

# The Prehistoric Hillfort at Grad (Pelješac, Dalmatia) – Preliminary Results of Intensive Surface Survey

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## ABSTRACT

An intensive surface survey, covering an area of approximately 10.000 m<sup>2</sup>, was carried out at Grad, a hillfort in southern Dalmatia. Its aims were to obtain information relevant for determining the spatial extent of the site, its function(s), periods of occupation, degree of preservation, and potential for further investigation. Research strategy included mapping of the visible structural remains and systematic recovery of all surface finds. Majority of the collected finds are coarse Hellenistic ceramics followed by Bronze Age and Iron Age pottery. The central area of the hillfort was intensively used during the last few centuries B.C., while its origins can be traced back to the Bronze Age. The recorded structures and the recovered finds hint at a residential and defensive function of the site, while its central, elevated area may have been a focus of special activities.

**Key words:** hillfort, Pelješac, Adriatic, Bronze Age/Iron Age pottery, Hellenistic ceramics, surface survey

## Introduction

Hillforts are among the most prominent man-made features of the late prehistoric landscape of the eastern Adriatic and its hinterland. Locally known as *gradine*, the majority of those monumental structures date from the last two millennia B.C. (Bronze Age and Iron Age). Strategically located on hilltops or other elevated locations, typically they consist of an oval area enclosed by a drystone wall or multiple concentric drystone ramparts, except in places where the steep terrain by itself provides ample protection.

Traditionally, the eastern Adriatic hillforts were considered as remains of fortified settlements<sup>1,2</sup>. A few decades ago, however, several authors<sup>3–5</sup> noted the great variability in their size and shape, the kind and extent of their enclosing structures, as well as the kind and quantity of domestic and other debris that they contained. They interpreted this as evidence for functional variability and proposed that, aside from fortified settlements, hillforts may have served as refugia, cattle corrals, elite residences, or ritual foci. More recently, the simplistic »fortified settlement« concept was further challenged by Gaffney *et al.*<sup>6,7</sup> who propose that many of these encl-

tures may be better interpreted as public monuments, associated with control of land through common rituals, and reflecting the power of the local potentates.

It is clear that many different kinds of hillforts were constructed and maintained during the periods in question. The main reason why we still know so little about them, in spite of their great number and conspicuous presence in the landscape, is that only a very few, such as Monkodonja<sup>8</sup>, Varvara<sup>9</sup> or Ošanići<sup>10</sup> have been extensively excavated. The main reason for this is the high cost of large-scale excavations, which require long-time commitment, as well as conservation of the recovered structural remains. On the other hand, small-scale test excavations, carried out on numerous hillforts, sometimes produce valuable results, but they can yield only limited information about a few selected spots within those large and often complex sites.

Intensive surface survey, consisting of systematic recovery of removable finds, as well as mapping of structural remains and other features visible at the surface, is an alternative, low-budget approach that can easily cover

the entire site. Regardless of its many shortcomings, such a survey can be a serious analytical tool when used judiciously<sup>11–13</sup>. In the eastern Adriatic region, this kind of survey was attempted only on a few hillforts that were investigated in the course of the »Adriatic Islands Project«<sup>14</sup>. We present here the preliminary results of another such investigation, carried out recently on a hillfort in southern Dalmatia.

For our case-study we chose Grad, a major hillfort located near the western tip of Pelješac peninsula. Our choice was guided by the fact that the micro-region around Grad is well covered archaeologically. The area has been a focus of a long-term field project that included general surface survey and mapping, as well as excavation of another major prehistoric site, Nakovana Cave<sup>15</sup>. Data from that survey offer comprehensive information about over a hundred prehistoric sites in Grad's immediate neighborhood<sup>16</sup>, while the deep excavation trench at Nakovana Cave provides reliable temporal controls<sup>17,18</sup>.

Centrally located within this microregion and dominating the relatively fertile Nakovana plateau, the hillfort clearly represents its most prominent prehistoric site. Grad is a natural fortress, located on an almost impregnable rocky hilltop that is surrounded on all sides by vertical or overhanging cliffs some 20 meters high. The

only approach to its high plateau is from the southwest, where scant traces remain of a drystone enclosure wall. From there, one can easily ascend to its barren, rocky summit (Figure 1). Grad has been mentioned in scientific reports since the late 19<sup>th</sup> century<sup>19</sup>, and was described as an important prehistoric site by Nikša Petrić<sup>20</sup>.

