

# The Frontier Studies. Survey of the Northern Part of the Lake Ohrid Basin, Preliminary Report on the Season 2017

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## ABSTRACT

The *Frontier Studies* is an international research project centred on the city of Ohrid and its environs, located on the northern shore of the homonymous lake at the present frontier of Albania and the Republic of Macedonia (FYROM). Since its establishment in 2017, the project has been undertaken as a cooperative effort between researchers from Charles University in Prague and the Archaeological Museum of Macedonia. The aim of the first season was an extensive, trial field survey to unlock the historical landscape and to evaluate the dynamics of the habitation patterns in the region diachronically.

## KEYWORDS

Macedonia; Ohrid Lake; Lychnidos; Struga; field survey; Bronze Age; Iron Age; Hellenistic period; Roman period; Late Antiquity.

## INTRODUCTION

The city of Ohrid lies on the shore of a homonymous lake and is visually one of the most favourable sites located within its basin. The transboundary Lake Ohrid is shared between the Republics of Macedonia and Albania. The lake is about 30.4 km long (N-S), 14.7 km wide (W-E) and covers an area of 360 square kms. It is presumed to be among the oldest existing lakes in Europe (cf. WAGNER *et al.* 2017 with further reading). In the earliest stage of its existence, in the Pliocene / Pleistocene, it was a part of a much bigger lake-group, which lay within the orogenic belt of Dinarides–Albanides–Hellenides, and included Lake Mikri Prespa (Greece, Albania) as well as Lake Maliq in Albania, which dried-up in the 1950s (STANKOVIĆ 1960). Today, the basin of Lake Ohrid is framed by the Galicica mountain range (with heights of up to 2,250 m.a.s.l.) to the east and the Mokra mountain range (with heights of up to 2,200 m.a.s.l.) to the west. However, the above-mentioned ‘basin and range’ setting provides the broadest accessible link between the Aegean and the Adriatic region in the southern Balkans – and was, *vice versa*, an eminent precondition for the formation of a supra-regional connection, better known as the Candavian Road or, from the Roman period onwards, the *Via Egnatia* (FASOLO 2003; JOVANOVA 2013, 842–844). The N-S connection with the central Balkans and the Danube plain via the Pletvar Pass or the valley of the Crni Drim River complements the geographical significance of the Lake Ohrid basin (cf. BURKHARDT – DAUBNER 2012 with further reading).

Placed on these communication routes, the city of Ohrid – in ancient times known as *Lychnidos* – represented an important hub and at the same time a historical centre of the region, which displays a long continuity of human activity (cf. **Tab. 1** for regional chronology). No later than in the early 1<sup>st</sup> millennium BC, it assumed a vital role in the cultural connectivity between the southern Aegean cultural *koine* and the Balkans in the north as well as the Adriatic

region in the west – first within the independent territory of *Dassaratia*, later on as a part of the Argead Kingdom of Macedonia and, finally, as a Roman province (cf. ARDJANLIEV 2017; DAUBNER 2018). In the early medieval times, the churches and monasteries in and around Ohrid became the major cultural centres of the Bulgarian, Greek and Serbian empires in the southern Balkans (cf. KUZMAN 2016).

