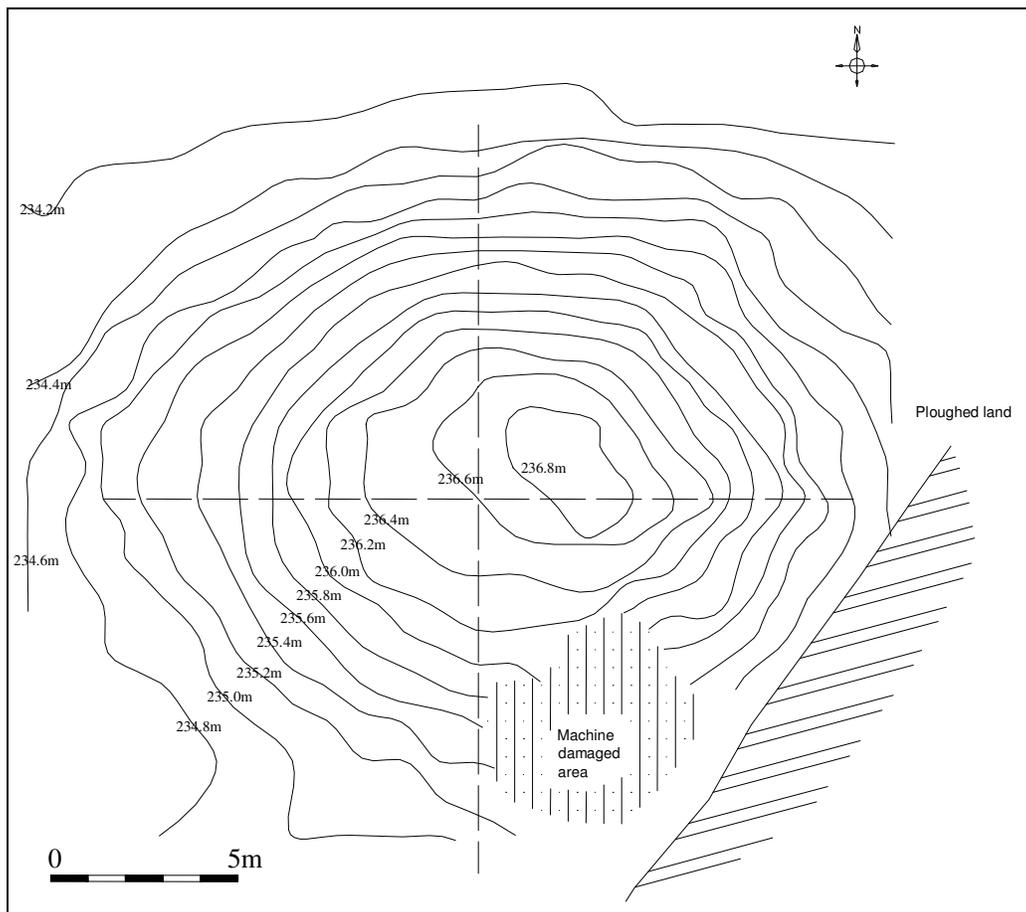


Borsunlu Kurgan Excavation

David Maynard, 2004

Introduction

The site lies on the line of the BTC pipeline and was excavated in October and November 2002 by a team from the Institute of Archaeology and Ethnography of the Institute of Sciences, Baku and British archaeologists. The site lies within a group of kurgan burial mounds, approximately 60 in number identified during preliminary studies on the BTC pipeline route. Two large similar cemeteries have been recognised during work to the southeast. A single disarticulated burial was placed in a large chamber roofed with tree trunks and covered by a stone cairn. This burial was accompanied by 5 leaf shaped arrowheads, a bronze dagger and arrowhead and a horse burial. Later two Antique burials were inserted in the mound. One was a man placed in a large jar with seven pottery vessels and other grave goods, outside the jar grave were three other pottery vessels. The other burial was a woman accompanied by a small pottery jar and wearing a composite bronze leaf and bead necklace.

