



**PRELIMINARY EXPERT REPORT ON THE ARCHAEOLOGICAL FIELD  
SURVEY OF PROKLJAN-BERETUŠA GAJ, STARI GAJ AND SMIRKE**



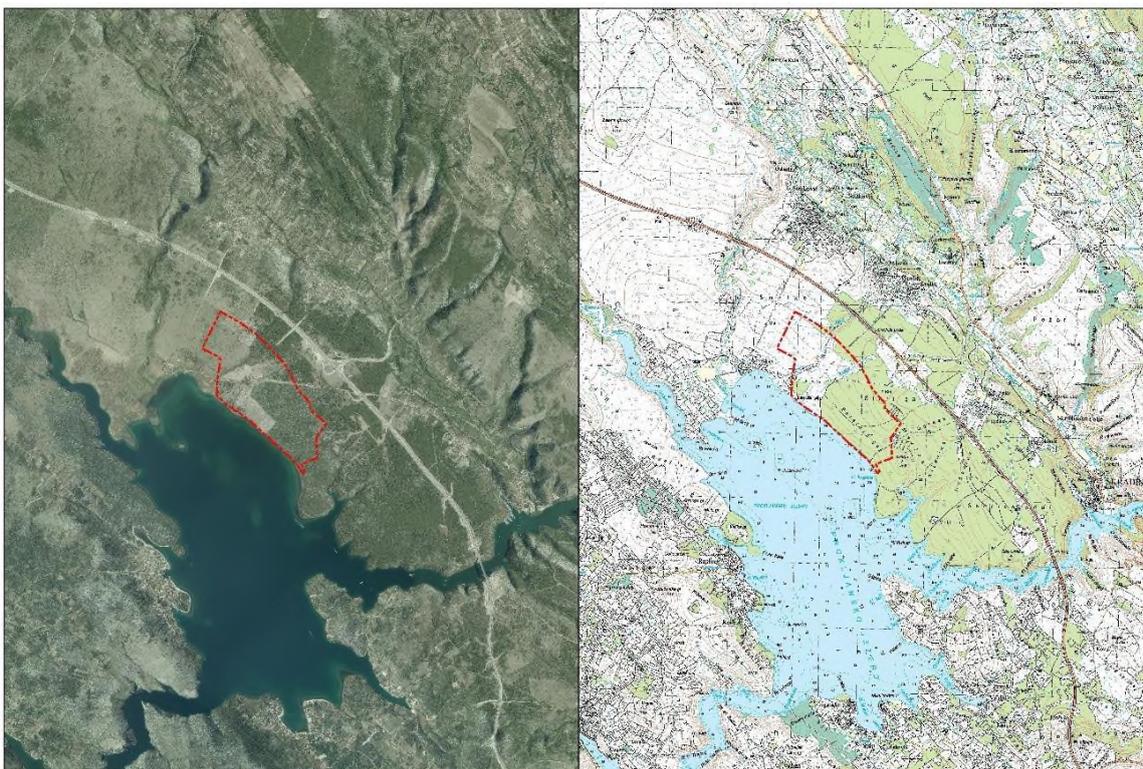
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## INTRODUCTION

In the period from 4 to 14 December 2018, a field survey was conducted along the northeast foreshore of Prokljan Lake in the Šibenik-Knin County. Archaeological reconnaissance was performed on cadastral plots 3215/27, 3216/1 Skradin cadastral municipality, section of Prokljan – Beretuša Gaj, Stari gaj and Smirke. Based on issued Decision under Class: UP/I 612 – 08/18 – 08/0783, Refno.: 532 – 04 – 02 – 14/5 – 18 – 2 of 3 December 2018 from the Directorate for the Protection of Cultural Heritage, Department of Conservation located in Šibenik, Ministry of Culture in the Republic of Croatia, works were performed by archaeologists from the Arheo Ko-op cooperative. The archaeological field survey leader was Eva Buća, BArc, and her assistant Tomislav Zojčeski, BArc, Conservational supervision of the archaeological investigation was conducted by the supervising conservator Marko Sinobad, PhD, an employee from the Directorate for the Protection of Cultural Heritage, Department of Conservation located in Šibenik, Ministry of Culture in the Republic of Croatia. The survey was performed on account of the planned construction of the Prokljan sports-recreation zone, and financial resources were ensured by the Ministry of State Assets. The area covered by the archaeological field survey amounts to 200 hectares.



Area covered by the archaeological field survey 2018 (Author: T. Zojčeski)

## INVESTIGATION METHODOLOGY

The archaeological field survey included a physical survey of the terrain and mapping particular areas using aerial photography in addition to photogrammetric 3D models of topographical reliefs. All identified elements of archaeological or traditional heritage were documented and marked on the map. Positions of particular locations or structures were recorded using a handheld Garmin GPS60 device. All positions were also photographically documented. The terrain survey was conducted systematically along lines at intervals between archaeologists from 15 to 20 m, depending on access to parts of the terrain. Some terrain difficult to access were documented from the air and a 3D map was devised from which it was possible to define relief structures, and which perhaps are not visible during the survey. The same approach was also used for the norther part of the area covered by the field survey, after a signing warning of the danger of mines was uncovered during the survey.



