4 particular slab burial sites in order to illustrate additional points about this monument type, how it made use of space and placed to

create commemorative narratives, and how these were disrupted through desecration.



Figure 7.8 Photographs illustrating the difficulty in moving constituent parts of slab burials; A) Not only are slabs large, but they are also placed deep into the ground; B) Crew members shifting a slab during excavation of BGC 057.

BGC 217

BGC 217 is a multi-feature site located on the northwestern slopes of the research area just before the rocks of BGC give way to the expansive desert-steppe. This is a site that is comprised of 12 slab burials arranged in roughly parallel rows on the southern perimeter of a khirigsuur with a quadrangular perimeter fence and 4 satellites (described in chapter 6 above). The association of these slab burials with the khirigsuur is unmistakable as each row radiates from the latter at regular intervals and demonstrate intentional placement both in relation to each other and to the khirigsuur [Fig. 7.9]. In being placed in proximity to this khirigsuurs the slab burials are co-opting or appropriating its commemorative space and inscribing their own social memory at the site. What is important is that the burials themselves do not impinge on or damage the khirigsuur, its perimeter fence, or any of its satellites. Hence there is no attempt to actually destroy the khirigsuur through building slab burials, but rather the act of

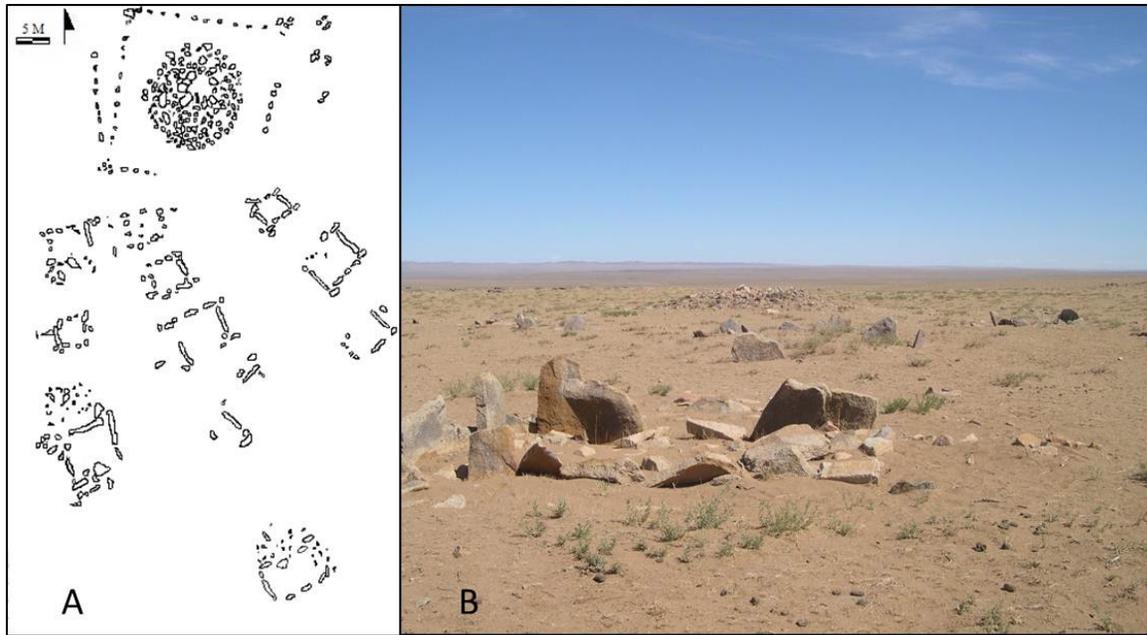


Figure 7.9 BGC 217, illustrating relationship between slab burials and khirigsuur; A) Schematic drawing of surface features at BGC 217; B) Photograph of one row of slab burials in front of khirigsuur at BGC 217.

constructing additional monuments affect and transform information conveyed at the site. It is impossible to determine if this was done to connect the commemorative narratives created by the slab burials to that of the khirigsuur or to subvert the narrative of the latter. In any case, the placement of slab burials at BGC 217 was deliberate and incorporated social memory projected by the khirigsuur into the narrative constructed via the subsequent construction of slab burials.

Most of the slab burials at this site were excavated in the summer of 2007. The recovery of any materials from these contexts was extremely low and only 8 burials yielded artifacts of any kind and in all but 4 burials these consisted of small ceramic fragments. Human remains were conspicuously absent from all but 2 contexts [Table 7.1]. The ceramics recovered were extremely tiny and rarely numbered more than a few isolated finds with approximate maximum lengths of 3-7 centimeters. However, the minimum vessel count for each context indicated the presence of 2 vessels in 6 burials.

Both the faunal and the human remains recovered were minimal and heavily degraded. For the faunal remains it was only possible to determine species, *ovis/capra*, based on

BGC 217 EX#	Depth	Ceramics	Faunal	Human
EX 07.01	70.5 cm	1	1 (tooth fragment)	1 (<1% of skeleton)
EX 07.02	85 cm	6 (2 vessels)	1 (<i>ovis/capra</i>)	
EX 07.04	88 cm	4 (2 vessels)		
EX 07.05	49 cm	2 (2 vessels)		
EX 07.06	77 cm			
EX 07.07	72 cm	12 (2 vessels)		1 (<1% of skeleton)
EX 07.09	70 cm			
EX 07.10	80 cm	7 (2 vessels)		
EX 07.11	57 cm	1		
EX 07.12	148 cm	4 (2 vessels)		
EX 07.13	80 cm		1 (<1% of <i>ovis/capra</i>)	
EX 07.14	68 cm			

Table 7.1 Final depths and finds from slab burials at BGC 217.

size and ratio of cortical to trabecular bone whereas assigning what element the remains belonged was impossible (Johannesson and Hite 2007). Both human elements recovered represented long-bone, possibly femoral, mid-shafts (Nelson et al. 2007). All skeletal materials, human and faunal, exhibit cracking, exfoliation, and the loss of trabecular bone consistent with prolonged surface exposure. In addition to the loss of trabecular bone, the human elements are missing most of the original cortex (Nelson et al. 2007).

The overall absence of human organic materials and the ample weathering and degradation evident in what materials have been recovered at BGC 217 warrants further discussion. The excavated contexts were all relatively shallow with only one extending beyond a depth of one meter making it possible that the degradation of organic materials resulted from leaching of moisture seeping into the soil from the surface. However, other shallow contexts such as those at Baga Mongol (BGC 238) described above, which is located in the same area approximately half a kilometer to the east and which is

significantly older, are better preserved. Therefore, it is difficult to reconcile that the extremely poor state of skeletal materials at BGC 217 is simply the result of natural taphonomic processes and decay.

Excavation further revealed extensive intrusion and the varying density and texture of the soil was consistent with fill. The state of the monuments' superstructure also indicate significant disturbance. There are numerous rocks strewn around the site and more were uncovered as the soil around the burials was cleared to original ground level. The rocks covering the actual burial pits had been removed or tossed out. In some cases these covers were as large as some of the standing slabs. The standing slabs of the burials' perimeter fences were in most cases still standing giving the illusion that the contexts were less disrupted than they actually were [Fig 7.10]. Upon excavation it

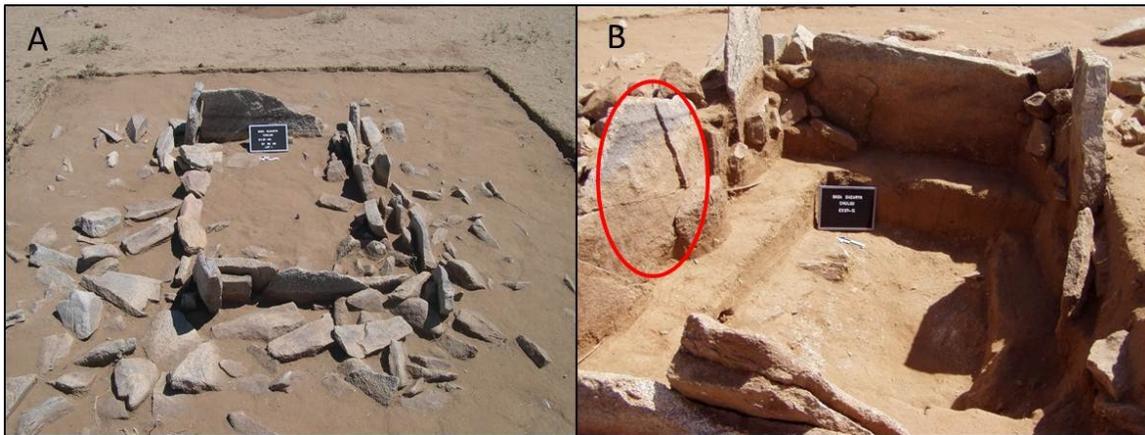


Figure 7.10 Damage to slab burials at BGC 217; A) Removal of rocks from the interior of the burial; B) Large slabs remain standing as a result of having been sunk deep into the ground. Marked area indicates a slab that has cracked along two axes.

became clear why this was the case. Not only were these slabs extremely large, but they were also sunk deep into the ground with less than half their length protruding above the ground surface. In spite of this they exhibited damage and many were cracked or broken off, clearly suggesting some effort to try to remove or damage them. When these

observations are combined with the extremely fragmentary nature of the ceramics the explicit, intentional, and severe extent of disruption makes it abundantly clear that a key objective was the destruction of the monument and the entirety of its assemblage. What is further important is that whereas the 12 slab burials at this site have been systematically ravaged, the khirigsuur and its satellites exhibit much less disturbance. The khirigsuur did exhibit a depression indicating intrusion, but beyond this the superstructure had been left intact and the satellites appeared untouched. It would thus appear that the slab burials were specifically targeted and/or the destruction of the khirigsuur was of less consequence to the perpetrators.

BGC 846

BGC 846 is a large slab burial cluster located in the northern section of the research area called Ondor Khond and covers an area roughly 70x80 meters. The site is located on a rocky terrace between a series of rocky hillocks at the head of a narrow valley. It is made up of 14 slab burials and 9 steles that based on accompanying inscriptions likely date to the Turk Period. The burials are distributed haphazardly in a roughly east-west linear formation and are all oriented within 40° of an east-west axis. There are a number of important attributes to the layout of this site that became apparent during the qualitative survey. The western viewshed noted above is present at BGC 846. The site is accessible via a long constricted valley that is a tributary to one of the broad northern facing basins of BGC. This narrow vale slopes upwards from the west towards the site, which becomes dramatically visible within a few moments of traversing up through the gorge. The site is not visible from the larger northern valley, but only becomes apparent, and immediately so, once a person has passed the first bend of the

westerly gorge. The visual experience created by BGC 846 is immediate and spectacular and as one travels up the gorge the site looms strikingly ahead [Fig. 7.11]. The slab burials that increasingly come into view are sky-lined and stand out from the rest of the



Figure 7.11 BGC 846 sky-lined as viewer approaches up the gorge from the west and crests the head of the valley.

landscape, which enhances their visibility and places them above as well as ahead of the viewer. As one crests the head of the valley and enters the site it opens up in a broad expanse populated by the visible components of the slab burials' superstructures. The entirety of the cemetery cannot be seen from any one vantage point within the site as a few burials are placed behind or beyond the low northern rock outcrops at the site. The effect of this is that as you walk around the site it appears much larger than it actually is and you keep encountering burials that you did not initially see. The actual number of

slab burials is only 14, but the impression caused by the site's layout is such that it seems there are many more. That is unless one approaches the site from the east. The entire site is virtually invisible from the east. In fact this quality is so conspicuous that if one passes but 15-20 meters beyond the easternmost slab burial at BGC 846 not a single monument can be seen. This is in stark contrast to its western viewshed through which it can be seen for over 150 meters. This lack of visibility from the east is also noteworthy in that the site itself has good views of the adjacent ridge lines and the surrounding desert-steppe to the north and east. Yet from the east it is virtually undetectable. This invisibility is also conspicuous given the area covered by the site. In spite of this broad expanse, every single monument disappears from view either as a result of a loss of line-of-sight or because the monument blends into the surrounding topography. This is significant because whereas a lack of eastern viewsheds in slab burials at BGC can usually be explained by the monuments' placement on western slopes or against western rock faces in this case there is a wide open expanse east of the site. Yet as soon as one steps out of the immediate boundary east of the cemetery it is lost to view. This was noted elsewhere at larger slab burial sites such as BGC 554 and BGC 455 where the sites are accessible but not visible from the east, but in comparison with these the loss of sight at BGC 846 was virtually immediate.

Four burials have been excavated at BGC and like BGC 217 recovery of materials of any kind was extremely low [Table 7.2]. Individual burials were selected for excavation based on their exhibiting less signs of disruption compared to other contexts at the site. Nevertheless, every single burial exhibited indications of intrusion. In most

cases, the standing slabs leaned precariously outwards indicating that the grave had stood

BGC 846 EX#	Size	Depth	Orientation	Ceramics	Faunal	Human
EX 04.06	430x250 cm	64 cm	65°	3		
EX 04.07	250x150 cm	72 cm	70°	2		
EX 04.08	490x330 cm	100 cm	80°	7	<i>ovis/capra</i> (<1% of skeleton)	
EX 08.17	535x330 cm	67 cm	80°			L+R Tibia < 10% of skeleton

Table 7.2 Size, depth, orientation, and finds of slab burials excavated at BGC 846.

open and exposed for some time, which in turn undermines the structural integrity of the superstructure. With one side of the slabs' support partially removed by the looters' trench, erosion causes slippage and the slabs slide inwards towards the open pit in the center and come to rest leaning diagonally outwards. Only one burial yielded any traces of human remains and only one contained faunal remains in the form of a degraded unidentifiable long bone of a small artiodactyl, probably *ovis/capra*.

Similar to BGC 217 the human remains, consisting of the left and right tibial midshafts, exhibited significant degradation and exfoliation [Fig. 7.12]. While most of the trabecular and cortical cortex is gone in each element, these bones were found in relative anatomical position, which leads to some questions. 1) Where are other, more durable, portions of the skeleton such as the femurs or teeth? Tibial midshafts certainly comprise durable elements in the human skeleton, but not nearly to the same degree as femoral midshafts and certainly not in comparison with teeth. 2) The relative anatomical order of these tibial midshafts thus warrants discussion as to the absence of these other elements and how their removal did not affect the tibias' position. It is likely that this is due to desecration in combination with taphonomic processes. The disarticulation of the

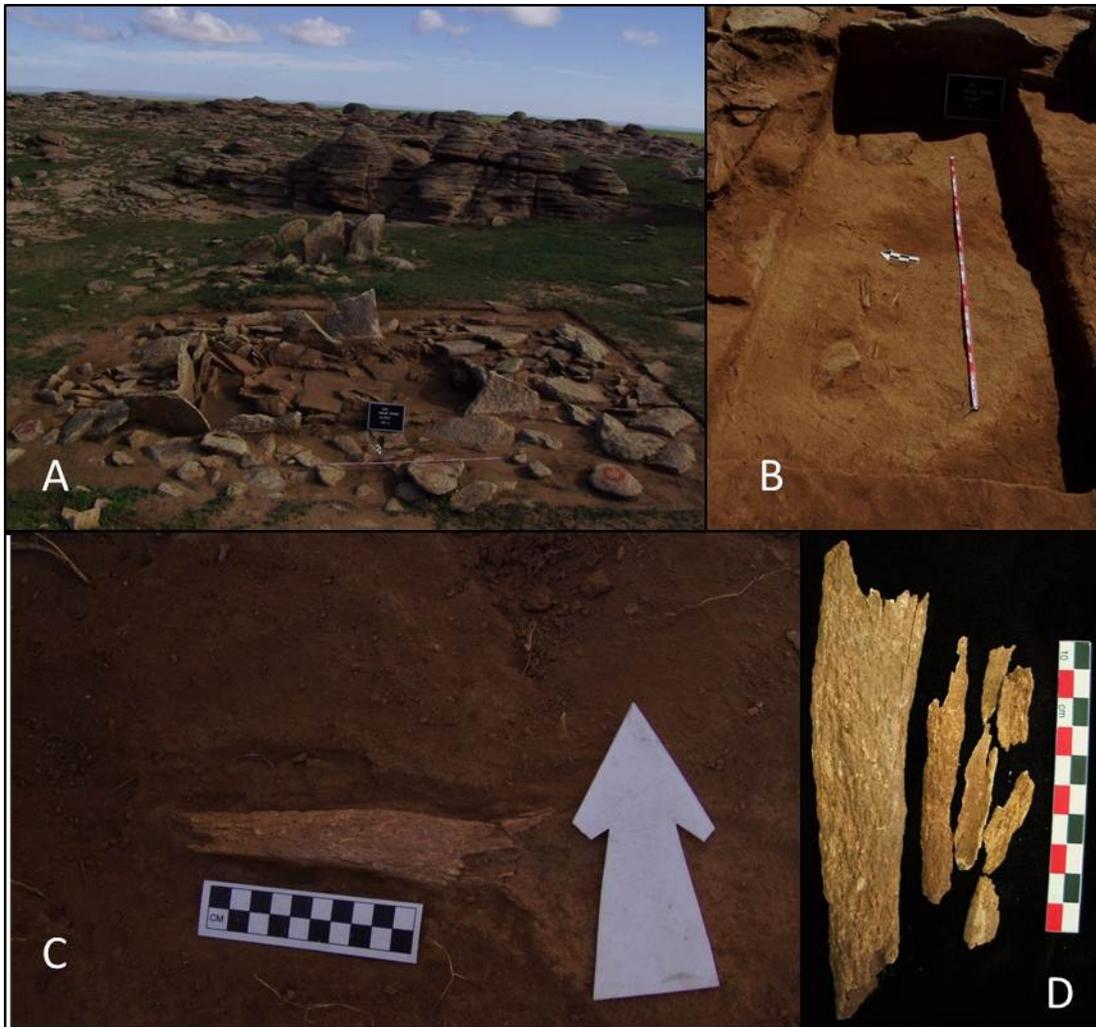


Figure 7.12 Human remains from BGC 846, EX 08.17; A) Superstructure of burial during excavation; B) Human remains in situ noting absence of other elements but those present still in anatomical order; C) Close-up of tibial fragment; D) Poor preservation of human remains illustrating extensive fragmentation and exfoliation.

human skeleton as a result of decay occurs first in the larger open joints of the body such as the knee and the elbow (Bell et al. 1996; Haglund and Sorg 1997). Hence the manipulation or removal of a body that is still in the early stages of dry decay and disarticulation will likely result in the separation of the body at these horizons. The absence of all skeletal materials above these tibias (hence above the knee) can thus be explained through the timing of the disturbance of the body before skeletal disarticulation was complete. This would in turn explain the absence of more durable parts of the

skeleton such as the femurs and teeth. It also suggests that any intrusion targeting this body occurred relatively recently after the body was interred (Bell et al. 1996). Overall, BGC 846 exhibits extensive signs of disruption. All contexts have been disrupted including the collapse of significant portions of the burials. The poor state of preservation as well as the fragmentation of ceramics that have reduced the ceramic assemblage to a handful of small sherds further suggests the violent nature of the disruption of the contexts. The extent of disruption makes it impossible to reconstruct the original contexts of these burials making it possible only to address the looting events themselves.