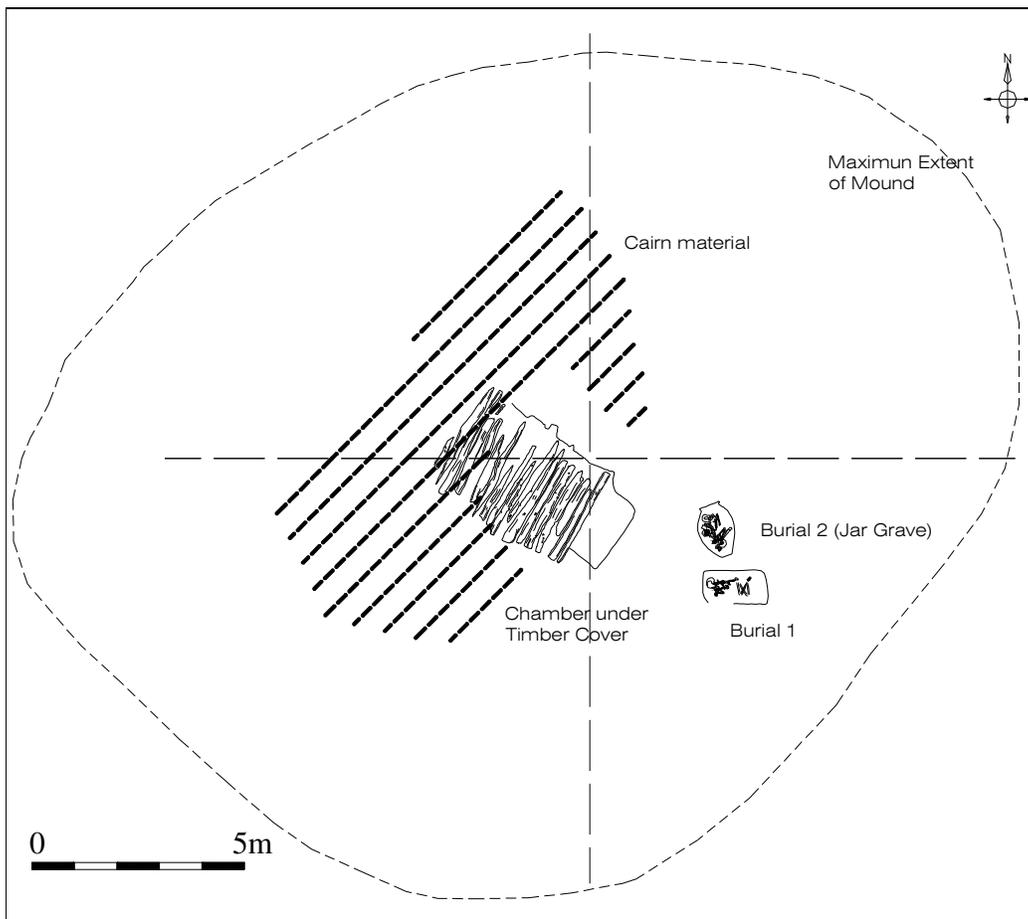


Borsunlu Kurgan: Pre-Excavation Plan

Location

The site lies at an altitude of 235m above sea level near the village of Borsunlu, Goranboy Region at 8640075 4500940 (Pulkovo 1942), E046°39'15.98" N40°37'49.72" (WGS 84). The site lies in an area of gently undulating land used for

arable farming within which are a number of natural hillocks. To the north of the site is an area of higher land approximately 10-15 m higher than the surrounding plain, this appears to be a denuded plateau formed of rounded hillocks. Similar plateau formations to be seen to the southeast, with more broken ground to the south. Generally the area lies on the transition from the central Azerbaijan plain to the foothills of the Southern Caucasus Mountains. Attention was first drawn to the area by the identification of a number of potential features during the examination of aerial photographs of the pipeline route. Subsequent ground investigation showed a spread of mounds and associated features to the north and south of the pipeline route. These have many forms: earth mounds, earth mounds with stone coverings, scraped soil areas and circular cairns. The features are conventionally thought to have a Bronze Age date, although there is a strong Antique period burial tradition evident from surface material and excavated evidence.



