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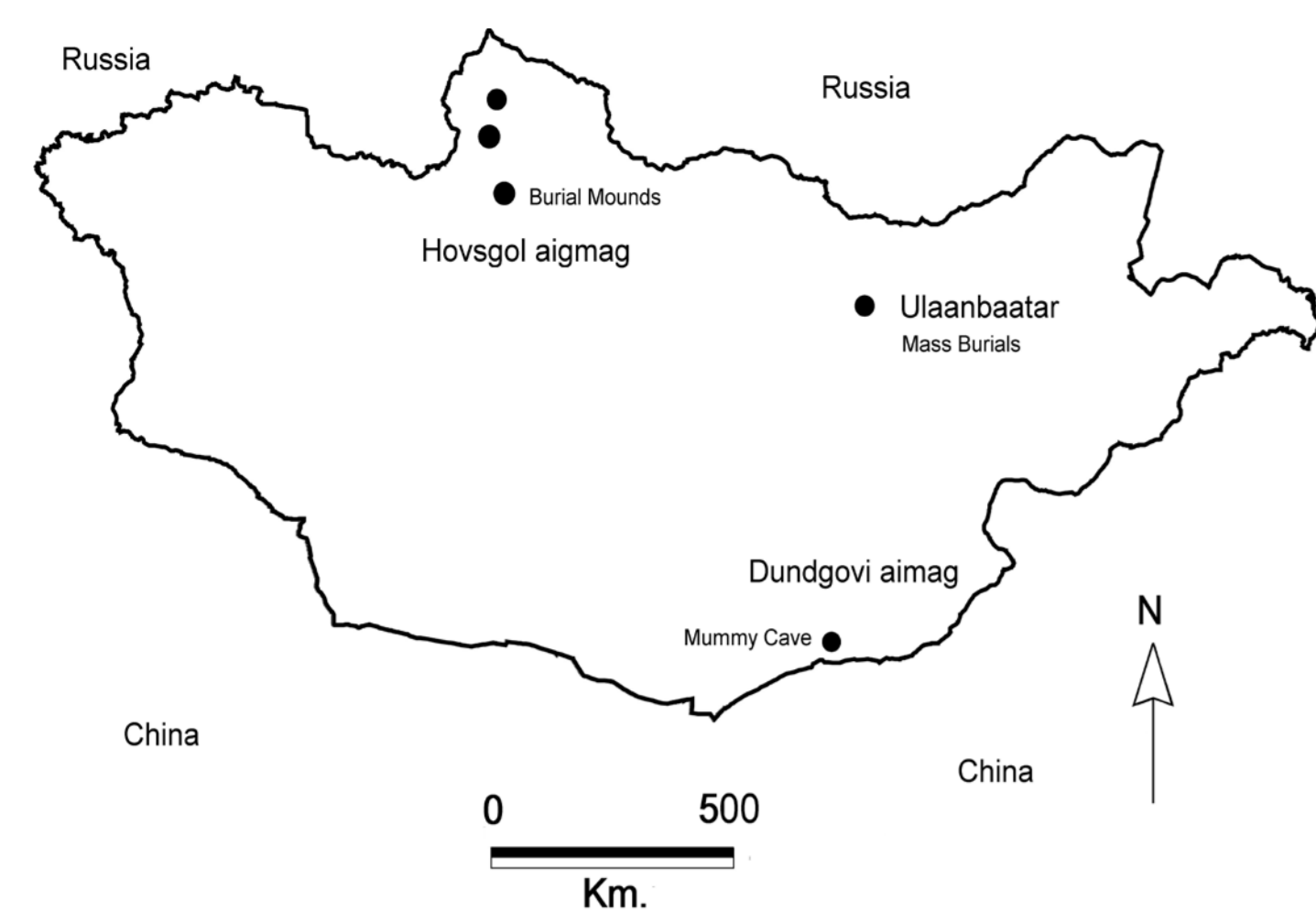
Postmortem violence? Identifying and interpreting postmortem disturbance in Mongolia.

Abstract

Deliberate violence to remains can be inflicted post-mortem but archaeologically distinguishing the source of disturbance is hard enough while interpreting motive may be impossible. We present the results of excavation of 37 Bronze Age mounds, northern Mongolia. Based on detailed analysis of burial structure, patterns of articulation, damage to elements and movement of bones within and outside the burial space, we argue there is evidence of human activity distinguishable from that of animals. Alternative hypotheses of disturbance incidental to robbery versus intentional post-mortem violence are evaluated in the context of the graves themselves, the archaeological context and ethnographic studies.

