Comprehensive Technical Report

Archaeological Investigations at IV-217, KP 225 Akhaltsikhe District, Samtskhe-Javakheti Region

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Abstract

Report represents the results of archaeological research carried out in connection with the construction of the BTC pipeline. The investigation was carried out at Site IV-217, situated in Akhaltsikhe District, Samtskhe-Javakheti Region at KP 225.

The purpose of the project was to investigate the site and to collect data and to conduct field and laboratory work. The site was found in March 2004 during a preliminary survey of the pipeline route in the presence of the field officers. A large number of pottery fragments together with burned plaster were visible in farmland, and indicated the existence of an ancient settlement here.

Field and laboratory work was conducted in 2004-2005 by the Borjomi Archaeological Expedition of the Otar Lordkipanidze Institute of Archaeology under the supervision of Irina Gambashidze.

The archaeological site IV-217 represents a multilayer settlement and a burial ground of the late Classical-Early Medieval periods extending over 3486 sq. m. There were found 24 structures, 94 burials, 6 free standing walls, 32 pits, 1 drainage pipe, and 1632 artefacts. The site possesses every characteristic of an ancient town. The stratigraphy revealed three different strata of cultural layers. Each layer had been destroyed by fire during an invasion. The finds consisted of both imported as well as locally made objects.

1.0 Introduction

Purpose of the investigation

The purpose of the investigation conducted in 2004-2005 was to perform an archaeological evaluation of Site IV-217, at KP225 of the pipeline corridor. The report also contains the results of laboratory analysis of the materials conducted in 2006-2007.

Project sponsor
The project is sponsored by the BTC/SCP Pipeline Companies.

Permits and contract numbers
The fieldwork was sanctioned by the Archaeological Board of the Georgian Academy of Sciences, Archaeological Permits No 14-02.06.04 and No 3-10.03.05. Field work was conducted based on the following contracts: No C-03-BTC-52923, No C-03-SCP-52927. Call Off: HL-036, HL-039, HL-045, HL-109, HL-110, HL-111, HL-113, HL-124, HL-125, HL-131, HL-132.

Legal requirements
The expedition was authorised to to investigate the character and extent of the site, determine the volume and specification of the fieldworks, and to clear a building area of 210 x 40 m along the pipe-line corridor of archaeological artefacts.

Fieldwork was subsequently conducted over 1680 sq. m of the BTC section, and 800 sq. m of the SCP-section at site IV-217.

Dates of the excavations
The archaeological excavations were conducted during between 5 April and 16 June 2004, and between 11 March and 26 May 2005; laboratory work took place between 2 and 15 February 2006 and 2 March and 16 May 2007.

Project Staff
The field and laboratory work was performed by employees of the Otar Lordkipanidze Archaeological Centre of the National Museum of Georgia under the supervision of Irina Gambashidze. (See Appendix H).

Final disposition and repository Address
The finds and records, as well as associated field and laboratory reports, from Site IV-217 have been deposited with the Otar Lordkipanidze Centre of Archaeology at the following address: 14, Uznadze St, Tbilisi 0102, Georgia. The Georgian National Museum will be the final depository.

2.0 Description of environment
2.1 Site Location and Description

The settlement at the vineyard site is situated in Akhaltsikhe region, south of the village Klde, at the confluence of the Mtkvari and Potskhovi rivers, on the left bank of the Potskhovi river, 3 km to north-east of Akhaltsikhe. The site is situated on a slightly sloped terrace surrounded by the woodlands of Potskhovi to the south and east. The site is cut through by the Borjomi-Akhaltskhikhe highway. The territory measures 6 ha, and is 983.6 m above sea level. There are three natural zones in Akhaltsikhe region: transitional, forest-steppe, and mountain forests

and mountain valleys. The lowlands mostly consist of brown and alluvial-carbonated soil; dark-grey and brown forest soil is characteristic of the lower mountain zone. The Akhaltsikhe region is mostly formed of Oligocene sandstone, clay, tuff-breccia and andesite. The relief is diverse and contains flat terraces, valleys running north to south, small depressions and volcanic mountains: 950-2964 m.

In most parts of Akhaltsikhe District there is mountain steppe climate. Winters are cold with minor snowfalls, while summers are long and warm. At the bottom of the Akhaltsikhe depression the average temperature in January is -3.8º C, and in August +20.5º C; the average annual precipitation does not exceed 520mm, while in the mountainous zone it reaches 1200mm. Rock xerophytic bushes and shrubs (juniper, blackthorn) prevail in the floral community of the district as well as xerophytic perennial herbaceous plants. The vegetation of the lower zone of the mountain forest includes oak and hornbeam. The wildlife includes deer, chamois, wild boar, otter, lynx, wild cat, bear, wolf, fox, badger, marten, weasel, rabbit, squirrel, water vole, and forest mouse. There are numerous wild pigeons, turtle-doves, crows, magpies, starlings, and quails. Reptiles include the Caucasian agama lizard, lizard, glass snake (*Ophisaurus apodus*), grass snake (*Natrix*), frog, toad, lake frog. The rivers contain trout, barbell (*Barbus*), and river carp (*Varicorhinus*).

2.2 Past Environment

The Caucasus, Georgia included, is important in the history of humanity because it provided natural conditions that were favourable for life.

Specialists of the Quaternary period who have studied the question of the first arrival of ancient people to the Caucasus, believe that there were two stages of migration: the first stage probably coincided with the Early Pleistocene period, when the first settlers appeared in Eurasia; the second stage was the Middle Pleistocene period, when the first dwellings were attested in Georgia.

The earliest settlement in Georgia was discovered at Dmanisi, where stone artefacts and faunal material of the Olduvai period (of 1.8 million years ago) were found together with hominid remains. It is also worth mentioning Akhalkalaki Amiranisgora, otherwise the only Early Acheulean site in south-east Georgia, and which was followed in time by hundreds of sites of different periods of the Stone Age (Gabunia, Vekua, 2005, 5). Anthropological and palaeontological materials from these sites have great importance for the study of the environmental development of Georgia in the Quaternary period (between the Pleistocene and Early Holocene).

Thanks to faunal and floral data we can to a certain extent reconstruct the palaeo-ecological picture of Georgia in the Pleistocene. At the early dwelling sites rock falls and coprolithic remains (the fossil excrement of mammals) contained vegetal spores and pollen, and enable a reconstruction of the nature of vegetation in the period in question (Klopotovskaya et al. 1989 (1991); Klapatovskaya, Lordkipanidze 1991; Gabunia et al. 1998; Maisuradze et al.1998). Thanks to these studies, it is possible to a certain extent to reconstruct a palaeoecological picture of Georgia in the Early Pleistocene to Early Holocene periods.

No substantial environmental changes occurred between the Early Pleistocene and Early Holocene. The climate was moderately arid and warm (Gabunia, Vekua, 1997, 13-15). The landscape of western Georgia consisted of mountain ranges traversed by deep gorges (Shatilova 1977). Lower mountainous valleys were covered with trees such as oak, beech, maple, willow, lime, chestnut, elm, zelkova tree (poplar); the upper zone had fir-tree, spruce and pine. The climate was moderately arid and warm (Ratiani 1979) The fauna consisted of forest animals such as: deer, reindeer, lynx, hyena and others.

The eastern Georgian landscape according to the remains of flora and fauna of the Pleistocene period consisted of medium-sized mountain ridges traversed by deep gorges and valleys. The climate was moderately arid and warm (Gabunia, Vekua, 1997, 13-15). Studies of floral fossils suggest that in the forests of the eastern Georgian plains there grew thermophilic tree species and those suited to a climate of average humidity, such as oak, willow, zelkova tree (poplar), aspen, birch, or hazelnut (Gabunia, Vekua, 1978, 3-56). Studies of bone material of mammal fossils suggest the existence of the following animals: raccoon-like dog, hyena, lynx, sabre-toothed tiger, porcupine, mastodon, giant *damana*, rhinoceros, elephant, reindeer, fawn, oryx, spiral horned antelope, hornless cow, and birds such as the ostrich (Gabunia, Vekua 1997, pp. 10-11).

It should be noted that a climate change occurred in Middle Pleistocene period: the climate became colder and more humid. The changes were probably connected with the glaciation which caused the displacement of some of the forest zone animals, but in general the palaeoecological picture of Georgia stayed basically unchanged with some fluctuations in temperature and humidity between moderately warm to hot (Gabunia, Vekua 2005).

2.3 Land Use History

The territory of the vineyard site seems to have been cultivated before the mid- 20th century when the vineyard and fruit orchard were planted, hence the present-day name 'Navenakhari', the former vineyard. Nowadays the land belongs to the village of Klde and is used as a field for growing annual crops. The vineyard does not exist anymore.

3.0 Cultural Background

3.1 Prehistoric and Historic Contexts

The Samtskhe Region can be considered to be one of the most important and culturally advanced provinces in the history of Georgia. The province occupies the south-western part of Georgia and historically belonged within Meskheti. Nowadays the Samtskhe province includes Borjomi, Akhaltsikhe, Adigeni and part of the Aspindza Region towards the village Khertvisi.

Archaeological surveys have shown that the territory of Samtskhe was inhabited from prehistoric times when the constant process of the formation of the human race took place. An uninterrupted development has been revealed by an abundance of a wide range of remains of material culture from the Palaeolithic to Late Medieval periods. The finds unearthed at the settlement and burial sites at Klde in Akhaltsikhe region belong to the 2nd-7th centuries AD. The political situation of this period of the history of Georgia underwent significant changes, for the interests of Parthian Persia and of the Roman Empire had come into conflict over the territory of Samtskhe, and this was followed by the spread of Christianity in the region. In eastern Georgia the official recognition of Christianity as a state religion took place in the 4th century AD. The first Christian missionaries who came to this region had prepared a ground for the new religion: it is said that the Apostle Andrew

travelled to Sosangeti (probably today's Atskuri) via the Akhaltsikhe region as it is described in the 'Life of Kartli'. Judging to the archaeological evidence unearthed at the vineyard site, situated in the pipeline ROW, we have an urban settlement that existed during this historical moment.

It must be noted, that the structures had been destroyed and burnt down on different occasions, presumably during invasions; some of them had been razed to ground with the aid of sling bolts of different sizes which suggests that the settlement had a fortification system. A total of 24 structures and remains of structures, 94 burials and wall foundations were excavated at the vineyard site, and they illustrate the continuity of occupation.

Religious-cult places were also identified in the various structures. It should be noted that early Medieval sites had not been found in Samtskhe until now. The Klde site shows all the signs of an urban settlement within the kingdom of Iberia. The inhabitants lived in houses with stone foundations; some structures had 'mother-columns' and hearths; in one case (Structure No.12) the structure had a flat earthen roof; tiles were found as well: this could be regarded as evidence for the existence of houses of wealthy folk and of religious buildings.

Cattle breeding and animal husbandry seem to have been the main occupation of society here; but hunting was also practiced judging by the amount of animal remains that included wild boar, deer, cattle and smaller domestic animals. Palaeobotanical analyses show that the population practiced viticulture and farming, and that they grew wheat, oat, millet and peas.

Sites dated to the same period have been mostly found in eastern Georgia. These are: Urbnisi, Uplistsikhe, Zhinvali, Ujarma, Rustavi, Mtskheta, Bagineti, the settlement and a burial sites in Chorati, and the settlement and burial site at Kvevrebis Seri in Gujareti Gorge.

Lower Palaeolithic (2,000,000-100,000 years ago)
Geologically, the lower Palaeolithic corresponds to the early stage of Pleistocene. It was then that a human of modern appearance emerged. The first representatives of the genus Homo (*Homo erectus*) lived in small groups and fed themselves with natural resources from around their dwellings. Finds belonging to this period are scarce; data gathering studies mainly rely on scientific-technological methods, for example, archaeomagnetic and Potassium-Argon analyses are used for data collected from volcanic sediments.

In Georgia there is evidence for this period at Dmanisi (south-east of Tbilisi). Here, alongside stone inventories and Pliocene fauna fossils, first identified by Georgian scholars in 1980, remains of *Homo erectus* were also found by an international team of scientists in 2001. The fossils are believed to be the oldest discovered outside Africa. Together with evidence from Ubdaisa in the Jordan Valley, they suggest the route of hominid migration. The Dmanisi fossils prove to be older than those discovered in Sangaria, Java or Choukoulian (China).

There are 16 sites excavated in Georgia where Acheulean type stone tools have been found belonging to the Palaeolithic period or later, namely the complexes with stone tools from the Acheulian period. Two of these sites are located in the southern part of the country in an area adjacent to the ROW. No Lower Palaeolithic sites have been excavated in close proximity to the current project. The Dmanisi site is situated at a considerable distance from the ROW (40 km to the south of Tsalka).

Middle Palaeolithic (100,000-35,000 years ago)
This period coincides with the appearance of the oldest *Homo sapiens* or Neanderthal man. In Europe and South-East Asia the later stage of this period of human history is marked by the

so called Mousterian stone tool culture which, compared to the Acheulean, is more sophisticated and produced tools of more diverse shapes. Like northern Europe, Georgia spent most of this period in a glacial or periglacial environment. More than 75 sites producing Mousterian stone tools have been found in Georgia. Seven were found in central and southern Georgia, in the main region of the project area.

Upper Palaeolithic (35,000-14,000 years ago)
Upper Palaeolithic corresponds to Late Pleistocene. During this period modern humans appear in Georgia, Europe and South-West Asia, and the technology of making stone tools greatly improved. Some archaeologists consider that the diversity of stone tools excavated at different sites might point to the existence of culturally different human groups.

The emergence of verbal communication is also attributed to this period. The principal occupation of the inhabitants of Georgia in the Upper Palaeolithic must have been hunting in groups. Their prey will have included deer, bison, wild horse, wild goat, bear, and the cave lion, remains of all of which are found in abundance on Upper Palaeolithic sites. People lived in natural caves or grottoes, near the paths of hunted animals.

Three of the 33 or more significant Upper Palaeolithic sites discovered in Georgia are in the south, but none of them is near the ROW.

Mesolithic (12,000-8,000 BC)
The end of the Pleistocene and the beginning of the Holocene defines the beginning of the Mesolithic period. Once the Wurm glaciation was over, the climate became milder which made it possible to occupy considerably larger areas. Hunting remained the main means of sustenance but humans started looking for more diverse quarry. They hunted animals of different sizes such as deer, horses and sheep that lived in herds as well as separately.
The systematic gathering of seasonal plant products became an important part of the domestic economy. The people of the period, whether in Georgia, Europe or southwestern Asia, switched from caves to occupying open areas. The diversification of materials and tools is a characteristic feature of this period. Microliths (flint and obsidian burins) and burnished stones used for processing plants are quite common at this time. Stone sinkers and harpoons point to the popularity of fishing. The transition from Upper Palaeolithic to Mesolithic is simply identified as the process of adapting to diverse and more available resources conditioned by the mild environment of the Holocene. In Georgia there are 12 significant Mesolithic sites, but none of them is near the ROW.

Neolithic and Eneolithic periods (8,000-3,500 BC)
The beginning of the Neolithic is known as a revolutionary period since it was then that dramatic changes occurred in economic life. Hunting and gathering were replaced by farming and livestock breeding and the cultivation of crops and domestication of animals began, as did the practice of using pottery for the storage and preparation of vegetable food. Stone tools like the hand-axe, sickle, grindstone and hoe, which were used for clearing and ploughing earth, became common. The technique of building houses and barns had been mastered successfully. Presumably the Neolithic life style was introduced simultaneously to the different parts of Georgia in a complete stage of development judging by the fact that there are no signs of gradual changes in farming practice.

Unlike Palaeolithic and Mesolithic, Neolithic archaeological complexes in Georgia are mainly represented by fragments of pottery (vessels for preparing and keeping food), which points to the great importance attached to food preparation and preservation. The most common shapes for the Neolithic pottery are flat-based round pots and cups without handles;

From the earliest stage of the Neolithic-Eneolithic cultures, the vessels were adorned with aid of applied ornament and incisions. Round cups and smaller pots are the most widespread shapes. The clay was mixed with sand, powdered obsidian, gravel, straw and other vegetation.

The first isolated Neolithic structures in Georgia consisted of round or ellipsoid rooms open towards one another. They were built of adobe and were probably strengthened with wooden beams. Dwellings were roofed with tree branches and silt. The rooms had various functions and were of different sizes. The larger rooms (2.5 x 5 m) had stoves and probably served as bedrooms and living rooms. The medium-sized rooms (1.25 x 2 m) seem to have been rooms for various activities, and the small rooms (0.5 x 0.75 m) were designed for storage. The organization of a settlement is clear from the site of Imiri hill in Kvemo Kartli (southern Georgia).

In the 6^{th} -5^{th} millennia BC an advanced farming culture was formed in eastern Georgia. Remains of a wide variety of wheat, barley, millet, oats, pea, lentil, melon, sorrel, etc. have been found. Grape pips discovered there are supposed to be transitional to the domesticated grapevine. A simple irrigation system was also practiced.

About 60 Neolithic sites are known in Georgia. Most of them are in western Georgia, although their concentration can also be observed in southern parts of the country. One site of late Neolithic (Eneolithic) is located in the area contiguous to the project in Akhaltsikhe District.

Bronze Age (3,500-800 BC)

The Bronze Age is divided into Early, Middle and Late Bronze periods. In Georgia the earliest culture of this age was represented by the Kura-Araxis Culture, which developed in the Neolithic period and Early Bronze Age (3,500-2,500 BC). The term is derived from the place name of the first discovery. It is characterized by adobe, stone or earth and timber wall constructions, advanced pottery and metallurgical activities and, at the same time, by developed agriculture and cattle breeding. Remains of this culture are concentrated in the central part of southern Georgia. It was also widespread over the territories of present-day Armenia, Azerbaijan and eastern Turkey and even to the south, reaching Syria and Palestine. There are only a few Kura-Araxis sites found in Borjomi Gorge; among these are a multi-layered settlement in Sakochavi (Gambashidze, Tatishvili 1982, 63-73) and the burial site in Mzetamze (Nasidze 1986, 446). The Kura-Araxis Culture was replaced by the Early Kurgan Culture, which had two stages: Martqopi and Bedena.

Some scholars attribute the Early Kurgan Culture to the Early Bronze Age, whether other scholars believe it to belong to the Middle Bronze Age. In the Middle Bronze Age the so-called Trialeti Culture became widespread (2,500-1,500 BC). Its impact extended even beyond the borders of present-day Georgia, to the south and to the east. The name of the culture derives from the Trialeti plateau (the south-central part of Georgia which is traversed by the pipeline corridor), where the first archaeological investigation of its remains was conducted in the 1930s. The Trialeti Culture is characterized by large kurgans, fine pottery, bronze metallurgy and jewellery. The Trialeti Culture has only been studied through the medium of burial complexes, since inhabited settlements belonging to this culture have not yet been discovered.

The Borjomi Region and the adjacent Samtskhe-Javakheti Region seem to be intensively inhabited and culturally advanced at the close of the Middle Bronze Age (2^{nd} millennium

BC) and in the Late Bronze Age. We will discuss further the history of the survey of the region.

The archaeological study of the Borjomi Region began in 1912, when Ekvtime Takaishvili discovered the Koban period burials at the village of Rveli dated to the 3500 BC (Takaishvili 1912). Among the Bronze Age sites recovered in these areas the following should be mentioned: a chance find of an occupation level in the village of Rveli (Baniskhevi) (*Izvestia Arkheologicheskoi Komisii*, 1911); the remains of a metallurgical workshop and several burials in the village of Tsagveri; the remains of a copper and bronze processing workshop and characteristic associated material from Gujareti gorge; accidental finds of bronze artefacts in the village of Telovani (Colchian axes, metal moulds, ingots, etc.), recognized to be material of special importance (Gambashidze 1967); a cemetery in the village of Gomna (Nioradze 1943, 173). In the 1970s and 1980s Trialeti Culture burial sites of the Middle Bronze Age (Japaridze, Kikvidze, Avalishvili, Tsereteli 1981) and Late Bronze-Early Iron Age sites were excavated in the villages of Rveli, Chitakhevi, Kviratskhoveli, Bornighele, Berbukebi and Machartsqali; also Middle Bronze Age kurgans at Zveli and Okroqana-Akhcha (Gambashidze, Kvizhinadze 1979, 55-60; 1981, 57-64; 1985, 31-36). Particularly important is the Ude (Adigeni District) treasure, which contains typical Colchian Culture bronze and iron tools and weapons and other objects (Javakhishvili, Chubinishvili 1959).

A Kura-Araxis Culture settlement was excavated at Javakheti, in the village of Satkhe (Isaac et al. 1994). A kurgan was also excavated there whose grave inventory is analogous to the one from a Kura-Araxis period burial at Kvatskhela. It must consequently be the earliest kurgan to have been discovered in this region.

Judging by the Kura-Araxis Culture period sites excavated so far it is becoming clear that in the Early Bronze Age Samtskhe, Javakheti and Tori were not developed with equal intensity. Sites of this period are fewer in Borjomi and Adigeni Districts. According to some scholars, the Kura-Araxis tribes chose to live in less forested zones with a mainly continental climate (Japaridze, 1976).

During the last stage of the Middle Bronze Age (mid-second millennium BC) and in the Late Bronze Age, Samtskhe, Javakheti and Tori were being settled with particular intensity and became culturally advanced. Among the Bronze Age sites recovered in these areas the following should be mentioned: a chance find of a cultural level in the village of Rveli (*Izvestia Arkheologicheskoi Komisii*, 1911); the remains of a metallurgical workshop and several burials in the village of Tsagveri; the remains of a copper and bronze processing workshop and characteristic associated material from Gujareti gorge; accidental finds of bronze artefacts in the village of Telovani (Colchian axes, metal moulds, ingots, etc.), recognized to be material of special importance (Gambashidze, 1967); a cemetery in the village of Gomna (Nioradze 1943, 173). In the 1970s and 1980s Trialeti Culture burial sites of the Middle Bronze Age (Japaridze, Kikvidze, Avalishvili, Tsereteli 1981) and Late Bronze-Early Iron Age sites were excavated in the villages of Rveli, Chitakhevi, Kviratskhoveli, Bornighele, Berbukebi and Machartsqali; also Middle Bronze Age kurgans at Zveli and Okroqana-Akhcha (Gambashidze, Kvizhinadze 1979, 55-60; 1981, 57-64; 1985, 31-36). Particularly important is the Ude (Adigeni District) treasure, which contains typical Colchian Culture bronze and iron tools and weapons and other objects (Javakhishvili, Chubinishvili 1959).

An interest in Bronze Age sites had been boosted since discoveries were made in the 1930s by Boris Kuftin in the vicinity of the Paravani and Tabatskuri lakes (Zhorzhikashvili, Gogidze, 1974; pp.26-27).

Among the Kura-Araxis Culture sites discovered at Samtskhe, Amiranis Gora, a settlement and burial excavated near Akhaltsikhe is noteworthy. It is still the Early Bronze Age site in the southern Caucasus that has been most fully studied (Chubinashvili, 1963). In 2005 an Early Bronze Age settlement also belonging to the Kura-Araxis Culture was found near Atskuri, at KP 202 of the pipeline. Judging by the artefacts discovered at the site the main activities of the inhabitants were agriculture and cattle breeding.

Judging by the archaeological material of the Kura-Araxes Culture, it becomes clear that the region had not been inhabited with a uniform intensity. Sites of the period are rare in the Borjomi and Adige regions. Some scholars believe that the Kura-Araxes people preferred to settle in areas with a continental climate rather than in forests (Japaridze 1976). In 2004, in Borjomi Region on Kodiana Mountain, on the way from Bakuriani-Tsikhisjvari to the Sakire-Tadzrisi ridge (KP 193), the Borjomi Archaeological Expedition had found the site of an early stage of Early Kurgan Culture, at Martkopi Kurgan. Chronologically, this period follows the final stage of the Kura-Araxes Culture (*Report of the Borjomi Archaeological Expedition*, Manuscript). A settlement of the Kura-Araxes Culture had been found in the village Satkhe, Ninotsminda region (Isaac et al. 1994). The nearby kurgan had also contained material comparable to that found in a Kura-Araxes burial at Kvatskhelebi. Thus the burial could be considered to be the earliest kurgan revealed in the region.

One of the challenging problems of the Early Bronze Age remains the question of the relationship between the final stage of Kura-Araxes Culture and the Early Kurgan Culture; further clarification is needed to determine whether the Kura-Araxes Culture did indeed provide the foundation for the formation of the Early Kurgan Culture in the 3rd millennium BC and what were the circumstances that triggered its decline and replacement in the south Caucasus.

The Late Bronze Age (1,500-800 BC) in Georgia is represented by two different cultural spheres. In western Georgia Colchian Culture was established, and in eastern Georgia the Samtavro or so called Central-Caucasian Cultures emerged. Colchian Culture continued to exist during the Iron Age when contacts with the Aegean world are on record. The Late Bronze Age cultures of eastern Georgia developed contacts with Asia Minor.

Iron Age

At the beginning of the 1st millennium BC the transition from bronze processing to iron metallurgy brought about significant changes in economic development and social life. In eastern Georgia the oldest centre of iron production was Kvemo Kartli, which was rich in iron ore. Iron Age sites have also been found in Tsalka and Borjomi Districts, and were discussed earlier.

Classical Period

Greek written sources contain significant information concerning Georgian-Greek relationships. The Black Sea trade route provided constant contacts with the Greek world. Later the Romans replaced the Greeks. The Roman general Pompey in his campaign against Mithridates Eupator crossed Georgian territory. Some highly interesting information survives in Strabo's Geography in the form of descriptions of ancient sites of Classical Georgia. Many archaeological sites of the Classical period have been found in both parts of Georgia. Finds are rare along the pipeline corridor, however.

Medieval Period (5th-19th centuries AD)

As is described in 'The Life of Kartli', Saint Nino came to Georgia in the 4th century AD from Cappadocia and began preaching Christianity. In 337 Mirian, king of Iberia, declared Christianity the state religion of Kartli. The first written Georgian alphabet survives on Bolnisi church and dates to the 5th century AD. The earliest Georgian inscription dating to the first half of the 5th century was discovered near Jerusalem. Christianity survived in Georgia despite the numerous invasions from pagan and Muslim countries.

The Arabs invaded Georgia in the 7th century. The 11th century was marked by devastation caused by the Seljuk Turkish tribes. In the 13th century Mongols conquered the country, to be followed later by the Ottoman Turks. The region was devastated on numerous occasions by the Persians and North Caucasians. As a result, the country declined economically and was divided into several entities. The Russian Empire seized its chance and forced Georgia into joining its realm in 1801. The abolishment of the Georgian kingdom by the Russian Empire happened against the will of the Georgian people who never stopped fighting to regain their independence.

Modern Period
Georgia gained its independence on May 26th 1918, but the Russian Soviet Red Army conquered the country in February 1921. The Soviet dictatorship lasted for 70 years. On the 9th April 1991, Georgia declared its independence. Nowadays Georgia is a member of the United Nations Organization.

3.2 Summary of Previous Archaeological Research
A site of the Classical period was excavated in the village of Tsnisi dating to the 4th-3rd centuries BC. The burial site is situated 1 km to the NE of the vineyard settlement at Klde.

Tsnisiskhevi Burial 4th-3rd centuries BC 1981-1985

Gambashidze O, Kvizhinadze K, Tkeshelashvili O, Licheli V. 1981. *Meskhet-Javakhetis arqeologiuri eqspeditsiis 1981 tslis angarishi* (Report of the Meskhet-Javakheti archaeological expedition in 1981)

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Kvizhinadze K. 1984. *Meskhet-Javakhetis arqeologiuri eqspeditsiis 1984 tslis angarishi* (Report of the Meskhet-Javakheti archaeological expedition in 1984).

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The technical reports are kept in the archives of the Otar Lordkipanidze Insititute of Archaeology.

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Kvizhinadze K.D. 1987. "Otchyet o rabote tsnisskogo otryada," (Report of the works conducted by the Tsnisi team), *PAI in 1984-1985*, Tbilisi, 32-35.

Kvizhinadze K. 1987. "Tsnisiskhevis samarovani" (Burials in Tsnisiskhevi), *Dzeglis megobari* No.4, Tbilisi.

4.0 Methodology

4.1 Fieldwork methods

The survey began with trial trenches: a total of 37 trenches 10 x 1 m were dug; their position was selected to achieve maximum efficiency in surveying the area in question. The depth of the archaeological sites (layer, burial) in the direction of bedrock determined the depth of the trenches. Burials and the remains of a settlement were revealed in 21 trenches. The survey showed that the closely packed burials were situated between the remains of the settlement in Trenches No.1 and No.28, at a depth of 0.5-1.0 m from the surface.

The survey showed the presence of a settlement that occupied the entire width of the pipe-line corridor; the burial ground was also situated there. An examination of the area beyond the pipeline corridor convinced us that the settlement site continues there, but the eventual long-term investigations were restricted to the area alongside the oil and gas pipelines for a length of 210 m.

At the first stage of the survey, plans of the area with the proposed trenches were made. The area to be excavated was divided into 10 x 10 m areas that were also divided into 2 x 2 m squares. The places of discovery are indicated in the report: the 10 x 10 m areas with capital Roman letters and Arabic numerals (e.g. A/15), and the 2 x 2 m squares with lower case Roman Latin letters and Arabic numerals (e.g. a/3). After the data was collected, numbers were given to the remains of structures, pits and walls. Earlier, during the trial survey, we gave numbers to the first burials to be found. During the excavation, digital photos were taken and drawings made.

In 2005 work had started on the Borjomi-Akhaltsikhe road within the pipeline corridor. Two closely connected areas of 14 x 5 m and 17 x 8 m within the areas AA and A^1 33, 34, 35 were excavated. The extension of the excavations towards the north in 2004 led to the creation of additional areas to that we called A^1; B^1; C^1; The datum ±0 situated outside the pipeline corridor on a concrete electricity pylon, stayed unchanged (D/30 area, 983.6 m above sea level). The goal in 2005 was to excavate the site within 8 m of the gas pipeline corridor and to prepare the ground for construction work. In 2005 17 trenches were dug in order to discover the extent of the monument within the gas pipeline corridor. The trenches measured 4 x 1 m and the depth varied according to the depth of the cultural layers above bedrock. The trenches were examined from both sides of the axis of the pipeline with 2 m intervals. Distances between the trenches were 5 m. The trenches were broadened or narrowed according to the nature of the archaeological finds.

The excavations were carried out by extracting earth in 0.20 m spits until the actual finds (structures, burials, stone structures) began to emerge. The material was recorded according to their place of discovery in the cultural layers. The objects were extracted from the soil and

wrapped during the field work; every artefact was labelled and sorted according to place of discovery. All artefacts were removed from the excavated areas: ceramics, stone, bone, metal etc. The anthropologist selected human skulls from the burials. The control trenches were taken down to bedrock in all areas where structures showed up.

The 2005 excavation area at the gas pipeline corridor was extended with grid of 10 x 10 m squares and merged with the pipeline corridor and correlated with the datum point.
Measurements of structures, burials, storage pits and walls were recorded at scales of 1:10; 1:25; 1:50; 1:100; 1:200 at different stages of the excavations. The most important details and stratigraphically important sections were pencil-drawn on graph paper.

Samples of soil and sediments were collected for palaeobotanical and palynological analysis from floors with ritual objects (hearths and altar), from the bottoms of storage pots and pits. The contents of the vessels from burials were also examined. In one case (Structure No.1) the palynological analysis samples (11 samples) were collected from ground level down to the structure remains and bedrock.

4.2 Laboratory methods

The first phase of laboratory activity involved the classification of the artefacts and bone material, and washing, sorting, grouping them according to complexes (structures, burials, walls, pits, trenches, and in some cases areas).
Numbers were given to sherds if they appeared to come from the same vessel; these groups were given an overall number, and the quantity and place of discovery were registered as stated on the labels.
Materials found outside the complexes were classified according to morphological features such as colour, fabric and decoration.
Materials from burials were categorised according to standard criteria: ceramics, metal, glass, stone, bone; their functions were determined as: objects for kitchen use, objects for the household economy, building material, ritual objects, table ware, jewellery and weapons (in total 1632 artefacts).
Materials not suitable for laboratory analysis were counted and recorded.
Photographic negatives taken in 2004-2005 were classified, listed and recorded.
Fieldwork drawings were listed and recorded
Soil samples were sorted for palynological and palaeobotanical analysis in order to provide a reconstructed picture of the climate and the natural environment contemporary with the period when the site flourished, and to determine the nature of the economic activity conducted there.
Animal bone materials were collected and sorted for palaeosteological analysis. The species of domestic and wild animals were determined in order to discover what had been the principal economic activities of the former population (cattle-breeding? hunting?). Our anthropologist selected the human skulls from the burials to determine age and gender, in some cases diseases and the cause of death.

The data was listed according to the standard criteria and classified by site, artefacts, soil samples, drawings, photos, and anthropological and palaeontological material. The data will be filed and stored in Word and Excel and will be copied and saved on three CDs.

The archaeological material will be kept in the safe-keeping of the Otar Lordkipanidze Centre of Archaeology.

5.0 Results
5.1 Basic Data Summary

The excavations of the vineyard revealed the remains of a total of 24 structures with recognisable stone foundations for the walls in 19 cases (fig 3). A total of 94 burials were excavated. The burials were grouped in three more or less compact areas creating separate cemeteries A, B and C (fig 4-6). Six walls and their foundations built with pebbles and broken stones were unearthed. It was not always possible, however, to attribute them to the floors of actual structures. A drainage channel was also found. Both edges of the channel were strengthened with single layers of pebbles. Within the area of the settlement and the cemetery there were found a total of 32 storage pits of different shapes and sizes, some of which had been later used as burial pits.

A total of 6407 different artefacts were found (this is the actual number of finds; in the tables several artefacts appear under the same number, in that a group of fragments might belong to the same vessel). Pottery sherds: 5156 fragments; stone artefacts: architectural details, farming tools and weaponry, 51 items; semi-precious stones and (sardonyx, almandine, agate, amber, jet and paste), 344 items; glass vessels and glass jewellery, 291 items; metal artefacts (gold 8, silver 15, bronze 40, iron 31) 94 items; bone artefacts, 13; shells, 2; mother-of-pearl, 18 items. 382 bone samples were analysed palaeozoologically, and anthropological analyses were conducted on 56 human crania. Thus 6125 items or 95.6% of the finds, were excavated in the cultural layers of the site, and a further 282 items, or 4.4%, were chance finds.

The territory of the vineyard represents a stratigraphically multilayered site, where cultural layers survive in different measure. The site was subjected to several devastations and thus the structure remains are fragmentary. Different periods of building activity, burials and storage pits can be identified. In some cases the stratigraphic sequence was detected:

Stratum I: 2^{nd} -4^{th} centuries AD, Structures Nos. 16, 23 24; Pits Nos. 19,29
Stratum II: 4^{th} -5^{th} centuries AD, Structures Nos. 1,5,6,12,13,14,17
Stratum III: 5^{th} -7^{th} centuries AD, Structure No.20

The area of the settlement revealed a stratigraphical sequence of several levels attributable to the 2^{nd} to 7^{th} centuries AD.

5.2 Monuments

Structures

The structures are of rectangular shape and are orientated from S-W to N-E (fig 3)
Near the pipeline area the preserved walls of structures were clustered closely together in Squares D18, D19, D20, C20, D21, C21, D22, C22, D23, C23, D28, C28, D30, C30, C31, B31, C32, C32
Towards the West, the settlement ends at Squares E12, D12, E13, D13 with the remains of Structure No.2.

There are 5 compact sites (structures, burials, pits) situated towards the pipeline:

1. Squares A17-B17-A18-B18 contain Early Medieval burials.
2. Square A19 contains the remains of Structure No.17 with two burials inside, followed by 40 m of empty ground.
3. Squares A24-26 contain Structures Nos. 18, 19, followed by 10 m of empty ground.
4. Squares A27-A29; A30-A'30 contained burials and pits of the Late Classical period.
5. The northern part of Squares A30-A32 and the southern part of Squares A'30-A'32, squares A33, A34-A'33 A'34, A35 contain a closely built group of houses, burials and pits, Nos 16, 12, 20 dating to the Late Classical period.

The archaeological survey of the settlement together with the cemeteries extended over an area of 3486 sq. m. The area lies on a slightly terraced slope. Topographically, the distance between the top and a bottom is 250 m. The difference between the strata is 4 m, which means that the slope on which the settlement lies inclines 5 degrees from West to East. There are attested 4 different techniques used to construct walls (fig 7):

1. Walls consisting of two stone facings with clay between.
2. Walls with two stone facings filled with courses of stone similar to the outer facings.
3. Walls with two stone facings with a fill consisting of a mixture of pebbles, broken stones, clay and earth.
4. Walls built of stone with clay facings, where the stone courses are plastered with clay.

The walls (fig 10), on the pipeline side Squares C 21, C22, C23, measured 0.4-0.9 m and 1.5 m in width; their pebble and rough walls and foundations (Nos. IV, V, VI) were difficult to attribute to the floors of actual structures. Thus, differences in building technique show that in some cases the foundations of the walls were constructed with same size of large stones, and in other cases the outer faces were made from two parallel courses of large stones and were then filled with smaller stones and mud. The drainage channel (fig.6) was situated in Squares A'-A 29. The pits (fig.11-12) were found near the settlement structures and in the cemeteries; 32 storage pits of different shapes and sizes were excavated, and some of them were later used for burial purposes (Burials Nos. 55, 57, 86).

Burials

A total of 94 burials were excavated. They are situated very close together three groups:

Cemetery A in Squares C25-26 ; D25-26 (fig. 4);
Cemetery B in Squares A17, 18; B16, 17, 18 (fig. 5);
Cemetery C in Squares A 28, 29, 33; A'33; B 30, 31, 32 (fig. 6).

It is remarkable that Cemeteries A and B, unlike Cemetery C, lie apart from the structures. There were, however, cases where the burials were cut into the walls (Burial No. 43 is cut into the south-east wall of Structure No. 6). This can be explained by their having been constructed at different times (fig. 13). Burials Nos. 67, 68 were situated near the wall of Structure No. 17, which suggests that by the time of the burial the structure had ceased to exist. (fig.14). The different periods can be clearly seen from the fact that the wall of Structure No.18 overlies Burial No.80.
Fragments of a human skeleton were scattered in Structure No.16, although it is difficult to identify it as a burial. The Burial No. 87 was situated near the same structure.