BGC 854

BGC 854 is another slab burial cemetery located towards the center of the research area. This site is a linear cluster of slab burials running approximately 80 meters along a narrow north-south gorge ending in a steep ravine just after the northernmost slab burial in the cluster. At a glance this north-south distribution runs counter to the westerly placement of slab burials elsewhere at BGC. However, the qualitative survey revealed that the surrounding topography and its potential effect on the viewer is far more complex. The primary survey aimed to locate and identify sites and monuments in the research area and to provide a brief description of the general topography of the site. Hence, BGC 854 and its environs were only described within the immediate topography and context of the site itself. The extent of the gorge in which they are found was not explored or described beyond the distribution of the burials. In actuality, the gorge curves sharply west and upwards just beyond the southernmost burial. It continues west for about 50 meters before it loops around to the northwest and joins up with the same

east-west running valley that the ravine at the terminus of the northernmost slab burial feeds into. As such the gorge forms a circular path that is accessible from the bigger valley if one travels in a somewhat westerly direction. These western portions of the gorge are smooth and form a natural passageway that is bounded on each side by low-lying rock outcrops. If one enters the gorge from the west one does travel in a westerly direction and once the gorge curves around the site comes prominently into view. Hence the western viewshed or western visual component is present at BGC 854, albeit not in an obvious way. The viewer will have to enter the gorge at its northwestern terminus to produce this effect, but this is only apparent if one follows the entirety of the gorge in each direction. The site is not readily accessible from the north where the ravine creates an obstacle, but it is further noteworthy that the site is neither visible from the bottom of this ravine nor from the mouth of the valley it slopes into. A visual experience is only possible if one enters the gorge at its northwestern point.

The slab burials themselves exhibit significant disturbance. Several burials are completely collapsed and all contexts have had rocks removed and scattered around the monuments. Burials A, B, C, and D are the most disrupted and are almost entirely collapsed while E,F,G, and H still have some slabs still standing [Fig. 7.13]. Burial I at the northern terminus of the site is partially collapsed on the northern edge, but this is still too far from the edge of the ravine to be attributable to erosion. Given the general inaccessibility of the site and its lack of visibility from any direction other than from within the gorge itself this destruction of the superstructures is compelling since it would only be known to those who knew the site was there or those who participated in the destruction.

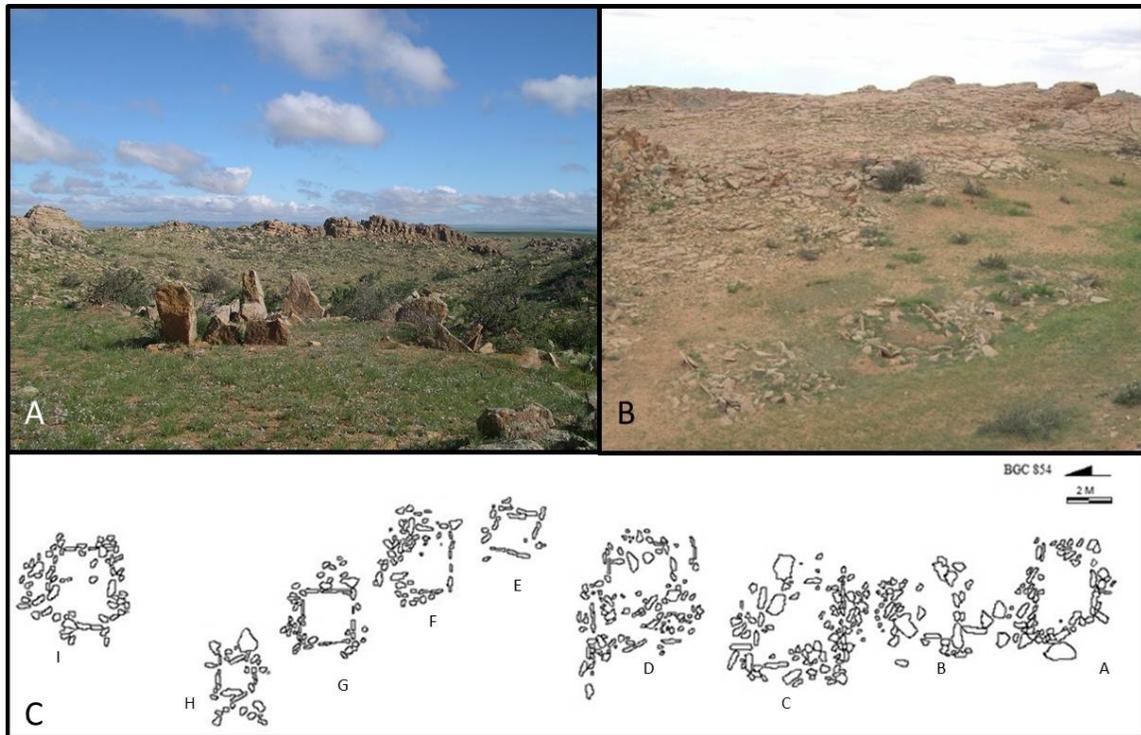


Figure 7.13 BGC 854; A) Feature I at edge of ravine overlooking valley below; B) Linear formation of features C, B, and A.; C) Schematic plan drawing of surface features of BGC 854.

Only two burials (burials C and F) were excavated at BGC 854. These contexts were both almost entirely sterile and yielded no human or faunal remains. Burial C (Ex 06.05) was one of the aforementioned heavily disturbed burials in the cluster, but it did constitute one of the larger contexts and was situated towards the center of the cluster. Hence it was chosen partly for its size, but also because organic materials recovered from this context could give a somewhat of an accurate date for the site since it was located towards the center of the cluster. Since all burials had clearly been severely disrupted, the extent of that disruption did not feature into the decision making process and instead we were primarily interested in recovering dateable materials. As circumstances would have it, no organic materials were recovered, which was unfortunate. However, this burial did yield small fragments of ceramics of at least two vessels, again following a pattern at BGC of extensive destruction of the assemblage yet suggesting that at least two

separate vessels were placed into the burial during the funerary ritual. The sherds themselves were a light brown-buff ware with shallow linear incisions. One perforated rim sherd was recovered, which is stylistically consistent with Late Bronze-Early Iron Age ceramics thus suggesting a relatively early date for this context. The excavation of EX 06.05 was discontinued as bedrock was reached at a depth of 70 cm.

Burial F (EX 06.06) was a much smaller burial and was chosen because it was one that appeared to have the most slabs still standing upright suggesting it might have been subject to somewhat less disturbance. This proved not to be as the burial turned out to be the most sterile slab burial context the project had encountered up to that point¹⁸. No ceramics and no organic materials were recovered. Instead the only artifact found in this context was a perforated turquoise bead. This in itself proved quite significant as it represented a non-local object, which must have reached the research area via a socio-economic network extending beyond BGC. That turquoise beads constituted traded items in the Early Iron Age is also attested to in the Khanuy Valley where a similar bead has been recovered and where turquoise also constitutes a non-local material [Fig. 7.14] (Houle 2010). EX 06.06 was relatively shallow and excavation ceased upon hitting bedrock at 68 cm.

¹⁸ Until 2006 the project had focused on survey with only limited excavation. The burials at BGC 854 were excavated in the latter half of the 2006 season when this focus shifted to more extensive excavation. As of this date only three slab burials had been excavated and only at BGC 846 described above. Therefore, we had not yet realized the extent of damage to burial assemblages as a result of pillaging and adverse taphonomic processes, and confidence was still high that materials would be recoverable. The sterile nature of BGC 854 made it clear that slab burial contexts were going to be problematic and we would have to rethink our approach to choosing which burials to excavate. Our experiences excavating BGC 846 and BGC 854 consequently influenced the decision to excavate BGC 217 in full in 2007 in the hope of recovering dateable materials. That site also turned out to be mostly sterile and following 2007 we were hesitant to invest in the complete excavation of an entire site and instead subsequent burials were chosen solely based on estimates and conjecture about the chance that the assemblage would be less disturbed. None of these presumptions turned out to be true and by the project's end in 2008 slab burials remained the most disrupted contexts we had encountered.

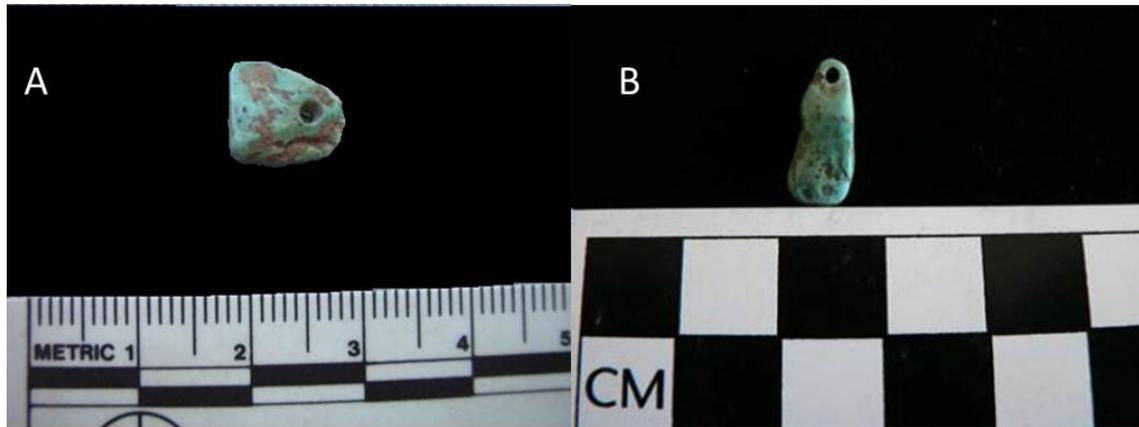


Figure 7.14 Turquoise beads; A) From EX 06.06 at BGC 846; B) From Khanuy Valley (Houle 2010).

In spite of the poor recovery of artifacts at BGC 846 the layout of the cemetery is significant in that despite its seeming deviation from the usual placement of slab burials at BGC, it nevertheless embodies the westerly viewshed or western/southwestern attribute of other slab burials in the research area. The artifacts that were retrieved from the two burials at this site are further significant in that the ceramics place at least one of the burials (C) towards the earlier boundary of slab burial construction. The turquoise bead from burial (F) is also significant since it connects the research area to a broader socio-economic network across Mongolia in the face of otherwise extremely poor artifact recovery. The sample size may be diminutive, but given the extent of looting and poor preservation at all slab burial contexts this is nevertheless significant.

BGC 143

BGC 143 is a site located at the western edge of the research area approximately one kilometer from the westernmost ridgeline and relatively far into the surrounding desert-steppe. This site was never excavated, but nonetheless is significant to the present study as a result of its relationship to two Xiongnu sites BGC 076 and BGC 142. BGC 143 is a small cluster of 3 slab burials situated in a shallow depression between two low

rises to its north and its south. The site contains one of the largest slab burials at BGC measuring 6.8 x 4.0 meters with 12 slabs still upright measuring over 1.5-1.8 meters above the ground surface. This is an impressive monument and certainly one that makes a significant impression on the landscape. Approaching the site from the west this slab burial is visible for over 3 kilometers, but as with BGC 846, its viewshed disappears approximately 50 meters to its east. The other two slab burials at BGC 143 are collapsed in their entirety. In fact, the extent of collapse is so encompassing and these two burials so obliterated that the damage cannot be attributed to either geological forces or bioturbation. These two burials have been pulled down intentionally [Fig. 7.15]. BGC 142 is located a mere 300 meters away from this slab burial cluster on the other side of a shallow slope to its north. However, in spite of its sheer size the megalithic slab burial is not visible from BGC 142. The Xiongnu cemetery may have gleaned a glimpse of slab burial (B) at BGC 143, but with its collapse it too is not visible from the cemetery below. Similarly the slab burials at BGC 143 are not visible from BGC 076 either, which is a site situated at the mouth of a westward facing valley at the edge of the research area that otherwise has expansive views of the western desert-steppe. The northern slope obscures its view of the large slab burial, however, this Xiongnu cemetery would also have had a clear view of the two slab burials at BGC 143 that are now clearly and comprehensively collapsed. I will discuss the significance of this in the chapter below on Xiongnu mortuary sites in the research area since these sites are placed away from preceding

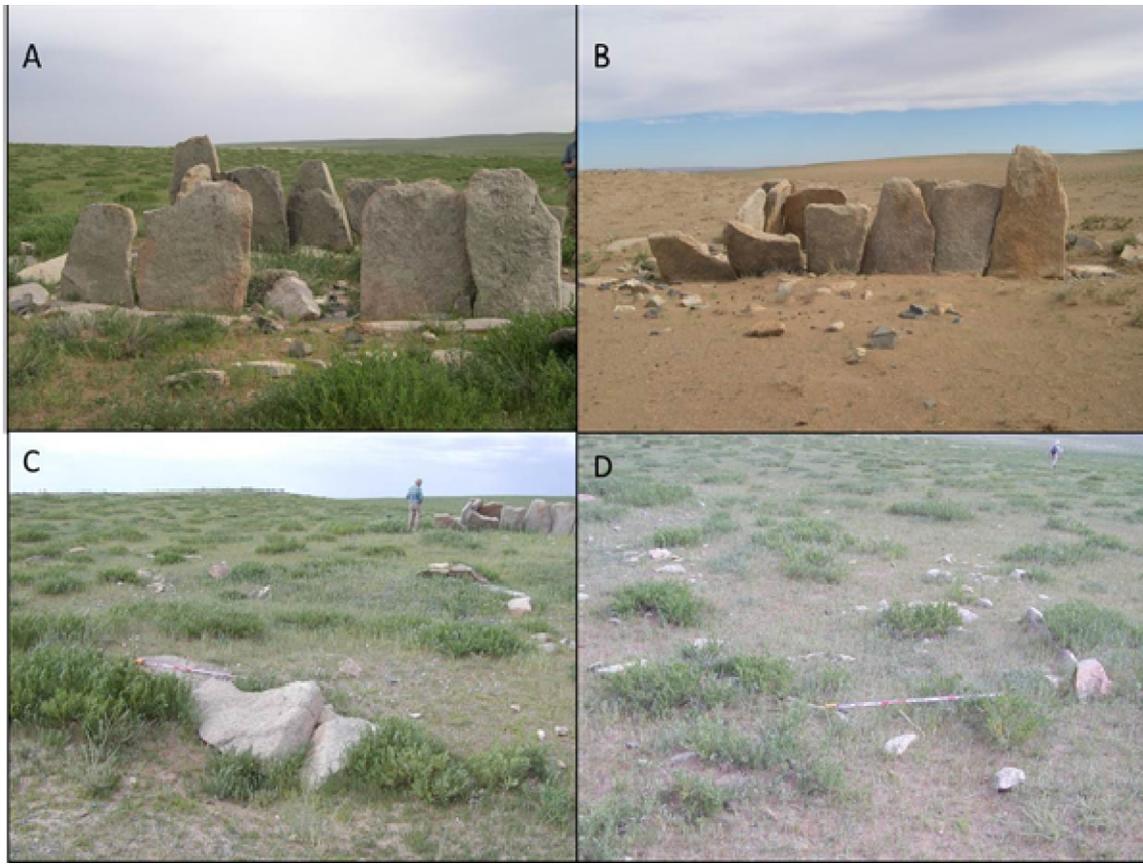


Figure 7.15 BGC 143 illustrating destruction at the site; A) Feature A from the north showing size of monument and missing slabs; B) Feature A from the south showing size and missing slabs; C) Feature B illustrating intentional destruction of monument; D) Feature C illustrating complete destruction of the monument.

monument types, especially slab burials, and with few exceptions avoid viewsheds in which the latter are visible.

BGC 238

Finally, I will turn to discuss a small non-slab burial feature at BGC 238, the multi-component site described in chapter 6. This site also included several small circular burials, which were excavated as a result of their proximity to the shape-burial at this location. Feature B at BGC 238 consisted of a circular arrangement of rocks with a diameter of 2.3 meters. This context was a double burial consisting of an adult male in supine position oriented east and placed at a depth of 37 cm. Directly below this

interment at a depth of 62 cm and separated by a sliver of textile was another shallow inhumation of an adult female also placed in supine position [Fig. 7.16]. The context contained both iron artifacts from post-medieval periods and ceramics from the Late Bronze-Early Iron Age, which raised interest in the feature. Radiocarbon dates on both skeletons were further revealing in that the overlying male dated to 500 +/- 40 B.P. while the female below yielded a date of 2440 +/- 25 B.P making the latter interment contemporaneous with slab burial construction at BGC (see Appendix E). The burial is significant for its implication regarding site reuse in the research area, but also because it demonstrates that alternative mortuary practices in addition to slab burials were possible.

Conclusion

As a result of extensive pillaging and desecration, slab burial contexts at BGC cannot be reliably reconstructed to assess specific details of mortuary ritual. Even khirigsuurs, monuments notorious throughout Mongolia for their sparse assemblages, exhibit more remains than slab burials at BGC. The seemingly recurring pattern of sherds from two separate ceramic vessels is suggestive but far from definitive and given the small sample size and severe disruption of the assemblages can only be speculative. However, slab burials elsewhere in Mongolia have only rarely been found to contain extensive materials beyond the body itself. Examples include bronze helmets,



Figure 7.16 BGC 238, EX 07.19; A) Top burial; B) Second burial found just beneath the first.

arrowheads, horse trappings, the occasional faunal remains of livestock, but never instances of extremely rich assemblages. In light of this and similar to khirigsuurs or shape-burials it is difficult to reconcile that looting directed at slab burials was motivated by economic factors and again desecration appears to be the prime mover for these disruptions. In the case of slab burials these have been extremely thorough and have usually resulted in the complete or near complete obliteration of the entire funerary assemblage. The fact that human skeletal materials have been recovered from other contexts in the research area such as BGC 238.A, BGC 238.B, and BGC 767 further indicates that the absence of organic materials cannot be attributed to taphonomic processes alone. This is especially true since the aforementioned sites are all on average shallower than slab burial contexts. The fragmentary nature of ceramics in slab burials further indicate that intrusion was violent and involved intentional destruction of low

value objects. Finally, the extensive damage to slab burial monuments, which are not easy to break or collapse, are revealing and indicate deliberate attempts to affect the monuments' impact on the landscape and the social memory they confer as a result. Given the very visual quality of slab burials and their intentional placement to produce specific visual effects as one traverses the research area, the targeting of that visual attribute during disruption is conspicuous. I will return to discuss these observations in full in chapter 9.