### Methodology and Techniques Applied

Our intensive survey of Grad, carried out in May 2005, had multiple aims. The immediate ones were to roughly determine the spatial extent of the site and the periods during which it had been occupied. We also hoped to gain an initial insight into its function, estimate the degree of its preservation, and identify potential dangers posed to it by natural elements and human agency. Our further intention was to gather information that would allow a reliable estimate of the site's potential for future research, and could serve as a secure base for planning a more extensive field investigation.

We covered only the central area of the hillfort, its high plateau bounded by cliffs, which extends over an area of approximately 10.000 m<sup>2</sup>. Our research strategy required mapping of all visible structural remains and systematic collection of all surface finds. In order to ac-



*Fig. 1. View of the Grad hillfort, rising above the Nakovana plateau.*

compish this, a 10 x 10 meters square grid was laid out over the area to be surveyed, using compass and measuring tapes, and taking into account the ground slope wherever necessary.

Each 10 x 10 meter square was documented individually on a standardized recording sheet prepared for the purpose. We estimated and recorded relative proportions of soil and bedrock exposed at the surface, the relative area covered by vegetation, and kinds of vegetation present. Ground visibility, which critically influences survey data, was estimated and recorded on ordinal scale, ranging from 0 (no visibility) to 5 (excellent visibility). A rough plan of each square, drawn to a scale of 1:100, included all structural remains and other features, together with their descriptions. This served as the base for the composite plan of the site, which was produced cumulatively in the field (Figure 2).

All removable artifacts visible at the surface were collected, bagged by class (pottery, lithics, other), and tagged for later laboratory treatment, and their presence/absence was noted on the recording sheet. Majority of the finds were small, heavily weathered pottery fragments, damaged by long exposure at the surface.

A total of 5461 potsherds, weighing almost 60 kilograms, made up by far the largest of all the recovered artifact assemblages. Since most of them were non-diagnostic due to fragmentation and weathering, they were classified into four rough technological categories: (1) sherds of Bronze Age/Iron Age hand-made vessels; (2) sherds of thick-walled hand-made vessels with a characteristic wall section (red-gray-red); (3) sherds of Hellenis-

tic wheel-made vessels; and (4) glazed sherds. Each category was counted and weighed by the square, and the data were used as the base for further analysis of their spatial distribution across the site.

As expected, distribution diagrams plotted from raw data revealed that ground visibility had a major impact on the apparent distribution of finds. A linear and an exponential correction for visibility were therefore applied, the latter apparently producing more realistic plots. Three of those plots are reproduced in Figures 3–5, which are further discussed below.

## Results of the Survey

The highest, eastern part of the hillfort, and the western end of the high plateau, are eroded to bedrock in most places, while its central part is covered by soil. This area was under cultivation in recent historic times, but the fields are now abandoned, and there seems to be little danger that modern agricultural activities might damage the site. Concentration of finds and structural remains is highest in the central area, and there is a distinct possibility that intact archaeological deposits are preserved underneath the plowzone. The site is being actively eroded away, as indicated by denuded areas along all cliff edges, which are strewn by numerous potsherds washed out from the sediment.

Earlier researchers<sup>20</sup> noted that the site was not confined to the high plateau. In the course of our fieldwork, it became abundantly clear that the artifact scatters extended well beyond it and encompassed large areas on