Several types of burials of different periods can be identified among the 94 burials found:

1. 76 pit burials (fig. 15)
2. 2 pit burials covered with threshing-boards (fig.15a, 15b)
3. 1 amphora burial (fig. 16)
4. 12 stone sarcophagi (fig 17)
5. 2 pit burials covered with wine storage jars (fig.18)
6. 2 pits constructed from pebbles (fig.19)

Cemetery A (fig.4) was excavated in 2004. The burials are similar in terms of construction and orientation. A total 43 burials were excavated:

1. Pit burials: 41
2. Stone sarcophagus: 1
3. Built from pebbles and covered with a wine storage jar: 1

The pits for the burials were constructed from a small amount of stone, and wooden planks. Most of the burials are orientated SW to NE. Some of the deceased are buried lying on their backs, or on their sides in a crouched position. Three burials were orientated NW to SE (Nos. 27, 29. 45). There were individual as well as collective inhumations.

Cemetery B (fig. 5) was excavated in 2005. There were 19 burials in total:

1. 8 pit burials
2. 10 stone sarcophagi
3. 1 rectangular burial constructed with pebbles

Most of the burials were built of large stones and were orientated SW to NE. As well as the burial pits built of stone, there were pit burials built of pebbles that appear to predate the stone pits. Most of the pit burials had collective inhumations (containing two or more skeletons). In some cases the pits were roofed with the threshing-boards. Apart from the burials, several storage pits were also excavated. Their shapes vary from round to oval and testify to the fact that the settlement existed on the land subsequently occupied by the cemetery.

Cemetery C (fig. 6) is situated at the eastern part of the excavated area. The excavations were limited to the narrow pipeline corridor, within which only three groups of burials were identified. The close chronological sequence of these groups is indicated by the slight changes and differences between them in terms of construction, funerary rites and grave goods. A total of 19 burials were excavated in Cemetery C. They can be divided into 3 subgroups:

Group I (6 burials) is located within Squares B30, 31, 32;
Group II (6 burials) is located within Squares A34-35, A'33-34;
Group III (7 burials) is located within Squares A24-25; 28-29-31.
Funerary rites: The deceased were buried in a crouched position on their right or left sides. The burials contained one or two individuals, and most of them include grave goods.
Cemetery C can be dated to the earliest phase of the settlement, namely the Late Classical period. The burials here are not as close-packed.
The burials appear to be more frequent near Structures Nos. 12 and 16 within Squares A24, 25, 28, 29, B30, 31, 32, A'33, 34 (16 burials). Elsewhere five burials were situated towards the east of the structure, seven were found towards the north end of Structure No.

16, and six were dug towards north of Structures Nos. 23 and 24 (fig.6). Burials of the earlier period (20 burials) were located singly in various parts of the settlement.

There are distinct differences in terms of funerary rites and grave goods.
The position of the deceased varies from burial to burial:
1. Lying on their backs : in 41 burials (fig. 20, 20a)
2. Buried in a crouched position: 28 (fig 21, 21a)
3. Mixed positions: 22 burials (fig 22. 22a)
4. 'Lotus' position : 1 (fig23, 23a)
5. Cenotaph: 2 (fig. 24)

5.3 Artefacts

Artefact	**Artefacts found during excavations**	**Chance finds**	**Total**
Ceramics	**4878**	**278**	**5156**
Plain	3445	266	3711
Painted	109		109
Decorated	1224	12	1236
Stone	**49**	**2**	**51**
Architectural	7	1	8
Tools	32		32
Weapons	10	1	11
Jewellery, semi precious stones	**343**	**1**	**344**
Sardonyx, almandine, agate	28	1	29
Amber, jet, paste	315		315
Glass	**290**	**1**	**291**
Vessels	10	1	11
Jewellery	280		280
Metal	**94**		**94**
Bronze	40		40
Iron	31		31
Silver	15		15
Gold	8		8
Shell	**2**		**2**
Mother-of-pearl	**18**		**18**
Bone materials	**451**		**451**
Carved artefacts	13		13
Human	56		56
Animal	382		382

Total	**6125**	**282**	**6407**

Ceramics

Two kinds of material occurred among the ceramic finds from the vineyard site of the settlement and the cemeteries. The major part of the finds can be attributed to what is generally termed the "Meskhian" type, which finds parallels in the contemporary pottery from Kartli (Iberia). Together with Iberian pottery, "Meskhian' pottery belongs to the material culture of eastern Georgia in the Early Christian period, in the 4th-6th centuries AD. There are, however, some vessels that distinguished by their manufacturing technique and decor, indicating their special purpose and more luxurious character. They may have been manufactured and imported from other more advanced workshops in Iberian towns.

The pottery classification that we adopted is based on function, shape and style as well as on decoration (ornaments, rims, horizontal relief circles, impressed fingerprints, notches, depressions, fluting, and so on). Subgroups were characterized by the quality of their firing and surface colour (a surface covering of a thin layer of a glaze added before firing), and by the technique employed to burnish them.

The vineyard site produced pottery of several groups according to their functional purposes, and types and subtypes according to their shapes and decorations, as follows:

1. Table ware
2. Kitchen ware
3. Utilitarian ware
4. Household and utilitarian objects
5. Religious or cult objects
6. Building materials

Table ware

The pottery finds from the Klde settlement vary greatly. There are cups, phialae, pitchers, jars and jugs. There was a single find of a decorated jar, red clay, polished, tripod feet, fluted surface.

The cups from the Klde settlement were of various sizes and shapes (fig.25); Nos. 356, 718/I, 390, 612. 675 were fired buff and grey-black. Some of them have polished lines and horizontal grooves. Some parallels can be found for them among the cups found from 4th-5th century AD settlements at Tbilisi, Dmanisi and Rustavi.

Phiale No 940 (fig.26) is made of fine clay of reddish-brown colour, stemmed, round body narrowed towards the rim, shallow inside; damaged in a fire; found in Pit No.23 near Structure No. 23. Similar phialae and cups (buff and pinkish) were found in Urbnisi, Cheremi, Rustavi and Trialeti, all dated to the 4th- 6th centuries AD (Chilashvili 1964, pl. XXX, fig. 3; Chilashvili 1958, pl. XXIX, 2).

Pitchers (fig.27) Nos. 695, 690: pinkish clay, biconical shape, tall, handless, with a narrow neck, with slightly bent thin rim. The base is flat; found in Structure No. 16 near the altar. Similar vessels from Urbnisi are dated to the 4th century AD (Chilashvili 1964, 62) and 6th-8th centuries (fig.XI-I) (Sinauridze 1966, XIII-XV, Chilashvili 1964, 62).

Saucer-cup (fig 28) No. 693: small vessel, crudely hand made with brownish, coarse, clay with thick walls and a small moulded handle. It has a conical shape cut at the top and a flat base. The cup was found near the altar of Structure No. 16. In general, the cup resembles examples from Urbnisi, Rustavi and Mtskheta, all dated to the 4th-5th centuries AD.

Jug-pitchers (fig.29) Nos 554, 692: fine pinkish fired clay, thin walls and flat bases. One of the trefoil-lipped pitchers has a pear-shaped body with a swelling at the belly and a narrowing of the neck. The handle is round in section, and was attached beneath the spout to and to the edge of the neck. The surface is slightly polished with vertical lines. The pitcher was found in Pit No.18, at the bottom of the altar wall of Structure No. 16. Similar jugs and pitchers from Urbnisi date to the 6^{th}-8^{th} centuries AD (fig.XI-1) (Sinauridze 1966, pl. XIII-XV; Chilashvili 1964, 62). The technique of pinkish and buff polish and a compact transverse line on the interior is characteristic of Early Medieval pottery. In general this group of jugs dates to the 4^{th}-5^{th} centuries AD (cf. examples from Urbnisi, Rustavi, Mtskheta).

Jugs and jars (fig.30-30a) Nos. 395, 199, 382, 721, 882, 913-1131 were used for wine or water. All jugs and jars from the settlement have a single handle and have a surface that ranges from buff to red. Some are slipped and vertically polished. There are trefoil-lipped, round-lipped, crooked-lipped and rim-necked vessels. Their bodies are pear-shaped.

Some of the finds have spherical bodies with narrow necks and a red slip. Some objects have three rows of incisions made with the fingertips on the raw clay. This creates ridges between the rows. The surface is covered with a thin layer of red slip and polished with vertical lines. The shape and decoration of the jugs and jars from Klde resemble examples from Rustavi, Urbnisi, and Mtskheta and can be attributed to the 4^{th}-5^{th} centuries AD.

Trefoil-lipped jugs (fig.31) Nos. 913, 113: one handle, used for liquid, fluted decoration, made to be suspended; fired a light pinkish colour, made of fine clay with thin walls; pear-shaped body (the flat base is broken) and a swollen belly; a narrow neck; a row of impressions made with the fingertips on the raw clay and two low ridges between them. The funnel-shaped spout was bent before firing into a trefoil shape; the rim is slightly thickened; eight lightly incised vertical grooves on the body to give the impression of fluting; oval handle round in section attached to the edge of the neck and to the shoulder; surface covered with a thin pinkish slip and polished verticals.

The vessel was regularly suspended, as is indicated by pairs of holes for string visible on both sides of the neck (the jug was presumably suspended from the wall or was attached to the saddle of a horse during journeys). A similar vessel with suspension holes was found among the material from Urbnisi that scholars date to the 4^{th}-6^{th} centuries AD (Sinauridze 1966; Chilashvili 1964). (In general, suspension jugs from Early Medieval sites have round bodies and flat bases. At Urbnisi and Mtskheta they date to the 4^{th}-5^{th} centuries (Sinauridze 1966, 59; Bochorishvili 1946, I; Chilashvili 1964, 62). Jugs with round spouts, trefoil lips and rimmed necks from Urbnisi were found in burials of the 4^{th} century (Chilashvili 1964, pls. XX-3, XXI-4, XXII-4, XXIII-1, 2, 3, 5).

Tripod 'vase' (fig.32-32a): red polished surface with flutes, well fired fine pinkish-red clay; a tall pear-shaped body with a round spout; stands on tripod feet. Only one handle is preserved (the second is missing and may be broken off). The body is decorated with oval incised grooves that divide the body into five arcaded parts. The surface is covered with a red slip. A similar vessel was found at Rustavi, but it does not stand on tripod feet and it is dated to the Medieval period (9^{th}-11^{th} centuries AD). It must be noted, however, that although a similar vessel was found at Urbnisi (a tripod dish) the circumstances of its discovery and its date are questionable (Chilashvili 1964, 46). We believe that the stratigraphy of the excavations of the settlement where the decorative table ware was found points to a date of the Early Medieval period (the 4^{th}-6^{th} ceturies AD) for the objects in question, which may be considered to have been imported. We also take into account the fact that the red polished

jugs with dotted decorations on their shoulders found in burials of the 4th century from Urbnisi do not have tripod feet (Chilashvili 1964, pl.. XX-1 2, 4; XXI-1, 2, 3).

Kitchen ware
Grouped according to function: 1) Cooking ware, and 2) Storage and shelf ware (i.e. not used on the open fire).

Cooking ware consist of pots, crucibles, clay pans, pans (with extended handles).

Pots ((fig. 33-33a) Nos. 473, 321, 326, 355, 360, 473, (72), 474, 381, 611, 578, 439, 149-150, 142 were found in Structures Nos. 5, 13, 14, 16. There were two methods of manufacturing the pots: one group was fired grey-black and the others pinkish-red, but constant use on the open fire for cooking purposes made the surface black and smoky. These pots are large, with two small handles, with spherical bellies, low necks, slightly bent rims (in which the spout was set) and flat bases. Wavy lines run along the sides of the pots. Pot No. 142 (found in Structure No. 5) has no handles, but is low, buff-coloured and plain. The rim of the spout is narrow and slightly bent outwards, the body is oval. Such vessels are widespread in the Early Medieval period.

The vessels have some common features: on both inner and outer surfaces there are thin incised "combed" lines cut before firing on the unbaked clay. The technique is characteristic of Early Medieval pottery and can be found on material from Urbnisi and Cheremi (4th-6th centuries AD). Some of these pots have symbols on them: a fragment of the upper part (spout, handle, wall) of the small pot No.357 found in Structure No.13 has an X, a cross on it. The fragment is typical of the kind of symbol to be found on Early Medieval pottery. Similar symbols on handles are known from Cheremy and are dated to the second half of the 5th century AD (Sinauridze 1966, 52-53; Mamaiashvili 2004, pl. LXII; Chilashvili 1964, pl. XII).

Crucibles (fig. 34) Nos. 479-442-498 were also used on the open fire for cooking purposes. There are crucibles with a single handle and some without handles. Most of items were found in Structure No 16. They are fired buff and black.
They have spherical bellies, round lugs, spouts bent outwards slightly, thin rims. The spout is separated from the belly by means of a low groove, and the base is flat. The surface of the crucible is decorated with polished lines. Similar vessels have been found in burials at Mtskheta dated to the Late Classical to Early Medieval periods
The crucibles might have been cult instruments as well, perhaps used in a sacrificial ritual. Among the material from the altar found in Structure No.16, for example, one out of the 15 vessels is the crucible No. 694 (fig.35). This is a fragment of the belly part of the crucible, fired brown, decorated with polished lines, and having a small lug-handle with zoomorphic extensions. It has an oval, flattened shape. The vessel was possibly designed to be suspended. The same kind of vessel has been excavated in Urbnisi and dated to the 4th-5th centuries AD. Such a date applies to the rest of the altar materials.

Nos. 332, 498 (fig.36-36a) belong to another type of crucible with a tubular spout, and were found in Structures Nos. 13 and 16; fired pinkish, medium size, used as a kitchen ware; a tubular spout for pouring liquid, extended outwards at the shoulder of the vessel; probably had a flat base; no trace of burning, and was probably kept on the shelf for storage purposes. The rim of the spout is slightly crooked, with narrow sides, the neck not separated; the surface decorated with polished lines. This type can be dated to the Early Medieval period. This type of pottery has been excavated at Rustavi, Urbnisi and Cheremi (Mamaiashvili 2004, pl. XIX; Sinauridze 1966, pl. V).

Storage utensils were kept on shelves rather than on an open fire and they consisted of louteria, large ladles, decanters, smaller jars and jugs.

Louteria (fig. 37, 37a) were found in Structures Nos. 2,12, 13, 16, 20 and 23. Vessels Nos.82, 216-$_{23}$, 332, 714, 720-$_{4}$, 441 are of considerable interest. They are fired grey-brown. They are low, decorated with polished lines externally. The pouring lip protrudes from the rim. Most of the vessels were locally made, but are of a type widespread throughout the Transcaucasus that remained popular over a long period (3rd-2nd centuries BC to 4th-8th centuries AD) They were manufactured during the Medieval period retaining the old shapes, firing technique, function and decorative variations. The louteria, or milk buckets, are found at the Early Medieval sites of Ujarma, Bichvinta, Rustavi, Armaziskhevi, Dmanisi, Urbnisi, Mtskheta, etc. (Sinauridze 1966, pl. IV, V; Sinauridze and Chilashvili). This type of pottery is attributed to the 3rd-4th centuries AD and it continued to be manufactured until the 8th century. At Dvin in Armenia they are dated to the 7th-8th centuries (Kafadarian 1952, fig. 160). The louteria from Cheremi are dated to the 3rd-4th centuries (Mamaiashvili 2004, fig.2) and others to the second half of the 6th century (Mamaiashvili 2004, fig. VI-3; VII-1). The tubular spouted louteria from Telavi are dated to the Early Medieval period (Chikoidze 1979, fig. X-4).

Long handled wine ladle (fig. 38) was used to extract liquid (wine, water). At the Klde site only one fragment (No.545) was found: a pinkish-buff coloured handle, long, protruding and round in section; the end curves upwards with a hole in the middle. The accompanying material dates the fragment to the Early Medieval period. The *orshimo* (long handled wine ladle) was connected with highly developed viticulture.

Decanters (*koka*) (fig. 39-39a) Nos. 147,566,199, 679,302-392,608 were found in Structures Nos. 5,12,13,16 and 17.
The decanters are of two shapes: 1) a larger water vessel, with an oval body, round spouted and flat based; the neck has a ridge in relief; most are one-handled, and fired pinkish-red.
2) trefoil lipped, larger in size, with a spherical belly, ridge at neck, flattened body, traces of close-set "combed" lines on the interior, a knob on the shoulder of the handle, mostly pinkish-buff and decorated with vertical polished lines. Parallel material enables us to date these vessels to the 5th-6th centuries AD. Similar vessels have been found at Rustavi, Mtskheta, Dmanisi, Urbnisi.
3) Decanters are fired grey, with narrow necks; some them have a white slip, with two moulded knobs on the back and shoulder. They date to the Early Medieval period.

Jug (*chapi*) (fig. 40) has two handles, with a wide spout, large size, used for pouring and storing liquid (wine, water). No. 860 (from Structure No. 23) was found in Pit No.23; ridged neck, twisted handle; a kitchen utensil, fired pinkish-brown. Two-handled jugs and jars are locally made, as is indicated by the quality of the clay and its firing: they are fired grey, brown-grey or reddish-brown. They correspond in function and shape to similar finds from neighbouring regions. It should also be noted that although the shapes are almost identical, the colouring could be affected by an inconsistent firing temperature or by damage in fires at the time of an invasion. They have a wide spout with a thickened rim, two handles, flat lugs attached to the high relief moulded edge of the neck. They are large in size, full bodied, slightly narrowed towards the base, covered inside and out with a network of scratched, not always parallel lines; the neck is encircled with a sharply moulded edge, sometimes smooth, always with two attached flat oval lugs with a flat knob at the point of junction. The body is wide bellied, narrowing towards the flattened base. A similar vessel was found at Urbnisi (Sinauridze 1966, pl. IX-$_{1}$, X-$_{1, 3}$). The vessel could be easily lifted with the help of the two lug handles, and so was widespread over a long time. Scholars believe that these vessels were

made in the 4th-6th centuries AD (on the basis of material from Samtavro and Armaziskhevi). Examples that bear symbols of the cross on a lug are dated after the 7th century AD, because of the distinctive form of the cross (with a prolonged vertical arm) and are known from Iurbnisi, Lotchini, Ujarma, Mtskheta).

Jars and pitchers (fig. 41; 41a;-41b) Nos 3, 6, 8, 572-574, 607, 196, 613, 529, 534, 646, 414, 395, 474, 47-59; 397. Jars, both large and small, are found in large quantities at the vineyard site. They are narrow- spouted, spherical vessels with narrowing sides and flat bases and they had multiple functions. Some of them have their rims bent slightly outwards and decorated with simple decoration: a running wavy line or a row of impressions.

Group A consists of pitchers, fired pinkish-buff, decorated with uneven vertical polished lines; the interior surface is covered with "combed" lines (traces of a potter's wheel) indicating that they were manufactured in Early Medieval times. The brownish jars with a single, or a broken, handle also belong to the same group. They have spherical bellies, become narrow at the spout, have no necks, nor do they have any traces of smoke on the surface and were thus not used on an open fire, but were stored in the kitchen. They also come in large sizes, without handles, for storing grain or some thick liquid (such as oil).

These vessels are typical of the Early Medieval period and are found in large quantities in settlements of the 4th-5th centuries AD at Rustavi (Rustavi 1998, II, XXX-9, 11), Urbnisi (Chilashvili 1964, pl. XXX-5; Sinauridze 1966, VIII, 49), Tcheremi (Mamaiashvili 2004, pl. LVIII, 1). A similar vessel was found in a context of the 6th-8th centuries AD at Urbnisi dated with the help of an accompanying coin (Chilashvili 1964, 94-97).

Group B kitchen jars are fired grey-brown or greyish-red. They share some features with the Group A vessels, namely shape, simple decoration (ridges, wavy lines, impressed circles). They do not carry traces of cooking on the fire, although some of them have smoky surfaces as a result of damaged incurred during an invasion. Thus the vessels are identified as storage ware or utensils, rather than cooking ware. Similar large vessels at Urbnisi are dated to the 6th-8th centuries AD (by means of an accompanying coin) (Chilashvili 1964, 94-97).

Utility ware

Wine storage jars (*kvevri*) (fig. 42-42a) Nos. 383, 632; 656; 659; 382 were found in Structures Nos. 2, 15, 16, 17 and outside structures elsewhere on the archaeological site. Wine storage jars were used in the construction of two burials (Burials Nos. 21,23). They were used for storing wine and have two different shapes:

a. Pear-shaped, without a neck, decorated with circular bands, fired pinkish-red; some of them have thin upper rims.
b. Spherical, fired brownish, without a neck, decorated with closely set circular bands and with "rope" decoration (made with fingerprints).

Small wine storage jars (*Qotso*) are smaller in size (fig. 43; 43 a), Nos.14; 108-205; found at Structures Nos. 2, 5, 12, 16. They have pear-shaped bodies, with low necks, plain, fired brownish. These vessels are typical of the material culture of the Late Classical and Early Medieval periods. The large sized utility ware has wide shoulders, no neck and is decorated with the circular "rope" lines or with relief ridges. Wine storage jars are of two shapes:

a. Spherical, no neck and slightly crooked spout; the closely set "rope" lines are impressed fingerprints.
b. No neck, broad towards the spout, narrowing to the base, flat rim, flat base.

Similar vessels were found in Tchorati (Akhaltsikhe region) and at the settlement of Sanatsreebi (Sakire village, Borjomi region). In general, they are widespread between the 2nd to 8th centuries AD.

Household utensils

A clay pan (fig. 44) No. 555 was found in Structure No.6; coarse grained clay, crudely made, moulded by hand from reddish-yellow clay. Such objects are occasionally plain with walls at right-angles to the base, and well fired in pinkish clay with high upright walls.

Lamps (clay) **(**fig. 45) No.308 from Structure No.12; hand made from coarse brownish clay. Shaped like a saucepan and stands on well formed, wide, foot. It was designed to contain a wick and oil. Saucepan shaped lamps with a foot were widespread in the Late Classical and Early Medieval periods. They are hand made, and have traces of burning at the wick hole. The lamp is plain and has a profiled moulded edge at the widest part. Sometimes the cylindrical foot is hollow inside. Some fragments of heart-shaped lamps and no foot were also found. The saucepan-shaped lamp from the vineyard site belongs to a type dated to the Late Classical and Early Medieval periods (4th-5th centuries AD), and is not dissimilar to lamps from Lotchini, Urbnisi, Trialeti (5th-7th centuries AD). The same kind of footed saucepan-shaped lamps are found throughout the Transcaucasus.

Fragments of a **Red glazed lamp** (fig. 46, 46a) Nos. 689; a total of 11 fragments were found: five of the disc, four of the wall, and a further two fragments came from the base, which was flat and well formed. The disc retained an image of Pegasus (the head and part of the front left leg, and the tips of the wings are missing). The feathers are clearly visible on the wings, and the tail is grooved. The central hole for pouring oil is still preserved and was covered with a fine dark red colour.

As well as the hole for oil, there is another for a needle on the disc. This type of lamp was widespread throughout the Mediterranean over several centuries. Demand facilitated the creation of specialized workshops at large centres like Ephesus, Pergamon, Samos, Athens, Rome, Carthage, Alexandria and elsewhere.

The lamp was mould made and is of a Roman type. The fragmentary condition of our example makes dating more difficult, for it lacks diagnostic chronological features such as the nozzle. The décor is also inconclusive, and we were unable to find close parallels (on account of limited library facilities). In Georgia lamps mostly appear from the Early Hellenistic period but even then only in small numbers. The settlement at Simagre produced an Ionian lamp dated to the 6th century BC (Mikeladze 1978, 67, pl. XIV). Several imported lamps were found in Late Hellenistic layers of the settlement at Vani. Some fragments were found during the excavation of Late Hellenistic layers at Ochamchira, Eshera and Archaeopolis (Kacharava 1972, 146; Zakaraia, Lomouri, Lekvinadze, Gvinchidze 1984, 72; Shamba 1980, 39, fig. LIV).

A locally made lamp was found at the 5th century BC site at Kvashta (Kakhidze and Mamuladze 1993, 69). Roman bronze and clay lamps were found at Gonio-Apsaros (Ebralidze 2005, 53-66). Lamps of the Late Classical period were found at Great Pitsunda (Kiguradze 1977, 211-222).

Spindle-whorls and rollers (small wheels) (fig. 47-47a)

Spinde-whorls Nos.745, 746, 748, 751 from Structure No.12; No. 767 from Structure No.16; No.713 from Structure No. 22; No.717 from Structure No. 23; Nos. 753, 763, 49, 772 from the pits and cultural layers. Most are made from broken clay vessels and are perforated. The edges are smoothed and rounded. Some are of bone.

Rollers Nos.762, 769, 770, 961, 963, 984, 1059, 1154, 1193, 1263, mostly come from the cultural layers and cut from broken vessels. Their precise function is unclear. They appear from the Bronze Age onwards, but their purpose is undetermined.

The second group consists of Late Classical clay items, table ware, found in burials. The tradition of depositing them in graves is connected with pagan funerary rites.
The burials at the vineyard site did not contain a rich variety of pottery forms.

Trefoil-lipped jugs (fig. 54, 54a) were found in Burials Nos. 3, 44, 58, 87. A jug from Burial No. 86 has more distinguishing features with the body decorated with knobs in relief. Trefoil jugs become popular table ware from the Hellenistic period onwards in Georgia and have been found at many sites in eastern Georgia of the Hellenistic period and later. A jug of the same form was found in Burial No. 7 in the Rikianebis Veli cemetery (Agaiani) dated to the 1st century AD on the basis of accompanying coins (a silver drachma of Orod II, 2 denarii of Augustus, an imperial drachma of Caligula, 37-38 AD) (Mirianashvili 1983, 26-27). Another jug from the same site was found in Burial No. 18 together with the silver denarii of Augustus (2nd century BC- 4th century AD). The excavator dates the jug to the 1st century AD (Mirianashvili 1983 42-43). The same kind of trefoil-lipped jugs from Kushanaantgora cemetery is dated to the 3rd-6th centuries AD (Ramishvili 1979, 64-65). This type of vessel seems to be characteristic of the whole territory of Shida Kartli, and they are to be found at Mtskheta (Kalandadze 1949, 259-287; Makalatia 1928, 180; Ivashchenko 1980, 78, figs. 61-65); Tbilisi (Koridze 1958, 74, 79, 83).
The jug from Burial No. 87 with the knobbed decoration is similar to a jug found at Samtavro necropolis, dated to the 1st-3rd centuries AD (Ivashchenko 1980, 77).

Jugs with a rimmed neck (fig. 55). Nos. 1488; 1506 were found in Burials Nos. 89, 94. Similar jugs began to be used from the second half of the 1st century BC to the 1st-3rd centuries AD (Nikolaishvili 1978; Ivashchenko 1980, 76-77). During this period the form this type of jug changes, becoming lower with a wider spout, a thicker and bulkier rim, and a broader belly and base (Mirianashvili 1983, 48-50).
From the 2nd Century AD the jugs become heavier and coarser, and slips are employed any more.

Round spouted jugs (fig. 56), Nos. 1416, 1470 with the handle attached at the rim of the spout and the shoulder were found in Burials Nos. 56 and 85. This type of jug are in regular use in Shida Kartli from the 4th-3rd centuries BC to the 1st-4th centuries AD (Mirianashvili 1983, 46-47).

Fragments of jugs (fig. 57), (only the body is preserved). Nos. 1390, 1408; 1415, 1463 were found in Burials Nos. 26, 53, 55, 79. They perhaps belonged to the trefoil-lipped or rimmed necked jugs. Dating is inconclusive. The jug from Burial No. 26 has a differently shaped extended base.
Single handled jars (fig.58, 58a) Nos. 1395, 1409, 1424; 1469, 1654, 1482, 1490 have a handle attached to the shoulder. They also differ from each other in terms of size and décor. They were found in Burials Nos. 41, 54, 57, 84, 87, 89, 90. The jar from Burial No. 41 is slightly different, for the handle is attached to the rim and the body. Various names have been given to this type and they are mostly neglected by scholars. For example, Ivashchenko puts them with Type II jugs (Ivashchenko 1980, 77) and R. Ramishvili refers to them as drinking vessels (Ramishvili 1979, 64). Similar jugs from Samtavro have been dated to the 1st-3rd centuries AD, while at the same time similar vessels from Kushanaantgora have been dated to the 3rd-4th centuries AD by R. Ramishvili.

Cups (fig. 59)
Three cups were found at the vineyard site. No. 1391 was found in Burial No.26, and has an up-folded rim; No.1503, found in Burial No.93 has an oblique rim; No.1426 was found in Burial No.58.

The first cup is of the most common and widespread type during the Classical period throughout the whole of Georgia, but we know of no parallels for the second cup. The third cup, with a narrow spout and an oblique rim is similar to the cup from the Karsiskhevi cemetery of the 1st-3rd centuries AD (Apakidze et al., fig. 93).
We will not discuss here the fragments from two burials (Nos.89, 93), for they are unidentifiable.

In conclusion, the pottery from the cemetery at the vineyard is quite limited in variety. The current stage of our knowledge of the pottery of Georgia in the Late Classical period cannot provide more a precise or more refined chronological interpretation. The whole material can accordingly be attributed to the the 1st-3rd centuries AD.

Items of ritual function
Altars (fig.48, 48a) Nos. 621, 1568; found in Structures Nos. 16 and 23. The altars are made from coarse-grained clay and are fired reddish, in addition to having been burnt in a fire. They also show traces of wheat-straw. One is rectangular, and the other horse-shoe-shaped. The mouldings project somewhat.

Miniature altars (fig. 49, 49a) No. 1574 found at Structure No.23 in Pit No.27. The altar shows traces of fire. It consists of a square base surmounted by a pyramid with the top sliced off (height 3.5 cm) and a 'column' with four faces, slightly narrowing towards the top. The base has crudely modelled round steps.

The altar proper is a rectangular cut column (the width at the sides at the base is 5cm, and at the top 4.5 cm).The column is the most important part both functionally and artistically. The faces are decorated on each side. The corners are well defined, and the figural relief emphasizes the principal face. The corners of the column are decorated with plain three-quarter pilasters that form the edges of the column itself. The faces are edged with corner pillars and the upper step of the base.

The face of the altar (height 4.5 cm; width at the base 3 cm, at the top 2.5 cm) is occupied with the figure of a frontally standing man in relief that completely covers the whole surface. His legs are placed close together with the outstretched feet standing firmly on the upper step of the base. The head leans towards the capital. The raised right hand is lifted in a gesture of adoration. The left hand turns down to touch the waist. The figure is practically three-dimensional. The block-like generalized modelling is emphasized by the pressed surfaces. The three-dimensional modelling is more visible owing to the fact that much of the surrounding field is cut back, although the figure does not project beyond the plane of the corner pilasters. Despite the miniature dimensions of the figure, there is an attempt to create volume as well as a certain attention to detail. Surface damage makes it more difficult to identify details, but in general, the clothing is clearly visible. The man is clad in a short tunic with a horizontal straight band, slightly narrow at the waist and wider at the knees. The broad band is decorated with a row of vertical incised lines. On the right shoulder there is an incision that can be identified as a mantle (or chain mail). The detail recalls the suits of armour that were widespread in Rome and Parthia, being depicted on numerous reliefs. Our miniature relief does not enable us to make any more precise observations, for it is rendered in general terms. Nevertheless, the sculptor manages to depict minute details such as the

capacious palm showing from the sleeve of the uplifted right hand. The palm of the other hand can be seen at the waist as well. There are, however, some puzzling details: to the right of the frame an unidentified feature fills the space between the elbow of the man and the base; it starts at the bottom right corner of the composition and runs alongside the figure towards his waist. The round head of the man lacks a neck and sits above the body. Features such as the mouth, forehead and nose are still visible. There is a ridge at the forehead representing a mass of hair or headgear. The damaged surface prevents further identification of details.

The three other faces of the altar are decorated with the same ornamental pattern. The two sides to either side of the principal face are identical, except that the number of pilasters differ slightly: the right side has four pilasters and the left one, three. The pilasters are identically rendered; their surfaces are rendered with rows of parallel, slightly oblique, grooves creating an image of twisted columns. The pilasters situated on opposite faces are asymmetrical because of their different numbers. It is likely that this was done on purpose, for the same is true for the stone crosses of the 5th and 6th centuries AD in Georgia. The depiction of 'twisted' columns between rounded borders can be seen elsewhere on Georgian early Christian stone carvings in Georgia.

The back of the altar is decorated on the same principle: with the rows of parallel grooves somewhat carelessly rendered. In this case there is a horizontal groove cut in the middle of the face creating an image of a stylized palm tree. The symbol of a palm tree was adopted from Roman art into early Christian iconography, and symbolizes triumph and victory. If we are correct in our identification of the image as a palm tree it would only be logical to have this symbol on a holy object such as an altar.

The altar is crowned with a column 3.5 cm high. There is a correlation between the parts of the altar. The dimensions of the column (upper diameter 6-7 cm) and its height are the same as those of the base, and they have exactly the same volume. The capital consists of two parts, which we might for the sake of argument calls the echinus and abacus (as in the Doric Order). The first part (the echinus) is shaped like an upside-down pyramid, with the tip sliced off. The abacus, or horizontal feature, is decorated with a row of triangles from top to bottom. The back of the capital is plain, without decoration so as to emphasize the principal façade. There are three triangles on each of the three sides of the capital. Their dimensions are in keeping with the irregular sides of the block. The triangles run smoothly without gaps on the different faces of the capital. The architectural pattern of triangles running from top to bottom is widespread in Georgia, and can be seen on the reliefs of Bolnisi Sion (5th century AD) (see the similar motives on the relief decorations of Bolnisi and early Medieval reliefs from Syria). The upper part of the capital of the altar has an incision 2-2.2 cm deep, surrounded by 'walls' 0.5 cm tall, which add to the significance of this part of the altar.

Structure ceramics

There are two kinds of tiles found at the settlement of Klde:

a. Flat, with out-curved edges; some of them have traces of plants
b. Grooved, made of red-brownish clay.

Terracotta materials from the structures:

a. A frieze fragment with deep vertical grooves.
b. A fragment in high relief of equilateral 'cross': an arm fragment, presumably once attached to the wall.

Tiles (fig. 50-50a**).** No.3 found in Structure No.1; No. 506 from Structure No.16; No. 714 from Structure No. 22; Nos. 780-781 from Pit No.6; No.784 from Pit No.1; No.786 from Pit No.3; Nos.797, 798, 801 from Pit No.2; Nos. 869-871 from Walls II-VII; No.875 from Wall III; No.885 from Wall VI; No.930 from Structure No.6; No.993 from Structure No.9;

No.1025 from the cultural layer; Nos.1071-1072, 1078, 1160, 1176, 1224, 1279, 1350, 1354, 1541 from the cultural layer; No.1581 from Burial No.94.
There are two kinds of tiles, flat and grooved. The flat tiles are plain, with raised borders and they are partly painted red. During the Early Medieval period, tiles from Mtskheta, Urbnisi, Kvetera, and Tbilisi have high edges, painted in red and with symbols. In the following centuries the edges become lower and simpler.

Cross (fig. 51) No.736 was found on the floor of Structure No.20. The fragment shows the arm of a cross with a broad tip.
The fragment comes from an equilateral cross and represents one of the broken arms. It is made from fired red clay; it is narrower towards the centre, where it was attached, and gets wider towards the tip.

Clay plaque with animal images (fig.52, 52a) No. 1575 was found in Square A-35 in the cultural layers of the settlement. Terracotta. The plaque represents a frieze fragment. There are two horizontal bands of animals carved in high relief. The levels are divided into two, and the relief of the upper frieze is slightly lower. Surface damage makes it difficult to determine the quality of the carving, but the general stylistic features can be clearly observed.
Two animals are preserved in the upper part of the plaque, both face right and are rendered in high relief. The animal on the left is probably a deer in motion and the one on the right an ibex (most of its body is missing). Identification is based on the characteristic position of the hind legs, on the specific shape of the hindquarters, and a slightly oblique line on the breast that probably results from the animal having had its head turned back over its shoulder. On reliefs on Georgian early Christian Georgian monuments, seated animals with their heads turned back usually have similar lines on their breasts. They commonly represent ibexes (cf. the capital from Aiazmi, the Nagvarevi stela, and the reliefs from the early Christian churches at Dmanisi (all of the 6th century AD).
The surface of the deer is damaged, and the details are unclear, but the whole figure has been preserved. It has a simplified silhouette, with generalized features. In outline it resembles to a certain extent earlier bronze statuettes. The back is slightly curved, the neck rises obliquely, and the lip is elongated.
The background of the compositions is filled with an image of a carelessly rendered cruciform plant. A thickening at the bottom of the cross shape resembles a base. The vertical arms (if it really is a cross) are not precisely formed; there is an inexplicable thickening at the bottom of the lowered arm. This feature was perhaps the result of a fault during the firing process.
The lower part of the plaque is substantially damaged; there are two animals depicted but their identification is something of a challenge. We can only speculate that the animal to the left was a ram (with its thin undefined legs, and the horizontally prolonged body mass). The animal to the right could be a wild boar (the body-mass is generalized, the creature has a thin uplifted tail and short legs). On the back of the animal there are traces of the figure of a bird, facing in the opposite direction to the boar and almost entirely scratched out. Two legs, a narrow body and a folded tail with some traces of feathers are just about visible. The surface was probably decorated with dots, and the bird was perhaps a peacock.
This clay plaque belonged to the façade decoration of some structure. The figures were made with the help of moulding and firing techniques. Architectural decoration of this kind is thought to have its origins in Mesopotamia and to have spread into Asia Minor and Iran.
It should be noted that clay roof tiles and terracotta acroteria with relief decoration were found among finds from Parthia (for example, the Parthian layer at Susa). The terracotta workshops were also found in ancient Susa. Many reliefs depicting protective deities also came from Susa.

Plaques (fig. 53, 53a) No.141 from Structures No.10; No.539 from the Altar of Structure No.16; Nos.1329,1347 from the cultural levels. The plaques were made of fired clay, are rectangular, flat, and have traces of vegetation on one side. The clay is coarse with inclusions.

Stone

The stone artefacts found at the vineyard site are:

1. Implements
2. Weaponry
3. Building materials
4. Jewellery

Semiprecious stones were made of carnelian, almandine, agate, chalcedony, amber and jet and belonged to necklace beads, rings and earrings.

Stone implements

Threshing-boards (fig.) No. 1455 (220 items) No. 1460 (120 items) in the burials Nos.70 and 76. They were made of basalt and had rhomboid shapes. They are of same sizes and were inserted into the wooden parts of threshing-boards. One side of the stones was worn. The threshing-boards were used for threshing the grain crop. In both cases burials had been covered with threshing-boards. Burials with threshing-boards occur from the later Middle Bronze Age (the 15th century BC) onwards. A total of 16 items were found. The dating of the examples from the vineyard site is facilitated by the presence of an intaglio ring found in the same burial that can be dated to the 4th century AD.