Chapter 8

Xiongnu

Introduction

In this chapter I will describe the quality and characteristics of Xiongnu ring tombs at BGC, emphasizing differences in their placement, superstructure, funerary assemblage, and how these aspects combine to represent a fundamental divergence from preceding periods in how to create social memory through mortuary ritual. I will do this via a discussion of Xiongnu ring tombs at the sites BGC 142, BGC 1490, and BGC 510 which are the sites constituting the sources of most excavated Xiongnu tombs in the area. I will argue that these denote a distinct and deliberate discontinuity with mortuary practices of preceding periods in that Xiongnu tombs exhibit investment in the funerary assemblage rather than in the visually conspicuous parts of the monument's superstructure. Xiongnu tombs are mortuary monuments in which commemoration was emphasized in funerary ritual rather than in the construction of ostentatious and visible stone monuments. I will also contend that visual idiosyncratic variation is suppressed in favor of collective clusters of monuments underscoring uniformity and equivalence. The creation of social memory through commemorative acts thus shifts to the *micro-scale* which would have been lost within a few generations. At the same time, looting and

deseccration events reflect this in that funerary assemblages and the body of the deceased were targeted, but the monuments themselves were largely left undisturbed.

I will then provide a general overview of information presented in chapter 6 and 7 to demonstrate that the mortuary landscape at BGC is comprised of burials of local lineages of leadership. In light of this, political process is evident not just in the construction of these places, but also in their disruption which extends beyond looting for pecuniary gain. In the concluding remarks in this chapter I will lay out the overall observations that prior to the Xiongnu period monuments are built to create idiosyncratic commemorative memorials that emphasize social memory on a large scale, having the potential to endure for multiple generations. These are replaced during the Xiongnu period with monuments that constrain the ability to create lasting and ostentatious displays of identity and power. Looting and deseccration events, which have been a ubiquitous background condition, change in nature as well. Slab burials, those monuments immediately predating the advent of the Xiongnu polity, exhibit evidence of systematic deseccration and overt attempts at destruction at a scale not seen in khirigsuurs or shape-burials. These deseccration events continue into the Xiongnu period where they exclusively revolve around the destruction of the funerary assemblage, that aspect around which social memory is created in Xiongnu mortuary ritual. These observations will set the stage for the conclusion of this dissertation in chapter 9 in which I will discuss how mortuary practice reflects political process at BGC.

Xiongnu Ring Tombs

The square ramped tombs of the uppermost echelon of the Xiongnu polity are not present at BGC. Instead the entire mortuary landscape associated with Xiongnu funerary

practices in the research area is represented by the smaller ring tombs described above in chapter 2. Xiongnu ring tombs represent a sharp discontinuity with preceding mortuary traditions at BGC, and by extension elsewhere in Mongolia. These are best described as shaft graves approximately 1-4 meters in depth and marked on the surface by a narrow circular band of stones. The burial pit, including the body, is oriented to the north or northwest, which constitutes discontinuity with the otherwise east-west orientation of previous monuments. Unlike previous mortuary traditions the body was typically placed inside a stone cist, a wooden coffin, or in some cases in a coffin within a stone cist.

The circular arrangement of rocks on the surface is not unique to Xiongnu ring tombs, which can confuse them with features and monuments from other periods. However, Xiongnu ring tombs typically occur in clusters or larger cemeteries and only rarely individually. Hence a number of monuments that have been labeled Xiongnu burials at BGC that occur separately likely do not date to the Xiongnu period. This is particularly true for those monuments identified as Xiongnu ring tombs in the central portions of the research area since the distribution of Xiongnu burials tends towards the edges of the rocks [Fig 8.1]. Therefore, individual monuments situated within the rock massif of BGC are unlikely to actually be Xiongnu. Xiongnu monument clusters are usually located in visually inconspicuous places around the edges of BGC. These locations are commonly shallow depressions, valley outlets, slight slopes, or open fields.

There are a total of 158 monuments identified as Xiongnu ring tombs in the research area. Returning to the question raised in chapter 4, whether or not these features represent local elites or graves of commoners, it is thus necessary to consider if ring tombs at BGC are representative of the entirety of the local population. There are

insufficient data to accurately reconstruct paleodemography at BGC. Nevertheless a crude calculation can be performed to determine the size of a living population necessary to produce 158 burials. Following Frohlich and Ortner (2008) a living population size

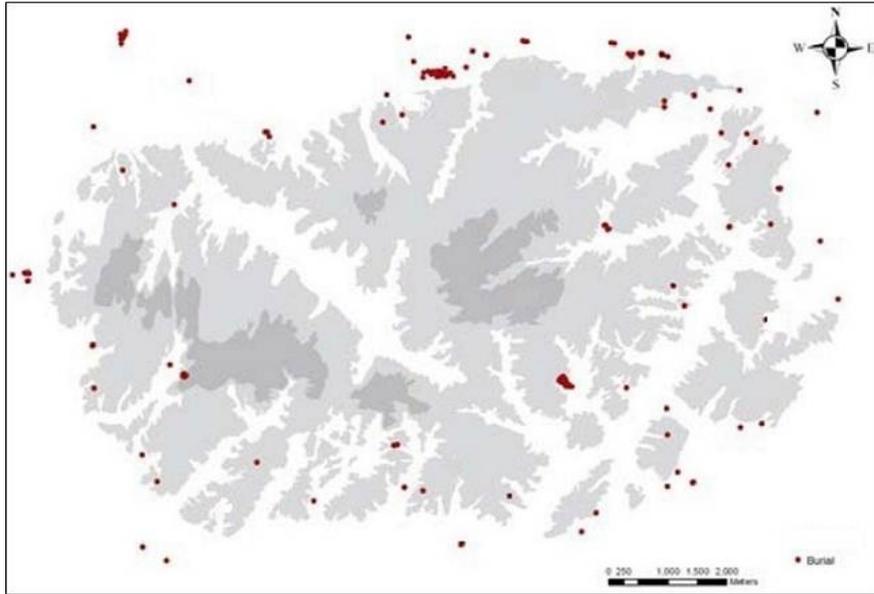


Figure 8.1 Distribution of Xiongnu ring tombs at BGC

can be estimated provided some data exist on the number of individuals in a population, life expectancy, and the time span the population was active. Taking the stance that Xiongnu ring tombs constitute the graves of everyday non-elite people and thus represent the entirety of the population, how big was this living population? Assuming then that the 158 Xiongnu burials at BGC represent 158 individuals (N) based on the assumption that there is also one individual buried in each grave. Available radiocarbon dates at BGC yield a range dates from 230 BC to 70 AD (see Appendix E). Although these are derived from a very small sample, they nonetheless give us a rudimentary time span of 300 years during which Xiongnu graves were built in the research area. Life expectancy is more difficult to assess given the small sample size and individuals were recovered constitute both the very old and the very young. However, if we dismiss the sub-adult

specimen and argue that a person who survived infancy would reach adulthood, based on the available ages we have a top age of 60 and a bottom age of 25. We can use these to calculate the living population for a group with both the highest and the lowest life expectancy. Therefore, a living population size (P), with a life expectancy (M) of 25 or 60 years respectively, will produce 158 (N) individuals over 300 years (T). The population (P) can thus be calculated: $P=N/(T/M)$ or $P=158/(300/25)$ where $P=13$. With a life expectancy of 60: $P=158/(300/60)$, $P= 32$.

Hence, if Xiongnu burials at BGC represent commoner burials the living population that produced them stood at 13-31 people, which is extremely low. This number is also just a straight number for the entire population and no other factors have been taken into account. If we then assume that this population was organized into households or families of different sizes then the entirety of the population at BGC during the Xiongnu period is represented by only a tiny handful of families. In light of these observations it is highly unlikely that Xiongnu tombs in the research area are those of everyday people. Conversely, if we assume that the average life expectancy lies somewhere between 25 and 60 and probably closer to the lower reaches of that range (35), then the living population interred in Xiongnu ring tombs is approximately 18. A living population of 18 individuals, easily represented by 2-3 households, is more consistent with a few families being accorded differential treatment in death in relation to the rest of the population. The above assessment is admittedly crude and not an accurate representation of demography at BGC since various factors and variations in demographic dynamics have not be taken into account as a result of the small sample size. Nevertheless, it does serve to illustrate that Xiongnu ring tombs at BGC cannot be

derived from the entirety of the population and must therefore be considered elite in some way.

Xiongnu ring tombs do not confer a visual impact on the landscape. In fact, they are so visually inconspicuous that one is often unaware of being near or in a Xiongnu cemetery until one is standing in the middle of it. This lack of a visual component has been noted by other researchers in Mongolia (Honeychurch 2004; Wright 2006). In comparison with preceding monuments where burial pits are relatively simple and shallow with the investment in labor and resources directed at constructing prominent stone monuments, Xiongnu ring tombs represent a reversal of this trend. Ring tombs exhibit investment in the burial itself with very little labor or resources dedicated to building a visually lasting monument. This reversal of labor investment loci appears to be an intentional break with preceding mortuary traditions, which is further evident in the placement and viewsheds of Xiongnu cemetery sites. The placement of Xiongnu tombs is noteworthy not only because it tends to circumscribe the research area, but also because Xiongnu sites seem to avoid locales where preceding monuments are found. All pre-Xiongnu monument types at BGC regularly co-occur, but Xiongnu sites constitute an interruption of this phenomenon as well. Only rarely are Xiongnu tombs found in the vicinity of other monuments, but never slab burials. Moreover, ring tombs are not only placed away from other monuments, but for the most part preceding monuments are not visible from Xiongnu cemeteries even if they are located nearby. The only instance where this is not true is at BGC 076, which is located approximately 30 meters from a large shape-burial. However, as noted above, BGC 076 has no viewshed of some very prominent slab burials located beyond the site in the surrounding desert-steppe. In

contrast, both BGC 757 and BGC 1490, which are very large Xiongnu cemetery sites comprised of 85 and 58 burials respectively and are located near several preceding monument types, cannot trace a line-of-sight to any of these. Given the often visual nature of shape-burials, khirigsuurs, and especially slab burials, this is peculiar. BGC is entirely populated by LBA-EIA monuments, which are extremely visual. To consistently and entirely avoid creating sites from which these monuments could be seen would take some effort and careful selection. Moreover, it suggests that the ritual activities enacted at Xiongnu graves would occur out of view of locations where commemorative narratives have been produced during preceding periods.

Like all monuments at BGC, Xiongnu ring tombs have been extensively disrupted. However, this disruption has rarely resulted in the destruction of the monuments' visible components. This is perhaps not surprising given that these are not conspicuous or ostentatious constructions; quite the opposite. Hence, since Xiongnu tombs are not monuments that attempt to create enduring commemorative narratives through visually prominent monuments there is no need to target them in this way. Instead, the disruption targets those areas of the burial where social memories are created, namely in the funerary assemblage itself. Whereas the superstructure usually only exhibits evidence of disruption via displaced stones and the characteristic lopsidedness of the surface ring, the burial beneath is invariably severely disturbed. However, as with preceding periods the damage and desecration is often directed at the body of the deceased. This desecration is often overt resulting in the removal or destruction of the cranium or the disassembling of the body. In a few poignant cases the body has been humiliated by placing the head in the crotch of the individual. In the context of



Figure 8.2 Artifacts from Xiongnu contexts that are non-local to BGC; A) Bronze from EX 08.13; B) Birch bark vessel bottom from EX 08.06; C) Beads from EX 08.03; D) Cowry shells from EX 08.03; E) Lacquer on wood from EX 08.1; F) Gold brooch from EX 08.06.

commemoration and social memory these acts take on a different significance. Since mortuary assemblages are subterranean they create social memory on a small scale that is primarily only known by individuals who attended or presided over the funerary activities. To target social memory at this scale is also an act of trying to transform its narrative on a small scale as traces of this kind of desecration would quickly fade from memory as well. These desecrations would hold little socio-political value beyond the

satisfaction of those who performed them if they did not occur within living memory of those who were associated with the original burial.

Xiongnu funerary assemblages are also qualitatively different from those of previous burial traditions in that they are characterized by a dramatic increase in artifacts, particularly objects procured via socio-economic networks reaching far beyond BGC. These artifacts generally consist of beads, lacquer, cowry shells, and precious metals [Fig. 8.2]. Wood and birch bark may also represent non local materials, but since there are scattered trees at BGC it is impossible to determine if these could not have been procured locally in the past. In contrast to preceding monuments and observations made about their distribution, externally visible components, and accompanying funerary assemblages which are largely idiosyncratic, Xiongnu mortuary rituals are much more standardized. Not only are Xiongnu assemblages similar in burials throughout BGC, but these similarities are consistent across Mongolia as well, as far west as the Altai. In most cases these recurring attributes in Xiongnu tombs revolve around the inclusion and incorporation of faunal remains in funerary ritual. These manifest in the placement of crania and distal ends of the forelimbs of *ovis/capra*, and *bos* in a northern niche just beyond the burial itself [Fig. 8.3]. The use of faunal remains can also include perforated or decorated sheep astragali. Standardization is also evident in the regular inclusion of a ceramic vessel in or near the northern niche, which like the northern niche of faunal remains has been documented across Mongolia (Torbat 2004; Miller et al. 2008). Other consistent features, whose regularity is becoming increasingly apparent across Mongolia concerns the treatment of sub-adults in mortuary ritual. Infants are not accorded the same

treatment in funerary practice as adults. This manifests in a number of ways. In many cases young children are not interred in a wooden coffin, but are instead placed inside a



Figure 8.3 Faunal remains in the northern niche at: A) EX 08.03; B EX 08.02

stone cist within the grave. In others, they are buried in stone cists placed beneath a small cluster of stones associated with a larger ring tomb (see also Miller et al. 2008). Neonates are typically placed within the tomb of an adult down by the feet with the head oriented in the opposite direction. The funerary assemblage is considerably smaller for sub-adults and for infants usually consists of only a few artifacts, usually ceramics. This differential treatment of sub-adults in mortuary ritual is also a divergence from preceding funerary traditions in which children are accorded the same treatment as adults (Honeychurch et al. 2009).

In the following section I will highlight some of the observations made above via a discussion of number of particular Xiongnu cemetery sites in the research area, BGC 510, BGC 1490, and BGC 142. These are distributed around BGC to its north, south, and west respectively.

BGC 510

BGC 510 is in actuality a series of sites constituting 8 burials that are located on the southern slopes of a shallow rise running along the northern perimeter of the research area called Alag Tolgoi. These were excavated starting in 2004, but it was not until 2008 that this area was excavated systematically and in full. These burials are particularly noteworthy because they represent the most well preserved contexts for the Xiongnu period excavated at BGC. I use the term well preserved loosely here as every single burial has been severely disrupted. Nevertheless, out of 6 of the 8 burials 50% or more of the human skeleton was recovered. In addition, organic materials, particularly coffin wood and birch bark vessels that have usually deteriorated in other contexts were also recovered from the burials at Alag Tolgoi. In spite of extensive disruption a substantial amount of materials have been recovered from these contexts, particularly beads, bronze, iron, lacquer, and textiles. Hence these burials constitute some of the most informative Xiongnu contexts at BGC.

Regardless of the amount of materials recovered from Alag Tolgoi, these burials have all been severely disrupted as a result of intrusion in antiquity. However, because of the relatively good state of preservation these pillaging episodes can be assessed and somewhat reconstructed so as to shine some light on the nature of these disruptions. Some important questions regarding looting and desecration is to assess when these events occurred, which is usually problematic since disruption rarely leaves behind any dateable material. Yet, how resultant disruption affected the assemblage can yield important clues that imply, albeit generally, how long after interment the burials were reopened. This is particularly true for the state of disarticulation of the human skeleton

(Bell et al. 1996). Turning to human remains at BGC 510 these exhibit severe disturbance and have often been moved throughout the burial matrix [Fig 8.4]. However the lower extremities often been rearranged in ways that make it possible to determine the state of disarticulation at the time the burial was disturbed. EX 08.02, for example, exhibits the left and right tibia and fibula in anatomical position while the remainder of

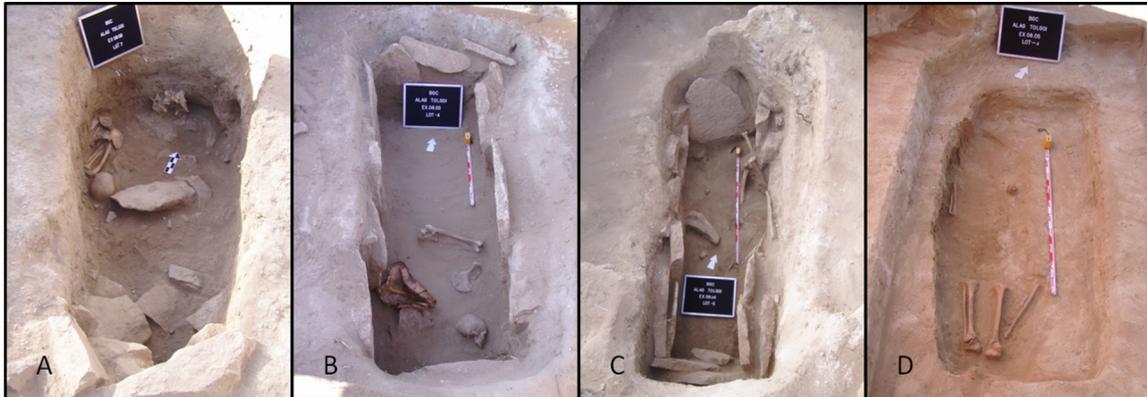


Figure 8.4 Four burials at Alag Tolgoi illustrating extent of disruption to human remains; A) EX 08.02, remains have been thrown aside in the northeastern portion of the burial; B) EX 08.03, significant portions of the skeleton are missing and cranium located at southern end of the burial; C) EX 08.04 Most of the skeleton is missing and tibiae, fibulae, and femurs are located jumbled together in the northeastern portion of the burial; D) EX 08.05, most of the skeleton is missing, but long bones below large open joints remain in anatomical order.

the skeleton has been pulled out and upwards in the burial shaft. The left femur, left and right innominate, and sacrum are all positioned together in a jumble in the northern section of the burial [Fig 8.4A]. This is indicative that at the time of removal the body was in a state of disarticulation where the large open joint at the knee had separated, but the small tighter joints in the pelvis were at least partially held together by soft tissue. Hence when the body was pulled during the disruption the legs separated at the knees leaving the lower legs *in situ* while the femurs were dragged along with the torso and then tossed aside in the northern section of the burial. The head was then pitched on top, probably near the pelvis in an act of desecration. In other words, the body was disturbed while it was still partly intact. However, given the fact that ribs were scattered

throughout the burial shaft the body had in fact come apart significantly indicating that most of the skeleton had become disarticulated when it was disturbed. Given these observations the grave was likely disturbed within only a few years of interment and likely earlier. An alternative scenario has been proposed by Nelson et al. (2011) in which the body was removed while in a complete state of disarticulation and was left on a “shelf” in the northern section and sorted through by looters for easier access to valuable materials. This is a compelling argument, but does not explain why this would have been necessary. This explanation also does not take into account why the lower extremities of the legs were then not “sorted” as well. Finally, there are a number of materials still present in this grave, especially high quality beads and polished stone, which begs the question that if looters were so meticulous as to sort through the skeleton, why were these items left behind? For this reason I favor an interpretation that these remains were still somewhat held together by soft tissue and clothing and were pulled along with the torso as the body was dragged out of the coffin and may have come apart as a result of this process. They were then pitched to the side in the northern section of the burial where they remained to deteriorate to their present condition.

