# Dinko RADIĆ, Bryon BASS

# CURRENT ARCHAEOLOGICAL RESEARCH ON THE ISLAND OF KORČULA, CROATIA

# NOVIJA ARHEOLOŠKA ISTRAŽIVANJA NA OTOKU KORČULI, HRVATSKA

UDK:

Izvorni znanstveni članak

Primljeno:

Odobreno:

Dinko Radić
HR, 20270 Vela Luka, KORČULA
Centar za Kulturu/ Arheološka zbirka
Bryon Bass
University of Edinburgh
Department of Archaeology
12 Infirmary St.
Edinburgh EH1 1LT
SCOTLAND UK

This paper will briefly outline the archaeological field survey and research that is being conducted on the island of Korčula, off Croatia's Dalmatian Coast, by the Korčula Archaeology Research Group (KARG). The team began work in the summer of 1993, and continued the survey during the Summer 1994-5 seasons. The article will include a brief introduction to the various geographical aspects of Korčula, and previous research on the island, give an overview of the archaeological situation, explain the goals and methodology of the KARG, and present specific preliminary findings from the 1993-1995 research seasons.

# GLOSSARY OF SPECIFIC CROATIAN WORDS USED IN THE TEXT

### blato

mud; this term often applies to marsh-type areas as well, and can also be found as a toponym in areas that no longer have mud or marsh conditions.

### gomila

literally, a pile or heap, and more often that not, of dry-stone (limestone) materials; regarding this toponym, the term usually refers to a pile of limestones, in any landscape location, and in any size/ shape condition; often, these are tumuli, but many have been found to be vacant, possibly stone field clearances or

unused prehistoric cairns. The generic term *gomila* has been also been applied to prehistoric dry-stone structures found on the landscape that have been archaeologically assessed as towers, hillforts, ritual structures, and prehistoric structures of unknown function.

## gradina

a hillside or hilltop settlement, often fortified, although this latter feature is usually the exception, not the rule, on Korčula. All of the positions on Korčula's landscape with this toponym have Bronze or Iron Age occupational remains of some kind. A similar toponym is sometimes found as *Gradac*. In the case of Korčula, all are on hilltops, although regionally, they have also been detected on hillsides.

#### kula

a tower. Korčula has one toponym with this name, and an associated prehistoric hilltop structure is situated on this position. The name "kula" has also been given to certain prehistoric structures on the island that appear, in shape at least, to resemble a type of viewpoint or watchtower.

#### lokva

a pond, puddle, or pool. On most maps, the term is usually associated with geographical areas where water collects. Often, these occur in dolines on the karst landscape.

# makija

an evergreen shrub which is common throughout the Mediterranean; often found in the literature as *macchia*; often associated with anthropogenically modified landscapes.

### mala/i

translates generally as "small, little, or minor". The abbreviations, often found as "M." or "m." on topographic maps, are used to designate a smaller geographic area or geologic feature from a larger locality with the same toponym. e.g. Mala kapja (or M. kapja) *versus* Velika kapja (see fig. 3).

# polje

a field or plain; often seen as flat areas situated in karst valleys or recesses.

## špilja

or **spilja**; a cave. Also seen on topographic maps labeled as *pećina*, which can mean a cave cliff, or rock.

#### uvala

a bay; gulf; or cove, and often abbreviated on topographic maps and hydrographic charts as "U." or "u.". e.g. U. Gradača (see fig. 3).

#### velik-a/i

translates generally as "big; large; or great". Abbreviations are often found on topographic maps and hydrographic charts as "V." or "v.".

# The Korčula Archaeology Research Group (KARG)

The KARG is a multi-national research team with current members from Croatia, Slovenia, and the U.S.A.<sup>1</sup> The group was established to study the archaeological and historical aspects of Korčula from all periods. Research emphasis includes the study of changes that have occurred to the island's landscape over time, the characteristics of past cultural settlements on the island, and the associated exploitations of natural resources from the land and the sea.

It has recently been pointed out that this area of the eastern Adriatic seaboard can be described as the crossroads of the Adriatic (Forenbaher et al. 1994: 14, and see fig. 1). The central and south Dalmatian coast and islands can be described as a strategic geographic position. Indeed, many of the unique islands of central Dalmatia have recently formed the basis for a quite extensive archaeological research project conducted by the multi-national team of the Adriatic Island Project (AIP), (see Forenbaher et al. 1994: 13-52, Kaiser and Vujnović 1995: 30-36, and Kirigin 1995: 61-66).

The Adriatic Basin is vital to regional research, regardless of the periods of study or the cultural and archaeological aspects involved. Naturally, trans-Adriatic and inter-island cultural connections would definitely form the basis these studies. Therefore, Korčula's central geographical position definitely provides a vital geographic link in this Adriatic crossroads (see figs. 1 and 2).

# Korčula: General Information

Korčula belongs to the Croatian islands that are commonly referred to as the south Dalmatian island group, with the islands immediately to the north generally referred to as the central group (see fig. 2). Geographically, Korčula can be described as belonging to the south Dalmatian coast. It is usually possible to see all of the neighboring islands from many positions on Korčula (see Čečuk 1986: 46, for a general viewshed description from the well known Neolithic cave site of *Vela spilja*.) Even the tiny and distant Croatian island of Palagruža can be visible from the highest elevations on the clearest winter days. The importance of this extensive view perspective, the so called "line-of-sight"

<sup>&</sup>lt;sup>1</sup> The team investigations are lead by Prof. Dinko Radić (Croatia), Director of the Vela Luka Centar za Kulturu and Arheološki Muzej, Bryon Bass (California-U.S.A.), based at the University of Edinburgh, Scotland, Predrag Novaković (Slovenia), Research Archaeologist at the University of Ljubljana, Department of Archaeology, and recently, Dr. Philippe Della Casa (Switzerland), University of Zürich, Abteilung für Ur- und Frügeschichte, has joined the research group; various colleagues who have collaborated with the fieldwork over the 1993-95 field seasons have included Asja Zec and Ana Radmilović, while Dr. Robert Sands, University of Edinburgh, has assisted with the customized database.

essentially allowing an unbroken view from the Italian seaboard to the Dalmatian islands and coast, was recently detailed by the AIP (Forenbaher et al. 1994: 14).

The hilltop known as Kom, located west of the Smokvica township on Korčula (see fig. 3), allows an incredible panorama of this stretch of the Dalmatian coast. Kom affords a view towards the south, to the islands of Mljet, Lastovo, Sušac, and Palagruža, to the west, towards the islands of Vis and Biševo, and north to Šćedro, Hvar, and the mountainous spine of Brač. Likewise, much of the Pelješac Peninsula is visible, including line-of-sight views from this position down the Dalmatian coast towards Dubrovnik and north, along the coast, in the direction of Makarska (on the mainland, opposite Brač). Essentially this peak, like a few others on Korčula, has at least a 50-100 km radial view to most directions. Survey of the toponym Kom also revealed evidence of prehistoric occupations (KS-014, see fig. 11).

Korčula's name in antiquity was Kerkira Melaina (Corcyra Nigra, Crna Korkira or Black Corcyra.) This reference (i.e. black, *crna*, *melaina*, or *nigra*) stems from Korčula's dark pine forest (Appolonius Rhodius N. 569, but see Lisičar 1951 for a more extensive discussion) and the possible presence of a Late Archaic Greek colony on the island. This was supposedly established by the Cnidians (Pseudo-Scymnus 421, Strabo 7.5.5, Pliny: III, 152), aided by the Corcyrians, and launched from the Greek island Kerkira (Korfu). As the colony was established on Korčula, the name given to the island, in honor to Kerkira but not to be confused with the latter, was Kerkira Melaina. The problems surrounding this colony and its detection on Korčula will be discussed later in the text. In any case, Korčula still has one of the densest forests found on the Adriatic islands.

# Landscape and General Relief

Korčula's landscape is roughly a mixture of small and large polje, karst valleys, rolling hills, high dolomitized limestone peaks, and cliffs. The island is surrounded by many islets and the coast of Korčula, much like the entire Dalmatian Coast, is etched with bays and harbors of various sizes. The geographic observation from Strabo that "...the whole Illyrian (Dalmatian) seaboard is exceedingly well supplied with harbours, not only on the continuous coast itself but also in the neighboring islands" (7.5.10), definitely applies. Likewise, this highly relevant observation of the general Dalmatian coast geographical setting, dating from antiquity<sup>2</sup> appropriately serves as the introduction for the AIP's preliminary research findings (see Forenbaher et al. 1994: 14).

<sup>&</sup>lt;sup>2</sup> Strabo is believed to have lived from 64/3 B.C.- ca. 21 A.D.(Hammond and Scullard 1970: 1017).

Korčula has a surface area of approximately 276 km². The island is ca. 47 km in length with the width averaging between 5.3 km (between the bays of Ripna and Teklina) and 7.8 km (between Prigradica bay and the small Ratak peninsula), with the entire coastline of the island ca. 182 km in length. The island can be categorized as fairly mountainous with a distinct spine of rugged dolomitized limestone peaks stretching across the island (W to E). The highest peak on the island, Klupca, rises to an elevation of 569 metres above sea level (masl), although many other positions on Korčula have elevations close to that mark.

# **Basic Geologic Formations**

The geology of Korčula is similar to most of the central and south Dalmatian islands, albeit with a few variations. The Dalmatian coast is generically classified as a karst formation and the region falls into the morphotectonic area recognized as the Alps and Dinarides, hence the name of the mountainous spine running down the Dalmatian Coast, commonly known as the Dinaric Alps (Gavrilović 1989: 202-203).

The island's surface geology consists primarily of limestone, dolomite, and dolomitized limestone. All of Korčula's geologic formations date roughly to the Mesozoic Era (excluding the more recent Quaternary deposits; see fig. 4). The region of Korčula near Brna, to the south, has been identified as an Upper Jurassic formation. As such, this area has the oldest geological exposures found on the island. This region has heavy limestone and dolomitized limestone exposures, an abundance of surface breccia and, except for a few isolated spots, very poor soils.

The central band of Korčula's landmass (fig.4) is exposure from the Lower Cretaceous period and takes up roughly 60% of the island's surface. Most of the better soils found on the island are associated with the *polje*, or fertile plains, found in this geologic formation. However, in a few areas along the edge of the formation, such as the Morkan and Prapratna polje (see figs. 3 and 5), the rich soils are mixed with alluvium from the aforementioned Upper Jurassic formation.