Keywords

Mongolia, desecration, taphonomy, khirigsuurs



POSTMORTEM VIOLENCE?

Identifying and interpreting postmortem disturbance in Mongolia

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Introduction

It is common to find during excavation that Bronze Age burial mounds (khirigsuurs) have been disturbed after burial has taken place. Disturbance is evidenced by removal of capstones over graves as well as disturbance to the human remains themselves. Yet material goods are rarely, if ever, found in khirigsuurs, whether disturbed or not, so why would there have been attempts to disturb them?

Three hypotheses have been proposed: grave robbery (Dickson 2010); deliberate desecration of graves by local groups (Frohlich et al 2010); and deliberate desecration by a later replacement culture (Cybiktarov 2003).

Before testing any of these hypotheses, however, it is necessary to determine what disturbance to the structure and to the human remains is due to deliberate human action and what is due to animal disturbance.

Background

While there is a debate about their primary as well as ultimate function (Dickson et al. in prep.), khirigsuurs served as burial mounds in an area across north and western Mongolia and southern Siberia. The mounds discussed here date to between approximately 3500 – 2800 BP (Frohlich et al. 2009). The mounds share a common form: a pile of stones surrounded by an external fence covering an above-ground stone chamber, or a pit cut into the ground's surface, or a semi-subterranean structure. This creates a burial chamber which is closed after use by one or two layers of capstones. The stones used in the construction are local. The variation in size and elaboration has been interpreted in the light of status or other social differentiation within these early pastoral groups (e.g. Allard and Erdenbattar 2005, Honeychurch, Wright et al 2007, Houle 2009, Wright 2009).

The 23 mounds analysed here were excavated 2007 – 2008. Preservation of human remains can be extremely poor (Dickson et al. in prep.), but more than 75% of the tombs contained some skeletal elements. No material goods were found.

There are two indications of potential deliberate human disturbance to the graves: the removal of capstones and what appears to be a response to that activity – elaborate measures to disguise the location of the burial chamber (double layers of capstones, burial below the chamber floor, construction of a false floor). But why would this be necessary if there are no material objects within the graves.

Methods

We have analysed the excavation records and the human remains seeking evidence of deliberate human disturbance as opposed to animal disturbance. In this area of Mongolia marmots are common. As a large burrowing rodent (marmots may weigh between 10-15 kgs) they can be expected to have had some impact upon burials. At the same time scavenging carnivores such as dogs and wolves can also be expected to be present within this environment. While they cannot be assumed to be responsible for removing large capstones (often more than 1 m square), they could follow upon any human disturbance.

We categorised disturbance as follows:

Deliberate human disturbance:

Capstones or side wall stones removed or tipped

Definite animal disturbance:

Evidence of burrowing

Tooth marks on bone: pedestalling, crenulated edges, crushed edges, scooping of cancellous bone, gouging indicative of rodents.

Probable animal disturbance:

Scattering of small elements

Probable human or animal disturbance:

Vertical or horizontal displacement of elements including their rotation.

In addition we examined indications of the degree of articulation at the time of disturbance as well as indicators of systematic targeting of particular portions of the body. In assessing articulation and targeting, however, it is necessary to distinguish between movement that is the result of the normal dissolution of bodily position due to decomposition and gravity (Duday 2006).