Chronology	Period	Important sites in the region	Identifier
6500–5500 BC	Early Neolithic	Zlastrana, Dolno Trnovo	N
5500–4500 BC	Middle Neolithic	Ohrid (Ohridati)	
4500–3500/3200 BC	Late Neolithic / Eneolithic	Ustie na Drim	
3500/3200–1550/1600 BC	Early / Middle Bronze Age	Trebenishko kale	BA
1550/1600–1000 BC	Late Bronze Age	'Bay of Bones', 'Bay of Goats', 'Bay of Bombs'	
1000–750/700 BC	Early Iron Age (Transition)	Vrbnik, Ohrid (Plaoshnik), Ohrid (Ohridati)	EIA
750/700–550 BC	Developed Iron Age	Ohrid (Plaošnik)	IA
550–450 BC	Late Archaic	Trebenishte, Ohrid (Gorna Porta), Delogozhda, Radolishta	A
450–330 BC	Classic	Ohrid (Plaošnik)	C
330–168/148 BC	Hellenistic	Trebenishko kale, Delogozhda, Ohrid (Deboj), St. Erasmo-Kulishta	Hell
168/148 BC–395 AD	Roman	Ohrid (Lychnidos), Plocha Michov Grad	R
395–6 <sup>th</sup> c. AD	Late Antiquity	Ohrid (Lychnidos)	LA
6 <sup>th</sup> c.–1018	Early Medieval period (Byzantine, Bulgarian)	Ohrid	EMA
1018–1395	Medieval period	Ohrid, Struga	MA
1395–1912	Ottoman period	Ohrid, Struga	Ott

**Tab. 1: Periodization of the cultural and historical development in the Ohrid region (based on KUZMAN 2010; 2016; 2017; MITREVSKI 2013; JOVANOVA 2013; BLASEVSKA 2013; NAUMOV 2016).**

Until recently, the habitation history of Ohrid and its environs had been studied using mainly the literary evidence, which was supplemented by only a few archaeological findings (HAMMOND 1972; MITREVSKI 1997). The main bulk of these have been attested either by pottery scatters and brief rescue excavations or prospection respectively; they are published partially in the form of preliminary reports. Only 18 sites were verified by systematic archaeological excavations and published in detail;<sup>1</sup> the necropolis near Trebenishte (cf. STIBBE – VASIĆ 2002) is the most famous among them.

Based on the increasing archaeological practice carried out in the last two and a half decades on sites within the Lake Ohrid basin, however, the situation has started to change (cf. NAUMOV 2016; KUZMAN 2017). The ongoing researches focus on the excavations in the wetlands of the nearby lake on the one hand, and within the territory of the city of Ohrid on the other hand.

1 Sites: Dolno Trnovo (settlement / N); Delogozhda (necropolis / A, H, R); Plocha Michov Grad (settlement / BA, EIA); Ohrid (Deboj, Gorna Porta, Penelopa, Plaošnik; necropolis, settlement / N-R); Orovnik (settlement / R); Radozhda (road / R); Radolishta (necropolis / A); St. Erasmo – Kulishta (settlement / Hell); Trebenishte Tri Chelushti i Vrtuljka (necropolis / A-Hell); Trebenishko Kale (necropolis, fortified settlement / N-LA); Shum "Arapski grobishta" (necropolis / EMA); Shum "Ciganski grobishta" (necropolis / Hell); Ustie na Drim (settlement / N); Vrbnik (settlement / BA-EIA); Zlastrana (settlement / N) (cf. BLASEVSKA 2013; JOVANOVA 2013; KUZMAN 2013a; KUZMAN 2013b; MITREVSKI 2013; NAUMOV 2016).

While the former sheds light on the development of a distinctive settlement type (palafittes) in the region from the Neolithic to the Late Bronze / Early Iron Age, the several archaeological contexts unearthed in Ohrid itself (Deboj, Gorna Porta, Penelope and Plaoshnik) contribute mainly to the urban history as presented by ancient authors (cf. ARDJANLIEV 2017; KUZMAN 2017 with further reading). Our knowledge, both of rural and mountainous landscapes, overall habitation patterns, as well as social, cultural and economic or environmental preconditions has been, thus, very limited until recently and still requires further exploration.

In this regard, a new project *Frontier Studies. Investigation into Identity and Cultural Contacts in the Border Area of Ancient Macedonia* was initiated by Charles University in Prague in cooperation with the Archaeological Museum of Macedonia. The project intends a micro-regional study and adopts a *longue durée* approach, with a special emphasis on the 1<sup>st</sup> millennium BC, in order to address questions regarding the construction of the identities, emergence of proto-state structures and centralisation phenomena at the northern contact zone of the Aegean cultural *koine*. In doing so, several interdisciplinary studies will be conducted; the foremost objective is to reveal the historical landscape, and to explain the dynamics of the habitation patterns by means of an extensive field work with the objective of recording and evaluating the archaeological evidence.