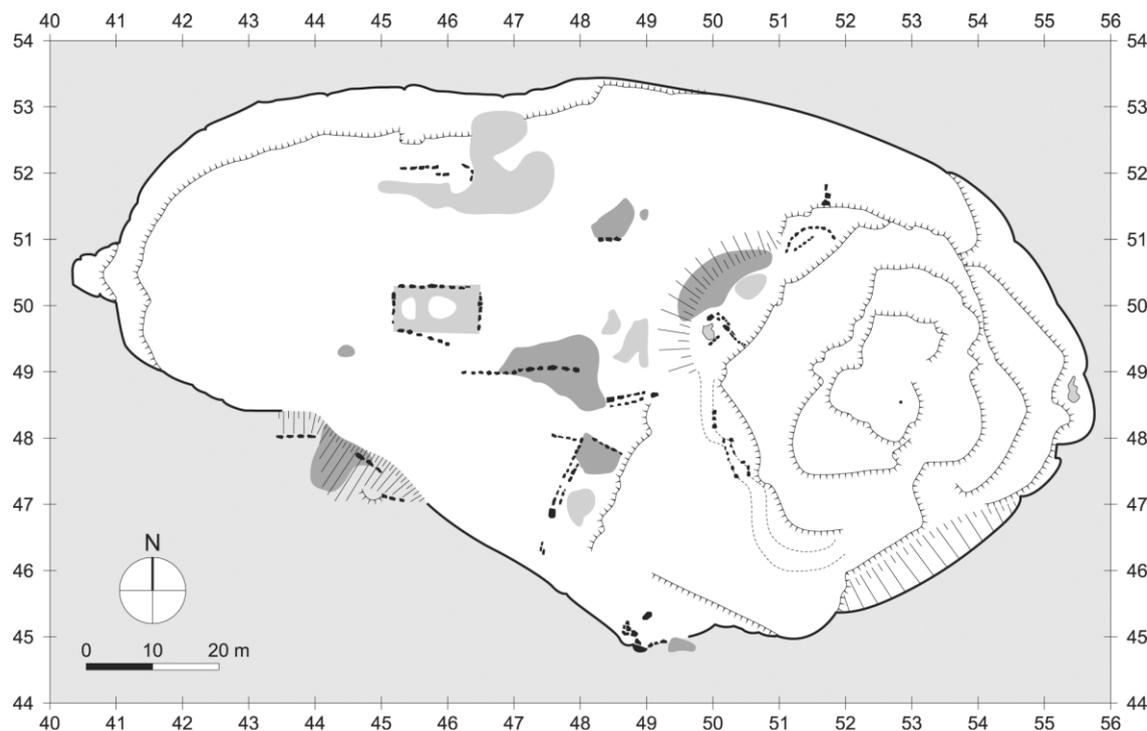


Fig. 2. Plan of the central area of the Grad hillfort.

Grad's slopes. Since our systematic survey was not extended over the high plateau's edges, we could not identify the full spatial extent of the site.

### Periods of Occupation

The nine flaked stone artifacts and a couple of ground stone fragments (probably, an axe and a grindstone) are