Marking the positions

## RESULTS OF THE FIELD SURVEY

The field survey of the area northeast from the foreshore of Prokljan Lake identified a total of 32 locations with noticeable human activity. Specifically, it involves stone dry walls structures, two stone dry wall boundaries, thirteen wells, three cairns (pile of stones), four small quarries and one bridge. Also, the valley around Jujava creek, was documented in detail using photometric 3D models based on aerial photograph. This approach provided detailed documentation on the stone dry walls in the area surveyed which extend across a large area. Stone dry wall construction is recorded in two zones across a total distance of 528 m. Both of the zones extend in a northeast-southwest direction, the first extending 288 m and the second extending 240 m.



A stone dry wall structure on the western side of Jujava creek

In some places in the valley, long-term use of the same area in terms of constructed thin stone drywalls is noticeable on wider, older collapsed dry wall structures. A stone drywall acting as a fence on the Jujava creek bed or retaining wall was noted in the survey which protected the fertile terrace against action from water. Between the two stone drywalls fencing off a fertile field around Jujava, the area is further sectioned by stone drywalls of various lengths and directions. A small stone bridge was also noted which bridged the short Jujava creek bed, however due to thick bushes covering the bed bottom, a more detailed survey of the actual bridge was not possible. Drywall remains of a traditional structure were also noted and which related to agriculture in some way, where some of the plots even today are used for the same purpose.



Stone drywall structure in the Jujava creek valley

### **Cairns**

Stone piles or cairns are the only landmarks found during the field survey which might belong to an immobile archaeological heritage. Other landmarks are part of a cultural tradition in construction. Cairn 1 with a diameter of approx. 5 meters is located alongside the field and may possibly be a fallow land cairn. Cairn 2 is located on a gently elevated position where the foreshore somewhat penetrates the lake. The diameter is approx. 14 metres, and 1.5 metres high. On the level area of the cairn top there are various irregularities in the relief which may imply possible structures.



Cairn 2

Cairn 3 is located at the top of a levelled hill just beyond the lake. Its diameter is approx. 15, whereas the cairn is approx. 1.5 metres tall. On the eastern side of the cairn, an almost regularly shaped but larger depression is noticeable, now overgrown with bushes.



Cairn 3

## Wells

In the karst area, water has always been a precious resource. The surveyed area reveals 13 positions defined as locations of wells. The construction of all the wells included only stone and earth. The most frequent type of well we encountered on the given area was constructed by casting stone and earth around the desired location, thus forming a kind of depression with an irregular circular cross-section and raised ring-like frame. The dimensions of this type of well is most often uniform and ranges from 4 – 4.5 metres for the internal section, and together with the ring-like frame, the diameter is 6 – 7.5 metres. Various approaches to the final finish of well openings exists, where the most prominent is an edge made of unfinished stone. Some examples, such as well 2, are made from carved, regularly placed stone with a square shape. Well 2 is located within a wider economic complex located on a small area of the shallow valley. Besides well 2, the group also contains two other wells, a small quarry and two stone drywall structures. Both partially preserved stone drywall structures with a square-like layout constructed of larger stone blocks.



Complex carved stone fragments from well 2

Another type of well is represented as a single type. i.e., a well.

It has an irregular circular outline in the layout, positioned within stone drywall 1 which has a rectangular shape. It found to the southeast alongside stone drywall structure 1 which has a rectangular layout outline and made from larger stone blocks.



Visible stone drywall structure 1 to the left, and stone drywall 1 within which well 1 is located

### **Stone drywall structures**

Most of the ten recorded stone drywall structures belong to the category of temporary structures for military purposes. The structures categorised into this group always have smaller dimensions, most often in a U shape with an opening on one side preserved up to a height of 1 m. The same group probably also includes a stone drywall structure in which the body of the cairn is a depressed area used for hiding.



Stone drywall structure 7

The other stone drywall structures have a rectangular layout form, mostly likely the remains of field refuges or middens. Stone houses with smaller dimensions considering their position may have been used as shepherd refuges or field refuges if the midden is found close to arable areas. Some of these structures also have alongside them different types of stone drywall structures, such as for example stone drywall structure 10 which has a stone cairn to the eastern side. Stone drywall structure 2, which is part of a small commercial complex alongside the northeast foreshore of Prokljan Lake, comprises two rooms.



Stone drywall structure 1 with a cairn

## CONCLUSION

It is certain that development of this area was affected by maritime activity on Krka River passing through Prokljan Lake to Skradina. The Greek historian Strabo in his work *Geography* in the mid first century before Christ, mentioned that cargo vessels could travel all the way to Skradina.

The surveyed area belongs to a karst region with sparse macchia which in certain areas grows into a thick unpassable macchia or pine forest. An exception to the relatively uniform flat or slightly hilly karst landscape of the surveyed field alongside Prokljan Lake is the shallow valley of Jujeva creek. The area, rich in arable land and water, has been thoroughly utilised by its arrangement into areas separated by stone drywall structures. The long stone drywalls demarcate the shallow valley on both sides of the Jujava tributary across most of the respective area, and also a stone drywall barrier or enclosure for the Jujava creek has been recorded.

Elements recognisable during the archaeological field survey of this area most often refer to an ethnological heritage relating to traditional commercial activities, or agriculture and animal husbandry. However, we are able to differentiate among them buildings and structures (stone drywalls, cairns) as well as wells and a small quarries. A special group of noted stone drywall structures most like served as military positions. The archaeological character of the remains is attributable to cairns 2 and 3, given that their dating is not certain, and may involve ancient funeral mounds (barrows or cairns).