Hand millstones (fig. 61, 61a) **– Nos.** 630, 1555 found in Structure No.16; No. 812: Pit No.5; Nos.1074,1552,1553,1554,1556 found in the cultural layers. The millstones are circular, one side is flat and the other concave, with incisions in the middle; made of porous basalt. They were used for grinding grain.

Crushers-grinders (fig. 62, 62a) Nos.97, 99, 100: Structure No.3; No.201: Structure No.12; Nos. 559, 560: Structure No.16; No.897: cultural layers, Square B 17. They were made of pebbles, elongated, with a nuclear shape. The rims are elongated, the nuclear sides are worn. Material for these tools were specially selected from river beds. They were used for grinding grain as well as metal from ancient times. The elongated grinders were used as mortars.

Sharpeners (fig. 63, 63a) No.789: Pit No.3; Nos. 937-938: Pit No. 23; No.1627: Trench 49; Nos.1013, 1017, 1090: cultural layers. Sharpeners of different sizes and shapes found at the vineyard site are: rectangular, prismatic, flat, round; and elongated and round in section. They all have traces of frequent use.

Weapons: stone projectiles (fig. 64) No.98: Structure No.3; Nos. 111,112: Structure No. 5; No. 404: Structure No.16; No. 931: Structure No.6; Nos. 202, 285: Structure No.12; No.376: Structure No.14; Nos. 1168, 1276, 1540: the cultural layers. They are made of sandstone and other sediments, are well rounded, and vary in size. Traces of striking can be seen on some of them. They were thrown from catapults during battles**.**

Architectural details (fig.65) Nos. 405, 631, 1562: Structure No.16; No.987 on top of Burial No.94; No.1560: cultural layers. Massive details are cut from white limestone and sandstone; spherical, flat base, pear-shaped, oval (1). The traces of decoration are preserved on one of them. The examples were parts of building decoration.

Jewellery

Beads No.1367: Burial No.10; No.1370: Burial No.11; No.1373: Burial No. 14; No. 1375: Burial No.14; No.1375; Burial No.15; No.1379: Burial No.16; No.1380: Burial No.18; No.1403: Burial No.51; N1412: Burial No.54; No.1424: Burial No.56; No.1429: Burial No.59; No.1431: Burial No.50; No.1476: Burial No.72; No.1473: Burial No.85; No.1480: Burial No87; No.1489: Burial No.89; Nos.1497-1498: Burial No.90; Nos.771 (agate bead) and No.764 (sardonyx bead) found in cultural layers. The beads made of sardonyx, agate, chalcedony, amber and jet were found in the settlement and cemetery at the vineyard.

Jet

Cylindrical (fig. 66) (Burial No.5, inv. No.1367: 2 units; Burial No.11, inv. No.1370: 6 units; Burial No.51, inv. No.1403: 13 units; Burial No.61, inv. No.1440: 35 units.).

Grain shaped (fig.66a) similar to the cylindrical forms, elongated at the hollow axle, round in section, spherical surfaces (Burial No.5, inv. No.1367: 1 unit.; Burial No.10, inv. No.8: 35 units. Burial No 11, inv. 1370: 1 unit.; Burial No. 14, inv. No.1373: 7 units; Burial No 15, inv. No.1375: 10 units; Burial No.18, inv. No.1380: 1 unit; Burial No.56, inv. No.1423: 6 units; Burial No.89, inv. No.1489: 7 units; Burial No.90, inv. 1498: 2 units.;), Cut (fig. 66b) (Burial No.51, inv. No.1403: 2 units; Burial No.56, inv. No.1423: 49 units).

Jet bead-pendants (2 units) (fig. 66c) Burial No 16, inv. No.1379; Burial No. 61, inv. No. 1440, pear-shaped, biconical (narrower towards the top).

Jet is found locally, and jet jewellery was popular especially from the 1st century AD onwards, having been found in great quantity on archaeological sites of the first few centuries AD. (Ramishvili 1979, 92). The finds from the vineyard site can be added to these.

Agate beads (fig. 66d**)** No. 771, were found in the cultural layers. They have cylindrical shapes, made of agate of different colours; some have traces of fire.

Cut sardonyx beads (fig.67) No.1404 found in Burial No.53, Three beads are of rectangular shape, 12 faceted, cut from transparent dark burgundy sardonyx; widespread in Georgia as well as elsewhere. They had been found at Samtavro in Burials Nos. 89, 136, 144, 348, and at Bori and Supsa (Ivashchenko 1980, 130-131). Similar beads from the Chersonese were been found together with coins, and are thus well dated to the 1st-4th centuries AD.

Gem stones for rings and earrings will be discussed together with the metal objects.

Glass

Glass artefacts from the vineyard site consist of vessels and beads. There are fragments of light green, sky-blue and colourless glass.

Faceted (?) glass vessel (a fragment) (fig.68), No.768 found in the cultural layers of Square C 21 d2; made of light green glass, thick walls, oval facets pressed into the surface; possibly a table vessel. A similar glass vessel found at Cheremi (Site No.1, Burial No.4) is dated to the second half of the 4th century AD. Syrian provenance: it resembles the glass vessels of group E from Dura-Europos ((Mamaiashvili 2004, 32, fig. X-90; Saginashvili 1998).

Perfume vessels (fig.69, 69a) No.744: Structure No.9; No.758: Structure No.1; No.1417: Burial No.56; No.144: Burial No.61; No.1445: Burial No.62; made of green and colourless glass. They were used as personal toiletry. The miniature perfume vessel No.1441 from Burial No.56 has parallels from Urbnisi dated to the 1st century AD on the basis of accompanying materials (Saginashvili 1970, 20); from burials at Samtavro, Mtskheta (4th-5th centuries AD); from burials on the right bank of the Rustavi (3rd-4th centuries AD) (Chkhatarashvili 1978, 10-11). The perfume vessels played a part in funerary rites in Classical period. The tradition became redundant from early Christian period onwards as is attested at Samtavro, where only one perfume vessel was found in burials of the 4th-5th centuries. (Ugrelidze 1967, 40).

Beads made of glass paste (fig.70-70d) Glass paste beads have the same shapes as the rest of the beads. They come in several colours: light yellow, grey-white, whitish, dark grey, brownish, polichrome (Burial No.5, inv. No.1367; Burial No.15, inv. No.1375; Burial No.16, inv. No.1379; Burial No.18, inv. No.1380; Burial No.23, inv. No.1383; Burial No.51, inv. No.1403; Burial No.56, inv. No.1423; Burial No.60, inv. No.1431; Burial No.61, inv. No.1440, Burial No.87, inv. No.1480; Burial No.90, inv. No.1499; The mosaic (carpet-like) beads are of considerable interest (inv. No.1480, Burial No.87). They are widespread from the Hellenistic period to the first centuries AD, e.g. Kldeeti (Lomtatidze 1955, 62-64, pl. III 7-8).

Beads (fig.71,71a,71b) No.1363: Burial No. 1; No.1367: Burial No. 5; No.1376: Burial No.15; Nos.704,1379: Burial No.16; Nos.1380: Burial No. 18; No.1411: Burial No. 54; No.1431: Burial No. 60; No.1440: Burial No. 61; No.1443: Burial No. 62; No.1472: Burial No. 85; No.1480: Burial No. 87; No.1484: Burial No. 88; No.1500: Burial No. 90; No.1504: Burial No. 93.
They are made of coloured glass of different shapes and surface decoration (flat or grooved). They are mould made. A gold covered bead was found in Burial No.54. The accompanying material enables us to date the beads to the late Classical-early Medieval periods

Metal
A total of 94 metal items were been found at the vineyard site; most of them (85 pieces of jewellery) come from burials. Nine weapons and household tools were found among the materials of the cultural layers and at the structures.
Jewellery was made of metal or metal combined with semiprecious stones and glass. There was a single example of a gold covered glass bead.
Only 37 burials at the vineyard site contained metal objects, most of them jewellery: earrings, beads, bracelets, finger rings, buckles, a bronze pendant and a gold saddle-girth buckle.
Earrings: 34 objects in total; found in Burials Nos.10, 14, 16, 25, 26, 31, 54, 55, 58, 61, 62, 64, 83, 89, 90. The were five matching pairs amongst them. Gold: 2 earrings; silver: 10 earrings'; bronze: 12 earrings. Different kinds of earrings were attested:

1. Ring shape earrings
2. Cluster shape ring earrings
3. Granulated ring earrings
4. Earring with dispensable fastener (incomplete)
5. Earrings with pyramidal finials
6. Earrings with spindle suspensions (ring-spindles)
7. Gem stone earrings (with mounted stones)

1. Ring shape earrings, silver (fig.72) Burial No.26, inv. No.138: a pair; Burial No. 62, inv. No.1444-I: one unit, the second incomplete; Burial No. 83, inv. No.1467: one bronze item; Burial No. 14, inv. Nos.1371, 1372: a pair (?); Burial No.54, inv. No.1413: a pair; Burial No.55, inv. No.1414: a pair; Burial No. 58, inv. No.1427: a pair; Burial No. 64, inv. No.1448: 1 unit; Burial No. 89, inv. No.1485: one unit. The identification of the earring material from Burial No.64 is somewhat challenging; the technological character of its manufacture (granulation) suggests that it was made of silver.
The rings are circular, open, consisting of spindles that are round in section; in one case (No.1444-1) the spindle is oval in shape; in two cases the finials are shortened (Nos. 1371;1389, the second one of the pair now lacks the finials); No.1485 has a slight thickening at the finials. The rings are plain and singular; No.1448 has a small granule attached to the ring (the earring is damaged, with some parts missing).
Most of the surviving pieces have rings measuring: D. 12-16.5 mm.
The geographical area of diffusion and chronological range of the small open ring earrings are substantial. Rings, as an independent form of jewellery in their own right, or a as an element of composite earrings, were in use from Hellenistic period in Georgia (Gagoshidze 1967, 58-59; Gagoshidze 1979, 74; Nadiradze 1975, 39; Tolordava 1980,,52; Chkonia 1981, 69-70). They are attested at burial sites of the 1^{st}-6^{th} centuries AD and onwards (Ivashchenko 1980, 103-104. Nikolaishvili 1978, 98. Mirianashvili 1983, 94). Chronological precision was not possible.

2. Cluster shaped ring earrings (fig.73) were made of silver. A total of three were found, each in a different burial (inv. 1369, two fragments, damaged, in Burial No.10, inv. 1385 two

complete fragments in Burial No.25; inv. 1394 three complete fragments in Burial No.31). The earrings consist of a ring and a pendant. The rings are circular, open, plain; made of wire that is round in section (in one case: inv.1385 the wire is partly square in section). The pendant part (called a bunch or cluster) was created by soldering together a number of granules that were then soldered to the ring. One of the earrings (No.1385) has an upper granule that is deformed, probably during the process of soldering and now resembles a cylinder. Earrings are rigid, without any movable parts. In this detail they differ from the type of earrings from Bori and Kldeeti, where clusters of granules are attached by means of a stem and are suspended freely (Pridik, vol. 34, pl. II, fig. 2; Lomtatidze 1957, 41-42). The earrings are similar in size, with the ring 15mm in diameter, and the wire 2-2.5 mm in diameter.

Static cluster shape earrings were widespread in both geographical and chronological terms (simple forms of jewellery were made in many different countries from ancient times). Composite earrings with plain rings and bunches of granules already appear from the end of the second millennium BC (Becatti 1955, pl. LXXV, 290a-b; Higgins 1961, pl. 12 F). Similar examples have been found at Ashnak (Kinzhalov 1961, 52, fig.. 1), Chersonese (Pyatysheva 1959, 49-50, pl. XI, fig. 9), or are in the British Museum (Marshall 1911, 292, N2501, pl. LIII).

The majority of this type of earrings comes from the Samtavro burials of the 4th century AD (Southern site, 1938: Stone Sarcophagus No.2, 1939: Tile Burial No. 81; 1939: Pit Burial No.84; 1940: Stone Sarcophagus No.216; 1939: Stone Sarcophagus No.140; Tile Burial No.211; 1939: Tile Burials No.134) (preserved in the National Museum of Georgia). They were also in use in the 2nd-3rd centuries AD (Ramishvili 1979, 90).

3. Granular ring earring (pl.74), one item, made of silver (Burial No.25, inv. No.1386: two damaged fragments) consists of a ring and a pendant. The ring is plain and open (?); a part is missing; made from wire that is round in section. The pendant, which had come loose from the ring, consists of three granules soldered on to the small ring at equal intervals. The ring is 14 mm in diameter, the wire 2 mm thick, and the suspension ring 3 mm. The granules are 2-2.5 mm in diameter.

The earring resembles the second group of the cluster shape earrings and were occasionally found together with them (No.1385). An earring of the ring- spindle type was also found in the same grave; see below.

In general, earrings consisting of a ring and granulation are widespread in the first centuries AD, especially during the 4th and 5th centuries AD (Nikolaishvili 1985, 97; Pyatysheva 1956, 51 (№53), pl.л. XI fig. 3: "2nd-4th centuries" and "locally produced").

4. Earring with a dispensable fastener (fig.75) (incomplete). Gilded silver earring (Burial No.16, inv. No.1378, three fragments, damaged); partly preserved ring and soldered stem-ring for suspension (missing). The ring is circular, made from wire that is round in section. The stem-ring is also made of a ring of wire that is round in section; corroded brown silver is visible at the broken part of the ring. The gilding is also damaged and silver patina shows through (the earring was at first identified as made of gold). The ring is 12 mm in diameter, and the wire 1.2 mm.

The identification of the item as a separate group is tentative because of the incomplete nature of the find. It is more likely that the earring was a composite, probably based on one of the types determined as ring-spindle earrings; they were widely in use in the 3rd-4th centuries AD.

5. Pyramidal earrings pl.76,76a), two items, with pyramidal finials, one is plain and the other polychrome.

The plain earring is made of silver (Burial No.62, inv. No.1444) and is oval in shape (the upper part is missing). The lower part is thickened and in the shape of a pyramid (with the point down).

The height of the surviving part is 12mm; that of the 'pyramid' 5 mm, and its width at the largest part 7-7.5 mm.

The second earring is made from dark yellow gold (inv. No.1434, Burial No.61); complete, the upper part slightly deformed; the finials open. The ring broadens out in the shape of an inverted pyramid with a cylindrical glass bead inserted into the golden setting; another gold setting below contains a conical almadine. The cylindrical bead is grey-white (traces of irridescence), the bottom is brown. The earring consists of a thick plate, with an edge at the narrow part that follows the pyramidal border. The surface is polished, but the back is left rough.

Earring measurements: height 23mm; pyramid 8 mm wide, bead 4 mm long, bezel 6 mm in diameter.

This type of earring is usually found in burials of the 2nd-3rd centuries AD at Mtskheta; they are made of gold, silver and bronze, and are plain or polychrome (Apakidze, Gobejishvili, Kalandadze, Lomtatidze 1955, 49, 99, 102, 131; pl. LII,4; LIII,2; LXXXVII, 2; Ivashchenko 1980, 103; Apakidze, Abdushelishvili, Nikolaishvili et al. 1981, 155, 156, fig. 610, 624; Manjgaladze 1985, 49 (No. 42, fig. 253), 57 (Nos.103, 104, fig. 312, 313, 588, 589), 60 (Nos.119, 120, fig. 327-328), 62 (No.137), 86 (No.291, fig.490), 91 (Nos.323-324, fig. 518-519).

Bronze (possibly silver?) earrings were found in a burial mound at Trialeti, in Pit grave, B. Kuftin attributes the burial to the Romano-Parthian period (Kuftin 1941, fig. 27, 7).

Earrings of gold, silver and bronze were found in the New Zhinvali cemetery and dated to the 3rd century AD; the Kushanaantgora burials of the 'Late Armazi period' produced silver and bronze 'cluster' earrings (Ramishvili 1979, 84, 90).

These earrings are distinctive among the earrings of the first centuries AD, and their geographical distribution seems to be limited to the territory of Georgia, and in particular the eastern part). A pair of granulated golden earrings found at Ashnak (of the 2nd century AD) might be associated by their shape with the pyramidal earrings (Kinzhalov 1961, No.67, fig.1). We may assume that this type of earring was locally produced.

6. Earrings with spindle suspensions (ring-spindle earring) (fig.77) made of polished dark yellow gold, some parts missing (Burial No.25, inv. No.1384). What remains consists of a spindle (for a bead?) attached to the ring. The ring is oval, slightly bent out of shape, open-ended but with close-set finials. It is made from plain wire that is round in section. The spindle is firmly attached, vertically, with a thickened finial (for holding a bead). The spindle and stem are made of the same round-sectioned wire. The ring is 14.5 mm in diameter; the wire is 1 mm thick, and the length of the spindle with the stem is 7 mm, and the stem is 2 mm in diameter.

Ring-spindle earrings have been found in Georgia at sites of the second half of the 3rd century (Armaziskhevi, Burial No.2) (Apakidze, Gobejishvili, Kalandadze, Lomtatidze 1955, 43, 46, fig. XLVI, 2, 4). They appear to be more widespread in the 4th century AD (at Armaziskhevi, Samtavro, Karsniskhevi, Zguderi, Ertsos Veli (Kushanaantgora Burials), and elsewhere), (Apakidze, Gobejishvili, Kalandadze, Lomtatidze 1955, 201-202; Davlianidze 1967, 98; Nioradze 1926, 17, 29; Nemsadze 1969, pl. IV; Ramishvili 1979, 88). The same type continues to appear in burials of the 5th-6th centuries AD (Apakidze, Gobejishvili, Kalandadze, Lomtatidze 1955, 202).

7. Gem stone earrings (with settings) (fig.77a). A pair was found in Burial No.90, inv. No.1493, incomplete; inv. No.1494; made of bronze and glass. The earrings are of a simple shape: an almond shaped pink transparent bead is inserted in the setting (of bronze), which is soldered on to the bronze spindle. The spindle is round in section and is hooked at the upper end. The lower finial had a cluster attached (?) (but only on one earring, No. 1493, are the granules partly preserved, being damaged and incomplete). A setting is made of a flat plate that is attached vertically, a feature that is partly preserved on one of the pair. The bead has an embossed surface and a flat back, and has been affected by irridescence.

The earrings are respectively 28 mm (No.1494) and 29 mm high (No.1493); the wire is 1.5 mm, and the beads measures 12.5 x 8 mm.

Earrings decorated with gem stones were widespread from Hellenistic times through the first centuries AD, and are especially noteworthy for their abundance and variety (Deppert-Lippitz 1972, 2, Pl. 34-35; Deppert-Lippitz 1985, Pl. 28-32; Higgins 1961, 183-185).
This type of earring has been found in large quantities in burial complexes of the first centuries AD over the whole territory of Georgia. These simple shapes consist of a hooked spindle and one bead with a setting. The same shaped mounts were characteristic of a wide variety of jewellery: diadems, necklaces, earrings. The settings are flat and wide; settings made of metal plates and set vertically on the ring, are characteristic of the 2nd-3rd centuries AD and have been found at Mtskheta, Bori, Kldeeti, Ashnaki, Chersonese, Olbia etc. (Apakidze, Gobejishvili, Kalandadze, Lomtatidze 1955, fig.VI, 1, 2, 5; LXVI, 24, 2538; LXXX 3,7; fig.137 $_{6,8,9,10}$.; Pridik 97, fig. II, 8, 11. Lomtatidze 1957, 39-40, pls II, 3; XVI; Kinzhalov 1961, 52, fig. 1; Pyatysheva 1959, 37; Marshall 1911, No.2668; Pyatysheva 1956, 37; Higgins 1961, 185, fig. 54,G).

Finger rings were made of bronze, silver, or iron. There are three types of finger rings: those set with stone intaglios, those with carved metal bezels, and those set with plain stones.
Bronze finger rings were found: four with stone intaglios, and four with carved metal bezels (Burial No.56, inv. No.1420; Burial No.58, inv. No.1428; Burial No.76, inv. No.1461: 2 fragments, incomplete; Burial No.81, inv. No1465: 3 fragments, incomplete; Burial No 88, inv. No.1483: incomplete): The ring is made of a plate widened at the bezel. One has a circular, disc-shaped, plate instead of a bezel (Burial No.69, inv.No.1451: incomplete). The ring is made of wire that is round in section.
Bronze ring (fig. 78) inv. No.1420 from Burial No. 56, with a transparent colourless glass intaglio: minute in size, oval shaped, lightly engraved surface with a representation of Nemesis, the goddess of justice and revenge. The figure is standing, holding scales in her lowered left hand and a fold of her chiton in her raised right. The rendering is precise and accurate but not very refined. The ring is made of narrow wire with some thickening at the points where the bezel is inserted. A glass gem is set flat into the bezel.
Dimensions: Intaglio: 8 x 6 mm; Ring: 18 x 17 mm.
Images of Nemesis with identifiable attributes (scales, whip) are often shown on Roman gems (Furtwängler 1896, fig. 55, No. 7333; Richter 1956, pl. XLVII, 371) and have been found in Georgia as well (Javakhishvili 1972, fig. V, 75). The shape of the ring is characteristic for the second half of the 1st century (Henkel 1913, pl. XLVI, 1190). Similar rings from Georgia are to be dated to the same period (Javakhishvili 1972, fig. X, 13).
Bronze finger ring (fig. 79) No.1421, Burial No.56.: a transparent colourless glass gem. The intaglio is minute in size, oval shaped, with a lightly engraved surface depicting a figure of Fortuna, the goddess of plenty and Good Fortune. The figure is shown standing, holding a Horn of Plenty in her raised right hand, the lowered left hand resting on a wheel; the rendering is generalized and schematic; a miniature piece. Dimensions exactly the same as No.1420: intaglio: 8 x 6 mm; ring: 18 x 17 mm.
The goddess Fortuna is the most popular image among the glyptic products of the Roman world (Walters 1926, fig. XXIII, 1728, 1732; Richter 1956, XLVII, 366-8; Hamburger 1968, fig. III, 73, fig. IV, 74, 75; *Antike Gemmen in Deutschen Sammlungen* 1872, fig. 241, figs. 2603-2611; Dimitrova-Milcheva 1980, figs. 182, 183 etc.). Intaglios with images of Fortuna have been found in Georgia and are dated to the second half of the 1st century AD (Maksimova 1950, fig. I, 25; Lordkipanidze 1954, fig. II, 18; Javakhishvili 1972, fig. I, 6; fig. II, 31; fig. V, 81).
Bronze finger ring (fig. 79) No.1422, Burial No.56.: a transparent colourless glass gem. The intaglio is of miniature size, oval shaped, with lightly engraved surface representing a standing figure of Hermes, the protector of trade. He holds a caduceus, a herald's wand with snakes, over his left shoulder, and a purse in his raised right hand. He is clad in a mantle that

falls from his elbow. The cutting is carelessly rendered, and details are difficult to define. The shape of the ring repeats those of Nos.1420 and 1421.
Images of Hermes are often found on Roman intaglios. (Furtwängler 1896, pl. 24, fig. 2696; Hamburger 1968, fig. 24, 26; Dimitrova-Milcheva 1980, Nos. 67-73 etc.). Intaglios with Hermes have also been found in Georgia (Maksimova 1950, fig. I, 31; Javakhishvili 1972, fig. I, 6; fig. II, 31; fig. V, 81).
Bronze finger ring (fragmented) with a transparent, colourless glass intaglio (fig.80) No.1394-1 Burial No.37, The intaglio is circular, minute, with a representation of a four-petalled flower on the flat surface. Each petal is divided into two. The heart of the flower is well defined, the ring is mould made. The shape cannot be restored; diameter 7 mm.
The gem probably was made in Sasanian Persia. The decorative motif of rosettes is very popular in Sasanian metal work and architecture (Ramishvili 1972, 134, 9). A glass intaglio with a rosette was found by F. Baiern at Samtavro (Ramishvili 1972, fig. VIII, 117) and at Armaziskhevi; both rings were mould made (Lordkipanidze 1958, fig. 63, pl. VI. 30; Ramishvili 1972, fig. VII. 93). The rings date to the Late Sasanian period (the 6th-7th centuries AD).

Finger rings with gems in settings
Bronze finger ring (fig. 81) No.1451, Burial No.69. The ring is round in section, the conical setting is soldered on to the smooth. The tip of the cone is sliced off. The upper surface of the setting is decorated with a floral palmette. The ring is broken, and most of the ring is missing. The intaglio measures 6 x 3 mm.
Palmettes and stylized floral decorations are characteristic elements of Sasanian art (Frye, Harper 1973, 101. ND.273, image D. 273). A similar intaglio was been found in Georgia dated to the Late Sasanian period (the 6th-7th centuries AD) (Ramishvili, fig. VIII, 99).
Bronze finger ring (fig. 82) No.1388, Burial No.25. The setting of the ring is made of bronze, ring is smooth and round in section, only a small part having survived. The oval setting is made of a thin plate and has an X (a cross shaped) image die-pressed on the flat surface; dots are impressed between the equilateral arms. The ring is corroded. The bezel measures: 9 x 7 mm. The ring could be attributed to early Christian period and was made locally.

Silver finger rings
Silver finger ring (fig.83,83a): No. 1435, Burial No. 61. A silver ring with a carnelian intaglio. The gem is oval, the back and the edges coarsely worked, and left unpolished. The surface is unevenly engraved and shows three standing figures. The images are minute and schematized. It is difficult to identify the figures by means of characteristic details: all three of them wear long chitons or mantles folded at the waist with ribbons; The figure on the right is leaning on a staff with her left hand, and holds an ear of wheat in her right hand. Presumably Demeter, the goddess of fertility and nature, was represented here. The central figure has her head turned to the left, and is holding scales in her lowered left hand and a fold of her chiton with her raised right hand. This could be Nemesis, the goddess of justice and revenge. The figure to the left is perhaps leaning on a spear (?), and traces of a helmet can be seen in her head, and she is perhaps Athena.
The ring is made of sheet silver and get narrower towards the centre where a low oval bezel is soldered between small horizontal shoulders. There is a rim along the outer edge. The ring is broken, and part is missing. The intaglio measures 13 x 10 mm.
Roman intaglios often bear several images of different gods (Furtwängler, pl. 34, fig. 7164, 7167, 7168; *Antike Gemmen*. pl. 223, fig. 2459; Giraud 1988, fig. XXVII, 413; Kibalchich 1910, fig. XII, 386). Specimens have been found in Georgia in 3rd century contexts (Lordkipanidze 1961, fig. IV, 32). Their shapes belong mainly to the 3rd century AD (Henkel 1913, pl. XLVIII, 1255; pl. XXII, 431-3, pl. XLVIII, 1250-70, etc.). Thus the similar intaglio

rings from Georgia should also be considered to be products of the 3rd century AD (Lordkipanidze, I, fig. II, 18, 19; Ivashchenko 1980, figs. 326, 327, 330, 340, 442).

Silver finger ring (fig. 84 No.84) No.1436, Burial No. 61.; has a dark brown sard intaglio, oval shaped, surface lightly engraved with the image of an animal (a dog?). The rendering is very schematic. The ring is narrow towards the centre and wider at the shoulders, finishing with short horizontal corners, holding a low oval bezel. The ring has a rim at the sides. Dimensions: intaglio: 8 x 6 mm; ring 23 x 23 mm.

Images of dogs are frequently found on Roman intaglios (Furtwängler 1896, pl. 61, fig. 8553;. Walters 1926, fig. XXVIII, 2419; Richter 1956, fig. LXI, 518; Kibalchich 1910, fig. XI, 340) and are attested in Georgia as well (Javakhishvili 1972, fig. I, 8; fig. III, 51, fig. VII, 124). They are of Roman origin. This particular ring shape resembles that of ring No. 1435 and can be dated to the 3rd century AD.

Silver finger ring (fig.85, 85a) No. 1437, Burial No. 61, has a yellow- brown sard intaglio, 6 faceted, cabouchon, with an image of a hare on the surface, rendered quite artistically.

The ring is narrower in the middle and wider at the shoulders; the flat top includes a small bezel, the shoulders are decorated with relief circles (quite worn), the ring is corroded, the bezel is broken and the gem loose.

Dimensions: intaglio: 7 x 5 mm; ring (without the bezel): 22 x 19 mm.

Images of hares can be found on Roman intaglios (Dimitrova-Milcheva 1980, fig. 182, 183; Krug 1980, fig. 186, Nos. 418 – 420).

Intaglios with the same animals have also been found in Georgia (Maksimova 1950, fig. I. 9; Javakhishvili 1971, fig. VII, 127).

The decorative pattern on the shoulders of the rings seem to appear from the end of the 2nd century AD and to become more elaborate from the 3rd-4th centuries AD (Henkel 1913, fig. X. 203, 204; fig. XII. 218-252 and many more; For the closest analogy to ring No.1437 from the vineyard site see: Giraud 1988, pl. LXVII. 754 [2nd-3rd centuries AD]). Rings with shoulder decorations have been found in Georgia in rich burials from Armaziskhevi and Urbnisi (Mtskheta I, 1958, fig. 135, 3, 5; fig. 136, 21, 22). The ring from Klde is Roman and dates to the 3rd century AD.

Silver finger ring (fig.86, 86a) No.1501, Burial No.93 has a reddish-brown sard intaglio. The intaglio is oval, conical with the top sliced off, well cut and polished. A fantastical figure is represented on the engraved surface. The creature resembles a hedgehog with long spines and short legs, simultaneously forming a human head. The ring resembles Nos. 1435 and 1436 and can be dated to the 3rd century AD. Dimensions: intaglio: 9 x 8 mm; ring: 21 x 17 mm.

Fantastical figures representing a human head constructed from parts of different animals, known as *grylli*, were very popular in Roman glyptics especially in the 2nd-4th centuries AD (Furtwängler 1900, fig. XVI, 17, 19, 33-7; Furtwängler 1896, figs. 3339-3349; Kibalchich 1910, fig. IX. 301; Lordkipanidze 1967, fig. V, 41, 42). They have also been found in Georgia (Javakhishvili, Nemsadze 1981, fig. X, 4.).

The finger ring is Roman and dates to the 3rd century AD.

Silver finger ring with a plain gemstone (fig.87, 87a,b), two rings were found in the same Burial No.61. Both have gemstones. Inv. No.1439 has a round ring; a delicate rim runs along the upper side. The gemstone is an oval burgundy almandine; the surface is evenly engraved, and the back is flat. The bezel is oval and low. Dimensions: ring: 21 x 16 mm; gemstone: 8.5 x 6.5 mm; height of bezel: 1 mm.

Inv. No.1438 survived in three pieces and is incomplete. The ring is wider towards the shoulders; the rim runs along the upper edge. The shoulders are horizontal. The gemstone is an almond shaped brown sard. The surface is evenly engraved, and the back flat. The bezel is also almond shaped. The widest diameter is 19 mm; and the dimensions of the bezel are 12 x 7 x 2 mm (it is incomplete). The ring can be dated according by its shape to the 3rd century AD (Henkel, 1913, pl. XXII, 431-433; XLVII, 1250-1270).

Iron finger rings

Iron finger rings (Burial No.53, inv. No.1406; Burial No.64, inv. No.1446; Burial No.66, inv. No.1450; Burial No.69, inv. No.1453; Burial No.74, inv. No.1458, 1459; Burial No.83, inv. No.1468; Burial No.85, inv. No.1474; Burial No.88, inv. No.1482; Burial No.90, inv. No.1492) They are all so badly corroded that it is difficult to determine their shapes and sizes.

Iron finger ring with a brown sard, (fig.88) No.1491. Burial No.90. The intaglio is oval, and represents Artemis of Ephesus on a flat surface. The figure represents a schematized image of the figure of Artemis erected in the famous Temple of Artemis in Ephesus (in the 6th century BC). The highly schematised figure is shown standing, leaning on torches with her outstretched hands. It is impossible to determine the shape of the ring. The intaglio measures 9 x 7 mm.

An image of Artemis of Ephesus was a popular subject on Roman intaglios (Furtwängler 1896, pl. 28, fig. 3593, 3595; Walters 1926, pl. XIX, 1336-1339; Richter 1971, fig. Nos. 90-92; Antike Gemmen 1872, fig. 188, Nos. 2172, 2173; fig. 201, Nos. 2276, 2277; Guiraud 1988, fig. V, 73; Kibalchich 1910, fig. XI, 340). Artemis also appears on the gems found in Georgia (Maksimova 1950, fig. I. 38; Javakhishvili 1972, fig. I, 7; fig. III, 36). The ring can be dated to the 2nd-3rd centuries AD.

Iron finger ring (fragment) (fig. 89) No.1406, Burial No.53 has an oval brown sard intaglio; The mask of a bearded man in profile is cut on the flat surface. The man has curly hair around his face done with oblique lines and with short parallel lines at the back of the head, which is crowned with a diadem. The nose and eye are rendered coarsely, by means of thick straight lines; the beard resembles a small bud. The cutting technique is sharp, coarse and schematic. Only the corroded bezel, that had been from the ring, survived. Dimensions: intaglio 8 x 6 mm.

Masks were favourite themes on Roman intaglios. Stylistic and technological features suggest that the ring should be dated to the 3rd-4th centuries AD (Furtwängler 1896, fig. 15, Nos. 6555, 6556, 6557; Pannuti 1983, fig. 227, 228; Lordkipanidze 1954, fig. I, 8; Javakhishvili 1972, fig. V, 76).

Bracelets (fig.90,90a): a total of three were found. One bracelet (No.1457, Burial No.74) is made of iron, and is damaged and badly corroded; the shapes and sizes cannot be determined. Another bracelet (No.1387 Burial No.25) is incomplete (?), circular (now slightly deformed), and consists of three intertwined wires with open finials. The bronze finger ring with the image of a cross (inv. No. 1388) was found in the same grave. The grave goods can thus be dated in general to the early Christian period.

The third bracelet is made of bronze (inv. No.1452, Burial No.69). There are two surviving fragments of a now incomplete more or less circular bracelet made of wire round in section (?); the finials were fastened with a hook. Dimensions: diameter 48 mm, thickness of the wire 1.5 mm. The bronze finger ring with a palmette intaglio was found in the same grave. The grave goods can be dated to the 6th-7th centuries AD.

Gold beads (fig.67). Tubular beads were found in only one burial (Burial No.53, inv. 1404, 3 items). The tubes are grooved with circular grooves and are carelessly rendered and imprecise (two are visible; four grooves on two tubes); the tubes were made by folding the grooved sheets; the edges are not soldered but overlap each other. Dimensions: lengths 4.5 mm; 5 mm; 7 mm; diameters 2 mm; 2.5 mm; 3 mm. Tubular beads had a wide geographical and chronological distribution (6th century BC to first centuries AD; Chkonia 1981, p. 80).

Golden chain (fragment) (fig.91) : No.687, Structure No.17; Made of gold wire, round in section, projecting finials; two chain rings of thin gold wire are preserved.

Gold saddle-girth plate (fig. 92,92a) belongs for the moment to the category of jewellery; (inv. No.1418, Burial No.56). The plate is round and plain. The edges are folded evenly, a wrinkled edge shows from behind and grips a thin bronze plate (only a small fragment was preserved *in situ*; five other plates were detached and were found nearby). The gold is dark yellow in colour, the surface polished, and is slightly deformed. The bronze sheet is disintegrating.
The gold plate is 12 mm in diameter (the folded disc is circular).
A bronze ring set with a gemstone (inv. Nos.1419-1422) dating to the 1st century AD was found in the same grave.

Bronze pendant of a deer (fig.93). This is the only example of figurative decoration found at the vineyard site. It was discovered in Burial No. 53, inv. No.1407 near the left shoulder of the deceased. The figurine of a deer is schematically rendered, and the modelling of the details is imprecise. The deer has tall symmetrical antlers (although the upper parts are broken off). The neck is tall, the body is disproportionately elongated, and the legs are short. There is an eyelet for the attachment of a chain at the back set perpendicular to, and moulded together with, the body of the animal.
Dimensions: length 22 mm, with antlers 24 mm; diameter of eyelet 8 mm.
Similar pendants known from complexes dated to the 1st-3rd centuries AD in Georgia; for example from Burial No.27 at Karsniskhevi (1st-3rd centuries AD) (Apakidze, Kalandadze, Nikolaishvili 1978, 50 (Nos. 94-95), fig. 263 (length: 35 mm; height with the eyelet: 20 mm), No. 264 (legs of a deer ending in rings); also found at Mogvtakari, Burial No.6 (Sikharulidze, Abutidze, "Mogvtakaris samarovani" (Burials at Mogvtakari), *Mtskheta* VII, Tbilisi, 1985, 122 (No.57), fig. 672, 681 (length 32 mm; height with antlers: 16 mm). A deer figurine with small soldered bells was found at Kldeeti (Lomtatidze 1957, 78-81); a similar figurine is known from Zhinvali cemetery (Burials Nos.153, 330, dated to the 2nd century AD) (Chikhladze 2001, 439, fig. 433). It should be noted that Burial No.53 with a figural pendant, also contained fragments of a bronze bell (inv. No.1405). Presumably the deer figurine possessed not only a decorative function, but also had a magical or ritual significance, as has been attested elsewhere (Tsitlanadze 1976, 48-51, fig. XIV).

Buckles (bronze) (fig.94,94a); No.1466: Burial No.83; No.1430: Burial No.60; The buckles differ from each other: one is made from an open ring, another is a composite from two decorative interlocking rings, the movable hook being attached where they meet. We were unable to find exact analogies for these, but the fact remains that both types of bronze and iron buckles (simple and complex) were widespread in the late Classical-early Christian periods. They were mostly found at Mtskheta and Zhinvali cemetery, and are well dated with the aid of accompanying coins to the 3rd-4th centuries AD (Ivashchenko 1980, 130-131; Chikhladze 1999, 114-119).

Coin (fig.95,95a) silver, No.1471 Burial No.85, a Parthian drachma of Gotarzes; diameter 17,70-20 mm, weight 2.74 g. Obv. Bust of a king to left. The long beard is rendered by means of vertical parallel lines and reaches the rim of the coin. His long hair is shown with wavy lines covering his neck. The diadem is tied at the back of the head and three ribbons extend downwards. The neck is covered with three rows of a necklace. The collar decorations are visible at the left shoulder. The background is covered with dots partly covering the surface in front of the face and above the head.