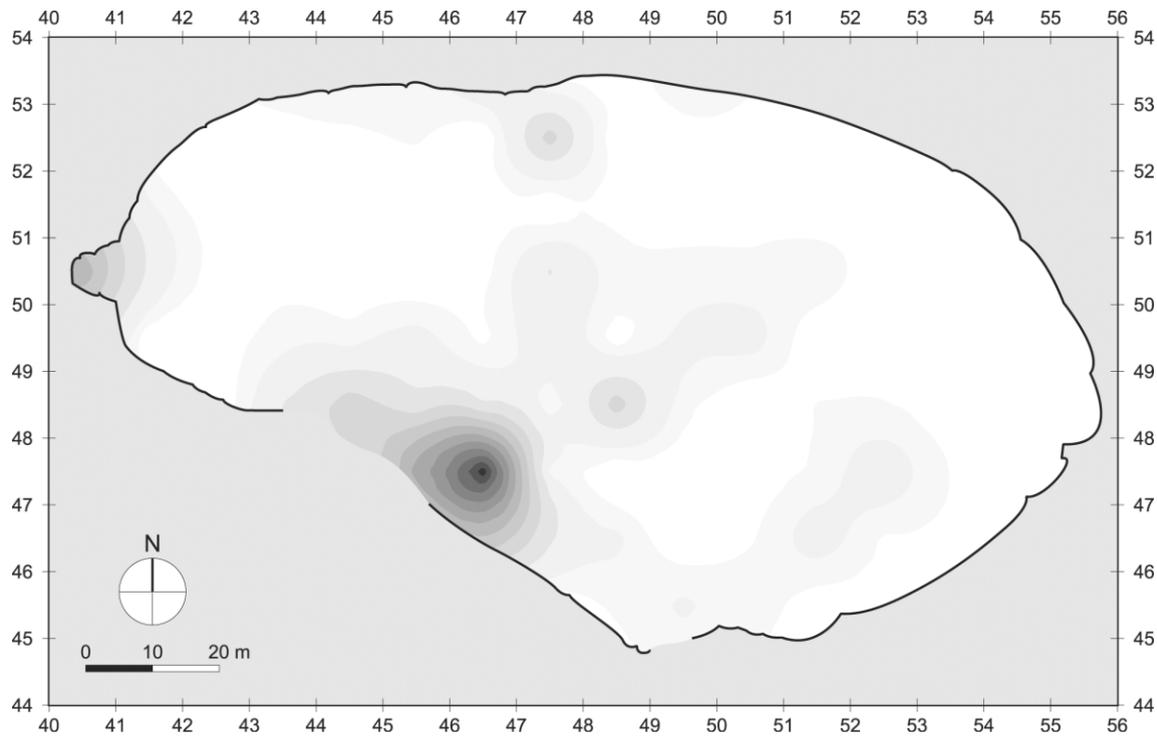


Fig. 3. Spatial distribution of Bronze Age/Iron Age potsherds.

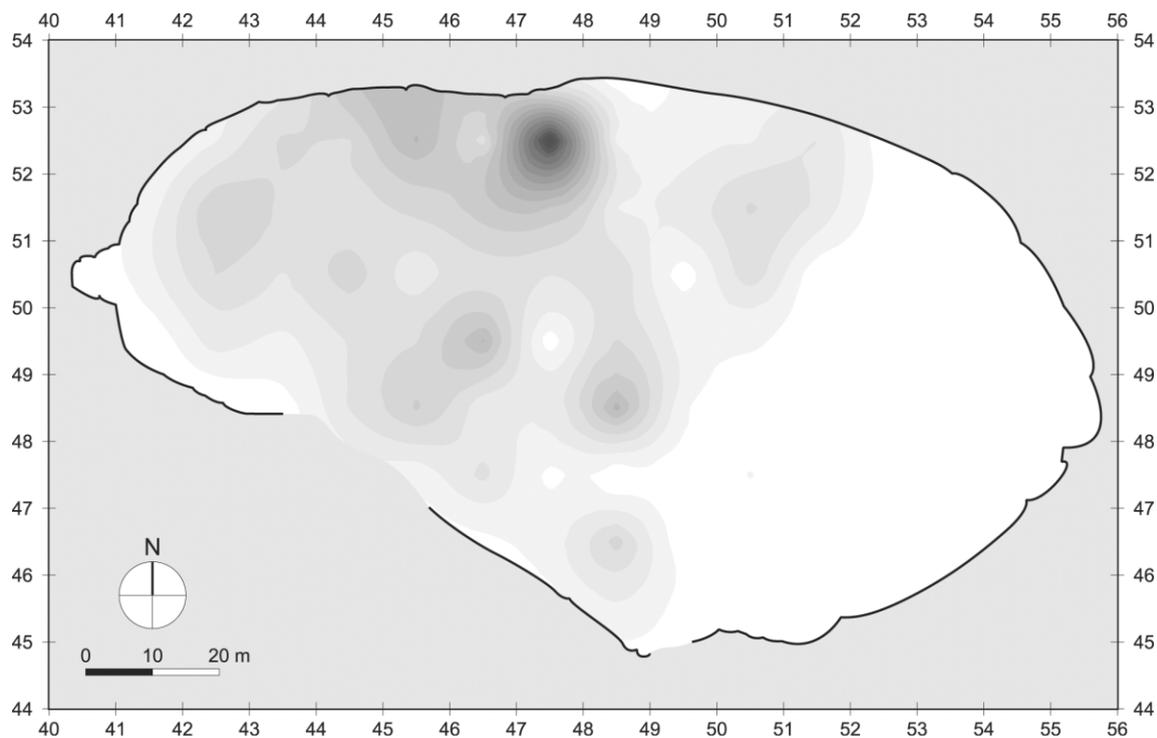


Fig. 4. Spatial distribution of Hellenistic potsherds.