Similar states of disarticulation can be seen in EX 03.05 [Fig 8.4D]. Here the left and right tibia and fibula as well as the right ulna and radius are found *in situ* while the rest of the skeleton is missing. This is further indicative that at the time this burial was disturbed the body was only partly disarticulated with the joints in the knees and right elbow having separated, but the rest of the skeleton likely still in a state of articulation. The fact that most elements are entirely missing indicates that the body was completely removed from the burial. The cranium was found inverted a few centimeters above the

burial pit and exhibited signs of post mortem impact. The maxillary alveolus is mostly missing as is the right zygomatic, while the occipital exhibits blunt force impact [Fig. 8.5]. The mandible is entirely missing. Hence the head of this individual has been subjected to some violence during the disruption of the burial, most of which affected the



Figure 8.5 Cranium from EX 08.05 in situ, illustrating extensive damage in the form of missing maxillary alveolus, blunt trauma to the occipital, and broken zygomatics.

face, and then tossed back into the burial pit. The skeletal material in EX 08.05 thus also indicates that the burial was disrupted relatively recently after it was completed. The reopening was fairly violent with the body being pulled out and removed from the grave. The head was subsequently intentionally damaged and pitched back into the burial shaft. The overall impression is one of a rather severe and ruthless treatment of the deceased. Had the sole reason for reopening the burial been to recover valuable materials it would

hardly have been necessary to treat the cranium in this way. Although this is not overt humiliation of the deceased, it is certainly suggestive of desecration and intentional violation of the body.

The timing of disruption is also indicated by other lines of evidence. At EX 08.06 the superstructure was somewhat abnormal for a Xiongnu ring tomb and bore resemblance to Turk period graves. Just below the ring ceramics from the Turk period were also recovered suggesting that this grave was not a Xiongnu context [Fig. 8.6 B and C] At a depth of approximately 50 cm a partial human left parietal was recovered which exhibited ample swelling, cracking, bleaching, and exfoliation indicative of prolonged surface exposure. This weathering was in stark contrast to elements found within the burial cist itself, which were in a fairly good state of preservation. Taken as a whole the differential degradation of bone suggests that after disruption the burial stood at least partially open with the parietal on or close to the surface. The exposed burial was subsequently filled in and the superstructure repaired at a later point in time. The layout of the superstructure to resemble Turk period graves and the fact that Turk ceramics were recovered just below it points to the Turk period (800 AD) as the time when the grave was filled in and repaired. It is thus likely that the reopening of EX 06.08 occurred before the Turk period.

EX 08.04 also indicates that pillaging occurred not long after the burial was completed. In this burial a body in flexed position was uncovered approximately 130 cm below the surface suggesting reuse of the grave Fig 8.6 A]. Below this burial at a depth of 220 cm the primary interment was encountered and as with all other Xiongnu contexts this burial had been disturbed. The skeletal elements of the Xiongnu burial exhibited

differential weathering suggesting, like EX 08.06, that parts of the skeleton had been exposed to the elements more so than others (Nelson et al. 2011). Radiocarbon dates

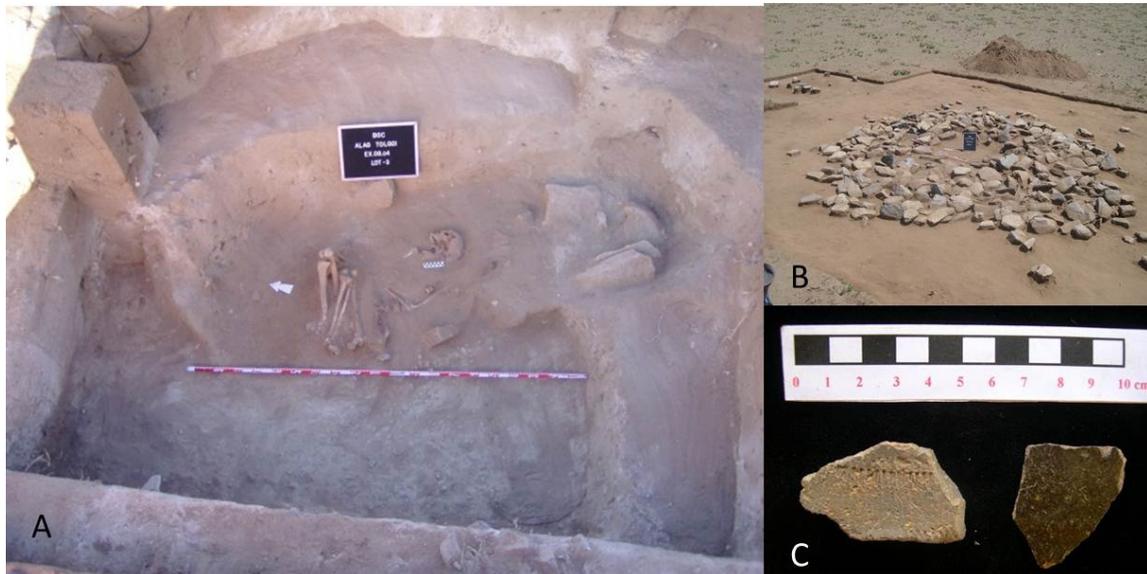


Figure 8.6 Observations that suggest disruption occurred relatively soon after burials were created; A) Secondary burial 130cm below surface and above disrupted context dating to 3rd century AD; B) Superstructure of EX 08.06 resembling Turk style burial; C) Turk period ceramics recovered from top layers of EX 08.06.

taken from both individuals in this grave yielded dates of 1st century BC for the primary interment and 3rd century AD for the secondary burial above (Machicek forthcoming; Nelson et al. 2011). Hence, the secondary burial at EX 08.05 acts as a *terminus ante quem* for the disruption of the Xiongnu context indicating that this grave was disturbed prior to the 3rd century AD and thus within the Xiongnu period itself. When the observations from EX 08.06 and EX 08.04 are viewed in conjunction with the overall state of disarticulation and deterioration of the skeletal materials at Alag Tolgoi these all point to disruption as occurring soon after the burials had been completed.

Overall, the reopening of the burials at Alag Tolgoi were aggressive and fairly violent events. In most cases the skeleton has been entirely displaced across the coffin and burial shaft. In several cases the cranium is missing and in three cases they have

either been deliberately broken or placed in such a way as to humiliate the body of the deceased and by extension the social memory of the individual. EX 08.19, for example, was severely disrupted, but as in most cases where the body has been disturbed the lower extremities of the legs remain in anatomical order, albeit pulled up slightly from their original position. However, the torso had been pulled up and out of the coffin. In addition the pelvis had been placed directly on top of the cranium in such a way that as it was excavated the head appeared “within” it [Fig. 8.7]. This appears to have been deliberate rather than haphazard and thus speaks to a deliberate desecration of the human remains. The aforementioned burial at EX 08.06 also exhibits intentional desecration. Here, only part of a parietal was recovered and the rest of the cranium is entirely missing. It does take some effort to break a human skull into pieces like this and it very unlikely that this kind of fragmentation is accidental. In addition a handful of teeth of this individual were recovered throughout the coffin level which is further testament to the aggressive nature of the looting event. What is further noteworthy about the disruption at EX 08.06 is that a gold earring or broche was recovered in addition to several beads. Hence if we are to view the looting as motivated purely by economic factors the recovery of these types of items suggests a carelessness or ineptitude at odds with the idea that of reopening graves for financial gain. Furthermore in all but two cases at Alag Tolgoi all ceramics recovered constitute small fragmented sherds with the majority of the vessel missing. This again speaks to the violent nature of the disruption of these burials and that some emphasis was placed on breaking and destroying most portions of the grave.



Figure 8.7 Disruption at EX 08.19; A) Cranium place "inside" pelvis; B) Lower limbs in anatomical order in spite of having been pulled upward and forward from their original position, indicating tissue was still holding skeleton together when disruption occurred.

Some significant areas that have been left somewhat undisturbed are the niches containing faunal remains in the northern section of the burial just beyond the coffin. These are consistent features in all but one burial at Alag Tolgoi. The burial in which it is absent, EX 08.05 also lacks the stone cist around the wooden coffin suggesting a somewhat lower investment of labor and resources in the construction of this grave. The character of the northern niche in the remainder of the ring tombs is remarkably similar. Crania of cattle, sheep, and goat were consistently placed stacked on top of one another in these features with the heads aligned with the orientation of the burial pit (see fig. 8.3 above and table 8.1 below). In EX 08.03 a ceramic vessel was also placed among these crania, an attribute seen Xiongnu graves elsewhere in Mongolia (Torbat 2004; Miller et al. 2008; 2011). The recovery of ceramics sherds in the northern sections of the other burials at Alag Tolgoi further suggests this niche as being the source and placement of the vessel from which they derive. The consistent presence of these niches indicates standardization in Xiongnu mortuary ritual, which included the symbolic incorporation of

livestock. The integration of livestock in funerary ritual and ideology is also evident by the recovery in EX 08.04 and EX 08.06 of perforated goat astragali [Fig. 8.8]. Hence faunal remains, especially those of livestock, were consistently included in Xiongnu mortuary ritual in a strikingly uniform manner, which speaks not only to standardization and regularity in funerary behavior, but also that livestock acted as a symbolic currency in this mortuary ideology.

Finally, the burial assemblages at Alag Tolgoi are comprised of a number of objects that are non-local to BGC. Beads in particular were recovered from most of the graves at BGC 510 and are composed of a number of different materials none of which

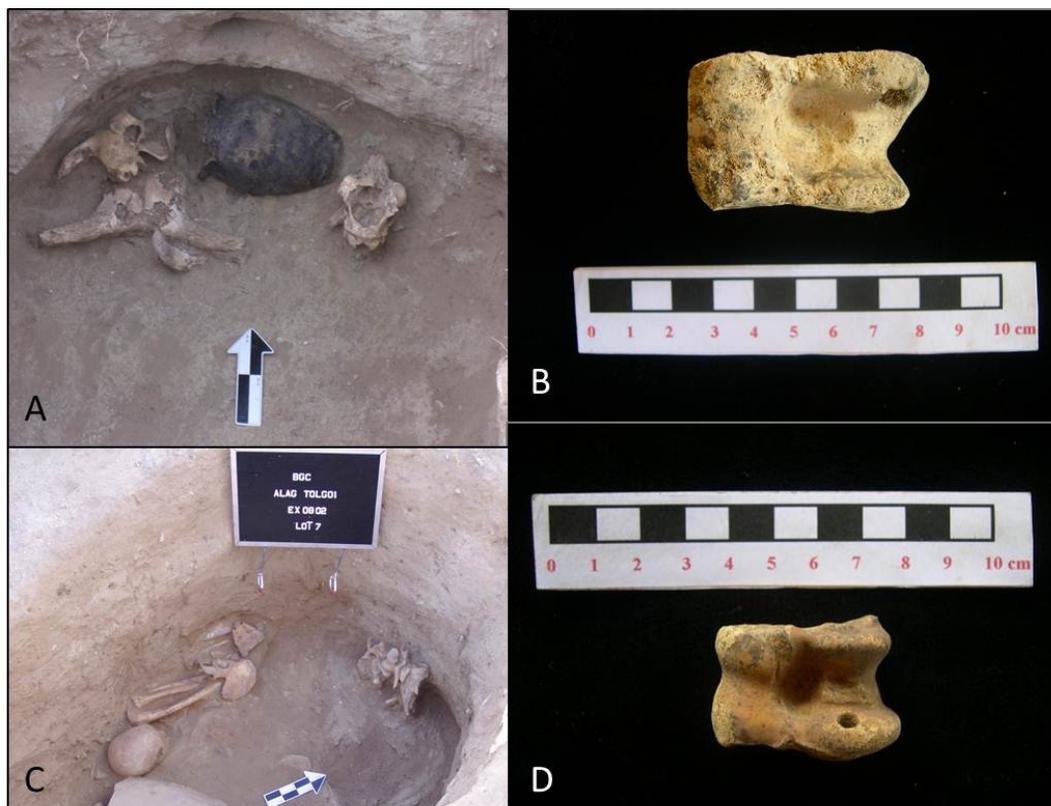


Figure 8.8 Faunal remains in Xiongnu mortuary ritual; A) Ceramic vessel among crania of *ovis/capra* and *bos* in northern niche at EX 08.03; B) Perforated astragalus from EX 08.06; C) Crania of *ovis/capra* in northern niche at EX 08.02; Perforated astragalus from BGC 08.04.

are found in the research area. Other objects such as gold and lacquer further indicate that non-local materials were being incorporated into the symbolic repertoire of the

funeral rite [Table 8.1]. These objects in themselves are also evidence of the existence of far reaching socio-economic networks at this time and that materials acquired from them were integrated into mortuary behavior. Unlike preceding periods from which these types of objects are extremely rare not only at BGC but across Mongolia, in the Xiongnu period the research area is clearly becoming integrated in a broader socio-economic exchange network.

BGC 1490

BGC 1490 is a large cemetery in a locale named Khuren Khond in the southwestern section of the research area. The cemetery is comprised of 58 burials situated at the northern end of a southern flowing valley and is somewhat nestled into the terrain. The lack of viewsheds to other monument types again points to an intentional separation from other mortuary traditions and the social memory these conferred through the use of visually prominent stone monuments. Most of the graves at BGC 1490 exhibit the kind of lopsidedness characteristic of looted Xiongnu ring tombs thus indicating that the entirety of the cemetery has been subjected to disruption. Four tombs were excavated at Khuren Khond. Like Xiongnu tombs in other parts of the research area these exhibited the same kind of disruption indicative of violent looting or desecration. EX 05.05

BGC 510 Alag Tolgoi															
EX #	Size (diameter)	Depth	Coffin	Cist	Age	Sex	Cranium	% of skeleton	Ceramics	Beads	Metal	Birchbark	Lacquer	Bow	Northern Niche
EX 08.02	720 cm	250 cm	X	X	35-40	Female	✦✦	95%		6	●	1	X		X
EX 08.03	520 cm	183 cm	X	X	35-45	Female	✦✦	80%	X	67	●	2	X		X
EX 08.04	610 cm	210 cm	X	X	20-40	Female	✦✦	40%		1	●	1		X	
EX 08.05	550 cm	118 cm	X	X	16-20	Female	✦✦	50%		1	●			X	
EX 08.06	680 cm	235 cm	X	X	45-50	Female	✦✦	20%	X	20	●	1		X	
EX 08.13	550 cm	270 cm	X	X	25-35	Male	✦✦	40%		4	●		X	X	
EX 08.19	810 cm	285 cm	X	X	60+	Male	✦✦	90%	X		●			X	
EX 04.10	800 cm	350 cm	X	X	35-45	Male	✦✦	90%	X		●			X	

BGC 1490 Khuren Khound															
EX #	Size (diameter)	Depth	Coffin	Cist	Age	Sex	Cranium	% of skeleton	Ceramics	Beads	Metal	Birchbark	Lacquer	Bow	Northern Niche
EX 05.05	690 cm	120 cm			12-14		✦✦	65%	X		●				X
EX 06.01	950 cm	283 cm	X						X		●	1			X
EX 06.02	810 cm	310 cm	X	X					X		●				X
EX 07.17	985 cm	289 cm	X	X	25-50	Male		10%	X		●				X
EX 07.17a	300 cm	148 cm		X					X		●				

BGC 142 Duraal															
EX #	Size (diameter)	Depth	Coffin	Cist	Age	Sex	Cranium	% of skeleton	Ceramics	Beads	Metal	Birchbark	Lacquer	Bow	Northern Niche
EX 03.02	720 cm	260 cm	X	X	40-60	Female		20%	X	1	●	1	X		X
EX 03.03	760 cm	215 cm	X	X	40-60	Female		40%	X	1	●	1			X
EX 07.25a	1060 cm	415 cm	X		20-25	Male	✦	10%	X		●		X		X
EX 07.25b	300 cm	131 cm		X	15-18			15%			●				

BGC 076 Khanaani															
EX #	Size (diameter)	Depth	Coffin	Cist	Age	Sex	Cranium	% of skeleton	Ceramics	Beads	Metal	Birchbark	Lacquer	Bow	Northern Niche
EX 06.07	400 cm	80 cm		X	1.5-2.5			15%	X		●				
EX 06.08	520 cm	148 cm		X	10-13		✦✦	20%	X						X
EX 06.09	530 cm	110 cm			25-50	Male?	✦✦	10%	X						

Largely intact
 Evidence of desecration
 Iron
 Bronze
 Gold

Table 8.1 Excavated Xiongnu tombs at BGC illustrating size, contents, and completeness of human remains resulting from disruption.

contained the fragmentary elements of an individual 12-14 years of age. The cranium of this individual was only partially recovered. These reveal a tremendous amount of damage having been visited on the skull during the looting event. The face has been vertically sheared off at the juncture of the frontal-parietal suture. The occipital, left and right temporal, and sphenoid are entirely missing and only the right side of the mandible, fractured at the mental eminence, is present. This is again testament to the deliberate and violent destruction of the cranium of the deceased. In EX 06.01 and EX 06.02 the entire skeleton was missing again pointing to the reopening and removal of the body of the deceased close after interment.