Borsunlu Kurgan: Chamber roof and later graves



Borsunlu Kurgan: View from north east

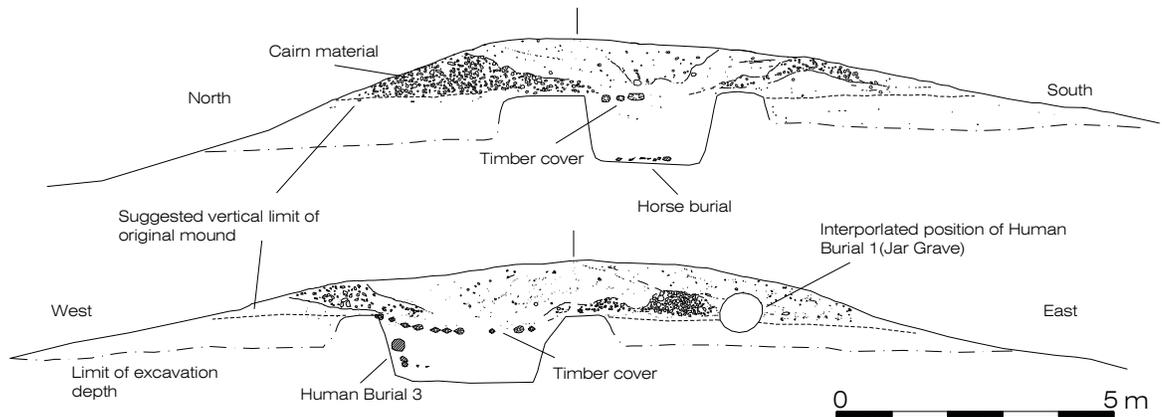
The mound as originally surveyed was 2m high and approximately 18m in diameter with a distinct oval appearance. When first discovered in April 2002, the mound was intact, but by September, a mechanical excavator had removed a portion of the southeast quadrant. A trial pit placed in this area revealed a human burial accompanied by an Antique period vessel. The mound lay directly on the pipeline route with other potential burial mounds that made it difficult to achieve a successful re-route of the pipeline, so the decision was made with the Ministry of Culture and the Institute of Archaeology and Ethnography to totally excavate the feature.

The Institute of Archaeology and Ethnography team was lead by Goschar Goscharly and Najaf Museibov with site direction by Safar Ashurov and team members Nadir Hasanov, Michael Mustafayev, Rachid Başırov, Latif Osmanly and interpretation by Fikret Orujov. Richard Moore and David Maynard were the western archaeologists during the progress of the work. The excavation was supported by BTC Co. both financially and through provision of vehicles and accommodation.

Excavation

Central chamber The earliest feature was a rectangular chamber dug into an apparently natural small mound. The chamber was approximately 4.4m long and 1.8m wide and appeared to be 0.8 to 0.9m deep. A roof was formed by 18 tree trunks laid over the chamber in transverse manner. Some of the tree trunks showed evidence of branch removal using axes and other cut marks. One tree trunk was found to have approximately 200 growth rings when examined. The chamber was entered by an unroofed portion to the east and had then been covered by a cairn of stone pebbles and small boulders mixed with earth. The chamber roof had collapsed along the northern side of the chamber either because of rotting of the timber, or more likely due to collapse of the side of the chamber and displacement by weight of the cairn. The roof

as excavated lay at an angle into the chamber with the southern ends of the timbers in their original positions. The collapse of the timber roof caused the stone cairn to slump, the date of this event is not known, but it may have been relatively early in the history of the site.



Borsunlu Kurgan: Sections of Mound

The chamber contained one human burial (Burial 3), a mature man, placed in the westernmost corner of the chamber. The body had been totally disarticulated with no sign of any bones remaining in their correct positions. The skull had been placed above the inverted femurs and other body parts were laid in front of, and above the femurs. Unfortunately, the burial had been extensively disturbed by burrowing rodents, so it is likely that many small body parts have been displaced. The body appears to have been interred soon after death and mutilation, as many of the small body parts such as fingers and toe bones were present.