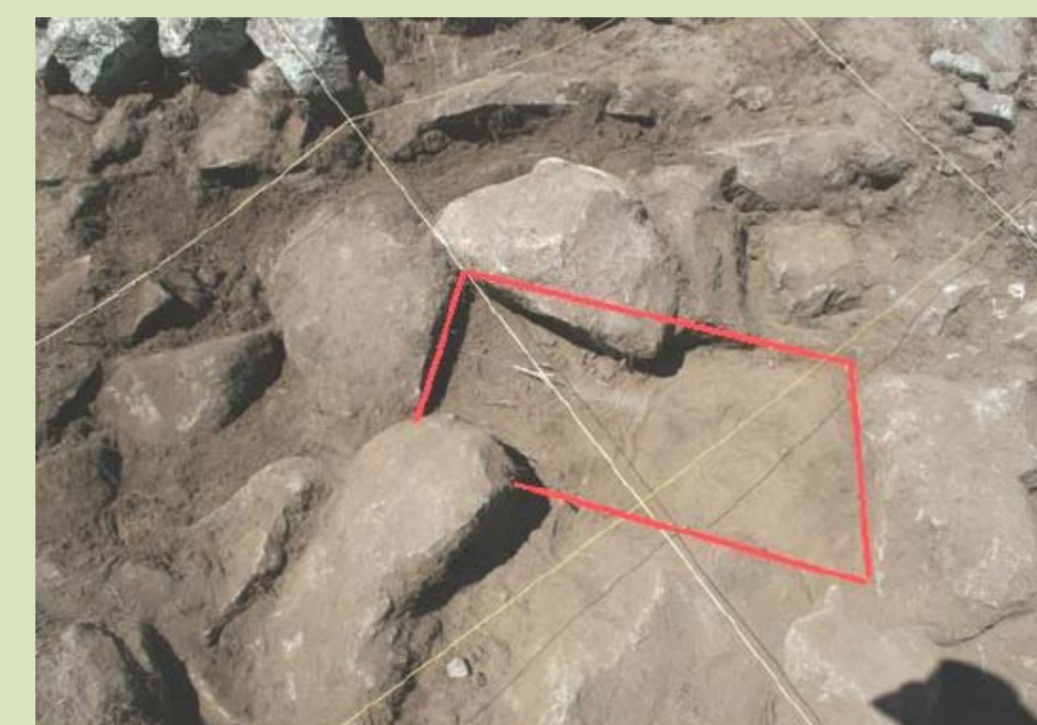
Results

Undisturbed burials



Mounds 12,18,24 = 3/23

Capstones removed/disturbed



Mounds 8,16,41,27, 44,46 = 6/23

Scavenging



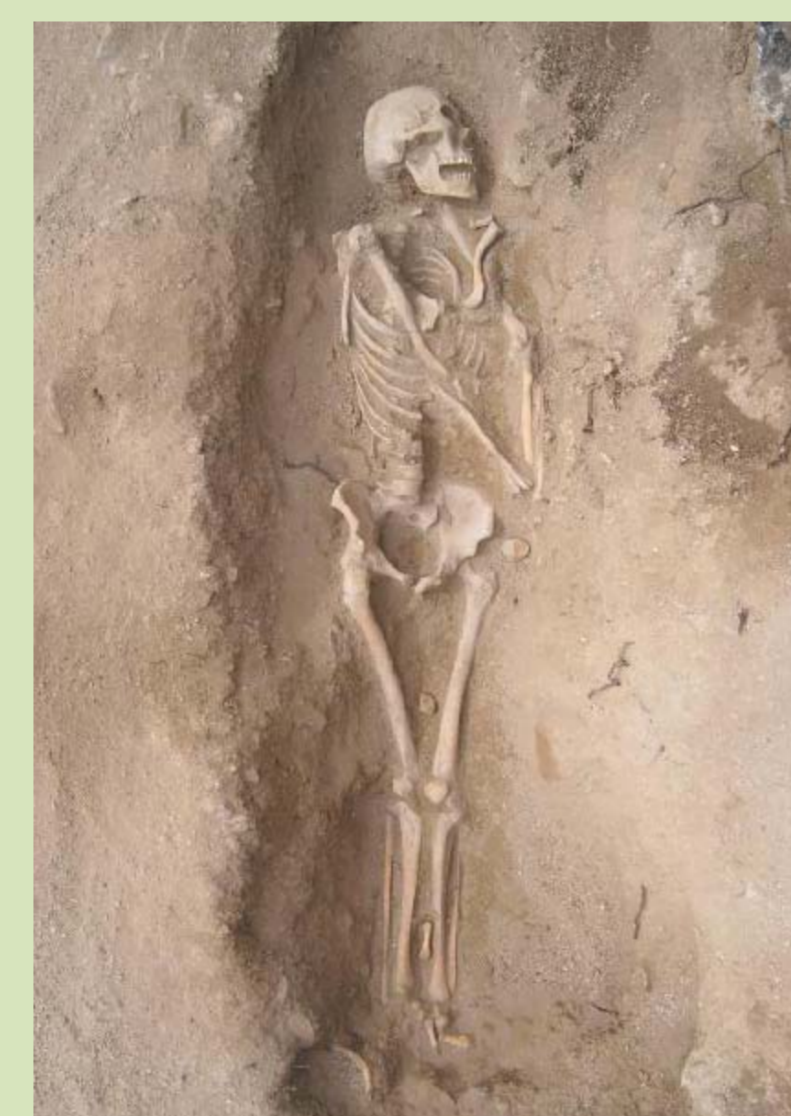
Mounds 8 and 46 = 2/23
(both had disturbed capstones)