The northern section of the island, stretching from the small island of Proizd, off the western-most tip of Korčula, eastwards to the bay of Kneža, is exposure from the Upper Cretaceous period (i.e. the newest exposure). This geologic formation does contain certain localities of good terra rossa and brown soils, such as the Bradat polja, northwest of Vela Luka (see figs. 3 and 5), but most of the other soil localities in this exposure are not very large (i.e. well under 5 hectares in size).

### Soils on Korčula

The younger soils from the Pleistocene are found above the limestone and dolomites. Almost exclusively, these soils consist of the red type, known as terra rossa, and the variations of Pleistocene sands. Generally, the terra rossas are found in the karst recesses and valleys, including sections of the Blatsko polje, Mala and Vela Kapja fields, and the Čarsko polje (see fig. 5). It should be noted that there are variations of this so called terra rossa. The aeolian soils, specifically the aeolian "brown" variety, typified in deposits originating from erosion and transport of soils due to the wind, are quite abundant and are found normally in the larger polje.

Quaternary deposits, such as sandy soils and sandy loams (mixtures of silts, sands, and clays), are also found on Korčula. These soils are found in parts of the Blatsko polje, Prapratna polje and, in a specifically nutrient rich context, the Lumbarda polje, where the famous "Grk" wine originates (see fig. 5). Soils of this type have also been previously discussed with regards to archaeological studies on the island of Vis (Forenbaher et al.1994: 31). At the present, except for the Donje blato (see Water Resources section, this article and fig. 5), all major areas on Korčula with decent soils are used for agriculture.

Finally, anthropogenic soils are also quite abundant on Korčula. Some of the soils derive from current farming or related activities, such as the importation of soils to serve as "filler" for landscaping projects. This has been noticed in the area of Kale (or Kalos), just below Vela špilja, near Vela Luka (see fig. 3). One of the authors (D. Radić) also noted that some cultural material might have also been imported along with this filler.

## Soils and the Archaeological Record on Korčula

Korčula's extensively human modified landscape, not only from the Roman occupations, but also the Venetian and post-Medieval settlements, has allowed the proliferation of many soils into areas where they might not have accumulated at such an extensive rate by natural factors alone. Most of this is evidenced in the form of massive terracing on Korčula's landscape. With the terraces largely abandoned and the hillsides stripped of natural vegetation, heavy soil erosions have followed, sending great quantities of alluvium into the lowland polje. Firm evidence of landscape modifications on Korčula is difficult to trace before the Roman occupations. Indeed, local palaeoenvironmental studies tend to indicate that it is only since Greco-Roman times that mass vegetational modifications to the landscape have occurred. These have including introduction of imported flora, destruction of native plant species, and the growth of opportunistic varieties, such as

the evergreen makija, in areas where the native vegetation has been destroyed<sup>3</sup>.

This modification of the landscape to support a Greco-Roman culture, including heavy emphasis on olive tree plantation and clearance of hectares of natural vegetation to support the vineyards, definitely set the stage for post-Roman landscape erosion. The extent of this disruptive activity on the landscape, in the form of mass terracing, has been noted in large scale survey in the Mediterranean, such as recent surveys on the Greek island of Keos (Cherry et al. 1991: 25-26, 59). Specifically regarding recent anthropogenic soil depositions and creation of new soil areas not present in antiquity, Vita-Finzi's (1969) indepth examinations of the Mediterranean Basin years ago are particularly applicable to Korčula, as well as the extreme palaeo-environmental impacts of these erosions and depositions (see Roberts 1989: 137-142).

These heavy anthropogenic activities have ushered in erosion and slope wash that has culminated with extensive soil deposits in the lowland areas. Lithic artifacts have been found at a depth of 1.5 m. from a back hoe trench cut in the Sitnica polje, due west of Smokvica (see fig. 3). This could be a secondary deposit, since this area is a lowland basin. However, a local farmer (Ivan Tomašić) has found a polished stone axe ("tongue-type", probably Late Neolithic/Eneolithic, material undetermined, as shown to D. Radić) at a similar depth while digging a cistern. Likewise, lithic artifacts have also been found in a shoreline terrace erosion on the Lumbarda polje (see pl. I).

Similar soils deposition, specifically related to the problematics of Dalmatian archaeological research, has also been discussed in detail (e.g. Batović and Chapman 1985: 158-162), with mention of often overlooked Venetian impacts (*op cit.* 158). The well known Venetian occupation on Korčula, with deforestation and related activities to support the Venetian presence, definitely assisted in soil erosions and depositions into the lowland areas. Renaissance pottery fragments, such as Maiolica wares (see Rice 1987: 19) as well as much earlier black glazed sherds (Hellenistic/Gnathia-type), have been found in the same erosional context near Koludrt, in Lumbarda. In support of this evidence, review of recent aerial photos of the Lumbarda locality clearly show a sandy alluvial pattern stretching from the Lumbarda polje well out into the sea, near Bili žal (see fig. 3). It is clear that the impact of these activities related to the archaeological investigations on Korčula is only just now being explored and understood. As will be discussed

<sup>&</sup>lt;sup>3</sup> See Beug 1961, 1962, 1967 and 1982 (listed in references) concerning the palaeoenvironmental evidence from Malo Jezero, Island of Mljet, note fig. 3 this article; and Brande 1973, concerning palaeoenvironmental studies in the Neretva Lowlands, along the adjacent Dalmatian coast.

later in the text, these factors more than likely play a large role in the problematics surrounding the detection or verification of the Cnidian (6th century B.C.) and Issian (3rd century B.C.) colonies on Korčula.

## Water Resources

As with the rest of the Eastern Adriatic islands, Korčula has the usual problem concerning fresh water availability. The large water table on the Blatsko polje is not capable of supporting the island's various communities. This created the need for the extensive fresh water pipeline that now extends from the Neretva River to the island. It should be noted that the Blato polje, now very fertile and with nutrient rich soils, was formerly a wetlands area which was drained to allow for better farming. A similar enterprise has also been documented on the Nadinsko Blato, in northern Dalmatia near Zadar, involving the drainage of lands to facilitate farming (Chapman and Shiel 1988: 36-37).

Korčula's geologic formation, with its rough dolomite core, is characteristically impermeable to ground water. This does permit pockets of fresh water to gather between the dolomite and the surface of the island. Unfortunately, this does not allow for massive ground water collection. Visible surface freshwater springs do occur on the island, such as those found in the Mala Kapja polje and the eastern part of the Sločajna. The Sitnica polje, west of Blato (see fig. 3), has a common karst lokva (pond). On a smaller scale, the time honored practice of digging cisterns into the karst to collect rain water is still widely practiced on Korčula.

There are areas of the island that contain unsuitable water for agricultural pursuits. The Donje blato, a quaternary deposit situated on Korčula's eastern end (fig. 3), has a high salinity content in the watertable and this has therefore rendered the area unusable for farming at the present. A similar water situation has also been documented by the AIP survey on the island of Brač (Čubraković 1984: 17-22, in Čače et al. 1995: 16).

### Climate

The winds in this part of the Adriatic are known as the *bura* (north wind), *yugo* (south wind), and the *maestral* (northwest wind). Generally, the *bura* blows more frequently in the winter months, and the *jugo* and *maestral* more frequently in the summer. The climate of Korčula is of the typical Mediterranean type and is referred to as the Adriatic variant. The summer temperatures on Korčula are relatively high and average 25.6 ° C while the winters average approximately 9.1 ° C. The rainfall on Korčula has been estimated to be 1088 mm/ m² annually. Vela Luka has recorded an average of 2671 sunshine hours per annum which is reported to be the highest figure for the Adriatic Basin.

#### Sea water and Currents

The sea water around Korčula does not vary greatly from the rest of the Adriatic, but there are a few aspects that do differ. The salinity of the sea water ranges on average between 37.20% and 38.39%. However, there is a drop in the salinity along the north and northwest coasts of Korčula due to the effects of the Neretva River emptying into the adjacent sea. The Neretva River empties out into the Adriatic just behind the Pelješac Peninsula and flows into the Neretva Channel. This current then follows the northern leading edge of the Pelješac Peninsula and empties into the Korčula Channel (see figs. 2 and 3). Along with a variation in salinity, the current also brings nutrient rich water which creates an ideal marine environment for fishing and related resource exploitations.

#### GENERAL SURVEY AND RESEARCH

# Brief History: Archaeological Research on Korčula

A paper of this size cannot detail the entire history of archaeological investigations and research on Korčula. A concise summary of the many archaeological sites found in the area of Vela Luka can be found (Oreb 1972: 123-130), as well as discussion of the general history of archaeological research on Korčula (Oreb 1986: 5-24). However, it will hopefully be informative to the reader to briefly detail some of the more significant investigations and publications that concern the archaeology of Korčula. Any references that are not included here can definitely be traced through the mentioned citations.

The ongoing cave excavations at the well known Vela špilja, above Vela Luka, have indeed revealed long and varied cultural occupations. Evidence has been recovered indicating occupations from the Early Neolithic, with Impresso ware pottery, Middle Neolithic, typified by the Danilo / Vela Luka Culture painted pottery, Late Neolithic with the well known Hvar Culture wares, through the Eneolithic, Bronze, and Iron Ages, up to and including Late Roman times. Over the years, the excavations have been passed down through well known regional scholars, from Gjivoje (1955) to Novak (1954) to the current investigator, Božidar Čečuk (e.g. Čečuk 1980: 25-34, 1981: 16-17, 1986: 29-30, 1989: 44-46, 1992: 43-49, and Čečuk and Radić 1995).

Numerous archaeological investigations on Korčula have also been conducted by Franko Oreb. These have included the Roman villa rustica on the small island of Gubeša (KV-025, ca. 150 m. northwest of Gradina / Sv. Ivan, west of Vela Luka; see fig. 3), the Poplat villa rustica (KB-022) (see Oreb 1972: 126, 130, for the aforementioned site descriptions), and the Roman villa found near the current position of "Kalos" and the small church "Gospe od zdravlja na Badu" (KV-029) on the edge of Vela Luka bay (Oreb 1986: 15). Oreb also conducted archaeological research at a Roman villa rustica on the

edge of the Blato polje and has revealed further insights into the nature of the Roman occupations on Korčula (Oreb 1989: 203-211).