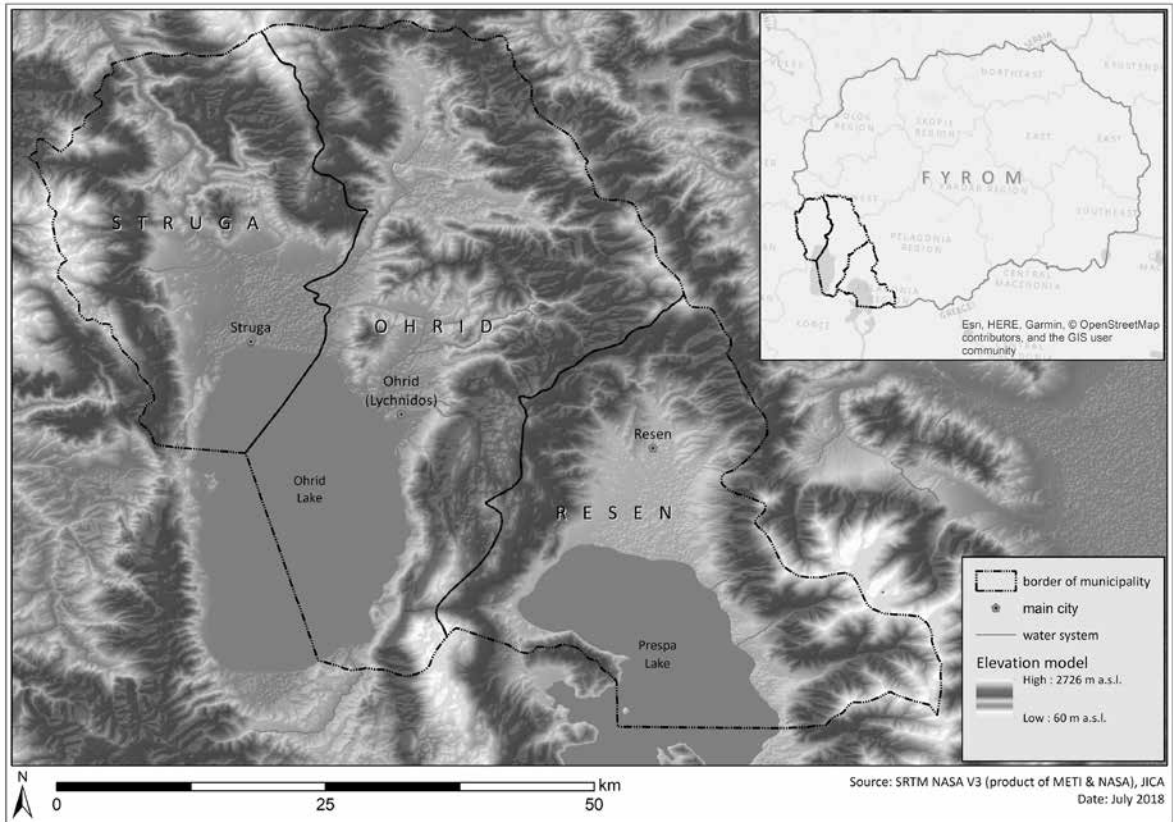
## FIELD SURVEY

The field work took place from October 2<sup>nd</sup> to 13<sup>th</sup> 2017 (with 11 days in the field).<sup>2</sup> The main areas of our interest were the northern and eastern parts of the Lake Ohrid basin, represented mainly by the Ohrid Plain (Ohrid Municipality), and the Struga Plain (Struga and Debreca Municipalities), with small extensions to the northern part of the Lake Prespa basin (Resen Municipality) (**Fig. 1**). The aims of the field work were as follows:

- To become familiar with the historical and modern development of the landscape and to estimate its potential for a future multidisciplinary project.
- To evaluate the suitability of the area for an intensive field survey in the flatlands / extensive in the highlands.
- To refine the positions and current state of preservation of a significant sample of the archaeological sites marked in the *Археолошка карта на република Македонија* (Archaeological Map of the Republic of Macedonia, further abbreviated as the AKM) which was created during the 1980s and 1990s and published in 1996. The publication contains a list of archaeological sites known at the time of its completion, with basic topographical, material and chronological descriptions, however, it is lacking their precise geographical positions.
- To check specific features marked in the Soviet topographical maps, which – based on the map legend – represent burial mounds.<sup>3</sup>

2 We would like to thank Clarissa Haubenthal (Bochum) and Hana Havlíková (Prague) for taking part in the processing and the documentation of the finds, which contributed significantly to this study.

3 The symbol is a brown circle with radiated brown lines around it. In nowadays Bulgaria, it has been used as an indicator of burial mounds within several archaeological surveys (e.g. WEISSOVÁ 2013, 1047–1052).



**Fig. 1: Regions of the Lake Ohrid basin, an overview (map by B. Weissová).**

Topographical maps of several scales, created in different years, were used for the project: 1:100 000 (from 1987, British maps made for the Yugoslavian army), 1:50 000 (Soviet military maps from 1984–1985) and 1:25 000 (from the year 1971). Each of them provided different kinds of information (some had elevations, others toponyms, more detailed road systems or more variable symbols of interest). Therefore, their combination proved to be helpful. The maps 1:25 000 contained the elevations of some of the high hills which are mentioned in the following text. For the other points of interest with elevations not marked on the topographical maps, the heights derive from the Digital Elevation Model based on the ASTER<sup>4</sup> and processed in ESRI ArcGIS for the purposes of this project. To offer uniform data in the table of sites, all the listed elevations are pursuant to the Digital Elevation Model, having vertical (root-mean-squared-error) accuracies generally between 10 and 25 meters. Comparing the heights of nine features from the topographical maps with the DEM elevation, the error does not exceed 20 m (**Tab. 2**).

For the orientation in the terrain, combination of freely available applications was used: *Soviet Military Maps*, *Google Maps* and *MAPS.ME*. All the applications displayed points of interest, but the possibility to switch between the terrains – offered by different applications – helped to navigate and to better evaluate the situation in the field in order to reach the points of interest.

Locations of the sites – or specific features on the site – were marked by a handheld GPS and further processed in a database created in ESRI ArcGIS. Satellite images provided by the ArcGIS appeared to be perfectly suitable for the supplementary measurements of some of the features, such as the dimensions of high plateaus, rocky spurs, stone walls etc.

4 The utilized ASTER GDEM is the product of METI and NASA (with the raster cell of 30 m).

The project verified the positions of 43 features from the *AKM* and identified 13 hitherto unknown ones (**Pl. 2/1**). All these points of interest were marked by the handheld GPS and their current state of preservation was described. To be able to localize some of the *AKM* features, the help of local guides was necessary, as many sites are now covered by modern buildings, or they are lost in the natural terrain. Regarding the Struga and Debreca municipalities, the Albanian language was needed for communication with the local inhabitants. A great help was provided by Valetina Todoroska (Dr. Nikola Nezlobinski, Museum in Struga) and by Fitni Dalipi (Struga/Vienna), who guided us through the region. Thanks to Fitni Dalipi's devoted help and communication skills, we were able to find many remote locations. On the short visit to the Resen municipality, we were accompanied by Kliment Balev from the Ohrid Museum, who grew up in the village of Rechitsa and navigated us to the local points of interest.