EX 07.17 is of particular interest to the present study. This burial not only exhibited the predictable pattern of disruption in Xiongnu graves where a large portion of the body is disrupted or missing, but leaving the lower extremities intact and *in situ*, but also included a tremendous amount of faunal remains [Fig. 8.9]. From the northern niche in this grave were recovered the crania of a total of 10 horse, 24 sheep/goat, and 6 cattle. In addition, this grave also contained iron horse trappings and bits. This is further evidence of the increased integration of livestock and associated materials in funerary customs. Horse trappings are in-and-of themselves mundane and functional objects, but when deliberately placed into mortuary contexts they take on a significant symbolic value. This context in addition to those mentioned above again speaks to the incorporation of livestock and concomitant articles in the symbolic repertoire of Xiongnu period funerary ritual. However, compelling as these observations may be, EX 07.17 is significant due to an additional feature associated with this burial, which was located approximately 2 meters to the east of the surface stones. This consisted of a cluster of



Figure 8.9 Faunal remains from EX 07.17; A) Remains of *ovis/capra*, *equus*, and *bos* in situ in the northern niche; B) Portion of assemblage awaiting cleaning in field lab; C) Cist containing remains of *ovis/capra* in secondary cluster burial associated with primary tomb.

approximately 25 rocks covering a shallow pit containing a stone cist from which were recovered the partial skeleton of a young goat. This feature is important for a number of reasons. 1) Similar features are beginning to be reported elsewhere in Mongolia (and now also at BGC) and indicate that the overall typology of Xiongnu mortuary types consisting of square ramped tombs and ring tombs needs reconsideration to include these kinds of cluster burials (Miller et al. 2008, 2011; Miller 2010). 2) When excavated these cluster burials usually contain children accompanied by a young sheep or goat placed to the north of the cist (Miller et al. 2008; 2009). These interments are typically sparse and usually include only ceramics and few faunal remains. 3) This feature at EX 07.17 has

also been subject to significant disruption and portions of the stones constituting the lid of the cist had been thrown into it. This raises a few additional questions and implications. It is possible that this feature originally included a young child, possibly a toddler. If that was the case then that individual was entirely removed during the reopening of the context indicating that the body was still relatively intact and also that not even the youngest members of society escaped desecration. If this context never contained human remains, its disruption is even more significant. There are no indicators that this or other similar features ever contained high valued items. Therefore the intentional looting of these burials constitutes a deliberate attack on the social memory created in funerary ritual and the intentional attempt to alter the commemorative narrative of the site. Furthermore, the inconspicuous nature of the surface demarcation, which is unremarkable and virtually indistinguishable, makes it unlikely that these cluster burials were opened long after the Xiongnu period during which their presence and trace would have been known. Finally, the consistent and virtually ubiquitous presence of faunal remains even in this feature yet again speaks to the symbolic role livestock played in the creation of commemorative places.

BGC 142

BGC 142 is a small cluster of 8 Xiongnu ring tombs located to the west of BGC some distance into the hinterland of the surrounding desert-steppe at a locale called Duraal. The viewshed of this site has already been discussed in chapter 7 above and is important given that this site is located close to one of the largest slab burials in the entire research area yet is positioned in such a way that it is not visible. In fact no other kind of

monument is visible from Duraal in spite of the relatively being located close to one of the higher concentrations of Bronze and Early Iron Age monuments at BGC. Three of the burials at BGC 142 were excavated during the duration of the project all of which were in a very poor state of preservation as a result of looting. In each case less than 50% of the skeleton was recovered indicating the removal or displacement of significant portions of the body (see table 8.1 above). Once again all artifacts in the assemblage are categorically broken and indicative of the seemingly systematic destruction of all objects in Xiongnu period tombs. However, in spite of such pervasive disruption the presence of the northern niche of faunal remains is noted in each burial indicating the regularity of this feature in mortuary practice. Hence, even in the face of severe disturbance standardization of a repertoire of mortuary behaviors is still evident in Xiongnu tombs.

EX 07.25, which was the last burial to be excavated at Duraal is noteworthy for a number of reasons. This was a relatively large ring tomb measuring approximately 10 meters in diameter, and like EX 07.17 mentioned above, was accompanied by a secondary cluster burial. Like all contexts at BGC, this context had been subjected to significant disturbance resulting from looting activities. In contrast to other Xiongnu burials where disruption has resulted in the removal or destruction of the cranium, the only elements recovered consisted of the skull, mandible, and one metacarpal. Given that the skull was not recovered *in situ*, this suggests that the entirety of the body was removed from the grave during the looting event and the head was subsequently thrown back into the burial shaft. The presence of the metacarpal suggests that the skeleton was in the process of disarticulation resulting in the separation of these elements, but it is difficult to reconcile that all other parts of the skeleton could be absent without some

articulation unless removal of elements was thorough and systematic. The treatment of the body of the deceased during the reopening of the burial is consistent with the deliberate targeting of the corpse observed in both Xiongnu and pre-Xiongnu periods. However, it is the presence of other objects in EX 07.25 that makes it pertinent to the discussion in this dissertation.

Although the ring tomb at EX 07.25 has been subjected to significant disturbance a number of compelling objects were retrieved from this context. These include gilded bronze ornaments with lacquer adhesive suggesting they were probably coffin



Figure 8.10 Lacquered and gilded bronze coffin decoration from EX 07.25

decorations [8.10] (Torbat 2004; Miller 2010). The fact that these relatively high value

objects were left behind after the reopening of the grave bolsters the argument that these disruption events are motivated more by socio-political considerations than purely by economic factors. In addition to these objects the assemblage also contained a high

number of faunal remains some of which were placed in the northern section of the burial. In total the person buried in EX 07.25 had been interred with the remains of 3 horses and 15 sheep/goats with 4 indeterminate artiodactyls, which continues the trend of Xiongnu burials incorporating a larger amount of pastoral resources in the funerary ritual. One object in particular warrants some discussion. Just above the coffin level, as part of the fill after the disruption that befell this context excavators recovered a rock exhibiting rock art consistent with Late Bronze-Early Iron Age motifs [Fig. 8.11]. Most of the stones used to construct this burial are derived from a nearby drainage, but this particular rock is not local to this particular area of BGC. The areas where these types of basalt rock formations that are conducive to rock carving are found are located several kilometers away, which means this item must have been transported to this locale either as part of the original funerary rite or as a symbolic statement during the reopening of the tomb. In either case, the presence of this rock is testament to a reincorporation of symbols associated with preceding visible and commemorative ideologies. Regardless of how this object is interpreted, whether as part of the original burial or resulting from desecration, it represents deliberate manipulation of social memory on a relatively small scale. The meaning and impact of this statement would be most poignant to individuals who had immediate and intimate knowledge of this specific grave. The deliberate manipulation of commemorative objects that generate knowledge and memory at this relatively small scale speaks both to the fact that if this rock was part of the reopening of the grave its inclusion was premeditated, but also, if it was not, that there was a very real consciousness of preexisting and local visual symbols and that these were being incorporated into local mortuary rituals during the Xiongnu period.



Figure 8.11 Late Bronze-Early Iron Age rock art found in EX 07.25.

EX 07.25 also includes an associated cluster burial (EX 07.25b). Again this is a feature that is inconspicuously marked on the surface by a collection of stones and which covered a shallow burial pit. This burial pit had been covered with an arrangement of stones that may have acted like a lid and were distributed in the grave shaft in a non-random order. Their original position is impossible to ascertain as the feature has been significantly disturbed. Scattered throughout and below the level containing these rocks both human and faunal remains were recovered. The faunal assemblage was comprised of 1 sub-adult sheep and one small ungulate that was decidedly not *ovis/capra*, but was also a younger animal (Johannesson and Hite 2007). The human remains were fragmentary, but those of a younger individual aged approximately 15-18. In spite of this

individual's relatively young age, the skeleton exhibited pronounced trauma in the form of a fractured lateral end of the right clavicle which had resulted in the disarticulation of this element from the acromion process of the scapula where it would normally have been. These injuries had healed, but were nonetheless likely debilitating. In addition the thoracic vertebrae recovered from this individual exhibited Schmorl's nodes, which are evidence of intervertebral disk herniation likely resulting from the mechanical stressing of the spine. This cluster burial is interesting and raises a number of questions. Overall this feature is consistent with cluster burials found elsewhere in Mongolia in that it contains a sub-adult individual (Miller et al. 2008, 2011). However, it is also slightly divergent in that these aforementioned cluster burials contained very young individuals, no older than 6-7 years of age. Yet, age cannot be the sole factor contributing to this individual's interment in a satellite burial rather than a separate ring tomb. A number of children have been recovered from Xiongnu burials at BGC, particularly from BGC 076 at Khanaan. Here both an infant aged 1.5-2.5 years and a juvenile individual aged 10-13 years of age were accorded burial in separate ring tomb features. The former was placed in a cist in a shallow burial shaft while the latter's interment was consistent with the full repertoire of Xiongnu funerary rites. These two sub-adult burials at Khanaan raise questions about the identity of the individual in EX 07.25's cluster burial at Duraal. Was this individual a member of local elite lineages of leadership? The osteological pathologies in such a young individual suggesting mechanical stress may imply that this is not the case. Hence, this cluster burial emphasizes that additional research on these types of burials is needed to elucidate their relationship to the ring tombs they are associated with, and the relationship between the individuals interred in them.

Conclusion

In sum Xiongnu period mortuary monuments at BGC can be summarized as follows. They are inconspicuous monuments in an otherwise visually dynamic mortuary landscape. As commemorative funerary features the majority of investment has been directed at the mortuary assemblage instead of the surface stone features. This is important since this has a profound effect on the monuments' ability to transmit information over time. Funerals are social and political events that emphasize group membership and socio-political relationships. It is thus important to note that all the accoutrements and symbolism enacted in the interment of an individual, in the creation of memory around that person, could not produce enduring social memories in Xiongnu mortuary monuments. The very nature of Xiongnu ring burials constrains their ability to transmit idiosyncratic and ideological information beyond a mere generation or two. As places on the landscape they do not convey any form of individuality. Their occurrence in small clusters or larger cemeteries instead denotes collective and shared spaces. In this way Xiongnu ring tombs are fundamentally and decisively different from any preceding monument type. Xiongnu mortuary behavior thus reflects a distinct and unmistakable interruption and discontinuity of previous funerary behavior. In the following chapter I will describe how these observations are a manifestation of the strategic manipulation by the Xiongnu polity of symbols and ideology on display in mortuary practice that restricted the ability of local leaders to create and transmit idiosyncratic socio-political ideology locally through commemorative monuments.

Chapter 9

Conclusion

At the outset of this dissertation I proposed to determine if the emergence of the first nomadic state in East Asia was visible in mortuary practice on the local level in Mongolia. I then situated this question in a broader context stating that to discuss changes in mortuary stone monuments in Mongolia from the Late Bronze-Early Iron and subsequent Xiongnu periods it is not sufficient to identify new or concurrent monument types. The appearance of Xiongnu material culture, the large square ramped tombs, and the Xiongnu ring tombs certainly signal change in funerary behavior. However, at the heart of the original research question is in what way these changes are different and what this in turn reveals about why they were enacted. Why did mortuary ritual and stone monuments change during the Xiongnu period? In this chapter I will synthesize the observations and arguments already laid out above and argue that the changes seen in mortuary landscapes at BGC are the result of changes in a political process involving the creation of commemorative narratives locally. Xiongnu leaders were able to insert their own ideologies in this process to incorporate local areas in a broader Xiongnu political economy. As a result mortuary practices shifted from creating visible commemorative stone monuments to involving ritual enactments and symbolism that reified and reemphasized membership to a broader political identity.

Does the creation of commemorative mortuary stone monuments at BGC constitute political process? Yes it does. Funerary events involve the congregation of individuals as mourners, attendants, organizers, and community leaders to reaffirm relationships in the wake of the deceased's departure (Parker Pearson 1999). In spite of being relatively small all the monuments described herein necessitate planning, organization, and the labor of several individuals. This is particularly true for shape and slab burials in which substantially large stones had to be transported some distance and erected in predetermined places. It took close to ten people to simply shift some of these slabs during excavation indicating that to create these monuments likely involved significant labor by several people. As pointed out above even organization on this small scale necessitates at least temporary leadership and cooperation (Parker Pearson 2010). In addition the location for the burial needs to be chosen and agreed upon by those who intend to build the monument, but also accepted by other members of the community; especially when monuments are placed in association with preexisting monuments that had similarly been built by groups of individuals. In this way the creation of these monuments are invariably the result of human interaction involving cooperation and social contracts and therefore the process is political by default. Even if we imagine that these monuments are not those of an elite segment of the population (which they clearly are) their creation necessitates political decision making.

Choice and decision-making is central to the creation of new places and monuments. In chapter 3 I discussed how places and monuments in the landscape can be created to produce social memory that conveys a sense of individual or communal identity (Basso 1996). However, as Gazin-Schwartz (2009) has pointed out in her

discussion on landscape clearance, abandonment involves changes in the loci of decision making. Therefore, the adoption of new mortuary practices and the abandonment of previous traditions require a range of changes in choice and decision-making that will have to be negotiated in a communal arena before they can be inscribed on the landscape as new monument types. This is all the more important considering the changes in placement of Xiongnu ring tombs in comparison with preceding monument types since this is also a type of landscape clearance. Here new places are exploited while previous spaces are abandoned and conceptually “cleared”. This too then encompasses thinking about the locus of decision making especially in considering if decisions concerning clearance are generated by local community members or by some extra-local authority. In light of these observations the mortuary landscape at BGC is invariably one that includes a political dimension and therefore a material reflection of, at the very least, local decision-making processes, but potentially also non-local processes. Accepting that the creation of commemorative places and monuments is political, looting and desecration take on a political component as well. The places, spaces, and narratives created by stone monuments at BGC are contested, evident in the widespread practice of appropriating, separating from, and desecrating both the monuments and mortuary assemblages. In sum, the entirety of the mortuary landscape in the research area, from the creation of mortuary stone monuments to their defilement, desecration, and destruction, constitutes a complex interplay between mortuary behavior and political process.

Recognizing that the production of commemorative landscapes of mortuary stone monuments involves a political component, the locus of decision-making should be

identifiable based on a qualitative assessment of what kind of space each monument creates. This is certainly the case at BGC where a disruption and shift in the political dimension of decision making and the potential to transmit individual expressions of power shift significantly with the appearance of Xiongnu mortuary monuments. To clarify how the locus of decision-making changes and the consequences to the potential for individuals to be commemorated via mortuary monuments that inscribe social memory on the landscape I will enumerate the qualitative attributes of pre-Xiongnu monuments in comparison with Xiongnu period ring tombs. In an assessment of Late Bronze-Early Iron Age monuments at BGC the following observations can be made.

1) Shape-burials, khirigsuurs, and slab burials are idiosyncratic and individually diverse monuments. These have a decisively local articulation at BGC and are locally variable. They do, however, conform to a loose set of principles for their construction in the research area. Slab burials have a western viewshed and are primarily placed in spaces approachable from west/southwest directions, khirigsuurs cluster around BGC's western and eastern ridges, and shape-burials, although a rare monument type, are placed along the massif's edges. Yet these characteristics are exclusively restricted to BGC and are not replicated regionally across Mongolia. There are shape-burials, khirigsuurs, and slab burials elsewhere, of course, but these have their own local variants that are unique to those locales. A slab burial in the Khanuy Valley is similar to other slab burials in that area, but corresponds only superficially to slab burials at BGC. The same can be said for khirigsuurs. Khirigsuurs in Khovsgol in western Mongolia are diverse and variable monuments, but can be loosely defined only within that area (Frohlich et al. 2008). The same is true for khirigsuurs at Khovd, in the Khanuy Valley, or anywhere else in

Mongolia for that matter, but khirigsuurs in these various locales are only superficially similar to one another. Khirigsuurs at BGC are, like khirigsuurs elsewhere in Mongolia, unique to the local area. Hence, the articulation of each monument type is locally distinctive, speaking to a corresponding local locus of decision-making in the creation and placement of these monuments.

2) Shape-burials, khirigsuurs, and slab burials are mortuary features in which investment is made in the visible components of the monument. The funerary assemblage is invariably sparse, consisting of the body of the deceased with only a handful of other objects. The same is true for faunal remains. As early as in the construction of shape-burials the entire repertoire of livestock associated with pastoral resources is included in the mortuary assemblage, but only in the form of a handful of animals. There is rarely more than one or two animals represented in the mortuary assemblages of pre-Xiongnu monuments. An exception is the instances in parts of Mongolia where several horses have been included in the form of horse crania in satellite features, but these, significantly, are relatively rare. Like the placement and form of the monument itself funerary assemblages are largely idiosyncratic and there is no apparent standardization in what objects or animals accompanies the deceased in the burial. This has some significant implications for the production of social memory. By investing in the visible components of the monument and based on the aforementioned diversity in how this could be built the creation of commemorative narratives was projected onto and out into the landscape. By inscribing these narratives using stone monuments, resultant social memory was directed on a large scale and able to endure over several generations.

Shape-burials, khirigsuurs, and slab burials thus constitute idiosyncratic architectural narratives on a grand scale that create social memory on a *macro-scale*.

3) Late Bronze-Early Iron Age monuments typically conform to an east-west orientation. Thus, in spite of exhibiting very loose similarities within each monument type, all conform to a spatial framework that is directional in similar ways. The continuity of this east-west orientation speaks to at least an analogous use and understanding of space. Conversely, the discontinuity of this directional relationship signals change in the entire concept and use of space. The totality of the landscape and how one experiences it subsequently changes in the Xiongnu period with potential loss of knowledge of narratives created in LB-EIA monuments' use of space.

4) There is an established tradition in all these monument types that the body of the deceased was targeted for disinterment, desecration, or both. These looting disruptions, as they have been called, are noted across Mongolia (Tsybiktarov 2003; Honeychurch 2004; Takahama 2005; Wright 2006; Frohlich et al. 2008). However, as I have noted elsewhere, these disturbances should not be described as looting events, but rather as desecration events. Shape-burials, khirigsuurs, and slab burials have only rarely been found to contain extensive assemblages or a high frequency of valuable materials. Therefore we must rethink and redefine these more accurately for what they really are; deliberate intrusions to destroy and desecrate the body of the deceased and any accompanying commemorative materials; noting here that most objects recovered from these monuments are typically incomplete and broken. In relation to the observations made above, this is significant for how social memory is created, but also how it is affected by deliberate and overt attempts to make statements by manipulating and

disrupting the remains of the deceased. In spite of the investment in these monuments' externally visible components the primary objective of desecration events has been the body of the deceased. All these monuments exhibit evidence of disruption in their surface superstructure. Shape-burials invariably appear "broken" and khirigsuurs are consistently affected by the opening of the central mound, but importantly the satellites, those features integral to inscribing social memory, are untouched, while slab burials appear to have been subject to systematic, potentially repetitious, desecration which often involved the attempted destruction of the assemblage *and* the entirety of the monument. It is thus noteworthy that in almost a thousand years of continued and repetitive desecration of Late Bronze-Early Iron Age monuments slab burials have been affected in a very differential and catastrophic way.