The Roman and prehistoric aspects of the Potirna polje and the surrounding area (see fig. 3) have been examined with publications stretching over a one hundred year time span (Radić and Vuletić-Vukasović 1887: 109-111, Lisičar 1951: 128-134, Lisičar 1958: 132-134, Radić 1989: 45-47). Other major localities on Korčula that have been investigated include specific cave sites other than Vela špilja, such as Samograd špilja or Jakasova špilja (e.g. Novak 1954: 41-56, Gjivoje 1952: 10-12, and Čečuk 1980: 25-34). Likewise, the many small islands to the east of Korčula (e.g. Fisković 1971: 141-167, Fisković 1984: 5-27, and Gjivoje 1972: 38) have been investigated.

### The Current Research

The above investigations serve as an important base for the study of the archaeological occupations on Korčula, and in fact, these earlier works provide vital references for the current research. However, due to the fact that systematic archaeological field survey has never been conducted on the island, and evidence has not been recorded in a specifically quantitative manner prior to the KARG survey, the spatial and temporal relationships concerning all periods of occupation on Korčula are generally unclear.

With this situation in mind, the KARG has established a methodological approach that aims to bring many aspects of modern archaeological research into a broad and usable database. The group has produced a database and general research format that is quite similar to others used in the region to facilitate possible integration of archaeological data for current and future regional archaeological investigations.

# General Methodology

KARG has established a Sites and Monuments Registry (SMR) for Korčula. Field record forms are used on the terrain to record numerous attributes of the site, such as the archaeological information, the immediate geological, geographical, and environmental surroundings, as well as the level of site preservation. This information is then entered into a computer database. The associated record forms and plans, as well as all artifact samples, are stored at the Centar za Kulturu/Arheološka zbirka, Vela Luka.

The above information is being gathered through systematic field survey and random strategic survey. Specific emphasis is placed on the documentation of temporal and spatial occupational evidence, the nature of the soils on the landscape, and possible effects these soils have had on the archaeological record. Likewise, changes and damage to sites and the landscape as noted by the team or relayed by local islanders is being documented. During the course of the survey, all previously known sites were also visited for current documentation.

It was determined from the outset of the KARG survey that the general landscape across the entire island must be reconnoitered first before more exhaustive data recovery, such as intensive and extensive field collections, or large scale excavations, could be employed. This is the only logical approach for a long-term project on an island that has not yet seen systematic work of this type. Many surface scatters, if not in danger of heavy disturbance or destruction, were recorded but left *in situ* for future investigations.

Following SMR/ field survey visits, certain sites have been chosen for sub-surface testing. This system, akin to a Cultural Resource Management approach, not only serves to clarify the period and type of site, but also facilitates the study of site formation processes on the island and verifies general site, artifact, and soil integrity. This step by step approach has allowed the KARG to establish a very comprehensive understanding on the nature of Korčula's archaeological record. With the above points firmly implemented after the initial seasons (1993-95), the team will now use this data as a springboard towards more intensive survey, excavation, and research on Korčula.

## PREHISTORIC SITES: A GENERAL OVERVIEW

#### Neolithic Evidence

There are a few documented Neolithic sites on Korčula. The aforementioned cave site of Vela spilja contains occupational evidence from all of the recognized local Neolithic phases (see Brief History section, this text). Off the east end of Korčula, a Neolithic site has been briefly documented on the island of Badija, in the Pelješac Channel (see Gjivoje 1972: 38).

The small cave known as Jakasova spilja gives evidence of Middle Neolithic Vela Luka Culture/ Danilo painted pottery as well as the Late Neolithic Hvar pottery (see Novak 1954: 44-45, Gjivoje 1952: 10-12, Čečuk 1980: 25-34). A follow-up survey of the cave was conducted by the KARG to determine the integrity of the site and its potential for further research. The sub-surface soil integrity in this remote cave is not very understood, as it would appear that soils and artifacts have been pushed into the cave entrance to facilitate agricultural pursuits on the terraces outside. Likewise, the sedimentation and cultural deposit situation further back in the cave is not entirely clear.

The aforementioned polished stone axe, possibly Late Neolithic, has been recovered, and survey in the Sitnica (Smokvica) revealed minor lithic evidence (debitage and a retouched microlith) (see Soils and Archaeological section, this article). Likewise, the erosion near a field wall on the north shore of the Lumbarda polje (Bili žal) has yielded a number of lithic artifacts consisting of fine-grained, dark brown chert as well as debitage (e.g. fig. 6).

The sub-surface situation at both sites needs more investigation since much of the Smokvica, Sitnica and Lumbarda soils are anthropogenic. Elsewhere in Dalmatia (Dubrovnik area), Neolithic sites have been discovered during well-digging at a depth of 2 meters below the surface (see Batović and Chapman 1985: 158). It is obvious that sub-surface testing in these areas is needed to sort out the deposition pattern of local soils and to clarify the archaeological record. The Lumbarda locus may well be a near-shoreline prehistoric site if these artifacts are not derived from a secondary deposition.

# Eneolithic (Copper Age) Evidence

The isolated finds mentioned above must be viewed with a cautious eye when attempting temporal assignments. There is ample archaeological evidence throughout Europe, recently and perhaps most vividly seen in the *Gletschermumie* find from the Italian/ Austrian Alps region, known as Ötzi (Egg et al. 1992: 53-65), to show that dated Copper or Early Bronze Age find spots with lithics but without bronze might "appear" in the archaeological record as Late Neolithic sites.

In any case, there is evidence to indicate that there were occupations on Korčula during the Eneolithic. The majority of this evidence comes from the identified Eneolithic occupations of Vela špilja, in the form of diagnostic pottery and a shaft hole copper axe (Čečuk and Radić 1995: 36-45). The KARG survey has not produced any material that can, at this moment, be attributed with certainty to the Eneolithic. It should be kept in mind that this period has been relatively unexplored and recently debated as far as terms and corresponding chronologies (see Della Casa 1995: 565). Of course, until more research is conducted and published (see Chapman et al. 1990: 29-46 for some absolute dates from the Eneolithic and other periods on the Dalmatian coast), this "transition period" from the Late Neolithic through the Eneolithic and into the early Bronze Age will remain unclear.

# Bronze and Iron Age Evidence

Korčula still lacks reliable diagnostic parameters concerning the standard course-ware pottery from these periods. Fragments of pottery can be identified more accurately regarding the Early Bronze and Late Iron Ages, but the problem of assigning reasonably accurate dates still crops up on multi-occupational sites and general surface scatters where the pottery is badly weathered and hence somewhat undiagnostic. This problem is further compounded by the fact that itinerant potters in the region, until fairly recently, manufactured and distributed pottery quite similar to the course-wares of Iron Age (and possibly Bronze Age) production (Carlton 1988: 101, Vince Gaffney pers. com.). Realistically and responsibly, until further testing is conducted, these two periods must be assigned floating chronologies.

Investigations into these two periods of occupation have centered on the rather extensive system of prehistoric hilltop structures which generally (regionally) date to these periods. The group has also continued documentation of the many lowland limestone cairns, or gomila, possibly associated with these occupations. The group has not yet excavated any suspect tumuli (during the 1993-95 seasons). However, now that the general archaeological landscape is better understood, the team will turn to these for future investigation. The prehistoric hilltop structures found on Korčula have been typologically divided into two distinct groups. This system was devised only to facilitate classification before other analysis are conducted. Functional aspects of these sites should not be implied from these classifications.

# Complex Prehistoric Hilltop Structures

All complex hilltop structures have some sort or rampart or "terrace rampart" system constructed out of limestone materials. A terrace rampart can be described as a dry-stone rampart, but with only one face (i.e. the up-slope side of the rampart is built directly into the hillside, the down-slope has a stone face, similar to the terraces used for agriculture). Most of these structures have a rather "undefended nature" in that the ramparts are never more than 1 meter in height, with most measuring between 40-80 cm. Complex types can be found as drystone wall enclosures, essentially encompassing the site as in the Čara Gradina (fig. 8), or these features can be extended or semi-circular (see Forenbaher 1994: 29-30, 32), often used in conjunction with natural limestone outcrops to form the structure, as in Velo Gračišće-Dubrovica (fig.9). The complex structure can also have a combination of the two aspects mentioned above, as found on Sutulija (fig. 10).

A minor yet distinguishing point is the fact that the complex structures tend to be much larger than the simple structures, often with limestone "gomila" associated into or near the rampart or terrace rampart (see Vujnović 1990: 47-64 for a recent reference to similar features found on the island of Hvar). All of these hilltop positions have commanding views of the landscape, the sea, bays, other islands, the mainland, other hilltop sites, or specific combinations of the aforementioned.<sup>5</sup>

<sup>&</sup>lt;sup>4</sup> Predrag Novakovič is credited with the implementation of these terms into the KARG survey.

<sup>&</sup>lt;sup>5</sup> A few minor points should be made concerning the survey methodology of these hilltop sites. The KARG is in the process of establishing a GIS (Geographical Information Systems) for the island. Unfortunately, this was not in place for the initial survey seasons, so a rather crude yet effective technique was employed to survey these hilltops. Using simply the naked eye, compass, topographic maps, and suggestive toponym information, other prominent hilltops in view from known hilltop sites were recorded. Once this was done, those "prominent and suspicious"

At present, 20 of these hilltop structures, in various states of preservation (or destruction) have been detected on Korčula (see fig. 11). With the exception of Hum (KV-003), all have been verified as the complex type. The Hum site was destroyed during the construction of an Austro-Hungarian military structure. Interviews with a local islander by one of the authors (D. Radić) has revealed that there was a quite large "very large gomila-type structure" on the position and that pottery was found during the construction of the fort. A few fragments of weathered undiagnostic prehistoric pottery (Bronze/Iron Age) were found on recent survey around the hilltop, although much of the surrounding area is now covered by the fort, rendering a proper investigation almost impossible.