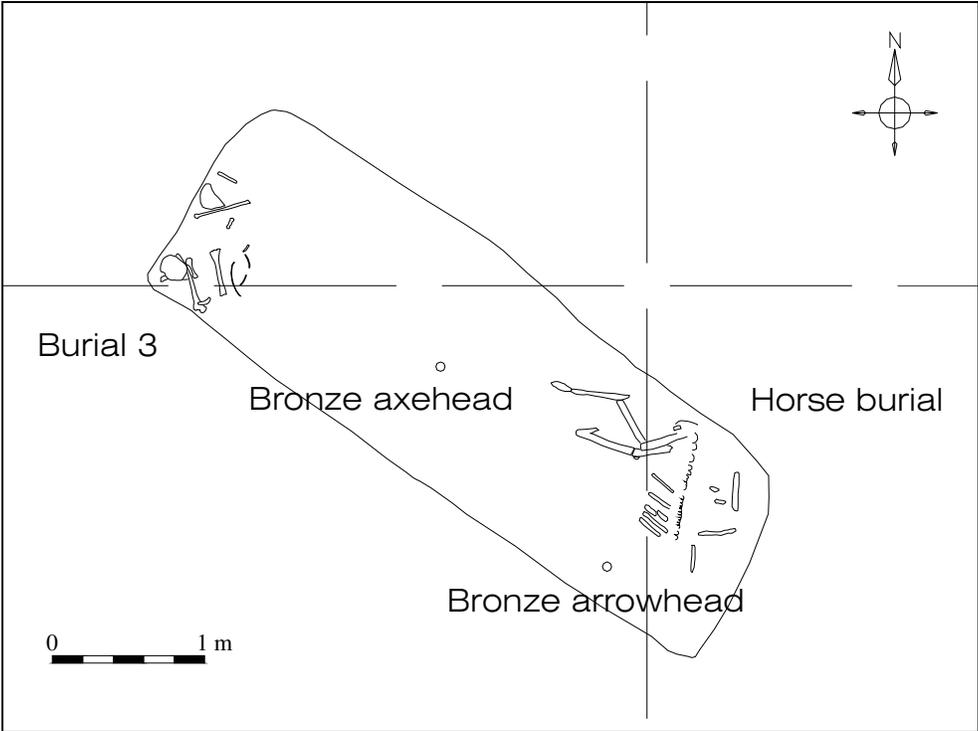
Borsunlu Kurgan: Timber cover of chamber