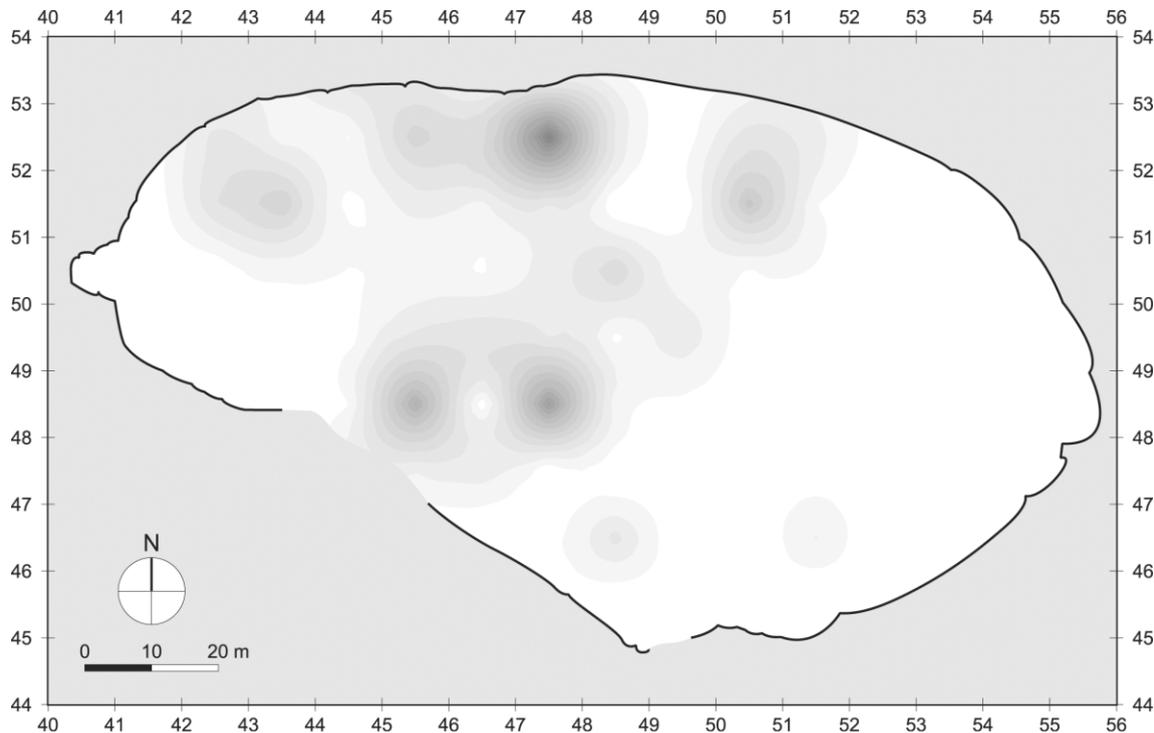


Fig. 5. Spatial distribution of thick-walled hand-made vessel sherds with red-gray-red wall section.

among the earliest finds recovered by the survey. One may add to them a single typologically early Hvar-style potsherd, published by Petrić<sup>20</sup>. These finds indicate that the hill was occasionally visited or ephemerally occupied already during the Late Neolithic or the Copper Age (fifth or fourth millennia B.C.).

A considerable assemblage of later prehistoric pottery was recovered, containing mostly small, non-diagnostic fragments of coarse, hand-made vessels. Occasional fragments of everted-rims, strap handles, massive horizontal handles, and flat bases, suggest that the greatest part of this assemblage belongs to the Late Bronze Age and the Early Iron Age<sup>4,21</sup>, and indicate that Grad was more permanently occupied during the last two millennia B.C.

Coarse Hellenistic potsherds represent the majority of all collected finds (two thirds by number, three fourths by weight). Among them, amphorae fragments are the most common, especially those belonging to the type Lamboglia II<sup>22</sup>. Only eight fragments of the fine, black-slipped Hellenistic pottery known as »Gnathia ware« were recovered<sup>23</sup>, closely similar to the examples found in great quantity at the nearby Nakovana Cave. Abundant Hellenistic finds indicate that intensive human activity on Grad was contemporaneous with the use of Nakovana Cave as a sanctuary during the last few centuries B.C.<sup>15</sup>.

Extremely rare post-Hellenistic finds suggest that there was little activity at Grad after the first century B.C. Among the scarce evidence for later building activities are a few lumps of mortar that almost certainly post-date the Hellenistic period. Three sherds of glazed

pottery, each from a different vessel, probably belong to recent historic times. We also collected, recorded, and appropriately discarded a relatively small quantity of modern waste, such as plastic and glass bottles.

### Spatial Distribution of the Surface Finds

Distribution diagrams were produced for all classes of recovered archaeological materials. Of particular interest are spatial distributions of the three main classes of pottery. The plots indicate relative weight densities of potsherds collected from the surface, calculated in  $\text{g}/\text{m}^2$  and corrected for ground visibility.