# Simple Prehistoric Hilltop Structures

The simple hilltop structures (fig. 11) appear as non-ramparted dry-stone enclosures, also recognized as possible kula, or towers, as seen on Lokvica (fig. 12, KZ-006) or Sutvara (KS-007). Simple hilltop structures also appear as large limestone gomila (only KB-015 has documented burial evidence). These are recognized as limestone piles or cairns of varying sizes, are undefended (i.e. no ramparts) and often have an "apparent non-functional nature" (Čače et al. 1995: 30). Simple hilltop structures also have views of the landscape, the sea, bays, other islands, the mainland, other hilltop sites, or specific combinations.

Fourteen of the simple hilltop structure type have been located on the survey. However, there is one area on Korčula that requires further investigation into the type. As can be seen (figure 11), there are no positive identifications of simple hilltop structures on some "typical positions" towards the eastern end of the Blatsko polje. A few hilltops with gomila are known, but these have been heavily damaged by the electrical power line support stations which happen to be situated on these hilltops. Therefore, the archaeological situation is not entirely clear. The KARG plans to investigate these hilltops further during the 1996 season. It would be quite counter-productive to assume that these are former hilltop structures simply because there is limestone material present around the base of the powerlines.

hilltops in view were surveyed. This system was employed in a "leap frog" manner across the length of the island. Using this crude method, KARG found that all but one of these "prominent or suspicious" hilltops had evidence of some sort of prehistoric hilltop structure. This was naturally followed up by systematic area survey. The point to be made here is that by using this inter-visibility analysis, a "poor archaeologist's GIS", many sites were detected. The landscape of Korčula will be examined in depth using GIS, but it appears that these raw and perhaps primitive techniques do serve a valuable supportive role.

# Preliminary Survey of the Simple and Complex Structures

Currently, there are not many well documented cases of the "kula" type and it is possible that confusions might exist between a tumbled limestone kula, limestone gomila, and limestone gomila that were used as bunkers. Excavations in Slovenia have revealed a similar, albeit better preserved, example to the kula-type found on Korčula. It should be noted that this structure appeared before the excavation as a gomila and later proved to be a well constructed kula-type enclosure (Predrag Novaković pers. com.<sup>6</sup>).

Many of Korčula's so-called hilltop gomila show evidence of underlying dry-stone structure as well. These can be found as large semi-dressed limestone blocks encompassing all, or sections of, the base of the cairn. KARG has, for lack of a better term, called these high profile structures "landscape monuments". A few have been documented on the island of Hvar with slab stone grave cysts (e.g. Marović 1985: 5-35) and it has been suggested that perhaps these are ritualistic, reflecting some type control over agriculture in the immediate area during the Late Bronze/Early Iron Age (see Gaffney et al. 1995: 211-229).

Survey of these simple hilltop structures has produced some interesting finds. Lithic surface finds (other than the actual limestone cairns) tend to be fairly sparse on the hilltops, but a small sea cobble (limestone material, weathered) collected from the KB-020 complex hilltop structure shows clear evidence of battering, while the ventral side has evidence of possible use wear (fig. 7). The artifact is rather small for a pestle, but the wear pattern does suggest a similar use. Pottery evidence (fig. 13) from a small disturbed tumulus 50 m distant from the Lokvica simple hilltop structure suggests a possible Bronze Age correspondance. At the moment, this evidence can only be generally associated to the Lokvica kula (KZ-008) due to proximity.

Limestone tumble cleared a few meters east of the Sutvara (KS-007) simple hilltop structure revealed evidence of a dry-stone structure with two walled courses of limestone, ca. 1 m. in height. The cleared tumble at Sutvara permitted a small test unit into the dark humus-type soil. All artifacts were recovered at the bottom of the humus stratum, at a depth of 30 cm, where limestone outcrop terminated the unit. It should be noted that the soils had a fair amount of organic inclusions and biotubation, so the general context integrity was rather poor.

The finds consisted of shell and shell fragments (limpet type), rodent bones (recent disturbance), small and medium sized mammal teeth, cranium fragments from a small to medium sized mammal (ovicaprid-?), and one chert blade-core

<sup>&</sup>lt;sup>6</sup> The site, located in Southwest Slovenia (karst region) on the position "Ostri Vrh", was excavated in 1992 by Peter Turk and Biba Teržan Štanjel; unpublished.

preparation flake (fig. 6, KS-007). Of particular note concerning this lithic is the fact that, based on cortex color, material color and grain description alone (Tim Kaiser: pers. com.), the material might be from the flint quarry found recently on the island of Palagruža (Forenbaher 1994: 41-42, and see figure 1 for the location of Palagruža).

Other possible links with the Palagruža material have been detected in the recent Krajicina cave excavations on the island of Vis (Kaiser and Vujnović 1995: 30-36). On Korčula, this is the only lithic evidence found on the KARG survey that might have a link to the Palagruža quarry. In the future, more evidence from the Palagruža quarry might also be found in the vast lithic assemblage recovered from Korčula's Vela spilja.

## The Greek and Roman Evidence: A General Overview

### **Greek Sites**

The saga of the possible location and detection of the Cnidian colony (early 6th century B.C.) on Korčula continues. This basic situation and the related problematics have been discussed in greater detail elsewhere (see Beaumont 1936: 173-174, Lisičar 1951: 51-125, Wilkes 1969: 8-9, Rendić-Miočević 1980: 229-250, Boardman 1980: 227, Kirigin 1990: 293, and Wilkes 1992: 113). However, the KARG has some new insights gathered on the land survey that should illuminate the problematics concerning the Cnidian colony situation.

Previously in the text, the basic background concerning the Cnidian colony was given (see Korčula: General Information section). The reference from Strabo tends to serve as the best example for illustrating the problem of the Cnidian colony.

"And then there is Mount Adrium<sup>7</sup> which cuts the Dalmatian country through the middle into two parts, one facing the sea and the other in the opposite direction. Then come the River Naro<sup>8</sup> and the people who live about it-the Daorizi, the Ardiaei, and the Pleraei. An island called the Black Corcyra<sup>9</sup> and also a city<sup>10</sup> founded by the Cnidians are close to the Pleraei, while Pharos (formerly called Paros, for it was founded by the Parians) is close to the Ardiaei." (7.5.5; from the H. L. Jones translation, Harvard University Press, 1954).

<sup>&</sup>lt;sup>7</sup> the Dinaric Alps

<sup>&</sup>lt;sup>8</sup> the Neretva River, see fig. 1

<sup>9</sup> now Korčula

<sup>10</sup> of the same name

There is more than enough reason to suspect that there was a Cnidian colony at some location on Korčula. There are at least three possible locations; the modern town of Korčula, the Lumbarda area, and the Vela Luka area (Beaumont 1936: 174-175), but as Kirigin rightly pointed out, the problem of the location of the Cnidian settlement has not yet been solved (1990: 293).

Beaumont (*ibid.*) originally pointed out the basic problematics concerned with each location. Briefly, the town of Korčula would perhaps serve as the best location for a colony site, if a port-of-call were the focus of a settlement. The landscape in this location is entirely covered by the current town of Korčula, and except for a few small locations near the town, none of the topsoils are visible. Realistically speaking, if this is the spot of the Cnidian colony, the only way for detection would be some sort of non-intrusive survey (e.g. magnetometry or resistivity) or test soundings when local sub-surface maintenance is being conducted (water mains, electrical, etc.).

A point of minor interest is the presence of land divisions illustrated on a Venetian map of Korčula (ca. 1606). These divisions would be situated due southwest of the Korčula town peninsula, ca. 0.5 km. It should also be noted that the map is fairly inaccurate as far as the topographic layout of the island is concerned, so the detection of this land division (if they are accurate, and not idealized for the sake of the map illustration) now would be fairly difficult. Concerning the presence of Cnidian town walls, perhaps it would be appropriate to search the well established Venetian walls for evidence of dressed stones (anathyrosis) that might have been borrowed from a former Greek structure.

Lumbarda would appear to have better search prospects for the Cnidian or later Issian (ca. early 3rd century B.C.) colony sites. But, the fact should be pointed out that the soils deposition in this area has been greatly underestimated. As discussed previously (Soils/Archaeology section, this article), Greek pottery fragments have been found in a context with Renaissance Maiolica ware in an exposed road cut (ca. 1.0-1.5 m depth) near Koludrt (see fig. 3), suggesting that if there are remains of the Cnidian colony nearby, they would probably found well below the surface.

The actual Lumbarda polje is the other prime location for the Cnidian colony. However, the deposition of soils here is just as complicated as the aforementioned area. As can be seen in Plate I, the soils in the polje are well over 1.5 m deep. Likewise, artifacts from earlier periods have been found in these soils (fig. 6, KL-003), suggesting the possible extent of deposition. This area would be ideal for resistivity or magnetometry survey, as long as this is not conducted near the harvest time for the local grape crops. Of course, the very name of the wine derived from these grapes from the Lumbarda polje (*Grk*, or Greek) makes the position highly suspect as well.

At this point, the later Issian colony in Lumbarda should be mentioned. Land divisions mentioned in the famous *psephisma* inscription found on Koludrt (see Kirigin 1990: 312, and fig. 3, this article) detail 4.5 *plethra* of land being given to over 200 colonists, as well as land within the town walls (see Rendić-Miočević 1965: 77-81, Rendić-Miočević 1966: 133-141, Lombardo 1993: 161-188, Cahill 1993: 345-346; and recently pointed out by B. Kirigin to the authors, Fraser 1993: 167-174). Unfortunately, the actual location of this colony has yet to be detected. There are some indications, such as the presence of the contemporaneous cistern on Koludrt (where the *psephisma* was found), a few contemporaneous graves found ca. 100 m. south of the Koludrt (see Kirigin 1990: 311-312, for a brief overview of the archaeological investigations, plus a map), as well as fragments of Hellenistic pottery that have been found in the area on the KARG survey.

Zaninović (1980/81:93) mentioned the presence of some sort regularity in the land divisions visible in aerial photos of Koludrt and on the landscape near Lumbarda. The KARG has viewed more recent aerial photos of the entire Lumbarda peninsula and can also confirm some sort of "regularity". These can also be seen on the 1:25,000 and 1:5000 scale maps as field walls and access roads that appear to conform somewhat to quadratic alignments. Unfortunately, the situation is not as clear as that found on the Stari Grad plain on Hvar (op cit.: 91-95). This is partially due to the fact that Lumbarda lands are intensely sub-divided, and also due to the fact that there are not many standing (i.e. visible) walls that currently serve as land divisions on the polje. However, measurements have still not been taken to see if any of these land divisions conform to those mentioned in the *psephisma*, as suggested by Zaninović.