In order to evaluate the possibilities of the systematic pedestrian survey in the area, we randomly selected several fields which we intensively surveyed. The survey was preliminary, focused on small size fields and the evaluation of their potential. In practice, it meant that we spread over the selected field (which was mostly placed conveniently along our way to some of the *AKM* features) at distances of several meters apart and walked its entire length. If pottery scatter was noticed, it was marked by a GPS point and by a new OH\_ID number. The scatter was briefly described and marked for a future re-survey.

## NAMING STRATEGY

The site numbers given by our project are marked as OH\_ID\_2xxx (Ohrid Id + a number starting with two thousand). The first 13 numbers were given to archaeological monuments within the city of Ohrid (for this they are missing from the table). From OH\_ID\_2014, they indicate areas outside the city. Numbers, which mostly follow in the brackets, relate to the entry in the *AKM*. The first information marks the municipal city (OHRID, STRUGA, RESEN), then follows a serial number for each village as published within the *AKM* book, and, finally, a sequence number of the specific village entry. The last number may repeat, as sometimes up to three features were described within one entry. On the other hand, features which are missing the *AKM* number, are hitherto unknown scatters/features identified during our project.

## LIST OF THE SITES

### OHRID PLAIN

OH\_ID\_2014 (OHRID\_27\_06); settlement (IA)

OH\_ID\_2082 (OHRID\_27\_06); church (MA)

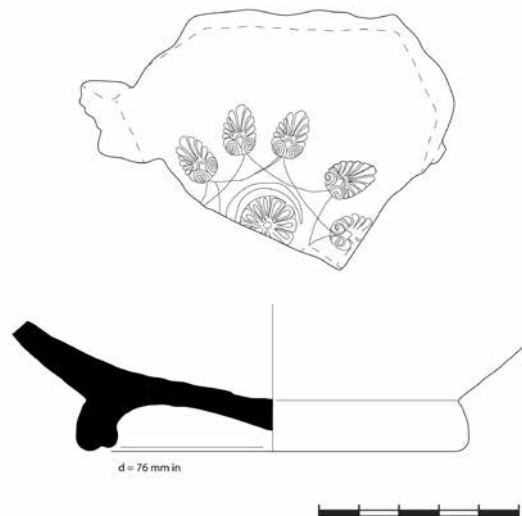
The Monastery of Sv. Ilija, situated on a hill (922 m.a.s.l.) north of the village of Mesheish-ta. The site of Sv. Ilija is marked in the *AKM* as an IA settlement (OH\_ID\_2014) and a church from the Middle Ages (OH\_ID\_2082). The church was recently rebuilt, its surroundings are levelled and for the most part paved. There are no traces of any earlier buildings, nor of the IA settlement described in the *AKM*. We identified only one fragment of a possibly Ottoman roof-tile outside the monastery.

OH\_ID\_2015; pottery scatter (Ott)

Loose Ottoman pottery scatter on a freshly harrowed field, situated south of Mesheishta. The scatter continues about 150 m east, over the dirt road (running north to south), to the vineyards.

OH\_ID\_2016 (OHRID\_12\_04); necropolis (IA/A, C, Hell)

A single find of a black glaze *echinus* base of late classical style with imprinted palmette decoration, and a slightly flaring ring foot that is grooved with a nipple underside (**Fig. 2**) (ROTROFF 1997, 161–162; DE MARIGNY 2013, 22). It was found in the field (lying on the top of a mole hill), right on the northern edge of a modern cemetery, and ca. 40 m east of a new road construction, near the village of Gorentsi. The single find is situated within the necropolis of Trebenishte, which was excavated repeatedly since the first discovery of the “princely graves” in 1918, and dates from the beginning of the 6<sup>th</sup> c. BC to the end of the 4<sup>th</sup> c. BC (cf. VASIĆ 1999; STIBBE 2002, 43–48).