If we take these qualitative observations and compare them to Xiongnu period ring tombs, there is a clear and conspicuous disconnect between these and previous mortuary traditions at BGC and also elsewhere in Mongolia that can be summarized as follows:

- 1) The placement of Xiongnu graves in locations where other monuments are absent physically separate them from preceding mortuary monuments. This is not a phenomenon exclusive to BGC. Xiongnu cemeteries across Mongolia are typically placed apart from previous monuments and invariably away from slab burials, which are those monuments that immediately precede them. This can be characterized as a clearance of previous landscapes commemorating individuals through conspicuous mortuary monuments in favor of less prominent and usually collectively expressed monuments. In addition Xiongnu monuments discontinue the east-west orientation of

preceding periods. This discontinuity is visible on the landscape itself in the clustering of ring tombs in cemeteries around the research area. The circular structure of a Xiongnu ring tomb itself lacks directionality, while the burial orientation below is north to northwest. Hence discontinuity is evident especially in the burial assemblage, the locus where social memory is enacted, but also in the monument's superstructure, which only has the potential to transmit a limited range of information.

2) Xiongnu ring tombs lack the externally visible components of previous monuments and exhibit greater investment in the funerary assemblages rather than in the monuments themselves. As such Xiongnu mortuary rituals emphasize social commemoration on a much smaller scale. To know and experience the narratives created in Xiongnu mortuary ritual it would be necessary to have participated in the actual funerary rites. There is also little possibility to inscribe individual narratives on the landscape using Xiongnu ring tombs. They are inconspicuous monuments, largely invisible on the ground, decidedly similar, and typically placed together. Any idiosyncratic variation in the creation of social memory was only possible in the production of the funerary assemblage, which subsequently is subterranean where it cannot be seen once the burial shaft is filled in.

3) In spite of comprehensive pillaging activities in antiquity Xiongnu tombs still yield a considerable amount of material evidence with numerous imports attesting to access to long-distance socio-economic networks. What is further important is that materials derived from outside BGC were being integrated in Mortuary ritual and commemoration.

4) The increased homogeneity of Xiongnu tombs compared to khirigsuurs and slab burials including their placement in clusters or cemeteries suggests a greater regularity in funerary customs and ideologies. What is further noteworthy is that this standardization is apparent throughout Mongolia (Torbat 2004; Honeychurch 2004; Miller 2010). Hence the regional variation and diversity in preceding monument types across Mongolia are replaced with a monolithic and uniform mortuary practice. This has significant implications for thinking about the locus of decision-making in the adoption of this new funerary tradition. Given the regional scope of this standardization that locus is non-local to BGC and must be considered to have been enacted from without the resident community in the research area. The regional orientation of mortuary practices during the Xiongnu period is already implied by the number and frequency of objects derived from regional socio-economic networks. The extra-local orientation in decision-making for the adoption of Xiongnu mortuary practices suggests that the research area was incorporated either via coercion or co-option into a broader regional network involving similar symbols, monuments, and ideologies on display in funerary ritual.

5) Xiongnu tombs exhibit a greater emphasis and standardization in the inclusion of faunal remains, particularly pastoral resources, in the funerary assemblage. The widespread and substantial increase in livestock being included in Xiongnu mortuary assemblages signals a preference for the inclusion of pastoral resources in mortuary ideology. This gives an overall impression of an increased reliance on pastoral resources, but one should be cautious given the aforementioned symbolic nature of mortuary contexts. The addition of livestock in all aspects of funerary ritual including secondary features such as the buried stone cists and pits of EX 07.17 and EX 07.25, the recurrent

practice of placing crania and hooves of livestock in a niche in the northern section of the burial, and perforated astragali all point to the adoption of a repertoire of symbolism and ritual behavior in which livestock is used as a symbolic currency to express ideological information. Therefore, the inclusion of faunal remains in mortuary contexts does not indicate nomadic pastoralism per se, but rather that livestock was served an important symbolic function to communicate and create social and commemorative narratives in mortuary ritual.

6) Like preceding monuments Xiongnu mortuary contexts have been subjected to considerable disruption. The political dimension of these activities is evident in their targeting of those parts of the burial where social memory is created. In previous monuments this was directed at the body of the deceased and the visible components of the monuments. Since Xiongnu ring tombs do not emphasize individual commemorative narratives in the monument superstructure the subsequent desecration has been directed exclusively at the funerary assemblage. Hence, the commemorative narratives embodied by Xiongnu tombs have been attacked primarily on a *micro-scale* of social memory. However, this has invariably been severely disturbed and virtually all components of the assemblage have been destroyed. Particular attention was paid to the body of the deceased with the result that portions of the body, especially the skull, have been removed, sometimes entirely, and what remains have usually also been subject to breakage or humiliation. Destruction is seen throughout all the assemblages with only faunal remains in the northern niche occasionally escaping disruption. Hence the widespread desecration noted in preceding periods continues during the Xiongnu period

albeit taking on attributes consistent with the way Xiongnu mortuary ritual creates social memory.

The emergence of Xiongnu material culture regimes thus represents a considerable disruption of previous mortuary traditions. The disappearance of alternatives and variations in burial practices and monument types, at least those which are visible in the landscape, and increasing standardization in the funerary assemblage. These factors indicate some degree of control over ideologies on display in mortuary practice and/or an overall adherence to a particular funerary tradition.

All lines of evidence mentioned above indicate that Xiongnu mortuary practices also entailed a political and extra-local dimension. The emergence of large elite tomb complexes in parts of Mongolia concurrent with a standardization of mortuary practice on the local level that disrupts previous mortuary traditions is evidence of political change on a broader, regional scale. The appearance of Xiongnu material culture regimes and associated mortuary traditions at BGC and elsewhere suggests the formation, whether by adoption or coercion, of a distinct “Xiongnu” identity. This identity was a conscious separation from previous identities expressed symbolically in local landscapes of mortuary stone monuments consisting of khirigsuurs and slab burials. Xiongnu mortuary practices thus emphasize a distinct Xiongnu identity while discontinuing the ideological expression of local lineages of leadership to incorporate outlying regions into a broader “Xiongnu” political economy. The reinforcement of this identity included the symbolic use of animals in mortuary ritual. The appearance of a niche containing faunal remains in both the elite tomb complexes and in local Xiongnu ring tombs suggest that the ideology

directing the use of symbols in funerary ritual, at least those relating to animals, emanated from the core of the Xiongnu confederacy.

In sum, taking a diachronic and qualitative look at mortuary monuments from the Late Bronze-Early Iron Age and Xiongnu period and viewing these as symbolic vehicles to transmit social memories commemorating local elites, a very distinct picture emerges. Prior to the formation of the Xiongnu polity somewhere in Mongolia local leaders, however one construes these local elites, were able to create individual narratives commemorating the dead using mortuary stone monuments. These all speak to a range of available choices in where and how these narratives were inscribed on the landscape. The use of ostentatious and visually prominent monuments to embody these narratives meant that social memory was enacted on a large scale, meaning that monuments endure and continue to transmit information even if the accuracy of that information is lost or transformed (Bradley 1994; Crumley 1999). Yet the inherently local articulation and expression of monumentality at BGC indicates a local sphere of decision-making. The narratives created in the research area drew on loose regional understandings of how to build particular monuments, but enacted and expressed these locally. Hence the pre-Xiongnu mortuary landscape at BGC, whether expressed by shape-burials, khirigsuurs, or slab burials, is unique to BGC.

In contrast, following the formation of the Xiongnu polity the ability to generate monuments that convey ideological or commemorative information is severely reduced. Not only is there a significant reduction in the number of monuments in the research area, meaning that fewer individuals had access to elaborate burial ritual, but these by their very nature were not conducive to inscribe idiosyncratic narratives visible on the

landscape. Xiongnu ring tombs, those of local leaders, could only create social memory on a small scale. Importantly this was not to be created in a way to commemorate individuals beyond their immediate interment. Upon the completion of a Xiongnu ring tomb it looks exactly the same as other ring tombs, a uniformity further emphasized by its placement together with other ring tombs in clusters and cemeteries. In addition the locus of decision-making regarding how funerary ritual and visual ideology was to be used shifted to an extra-local orientation evident in the regional standardization of Xiongnu mortuary practices across Mongolia. Hence, Xiongnu mortuary ideology does not originate in decisions made at BGC. The presence of the same kind of material standardization and symbolic components in the square ramped tombs of the upper echelon implies that Xiongnu mortuary traditions emanate from the burials of the elite of the Xiongnu polity at places like Gol Mod, Gol Mod 2, Noyon Uul, and Il'movaia Pad and are transposed onto the rest of Mongolia where they replace local regional practices. Incidentally Xiongnu square ramped tombs are qualitatively very different than ring tombs. The former *are* ostentatious and very visible monuments. They constitute a tremendous amount of labor in all aspects of the monument, in both the superstructure and the funerary assemblage. Unlike Xiongnu ring tombs there is a visible and very directional component to square ramped tombs, embodied by the conspicuous southern ramp that extends from these monuments. These are truly monumental burials and confer a significant visual impact on the landscape. The implication of this is both significant and revealing. The square ramped tombs, those constituting the elite of the Xiongnu polity, continue the well-established tradition, started in the Bronze Age, of building visually prominent commemorative stone monuments that inscribe individual narratives

onto the landscape. However, the ability to do this was restricted to those individuals who for whatever reason were accorded burial in square ramped tombs. It was not possible for individuals buried in Xiongnu ring tombs where the very ability to create lasting visual narratives on a *macro-scale* was restricted.

In conclusion the landscape at BGC and elsewhere in Mongolia is utterly transformed with the adoption of Xiongnu mortuary practices. Preceding landscapes are visual, idiosyncratic, grandiose, local, and personal. The Xiongnu landscape, at least that of Xiongnu ring tombs, is invisible, communal, subdued, regional, and impersonal. The appearance of a Xiongnu mortuary landscape and accompanying material regimes at BGC thus involves the formation, whether by adoption or coercion, of a distinct “Xiongnu” identity. This identity was a conscious and deliberate separation from previous identities, expressed symbolically in a diverse landscape of visually prominent mortuary monuments, which was imposed from outside the local area. Xiongnu period mortuary practices thus emphasize a distinct Xiongnu identity while discontinuing the ideological expression of local lineages of leadership to incorporate BGC into a regional “Xiongnu” political economy.

Future Directions

This dissertation has highlighted the importance in Mongolian archaeology of connecting observations made in material changes in funerary practice and monument construction with socio-political processes. In doing so I have stressed the necessity to define and qualify the type of data under investigation and what that data can actually speak to. This dissertation research thus adds another voice to calls made elsewhere (Brosseder 2009; Miller 2009; Brosseder and Miller 2011; Waugh 2011) about the

necessity to move beyond description and begin to ask questions of our data that is relevant to archaeological theoretical research elsewhere. In doing so I would also like to suggest potential, but necessary avenues for future research that not only need to be pursued, but that will offer substantial insight into broader and more specific questions concerning the Xiongnu polity, its predecessors, and successors.

1) *Monument Classification*: There is a tremendous need to delineate both regional and local differences between and within Late Bronze and Early Iron Age monument traditions that precede Xiongnu mortuary materials. There have been efforts to do this as pertains to local khirigsuurs types as demonstrated by Frohlich et al. (2008), Houle (2010), and Jacobsen-Tepfer (2010), but these need to be tied into a broader regional picture. This is particularly true given that each of the aforementioned researchers use vastly different ways to classify khirigsuurs in their respective research areas. Frohlich et al. (2006; 2008) use elevation as a means to group khirigsuurs into three separate classes, while Jacobsen-Tepfer prefers a descriptive framework, and Houle adheres to a schema that seeks to evaluate external complexity or ritual characteristic of different khirigsuurs while borrowing the concept of elevation from Frohlich to create an altogether separate category of monument that he calls slope burials. Based on these observations, there needs to be some agreement as to what monuments should be classified as khirigsuurs, especially where researchers disagree about the function they serve. Hence, there needs to be further collaboration between researchers working in different locales in order to start to synthesize collected data and interpretations drawn therefrom to create a regional picture of khirigsuurs across Mongolia that can start to address the inherent variability within this monument type.

Daniel Waugh (2011), speaking about future directions of Xiongnu archaeology, has suggested a temporary halt in the excavation of Xiongnu graves in favor of an emphasis on high resolution survey. As pertains to materials pre-dating the Xiongnu period I would suggest the opposite. A number of surveys at Egiin Gol, BGC, Khovsgol, and the Altai region of Mongolia have produced a fairly strong comparative database of pre-Xiongnu materials and of materials whose chronology remains somewhat uncertain (Jacobson 1993; Honeychurch 2004; Wright 2006; Frohlich et al. 2006, 2008; Houle 2010; Jacobson-Tepfer 2010). These surveys would benefit from more intensive and systematic excavation of Late Bronze and Early Iron Age monuments to develop more high resolution chronological horizons as well as delineating relationships between different monument types such as shape-burials and khirigsuurs, or slab burials and the quadrangular burials found in western Mongolia (Jacobson-Tepfer 2010). In addition, there have been a number of enigmatic monuments found throughout Mongolia that appear contemporaneous with Late Bronze Age monument types (Kovalev and Erdenebaatar 2009) and the regional distribution, chronology, and relationship of these to other monuments needs to be ascertained. In short, the inherent variability of Late Bronze Age and Early Iron Age monuments needs to be penetrated and accessed in order to sort out the significance thereof.

2) *Alternative Xiongnu Mortuary Practices*: There has been a tremendous amount of work done on Xiongnu mortuary monuments in the last few decades and harkening Waugh's (2011) words mentioned above it may be prudent to halt, albeit temporarily, the excavation of more ring tombs and square ramped tombs to take stock of the overall picture that is emerging. This is important for a number of reasons. Brosseder (2009)

has noted that the majority of carbon-14 dates from Xiongnu mortuary contexts date to no earlier than the middle of the 1st Century BCE. The implications are potentially momentous since they suggest that when analyzing Xiongnu mortuary monuments we are missing the first century and a half of the polity. The chronological resolution of Xiongnu materials is still being worked out and as more radiocarbon dates become available the missing century may be accounted for, but we should be prepared for the eventuality that the early stages of the polity involved alternative burial regimes. Moreover, at Ivolga which is a demonstrably early Xiongnu site there are several burials that do not have any surface demarcation (Davydova 1995; 1996). When this observation is combined with the existence of “cluster” burials described by Miller et al. (2010; 2011), which seem to find a correlation at BGC with the secondary burials at EX 07.17 and 07.25 it is becoming increasingly apparent that Xiongnu archaeologists need to consider the possibility of alternative burial regimes beyond ring tombs and square ramped tombs. I think the only way to truly flesh out if such alternative burial practices are a reality and what their chronological and geographical dimensions may have been is to combine high resolution survey with targeted excavation that specifically directs attention at potential anomalies at Xiongnu sites that may represent any such alternative burial regimes.

3) *Ring Tombs vs. Square Ramped Tombs*: In conjunction with ascertaining the full range of mortuary practices during the Xiongnu period highlighted above, it is also necessary to determine the distinction between ring tombs and square ramped tombs. These difference most often put forth, and which has also been used in this dissertation, is that it pertains to status in which the very top echelon of Xiongnu society were interred in

square ramped tombs, while ring tombs belong to lower level elites. Provided that this appraisal is correct a question that emerges is what determined membership to either group. What qualified a person for burial in a square ramped tomb rather than in a ring tomb? This question is particularly apropos given that sites containing square ramped tombs invariably comprise ring tombs as well. In addition, there are locales where square ramped tombs are quite small while some ring tombs are positively massive, which suggests that the criteria that governed what person could be interred in which monument might be governed by ascribed status. The relationship between these two monuments thus warrants further attention and is a challenge that needs to be overcome in order to move questions regarding socio-political questions pertaining to the Xiongnu polity forward.

4) *Mobility and Subsistence*: At present, research on subsistence strategies and mobility during the Late Bronze and Iron Age are only at an early stage. Pastoralism and seasonal mobility have largely been treated as background conditions in Mongolian archaeology and in Central Asia overall. Focused research on these questions has tended to concentrate on horse domestication and horse riding (Anthony 2007; Honeychurch 2006, 2007). Recent research by Houle (2010) and Machicek (2011) suggests a picture of fairly small scale seasonal mobility and quite diverse subsistence strategies, which in turn raises important questions regarding both theoretical and methodological approaches to Mongolian archaeology. The work done by both Houle and Machicek, underline the importance of directing more research at questions that have largely been inaccessible in Mongolia due to technological, logistical, and organizational reasons until quite recently. Interpreting static mortuary monuments requires a better understanding of the ways in

which the landscape was used and moved through by those built them. Similarly, assessments of faunal remains in mortuary contexts necessitates a clearer understanding of actual subsistence practices that may or may not have included the animals represented in the assemblage. Hence, Mongolian archaeology needs to engage in interpretive discourse that does not fall into the trap cautioned against by Sneath (2007) of treating nomadic pastoralism as a timeless, essentialized, and pervasive background condition. Instead, various subsistence strategies, whether involving exploitation of pastoral resources, need to be demonstrated archaeologically rather than assumed. Such inquiries can be answered through bioarchaeological and zooarchaeological analyses, both via dental wear and stable isotope analysis of both human and faunal remains. Similar to subsistence strategies, any mobility and the range thereof also needs to be substantiated by archaeological inquiry in order to determine if and how prehistoric populations in Mongolia actually moved about the landscape. This type of information can be accessed via strontium isotope analysis, which is a demonstrated means of determining geographical origin and geographical migration¹⁹.

It is further important to note that subsistence and migration are best answered using material from non-mortuary contexts. There have been a handful of Xiongnu settlement sites identified at select locales in Mongolia (Danilov 2009; Honeychurch et al. 2009; Ramseyer et al. 2009), which in conjunction with Houle's (2010) methods for identifying open air campsites from earlier periods using survey and soil analysis, promise to yield compelling data for future research. I would argue that the most urgent

¹⁹ Conducting strontium isotope analysis on osteological remains from BGC and Shombuziin Belchir is a component of my ongoing research of materials from those sites. Whereas this research is primarily aiming to determine if individuals interred in tombs at each site represent local populations, it will provide a much needed facet in a broader set of questions regarding mobility and seasonality in Mongolia during the Xiongnu period.

step in Xiongnu archaeology in the next decade is the synthesis of data and conclusions from projects such as these with observations drawn from mortuary contexts in order to contextualize both into a nuanced framework of Xiongnu lifeways.

5) *Synthesis*: The vast majority of archaeological research on the Xiongnu polity has, with a few exceptions, been directed at mortuary monuments. Yet what is sorely missing is a synthesis of this work to create a holistic understanding of Xiongnu period mortuary practice and lifeways. This year the first major tome of Xiongnu archaeology was published comprising 38 chapters by 56 researchers on a host of different sites and problems pertaining to the Xiongnu period (Brosseder and Miller 2011). This is an important step in disseminating critical archaeological work on the Xiongnu polity and goes a long way to bring the discipline up to date. However, as with much of the work published before, researchers are presenting their findings in exclusion of work done by others and there are few attempts to bring various observations and findings together into a coherent overall picture. Xiongnu archaeology at present appears like a fly's eye, composed of many individual facets that come together to form a cohesive whole. What is needed is for these various facets to be described and understood in relation to the overall subject they form a part of. In other words, there needs to be a full description of the fly's eye itself to bring together much of the important research already done over the last two decades. In such a way future research can be contextualized against a much more coherent preexisting body of work, which will lead to new questions and innovative research.