Rev. King Arshak enthroned to right, holding a bow in his raised right hand. The bow itself intrudes into a Greek inscription. There is a large letter A in front of the king, and the rest of the surface of the reverse is occupied by an inscription that is worn and indecipherable. Coins of Gotarzes I were widespread throughout Iberia (the kingdom of Georgia) between the

second half of the 1st and the 4th century AD (Dundua and Dundua 2006, 124, fig. IV-$_{24}$). A new interpretation attributes the same kind of coins to Artaban II (10-38 AD), (Sikharulidze, Abutidze 1985, 120).

Weapons
Domestic tools: knives.
Knife (fig.96,96a) **Nos.** 47, 749, 756 Structure No.12; No.700 Structure No.16; No.760 cultural layer. Some objects were badly corroded. No.749 is a knife-secateur, with a curved back, a blade on one side, and made by forging technique. Knives of this kind were in use over a long period and are of little use for chronological purposes.
Weaponry, armour (fig.97): iron arrowhead No.1397, Burial No43; four faced, "pyramidal" form. It was lodged in the right arm bone of the deceased. The fragment is incomplete and it is thus difficult to identify the type of arrow.
A three-winged arrowhead made of iron was found in Structure No.13 and was fire-damaged beyond restoration. In general, these arrowheads are typical of the early Medieval period.
Building tool: Iron nail (fig.98) No.1398, Burial No.43. The nail is deformed, with a flat head, square in section, corroded. Only a part of the nail has survived. Was made by forging. The nail was found among the remains of the deceased, and its purpose here is something of a mystery.

Bone material
Spindle-whorl (fig. 99) **No.**748, Structure No.12; round, shaped like a curved cone, drilled in the middle, chipped sides. Spindle-whorls were used from antiquity to make woollen yarn. This specimen was made from solid bone and was drilled.
Flute (fig.100): No.1630 Structure No.12. It is pierced with two holes, one at the top and the other on the side. It is made from the knuckle of a joint bone. It presumably served as a musical instrument. Bone flutes have been found in Georgia at the Samtavro cemetery in Mtskheta and at the Bornigele cemetery in Borjomi, both dated to the 1st half of the first millennium.
Sack needle (fig.101): No.774, Pit No.1; the surface of the bone needle is smoothly polished; it was made of the thick wall of a leg bone
Knuckle bones (Fig.102): Nos.1664; 1665; small animal bones, drilled for suspension.
Antlers (fig.103): Nos. 1294, No.1631; found on top of Burial No.54; Inv. No.1629 was found in Structure No.16. No.1631 is a fragment of antler. It was presumably a local funerary custom to decorate the grave with antlers. The fragment has traces of incisions: evidence of working.

6.0 Interpretation

The interpretation of the archaeological monument necessitates a study of the finds as well as consideration of the location and specific character of the site. The settlement at the vineyard site in the village of Klde is situated at the confluence of the rivers Mtkvari and Potskhovi, on a terrace on the left bank of the river Potskhovi (figs. 1; 105). The territory controls the gorges along the rivers Mtkvari and Potskhovi, and the strategic significance of the area is clear. Nowadays the Tbilisi-Kars transit motorway straddles the territory of the settlement and divides it into two parts. The area itself is now used for farming, and as a result cultivation has disturbed the upper layers of the soil (0.3, 0.4 m deep) causing potsherds and tiles to emerge on the surface, a fact which is helpful in identifying the extent of the archaeological site. The archaeological complex consists of the settlement and a cemetery.

The vineyard settlement has a multi-layered stratigraphy and cultural layers are preserved with varying degrees of intensity over the excavated area. The surviving structure remains are fragmentary. Judging by the finds, the settlement had been burnt down and destroyed several times but was nevertheless rebuilt time and again over the centuries. The fact is that earlier structures of the 1st-3rd centuries AD were not discovered, but there were burials dated to this period. This could be for one of two reasons: either the earlier structures were situated at the centre of the settlement or they were replaced and destroyed by construction of later structures. Judging by its planning and location, it is clear that the settlement was urban in character.

The excavations showed that structure was carried out according to an underlying plan, but the roads and communication system were not aligned with the structures. Every fully or partially excavated structure was precisely aligned SW-NE, and the spaces and streets between them had the same orientation. The same orientation happens to apply to the necropolis in the middle of the settlement where most of the burials were also oriented SW-NE. We gained the impression that the necropolis was walled off from the settlement. A boundary wall 10 m long and 2 m wide constructed of pebbles was found in section A25-A26. The distance between the wall and two structures with a 1 m wide street between them, is 3 m (fig. 3).

The above-mentioned boundary probably continued further; parts of the same structure, 8 m long, were found in section C23, and the part crossing the 'main road' in section D19 was orientated NW-SE. If our observations are correct then the town probably had crossing roads and blocks, along the lines of Hippodamian planning of the Late Classical and early Byzantine periods.

The building materials and techniques used at the site are:
1. Raw sandstone for walls.
2. Pebble and gravel as filling between the facings
3. Slabs for flooring and street paving
4. Wood for roof construction, columns and pillars, and for floor beams
5. Clay for flooring, adobe joints, fillings for walls (but mud is mostly used) and for fillings between the facings

The wooden construction techniques and roofing can be observed in Structure No.18 (fig. 106). The main hall of the structure is almost square (5.80 x 5.30 m) supposedly with a wooden column in the middle (a stone base survived *in situ*). Stone slabs were found along the walls 0.70-0.80 m apart and parallel with each other, and they served as column supports. The NW and SW wall foundations had burnt wooden beams attaching revealing the system of the wooden beam structure. The central column and the slightly elongated shape of the hall suggest that the central beam divided the upper part of the structure into two; there may have been a ridged roof, although it is equally possible that the roof might have been flat.

Two types of structures were attested. One could be tentatively thought of as having a central hearth (fig. 9), while the other had hearths, whether of a cult or of a household character, in the corner of the hall (fig. 48). A centrally placed hearth usually determined whether the house had a smoke-hole with a crown or some more primitive construction. Central hearths definitely indicate that the structures had smoke (or light) holes as was the case in Structures Nos. 5, 12, 13, 14, and 20.

Judging by their character, all the structures seem to have been dwelling houses. There was no evidence of any attempt to create more monumental, or more outstanding arrangements appropriate for cult structures. Religious buildings of the 3rd-4th centuries AD would have been easily recognizable if such features occurred at the settlement site. Dwellings incorporated several functions: 1) a living space with kitchens and storage, 2) living space incorporating cult hearths and altars, 3) a domestic economy where the living space was shared with domestic animals (figs. 8, 9).

Cowsheds were situated in the main living area. They were rectangular and were separated with from the rest of the house with separate entrances and floors paved with slabs (fig. 9). Above the stone slabs were closely set floors on wooden beams 0.10-0.12 m apart. Some of the cowsheds probably had wooden partitions separating the animals from each other. Thus every structure was used for living, everyday religious practices and for domestic economy.

The excavations turned up several stone sling-bolts of different shapes and sizes. This can only mean that mechanical slinging machines were used to attack and destroy the settlement, and this in turn implies that the settlement had a defensive system of surrounding walls.

A small number of tiles were also found at the settlement site, as well as ridge-tiles, some of which had antefixes, indicating the existence of tiled structures (figs. 50, 50a).
Among the tiles found at the vineyard site were flat, plain, ridged, had the sides folded upwards, were painted red or were grooved. The Early Medieval tiles from Mtskheta, Urbnisi, Kvetera, and Tbilisi usually have high ridges, are painted red and are stamped. The tiles of later periods are simpler with lower ridges. The vineyard site produced both types.

Apart from flat ridged tiles, there were grooved tiles. These were found on the burnt floor together with the burnt beams from the roof construction. This could indicate that there were some structures of distinction, perhaps cult structures that were roofed with both flat and grooved tiles. Judging by some of the fragments found at the site, tiled roofs might have been used for curtain walls and towers.

This suggestion might be supported by the images on the antefixes, for one has a representation of a horse-shoe, an object that supposedly had an apotropaic meaning. Apotropaic symbols were usually depicted on fortifications of the Classical period (cf. the Gorgoneion). Large stone bases for the wooden columns that supported the mass of the storage rooms and the flat mud roof belonged to the same structure. (fig. 107).

Judging by the finds the period in which the settlement flourished should be the 1st-7th centuries AD. Unfortunately at this point we were unable to use radiocarbon dating methods, and hence it was not possible to achieve a more precise dating for the different stages of the settlement and the cemetery. Chronological differences were only established with the aid of the stratigraphy. In this context, the most instructive sections were A' 30-31-32 and B' 30-31-32 (figs. 8, 108). The earliest layers were Pits Nos. 19 and 29. Pit No.19 is situated 1.95 m below datum, and No. 29, 2.20 m. The structure they belonged to was presumably destroyed during the construction of Structure No.16. It should be noted that at the time of this construction activity, the pits were covered with a man-made platform where ritual vessels were situated. Interestingly, human bones were also arranged on the platform (which was definitely not a burial). They probably came by chance after the structure had been destroyed. The structure had a clay rectangular altar in the corner which indicates that it probably served as a cult place. Further survey is needed to determine whether Burial No. 89 and the platform paved with pebbles the S-W wall in Square A' 30-31 really did belong to Structure No.16. As

the current stage of our survey indicates, Structure No. 16 should be dated to the pre-Christian period, to the 3rd-4th centuries AD.

The following period is represented by Structure No.12 in Squares A'-31-32 and B'32 to the south of Structure No.16. The pottery, as well as the character of its construction, differs greatly from the material from Structure No.16. Structures Nos. 5, 12, 13, 20 have hearths incorporated into the structures. Structure No.12 can be dated to the 5th century AD. Structure No.12 seems to have been burned and destroyed during an invasion, for the there were traces of fire as well as sling-bolts, indicating the use of catapults. The SW wall of the structure was damaged during the construction of Structure No.20.

Structure No.10 in Square A'-31-32 contained a hearth and was also destroyed during an invasion. The discovery of a fragment of a terracotta cross suggests that there were Christians among the population of the settlement. Presumably, Structure No. 20, situated between Structures Nos. 16 and 12, also contained a religious shrine or prayer corner; it probably dates to the 5th-6th centuries.

Structure No.17 in Square A'19 seems to have been used for storage (figs. 109, 110). Only the SW wall and one corner were excavated, the remainder lying within the pipeline corridor unexcavated area. Three large wine storage jars (*kvevri*) were found, one of which had been used as a rubbish bin. Fragments of pottery, among them an imported terracotta lamp and a gold chain, were found together with a large number of animal bones. Burials Nos. 67, 68 were situated near the preserved part of the wall, at floor level. The deceased were buried according to Christian rites, except that the deceased were oriented NW to SE.

Judging by the stratigraphical picture, the wine storage jars (*kvevri*) belonged to an earlier period than the burials that were cut into the floor of the structure. The puzzling question is that the jars contained material from an earlier period. The only possible explanation is that rubbish from an earlier cultural layer was dumped there. Thus two stratigraphical levels and material from three different chronological periods were found at Structure No.17 that should have been related to the period when the structure was operative.

As for the cultural affinity of the site, there were two periods represented at the vineyard site: Late Classical (1st-4th centuries AD) and Early Medieval (4th-7th centuries AD).

Material from the 4th-7th centuries AD was found exclusively in the burials. These could be attributed to a wider chronological range on the strength of the nature of the grave goods and the funerary rites employed. The cemetery at Klde demonstrates the religio-political changes that took place in the kingdom of Kartli, namely the process of Christianisation and the declaration of Christianity as the state religion. The cemetery displayed evidence for pagan and Christian burials in close proximity to each other, and in some cases both Christian and pagan funerary traditions were apparent in the same grave. The differences observed in funerary rites such as the orientation and positions of the deceased perhaps indicate religious or even ethnic distinctions among the population (figs. 20-23).

As we have already had occasion to note, the differences in the construction of graves and in funerary rites are profound at vineyard site cemetery. Several construction methods were found, including pit-graves lined with stone, pits edged with stone, burials in wine storage jars (*kvevri*) and with stone slabs. The orientation and the position of the deceased were distinctive (figs. 15-19) enough to enable us to determine at least three chronological cultural periods. The existing state of knowledge led us to look into the question of ethnic diversity, which might be resolved by means of craniological analyses. Several crania of individuals

buried in different positions (in cemeteries A, B, and C) were examined, but the results showed that they were typologically identical. The craniological tests imply that no changes had occurred in the physiognomy of the population, suggesting that the ethnicity of the population had been stable throughout the existence of the settlement. This leads to the conclusion that any differences occurred as the result of religio-political changes in society, although in the light of the urban character of the settlement the existence of a multiethnic population should not be ruled out.

The architecture of the settlement suggests that the settlement was indeed a town although an agricultural aspect prevailed at some stage. Two burials, Nos.70 and 76 (figs. 15a-15b) that were covered with threshing-boards and Structure No.6 with its cow-shed (fig. 9) provide evidence for the farming and cattle-breeding activities of the population, something that was also attested thanks to palynological and ethno-botanical analyses.

These studies revealed an agro-population of two kinds of wheat: soft wheat and emmer wheat, millet, husk-grained barley and cultivated grapes. An abundance of weeds suggests that farming was practiced in the vicinity of the settlement and that crops were not imported from other regions.

The palaeo-ethnobotanical data relating to earlier periods was almost identical with that forthcoming from recent studies, apart from the weed population, and this can be considered proof of a longstanding farming tradition. Clearly, farming was the main activity of the population of this area during the Late Classical and early Medieval periods.

Apart from farming, viticulture and horticulture were also highly developed. Animal husbandry was the secondmost important activity of the population after agriculture. The contemporary landscape had changed considerably, the forests that once covered the area having almost disappeared. The upper mountainous slopes were covered with conifers and the rest included beech, hornbeam, alder, lime, and oak, proving that the climate was mild and that the annual precipitation was greater than today. Finds of spores of moisture loving ferns and the eggs of helminths that usually thrive in humid climates show that humidity was greater than that of today and also that pig farming was practised at the settlement. The existence of nearby forests would surely have benefited pig farming.

Osteological analysis revealed the existence of cattle, horse, donkey, sheep, poultry and pig at the vineyard site. Noteworthy among the remains of the domestic animals the presence of larger cattle alongside aboriginal smaller cattle (*Bos taurus brachyceros* (No.4/15[1:] trench, IV wall; No.15/81: Trench No.46, No.18/232: Trench No. 49). The size of the larger animals indicates that the *Bos taurus primigenius* breed was also present in the area of Klde (No.3/9, sq. A-31, a-3, Structure No.16). Apart from domestic animals, the remains of wild animals were also found. These include the wild steppe cat (*Felis ocreata* [*=lybica*]*),* hare (*Lepus europaeus*), roe deer (*Capreolus capreolus,* Caspian red deer (*Cervus elaphus maral*), wild goat (*Capra aegagrus*), Caucasian bison (*Bison bonasus caucasicus*) (No.25/271, sq. C/23; No. 29/299, sq. C/23-e/4, trench No. VI, wall 1) frog (*Rana sp*.). There were two kinds of horse remains: large and small. We assume that the smaller bones belonged to the onager (*Equus hemionus*) and that the larger remains were those of a domestic horse. This observation needs some further proof because of the current lack of material.

The wild animals unearthed in Klde can be characterized as belonging to two different landscapes: forest (red deer, bison, roe deer, frog) and steppes (wild cat, onager) which proves the existence of variety of landscapes: forests, fields, copses inhabited by forest

vertebrates as well as a lower mountainous zone and steppes where there were goats, wild cats and onagers. Judging by the bone remains found at the site we can conclude that the most important item was cattle: 37.8%, followed by pigs 28.98%, sheep and goats 25.2%, and horse 7.56%.

The archaeological finds indicate successive construction and destruction levels in the settlement areas and also show that cemeteries A and B occupied the free areas adjacent to the settlement, while cemetery C was somewhat less compact, and had been cut into and damaged by structures of the later period. It is also noteworthy that some of the graves were found in the settlement area rather than in the cemeteries (fig 3).

The material from the site could be broadly dated to the 1st-7th centuries AD. The materials that might indicate a more precise date were practically speaking absent, and we had to fall back on comparing pottery shapes and styles as the principal chronological indicator for the settlement structures. The restoration of the vessel shapes enabled us to ascribe them to the 4th-7th centuries AD.

The classification of the ceramics revealed many types of local pottery. The shapes, technique and decoration of the vessels reveal the prevalent characteristics in the material from the site of Klde. It was also possible to identify ceramics imported from neighbouring advanced regions (red ochre or buff polished pottery of better quality). We have concluded that the local ceramic types constitute a 'Meskhian' variation within the eastern Georgian area of pottery diffusion during the Late Classical and Early Medieval periods (4th-6th centuries AD). It should be noted that not a single glazed pottery fragment was found among the materials from Klde. The pottery was unglazed and made of the distinctive dark grey and red-brown local fabric. Most of the pottery thus consists of grey and brownish kitchen and household utensils covered with a lighter slip and decorated with vertical polished lines.

The table ware is more refined (figs. 25-32): it was made of a light buff pink fabric. The most common shapes were spherical, with flattened bases. There were also fluted pear-shaped vessels that included jugs, jars, and pitchers with moulded knobs at the handles or at the spouts. They were usually slipped red or buff and were well polished, some with vertical lines. Many had a ridge on the neck, and in rare cases they were covered with a whitish slip (local vessels tended to be greyish-white or pinkish-red, while imported pottery was decorated with polished flutes and a red slip; the tripod jar is a good example). The large wine storage jars (*kvevri*) and other larger vessels are frequently dark grey and were used to store wine and other liquids such as wine, oil and water.

The pottery from the vineyard site usually had a combed pattern applied before firing, and the inner surface was covered with frequent parallel lines showing the action of the potter's wheel. These lines sometimes were also visible on the exterior surface, but in most cases were smoothed and polished over and are replaced by vertical lines as a result of polishing.

The rims and shoulders were frequently decorated with an incised criss-crossed pattern: depressions on high relief ridges, short incisions around the neck, or the rows of circular depressions (especially when the clay is dark), are achieved by means of finer tip pressure, conferring a distinctive appearance.

There were no traces of painting at the vineyard site; pottery painted in red or black appear in the central regions of Kartli later on (during the 6th-8th and 9th-11th centuries AD). The vessels from the vineyard site instead have traces of round and oval thin brownish-red slips

between high relief ridges. The storage vessels probably contained milk, oil, honey and other thick liquids and were not designed for cooking.
Early Medieval pottery usually has no neck and a short spout; the bodies are spherical or ellipsoid, the necks low, and the bases flat. The quality of firing and colour depends on the precipitation, sifting and firing process of the clay and corresponds to the function: the clay for table and household ware was more finely sifted and fired in lighter colours (buff, pink) and were mostly polished as a final touch that achieve a completed look without any need for further decoration; hence the minimal incision, depressions, wavy lines or knobs. The necks and spouts have distinctive shapes: they have round rims, trefoil or bent lips, and almost all have ridges round the neck.

One vessel with fluted decoration stands out among the table ware from Klde; it seems to have been imported rather than locally made in view of the high quality of the red polish and its tripod shape. Presumably the shape was adopted from some more advanced ceramic producing centres of central Kartli and made its way to Samtskhe region during the 5^{th}-6^{th} centuries AD. The technique of grooving became more elaborate during the Early Medieval period. Vessels with flutes and grooved decorations were attested among the finds from the Rustavi settlement (6^{th}-8^{th} centuries AD). Some came from the burial site at Rustavi and date to the 5^{th}-8^{th} centuries AD. Red and black painted pottery is characteristic for the High Medieval period (9^{th}-11^{th} centuries AD).

Kitchen ware was made of badly sifted clay, and is coarse and dark (grey-brown, reddish-grey and rarely black) (figs. 33- 43). They were used for cooking, hence the smoked surfaces.

Medieval pottery is categorized according to the manufacturing technique involved. The raw clay was incised with frequent lines; The larger vessels were built in pieces and which were then combined parts, with points of junction concealed with ridges in high relief.

There is a type of large pottery storage vessel known as ‘vessels with windows’ on account of a ventilation hole cut in the wall. They are known from Rustavi, and were used for storing grain, but are absent from the vineyard site. Instead, storage vessels here had one or two small ventilation holes at the bottom to prevent the stored grain from decaying.

Among the household utensils there were lamps, spindle-whorls and rollers. The latter were of secondary production, being made from broken ceramics and bones. These artefacts were in use for centuries and represent parts for looms and machine-tools. Their shape and function was mostly unchanged during the High Medieval period.
The vessels used for the domestic economy were made of coarse-grained clay and had thick walls. They have broad shoulders, no necks, and are decorated with twisted circles or moulded plain ridges. The wine storage vessels (*kvevri*) and pitchers are of two shapes: 1) Spherical, no neck and slightly crooked spout; the closely set “rope” lines are impressed fingerprints. 2) No neck, broad towards the spout, narrowing to the base, flat rim, flat base. Some pitchers are spherical with flattened bases and narrow spouts; others are egg-shaped, and are slightly polished with ridges on the surface. Kitchen ware is decorated in the same way, although the surface is dark-brown and smoked. They have incised wave patterns and were locally made.

Lamp (terracotta) **(**fig. 45) No.308 from Structure No.12 was handmade from coarse brownish clay. It has a saucepan shape and stands on a wide foot. It was designed to contain a wick and oil. Such saucepan-shaped lamps with feet were widespread in the late Classical and Early medieval periods. The lamp was hand-made, and has traces of smoke at the rim of

where the wick once emerged. The lamp is plain and has a profiled moulded ridge at the waist. Sometimes the cylindrical foot is hollowed inside. Some fragments of heart-shaped lamps without a foot were also found. The saucepan-shaped lamp from the vineyard site can be ascribed to types that are dated to the Late Classical or Early Medieval periods (4^{th}-5^{th} centuries AD). They resemble lamps from Lotchini, Urbnisi, Trialeti (of the 5^{th}-7^{th} centuries AD). This same kind of saucepan-shaped lamp with a foot was found throughout the Transcaucasus.

The most remarkable feature is probably the cult hearth, an 'altar' surrounded by 15 vessels of different sizes, probably offerings. The altar itself (No.621, 1568; Structures Nos.16, 23) was made of red coarse-grained clay, and was subsequently burnt in a fire. The shape is rectangular, with a horse-shoe base that had traces of straw on it (figs. 48, 48a).

Apart from the local pottery, 11 fragments of a red glazed lamp (figs. 46, 46a) were also found Nos. 68. 5 fragments came from the disc, 4 from the wall and two more from the base, The base was flat and well formed. The disc preserved an image of Pegasus (the head, a part of the front left leg, and the tips of the wings are missing), The feathers are clearly visible on the wings. The tail is grooved. The central hole for pouring oil is still preserved. The edge of the hole was coloured dark red. Apart from the hole for oil, there was a post for a needle.

We were unable to find close parallels for the lamp. Clearly, the lamp was mould-made and belongs to a Roman type. Typical Roman lamps appear from the beginning of the 1^{st} century AD. Their common features are: a cylindrical shape, a small tube for a wick an oil container, a loop-shaped handle and flat base (Robinson 1959, pl. 45). Their discs are usually decorated in relief and the tubes for the wick are grooved and round spouted (Perlzweig 1963). The images on the discs were either mythological or showed scenes of everyday life such as plants or animals. They also carried symbolic or figural compositions as well as geometric patterns (Zoïtopoulou, Fossey 1992, 83). Such lamps were widespread throughout the Mediterranean over several centuries. Demand brought about the creation of specialized workshops at important centres like Ephesus, Pergamon, Samos, Athens, Rome, Carthage, Alexandria and elsewhere. From the 5^{th} century AD lamps produced in Asia Minor and North Africa became especially widespread. Their technological distinction hinges on their elongated shape that contained more oil. The wick tube was separated from the hole for pouring in the oil, and this made lamps more efficient in that they produced a brighter light. The horizontal handle projects, the disc is circular and is decorated with floral or geometric patterns. Lamps were never painted but glazed and decorated with reliefs applied to the disc in Hellenistic and Roman times. Unglazed examples might also be adorned with reliefs. Glazing ceased to be practised in the Late Classical period and was replaced with red paint.

Lamps were hand made from the 7^{th} to the early 5^{th} centuries BC. From around 650 BC potters' wheels were used in lamp-making. From the 3^{rd} century BC lamps might be made in moulds and this continued to be the case down to the 8^{th} century AD. Hand made examples are found throughout all these centuries. Lamps were usually stamped on their undersides to show where they were made.

Every traditional pottery workshop also specialized in lamp-making for the local market as well as for export. Lamps were produced in the Greek cities of the Black Sea such as Olbia (Parovich-Peshikyan 1974, 113-117; Vetshnein 1975, 183-189), Chersonnese (Kadeev 1970, 106-108), Gorgipia (Tsvetaeva 1966, 21-22). The lamp from the vineyard site does not have a stamp or a wick tube. It was found in a wine storage vessel together with a golden chain and local pottery. It seems that the wine storage vessel (*kvevri*) found in Structure No.17 was used as a rubbish dump. The materials from the *kvevri* predate the vessel itself. It is practically

impossible to use imported ceramics to date the structure itself. The fact is, that the some of the contents of the vessel can be dated earlier than the vessel and the structure. Nevertheless, the discovery of imported ceramics at the vineyard site deserves our attention.

Apart from the Roman lamp, a Parthian silver coin was found in Burial No.85 (inv. No. 1471), a drachma of Gotarzes I (figs. 95, 95a), indicating that the Iberian kingdom and especially the region in question, was actively involved politically and economically in Romano-Parthian relationships in connection with the Silk Route. The chronological range of the vineyard settlement could be established with the aid of material from the burials. The earliest dated materials from the complexes were found in the cemetery at Klde and could be ascribed to the Late Classical period. Among the 11 signet rings from these complexes only two of them are Sasanian, eight are of Roman origin, and only one carried Christian symbols. (figs. 78-89).

The appearance of the first examples of Roman glyptic on Georgian soil is connected with the intensification of Romano-Iberian relationships from the second half of the 1st century BC. The Roman general Pompey had campaigned in Georgia in 65 BC (Lomouri 1981, 5, 2) bringing about close contacts with the Roman world in political, economic and cultural matters. A small number of Roman intaglios have been found in Georgia and date to between the end of the 1st century BC and the 1st century AD. There are more, especially from the Kartli Region, from the period between the beginning of our era until the 2nd-3rd centuries AD (Maksimova 1950, 225). There are fewer finds of material of the 4th century AD. The intaglios found at the vineyard site are not of especially high artistic quality, and are rendered carelessly and schematically and belong in the same category as the cheap mass productions widespread all over the Roman world made for the middle and poorer classes of society. The rings in which they are mounted are typical of the regular shapes of Roman finger rings.

Three glass intaglios were found at the cemetery (Nos.1420-1422). Judging by their shape and style they probably date to the second half of the 1st century AD (fig. 81). Glass intaglios originate in 1st century BC Rome and gain popularity during the 1st-2nd centuries AD, but are rare in the 3rd century AD. All three glass intaglios from the vineyard site are so similar that they must have been produced in the same workshop. The other Roman intaglios (Nos.1435-1437, 1501) should be ascribed to the 3rd century judging by their shape and style as well as their material, which is a dark sard Nos.1437, 1501 (figs. 85-86), Nos1435, 1436, 1491 (figs. 83, 84, 88) widely used in the 3rd century AD.

Sasanian seals reached Georgia in the 4th century AD when Sasanian Persia became the leading power in the region. Finds dated to the thirties of the 5th century AD have significantly increased. The seals excavated in Mtskheta, Samtavro, Armazis Khevi, Zhinvali, Urbnisi are typical examples of Sasanian glyptic judging by their shape, material, style and subject matter (Ramishvili 1979, 21-56). Inv. Nos. 1394 I, 1451 (figs. 80, 81) are probably Sasanian seals of the 5th-6th centuries AD.
After the 4th century a few Byzantine intaglios with Christian symbolic imagery reached Georgia. The finger ring with the cross on the hoop was probably made locally in early Christian times.

The artifacts with religious symbolism deserve our special attention. They were found close to each other, and include a miniature altar, a fragment of a terracotta cross and a terracotta plaque with animals (Pit No.27 inv. No. 1574; Square B32 d^2 [fig. 49, 49a], Structure No.20 inv. No.736 Square A31 a^4 [fig. 51] and cultural layer No.1575 Square A35 a^4 [figs. 52, 52a]). Paganism and Christianity seem to have coexisted in the settlement.

Pertinent information concerning stone altars can gleaned from Roman and Persian reliefs (figs. 49, 49a). The altar from the vineyard site has certain affinities with Persian-Sasanian art. Many scenes with scenes of sacrifice survive on Parthian and Sasanian rock reliefs. The altar from Klde follows in general terms the traditions of Zoroastrian fire altars (Ghirshman 1962; cf. Parthian reliefs in Bisutun [2nd century AD]; Sasanian reliefs in Bishapur [second half of the 2nd century]; altar images on Sasanian coins of Ardashir I and Shapur I, and on gold and silver coins of the 3rd century AD etc.).

While the shape of the altar from Klde is easily identifiable, this is not the case when it comes to the identification of the figure represented on it. The static frontal depiction suggests the influence of eastern art, characteristic of Parthian art. The generalised and schematised rendering of the figure and its clothing have much in common with Parthian reliefs. Ancient Persian clothing was used as the model for civil dress in Georgia: it had long sleeves and the wide knee-length skirt that was widely popular in Near Eastern society. The dress of the figure shown on the altar from Klde might also incorporate some details of Roman military dress, for example the sleeveless upper part and crimped border.

Apart from the dress, the pose and gestures of the figure should be taken into consideration in trying to identify the image. The raised right hand suggests the gesture of adoration of the gods and kings on the Parthian rock reliefs. An example can be seen on a relief from the temple at Hatra that could be helpful to determine the identity of the image on our relief. The Hatra relief depicts the god of the underworld Hades-Nergal-Ahriman with a raised right hand, while in his left hand he holds a rope to which the guardian of the underworld, the three-headed dog Cerberus, is tied. The figure of Hades is shown according to the canonical iconography, in a strictly frontal and static posture. The same standards were applied to the relief on the miniature altar from Klde.

We can thus conclude that the clay relief model altar from Klde shows a Parthian or Sasanian deity akin to the relief images on Persian reliefs. The image presumably had a religious significance in the cult of the dead. As it is often the case, even small details and especially patterns might be crucial for dating the artefact. The pattern created by means of triangular rows can be seen on the reliefs with the 'Bolnisi' type medallions with the crosses dated to the 5th century AD (Machabeli 1998). The same pattern is characteristic of stone crosses of the later period (6th century). A similar geometric pattern appears on Early Christian monuments from Cappadocia and on Coptic reliefs (Machabeli 1998).

Three faces of the altar have reliefs of twisted pilasters that are characteristic on carved stone Georgian reliefs of the 5th-6th centuries AD. A similar motif can be found on stone crosses from Bolnisi, Dmanisi, Khandisi (Chubinashvili 1940; Chubinashvili 1978). The back bears a schematic image of a palm tree, also characteristic of Early Christian reliefs from Georgia. Some cult objects from the Holy Land are also adorned with palm trees.

The terracotta altar thus has rather complex features; its function (as a 'fire altar') belongs to the Persian world; the stylistic rendering of the figure places it within the sphere of influence of Parthian and Sasanian art (and it should also be noted that Early Medieval Georgian stone carving displays close links with the art of Persia and that of Asia Minor in general). As far as the decorated side of the altar is concerned, the closest parallels for the patterns such as the triangles and twisted pilasters can be found among 5th-6th century reliefs in Georgia. This review of the altar clearly demonstrates that the terracotta model displays features influenced by cross-cultural relationships between Iran and Georgia where elements of the different cultural areas can be seen to have merged.

The terracotta plaque with animals should also be noted (fig.52, 52a). Stylistically it also finds parallels among the numerous reliefs of animal scenes from Persia. The earliest Georgian reliefs also have much in common with Persian reliefs. In order to categorize the artefact with greater precision, more work need to be done on the development of Georgian coroplastics in the first centuries AD. The cross motif and its role in the composition should be emphasized. Early Christian crosses entwined with floral motifs are generally thought to be derived from eastern, and in particular Persian, art and were certainly associated with the symbolism of the Tree of Life. The development of Christian plastic arts in the 3rd century AD in countries with an eastern orientation (Georgia included) shows that they managed to combine local artistic traditions with Eastern motifs derived from Parthia and Sasanian Persia. Only a small fragment of the terracotta relief plaque survived from the vineyard site, but it provides us with enough information to draw some conclusions about the composition.

The composition is quite skilfully constructed. The figures of the animals are placed rhythmically, with alternating dynamism and passivity. Animals in action are juxtaposed with static figures: the deer is shown in flight while the ibex is calmly seated with its head turned to one side. On the lower level a ram is depicted standing and is opposed by the figure of a charging wild boar. The figure of a peacock faces in the opposite direction. Unfortunately it is practically impossible to reconstruct the whole composition. Clearly, the terracotta plaque was used as a facade decoration made in a manner traditional in Near Eastern countries.

The repertoire of the depicted animals is also compelling (if they have indeed been correctly identified). The fragmentary terracotta plaque displays in relief figures of a deer, an ibex, a ram, a boar and a peacock (?). Most of these images, apart from the ram, are popular in the plastic arts of Parthia and Sasanian Persia (rock reliefs, metalwork). The same set of animals has a symbolic meaning and corresponds to the Christian iconographical repertoire when ancient images received a new symbolic significance.
Animal processions were frequently shown on religious buildings originating in Near Eastern cultures, where the composition reflects the ritual traditions of ancient societies. Together with the ritual nature of the scene, the representation of the cross is of a special importance here. The fragment of a cross with the ends of the arms made wider was clearly made in high relief (fig. 51); the back of the relief preserves the imprint of the wall to which it was attached. Probably, a red terracotta medallion with an equilateral cross inscribed on it (the symbol of early Christianity) was attached to the structure with clay plastered walls, which were in turn burned in a catastrophe. The plaque with the cross seems to have been destroyed together with the structure; the broken fragment of the cross was found on the burnt floor among the detritus of the wattle and daub. The small size of the fragment and the lack of the central part means that it is impossible to determine the original size of the cross.

There are no Early Medieval parallels to enable us to envisage the way in which our terracotta cross was fixed in place. We can only assume that the fragment of the cross was a part of an antefix. Judging by the abundance of tiles and clay fragments found in the same layer, the cross could be ascribed to a building of religious significance.
Thus the finds that embody different kinds of religious or ceremonial symbolism indicate that the vineyard site is situated at a cultural crossroads, and supported a society open to diverse religious influences.

A kilometre away to the NE of the Klde settlement, a Classical settlement and cemetery was excavated in Tsnisi. Preliminary observations give reason to suppose that an Early Christian church was situated between the areas of the Klde and Tsnisi settlements. Further studies are needed to discover the relationship between these two archaeological sites.

The stratigraphy of the Klde settlement revealed structures of different chronological periods; the structures were arranged within an urban grid and should be considered as part of a town. The excavations showed that the urban settlement at Klde had survived many invasions over the centuries and was eventually destroyed beyond restoration.
I level: 2nd-4th centuries AD, Structures Nos. 16, 23 24; Pits Nos. 19, 29
II level: 4th-5th centuries AD, Structures Nos. 1, 5, 6, 12, 13, 14, 17
III level: 5th-7th centuries AD, Structures No.20

The location of the vineyard settlement at the confluence of the rivers Mtkvari and Potskhovi was significant because it was a crossroads for trade routes which split in two directions: one road runs along the river Potskhovi and leads to Likht-Imereti, while the second goes to Kartli via Mtkvari Gorge. There was thus a certain logic in the creation of a town at this point from which goods were distributed.

Geographically, Samtskhe is a part of Meskheti to the SE of western Georgia (Colchis). In the Classical period, Samtskhe belonged to the Iberian kingdom (Kartli) providing a contact zone between different regions of Georgia (Tao-Klarjeti; Kola-Artaani to the SW; Kartl-Kakheti, Javakheti to the E; and Egris-Abkhazeti, Adjara, Guria to the W). 'In general, Likht-Imereti and Abkhazia had the only connection to the south almost exclusively via the road from Samtskhe. This was the only, difficult but suitable route. Everybody travelled this way in the past', wrote Ivane Javakhishvili (Javakhishvili 1948, 67). Samtskhe indeed was closely connected with Colchis via the transit roads that had carried imported goods from Greece to Iberia since the Classical period (Licheli 1999). The Samtskhe (Meskheti) region of SW Iberia already had the so-called 'Maeotic-Colchian arterial road' from when the Cimmerians had crossed the Caucasus (Melikishvili 1959, 222, 326). The Meskheti region was itself closely connected with Armenia and the Pontic kingdom by means of the route which was actively used by the Romans for provisioning their troops in Armenia from Trebizond (Maksimova 1956, 77). From the 1st century AD, Syrian and Egyptian imports were mostly transported to the Iberian kingdom via Meskheti and Samtskhe. The old route probably also remained in use: goods were carried from Artaxata, the ancient capital of Armenia, via Kvemo (Lower) Kartli to Mtskheta (Melikishvili 1959, 442; Lordkipanidze 1968, 68). In view of the military and political situation of the 1st century AD in Armenia, it seems more likely that the Syrians would have avoided the route via Artaxata in favour of a western route which went all the way on Roman territory along the river Euphrates via the Mtkvari gorge to Kartli. This route could well have gone through Samtskhe. The important and active role that this road played in the first centuries AD can be demonstrated by the finds at Urbnisi settlement. Urbnisi lies on the border of Iberia to the SW, on the river Mtkvari on the way to Mtskheta; the amount and variety of Syrian glass productions that were excavated there, are in excess of those from Mtskheta, the capital of Iberia. The same can be said of the 1st century AD Palestinian intaglio gems from Caesarea found in Urbnisi (Saginashvili 1970, 44; Javakhishvili 1972, 9).

The long existence of the settlement should be taken into consideration when determining its character and lifestyle. The chronological range of the finds falls between the 1st and 7th centuries AD, during which time the settlement was destroyed and revived several times. This resilience and the frequent attempts at restoration also bear witness to its significant role. Naturally, the settlement played a different role and changed its function at intervals.
Regular planning (at least in the excavated area), straight streets and a uniform orientation of the structures (SW-NE), the massive stone wall foundations (0.8-1.5 m), the variety of tiles, the sling-bolts found in the burnt areas—all these phenomena show the urban character of the settlement. The variety of the tiles, among them a fragment of an antefix with an apotropaic horse-shoe shaped feature, suggests that there may have been fortifications at the site.

Apart from the regular planning and the integration of the cemetery with the town, further arguments in favour of the suggestion that the excavated site was a town rather than a village were provided by such finds as sling-bolts in the destruction layers and the quantity of signet-rings in the burials.