**Fig. 2: Black glaze *echinus* base of late classical style with imprinted palmette decoration, OH17\_2016\_01 (drawing by C. Haubenthal & H. Havlíková).**

OH\_ID\_2017 (OHRID\_33\_02); necropolis (IA)

The Church of Sv. Ilija with a graveyard in the middle of Orovnik village, based on the AKM built over an IA necropolis. In 2010, the church was completely rebuilt and its surroundings covered by a dense concentration of fragmented material of construction waste (up to five centimetres large stones with undiagnostic architecture ceramics and modern pottery fragments). We have not detected any archaeological material or situation which could be interpreted as the necropolis mentioned in the AKM.

OH\_ID\_2018 (OHRID\_33\_01); settlement (Hell, R)

OH\_ID\_2080 (OHRID\_33\_01); necropolis (Hell, R)

Based on the AKM and publication by Risteski (1989, 20–22), a settlement with a necropolis from the Hellenistic and Roman periods, located in the plot of land of T. Sekuleski. Sekuleski's land starts about 20 m west of the perimeter wall of the Sv. Ilija cemetery and it is situated under

a multi-generational house with an open courtyard. The necropolis most likely creates one complex with the one discovered below the church of Sv. Ilija.

OH\_ID\_2019 (OHRID\_33\_01); settlement (R)

A Roman hypocaustum located in the village of Orovnik, right under the house of B. Mojsovski. The structure was buried under a 2 m thick layer of soil and discovered while digging a garage under a house which was, as it appeared, already standing on top of an ancient structure. The hypocaustum was excavated by archaeologists from the Ohrid Museum in 1981 and subsequently published (RISTESKI 1989). Among the most appealing finds belong a large amount of loom weights located inside the structure, a glass vessel and a coin from the 3<sup>rd</sup>-4<sup>th</sup> c. AD (RISTESKI 1989, 20-22). Based on information by B. Mojsovski who still lives on the place, there are other stone structures located further NE of his house, however, covered by a 1.5-2 m thick layer of soil. Therefore, they appear only during the construction works, as our ineffective survey in the environs also confirmed.

OH\_ID\_2020 (OHRID\_33\_03); necropolis (R)

The AKM describes this site – Trojani – as a Roman necropolis. We were brought to the place by a local man whom we met only by chance at the Monastery of Sv. Petka, situated above the village of Orovnik in a north-eastern direction. The local showed us a path cut into the northern slope of the valley, ca. 200 m from the monastery, reachable only by a steep climb up the hill. The path follows the contour line in a west-east direction. After ca. 30 minutes' walk, we reached a well situated near a small stream, an area which is also on the topographical maps 1:25000 marked as 'Trojani'. The local man claimed this is the place of the necropolis, where also Roman water pipes were found (information also provided by the AKM). Our survey did not confirm any ancient remains connected with the water system. Just north of the road, we identified several ditches covered by branches, one of them excavated only recently. In one of them, we recorded two regular flat stone slabs (ca. 40×30 cm and ca. 35×35 cm). These seem to be trenches excavated by the treasure hunters – perhaps searching for the graves (?).

OH\_ID\_2021; pottery scatter (Ott)

A loose scatter of Ottoman pottery identified in the western part of an intensively surveyed harrowed field situated south-east of Vapila (50×130 m).