Borsunlu Kurgan: Detail of timber showing cutmark



Borsunlu Kurgan: Timber cover to chamber



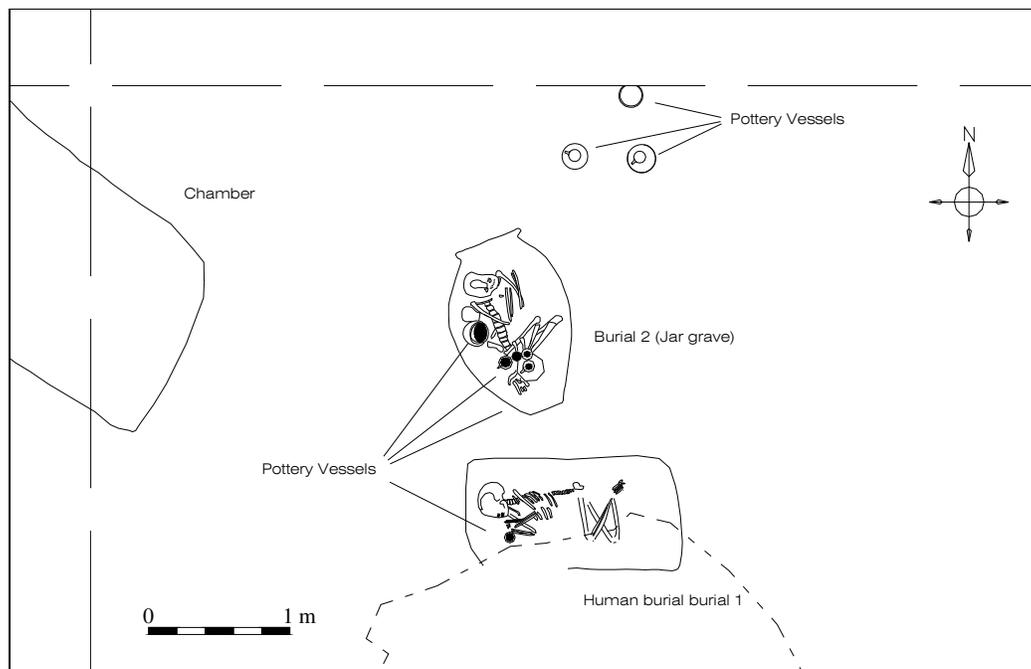
Borsunlu Kurgan: Central chamber

The burial was accompanied by a total of five leaf shaped arrowheads, all of flint and one obsidian example. A number of bronze buttons were also found in association

with the body. Due to rodent activity, no information is available on the location of these artefacts. The floor of the chamber was empty except for a possible cairn of stone in the centre. This was very diffuse, and was probably formed by stones falling through the roof of the chamber as it collapsed. A bronze dagger lay on the floor of the chamber with a bronze arrowhead near the entrance. Also near the entrance were a number of animal bones including most of the rear half of a pony

Later activity on the site is represented by the two Antique burials (burials 1 and 2) in the southeast quadrant of the mound. There appears to be a stratigraphic relationship between the two features with burial 1 being the earliest.

Burial 1 was a female lying on her right side with flexed legs and arms and head to the west, the bone was in very poor condition and could not be easily recorded. The burial was accompanied by a composite bronze leaf and glass bead necklace; a pair of bronze ear rings; a bronze and an iron ring on the fingers of the right hand; a pottery vessel; an iron shaft or pin was found above her right arm.



Borsunlu Kurgan: Intrusive Antique period graves within mound

Burial 2 was laid out on an area levelled out of the upper part of the mound. The body was contained in a large jar 1.3m long and 0.8m wide. The body was inserted feet first into the jar and had its head to the north, lying on its left side. The burial was a man and had a rich assemblage of grave goods. Outside the jar, near the mouth were two jars and a bowl. The both the jars were upright and sealed with a stone placed over the mouth and still formed empty voids. Within the main jar grave, the body was accompanied by seven pottery vessels, one cup, two jugs, two bowls and two pots. A bone-handled iron knife was placed near the lower part of the body. Personal decoration consisted of a glass bead necklace, a bronze earring and an iron finger ring. The cause of death may have been an iron projectile, or shaft that lay at an acute angle by the left rear of the spine. The body was also accompanied by several sheep leg bones to provide a final meal for the deceased.



Borsunlu Kurgan Burial 2 (Jar Grave)

The location of the two graves to the east of the entrance to the chamber may indicate continuity of use, or respect for the previous use of the mound. However, it may be fortuitous that these graves lay in this location relative to the chamber, and that they were interred in a mound without reference to the significance of its features. The other area of Antique jar burials identified 300m to the south west appears to have been placed in an extensive natural hill with no particular regard to previous funerary use in the area.

Dating of the site

The central chamber and burial 3 appear to date from the Bronze Age, precise dating for the period of use can be given by the dendrochronological dating of the timbers of the roof and radio carbon dating of the bone from the interior of the chamber. An initial view from the IoAE is that it is of late Bronze Age date possibly around 1000BC.

The Antique burials are early, possibly around 300BC by comparison with material from graves in the Mingechevir area excavated in the 1950's; again radio carbon dating can give a more precise identification of this use of the site.