The discovery of the town at the confluence of the Mtkvari and Potskhovi rivers helps the better understanding of the region and fills a gap in the historical picture. In fact the discovery was not wholly unexpected, for judging by pre-existing historical and geographical data, the presence of a town here was quite predictable. In the Medieval period Akhaltsikhe with its Rabat was the principal urban centre in the region, but historical records at Akhaltsikhe start only from the 12th century (*KSE*, II). The town probably did not even exist earlier judging by its name (= 'New Castle'). Odzrkhe, one of the oldest towns in Georgia, is some considerable distance from here (*Life of Kartli*, I, 9). It is quite plausible that a town had existed at the confluence of the rivers Mtkvari and Potskhovi before Akhaltsikhe was found. The discovery of a Roman lamp, unique for eastern Georgia, shows that the town participated in foreign trade.

The chronological range of the vineyard site suggests that life began here at the same time as the Tsnisi settlement and burials, dated to the 4th 3rd centuries BC: to the period known as the Georgian 'urban explosion'. The Klde settlement seems to have been destroyed and to have ceased to exist around the 6th-7th centuries AD (during the campaign of Heraclius, or at the time of the Arab invasion). The fact that a 6th-7th century Sasanian signet-ring was found here suggests the latest period of occupation.

After Arab rule, Georgian kingdoms emerged challenging each other for supremacy, a process that culminated in the reunification of Georgia. Owing to its geographical location, Samtskhe region played a special role in this process. The route passing through the strategic gorges that connected Samtskhe-Likht-Imereti acquired a primary importance (Berdzenishvili 2005, 291-329). At this period the ruined town at Klde became redundant and was finally deserted. It was probably only after the reunification of Georgia that Akhaltsikhe emerged as a major town with its Rabat. Could it be that the settlement at the vineyard was Lomsia or Lomsianta? Some scholars believe that in ancient times Akhaltsikhe was called Lomsia (Zardalishvili, Berdzenishvili, Zakaraia, Ushveridze, Berdzenishvili 2005, 291-302).

Conclusions and recommendations

The excavations at pipeline corridor KP 225, in the former vineyard IV-217 revealed a small part of a settlement that had in fact been much larger. The settlement extends well beyond each side of the pipeline corridor as well as the southern part of the Borjomi-Axaltsikhe road towards the edge of the terrace. Numerous remains of structures and catapult bolts were found at the site, indicating the existence of an urban settlement in the 1st-7th centuries AD when it was destroyed and rebuilt several times.

The settlement consist of the remains of a settlement and a cemetery and is situated at the confluence of the rivers Potskhovi and Kura near the Classical site of Tsnisi. The site can be identified as the town of Lomsia known to us from written sources. Apart from this evidence, the number of intaglio rings also suggests that the site represents an ancient town. There are three archaeologically well-attested chronological periods represented by graves of different periods in cemeteries A, B and C.

The excavations of the area between the oil and gas pipelines were not finished; here the remains of the settlement with foundations of walls and floors, and graves are to be found in future. It is of considerable importance that archaeological investigations be carried out during further structure activities within the ROW in order to complete the archaeological survey of the area.

The area outside the ROW near the village of Klde should be investigated in future, and we propose to begin the survey using geophysical methods. Meanwhile, it is a matter of urgency to include the unexplored part of the former vineyard in the list of cultural heritage monuments in order to preserve it during any future structure activities.

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Appendix

Metal Artefacts Analysis Report

The results of restoration and technological research of metal material recovered by the Borjomi archaeological expedition at Site IV-217. A total of 37 metal artefacts were restored, and the chemical content of nine artefacts was established by means of spectral analysis (Fig. 1).

1. Pendant with a deer figurine, Burial No.53, No.1-1407 (Fig. 1). Bronze alloyed with tin and lead (Cu 83.0; Sn 8.26; Pb 6.5; Zn 1.2; Ag 0.3).

2. A ring, Burial No.60, No.8-1430 (Fig. 2) Made of bronze alloyed with tin-lead (Cu 92.0; Sn 2.2; Pb 2.65; Ag 0.55). Highly elastic material.

3. Earring, Burial No.58, No.6-1427. (Fig. 3) made from tin-rich silver. (Ag 89.4; Cu 2.0; Sn 8.25; Pb 0.12).
4. Finger-ring Burial No.61, No.12-1438. (Fig. 4) Silver alloy (Ag 92.52; Cu 2.0; Sn 1.7; Pb 1.75; Zn 2.0).
3. Bracelet, Burial, 69,No.17-1452 (Fig. 5) (Cu 87.0; Zn 4.0; Sn 0.75).
4. Finger-ring, Burial 76, No.21-1461, (Cu 82.5; Zn 6.8; Sn 2.2; Pb 2.65).
5. Earring, Burial 90, No.33-1493, (Fig. 6) (Cu 83.0; Sn 7.0; Zn 6.5; Pb 2.75).
6. Finger-ring, Burial 81, No.22-1465, (Cu 90.0; Zn 5.0; Sn 2.25; Pb 2.0).
7. Earring, Burial 54, No.2-1413 (Fig. 7) Made of bronze with tin (Cu 89.5; Sn 8.25; Ag 1.0).

The restoration scheme of the bronze material was as follows: Bronze artefacts were cleaned using scalpels and other sharp tools. Treatment was conducted beneath a microscope using bright illumination. The cleaned artefact was treated with acetone and Paraloid B 72 (Paralloid B72 + acetone [40g + 1.5 lit]). Some of the bronze objects were restored.

The restoration scheme of the iron material was as follows: iron objects were cleaned mechanically with diamond and steel brushes fixed to a drill. The mechanically cleaned objects were restored with the following solution: tannin + spirit + orthophosphate. At the next stage a tannin and spirit solution alone was used (the process was repeated several times). For conservation the object was covered with Paraloid B 72, polymer of thermoplastic acryl, Paraloid B 72 + Acetone (40 g + 1.5 l).

Some of the iron artefacts underwent reconstruction. For the reconstruction Araldite 2020A + solidifying Araldite 2020BB + talcum + brown pigment was used. In cases where the complete reconstruction of the shape was not feasible, a temporary (approximate) reconstruction was applied (Paraloid B 72 + Acetone 10% solution).

In some of the iron objects the iron core had been completely turned into iron-oxide; the conservation method was only applied to them; these highly mineralised examples were treated to preserve their shape.

The restoration scheme of the silver material was as follows: Both chemical and mechanical methods were used. Some of the silver objects were cleaned with Titriplex hydrate (500 ml distilled water + 18.5g Titriplex). The restored objects were treated with acetone and when dry the objects were covered with thermoplastic acryl polymer Paralloid B 72 (Paralloid B72 + acetone [40g + 1.5 lit]).

The restoration scheme of the numismatic material was as follows: Both chemical and mechanical methods were used. Artefacts were cleaned using scalpels and other sharp tools. Treatment was conducted beneath a microscope using bright illumination. The objects were cleaned with Titriplex hydrate (500 ml distilled water + 18.5g titriplex). The coins were studied by means of microscopic-morphological methods and were filmed before and after restoration (Fig. 8-23).

The restoration scheme of the glass material was as follows: the fragments of glass were mechanically cleaned. For conservation purposes, the cleaned artefact was treated with Acetone and Paraloid B 72 solution, and it proved possible to restore some features of the shapes (Fig. 24).

Appendix C

V. Aslanishvili

Results of the Analysis of Palaeoanthropological Material from Burials at the 'Vineyard' Site at Klde (IV-217) conducted in 2004 by the Borjomi Archaeological Expedition

The palaeopathologies of the research material are classified by the part of the skeleton, gender and the burial in which the material was discovered.

I. Dental and jaw related diseases, defects, and anomalies were observed in 45 individuals in 40 graves: 16♂, 18♀, 3 Ch ♂, 1Ch ♀, 8 Ch.

Caries; paradontosis: odontogenic osteophytes ; odontogenic osteomyelitis ; evidence of an infectious bacterial process in the form of a fistula; chemical intoxication and infectious diseases: necrotic areas, black spots; calculus and plaque (fig. 3); root-canal defects: oblique; pathological wear such as abrasion; anomalies: double-rooted canine teeth; anomalous setting; natural cavity on the crown enamel; a third-growth tooth, or a delayed second-growth (?) (Burial No.5, ♀ 60-64), uncertain (Altukhov 1913 mentions a rare case of third growth).

Burials Nos. 5, 9, 14, 17, 21, 22, 26, 30, 31, 36, 37, 42, 43, 46, 47, 50 (16♂); 1, 2, 6, 7, 10, 13, 19, 20, 24, 25, 27, 34, 40, 41, 45, 51 (18♀,); 18, 44, 49 (3 Ch ♂); 36 (Ch ♀); 8, 11, 12, 37, 38, 39 (8 Ch).

II. Skull diseases were observed in 24 individuals from 22 burials: 13♂, 9♀, 2Ch ♀.

1. Osteophytosis (bone cancer), 2. Myeloma, 3. Myelomatosis, 4. Exostosis: growths, 5. swellings, areas where the colour had changed .

Burials Nos. 5, 9, 14, 17, 21, 26, 31, 36, 37, 42, 43, 46, 47 (13♂), 1, 2, 10, 15, 24, 37, 51, 27 (9♀); 23, 37 (2Ch ♀); site of pathologies: two facts on the glabella-nasal concha and one on the mid-area of the surface of the cerebral cranium (fig. 4). Burial Nos. 2, 14, 31.

Treatment of the skulls with fixation solution emphasized the areas of the tumours where changes in colour had occurred.

6. Increased intra-cranial pressure: 7 individuals in 6 burials: 1♂, 5♀, 1Ch. Burials Nos. 5 (1♂), 2, 15, 27, 37, 51 (5♀), 37 (1Ch).
7. Neurological defects and restricted neck movement in life: localization and symptoms resulting in changes of the foramen magnum area. Burials Nos. 43 (1♂), 37 (1Ch♀).
8. Patterned outer surface of skulls: pathological arrangement of bone texture as a result of various diseases: malaria, anaemia, leprosy, scurvy, etc.

III. Spine diseases occurred in 4 individuals from 4 burials: Burials Nos. 21, 47 (2♂), 15 (1♀), 23 (1Ch♀).

1. Growths: snout-like , on the spinous process of the II cervical vertebra (Burials Nos.15, 21).
2. Defects: of the spinous process of the II cervical vertebra (Burial No.23).
3. Growths of different shapes and sizes on thoracic and lumbar vertebrae (Burials Nos.21, 47).
4. Deformities and damage on thoracic and lumbar vertebrae (Burial No.21)
5. Tubercular spondylitis: fused 2-3 vertebras (Burial No.21.
6. Osteochondromatosis, a peculiar form: a 'lotus' position.

IV. Defects on upper limbs: destructive symptoms of osteophytosis on phalanges. Burials Nos. 21, 30 (2♂) .

V. Traumas: cut and pressurized areas. Burials Nos. 21, 26, 37, 43 (4♂), 2, 10, 34 (3♀), 23, 37 (1Ch♀). Cuts were attested on 5 individuals: Burial No.23 Ch♀: a cut made by an arrowhead behind the spinous process of the II cervical vertebra. Burial No.34 (♂): a cut on the frontal-temporal line. Burial No.37 (♂,Ch♀): ♂right tibia bone. A large part of the medial meniscus of a knee-cap cartilage obliquely sliced off; Ch♀ frontal bone, an incision on the glabella. Burial No.43 (♂): an iron arrowhead deeply inserted into the right elbow bone Ch♀ . Split dyaphysis, the edges not regenerated indicating a quick death. In any case, the individual concerned had a short life expectancy since the body was riddled with cancer.

In other injury cases observed on three other individuals, pressure had caused further complications.

VI. Medical intervention (observed in different chronological stages, anaesthetic and remedial procedures conducted on the population of the central and lower Kartli). Unhealed places indicate the fatal result of trauma.

Taking into consideration the long period over which the settlement existed (300 years: 3rd to 6th centuries AD), and the numbers of individuals excavated and analysed (57≈60 individuals), and despite the list of diseases, the general state of health was more than satisfactory.

VII. Causes of disease: most ailments of the bone structure occurred as a result of demineralization, for example: tooth enamel consists of 97% mineral substances lack of which can cause certain changes in the body. Infectious process and myelomas increase intra-cranial pressure reflected in finger-shaped incisions on the cerebral cranium. The constant physical overloading of the back muscles causes changes in vertebrae creating thorn-like or other growths. Pathological changes observed in the bone material represent a small part of organic diseases.

Several chemical substances can cause significant organic changes, chemicals such as acids, metals such as copper, lead, mercury, which in their early stage interact with the salivary layer and the teeth. Acids occurred in the mouth as a result of ingestion and were also developed independently inside the mouth: lactic acid easily interacts with the lime-salt of the dental system. Chronic poisoning with copper, lead, mercury and their compounds have a devastating effect on teeth and gums and create a favourable context for the development of caries, paradontosis and other defects and changes causing further complications.

Appendix D

Cemetery at the Navenakhevi site in Klde (225 KP)

Paleozoological Analysis Report

by Oleg Bendukidze

The osteological material recovered from Klde includes an abundance of remains of domesticated animals. Among them the following animals and birds were identified: cattle, dog, horse, donkey, sheep, goat, pig, and also poultry.

The remains of large cattle are of special interest among the domestic anomals. They were found together with the local breed in Klde (*Bos taurus brachyceros* (No.4/15[1:] Trench, IV wall; No.15/81: Trench No.46, No.18/232: Trench No.49). Judging by the size of the bones found at Klde, they presumably belonged to a representative of *Bos primigenius* (No.3/9, sq. A-31, a-3, Building No.16; No.40/345, sq. A-30,Cultural layer). Judging by their morphology and dimensions, the bones were comparable with the large breed od cattle we discovered at the Classical site of Chorati (Akhaltsikhe region).

As for the origins of two breeds of large and small cattle, scholars believe that *Bos taurus primigenius* was descended directly from the wild *Bos primigenius*. The origins of the smaller breed of *Bos taurus brachyceros* are, however, still unclear. Possibly their ancestors are to be found among the wild breeds of Asia.

The osteological material demonstrated the existence of a large dog in Klde: (Nos. 28/287, 28/289, 28/291).Judging by the size of the bones they were comparable with those of the Georgian sheep-dog, so called 'Metskhvarula' (*Canis pastoralis morpha caucasica*) and of the wolf (*Canis lupus*). Sadly, no dog's skull, or indeed any parts of the skull, a tooth for example, was found in Klde, and this makes the identification of the animal more hazardous. The fact remains that even the largest species of 'Metskhvarula' dog display only subtle differences from the bones of a wolf in terms of a few details in the structure of the skull or the sizes of teeth.

The large mammal bones from Klde are more likely to have belonged to a dog, for a wolf's bones would have surely been damaged during the skinning process. The skeletal remains display no signs of such treatment. It is interesting that in its dimensions and morphology the shoulder-bone of the Klde dog does not differ from that of the large dog discovered in the early 1st millennium AD level of the Orchosani site. The similarity of the bone remains of the Orchosani dog and those from Klde indicates that the Caucasian, or rather, the Georgian sheep-dog species probably existed in Samtskhe Javakheti since antiquity and the early Medieval period.

Apart from these remains of domestic animals, the remains of some wild animals were also discovered at Klde including: wild cat (*Felis ocreata [=lybica]*), hare (*Lepus europaeus*), deer (*Capreolus capreolus*), Caucasian deer (*Cervus elaphus maral*), wild goat (*Capra aegagrus*), Caucasian bison (*Bison bonasus caucasicus*) (No. 25/271, sq. C/23; Nos.29/299, sq. C/23-e/4, Building No.6, wall) frog (*Rana sp.*). The osteological material demonstrated the existence of two species of horses at Klde: a large horse and a considerably smaller horse. We assume that the smaller bones might have belonged to the onager (*Equus hemionus*) and that the larger remains were those of a domestic horse. This observation needs some further proof because of the current lack of material.

The wild animals unearthed in Klde can be characterized as the inhabitants of two different landscapes: forest (deer, bison, roe-deer, frog) and steppes (wild cat, onager) which proves the existence of variety of landscapes: forests, fields, groves inhabited by forest vertebrates as well as a lower mountainous zone and steppes where there were goats, wild cats and onagers.

This picture of the landscape of Akhaltsikhe region has not been changed to this day (apart from the anthropological reduction of the forest area). It should be mentioned that the remains of a bison had not been found in southern Georgia before 2005, when the bones of a bison were discovered by us in Chorati). Judging by these data, it is clear that the bison was once distributed in Akhaltsikhe region.

Bisons seem to be widely spread all over Caucasus and mainly in Georgia. The remains of bison were unearthed during the excavations of the Eneolothic dwelling at Arukhlo (Kvemo Kartli), but more they were found more frequently in western Georgia in the cave dwellings of Imereti, Apkhazia and Megrelia (Dzudzuana, Sagvarjile, Apiancha, Tsivi Mgvime and Svanta Savane). Particularly abundant finds of bison bones came from Dzudzuana Cave (Bendukidze, 1979). Finds from eastern Georgia were, however, scarce. Bison bones were found at the Early Farming settlement at Dmanisi (southern Georgia). Bison remains are mentioned by N. Burchak-Abramovich and O. Bendukidze (1969) among the fauna of the Mesolithic dwelling in Zurtaketi. The discovery of bison bones (the lower shoulder bone and the lower jaw) proves that this animal inhabited Meskhet-Javakheti region during the Classical period.

Judging by these data, it is clear that the Caucasian bison was once distributed all over Georgia. During the Holocene period the area inhabited by the bison had been decreasing. According to I. Bashkirov (1940), a small population of bison still survived into the 20th century in the basins of Rivers Psou, Bzip, Kodori and the upper part of the Enguri. The same author informs that the last three specimens of bison were killed in 1926 on the slopes of Mount Alousa (north-west Caucasus).

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Appendix E

N. Rusishvili
N. Meladze

Palaeoethnobotanical Analysis Report: Klde settlement (VI-217)

Soil samples collected from the Klde settlement were studied from the palaeoethnobotanical point of view. A total of 16 samples were processed. Fossil botanical material was discovered in 15 samples. Soil samples were processed by means of the flotation method, which involves the extraction

of fossil botanical remains by means of water and CCL4. At the next stage the material was consolidated and conserved, and prepared for identification. The identification of fossil botanical remains was conducted at the level of genus and species by means of a microscope

Of cultivated plants there were identified: soft wheat: *Triticum aestivum L.*, emmer wheat: *Triticum dicoccum Schubl.;* einkorn wheat: *Triticum monococcum*, barley (*Hordeum vulgare L.*), cultivated vine: *Vitis vinifera L.*, cultivated millet: *Panicum miliaceum L.* Twenty-two ruderals and wild plants were also identified.

Soft wheat was found in three places on the territory of the settlement (Fig. No.1). According to their morphological features, the grains had round apical parts and bases, and deep ventral grooves and a low dorsal side (Pl. No.2-3). The scarcity of material makes it difficult to draw conclusions as to whether there was an independent agro-population of emmer wheat. But the fact that soft wheat was found separately and was unmixed with any other sort of wheat might suggest that it was sown specifically in designated areas.

Double-grained wheat, about 50 g, was identified in soil samples collected at Building No.13 (Plate No.1). The grains were oblong with deep ventral grooves. Their dorsal sides were slightly asymmetrical and had high ridges. The parameters and indices of the grains under discussion satisfied standard accepted values for *Triticum dicoccum* (Table No. 4). As to whether there was an independent agro-population of emmer wheat, they doubtless were sown independently judging by the fact that they were found without any admixture.

Einkorn wheat *Triticum monococcum* was identified in one case and one grain was found. According to its morphological features, the grain had a narrow ventral groove and a high dorsal side. The parameters and indices were calculated, and according to them, the excavated grain corresponds completely to the values for einkorn wheat. This kind of wheat was probably an insignificant addition to other kinds of grains.

Husk-grained barley, *Hordeum vulgare*, was identified in six samples (Fig. No.1). Measurements and the calculation of parameters were undertaken only in three samples (Figs. Nos. 5-6). According to their morphological features, the grains were ellipse-shaped, i.e. they were flattened on their dorsal and ventral sides. There were triangular grooves on their ventral sides, widening at their apices. An imprint characteristic of floriferous glume was clearly distinguishable on the dorsal sides of the grains in question (Pl. No.25-4). The grains were identified as belonging to husk-grained barley, *Hordeum vulgare L.* on the basis of the aforementioned characteristics and relevant measurements and indices.

Millet *Panicum miliaceum L* was identified in three samples (Pl. 1). According the to morphological features, the seeds were elongated, one thirds of their bodies were occupied by embryos (Pl. No. 25-1). Seed sizes were: length (L) 2.0-1.8-1.7 mm, width (B) 1.5-1.6-1.5 mm. All the above-mentioned grains belonged to a cultivated species of millet, *Panicum miliaceum*. (fig. 4).

Carbonized **grape** *Vitis vinifera L* pips were identified in two samples. (Pl. No.1). The first sample was identified from the soil taken at the altar in Building No.16. Seed sizes were: length (L) 4.5 mm, width (B) 3.0 mm, length of beak 1.3 mm, the proportion L/B equals 1.5. Two other pips were identified from the bottom of the wine storage jar No.34 at the settlement. Only one of them had been measured: L: 4.5 mm; B: 3.0mm; length of beak 1.0 mm. proportion L/B equals 1.43. The grape pip had a pearlike shape, on its dorsal side the *kaladza* was located in the middle of the seed body, on its ventral side lateral grooves were deep, spreading in parallel. The ventral seam was distinctly marked. These data point to the grape pip in question having belonged to a cultivated species of vine: *Vitis vinifera*.

Weeds and wild plants

1. ***Avena sp.*: O**ats. Family: *Graminae*. Species of this genus mainly represent weeds of cultivated cereals.
1. ***Brassica sp.*:** Cabbage. Family *Cruciferae*. Cultivated and wild plants and their weeds are its representatives..
2. ***Bupleurum rotundifolium L.***: Hare's ear. Family *Umbelliferae*. Seed parameters: 2-2.5X1-1.5 mm. A weed of cereals, widespread throughout Caucasus.
3. ***Chenopodium album L.:*** Lamb's quarters. Family: *Chenopodiaceae.* Seed parameters: 1-1.5 mm.; weed that is difficult to irradicate, keeps growing back annually. the shoots are edible and are used as a salad; apart from cereals, it grows in ruderal places as well.
4. ***Elaeagnus angustifolia L.*:** Russian olive, oleaster. Family: *Elaeagnaceae*; medium sized tree with hard bark, is used in carpentry. fruit is edible, like flour; , widespread throughout Caucasus.
5. ***Galium spurium L.*:** Goosegrass. Family: *Rubiaceae*. Seed parameters: 1.5-2 x 1-1.5 x 1.3-1.5 mm. Widespread throughout the Caucasus. A weed of cereals. Grows at roadsides.
6. ***Galium tricorne Stokes*.:** Roughfruit corn bedstraw. Family: *Rubiaceae*. Seed D: 2-3 mm. A weed of cereals.
7. ***Lolium sp.*:** Poison darnel. Family: *Graminellae.* This genus mainly consists of weeds of cultivated cereals.
8. ***Ligia passerina (L).* Fas.:** Spurge-flax. Family: *Thymelaeaceae*. Seed parameters: 1.5-2 x 1-1.2 mm. A weed of cereals and cultivated technical genus.
9. ***Malva silvestris L.:*** High mallow. Family: *Malvaceae*. Seed parameters: 1.75-2 x 1-1.25 mm. Edible weed used for soups, a strong fibre can be produced from the young shoots. Grows at roadsides.
10. ***Medicago lupulina L.*:** Black medick. Family: *Leguminosae*. Seed parameters: 1.4 x 1 x 0.8 mm. A weed of cereals, edible for animals
11. ***Polygonum patulum M. B.*** Bellard's smartweed. Family: *Polygonaceae.* Seed parameters: 1.8 x 1.2 x 0.8 mm. A weed of cereals. Grows in dump areas.
12. ***Polygonum sp.*** Knotweed . Family weed cereals. Grows in forests as well.
13. ***Potentilla argentea*** Silvery cinquefoil. Family: *Rosaceae.* Seed parameters: 0.7 x 0.5 x 0.25 mm. A weed of cereals. The roots were used for red dye; the steams and leaves mixed with straw were used to drive out the worms, was fed to horses.
14. ***Rumex acetosa L*** Sorrel. Family: *Polygonaceae*. (fig. No.7) Seed parameters: 1.5 x 1.7 mm. Known as a weed. Grows in meadows, pastures and orchards. A sour soup is made from its leaves.
15. ***Secale cereale ssp segetale L.*:** Weed rye . Family: *Graminae*. A weed of cereals.
16. ***Setaria viridis (L.) P .B.*** Brackenfern. Family *Graminae.* L: 5 x 0.5mm. A weed of cereals. Grows in meadows.
17. ***Siline natans L.***: Wild pink. Family: *Caryophyllaceae.* Seed parameters: 1 x 0.75 x 0.5mm. A weed of cereals. Grows in meadows.
18. ***Solanium nigrum L.*** Black nightshade. Family: *Solanaceae***.** Seed parameters: 1.7 x 1.25 x 0.5 mm. Rarely found as a weed of cereals. Grows on roadsides and in ruderal places (fig No.8)
19. ***Stachys annua L.*:** Yellow-woundwort Family: *Labiateae*. Seed parameters: 1.5 x 1.25 x 1 mm. A weed of vegetables and cereals. Grows on roadsides.
20. ***Trifolium sp.*** Clover . Family edible weeds.
21. ***Vicia sp.*** Vetch. Representatives of this genus are mostly weeds of cereals. They also grow in meadows.

Household economy and farming of the site in Klde was represented by two agropopulations of wheat (soft and double-grained), millet, husk-grained barley and cultivated grapes. Judging by the amount of weeds, farming took place near the settlement and crop probably was not imported. The palaeobotanical materials studied in previous years are mostly identical to the materials identified this year, apart from some weed plants. This fact suggests the longstanding farming tradition at the vineyard site.

Commentaries on Table 1, Klde settlement

1 (1) Building No.16 to the east of the altar.
Elaeagnus angustifolia L.: Russian olive, oleaster

2 (8) Building No.16 at the altar
Vitis vinifera.: Domestic vine
Triticum aestivum L.: Soft wheat
Hordeum vulgare L.: Husk grained barley
Panicum miliaceum L.: Millet
Galium spurium L.: False cleaver
Galium tricorne Stokes.: Roughfruit corn bedstraw
Bupleurum rotundifolium L.: Hare's ear
Ligia passerina (L.) Fas.: Spurge-flax
Lolium sp.: Poison darnel
Medicago lupulina L.: Black medick
Malva silvestris L.: High mallow
Potentilla argentea L.: Silvery cinquefoil
Setaria viridis.: Green bristlegrass
Rumex acetosa.: Sorrel
Silene natans L.: Wild pink

3 (10) Building No.16, 31 a2. Clay Pot. 5.
Wheat fragments
Galium spurium: Goosegrass
Lolium sp.: Poison darnel

4 (12) Building No.31 e2 312, from floor 1.55 m.
Hordeum sp.: Barley
Polygonum patulum M.B.: Bellard's smartweed

5 (13) Building No.13 – 1.00 m.
T. dicoccum Schubl. 50gr. Emmer wheat

6 (14) Building No.14. Clay Pot. 2 1.55 m.
Hordeum vulgare L.: Husk-grained barley

7 (15) Building No.13 33e 1 Clay Pot. 1.00 m.
Hordeum vulgare L.: Husk-grained barley

8 (15) Building No.14 From clay Pot 1.55 m.

Hordeum sp.: Barley
Triticum sp.: Wheat
Panicum miliaceum L.: Millet
Chenopodium album L.: Lamb's quarters
Stachys annua L.: Yellow-woundwort
Trifolium sp.: Clover

9 (17) Settlement 34. large pitcher 1.55 m.
Panicum miliaceum L.: Millet

10 (19) Settlement 34 d2 Pit No.3. -1.55 m.
Triticum aestivum L.: Emmer wheat

11 (20) Settlement 34. Wine storage jar 1.55 m.
Vitis vinifera L.: Domestic vine
Triticum monococcum L.: Einkorn wheat
Secale creale ssp segetale L.: Weed rye
Hordeum vulgare L.: Barley
Vicia sp.: Vetch
Trifolium sp.: Clover
Solanium nigrum: Black nightshade

12 (21) Burial No.79 From clay pot. 1.20m.
Chenopodium sp. (fragment): Goosegrass

13 (25) Burial No. 93 Clay pot. No.1 – 1.45m.
Avena sp.: Oats
Hordeum sp. (fragment): Barley
Polygonum sp.: Knotweed

14 (26) Burial No.94 From trefoil clay pot. 1.35m.
Brassica sp.: Cabbage
Trifolium sp.: Clover

15 (27) Burial No.94 From pitcher 1.35m.
Medicago lupulina L.: Black medick
Chenopodium sp. (fragment): Goosegrass

16 (37) Building17 Trench 46. From wine storage jar. 1.85m.
Horrdeum vulgare L. Barley

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The different varieties of plants found at the Klde settlement

List of Species

Table 1

№	Species	Place of discovery																Familia
		1(1)	2(8)	3(10)	4(12)	5(13)	6(14)	7(15)	8(15)	9(17)	10(19)	11(20)	12(21)	13(25)	14(26)	15(27)	16(37)	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	18
1	Avena sp.													+				Graminae
2	Brassica sp.														+			Cruciferae
3	Bupleurum rotundifolium L.		+															Umbelliferae
4	Chenopodium album L.																	Chenopodiaceae
5	Chenopodium sp								+				+					Chenopodiaceae
6	Elaeagnus angustifolia L.	+																Elaeagnaceae
7	Galium spurium L.		+	+							+							Rubiaceae
8	Galium tricorne Stokes.		+															Rubiaceae
9	Hordeum sp.								+					+				Graminae
10	Hordeum vulgare L.		+		+		+	+				+					+	Graminae
11	Lolium sp		+	+														Graminae
12	Lygia passerina (l.) Fas.		+															Thymelaeaceae
13	Malva silvestris L.		+															Malvaceae
14	Medicago lupulina		+												+			Leguminosae
15	Panicum miliaceum L.		+						+		+							Graminae
16	Polygonum patulum M.B.				+													Polygonaceae
17	Polygonum sp.												+					Polygonaceae
18	Potentilla argentea L.		+															Rosaceae
19	Rumex acetosa L.		+								+							Polygonaceae
20	Secala segetale (Zhuk.)Roshew.											+						Graminae
21	Silene setarivia																	Caryophyllaceae
22	Solanium nigrum											+						Solanaceae
23	Stachys annua L.										+							Labiatae
24	Trifolium sp.										+	+			+			Leguminosae
25	Triticum aestivum L.	+									+							Graminae
26	Triticum dicoccum Schubl.					+						+						Graminae
27	Triticum monococcum L.											+						Graminae
28	Triticum sp.			+														Graminae
29	Vicia sp.											+						Leguminosae
30	Vitis vinifera	+										+						Vitaceae

Table No. 2

No.	L	B	T	L/B	B/L%	T/L%	T/B%
1	5.2	3.2	2	1.6	61.5	38.5	62.5
2	4.5	3	2	1.5	66.7	44.4	66.7
3	4.5	2.5	2.2	1.8	55.6	48.9	88

Pit No.3 1.55 m: Triticum aestivum, parameters and indexes
Table No. 3

No.	L	B	T	L/B	B/L%	T/L%	T/B%
1	5	3.5	2	1.43	70	40	57.1
2	4.5	3	2	1.5	66.7	44.4	66.7

Structure No.13 1.0 m: Triticum dicoccum, parameters and indexes
Table No. 4

No.	L	B	T	L/B	B/L%	T/L%	T/B%
1	5.5	2.2	2	2.5	40	36.4	90.9
2	5.8	3	2	1.93	51.7	34.5	66.7
3	5.5	2.7	2.1	2.03	49.1	38.2	77.8
4	6.2	2	2	3	32.3	32.3	100
5	5.5	2.2	2	2.5	40	36.4	90.9
6	5.3	2.2	1.8	1.9	52.8	33.9	64.3
7	6.2	2.3	2.1	2.7	37.1	33.9	91.3
8	6.3	2.1	2	3	33.3	31.7	95.2
9	5.2	2.2	2.2	2.4	42.3	42.3	100
10	6.5	2.7	2.1	2.4	41.5	32.3	77.8
11	5.5	2.2	2	2.5	40	36.4	95.2
12	4.8	2.5	2.1	1.9	52.1	43.8	84
13	6	2.8	2	2.9	46.7	33.3	71.4
14	6	2.1	2.2	2.9	35	36.7	104.7
15	6	2.5	2.3	2.4	41.7	38.3	92

Building No.16, 1.55m from altar. Hordeum vulgare, parameters and indices
Table No. 5

No.	L	B	T	L/B	B/L%	T/L%	T/B%
1	6	3.2	2	1.8	53.3	33.3	62.5
2	5	3	1.8	1.7	60	36	36
3	5	2.8	1.5	1.8	56	36	53.6

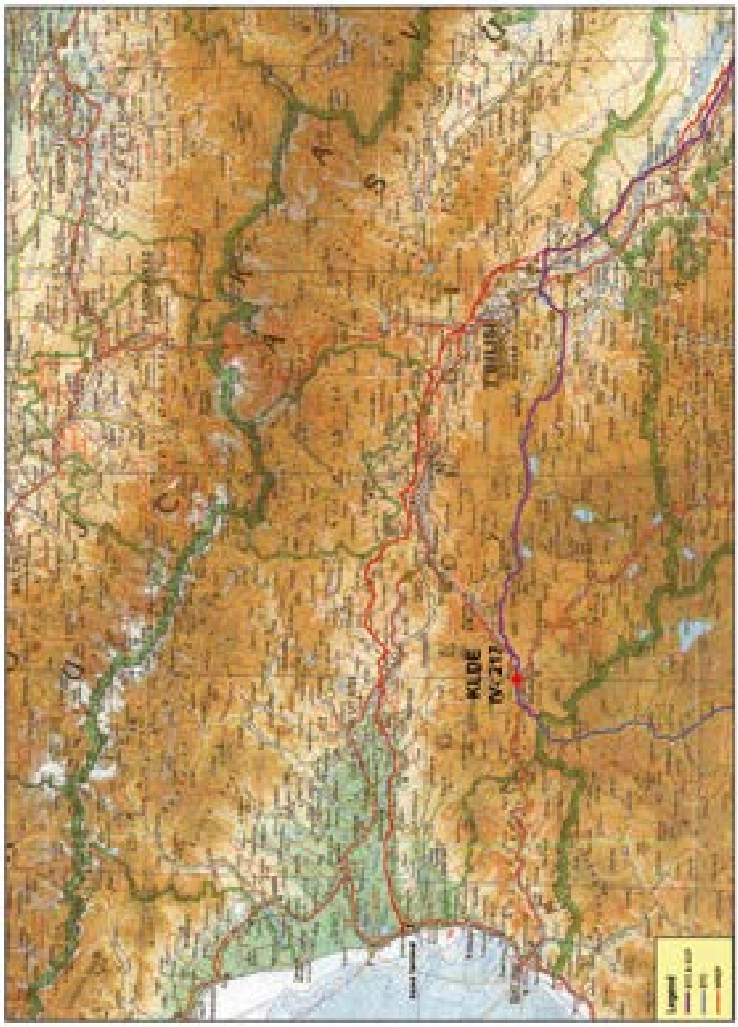
Building No.13 33rd 1 pot Hordeum vulgare parameters and indexes
Table No. 6