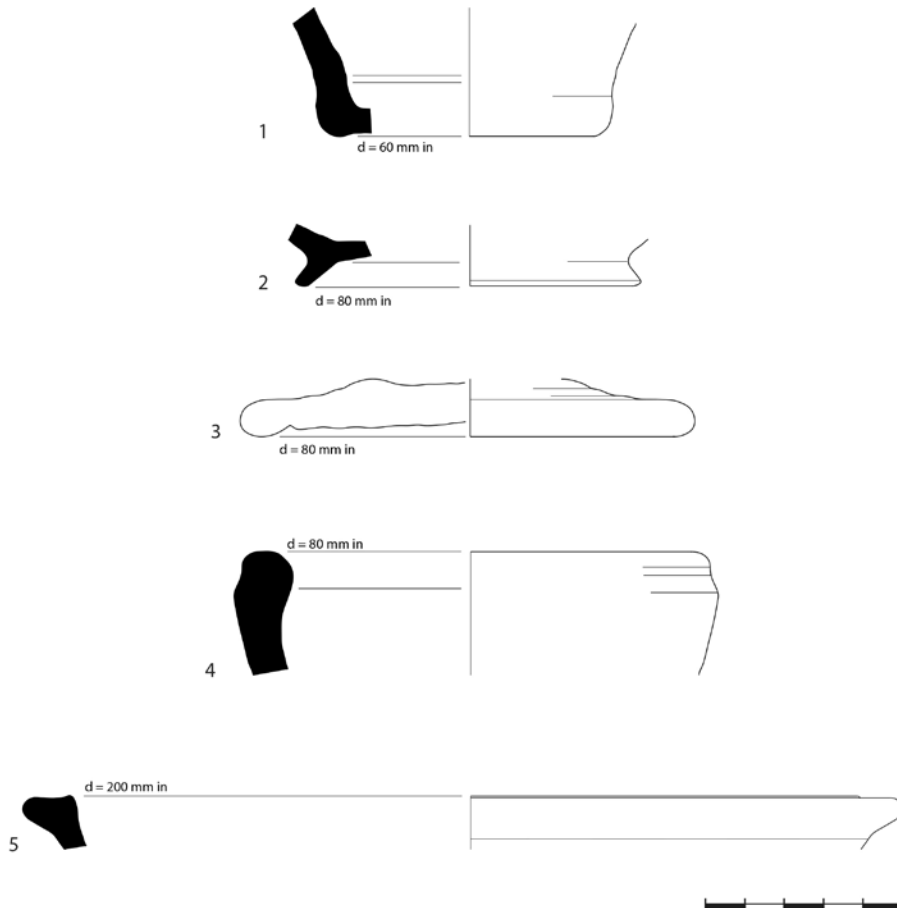
OH\_ID\_2022; settlement (?) / strategic point (?)

A slightly elevated hill known as Gorna Goritsa, located in the lowlands. We surveyed the location since it offers an obvious strategic position, overlooking the Ohrid plain, situated only 2 km south of the northern pass to the Struga plain. The hill was artificially afforested with conifers which dominate its north and west slopes, while the other areas preserve freely growing broad-leaved trees. The surface is mostly covered by vegetation, in several places on the east a homogenous layer of eroded soil rich in schist is exposed on the surface. On the slopes of the hill, a solid rock protrudes. Three fragments of different bricks were found on the top of the hill, all un-datable.

OH\_ID\_2024 (OHRID\_13\_01); settlement (R)

A slightly elevated hill named Dolna Goritsa, situated north of the village of Gorno Lakocherej, described in the AKM as Goritsa – a Roman settlement and necropolis. The hill is partly cultivated (harrowed), partly used as pasture. We located a dense scatter of Roman pottery covering approximately 280×85 m (NW-SE×NE-SW) and combining architectural ceramics and pottery

(including several red-slipped frgs.; **Fig. 3:1-5**). The scatter continues to the NW lowlands below the hill, where the density is significantly lower than we detected during a systematic survey in the agriculture area.



**Fig. 3: Selected pottery from the surface survey on the Dolna Goritsa hill (OH\_ID\_2024), Roman period: 1 - OH17\_2024\_01; 2 - OH17\_2024\_07; 3 - OH17\_2024\_03; 4 - OH17\_2024\_02; 5 - OH17\_2024\_03 (drawings by C. Haubenthal & H. Havlíková).**

OH\_ID\_2025 (OHRID\_13\_01); grave / necropolis (R)

A Roman grave located directly on the south-western slope of the Dolna Goritsa hill, corresponding with the AKM record mentioning a necropolis situated next to the settlement. It was discovered in the 1980s during military activities and the excavations were supervised by an archaeologist from the Ohrid Museum. It was buried again right after the archaeological excavations. The local guide told us it was a female grave covered by marble slabs, however, there is no published information concerning the results of the excavation.