Animal Marks on Bone



Mounds 8,10,17,25 = 4/23
[includes one without capstones]

Small Elements Moved



Mound 8,9,10,14,16,17,22,25,41 = 11/23

Movement of Large Elements



Mound 8,9,10,16,17,23,25,41,46 = 10/23
(3 without some animal disturbance)

Problems of Interpretation

Mound #9



No other evidence of disturbance but femur rotated 180 degrees under tibia and fibula without disturbance of lower leg.

Mound #16



Right scapula rotated above body to end up with anterior surface superior, movement also of left fibula along chamber floor. No indication of animal damage, however.

Mound #23



Individual with severe perimortem trauma. Some movement of small elements but 3 articulated metatarsals lying over base of rib cage with no disturbance of underlying elements.

Interpretation:

The three undisturbed tombs give a clear indication of the original burial position. In all instances the body is lying nearly fully extended close to one wall of the chamber (frequently on their left side). Legs were lying one over the other and it seems possible that the ankles were tied together. Hands commonly in front of the pelvis palms together.

In contrast the six tombs with capstones removed give a very confused picture. In two instances the body has been dragged from the chamber after capstone disturbance (#8 and #46) possibly by a scavenger (although no elements have been removed from #8. The degree of articulation of #8, #16 and #41 suggest only limited disarticulation at the time of first disturbance. For example, #8 was pulled out of the chamber at a time when the head was still articulated (it subsequently fell backwards) along with the vertebral column and the arms were only starting to disarticulate from the shoulder girdle. The burials of both adults and children were disturbed and there is no clear bias although a possible preference for males (3 males, 1 female, 2?).

The difficulty in identifying what humans were doing is the degree of animal disturbance. Within these graves there is extensive displacement of elements both small and large away from where they could have been expected to fall. Of the 11 tombs where small elements had been moved, five had evidence of animal damage to the bones.

More problematic is the movement of large elements. At times, as in #8 it is easy to distinguish movement that has accompanied scavenging – rotated elements have animal damage on their epiphyseal surfaces. There are, however, three cases where elements in the chamber have been rotated 180 degrees or horizontally displaced: #9, #16, #23 in the absence of other clear evidence for animal disturbance.

The difficulty of trying to identify human disturbance and its nature is that human activity opens up a tomb to animal activity and that animal activity can mask human actions. This analysis, however, does answer some questions:

Graves have certainly been disturbed by humans and this disturbance has occurred within a short period of the burial. That argues against actions predicated upon an elapse of time (e.g. Cybiktarov 2003). The disturbance has occurred in all areas and to graves of adults and children.

Furthermore the mound builders were possibly aware of this given that some aspects of construction seem designed to avoid disturbance.

Subsequent disturbance does not appear to be particularly targeted to a skeletal area. While the small elements of the hands may be scattered the lower arms are not necessarily. In two instances the ribs appear jumbled and twisted but this seems to be the result of an animal moving in open space rather than deliberate targeting of the upper chest (contra Dickson 2010). Furthermore there is a complete lack of evidence of any material objects and the position of the undisturbed bodies is not suggestive of some particular object included in the grave. This makes robbery seem unlikely.

Conclusion

Given attempts to avoid disturbance, the activity does not appear to be socially condoned (at least by those constructing the burial). However what people were doing once they opened a tomb remains a mystery – the rotation of elements seems suggestive of some sort of deliberate disturbance of the body itself but this evidence is hard to evaluate given the extensive animal activity and the highly variably nature of preservation. The reason for considering it, however, in a symposium on post-mortem violence is the sense of a un-condoned act, an act of deliberate exposure to the elements, and the possibility of violence to bodily integrity through moving of particular elements (though more evidence is needed before this can be confirmed). In a group where there are at least two instances of severe perimortem violence (multiple sharp force blows to the head) the disturbance of graves seems anything but a benign activity.

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