6) *Mortuary Archaeology*: Whereas there has emerged a smattering of Xiongnu habitation sites in Mongolia and southern Siberia in recent years, the overwhelming

majority of archaeological data is derived from mortuary contexts. Yet, as with the need for a holistic and cohesive Xiongnu archaeological narrative, in mortuary contexts different loci of archaeological inquiry, such as bioarchaeology and zooarchaeology for example, need to be incorporated and considered at all levels of archaeological interpretation. What I mean by this is that different aspects of funerary behavior are often studied separately from other materials from the same context. Zooarchaeology and bioarchaeology are typically separate fields of specialization and therefore faunal remains are often engaged in the absence of human remains and vice versa. This separation in theory and practice ensures separation of archaeological data and interpretation as well and thus breaks apart archaeological materials that may have been more interconnected in their original contexts and ideological frameworks. In addition, observations and discoveries made in separate spheres of inquiry are often not incorporated into research on other materials. Nowhere is this perhaps more poignant than when one considers recent radiometric dates taken from human and faunal remains collected from the same tombs at various locales across Mongolia, in which faunal remains from the same context consistently date younger than the human materials (Brosseder 2011). This observation alone highlights the need for wider interdisciplinary cooperation at the outset of project design that seeks to incorporate different lines of inquiry to glean a more holistic understanding of the contexts from which materials derive. The same observation can be made for other aspects of archaeological research. There is a need to integrate data collected from survey with data gathered during excavation. Similarly, research on mortuary monuments or rock art, for example, needs to incorporate analysis of human remains, faunal materials, and ceramics et cetera. Hence, an inter-disciplinary, synthetic,

and integrated approach needs to be worked into original project design in order to keep data, observations, innovation, and findings contextualized and amalgamated.

7) *Disruption*: As this dissertation has emphasized, disruption, whether by desecration, looting, or reentry, needs to be incorporated into archaeological interpretation in a more meaningful way and cannot be treated as a static background condition. Given the widespread nature of this phenomenon, disruption should be addressed at the onset of archaeological inquiry and built into research design so that both the original context and subsequent disruption can be addressed comprehensively once excavation is complete. There is a lot of information to be gleaned by these events and more attention needs to be paid to them both during planning and excavation, but also in interpretation.

Concluding Remarks

The goal of my dissertation research was to assess to what degree political centralization is visible archaeological in mortuary practice involving stone monuments. A secondary objective was to determine if mortuary data could speak to socio-political processes by rethinking the nature of the data itself; by framing questions within a conceptual rather than positivist framework. As I hope this dissertation has demonstrated, but which is also attested to by numerous other publications that have emerged in the last few years, archaeological research on the Xiongnu polity and preceding periods is at an exciting juncture. New methods and new theoretical paradigms are being brought to bear in ways that were inconceivable only a few decades ago. The future looks to be even more productive as new collaborative projects are taking shape across Mongolia and neighboring countries. It is thus with ample excitement and with an

eye to the future that I add this research to a growing and dynamic body of work that is poised to yield considerable insight into Mongolian prehistory.

Appendix A: Shape Burials

BGCNumber	Feature #	Dimension A	Dimension B	GPS North	GPS East
BGC 049	A	14.1	8.6	5116262	574128
BGC 051	A	16.6	8.5	5116513	574160
BGC 084	A	4.2		5116512	574138
BGC 092	A	11.2	6.9	5116410	574433
BGC 098	A	6.5	2.6	5116293	574251
BGC 229	A		4	5121427	574594
BGC 236	A	6	3.2	5119989	574591
BGC 238	A	4.2	3.3	5119702	574662
BGC 240	A	7.6	5.4	5119561	574679
BGC 245	A	11.7	5.6	5119360	576984
BGC 346	A	9.7	15.8	5118871	574442
BGC 343	A	5.1	3.5	5119856	576609
BGC 327	A	8	4.8	5119206	577464
BGC 339	B	6.7	4.2	5119767	576704
BGC 067	A	11	5.6	5117200	573281
BGC 129	A	12.8	7.2	5120662	575509
BGC 129	C	10	8.5	5120698	575433
BGC 130	A			5120849	575343
BGC 138	A	9.2	5.2	5117384	573243
BGC 151	A	7.1	4.6	5120632	575711
BGC 152	A	5.7	5.2	5120573	575732
BGC 153	A	6.6	3.7	5120539	575833
BGC 156	A	11.3	7.6	5120474	576089
BGC 159	A	4.2	2.1	5120226	576337
BGC 251	A	5	3	5119640	576392
BGC 294	A	3.4	2.6	5117698	575307
BGC 294	B	4.3	3	5117684	575306
BGC 294	C	4	3.7	5117658	575305
BGC 294	D	3.5	2.1	5117640	575299
BGC 296	C	11.3	4.5	5117641	575559
BGC 584	A	10.7	6.4	5118360	584958
BGC 584	B	11.6	9.5	5118246	585049
BGC 553	B	6.8	5	5117621	584708
BGC 577	A	7.2	5.3	5118607	584466
BGC 385	A	9	6.8	5117990	585305
BGC 419	A	9.8	6.7	5120576	585244
BGC 656	A	6.7	2.9	5120576	585075
BGC 853	A	2.5	2.1	5119850	579667

BGCNumber	Feature #	Dimension A	Dimension B	GPS North	GPS East
BGC 523	A	6.9	3.9	5121058	584552
BGC 749	A	8.1	4.5	5121035	579515
BGC 1285	A	7.6	5.8	5113741	581388
BGC 1285	I	10.2	8	5113647	581376
BGC 1285	L	7.1	6.6	5113529	581321
BGC 1285	M	8.4	6.4	5113540	581229
BGC 1285	N	7.6	5.9	5113566	581151
BGC 1370	A	6.9	3.7	5113871	580675
BGC 1378	A	9	6.7	5114093	581629
BGC 1390	A	5.6	3.5	5114218	581415
BGC 1453	E	6.1	4.9	5113409	582241
BGC 880	A	14	9	5115405	574801
BGC 1259	A	10.4	5.4	5113806	580002
BGC 1249	B	8	4.3	5113758	579768
BGC 1252	A	6.2	5.2	5113723	580349
BGC 1253	A	8.4	7.3	5113693	580501
BGC 1254	A	7.7	6	5113883	580382
BGC 1257	B	7.5	4.1	5113745	580225
BGC 1626	A	8.4	3.8	5114379	584384
BGC 888	A	8.5	7	5115877	574502
BGC 1353	A	6.8	5.9	5113814	578844
BGC 1529	C	10	4.9	5116139	583259
BGC 1549	B	23.6	9.5	5115322	583029
BGC 1552	A	31.1	12	5115382	583246
BGC 1557	A	34.5	11.5	5115020	582878
BGC 1560	A	24.3	9.6	5114983	583394
BGC 1600	A	10	5.7	5115352	583848
BGC 1460	A	4.3	3.7	5114109	582761
BGC 1462	A	20	10.3	5114631	582815
BGC 1463	C	7.8	4.5	5114895	582742
BGC 1477	A	6		5115214	582731
BGC 1510	A	13.9	7.8	5116010	583632
BGC 1764	A	11	5.6	5116591	573533

Appendix B: Khiriguurs

BGC #	Dimension A	Dimension B	Dimension C	GPS North	GPS East
BGC 154	7.6	16.9		5122458	576154
BGC 180	9.8	27		5120239	574288
BGC 181	7.7			5119333	576096
BGC 046	8.7	25.6		5116192	573917
BGC 090	5.4	26		5116570	574179
BGC 093	8			5116421	574440
BGC 099	5	16.8		5116272	574272
BGC 100	10.3	18.4		5116229	574271
BGC 103	7.6			5117322	574044
BGC 109	11			5117752	574639
BGC 184	7			5118723	576439
BGC 185	9.5	14.5		5118871	576275
BGC 186	7			5118677	576156
BGC 188	11.7			5120870	576455
BGC 189	12.7	55		5120674	576797
BGC 182	8.1			5119194	576218
BGC 197	6.2			5121027	576825
BGC 203				5121146	575490
BGC 211	12.2	23.8		5118955	574009
BGC 213	13.9	33.4		5118865	573793
BGC 214	10.7	27.6		5118545	573502
BGC 215	9.6	11.2		5119462	574198
BGC 216	8.6			5119714	574210
BGC 217	10.1	23.1		5119545	574160
BGC 234	6.8	14		5120061	574419
BGC 237	10	32.2		5119870	574431
BGC 239	10.7			5119773	574782
BGC 241	11.7	15.8	19.6	5119485	574638
BGC 242	11.2			5119452	574725
BGC 244	4.5	2.9		5119465	574423
BGC 250	10	11.8	14.4	5119391	577268
BGC 349	8.7	15.1	13.7	5118617	574683
BGC 348	6.5	15.5		5118706	574532
BGC 347	8.4			5118578	574454
BGC 346	9.7	15.8	12.7	5118871	574442
BGC 345	7			5119391	576828
BGC 344	11.8	21.6	20.5	5119496	576836
BGC 326	9	17		5119345	577384
BGC 332	11.8	38.8		5120897	577941
BGC 338	5.2			5117622	577366
BGC 339	11	12	16	5119703	576697
BGC 081	8.2			5119207	574819
BGC 350	7.5	17.9		5118939	574368
BGC 350	10.6	48.8		5119011	574357
BGC 350	9.8	14	11.8	5119081	574373

BGC #	Dimension A	Dimension B	Dimension C	GPS North	GPS East
BGC 350	5.1	8.6		5119096	574342
BGC 350	10.3			5119120	574410
BGC 350	9			5119130	574450
BGC 350	12			5118112	574888
BGC 350	5.2			5118110	574871
BGC 329	7			5119907	577701
BGC 020	7	10		5118006	576788
BGC 021	6.7	15.1		5118847	577207
BGC 039	6.7	9.5	5.6	5118961	579111
BGC 042	12.4	40.4		5120892	577937
BGC 043	10.8	17		5120825	578260
BGC 064	5.3	7.9		5116871	573725
BGC 066	7.9			5116867	573930
BGC 071	6.6			5117192	573604
BGC 074	6	14.5		5117309	573847
BGC 120	7.4	15.9	16.8	5116658	572918
	9.1			5120769	575402
	5.8			5117318	573981
BGC 132	6			5117323	574045
BGC 135	8.2	9.2	12.2	5117479	573798
BGC 137	10.1			5117660	573905
BGC 140	10.8	12.8	15.2	5117544	572913
BGC 147	10.5	11.9		5117830	573874
BGC 148	8.6	18		5118035	573905
	9.6	19.8		5118122	573880
BGC 149	7			5118197	573793
BGC 160	8.3			5120385	576303
BGC 162A	7.2			5117842	575335
BGC 162B	6.7			5119885	575364
BGC 163	12.3	21.2	19.7	5120020	575298
BGC 164	7.6	16.9		5124258	576154
BGC 165	6.4			5119201	575303
BGC 166	7.8			5119139	575274
BGC 167	11.3			5119066	575653
BGC 168	6			5119158	575275
BGC 170	9.7			5118609	575261
BGC 173	8.9			5118945	575306
BGC 255	7.8			5119317	576098
BGC 263	8.7			5120105	576196
BGC 264	10.8	23.8		5120161	576165
BGC 267	8.7	16.6		5120251	576150
BGC 276	8.1			5118568	575967
BGC 282	6			5117617	575812
BGC 285	10	20	17.6	5117227	575973
BGC 288	6.5	8.7		5117159	576230
BGC 289	9.5	10		5117004	576403
	8.5			5117023	576426
	13			5117005	576422
BGC 290	10.8			5117439	574948

BGC #	Dimension A	Dimension B	Dimension C	GPS North	GPS East
BGC 291	5.3			5117563	575212
	5.4			5117701	575176
BGC 302	7.8	10.4		5117539	576976
BGC 304	7.7	9.3	9	5117427	577066
BGC 305	11.2		10.3	5117417	577035
BGC 306	9.7	11.6		5117386	576970
BGC 308	7.5			5117420	577138
BGC 315	8		10.05	5117934	574114
BGC 317	6.5			5117896	574501
BGC 318	9.6	12.3	13.5	5118524	574730
BGC 683	6			5120406	581408
	7.4	9.5		5120421	581430
BGC 684	8.1			5120938	581551
BGC 686	9.4	12.9		5120336	581485
	8	8.3		5120478	581940
BGC 698	9.3	16.8		5120615	582078
BGC 736	9.5			5120624	583719
BGC 738	7.9			5120903	583568
BGC 841	5.8			5120375	584217
BGC 847	8.3			5120678	579687
BGC 579	7.3			5118667	584998
BGC 580	7.4			5118542	585006
BGC 596	7.8	10.5		5120252	584988
BGC 598	6.5	9.7		5120111	584233
BGC 599	9.2	15.5		5120118	584563
BGC 601	15	30.5		5119961	584589
BGC 604	8.5	10.5		5119965	585065
	11	11.8		5119890	585041
BGC 605	6.5			5119738	584691
BGC 606	8.5	17.9		5119593	584771
	5.6	9.6		5119566	584722
BGC 607	10.5			5119677	584933
	11.5	17.5		5119629	585007
	8.5			5119634	584908
BGC 548	11.8			5117433	583495
	4	5.2		5117526	583511
BGC 551	8.5			5117365	585140
BGC 552	9.5			585029	5117465
BGC 559	12.7	26		5117830	585700
BGC 564	8.6	16		5117404	586019
BGC 568	9.5			5117655	586139
BGC 573	5.4			5121236	579734
	10	26.5		5118599	584540
BGC 386	10.3			5117949	585362
BGC 391	11			5118262	585397
BGC 400	10			5118593	585601
BGC 402	6.5			5118612	585806
BGC 413	9.5			5119749	585862
BGC 418	8			5120545	585299

BGC #	Dimension A	Dimension B	Dimension C	GPS North	GPS East
BGC 425	9.9	18.6		5119969	585291
	10.3	16.3		5119950	585243
BGC 427	7.1			5120085	585100
BGC 429	6.6			5119833	585342
BGC 434		14.8	12.2	5119686	585280
BGC 436	7.3			5119464	585640
	9.3			5119453	585607
BGC 609	7.5	17.7		5119977	583954
BGC 610	7	8.8		5120002	584368
BGC 612				5119865	584047
BGC 613				5115821	584131
BGC 615				5119631	584210
BGC 617	9			5117863	581193
BGC 618	5.5			5117980	6581429
BGC 629	8			5118570	581128
BGC 456	8.8	12.8			
BGC 457	10.3	16.1		5119241	583317
BGC 641	6.5	12.6		5118846	585568
	9.9			5119369	582372
BGC 655	4.9	8.9		5120438	585210
	6.7			5120456	585220
BGC 658	4.6	8.5		5121309	585822
BGC 661	7			5121232	586242
BGC 768	8.2	10.6		5121475	581330
	7.4			5121238	581477
	6.6			5121255	581477
BGC 774	5.7			5121178	581575
BGC 777	10.2	13.8		5121590	581926
BGC 778	5.4			5121502	581994
BGC 786	5.7			5120792	581025
BGC 789	8.1	13.3		5120158	580331
BGC 802	10.5	19		5117718	580081
BGC 819	7.5	15.8		5120780	585988
BGC 821	11.6			5120510	586602
BGC 465	8.4	10.3		5119440	583378
BGC 468	6.3			5119468	583816
BGC 487	6.8	18.9		5119077	584174
BGC 488	8			5119084	584113
BGC 494	9			5119400	584880
BGC 496		12		5119273	585063
BGC 499	7.1			5119132	584724
BGC 500	6.7	18	15.9	5118758	584888
BGC 502	12.5	33		5119607	582873
	5.2			5119854	579664
	7	8		5120486	582253
BGC 703	5.1			5120716	582520
BGC 708	9.5	12		5120446	582822
BGC 720	8			5121929	583399
BGC 724	10.6	16.3		5120902	583849

BGC #	Dimension A	Dimension B	Dimension C	GPS North	GPS East
BGC 856	5			5118988	579064
	6.5			5118963	579115
	4.5			5119009	579107
BGC 516	11.2	20		5120948	584437
BGC 520	8.7	23		5120380	584565
BGC 522	6.6			5120943	584760
	4.2			5120378	589757
	5.3			5120318	584757
BGC 532	7.6			5120902	579312
BGC 543				5119555	578995
BGC 753	5.5	9.9		5121243	579803
	4.8			5121252	579734
BGC 958					
BGC 962	7.6	14.3		5114324	575735
	8.1	15		5114393	575662
BGC 968	8.8	15.2		5113971	575221
BGC 972	9.3	32.3		5114971	574915
BGC 984	9			5114080	576057
BGC 989	12.1			5114996	576270
BGC 991	14.8	16.7		5114762	576351
	14.6	23.7		5114626	576302
BGC 1004	11.4	19.4		5114848	576473
	8.5	10.5	10.9	5114872	576425
BGC 1007	11.6	22.7		5115069	576641
BGC 1009		19.6	19	5114907	576592
BGC 1018	10	19.2		5113751	576352
BGC 1020	7.15	11.41		5113918	576197
BGC 1022	11.4	15.6		5115248	576784
BGC 1024	10.5			5115235	577434
BGC 1026	11.8	33.1		5115542	576983
BGC 1035	6.7			5115864	576903
BGC 1057	6	12.1	13	5116317	576678
	6.4	9.6	13.7	5116437	576689
BGC 905	11.8	17	17	51172227	575905
BGC 908	7.3	12.3		5116665	576011
BGC 1067	7.8	13.2	9.8	5116331	576008
	7.8	25	23	5113632	580712
BGC 1376	11.2	14.6	15.3	5113876	581542
	12	25.9	19.5	5113988	581502
BGC 1381	8			5114036	580848
BGC 1388	8.5			5114078	581563
BGC 1196	4.8	7	7.2	5114076	577966
BGC 1203	11	14		5114681	577615
BGC 1450	7	11.5		5115646	580482
BGC 861	10.6	15	15	5115206	575801
BGC 868	11.5	15	17	5115082	575620
BGC 871	9.5	9.8	12	5115161	575282
BGC 948	10.8	11.3		5114756	576799
BGC 949	11	14		5114643	576837