A thin scatter of Bronze Age/Iron Age pottery extends across much of the central, southern and eastern parts of the surveyed area, with a minor concentration at its western end, and a major concentration in the south, near the main point of access to the plateau (Figure 3). Hellenistic pottery is distributed quite differently. It is spread across the central, western and northern parts of the surveyed area, roughly coinciding with the visible structural remains, with a major concentration in the north, but it is virtually absent from its highest, eastern part (Figure 4). Finally, the distribution of thick-walled hand-made sherds with red-gray-red wall section is much closer to that of the Hellenistic pottery than to the Bronze Age/Iron Age pottery (Figure 5). This distinctively fired ware thus seems to be associated with, and contemporary to, the Hellenistic finds.

Spatial distributions of these three classes of pottery suggest that most of the structural remains visible at the surface should be associated with the Hellenistic period – either the structures were built during that period, or were still being used at the time. Differential distributions of Bronze Age/Iron Age and Hellenistic finds may indicate that different parts of the high plateau were used differently during those two periods. Alternatively, they may indicate that Bronze Age/Iron Age deposits are capped by a Hellenistic layer in the central and northern parts of the site, while in its southern part, the Hellenistic layer has been eroded away.

While it is too early to discuss the function and internal organization of Grad, a few general remarks can be made. Character and quantity of the remains (mostly, coarse pottery, including many large vessels suitable for cooking and storage) hints at generalized residential activities. So do the lumps of burned clay, scattered almost everywhere across the site. On the other hand, the location itself suggests a defensive purpose, which is further supported by the remains of an enclosing structure that controlled the only feasible access to the high plateau. A fairly large drystone structure of elongated rectangular ground plan (13 x 7 m) occupies a central location and faces west; its purpose, for the moment, remains unknown. Other recorded structural remains are even less informative, consisting mainly of collapsed drystone walls. We collected only a very few fragments of ceramic roof tiles, which suggests that these were not widely used for covering roofs.

Grad is a large and complex site, and each one of its parts probably was characterized by a specific set of func-

tions and activities. A particularly interesting issue is the relationship between the elevated, naturally protected central part of the site and its peripheral parts. Discussion of that issue must be postponed until intensive survey is extended to the surrounding slopes. For the moment, one can only speculate about a »special role« of the central plateau – its possible use as a fortress, a local elite residence, an area assigned for ceremonies, or a combination of those uses.

## Conclusion

Analysis of the data recovered by the intensive survey of Grad indicates that the central area of the hillfort was intensively used during the last few centuries B.C., at the time when Dalmatia was being incorporated into the world of the classical Mediterranean civilization. Its origins can be traced back to the Bronze Age, while a few artifacts testify of an even earlier episode of occupation. The recorded structures and the recovered finds hint at a residential and defensive function of this large site, while its central, elevated area may have been a focus of special activities. A continuation of intensive survey beyond that central area, augmented by test excavation at selected locations, is a prerequisite for resolving some of the issues raised in this report.

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**PRETPOVIJESNA GRADINA GRAD NA PELJEŠCU U DALMACIJI –  
PRELIMINARNI REZULTATI INTENZIVNOG PREGLEDA POVRŠINE**

**S A Ž E T A K**

Intenzivni pregled površine proveden na Gradu, gradini na Pelješcu u južnoj Dalmaciji, obuhvatio je otprilike 10.000 m<sup>2</sup>. Cilj pregleda bio je prikupiti podatke koji bi omogućili određivanje veličine nalazišta, njegove funkcije, razdoblja naseljenosti, stupnja očuvanosti, te potencijala za daljnja istraživanja. Pregled je obuhvaćao kartiranje vidljivih ostataka arhitekture i sustavno sakupljanje svih površinskih nalaza. Većina nalaza su ulomci grube helenističke keramike, te nešto manji broj ulomaka brončanodobne i željeznodobne lončarije. Središnji dio gradine intenzivno se koristio u zadnjim stoljećima prije Krista, dok njeni počeci sežu u brončano doba. Vidljivi ostaci arhitekture i prikupljeni nalazi ukazuju na stambenu i obrambenu funkciju nalazišta, dok su se na njegovom uzdignutom središnjem dijelu vjerojatno odvijale posebne aktivnosti.