So, it can be confirmed that Zaninović's observations are in fact correct concerning a type of regularity, but it still remains to be seen as to whether these are the former Greek land divisions mentioned in the *psephisma*. Foot survey in the Lumbarda area has yielded only one fragment of Hellenistic black glazed ware which was found near a destroyed Roman villa rustica on the edge of the Račište Bay (due west of Koludrt). The group plans to investigate this situation further in the next field season.

In the Vela Luka area, a few minor Greek find spots can be reported. The first find consisted of a sole pot sherd dated as a Late Archaic/ Corinthian fragment. This piece, as well as numerous Bronze and Iron Age sherds, were found in the excavations for a house foundation (family Marinović) at the base of Sv. Ivan church, also known as Gradina (KV-006). However, due to the disturbed nature of the soils, this deposit is more than likely a secondary type that originated from the Gradina (the hilltop has recorded prehistoric, Roman, and Benedictine occupations).

Greek pottery sherds, including Gnathia-type fragments, were also found in a small sounding on Kopila (KB-017, see fig. 11) due west of Vela Luka. Earlier investigations have detailed the general archaeological situation on Kopila (Radić and Vuletić-Vukasović 1887: 109-111, Lisičar 1949: 38, and Nikolanci 1989: 75). The team decided to explore the sub-surface integrity, as there has been active agriculture near the hilltop in the past and it appears as though the site would have been impacted by this activity. A small test unit yielded more than 100 prehistoric pottery fragments, assessed as Late Iron Age (see Wilkes 1992: 51), including ceramic spindle whorls (fig. 13, and see Čović 1991: 65 for possible comparative illustrations), approximately 200 small and medium mammal bone fragments (ovicaprid), shell, small sea cobbles, amphorae fragments, and 24 pottery fragments dating from the Late Archaic, Classical, and Hellenistic periods. <sup>12</sup>

A point of interest is that these finds do tend to reflect a similarity with artifacts that were discovered on Korčula in 1867 at or near the Potirna Gradac (KB-003), also situated on the west end of Korčula (see fig. 3). Eight complete vessels, both local and imported (Greek/Gnathia) wares, were recovered by a local farmer and a description of the vessels has been offered (Radić and Vuletić-Vukasović 1887: 109-111) although the present location of these finds is unknown. The authors, on recent review of the description given in this older text and its accompanying illustrations, believe that the illustrations might have been labelled incorrectly and therefore do not correspond exactly to the citations in the text.

These finds, however one chooses to sort out the description, do reflect the presence once again of native and foreign wares being found in the same

All of the Greek and Gnathia wares found on the KARG survey were examined and dated by Dr. John Hayes during the Summer 1994 season. The samples were examined at the Split Arheološki Muzej and are currently held in the Vela Luka Arheološka zbirka.

The sounding was conducted downslope (south) of the KB-017 structure to determine the sub-surface soil integrity. Surface artifacts, such as pottery, can be found on the site, although not in great quantities. The sounding measured 50 cm. x 50 cm. with a depth of 38 cm. The top stratum was identified as a medium brown humus topsoil with an abundance of organic inclusions. The lower stratum was a darker silty loam with minor organic intrusions from the previous (upper ) stratum. The sounding was terminated on contact with limestone at a depth of 38 cm. Note: the artifacts and soils appear to be secondary deposit, as modern artifacts such as rifle cartridges and wire fragments were also found in the upper part of the second stratum. There has been active agriculture on the slopes of the Kopila area, although the terraces are presently abandoned; the site plans and position of the sounding can be currently found in the Ph.D. thesis, in submission at the time of this publication, from Bryon Bass, University of Edinburgh.

context. Of course, the implications of this occurrence can not be reasonably examined until further investigations are conducted. However, it is of particular interest to note that recent finds from the excavations of the Talež hillfort on the island of Vis suggest either direct Greek resource exploitations in the area, direct trade with Greece, or contact with local communities who in turn traded with Greece (Čače et al. 1995: 8). The finds from Kopila (KB-017) and Potirna Gradac (KB-003) might reflect a similar scenario. It is of interest to note that both of these sites are on the western end of Korčula, directly adjacent to Vis (see fig. 2).

Another point to be made concerns the problem of location of the Greek colony of Heraclea, mentioned by pseudo-Scylax (Periplus, ch. 22). The reference of "Heraclea with a port" has been open to debate for some time. Kirigin has summarized the general problem concerning this colony (1990: 294). Bonačić-Mandinić has discussed the coins minted at Heraclea which are currently held in the Arheološki muzej, Split, and suggests that Hvar would be a good location for the Heraclea colony (1988: 65-80). However, the fact should be again mentioned for this discussion that Rendić-Miočević has put forward a possible location on the bay of Vela Luka (1980: 235). These Greek finds from the area near Vela Luka, specifically from Kopila (see fig. 3), by no means indicate that this might be the location, but they do add fuel to the discussion.

Finally, KARG survey has detected two hilltop sites that appear to be similar to Greek tower structures, or *phryktoria* (Adams 1982: 71, and see Kirigin and Popović 1988: 180). The Velo Gračišće-Dubrovica structure has clearly been built over an earlier structure (KS-010 fig. 9 and 11) and overlooks the large bay of Brna. Minor clearing of the tumble revealed a dry-stone quadratic structure. Although many of the stones have been dressed to fit the structure and the platform surface, the preparations should not be seen as diagnostic Greek anathyrosis until further analysis. One black glazed ware skyphos handle was recovered in the tumble, and numerous well worn fragments of local Bronze/Iron Age pottery were also collected on and near the hilltop.

This structure in no sense compares in size to the Greek watch tower Maslinovik, excavated on Hvar (see Kirigin and Popović 1988: 177-189 for a complete description of the type), and it might be simply a small and crude replication of the type (see Gaffney and Stančič 1991: 78 for a similar observation). Nevertheless, the standardized quadratic shape and the presence of a skyphos handle on the site tend to suggest that this structure might have a somewhat contemporaneous connection. Both of the structures on Korčula are situated on rugged hilltops, with structural heights of not exceeding 2 m. Concerning hilltop communication and inter-visibility aspects, it should be

noted that the other documented structure of this type is located approximately 1.3 km to the west, on a hilltop (KS-011, fig. 11) overlooking the Morkan polje and the sea approach to the Brna Bay<sup>13</sup>.

### Roman Sites

The Roman occupational evidence on Korčula is quite extensive, so a complete description is out of the scope of this article. There are currently 28 well documented villa rustica sites. The verification of the villa sites usually hinges on the presence of cementum, and as many of the sites have no visible standing walls, this parameter must be the case to classify the site as a villa. Many Roman sites documented do not necessarily meet this criterion. These localities might be associated with ancient cisterns, limestone quarrying loci, bays or ports, or might be associated with the Roman road system on the island. The latter is visible on certain parts of Korčula's landscape. However, the situation concerning the road system or the general Roman infrastructure on the island has yet to be explored.

One of the more intriguing Roman sites discovered on the survey consists of a small dam found at the head of a canyon that leads from the Potirna polje down to the sea, eventually emptying into the bay of Gradača (see figs. 3). The surviving structure measures approximately 6.5 m in length and is ca. 90 cm in height (to the highest part of the remaining Roman construction). Dressed (shaped) limestones are held together with cementum and arranged in the *opus incertum* fashion. It appears as though the small structure has been purposefully built according to the canyon's topography. Specifically, this structure might well be classified as a soil or landscape control device. It has been clearly and strategically positioned to hinder soil from exiting the polje via the small canyon (see soils of the Potirna polje in relation to U. Gradača, fig. 5).

Pithoi, amphorae, and tegula sherds were also found near the structure, probably transported in alluvium from the polje above (see Potirna polje references in the Brief History section, this text). The importance of this site to the study of Korčula's landscape modifications during Roman times and the later environmental impacts has not yet been fully investigated. This structure is obviously not a terrace or field wall. If further investigation does prove the function implied here, then this has direct implications on understanding the extent to which the Romans had to control the landscape in order to maintain the soils on the polje. The landscape control device is still serving its original function as soil deposits have clearly built up behind the feature (on the side of the polje), while the canyon side of the feature is relatively free of such accumulation.

<sup>&</sup>lt;sup>13</sup> See Gaffney and Stančič 1991: 77-80, for an innovative inter-visibility GIS study of the Greek watchtowers on Hyar.

#### **Conclusions**

The first three field seasons (1993-95) have revealed a wealth of new archaeological information concerning the prehistory and protohistory of Korčula. This paper has covered a broad spectrum of archaeological evidence with an emphasis more on description than interpretation. This was fully intended as a brief yet informative introduction to the current research that is being conducted on Korčula. With a firm understanding of the island's archaeological landscape and with a sound database established, the KARG has planned more intensive research for the coming years. A GIS data base will soon be established, as well as a continuation of more intensive survey and selective excavations. Eventually, it is hoped that the KARG data, coupled with the research from the aforementioned AIP, and previous work by the Neothermal Dalmatia Project, the Hvar Project, and related investigations (see Bintliff et al. 1988 for a good overview), can further our archaeological understanding of the Dalmatian coast and the Adriatic Basin.

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BARIS - British Archaeological Reports: International Series, Oxford

Diadora - Glasilo Arheološkoga muzeja u Zadru, Zadar
 OHAD - Obavijesti Hrvatskog arheološkog društva, Zagreb
 VAHD - Vjesnik za arheologiju i historiju dalmatinsku, Split
 VHAD - Vjesnik Hrvatskog arheološkog društva, Zagreb

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## NOVIJA ARHEOLOŠKA ISTRAŽIVANJA NA OTOKU KORČULI, HRVATSKA

(Sažetak)

Arheološka istraživačka grupa - Korčula (The Korčula Archaeology Research Group -KARG) je međunarodni istraživački tim sastavljen od članova iz Hrvatske, Slovenije, Švicarske i SAD-a. Grupa je okupljena oko projekta kojem je cilj proučavanje arheološke baštine otoka. Poseban naglasak stavljen je na naseljenost Korčule, značajke naselja, na promjene otočkog krajolika, proces iskorištavanja prirodnih resursa, međuovisnost iskorištavanja i naseljenosti, te na povezanost Korčule s ostalim otocima i kopnom.