BGC #	Dimension A	Dimension B	Dimension C	GPS North	GPS East
BGC 951	9.8	12	12	5114637	576970
BGC 1223	8.2			5115343	579402
BGC 1230	10.8	15		5115017	579660
BGC 1232	6.4			5114772	579726
BGC 1239	11.4	13.2	11.5	5114500	579543
BGC 1249	9			5113765	579743
	4.6	8.6	8.4	5113839	579721
BGC 1260	5	12.3		5113816	579901
BGC 1293	8			5114223	576836
BGC 1298	11.6			5114017	577040
BGC 1307	9			5113885	577905
BGC 1321				5113577	576941
BGC 1405	5.8	9.8	7.4	5115388	581416
BGC 1435	9.5			5116806	583420
BGC 1611	9.5	13		5114237	583782
BGC 1616	6.3	10.4			
BGC 1628	8.5	17		5115175	582918
BGC 884	7			5115928	574937
BGC 886	7	12	9.4	5115872	574736
BGC 1352	12.3	29.4		5113731	579174
BGC 1526	6.9	8.2	7.8	5116748	583007
BGC 1536	7.5	20		5115823	582797
	22.3	52.2		5114850	583236
BGC 1565				5114418	583006
BGC 1570	7.7	20		5114416	583421
BGC 1602	7	15.9	16.3	5115317	584355
BGC 1469	10.6			5114542	582415
BGC 1474	5.9			5114520	582184
BGC 1475	9.5	12.1		5114977	582353
BGC 1480	5.5			5115319	582636
BGC 1496	8.8	13.2		5116364	582001
BGC 1500	6.9	14		5117204	583401
BGC 1514	9.5	19.2		5115665	584044
BGC 1781	14	42.7		5123753	548695
BGC 1782	11	50.2		5123413	548416
	8.1	20.6		5123119	548440
BGC 1585	8.7	16.7		5123521	548378
BGC 1586	8	19.5		5123604	548341
BGC 1587	8.1	37		5123196	548667
	5.5			5123236	548691
	6	10.4		5123298	548696
	6	7.9	10.3	5123339	548669
	7			5123056	548643
BGC 1787	10.4	14.6	11.9	5158933	555770
BGC 1789	8.4	22.6	21.6	5158910	554768
	7.6	21		5159010	554756
BGC 1790	9.8	24.4	19.5	5158636	554943
BGC 1633	9	29		5114490	584595
BGC 1658				5116408	587660

Appendix C: Slab Burials

BGC #	# of Burials	W Viewshed	% of Burial Standing	Orientation	Slab burial
BGC 28	1	X	70%	60°	Yes
BGC 31	1	X	41%	50°	?
BGC 32	1		N/A	N/A	No
BGC 33	1		30%	45°	?
BGC 37	2	X	20%	80°	Yes
BGC 38	1		5%	N/A	No
BGC 47	1		20%	50°	?
BGC 56	2	X	50%	90°	Yes
BGC 57	5	X	60%	90°	Yes
BGC 73	1	X	20%	105°	Yes
BGC 74	2	X	15%	60°	Yes
BGC 96	1	X	40%	95°	Yes
BGC 97	1	X	25%	90°	Yes
BGC 105	1		N/A	90°	No
BGC 130	2		N/A	70°	?
BGC 143	4	X	80%/0%	80°	Yes
BGC 158	2	X	40%	60°	Yes
BGC 176	2			80°	?
BGC 177	1		5%	70°	No
BGC 190	4		N/A	N/A	No
BGC 217	12	X	65%	80°	Yes
BGC 237	2	X	20%	90°	Yes
BGC 244	1	X	35%	110°	Yes
BGC 270	1		N/A	N/A	Yes
BGC 291	1	X	35%	80°	Yes
BGC 292	4	X	70%	90°	Yes
BGC 293	1		N/A	90°	No
BGC 296	1	X	60%	90°	Yes
BGC 320	1	X	70%	158°	?
BGC 322	1	X	10%	70°	Yes
BGC 350	3	X	15%	90°	Yes
BGC 394	1		15%	50°	No
BGC 399	1		15%	90°	?
BGC 420	1		20%	90°	No
BGC 430	1		30%	N/A	No
BGC 449	1		40%	90°	Yes
BGC 452	7	X	60%	90°	Yes

BGC #	# of Burials	W Viewshed	% of Burial Standing	Orientation	Slab burial
BGC 453	1	X	40%	90°	Yes
BGC 455	4	X	30%	90°	Yes
BGC 458	2	X	N/A	45°	No
BGC 459	1	X	N/A	80°	No
BGC 462	1	X	15%	90°	Yes
BGC 479	1	X	20%	N/A	?
BGC 480	1		20%	80°	Yes
BGC 481	2		5%	N/A	No
BGc 524	3		20%	55°	Yes
BGC 538	2		35%	60°	Yes
BGC 539	1		65%	120°	?
BGC 541	1		50%	60°	Yes
BGC 553	4	X	30%	80°	Yes
BGC 554	2	X	55%	85°	Yes
BGC 561	1	X	15%	90°	Yes
BGC 602	1	X	40%	45°	Yes
BGC 677	1	X	20%	75°	Yes
BGC 684	1	X	10%	100°	Yes
BGC 688	1	X	20%	165°	?*
BGC 689	1	X	60%	70°	Yes
BGC 694	9	X	40%	50°	Yes
BGC 701	4	X	30%	90°	Yes
BGC 727	1		45%	55°	?
BGC 741	1		20%	140°	No
BGC 754	1		5%	80°	No
BGC 772	1	X	90%	80°	Yes
BGC 776	1	X	15%	80°	Yes
BGC 783	1	X	80%	65°	Yes
BGC 789	1	X	20%	50°	Yes
BGC 846	14	X	65%	80°	Yes
BGC 853	1	X	10%	90°	Yes
BGC 854	9	X	50%	85°	Yes
BGC 855	2	X	30%	60°	Yes
BGC 860	3	X	40%	60°	Yes
BGC 895	1	X	35%	N/A	Yes
BGC 910	1		40%	N/A	No
BGC 953	2		25%	N/A	?
BGC 992	4	X	30%	80°	Yes
BGC 1000	1		20%	140°	No
BGC 1005	1	X	10%	80°	Yes
BGC 1010	1	?	20%	80°	Yes
BGC 1018	5	X	15%	85°	Yes

BGC #	# of Burials	W Viewshed	% of Burial Standing	Orientation	Slab burial
BGC 1023	1	X	15%	90°	Yes
BGC 1049	1	X	65%	145°	?*
BGC 1063	2	X	30%	60°	Yes
BGC 1074	1		5%	50°	No
BGC 1189	1		N/A	N/A	Yes
BGC 1190	1		N/A	N/A	Yes
BGC 1191	1		N/A	N/A	Yes
BGC 1192	1		N/A	N/A	Yes
BGC 1195	1	X	N/A	N/A	Yes
BGC 1200	1	X	N/A	N/A	Yes
BGC 1201	1		N/A	N/A	Yes
BGC 1204	N/A		N/A	N/A	Yes
BGC 1246	1		40%	170°	No
BGC 1249	1	X	20%	80°	Yes
BGC 1251	1	X	30%	90°	Yes
BGC 1259	1	X	40%	80°	Yes
BGC 1261	1		20%	110°	Yes
BGC 1263	1	X	20%	55°	Yes
BGC 1285	2	X	30%	80°	Yes
BGC 1294	4	X	60%	90°	Yes
BGC 1299	1		45%	N/A	No
BGC 1301	1		5%	N/A	?
BGC 1310	1		10%	N/A	No
BGC 1330	1	X	25%	80°	Yes
BGC 1332	3	X	35%	75°	Yes
BGC 1355	1		20%	N/A	No
BGC 1358	1		30%	N/A	?
BGC 1360	3	X	30%	80°	Yes
BGC 1367	1	X	30%	45°	Yes
BGC 1376	3	X	10%	90°	Yes
BGC 1401	1	X	10%	70°	Yes
BGC 1463	2	X	10%	0°	No
BGC 1494	1	X	25%	N/A	Yes
BGC 1496	1		10%	50°	No
BGC 1528	2	X	40%	75°	Yes
BGC 1529	1	X	20%	90°	Yes
BGC 1564	2		10%	20°	No
BGC 1571	2	X	40%	90°	Yes
BGC 1586	1		20%	N/A	No
BGC 1587	9	X	20%	85°	Yes
BGC 1640	4	X	20%	90°	Yes
BGC 1650	3	X	20%	90°	Yes

BGC #	# of Burials	W Viewshed	% of Burial Standing	Orientation	Slab burial
BGC 1707	2		10%	75°	Yes
BGC 1708	1		N/A	50°	No
BGC 1717	4		50%	45°	No
BGC 1753	1	0	10%	60°	?
BGC 1758	1	0	30%	135°	No
BGC 1783	6	X	40%	90°	Yes
BGC 1785	8	X	20%	95°	Yes
BGC 1786	1	X	20%	90°	Yes

Appendix D: Xiongnu Tombs

BGC #	Dimension A	GPS East	GPS North
BGC 125-A	6.6	573077	5117818
BGC 125-B	4.9	573092	5117795
BGC 125-C	6.3	573072	51178901
BGC 125-D	5	573056	5117804
BGC 125-E	5.8	573045	5117795
BGC 125-F	7.4	570731	5117799
BGC 125-G	4.5	573012	5117813
BGC 127-A	5.7	572815	5117772
BGC 128-A	6.2	572409	5118303
BGC 128-B	6.1	572405	5118235
BGC 128-C	5.9	572411	5118224
BGC 128-D	5.1	572389	5118215
BGC 128-E	6.2	572387	5118216
BGC 142-A	8.2	572452	5117152
BGC 142-B	9	572465	5117183
BGC 142-C	8	572451	5117176
BGC 142-D	7.9	572436	5117172
BGC 142-E	8.3	572426	5117163
BGC 142-F	8	572405	5117178
BGC 142-G	6.2	572410	5117213
BGC 142-H	7	572456	5117198
BGC 193-A	5.9	577167	5120214
BGC 193-B	5.6	577127	5120293
BGC 193-C	6.2	577119	5120289
BGC 193-D	6.6	577094	5120290
BGC 351-A		574664	5121963
BGC 351-B	6.6	574648	5121932
BGC 351-C	5.9	574656	5121847
BGC 351-D	5	574657	5121935
BGC 351-E	4.2	574664	5121944
BGC 351-F	5.2	574667	5121939
BGC 351-G	5.6	574677	5121942
BGC 351-H	6	574672	5121946
BGC 351-I	5.9	574674	5121969
BGC 351-J	5.6	574683	5121964
BGC 351-K	5	574688	5121968
BGC 351-L	5.7	574717	5122007

BGC #	Dimension A	GPS East	GPS North
BGC 351-M		574717	5122818
BGC 351-N	7.8	574728	5122071
BGC 351-O	4.5	574638	5122016
BGC 383-A	14.5	584192	5117231
BGC 422-C	6.1	585257	5120260
BGC 510-A	7.2	583825	5121649
BGC 510-B	6.1	583819	5121662
BGC 510-C	5.2	583807	5121669
BGC 510-D	5.7	583794	5121662
BGC 510-E	5.4	583806	5121650
BGC 515-A	6.8	583915	5121617
BGC 519-A	11.6	584629	5120700
BGC 529-A	5.2	585969	5126442
BGC 536-A	12.5	579081	5120469
BGC 576-A	7.5	586495	5118371
BGC 721-A	7.1	583465	5121675
BGC 721-B	6.7	583476	5121682
BGC 721-C	6	583476	5121682
BGC 721-D	4.8	583464	5121693
BGC 721-E	5.7	583454	5121689
BGC 721-F	4.8	583444	5121689
BGC 725-A	6	583854	5120839
BGC 733-A	5	584360	5120931
BGC 733-B	7.6	584353	5120942
BGC 733-C	7.9	584363	5120942
BGC 740-A	7.1	584448	5126265
BGC 752-A	6.7	579604	5121533
BGC 757-A-?		580496	5121436
BGC 759-A	5.9	580614	5121697
BGC 762-A	6.5	580835	5121643
BGC 762-B	7.9	580849	5121647
BGC 864-A	6.5	575729	5115987
BGC 864-B	7	575728	5115996
BGC 864-C	7.3	575737	5115994
BGC 864-D	6.7	575744	5116012
BGC 864-E	6.5	575758	5116015
BGC 864-F	7	575736	5116023
BGC 864-G	7.5	575721	5116029
BGC 864-H	9	575718	5116041
BGC 864-I	9.1	575706	5116032

BGC #	Dimension A	GPS East	GPS North
BGC 864-J	4.7	575704	5116019
BGC 864-K	6	575722	5116009
BGC 864-L	6	575715	5116011
BGC 864-M	6.8	575714	5116003
BGC 864-N	3.7	575706	5115998
BGC 877-A	7.1	574191	5115787
BGC 969-A	7.7	575263	5114142
BGC 973-A	6.6	575005	5114610
BGC 1041-A	5.2	575013	5112986
BGC 1044-A	4.7	575424	5112753
BGC 1250-A	7.7	580410	5113032
BGC 1250-B	6.2	580431	5113045
BGC 1270-A	6	580306	5114420
BGC 1454-A	5.2	582456	5113260
BGC 1457-A	5.2	582702	5113591
BGC 1490-A	10	583210	5115794
BGC 1490- AAA	6.5	582141	5115942
BGC 1490-B	7.5	582291	5115820
BGC 1490-BB	6	582075	5115915
BGC 1490-BBB	3	582134	5115946
BGC 1490-C	7.5	582283	5115816
BGC 1490-CC	7	582089	5115922
BGC 1490- CCC	7.5	582101	5115965
BGC 1490-D	6.5	582231	5115824
BGC 1490-DD		582104	5115918
BGC 1490- DDD	7	582086	5115956
BGC 1490-E	6.5	582225	5115823
BGC 1490-EEE	6	582096	5115948
BGC 1490-F	5.5	582223	5115835
BGC 1490-FF	5.5	582117	5115919
BGC 1490-FFF	6	582106	5115935
BGC 1490-G	13.5	582233	5115851
BGC 1490-GG	4	582123	5115915
BGC 1490-H	10	582218	5115845
BGC 1490-HH	6.5	582127	5115917
BGC 1490-I	8.6	582212	5115833
BGC 1490-II	6	582134	5115926

BGC #	Dimension A	GPS East	GPS North
BGC 1490-J	9	582204	5115846
BGC 1490-JJ	3.7	582139	5115925
BGC 1490-K	9.5	582200	5115836
BGC 1490-KK	4	582146	5115924
BGC 1490-L	8.6	582185	5115831
BGC 1490-LL	8	582150	5115930
BGC 1490-M	8.5	582188	5115828
BGC 1490-MM	6	582159	5115926
BGC 1490-N	11	582175	5115845
BGC 1490-NN	7.5	582177	5115924
BGC 1490-O	7	582183	5115859
BGC 1490-OO	8	582181	5115949
BGC 1490-P	7	582187	5115859
BGC 1490-PP	7	582166	5115965
BGC 1490-Q	7	582179	5115853
BGC 1490-R	8	582178	5115868
BGC 1490-RR	6	582149	5115976
BGC 1490-S	5.2	582176	5115875
BGC 1490-SS	5	582141	5115977
BGC 1490-T	9	582176	5115879
BGC 1490-TT	4	582144	5115983
BGC 1490-U	8.5	582205	5115893
BGC 1490-UU	7.5	582143	5115989
BGC 1490-V	9	582157	5115901
BGC 1490-VV	6	582128	5115958
BGC 1490-W	7	582133	5115900
BGC 1490-WW	7	582116	5115959
BGC 1490-X	4.5	582114	5115897
BGC 1490-XX	5.5	582124	5115944
BGC 1490-Y	4.5	582105	5115902
BGC 1490-YY	6	582129	5115988
BGC 1490-Z	7	582092	5115902
BGC 1490-ZZ	6.5	582133	5115941
BGC 1618-A	7.7	584079	5114309
BGC 1627-A	3.5	584329	5114120
BGC 1627-B	5.9	584333	5114125
BGC 1627-C	4.4	584348	5114136
BGC 1637-A	5.1	585511	5115157
BGC 1655-a	8.3	585582	5116984
BGC 1655-b	7.3	585648	5116986

BGC #	Dimension A	GPS East	GPS North
BGC 1658-B		587670	5116418
BGC 1743-A	7.1	608257	5114061
BGC 1743-B	7.6	608258	5114058

Appendix E: Radiocarbon Dates

Submitter_ Identification	Description	Process	d13C	d13C_Source	Age	Age Error	D14C
BGC EX04.04	animal, stone feature context	OC	-18.99	N MEASURED	3040	35	-320.3
BGC EX04.08	animal, mortuary context	OC	-18.73	N MEASURED	940	35	-116.5
BGC EX05.02	animal, mortuary context	OC	-17.21	N MEASURED	2070	30	-232.4
BGC EX06.02	human, mortuary context	OC	-16.66	N MEASURED	2160	35	-241
BGC EX06.08	human, mortuary context	OC	-18.92	N MEASURED	2030	40	-228.7
BGC EX05.05	human, mortuary context	OC	-14.32	N MEASURED	1930	30	-219.4
BGC EX07.19b	human, mortuary context	OC	-17.32	N MEASURED	2440	25	-267.1
BGC EX06.01	human, mortuary context	OC	-16.24	N MEASURED	2000	30	-225.4
BGC EX07.16	human, mortuary context	OC	-16.07	N MEASURED	2030	35	-228.5
BGC EX07.17	human, mortuary context	OC	-17.43	N MEASURED	2070	35	-232.4
BGC EX07.19a	human, mortuary context	OC	-17.03	N MEASURED	540	35	-71.7
BGC EX07.24	human, mortuary context	OC	-19.27	N MEASURED	3060	35	-321.8
BGC EX07.25a	human, mortuary context	OC	-15.77	N MEASURED	2230	35	-247.5
BGC EX07.25b	human, mortuary context	OC	-16.37	N MEASURED	2100	30	-235.7
BGC EX03.03	human, mortuary context	OC	-14.98	N MEASURED	2010	30	-226.5
BGC EX03.04	human, mortuary context	OC	-17.73	N MEASURED	250	20	-36.8
BGC EX03.05	human, mortuary context	OC	-17.19	N MEASURED	890	50	-110.6
BGC EX03.07	human, mortuary context	OC	-13.88	N MEASURED	2000	35	-225.1
BGC EX04.10	human, mortuary context	OC	-16.07	N MEASURED	2050	20	-230.5
BGC EX05.02	human, mortuary context	OC	-15.54	N MEASURED	2110	60	-236.3
BGC EX06.07	human, mortuary context	OC	-15.41	N MEASURED	1960	25	-222.2
BGC EX06.08	human, mortuary context	OC	-16.71	N MEASURED	1990	20	-224.9
BGC EX06.09	human, mortuary context	OC	-17.33	N MEASURED	2130	45	-238
BGC EX07.15	human, mortuary context	OC	-16.9	N MEASURED	1510	20	-177.4

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