No.	L	B	T	L/B	B/L%	T/L%	T/B%
1	5	2.5	1.8	2	50	36	72

Parameters and index

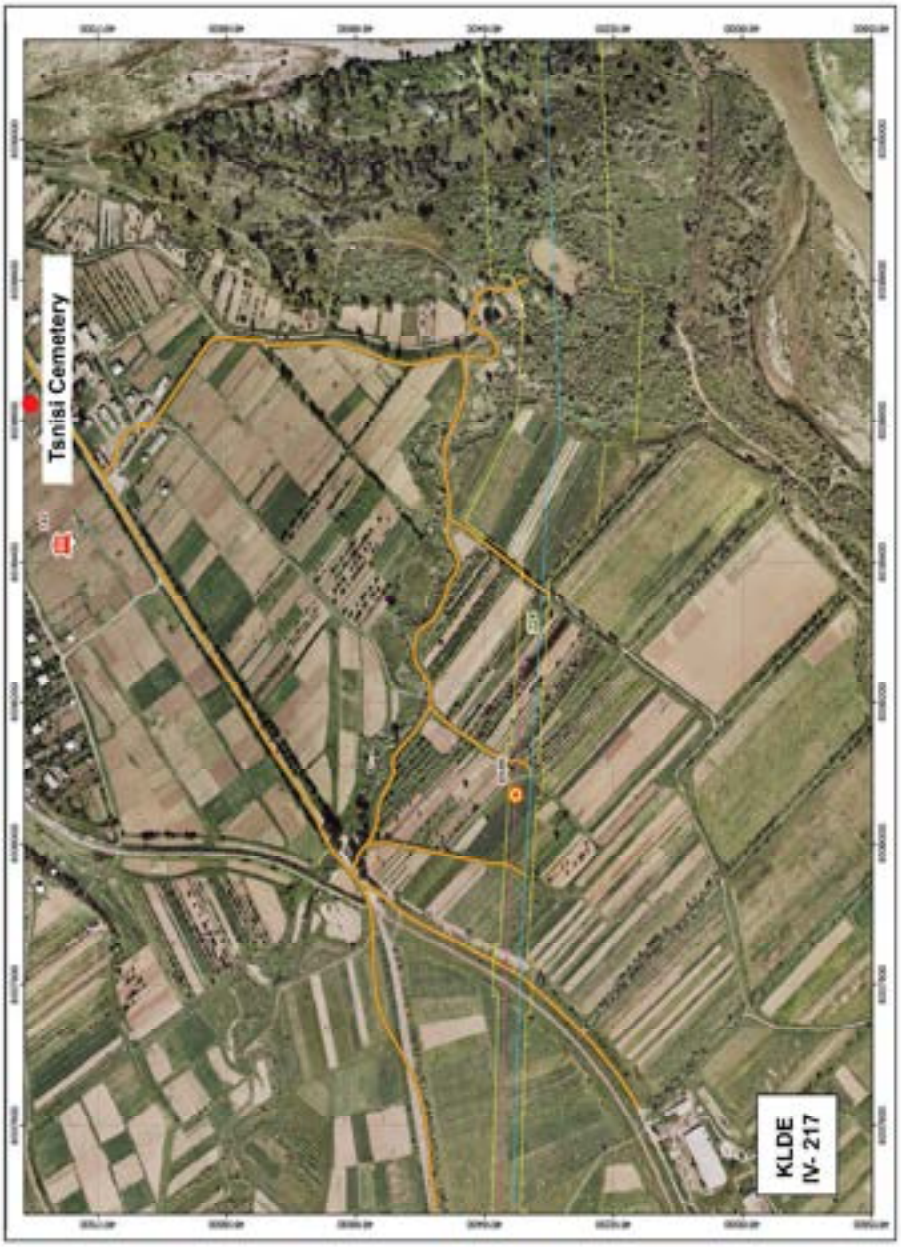
Table No. 7

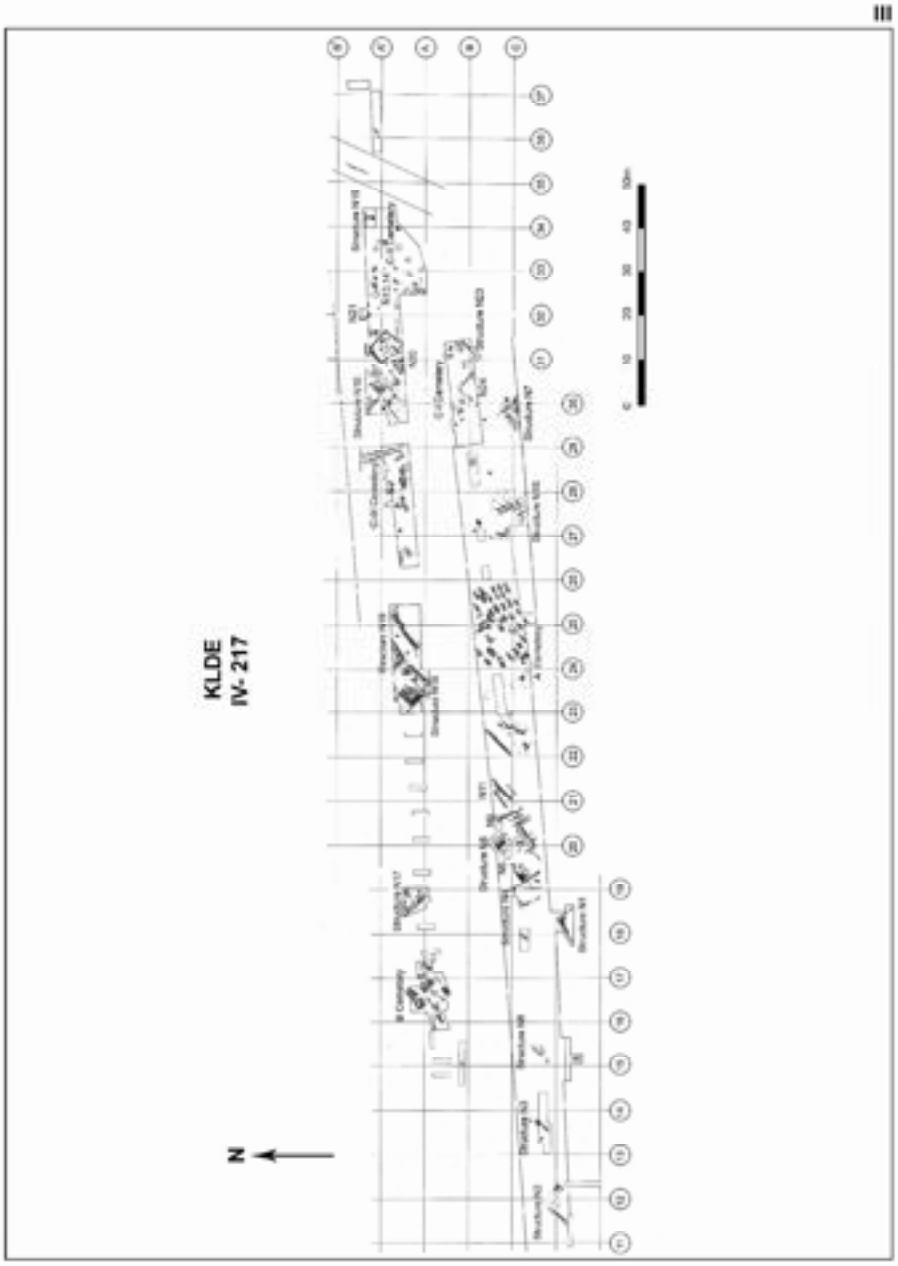
No.	L	B	T	L/B	B/L%	T/L%	T/B%
1	4.5	2.5	2	1.8	55.6	44.4	80



PLATES

II

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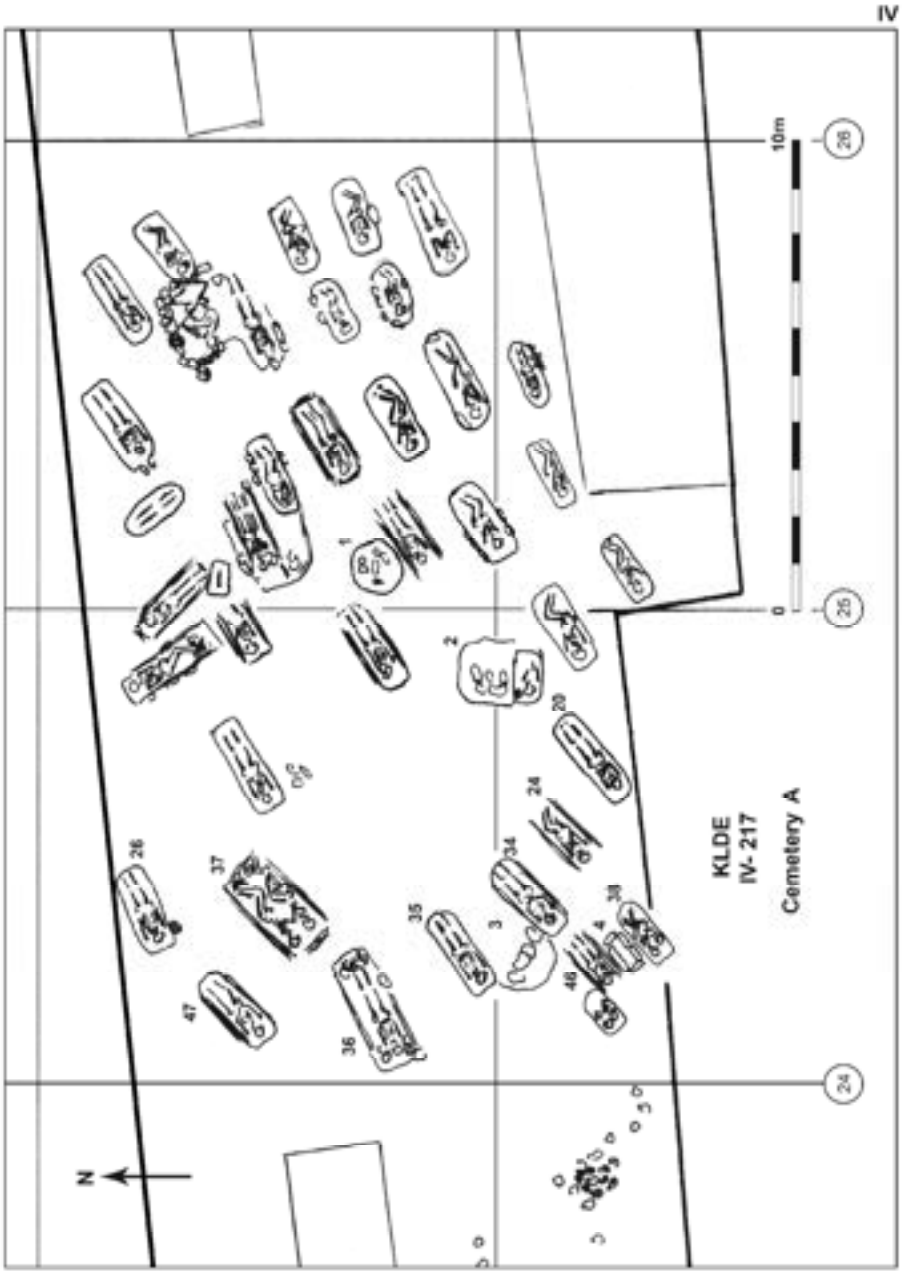
KLDE
IV- 217
N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10m
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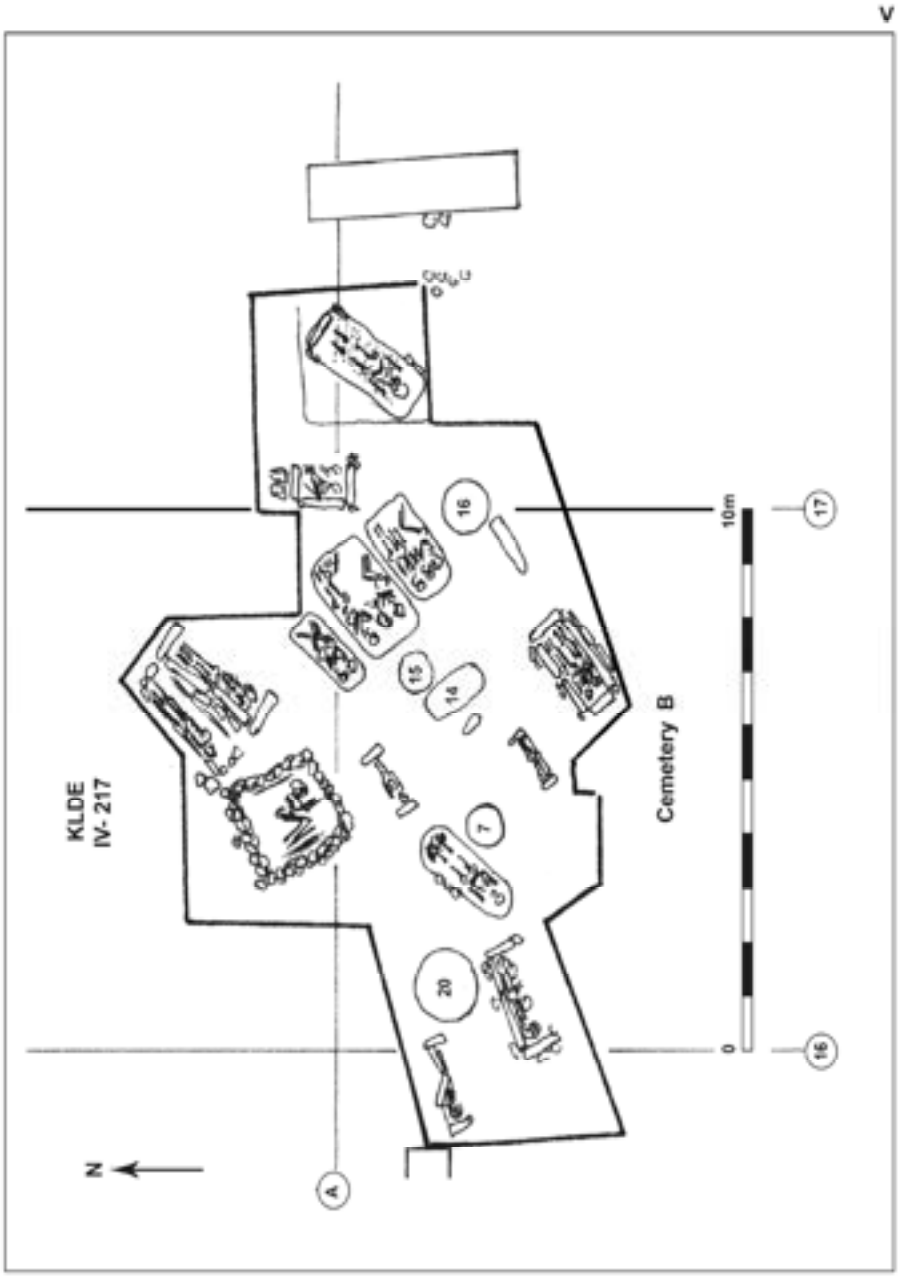
26
25
24
KLDE
IV- 217
Cemetery A
N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KLDE
IV- 217
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N
A
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17
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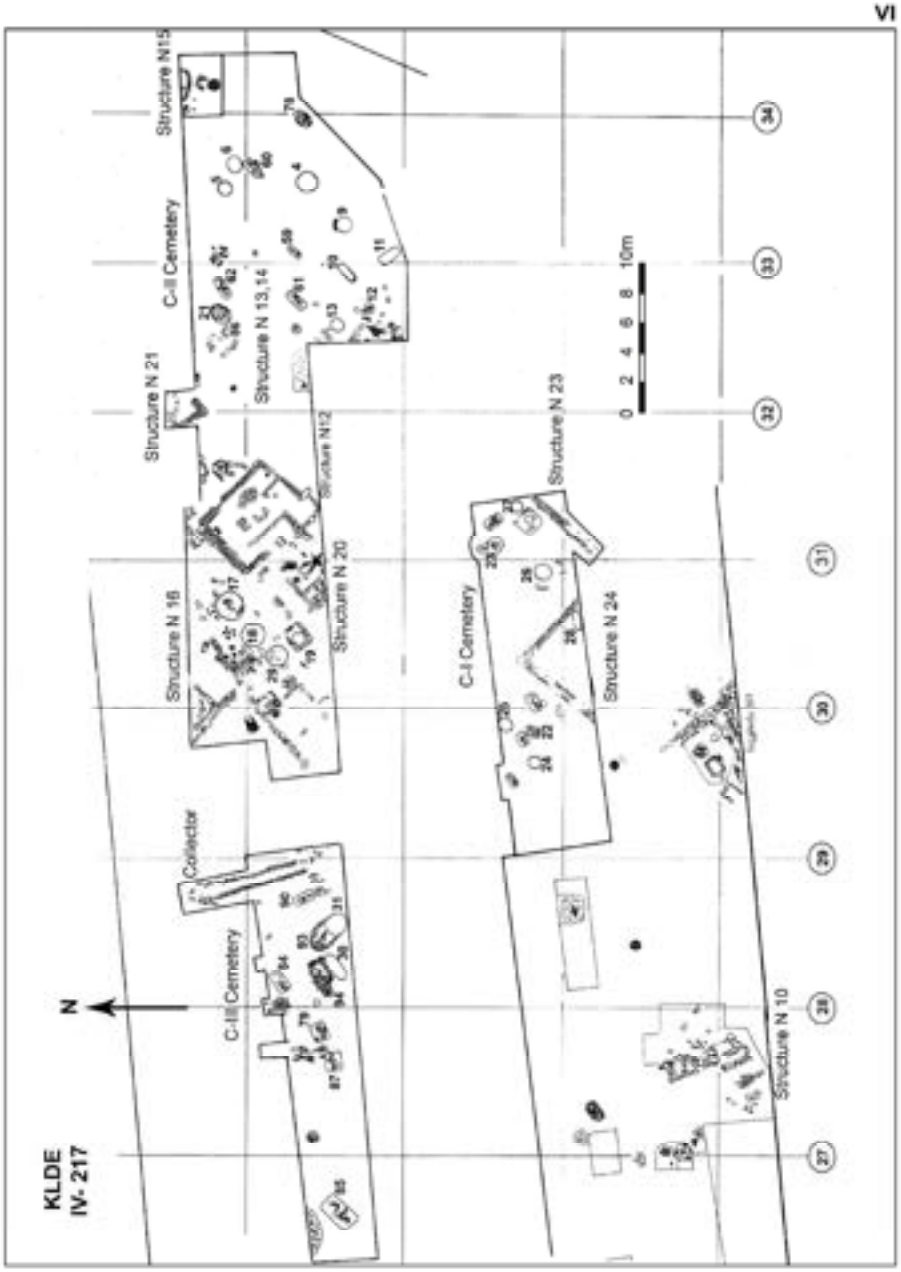
14
7
20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C-II Cemetery
Structure N 13,14
Structure N 21
Structure N12
Structure N 20
Structure N 16
Collector
C-III Cemetery
C-I Cemetery
Structure N 23
Structure N 24
Structure N 10
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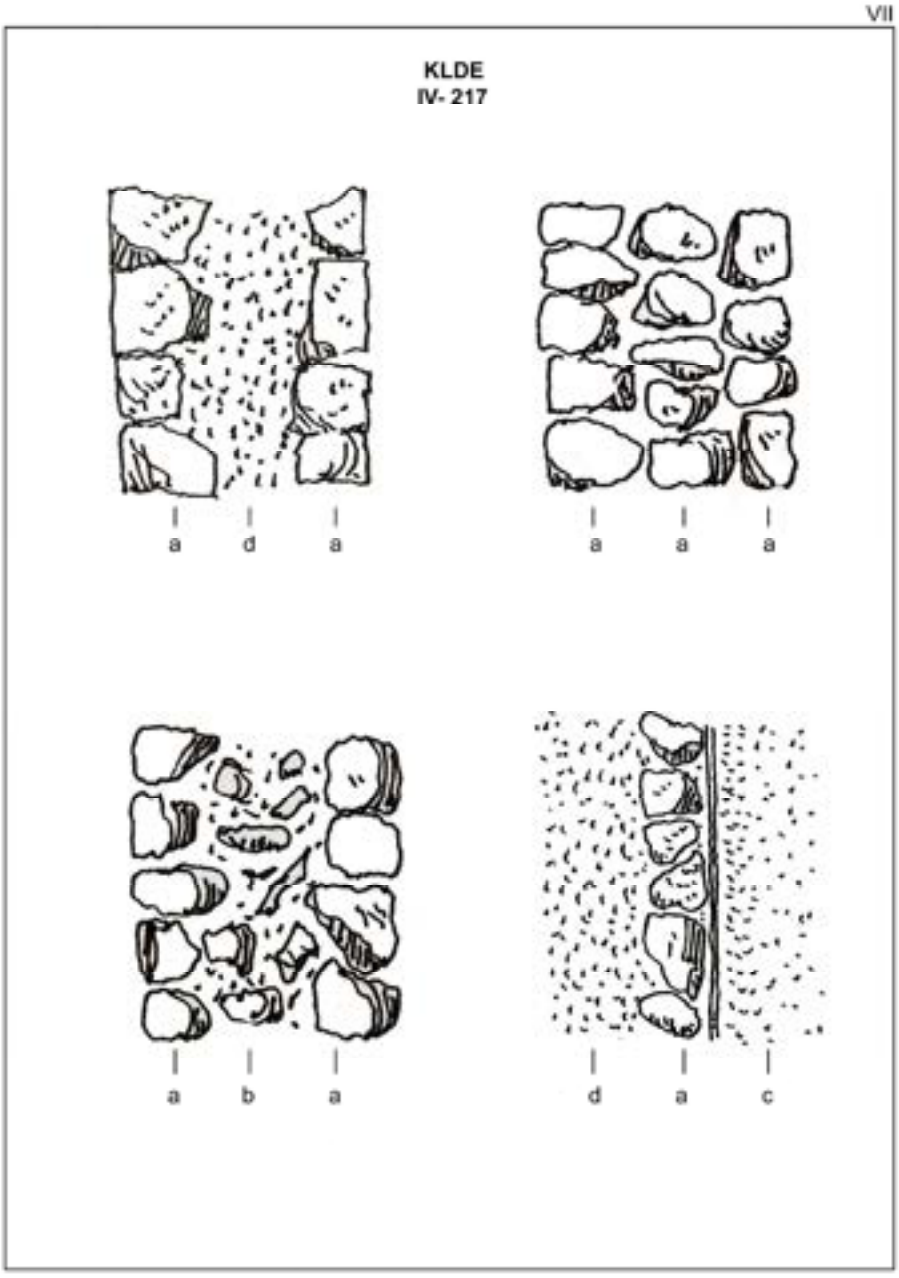
N
KLDE
IV- 217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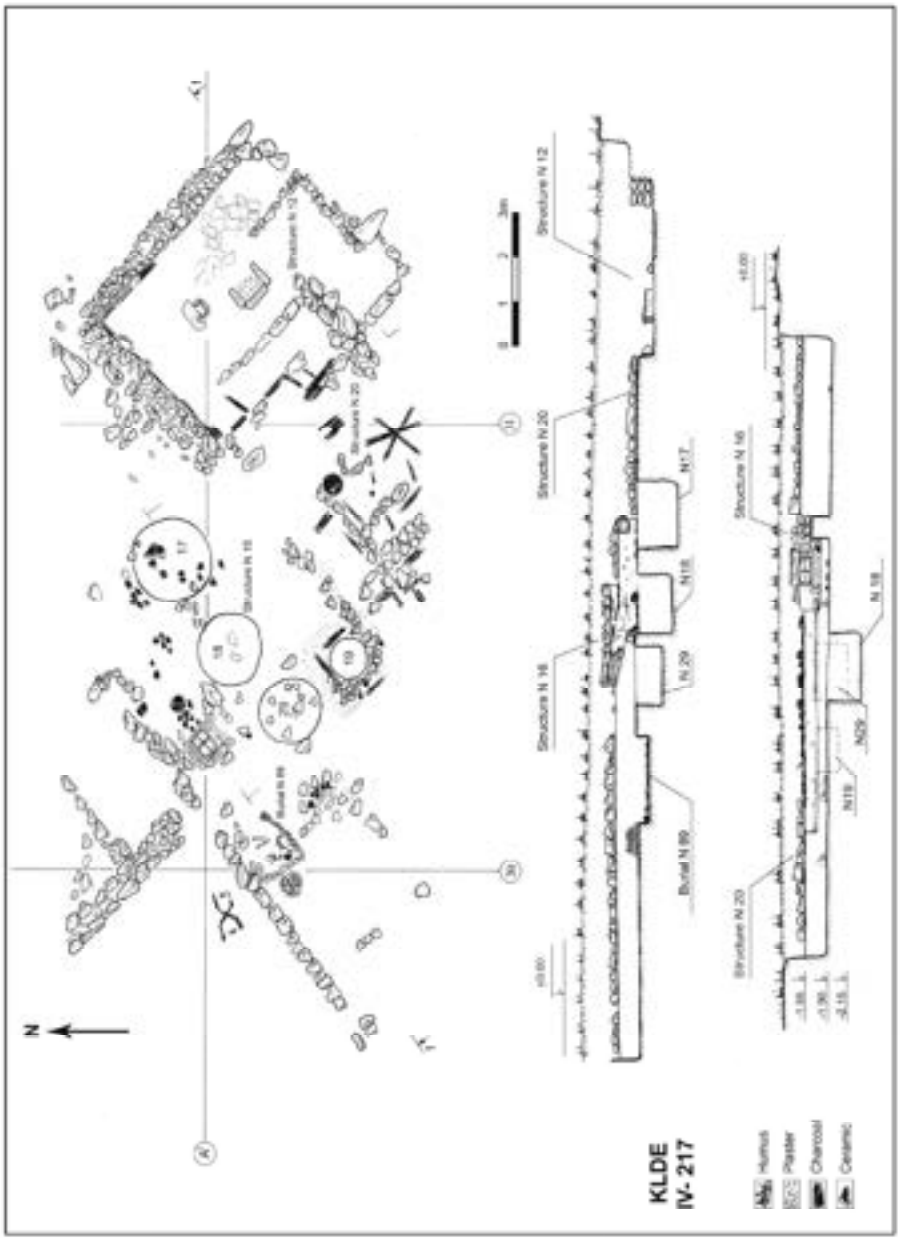
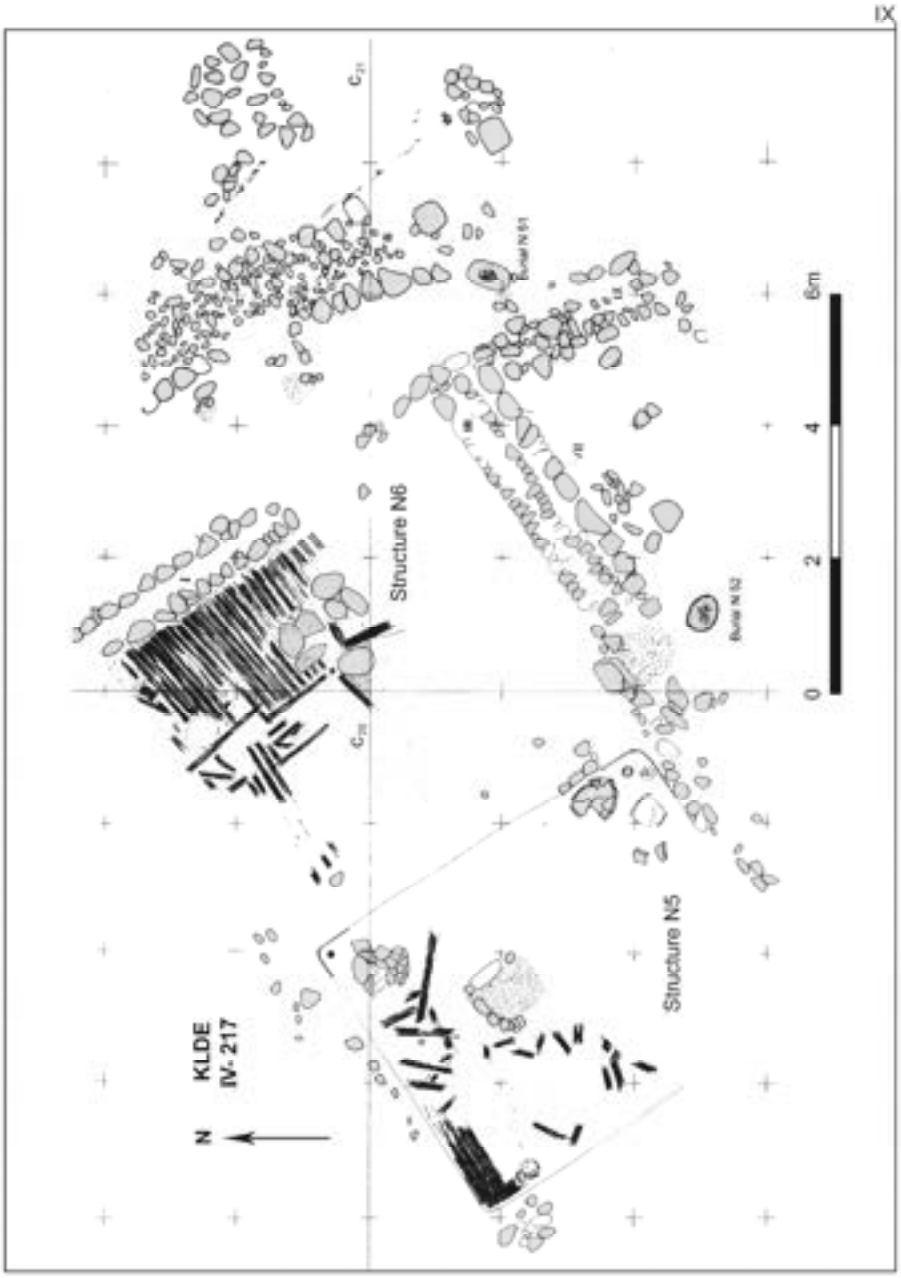
KLDE
IV- 217
a d a
a a a
a b a
d a c

VIII


KLDE
IV- 217
N
Structure N 12
Structure N 20
Structure N 16
Structure N 18
Structure N 20
Burial N 89
Humus
Plaster
Charcoal
Ceramic