Grčki izvori Korčulu nazivaju Kerkira Melaina, što rimljani prevode kao Corcyra Nigra. Pridjev *melaina*, odnosno *nigra*, Apolonije Rodski u Argonautima objašnjava tamnim tj. crnim borovim šumama kojima otok obiluje. Ipak, o samom nazivu Korčule najiscrpnije je pisao P. Lisičar u svojoj disertaciji o Crnoj Korkiri, gdje se posebno bavi problemom kasnoarhajske grčke kolonije na otoku. Tu naseobinu su prema izvorima (Pseudo-Skimno 421, Strabon 7.5.5, i Plinije III, 152) osnovali maloazijski kniđani, potpomognuti od Korkirana tj. stanovnika jonske Kerkire (Krfa). Postoji mogućnost da je nova naseobina, u znak zahvalnosti prema stanovnicima Kerkire, dobila identično ime, a da bi se od nje razlikovala dobila je pridjev Melaina (crna).

Površina otoka iznosi oko 276 km/2, a najveća dužina je 47 km, sa širinom od 7,8 km na potezu uvala Prigradica - poluotok Ratak, do 5,3 km između uvala Ripna i Teklina. Ukupna dužina obalne crte iznosi 182 km. Otok je pretežno brdovit, izdužen u smjeru istok-zapad, s nizom visokih vrhova građenih od dolomitnog vapnenca, od kojih je najviši Klupca (569 m).

Korčula je geološki pretežno građena od vapnenca, dolomita i dolomitnog vapnenca. Sve geološke formacije nastale su u mezozoiku, s iznimkom kvartarnih naslaga (vidi kartu 4).

Najstarije geološke naslage nalazimo na južnoj strani otoka u predjelu uvale Brna, a nastale su u gornjoj juri. U toj zoni prevladava čisti vapnenac i dolomitni vapnenac, s obiljem površinskih breča, a neki su predjeli prekriveni i plitkim zemljištem. Središnji otočki masiv, nastao u donjoj kredi, zauzima oko 60% sveukupne površine Korčule. Većina kvalitetnijeg obradivog zemljišta nataložena je upravo u tom razdoblju. Sjeverna strana otoka, počevši od otočića Proizda na krajnjem zapadnom dijelu otoka, pa sve do uvale Kneža, nastala je u geološkom razdoblju gornje krede.

Općenito govoreći, među obradivim zemljištima na Korčuli prevladava zemlja crvenica (terra rossa) nataložena u manjim kraškim udolinama, a posebno u djelovima Blatskog polja, Male i Velike Kapje te poljima pored naselja Smokvica i Čara (karta 5.). Iako je crljenica najzastupljenije tlo na otoku, ipak postoje znatne razlike u dubini tla, postotku humusa i ostalim svojstvima koja se odražavaju na njenu plodnost. Eolska tla, posebno smeđa eolska tla, nastala erozijom i nanosima vjetra, dobro su zastupljena, a nalazimo ih uglavnom u "većim" kraškim poljima. Kvartarni nanosi, poput pješčanih tala i mješavine šljunka, pjeska s glinom, prisutni su u dijelovima Blatskog polja i Prapratne, a u okolini Lumbarde, na zemljištu gdje uspjeva čuvena loza grk, tlo se sastoji od gotovo čistog pjeska. Bez obzira na kvalitet i sastav, sva zemljišta, uz iznimku dijela podvodnog Donjeg Blata (vidi u dijelu o vodama i kartu br. 5), intenzivno su iskorištavana i privođena raznim poljoprivrednim kulturama. Na kraju spomenimo i

vrlo obilno zastupljena antropogena tla, koja su nastala ljudskom aktivnošću i potrebom za većom površinom obradivog zemljišta. Tim procesom često je dolazilo do uništavanja kulturnih naslaga te posebno do njihovog ispremiještanja.

Ovisno o trenutnim ljudskim potrebama korčulanski je krajolik tijekom vremena pretrpio znatne izmjene. Proces je posebno karakterističan za one dijelove otoka koji ne pružaju dobre životne uvjete, pa tamo dolazi do, ljudskim radom napravljenog, znatnog povećanja količine obradivog tla. Zasada ne raspolažemo sigurnim podacima o promjeni krajolika u vremenu prije rimske kolonizacije. Proučavanja paleoekoloških uvjeta Doline Neretve i Mljeta pokazuje da se je promjena okoliša, posebno vegetacije, odigrala upravo kroz antiku. To podrazumijeva uništenje autohtonih biljnih vrsta, čije mjesto zauzimaju nove biljne zajednice, posebno makija, koja se nesmetano širi.

Od dosad postojeće literature ističemo dobar pregled arheoloških lokaliteta na području Vele Luke (Oreb, 1972, 123-130), te od istog autora, povijesni pregled arheoloških istraživanja na Korčuli (Oreb, 1986, 5-24).

Cilj ovog rada je pojašnjenje svih onih mnogobrojnih aspekata koje će tek trebati proučiti kako bi se moglo pristupiti istraživanjima naseljenosti otoka, bez obzira na vremensko razdoblje.

Svi podaci do kojih se dolazi terenskim radom ili kasnijim analizama uvode se u, za ovu priliku napravljene, obrasce (Sites and Monuments Registry). Osim uobičajenih općih rubrika potrebno je dati odgovor i na niz geografskih, geoloških, ekoloških i ostalih odrednica pojedinog lokaliteta. Obrazac je prilagođen računarskoj obradi. Pronađeni predmeti, kao i sva ostala dokumentacija, čuva se u Centru za kulturu u Vela Luci.

Prostor koji se sustavno rekognoscira, obično je unaprijed određena (manja) cjelina, ali isto tako to može biti izdvojeni lokalitet. Prilikom terenskog rada poseban se naglasak stavlja na prikupljanje dokumentacije o naseljenosti kroz vrijeme i prostor, o ekološkim svojstvima te o načinu na koji su oni utjecali na naseljenost, odnosno na ostatke materijalne kulture. Zbog što točnije evidencije i potrebe za bilježenjem svih promjena, koriste se korisni podaci prikupljeni od lokalnog stanovništva, kao i oni iz starijih arheoloških i ostalih publikacija. Osim za brojne novootkrivene lokalitete, potrebna dokumentacija napravljena je i za one poznate od ranije.

Temeljem dosadašnje dokumentacije i rezultata, na nekim odabranim lokacijama bit će potrebno izvršiti sondažna istraživanja. Ovakav način rada, srodan Cultural Resource Managment pristupu, ne daje nam samo podatke o vremenu naseljenosti i tipu nalazišta nego i znatno olakšava proučavanje procesa formiranja otočkih naseobina te daje cjelovit uvid u naseljavanje, ostatke materijalne kulture, kao i njihovu uklopljenost u prirodan okoliš. Ovaj relativno spor, ali temeljit pristup pruža nam vrlo široke mogućnosti shvaćanja suštine korčulanskih arheoloških lokaliteta i života na njima.

Proučavanje neolitika na Korčuli bazirano je prije svega na dobro istraženoj Veloj špilji (vidi u tekstu citirane radove B. Čečuka). Jakasovu špilju i špilju u uvali Samograd tek će trebati istražiti, dok su ostali lokaliteti, posebno oni oko Smokvice, Lumbarde i Račišća samo zabilježeni.

O eneolitiku se također može govoriti samo na osnovi nalaza iz Vele špilje. U njoj je izdvojeno nekoliko različitih eneolitičkih manifestacija, i to prije svega analizom brojnih pronađenih keramičkih ulomaka (vidi Čečuk-Radić, 1995, 36-45). U našim dosadašnjim istraživanjima nije otkriven nikakav materijal koji bi sa sigurnošću mogao datirati u eneolitik. Pri tome treba imati na umu da je to vremensko razdoblje vrlo loše

poznato, kako na Korčuli tako i na širem prostoru. Da bi nam bakreno doba, ustvari prijelaz iz kasnog neolitika u eneolitik, odnosno iz eneolitika u rano brončano doba, postalo jasnije, trebat će pričekati rezultate novijih istraživanja i njihovo publiciranje.

Razumijevanje starijih epoha ishodište je za proučavanje tzv. hilltop struktura, pod kojima podrazumijevamo gradine i gradinska naselja, izvidnice, grobne i osmatračke gomile itd. Predmet istraživanja su i vrlo česte vapnenačke gomile - trumuli, smješteni obično u nižim predjelima. Pretpovijesne objekte, otkrivene na vrhovima korčulanskih brda, dijelimo u dvije grupe:

-Prvu, znatno složeniju grupu obično nazivamo gradinama ili gradinskim naseljima, a možemo je opisati kao položaj utvrđen "terasastim" suhozidnim bedemom. Obično je vidljivo samo prednje lice zida, dok unutrašnja strana služi za nivelaciju nagiba tla, isto kao i potporni zidovi kod vinogradarskih terasa. Visina bedema iznosi tek od 40 do 80 cm, a gotovo nikada iznad jednog metra. Vjerojatno ni izvorna visina, gledano s unutrašje strane, nije bila znatno viša, pa bedemi svoju učinkovitost duguju uglavnom dobro odabranom položaju i nagibu tla. Ova složena grupa obično se sastoji od ovalnog ili gotovo kružnog suhozida koji opasuju vrh brda, primjer za to je Čarska gradina (slika 8.), a može biti i polukružnog tlocrta s oslonom na okomitoj litici (Forenbaher 1994, 29-30, 32) kao kod Velikog gračišća (karta 9.). Ponekad je struktura i složenija tj. može se sastojati od više obrambenih pojaseva (vidi lokalitet Sutulija, karta 10), a uočene su i razne kombinacije.

Jedan od elemenata koji povezuje ovu grupu s onom koja će biti opisana, jesu velike kamene gomile koje mogu biti sastavni dio kamenog bedema ili se nalaze na povišenom, središnjem mjestu, s kojeg se u pravilu pruža odličan pogled prema drugim sličnim objektima te služe za nadzor nad otokom i prostorom uokolo njega. Gotovo identično stanje ustanovljeno je i na obližnjem otoku Hvaru (vidi Vujnović 1990, 47-64). Dosadašnjim je radovima na Korčuli otkriveno dvadeset ovih hilltop struktura, bolje ili lošije sačuvanih. Jedina iznimka je Hum (KV - 003) gdje je novije austrougarsko utvrđenje u potpunosti uništilo prijašnje objekte.