Archive Materials

The site archive consists of the following material

Material	Number	Held by	Comments
Site drawings	13	AETC	Now digitised and held in .jpg and .dwg formats
Site drawings		IoAE	
Colour photographic film	8 rolls	AETC	Held as Prints, negatives and .jpg format
Colour photographic film		IoAE	Largely duplicates AETC material
Small finds	50	IoAE	Some material has been despatched for conservation
Timber samples	18	IoAE	30cm sample taken from each tree, surplus material taken to Goranboy Museum
		IoAE	
Human remains	3	AETC	Burials 2 and 3 held by AETC, burial 1 re-interred in Kazim Bulaq cemetery
Animal bone	1	AETC	
Radio carbon samples	5	AETC	4 samples from timber, 1 sample from burial 1
Site records		AETC	Lists of artefacts, samples, site records, recorded levels and photographs held in paper form, .xls and .doc format
Site records		IoAE	

Potential information and reporting proposals

The excavation of the Borsunlu kurgan has revealed a relatively simple and straightforward sequence of Bronze Age and Antique activity on the site. There are three groups of cultural material held in closed stratigraphic units that can be independently dated by radiocarbon and dendrochronology, for the first time in Azerbaijan archaeology. The three stratigraphic units can be compared with each other and then outwards into the other known points of Azerbaijan archaeology. The most detailed sources of information are the results of the excavation in 1982 of the large kurgan mound in Tartar Borsunlu some 30 km to the south east and for the antique period the results of excavations of graves in Mingchevir in the 1950's approximately 56 km to the east. Securely dated material from Borsunlu can give precision to the available chronologies and sequences available for these sites and other sites known in this region of Azerbaijan. The information will also be invaluable for comparison with results from the excavation of the small kurgan mounds at Zayamchai to be conducted in 2003.

A major piece of information that has not been studied before in this region is the collection of samples from 18 timbers that formed the roof of the chamber. These were of a significant age when felled (one has around 200 growth rings). The information that would result from the study of these trees can be substantial, and include the actual year in which they were felled and the environmental conditions in which they grew. These studies can link into other regional studies on climate change and the impact of man in the area.

Proposed Tasks

No.	Description				
1.	Analysis and comparative study of pottery	IoAE			
2.	Analysis and comparative study of metalwork	IoAE	Analysis of metalwork commenced		
3.	Analysis and report on human bone	AETC			
4.	Analysis and report on animal bone	AETC			
5.	Conservation of finds	IoAE			
6.	Report on excavation	IoAE/AETC			
7.	Dendrochronological study	Cornell Uni			
8.	Radio Carbon dating	Beta/NZ	5 dates		
9.	Drawing and illustration of finds				
10.	Drawing and illustration of site records				
11.	Integration of report to further work on the pipeline route				
12.	Final report				

Material	Held by	Evidence	Analysis	Dating potential	Potential information
Burial 3 and Chamber					
Human bone	AETC	Nearly complete remains of one body	Age at death, sex, stature, dentition, burial practise	Carbon dating	Date of burial Comparison of burial technique with other sites
Animal bone	AETC	Sheep, pony	Identification of species, stature, age at death	Carbon dating	
Bronze	IoAE	Dagger, arrowhead, buttons	Identification of type Composition of metalwork	Comparative dating	Dating of bronze work Comparison with other examples Dating of other examples
Flint	IoAE	4 arrowheads	Identification of type	Comparative dating	Comparison with other examples
Obsidian	IoAE	1 arrowhead	Identification of type	Comparative dating	Comparison with other examples
Timber	IoAE	18 tree trunks	Identification of species, age of felling Environmental conditions, management of forestry	Carbon dating, dendrochronology	High probability of gaining precise dates from timber. Confirm date through radio carbon date of timber and comparison of radio carbon date from interior of chamber
Burials 1 and 2					
Human bone	AETC	Nearly complete remains of two bodies	Age at death, sex, stature, dentition, burial practise	Carbon dating	Compare age of burials 1 and 2 Dating of these bodies will lead to information on the use of the site in later periods
Pottery	IoAE	12 vessels	Comparison with material excavated from Mingechevir in 1950's	Comparative dating	Secure dating of the Borsunlu evidence can lead to a re-assessment of the Mingechevir material
Bronze	IoAE	2 finger rings, 3 earrings	Comparison with material excavated from Mingechevir in 1950's		
Glass	IoAE	2 necklaces			
Iron	IoAE	1 finger ring, bone-handled knife 2 shafts			