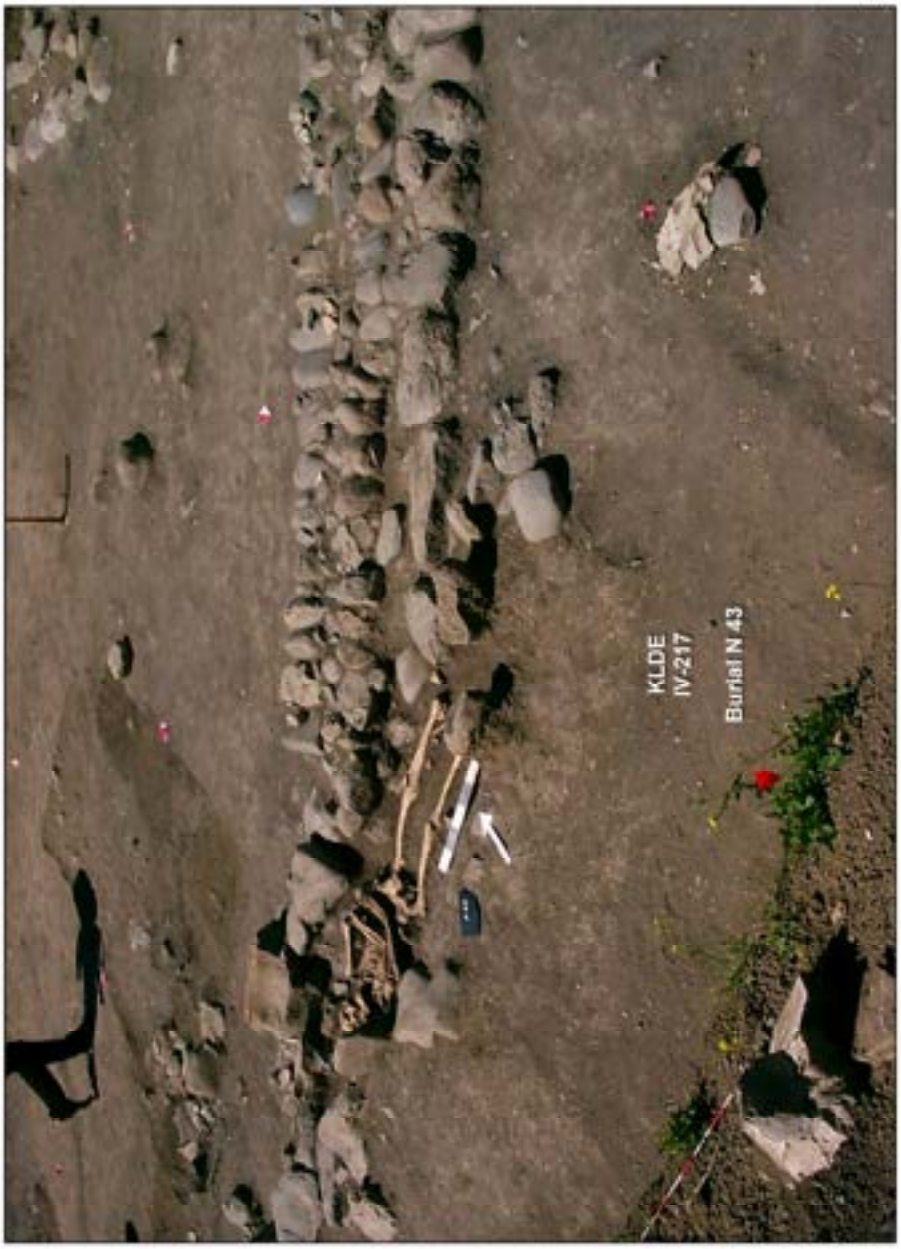

IX
Structure N6
Structure N5
KLDE
IV- 217
N
0
2
4
6m


X
Wall N V
KLDE
IV- 217


XI
KLDE
IV-217
Cemetery B
Pits

XII

XIII



XIV

XV

XVI

XVII

KLDE
IV-217

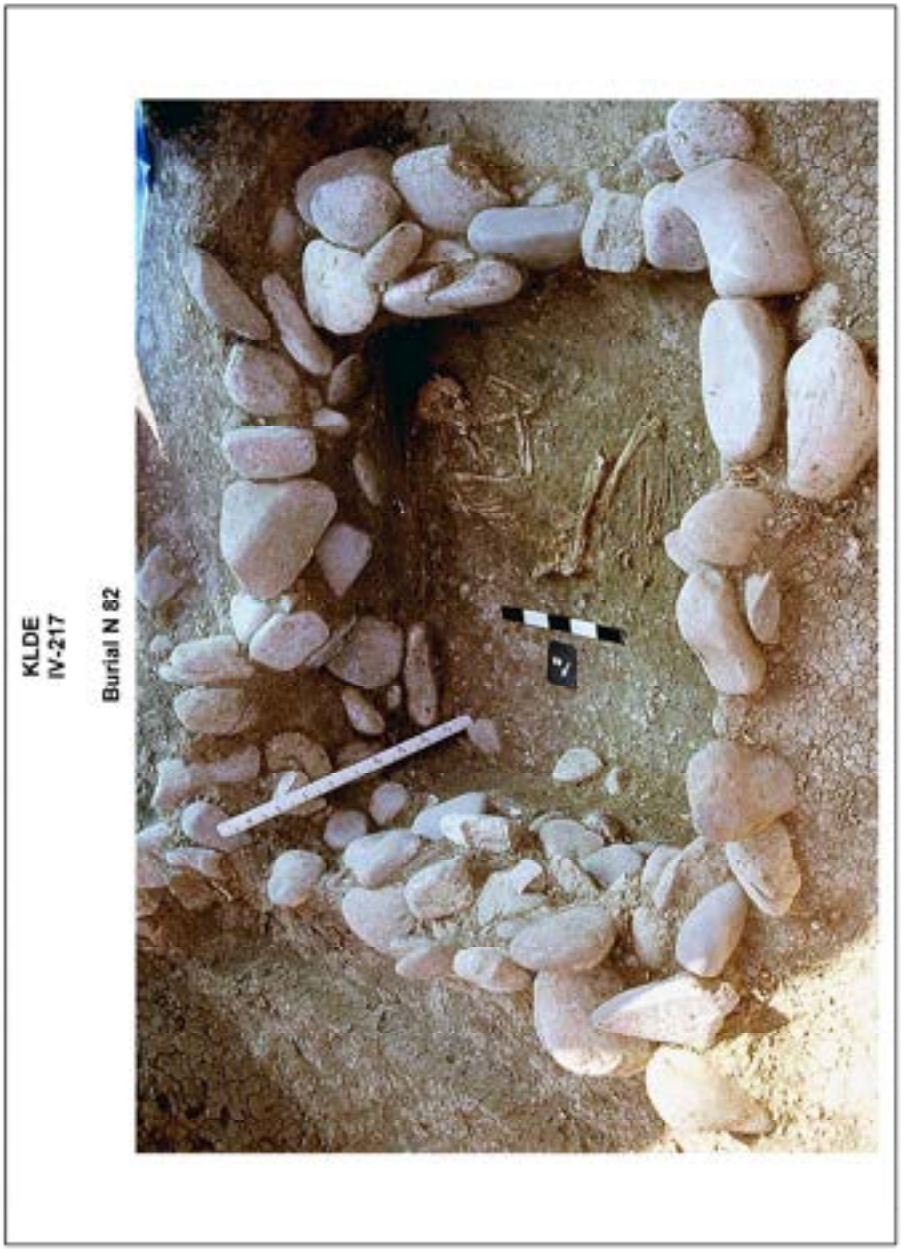
Burial N 73

XVIII

KLDE
IV-217

Burial N 21

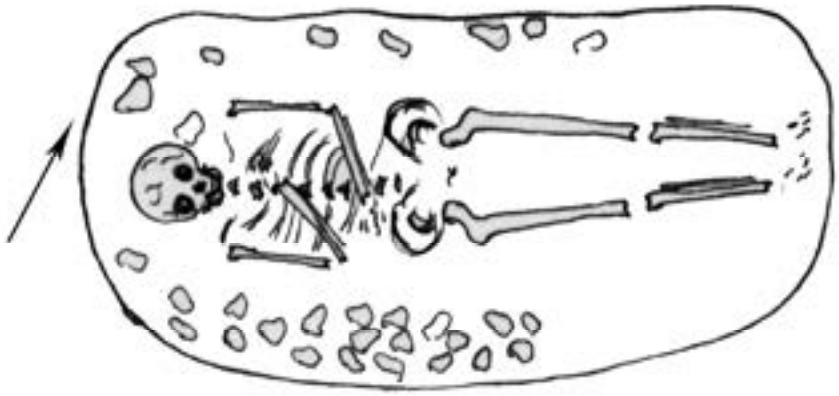
XIX



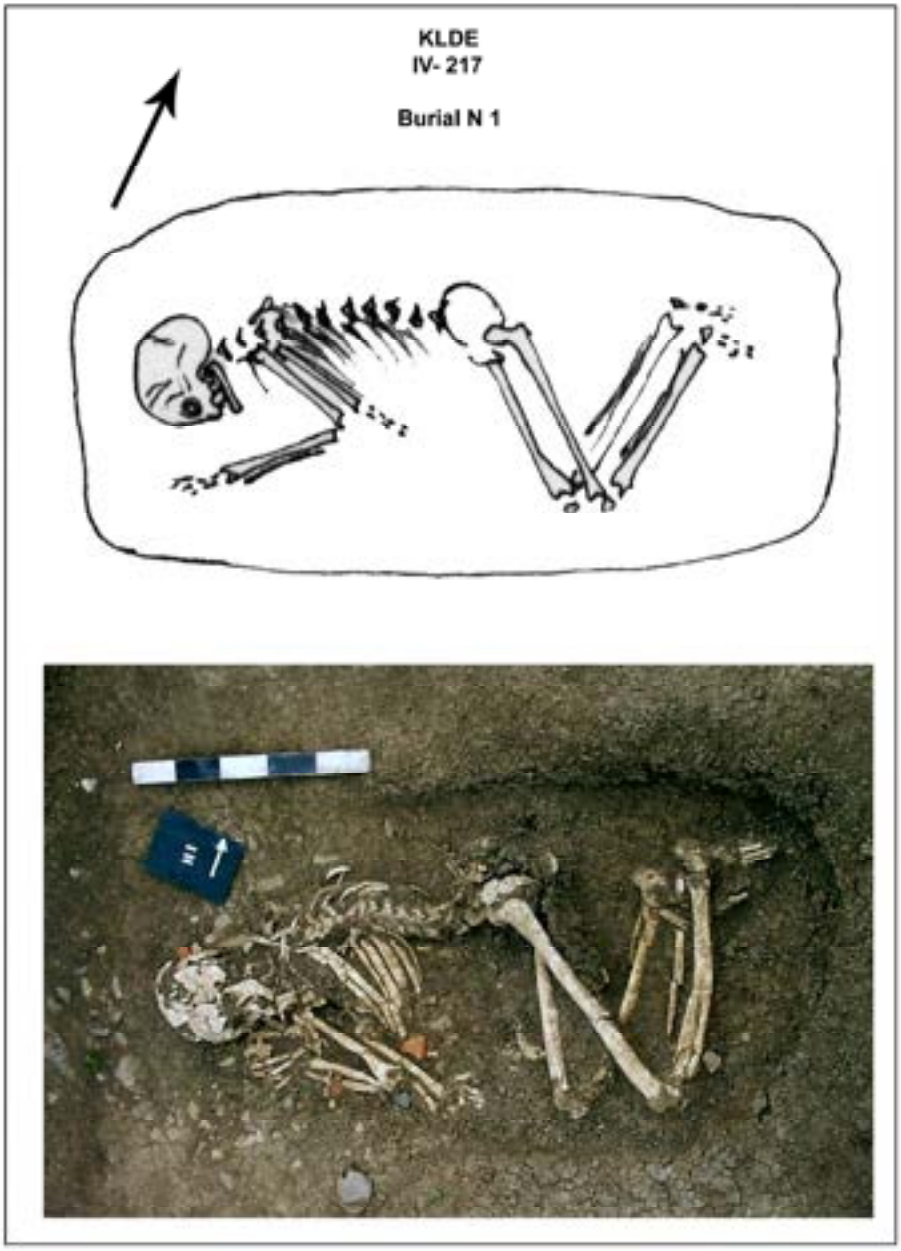
XX

KLDE
IV-217

Burial N 16



XXI

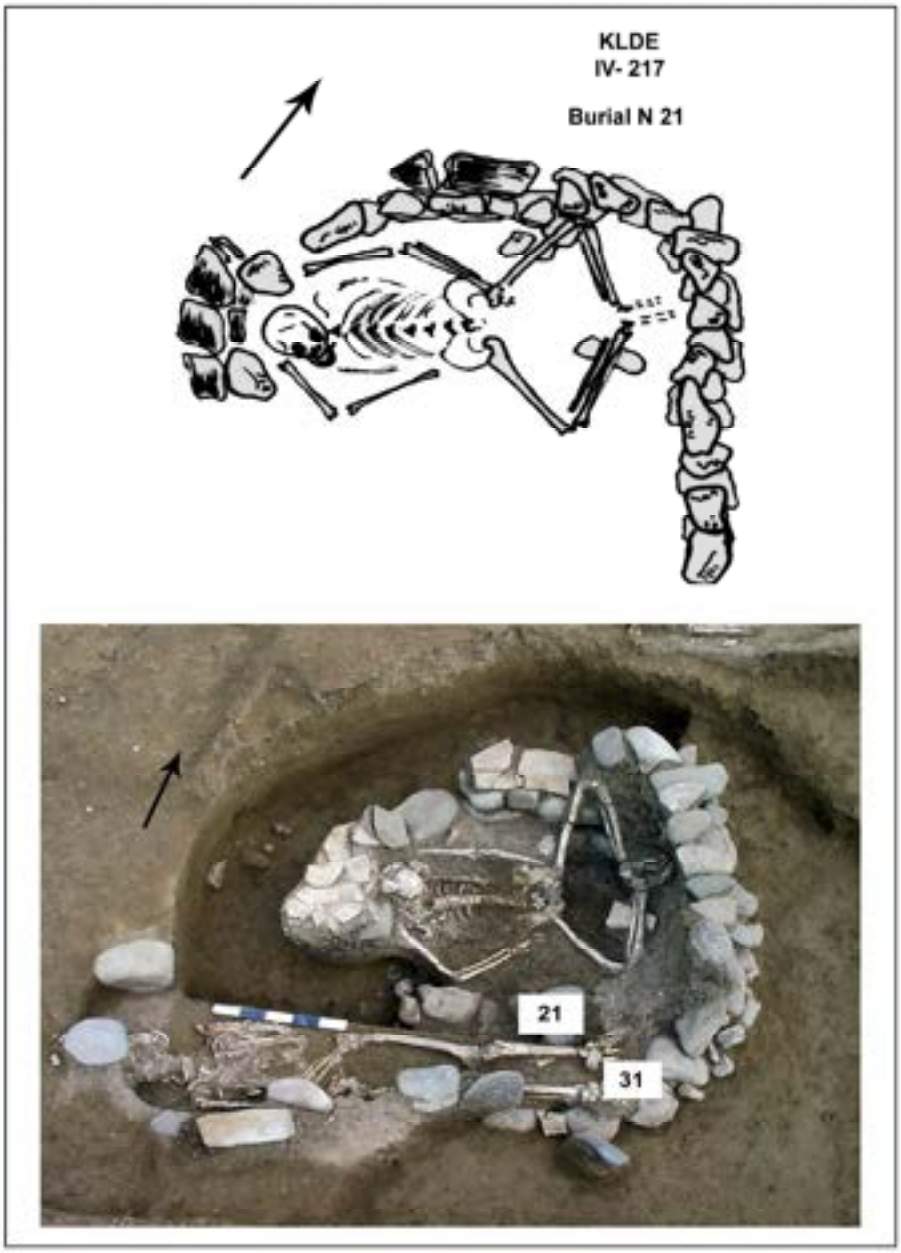


XXII

KLDE
IV-217

Burial N 27

XXIII



XXIV

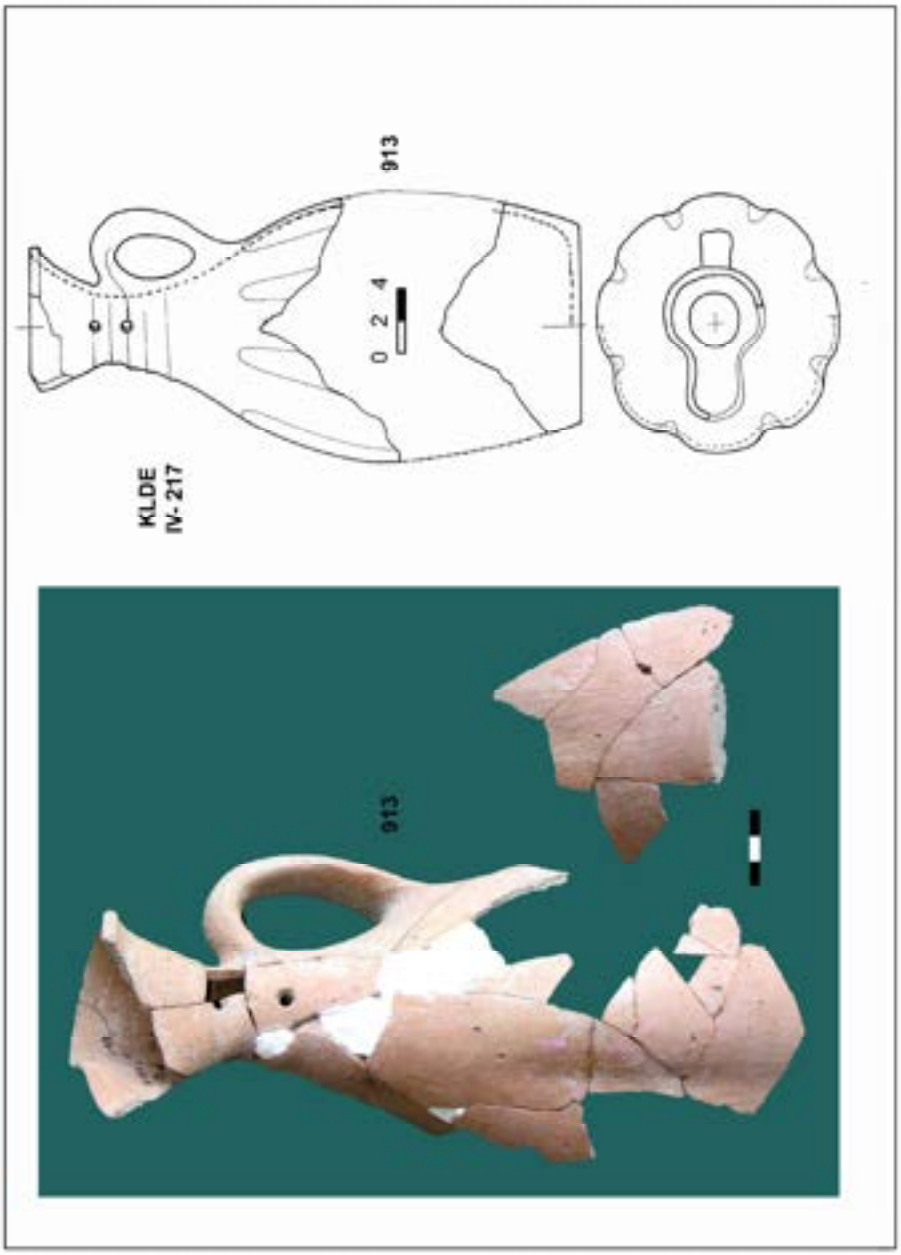
KLDE
IV- 217

Burial N 48

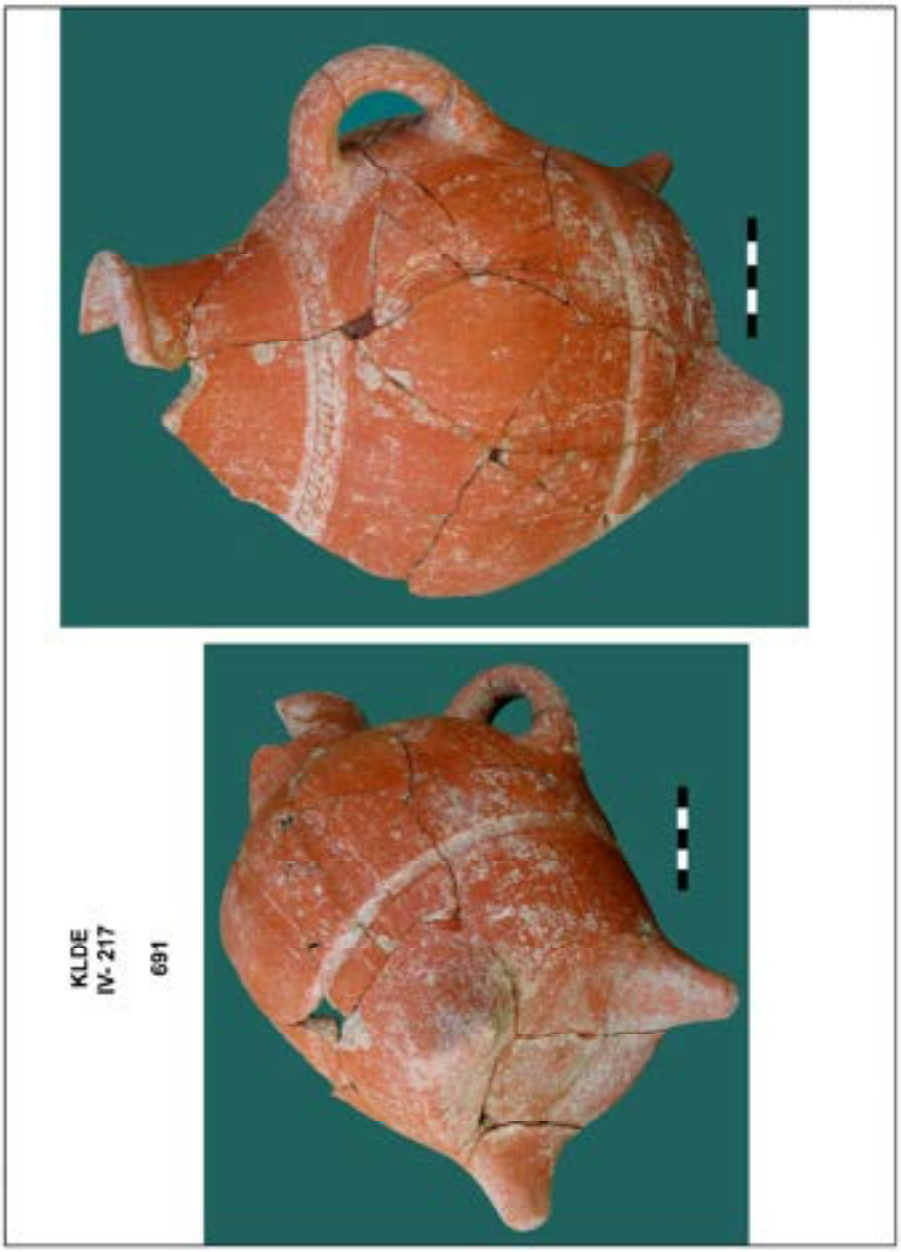
XXV

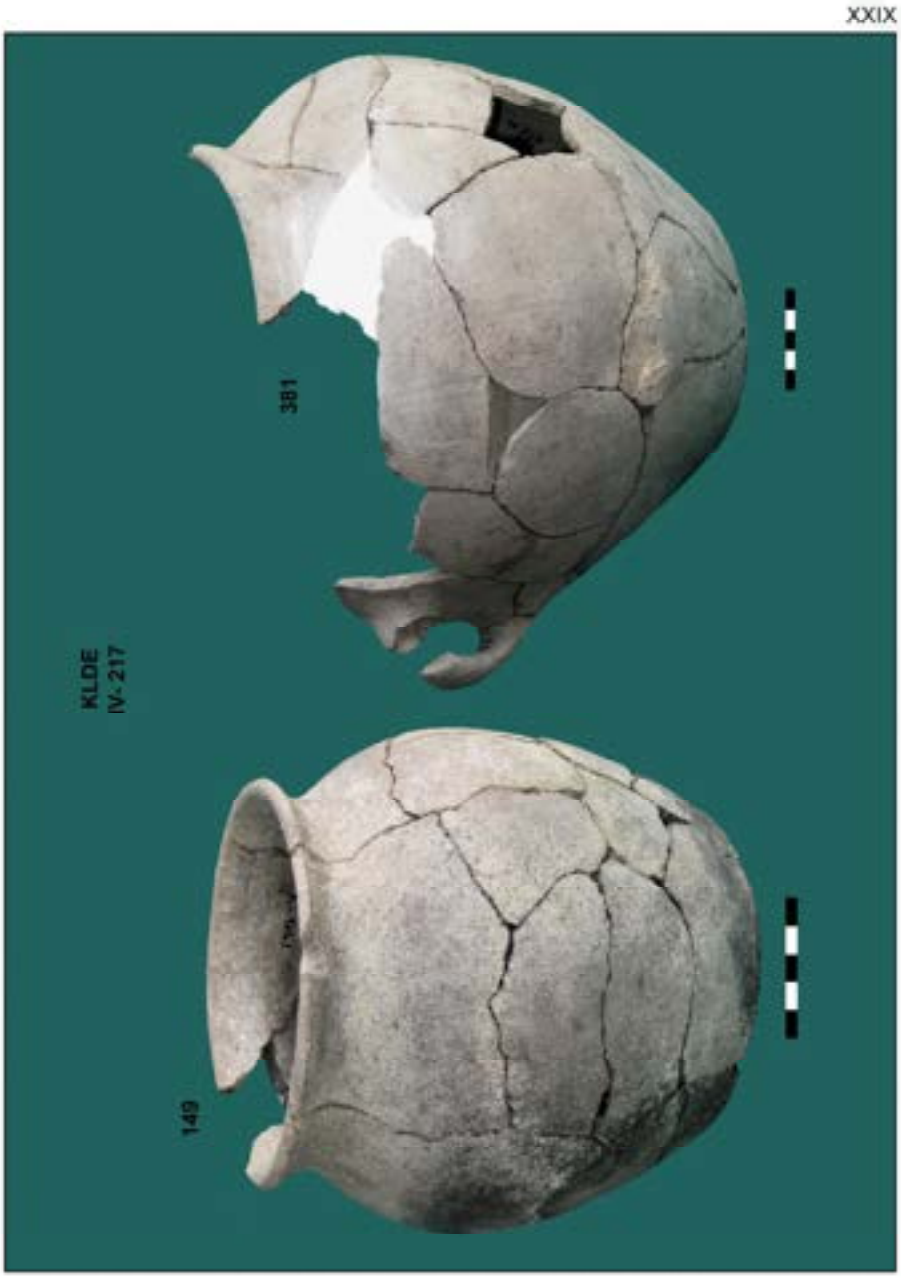
XXVI

XXVII



XXVIII



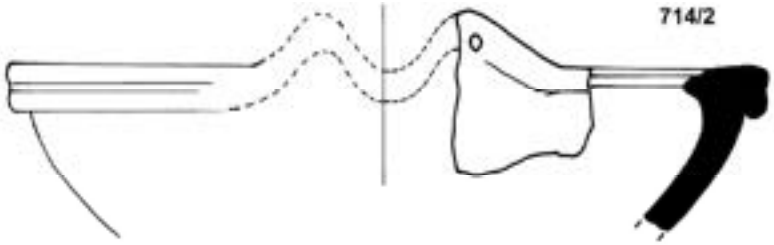

XXIX
381
KLDE
IV- 217
149


XXX
KLDE
IV- 217
442
694


XXXI
KLDE
IV- 217
498
332

XXXII

KLDE
IV- 217



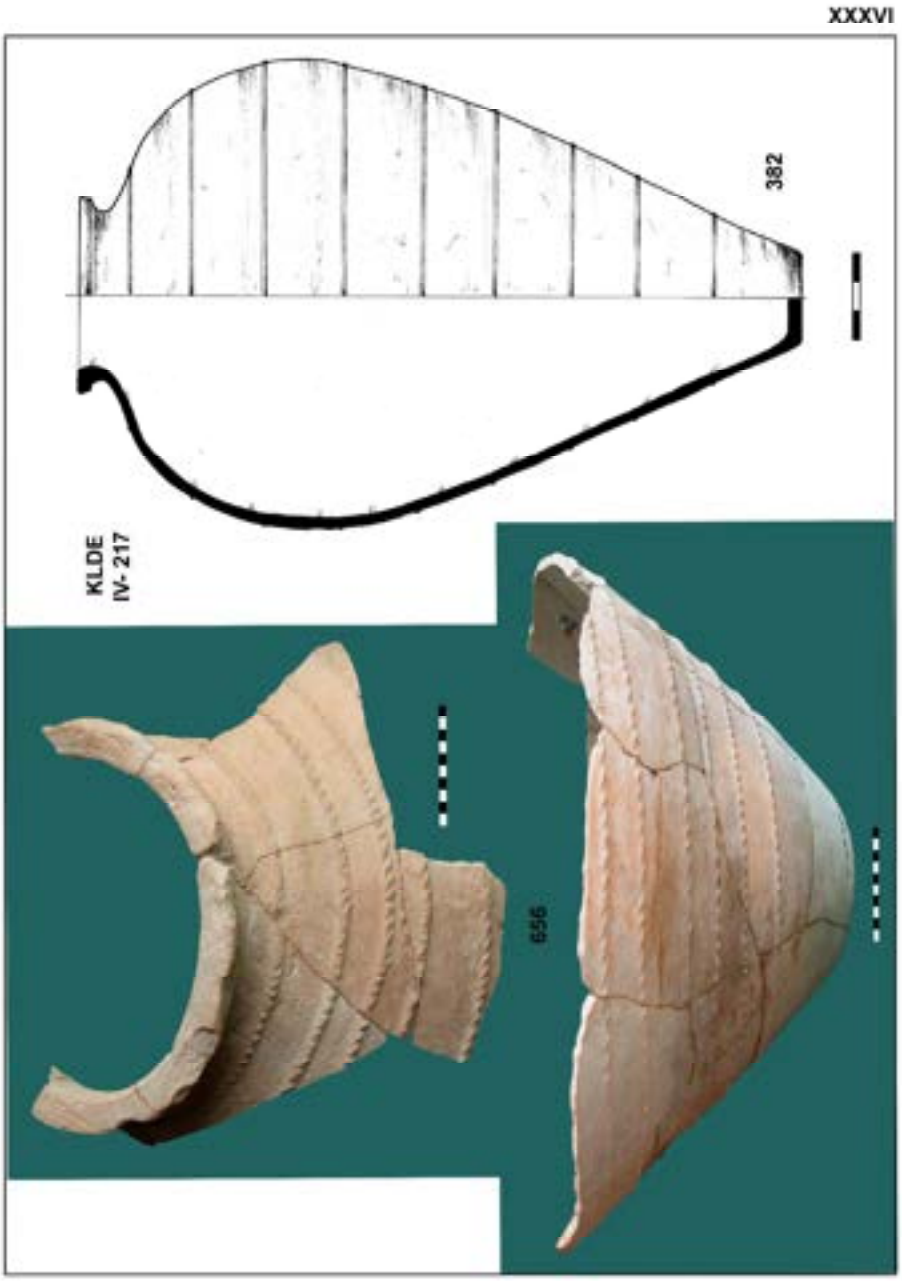

XXXIII
KLDE
IV- 217
199
608
545

XXXIV

KLDE
IV- 217

860

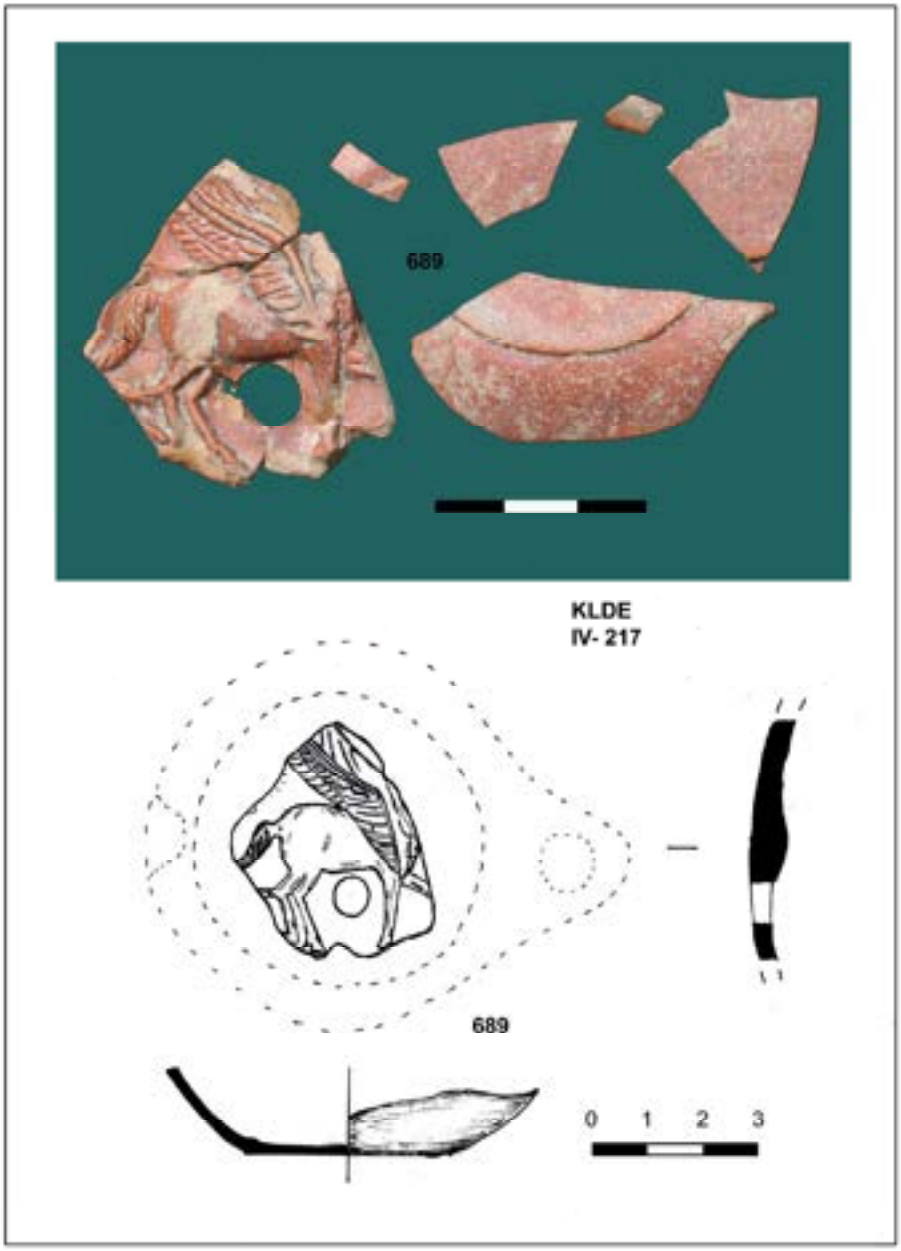
XXXV


XXXVI
382
KLDE
IV- 217
656

XXXVII

XXXVIII

XXXIX




XL
KLDE
IV- 217
761
745

XLI

KLDE
IV- 217

Structure N 16

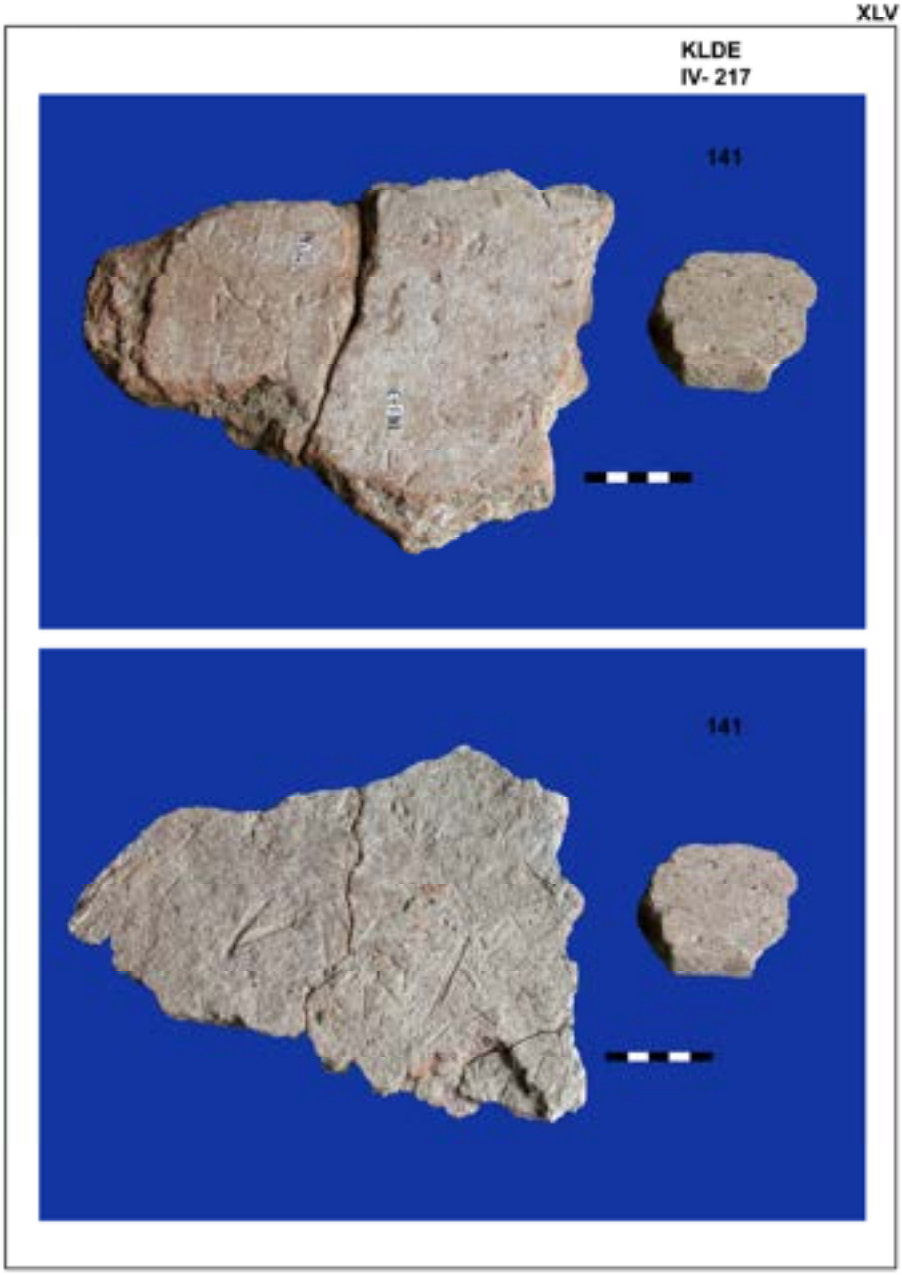
Structure N 23

XLII

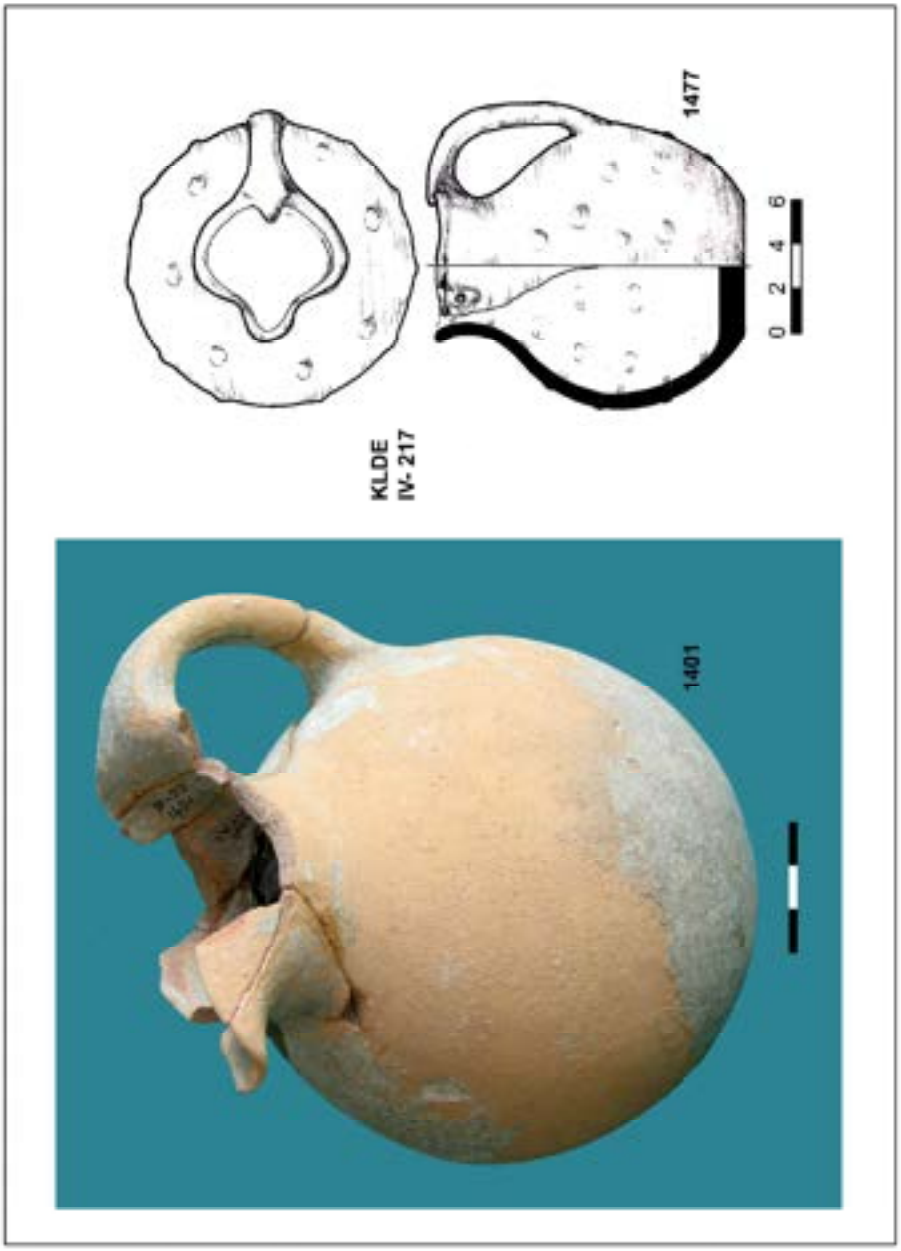
XLIII

XLIV

XLV



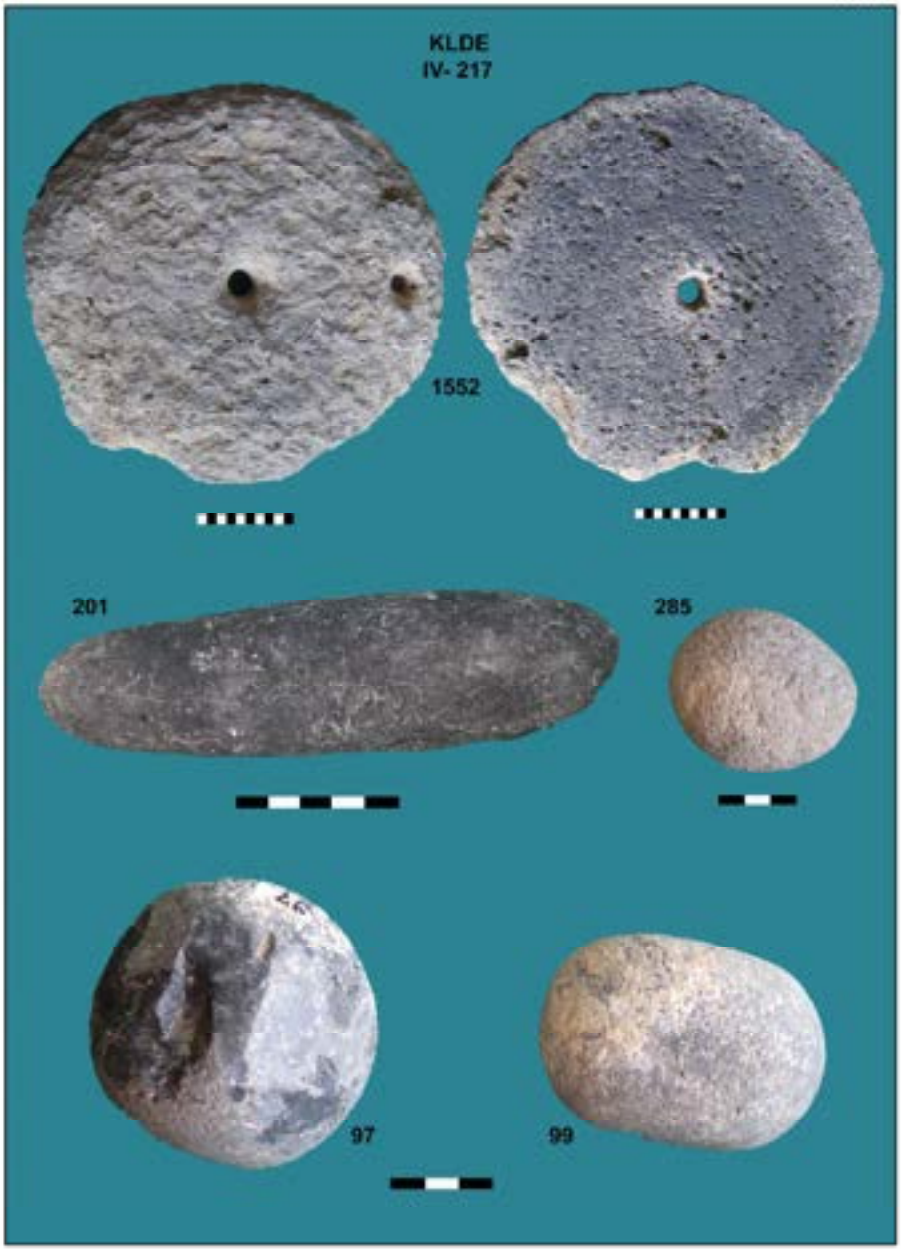
XLVI



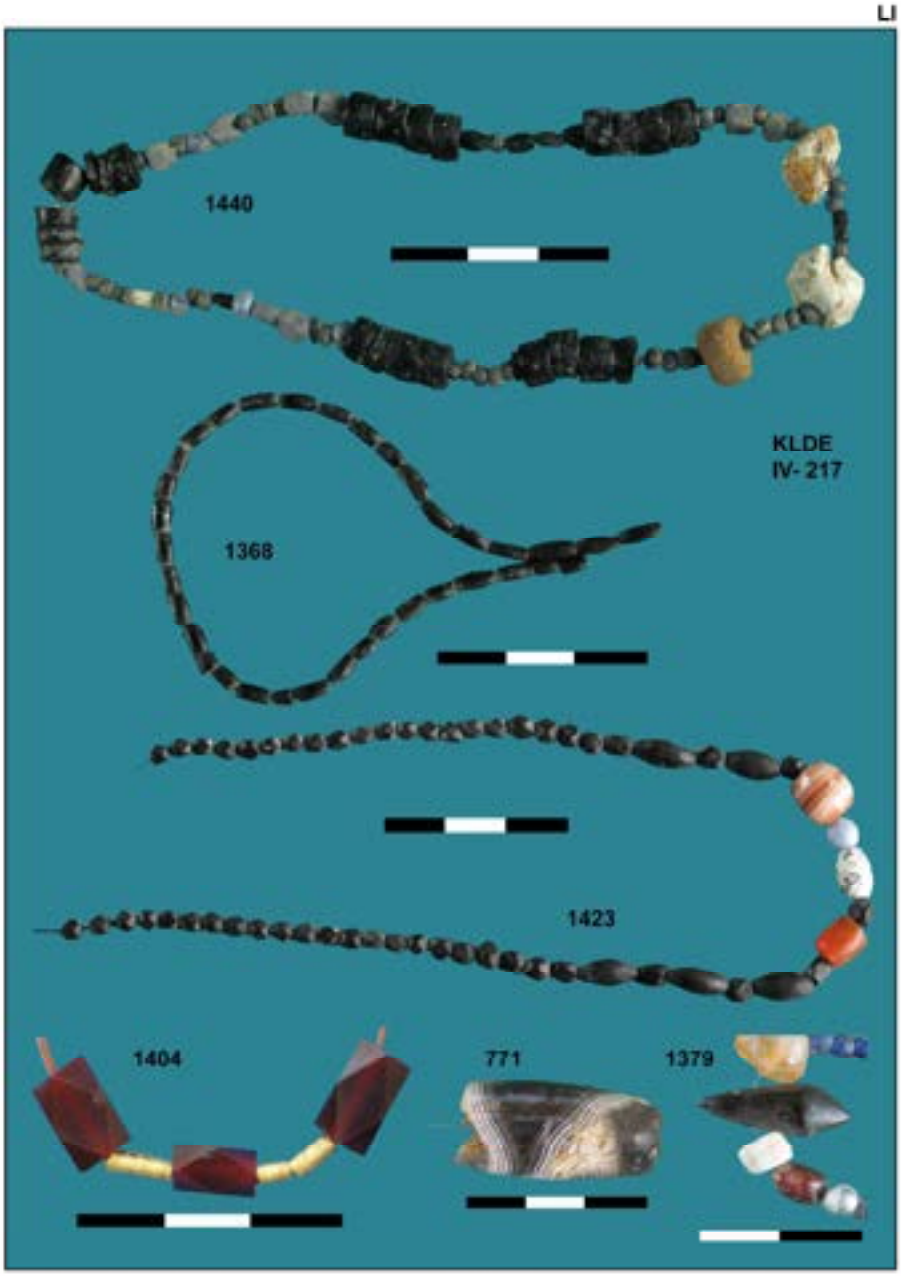
XLVII

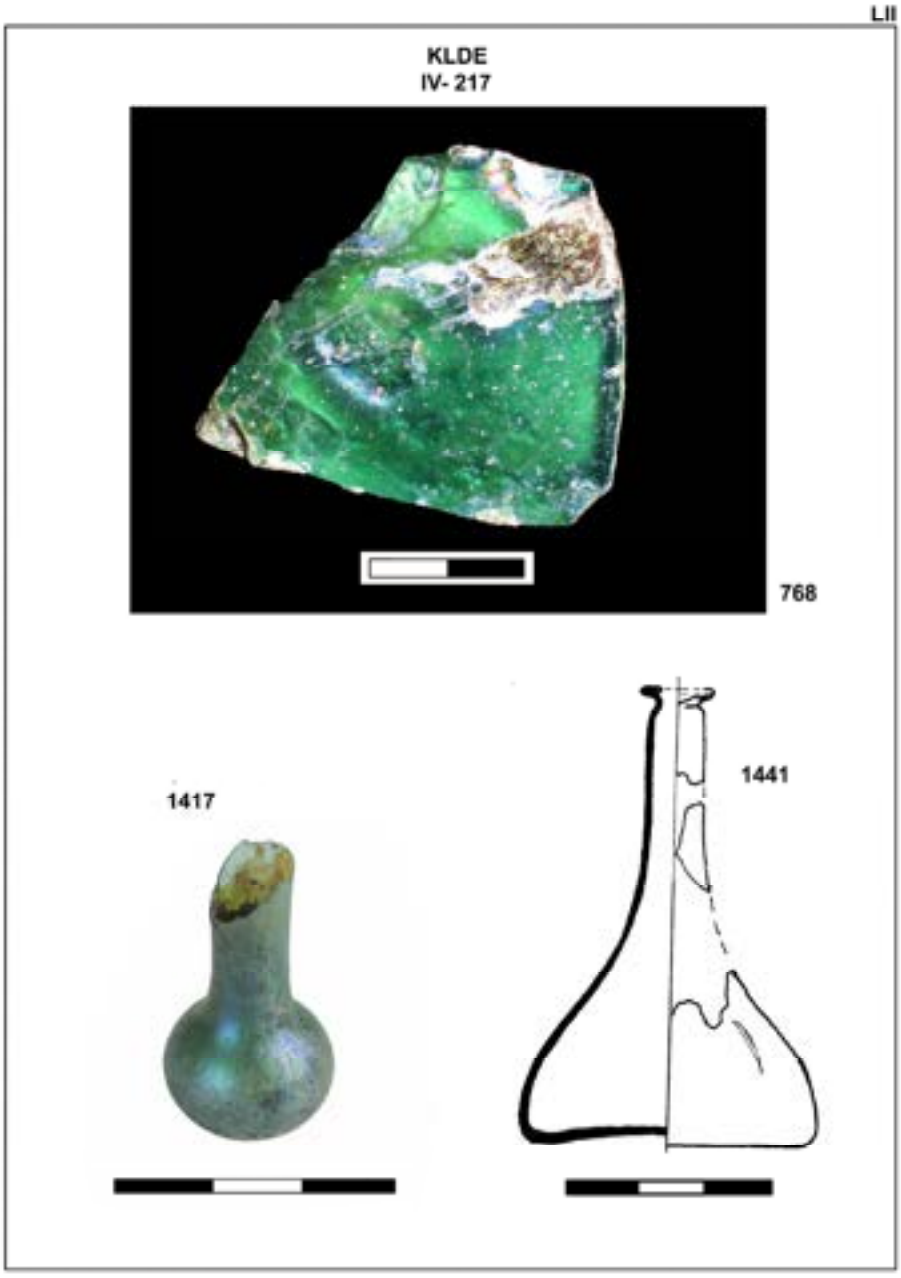
XLVIII

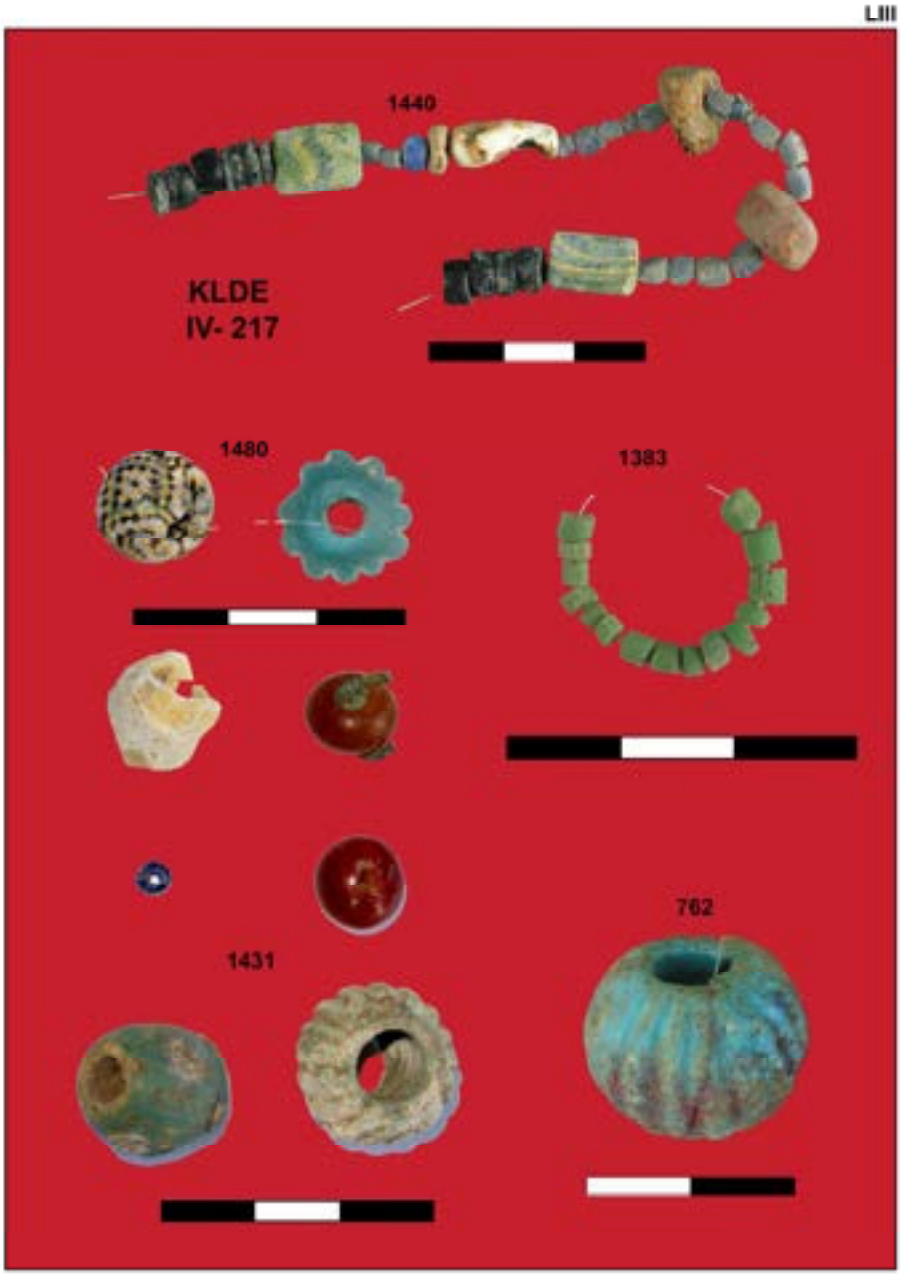
XLIX