-Jednostavni objekti (karta 11.) u pravilu nisu ograđeni suhozidnim bedemom. Dosta su manjih dimenzija i postoji mogućnost da se barem u nekim slučajevima radi o svojevrsnim pretpovijesnim kulama (vidi primjere poput Lokvice, karta 12, KZ - 006 i Sutvare, KS - 007). Ponekad su to samo jednostavne, obično velike, ili vrlo velike, gomile bez naglašene obrambene namjene, a samo je na lokalitetu KB - 015 potvrđeno da je korišten i kao mjesto ukopa. Do sada je locirano ukupno 14 ovih objekata. Vjerojatno u ovom smislu najzanimljiviji dio otoka bio bi početak Blatskog polja, točnije brežuljci koji ga okružuju, redovito s jednom ili više gomila na ili pri vrhu. Buduća istraživanja otkrit će strukture i odnose među njima. Pokusne sonde na nekim od tih brežuljaka ukazale su na mnoštvo različitih artefakata, uglavnom pretpovijesne keramike, ali i one grčke s gradine Kopila.

Razne pretpostavke o mogućoj lokaciji ranije grčke kolonije na Korčuli, koju su osnovali Kniđani, vjerojatno negdje početkom ili sredinom VI. st. prije Krista, još uvijek nisu ni potvrđene niti opovrgnute. O toj temi je dosta pisano, a spomenimo samo neke od najvažnijih autora: Beaumont 1936, 173-174; Lisičar 1951, 51-125; Wilkes 1969, 8-9; Rendić-Miočević 1980, 229-250; Bordman 1980, 227; Kirigin 1990, 243, i Wilkes 1992, 113. Projekt KARG se je, također, bavio spomenutom problematikom pa, iako još ne možemo ponuditi sigurno rješenje, smatramo da smo barem donekle doprinijeli njegovom rasvjetljavanju, kao i rješavanju problema mlađe (isejske) naseobine. Rekognosciranjem prostora u okolini Lumbarde, a posebno

Lumbardskog polja prikupljeno je dosta podataka koji će biti korišteni u daljnjem radu, a potrebno je na terenu provjeriti tragove (eventualne) grčke podjele zemljišta (Zaninović 1980). Artefakti iz arhajskog, klasičnog i helenističkog vremena nađeni su na više nalazišta pored Vele Luke i uvale Brna te u blizini Lumbarde.

Na kraju, potrebno je spomenuti da se neki od objekata lociranih na vrhovima brda po načinu gradnje približavaju helenističkim kulama (phryktoria) (KS - 0,10, karta 9 i 11). Neki od kamenih blokova obrađivani su klesanjem i prilagođeni površini na kojoj su ugrađivani, ali tragovi grčke anatrioze nisu uočeni. Na jednom od tih lokaliteta, osim brojnih fragmentiranih ulomaka brončanodobne i željeznodobne keramike nađeno je i dosta ulomaka helenističke keramike.

Detaljan opis vremena rimske dominacije na Korčuli nije predmet ove radnje, ali moramo spomenuti da je prikupljeno obilje podataka vezanih i uz to razdoblje. Evidentirano je i dokumentirano najmanje 28 villa rustica, smještenih obično uz rubove kraških polja, pored mjesta gdje se trajno zadržava voda, blizu sidrišta ili uz prometnice. Položaji rimskih lokaliteta jasno se prepoznaju po ostacima zidova povezanih žbukom, koji su ponekad vidljivi, a uglavnom je karakteristično klesano kamenje s tragovima žbuke samo ugrađeno u okolnim suhozidovima. Osim stambeno-gospodarskih objekata u predjelu Potirne nađen je rimski potporni zid (brana), sagrađen sa svrhom da sačuva zemljište od erozije, vrlo izražena posebno na tom predjelu. Unutar projekta dosta vremena posvećeno je pravcima pretpovijesnih i antičkih prometnica.

Prve tri istraživačke sezone (1993-1995) otkrile su bogatstvo pretpovijesne i protopovijesne Korčule. Ovaj rad je kratak informativan uvod u sadašnja, ali i buduća intenzivnija istraživanja, planirana za naredno razdoblje, kada će se nastaviti sa stvaranjem baze podataka temeljene na GIS sustavu te rekognosciranjem i sondiranjem nastojati zaokružiti dosadašnje spoznaje o prošlosti otoka.

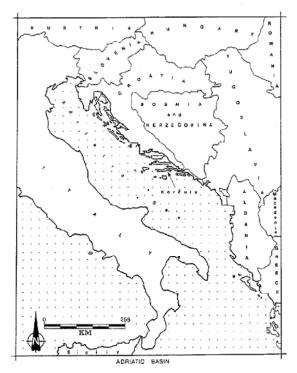


Fig. 1. Adriatic Basin and the position of Korčula. Sl. 1. Jadransko more i položaj Korčule.

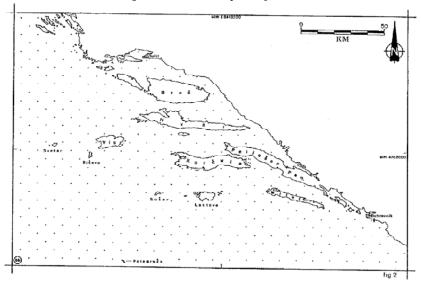


Fig. 2. Central and South Dalmatia: Islands and Coast. Sl. 2. Srednja i južna Dalmacija: otoci i obala.

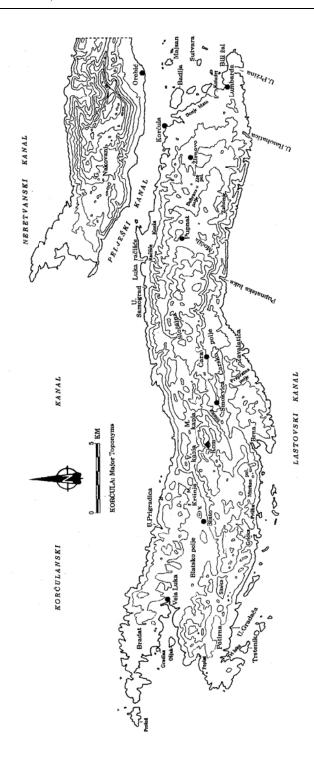


Fig. 3. Major toponyms and localities on Korčula. Sl. 3. Glavni toponimi i položaji na Korčuli.

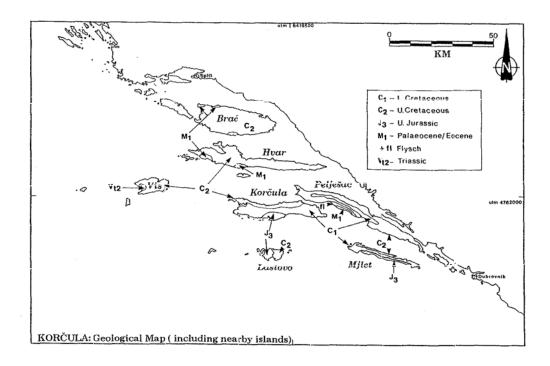
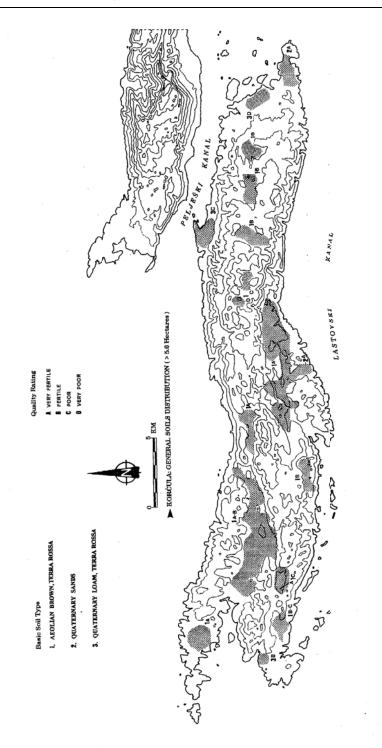


Fig. 4. General geological map of Korčula and nearby islands; simplified from "International Geological map of Europe", 1969, Unesco and Bundesanstalt für Bodenforschung, 3rd edition, Hannover, and "Geološka Karte: Kraljevine Yugoslavije", 1943 edition (original 1930-31), Geološkog Zavoda u Zagreb.

Sl. 4. Pojednostavljena opća geološka karta Korčule i obližnjih otoka. Prema: Interna-

Sl. 4. Pojednostavljena opća geološka karta Korčule i obližnjih otoka. Prema: International geological map of Europe 1969, Unesco i Bundesanstalt für Bodenforschung, 3. izdanje, Hanover, i Geološka karte Kraljevine Jugoslavije, izdanje iz 1943 (izvorno iz 1930-31), Geološkog zavoda u Zagrebu.



Sl. 5. Opoći pregled tla Korčule gdje su prikazani prostori koji sadrže više od pet hektara plodne zemlje, neračunajući Fig. 5. General soils distributions on Korčula, showing significant areas containing more than 5 hectares of soils, excluding terrace soils. terasirano zemljište.

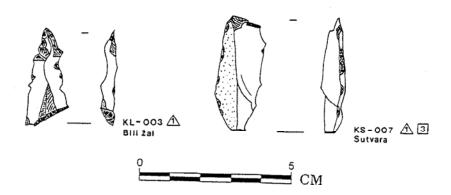


Fig. 6. Specific lithic finds from the survey; KL-003, from the erosions on the north shore of the Lumbarda polje; KS-007, from the Sutvara prehistoric hilltop structure (material possibly from the Palagruža quarry).

Sl. 6. Nalazi kremena prilikom terenskog pregleda; KL-003 iz sloja erozije na sjevernoj obali Lumbarde; KS-007 sa pretpovijesne utvrde na Sutvari (moguće iz kave na Palagruži).

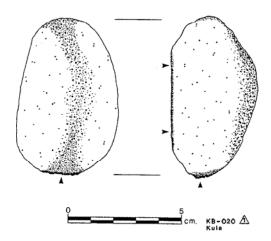


Fig. 7. Possible pestle with extensive weathering, found on the Kula (KB-020) prehistoric hilltop structure.

Sl. 7. Kameni bat (?) prilično erodiran, otkriven na pretpovijesnoj utvrdi Kula (KB-020).

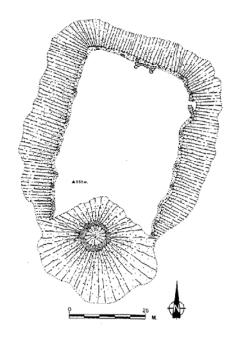


Fig. 8. Čara Gradina (KC-002), complex prehistoric hilltop structure. Sl. 8. Gradina Čara (KC-002) kompleksna pretpovijesna struktura.

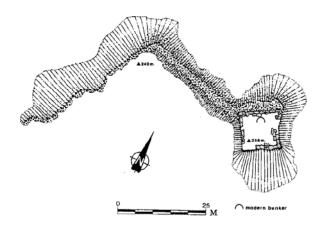


Fig. 9. Velo Gračišće (Dubrovica) earlier complex prehistoric hilltop structure, with later quadratic tower, possibly Greek or local copy of Greek type, (note elevational changes on site).

Sl. 9. Velo Gračišće (Dubovica). Rana kompleksna pretpovjesna utvrda s kasnijom četvrtastom kulom vjerojatno grčkom ili lokalna imitacija grčkog tipa, (uoči visinke razlike).

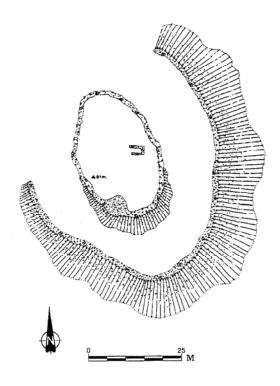


Fig. 10. Sutulija complex prehistoric hilltop structure. Sl. 10. Kompleksna pretpovijesna utvrda na Sutiliji.

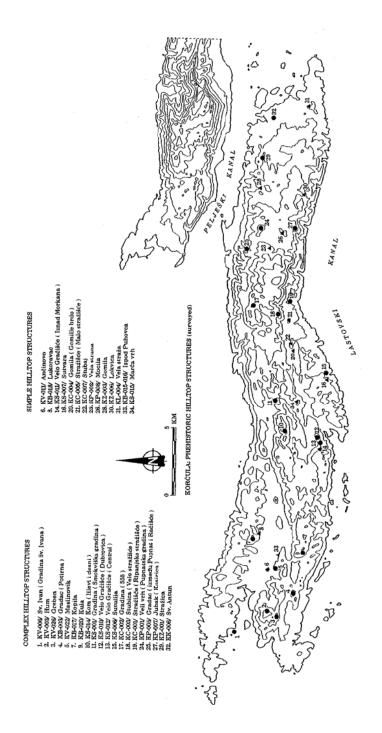


Fig. 11. Distribution of surveyed prehistoric hilltop structures on Korčula; Typology, Sites and monuments code, toponym (s).

Sl. 11. Raspred pregledanih pretpovijesnih sturktura na vrhovima Korčule. Tipologija, kod nalazišta i toponim.

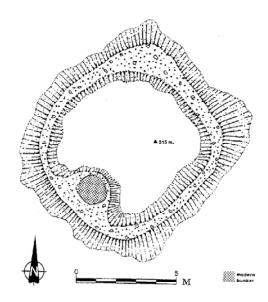


Fig. 12. Lokvica simple prehistoric hilltop structure; possible "kula" type (note smaller bunkering intrusion).

Sl. 12. Jednostavna pretpovijesna struktura na položaju Lokvica. Moguća "kula", (uoči manji bunker).

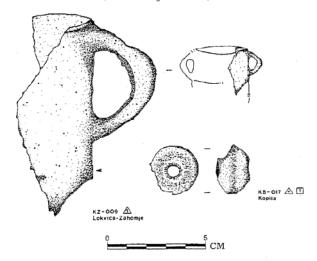
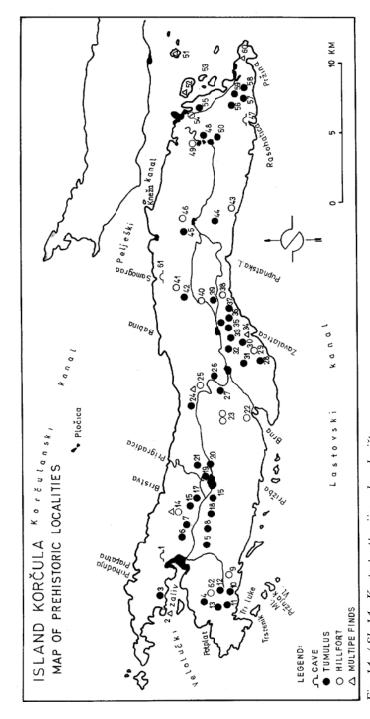
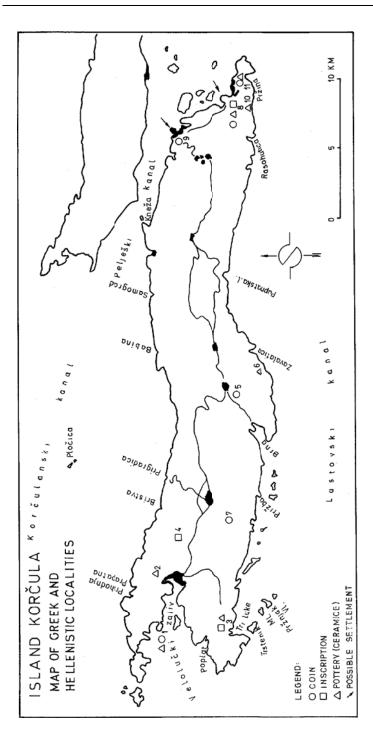


Fig. 13. Pottery find from disturbed tumulus in the Zahomje locality, near KZ-009; and spindle whorl, found on Kopila (KB-017) in context with local and imported Greeh wares.

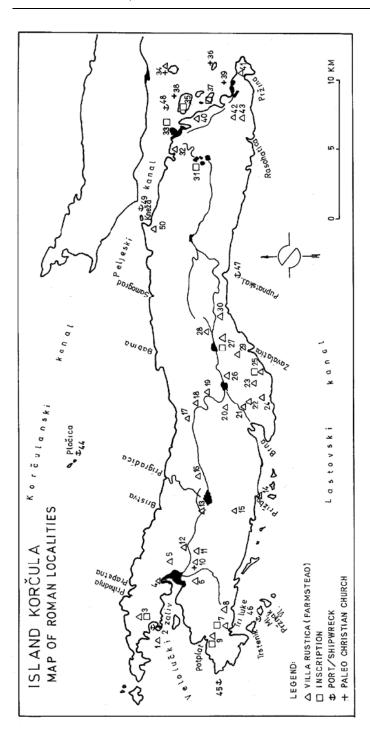
Sl. 13. Nalazi keramike s razrušene gomile na položaju Zahomje blizu KZ-009; pršljen vretena nađen na položaju Kopila (KB-017) u kontekstu s lokalnom i uvezenom grčkom keramikom.



Brig, 32. Gomilja brdo, 33. Stubal, 34. Zavalatica, 35. Mračica, 36. Malo stražišće, 37. Prosika, 38. Ripanjsko stražišće, 39. I. Vela spilja, 2. Gradina Sv. Ivana, 3. Njivice, 4. Hum, 5. Ančinovo, 6. Potoraće, 7. Ispod V. Lisca, 8. Zablaće, 9. Gradac, Lukoravac, 17. Narat, 18. Puhovac, 19. Pored groblja, 20. Spoj obilaznice, 21. Čelopike, 22. Dubrovica, 23. Kom, 24. Mala Veli vrh, 47. Jakasova spilja, 48. Pored groblja, 49. Stražica, 50. Iznad Podstrane, 51. Majsan, 52. Badija, 53. Kamenjak, Gomilica, 40. Velo stražišće, 41. Gradina (k. 555), 42. Gomile na Dubovu, 43. Kosorica, 44. Mocila, 45. Vela strana, 46. 54. Sv. Antun, 55. Slana glavica, 56. Pod suho brdo, 57. Mindel, 58. Vela straža, 59. Ograda, 60. Lumbardsko polje, 61. kapja, 25. Smokviška gradina, 26. Gradinski privor, 27. Marča vrh, 28. Sutvara, 29. Sutulija, 30. Prapratski brig, 31. 10. Gradac-plato, 11. Potirna-nekropola, 12. Potirna-Grgurev, 13. Potirna-selo, 14. Kopila, 15. Dučilova gomila, 16. Fig. 14. / Sl. 14. Karta pretpovijesnuh nalazišta. Samograd, 62. Greben.



1. Gradina Sv. Ivana, 2. Vela spilja, 3. Potirna-Grač, 4. Kopila, 5. Stofija, 6. Prapratna-Mirje, 7. Dubovac, 8. Lumbarda, Fig. 15. / Sl. 15. Karta grčkih i helenističkih nalazišta. 9. Korčula, 10. Spilja Glogovac, 11. Lumbardsko polje.



Krtinja, 17. M. Kapja, 18. Ispod Sm. gradine, 19. Podobavlje, 20. Sevca, 21. Donje poje, 22. Banja, 23. Višnja, 24. Njivice, Mindel, 43. Javić, 44. Pločica, 45. o. Čančir, 46. M. Pržnjak, 47. Pupnatska luka, 48. Korčulanski kanal, 49. Šv. Ivan-Korčula, 34. Majsan, 35. Badija, 36. Sutvara, 37. Vrnik, 38. Gubavac, 39. Lučnjak, 40. Vela Solina, 41. Velo poje, 42. Poplat, 10. Sv. Kuzma i Damijan, 11. Rododma, 12. Ispod V. Lisca, 13. Gospino poje, 14. Prižba, 15. Dubovac, 16. M. 1. Gubeša, 2. Gradina Sv. Ivana, 3. Bradat, 4. Kale, 5. Vrbovica, 6. Beneficii, 7. Potirna-Mirje, 8. Potirna-Humac, 9. 25. Prapratna-Mirje, 26. Dračevica, 27. Sutudar, 28. Sić, 29. Zlampolje, 30. Konopljica, 31. Žmovo, 32. Banja, 33. Fig. 16. / Sl. 16. Karta rimskih nalazišta. Viganj, 50. Kneža.