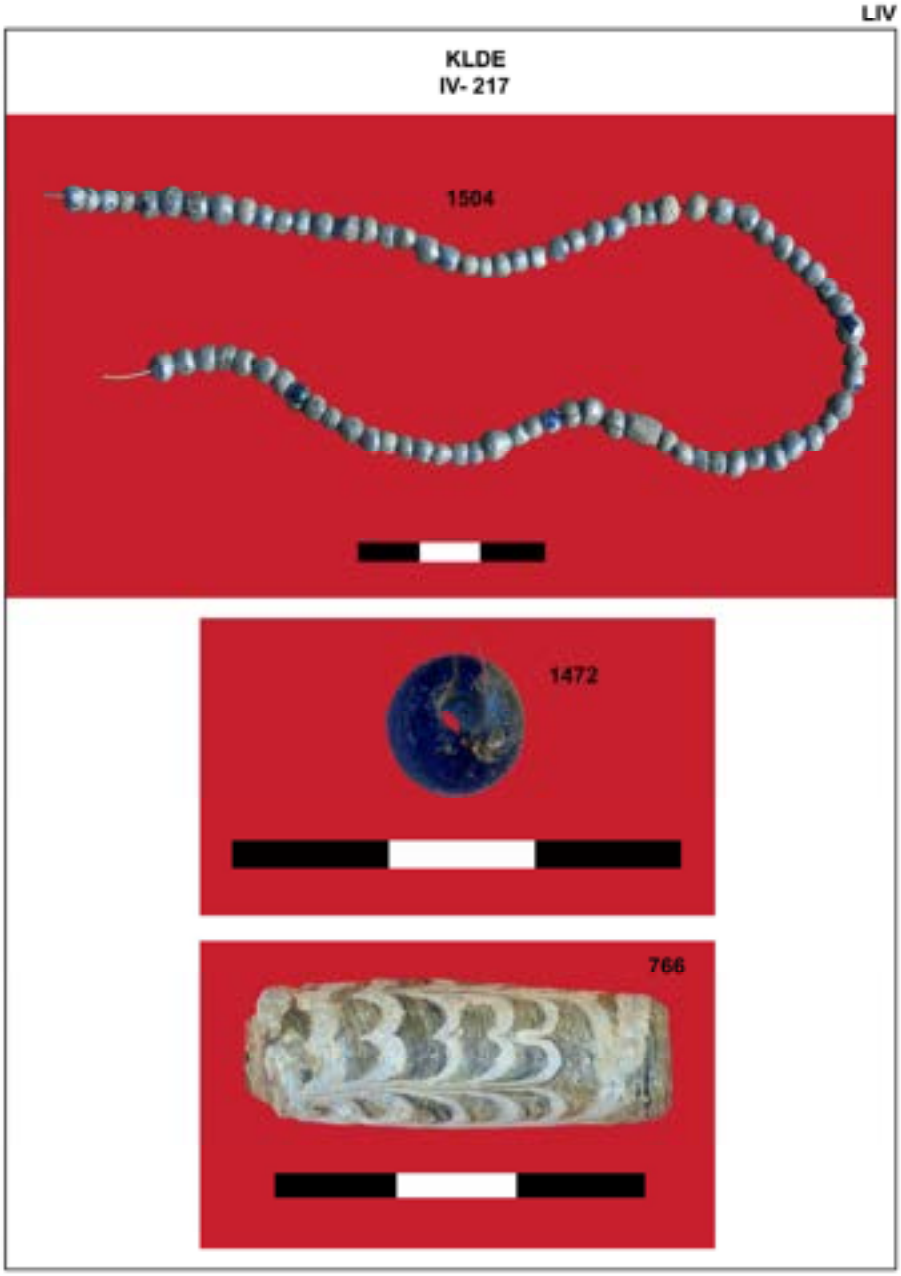



L
KLDE
IV- 217
1017
1013
789
1562


LI
1440
KLDE
IV- 217
1368
1423
1404
771
1379

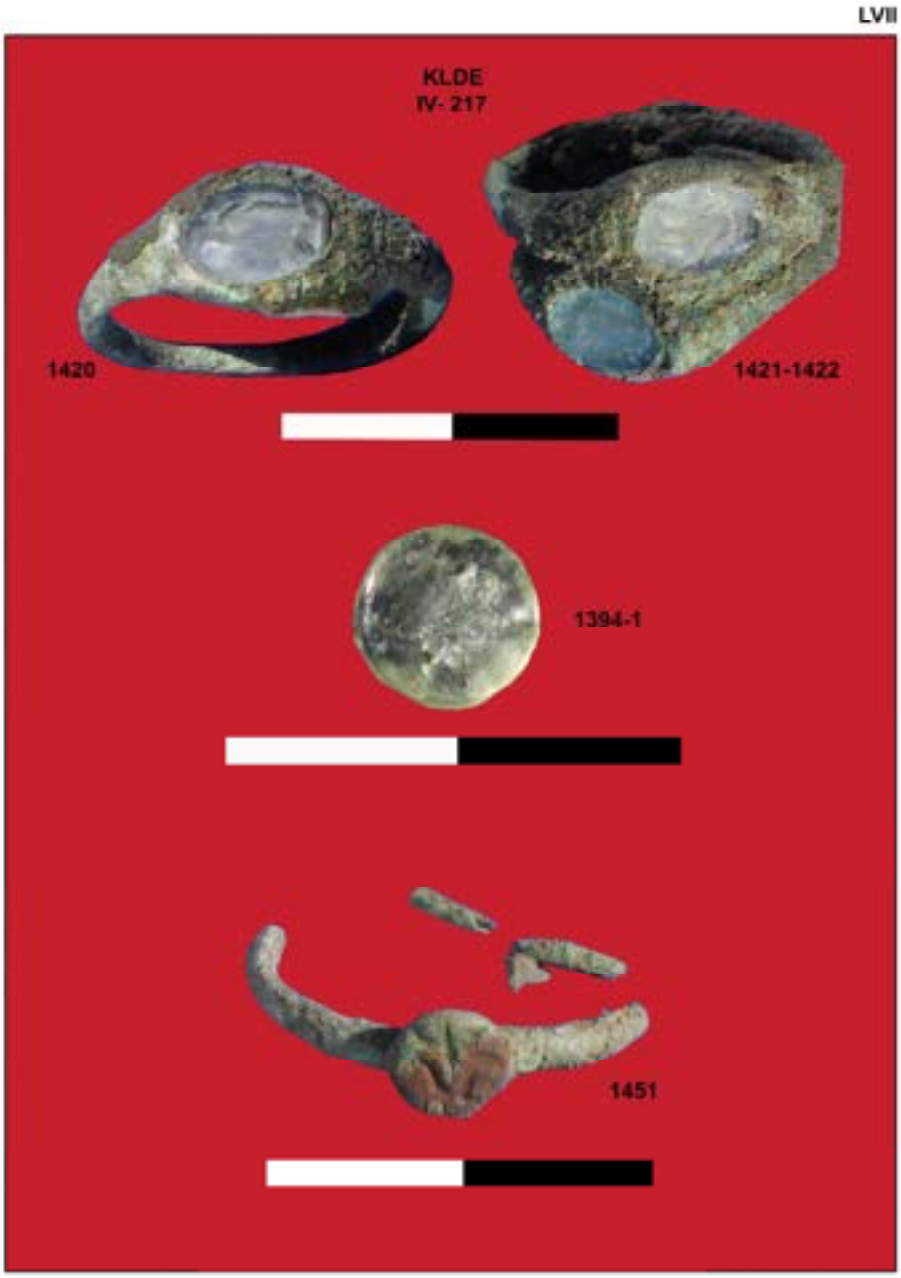

LII
KLDE
IV- 217
768
1417
1441


LIII
1440
KLDE
IV- 217
1480
1383
762
1431


LIV
KLDE
IV- 217
1504
1472
766


LV
KLDE
IV- 217
1467
1394
1386
1378

LVI


LVII
KLDE
IV- 217
1420
1421-1422
1394-1
1451

LVIII

LIX


LX
KLDE
IV- 217
1438-1439

LXI


LXII
KLDE
IV- 217
1387
1452
687
1418

LXIII

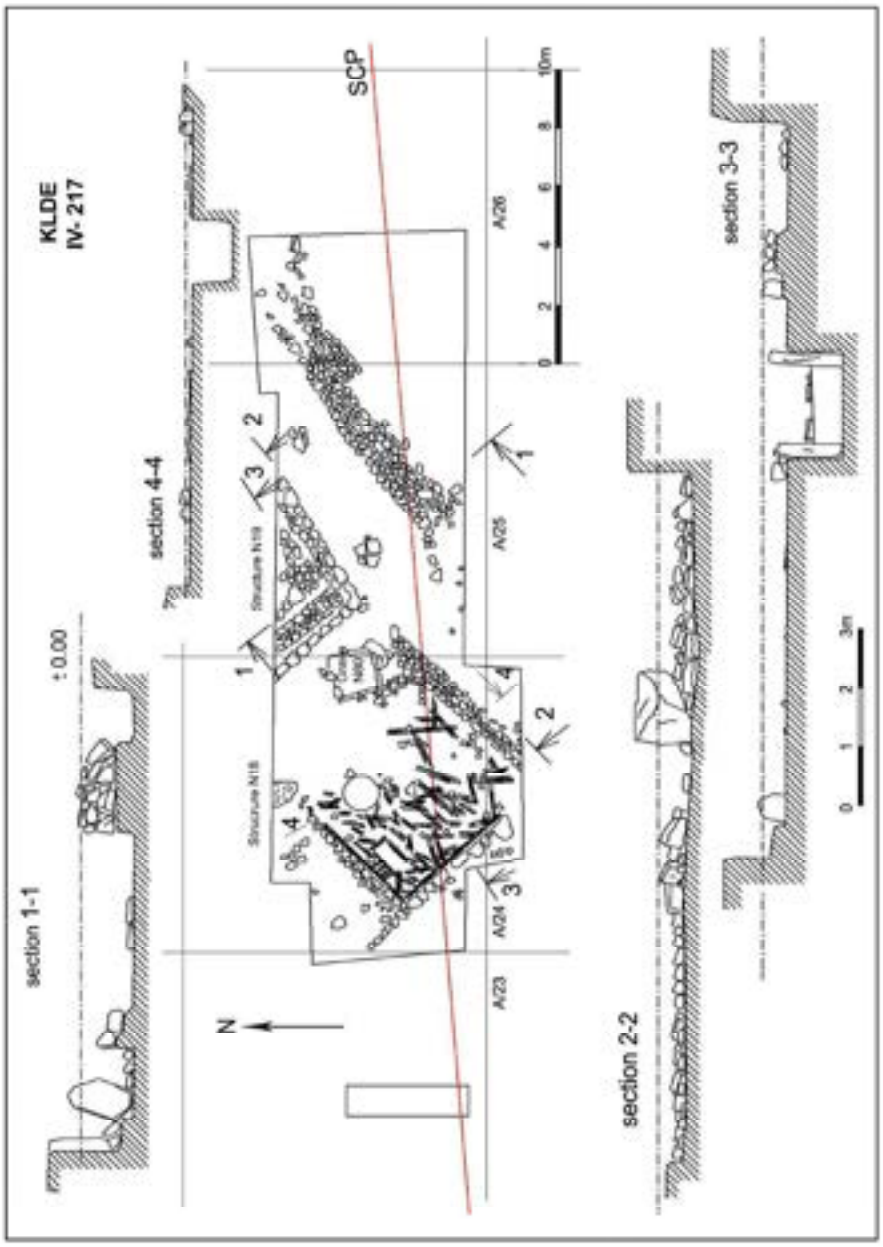
LXIV


LXV
KLDE
IV- 217
749
747
748
1397
1398

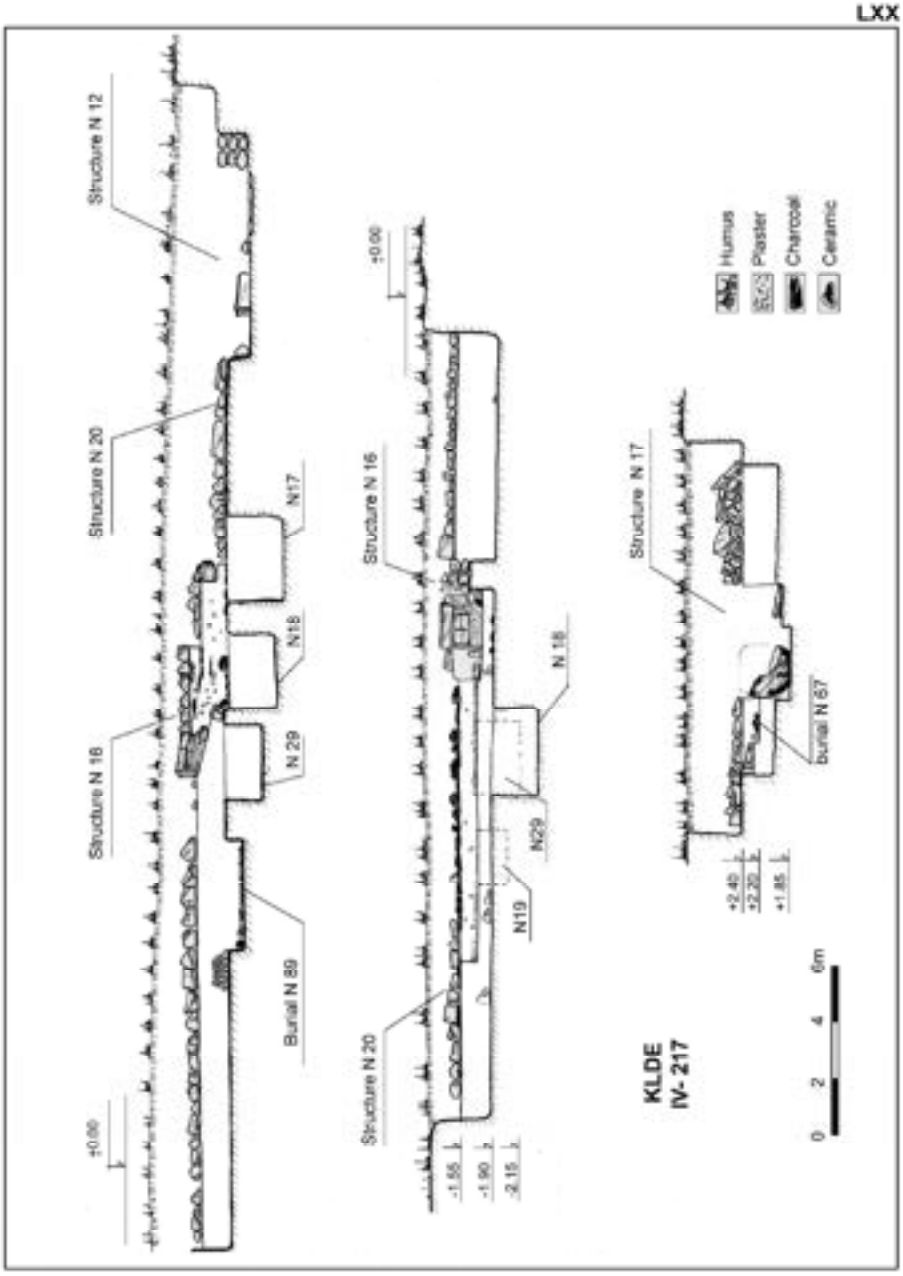

LXVI
KLDE
IV- 217
1631
1664
1665
16 28
774

LXVII

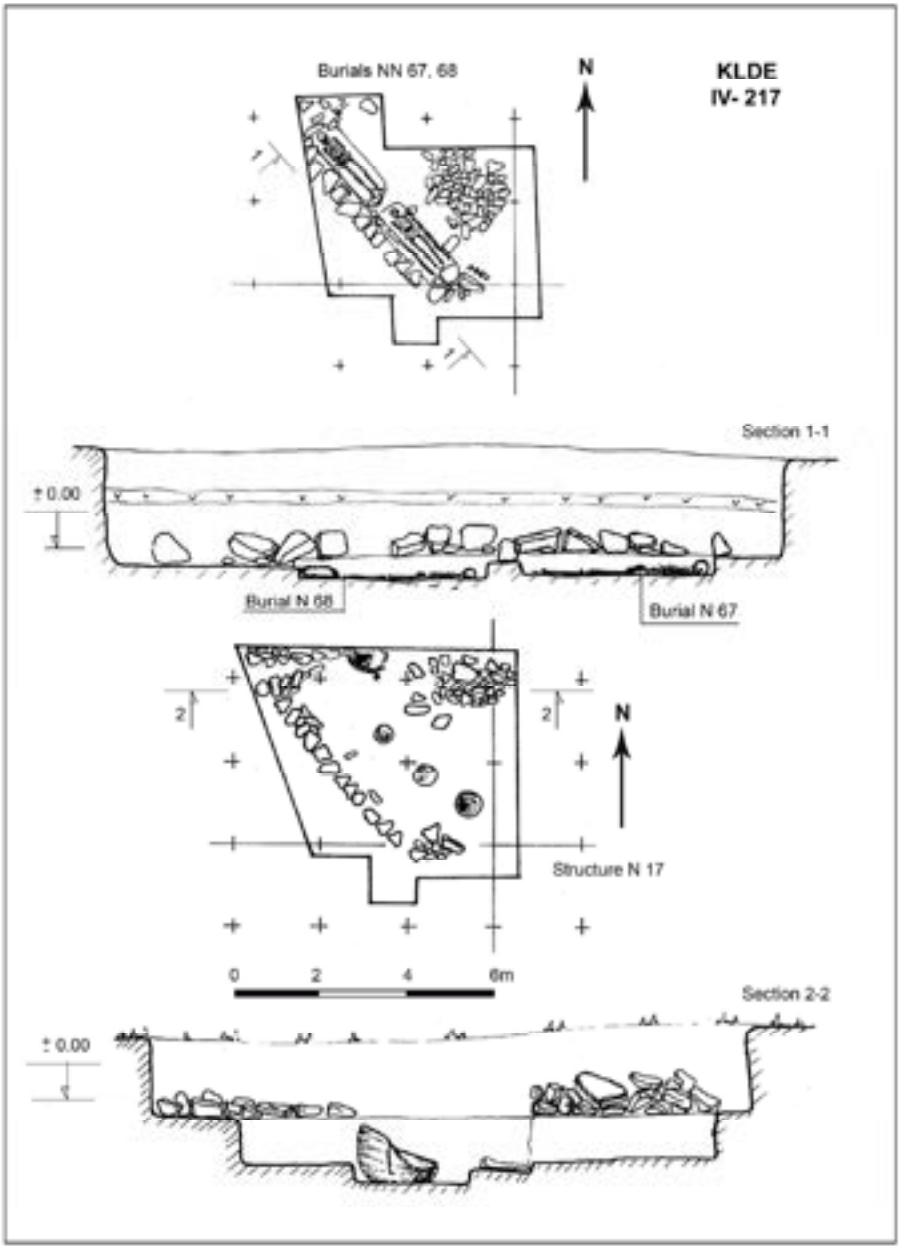
LXVIII


KLDE
IV- 217
SCP
section 1-1
section 2-2
section 3-3
section 4-4
± 0.00
N
A/23
A/24
A/25
A/26
Structure N18
Structure N19
0
2
4
6
8
10m
0
1
2
3m

LXIX


LXX
Structure N 12
Structure N 20
Structure N 16
N17
N18
N 29
Burial N 89
±0.00
-1.55
-1.90
-2.15
Structure N 20
Structure N 16
N 18
N29
N19
±0.00
Structure N 17
burial N 87
+2.40
+2.20
+1.85
Humus
Plaster
Charcoal
Ceramic
KLDE
IV- 217
0
2
4
6m

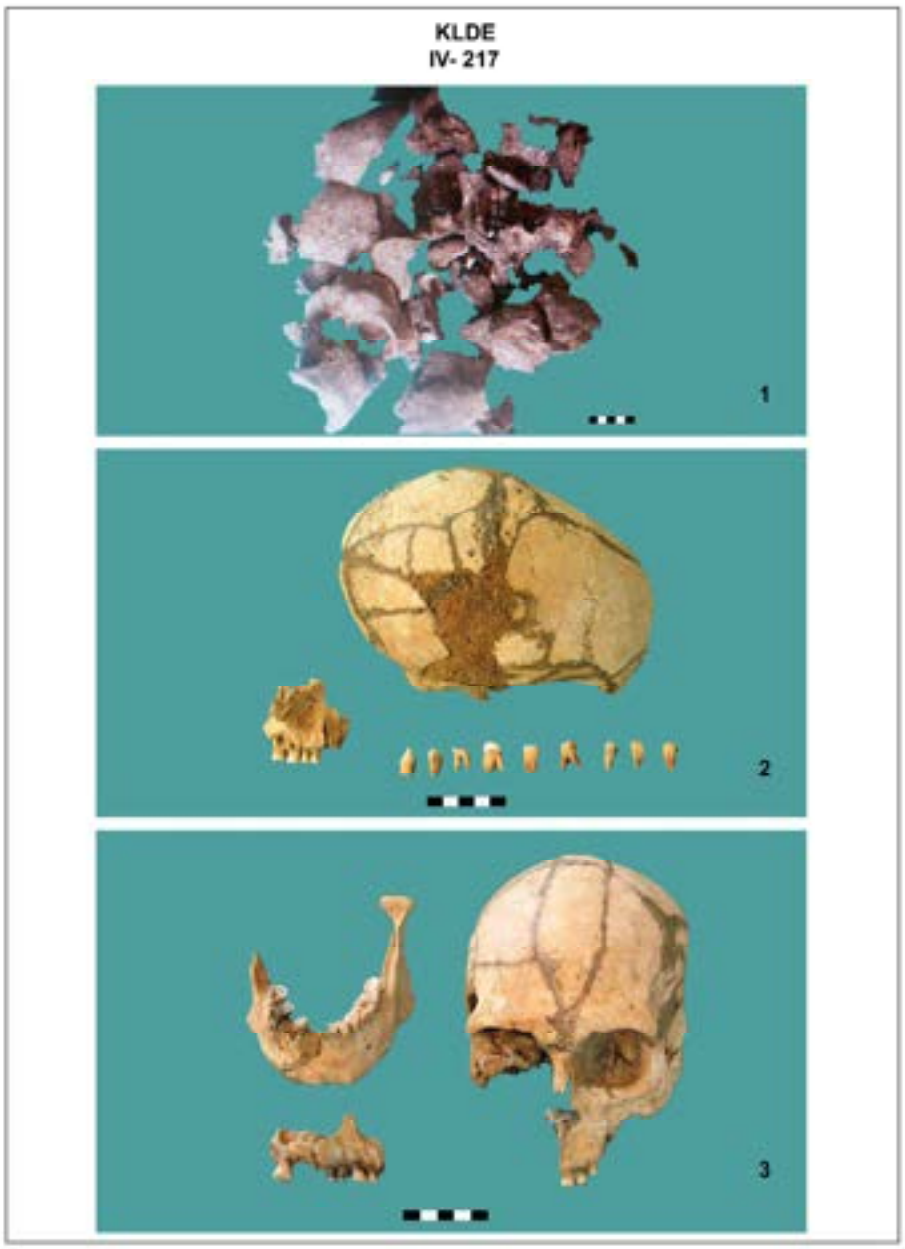
LXXI


Burials NN 67, 68
N
KLDE
IV- 217
Section 1-1
± 0.00
Burial N 68
Burial N 67
2
2
N
Structure N 17
0
2
4
6m
Section 2-2
± 0.00

LXXII

LXXIII

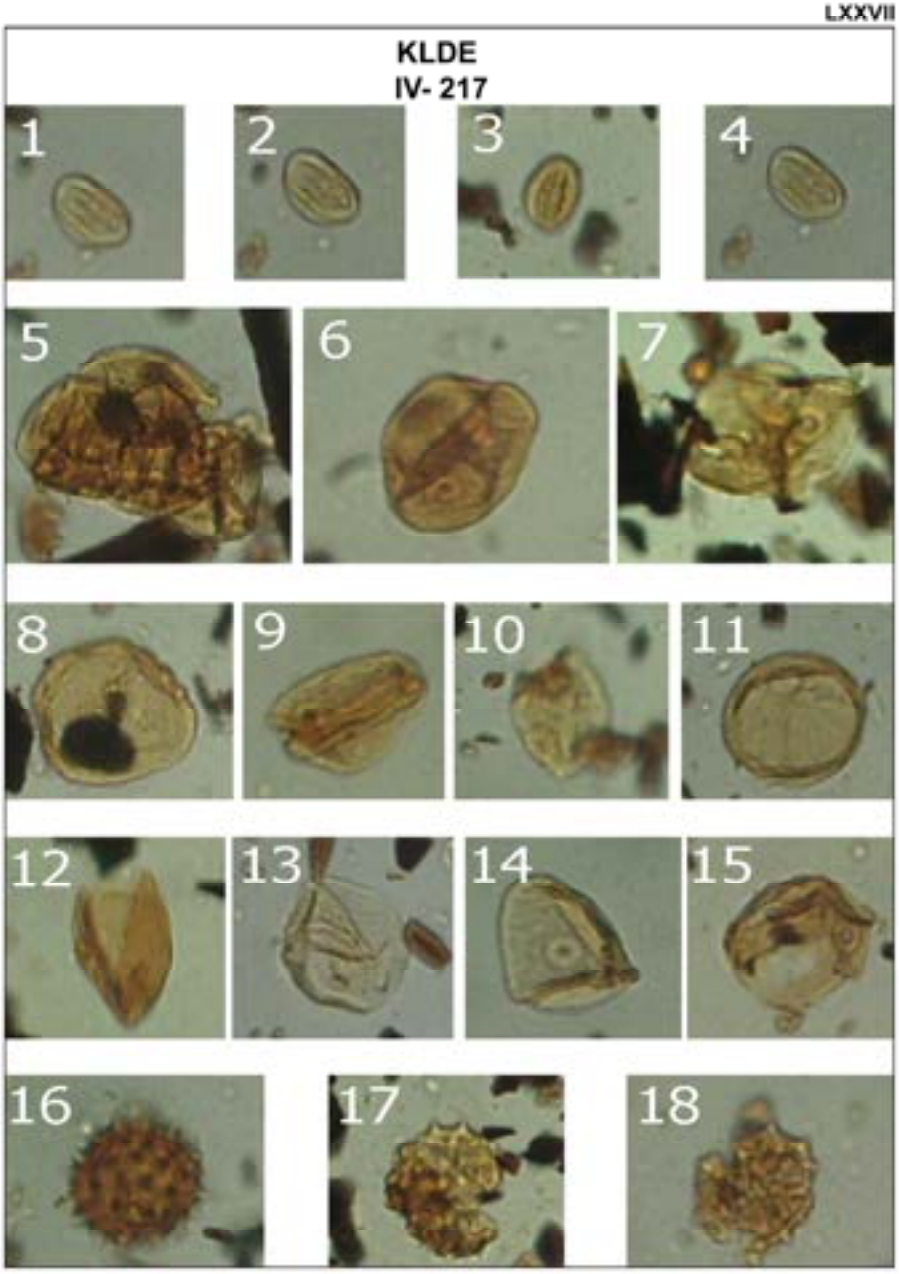
LXXIV



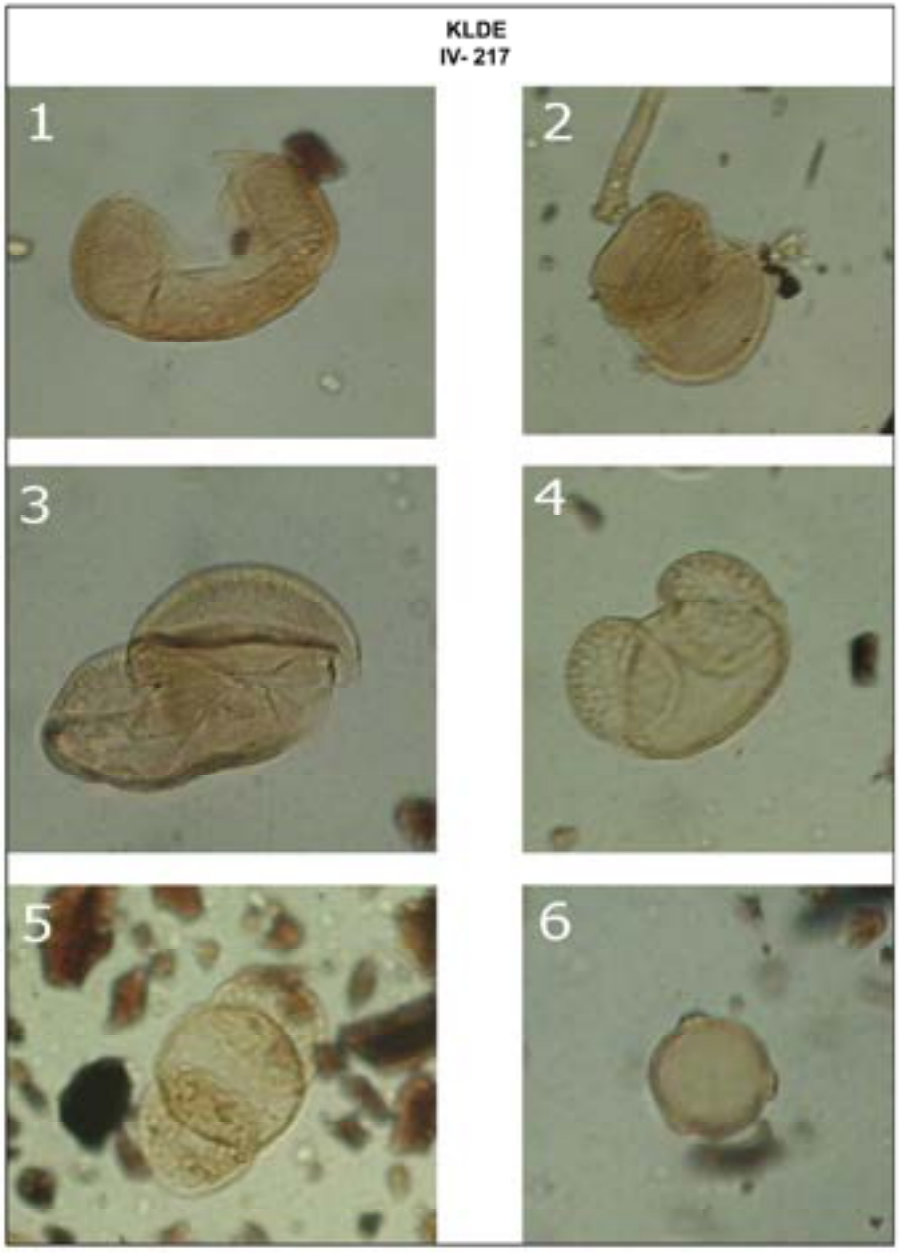
LXXV

LXXVI

LXXVII



LXXVIII



LXXIX