OH\_ID\_2026 (OHRID\_15\_03); settlement (N, BA, Hell)

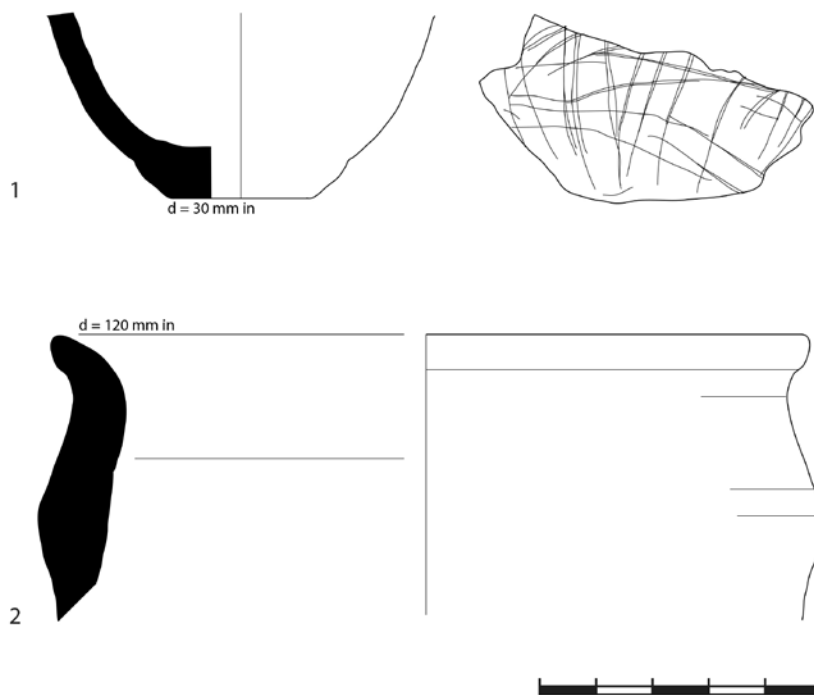
The settlement is located on a high hill (934 m.a.s.l.) overlooking the Ohrid plain and situated west of the village of Dolno Lakocherej. In the AKM, it is marked as a settlement dated to the Bronze Age and called Gradishte. The top of the hill is represented by a flat platform with the



dimensions of 80×50 m (N-S×W-E). Two terraces below the platform are noticeable while standing on its southern edge and looking to the south. The higher one is about 80 m wide, the lower one about 40 m. The platforms are sharply divided from each other by a rock step which is about six to eight meters high and it seems to be of a natural creation (it is possible to climb up it). The northern part of the settlement features a flat area opened to a natural pass enabling one to cross the mountain ridge to Orovnik, i.e. to the neighbouring Struga plain.

The settlement is heavily disturbed by treasure hunters who excavated several considerably large trenches all around its surface. The largest trench is placed directly on the top of the upper platform, ca. 5 m in diameter (visible on the Google Earth images). It is about 1.5 m deep, with the first 50 cm of topsoil placed on solid rock. A high amount of stones mixed with soil and pottery accumulates all around the trench. A number of smaller trenches are placed on the upper platform as well as on the lower terraces.

The majority of the ceramic material dates to the Late Neolithic/Eneolithic and Bronze Age periods according to the local chronology. They are hand made and represent open shapes (table wares and drinking vessels) if identifiable (**Fig. 4:1-2**). Multiple local parallels are known from the well documented contexts of the palafitte settlements in the 'Bay of Bones', Ohrid (Ohridati) and Vrbnik (cf. KUZMAN 2013; TODOROSKA 2010). Besides coarse wares, also reddish, wheel made fine and semi-coarse ware fragments were collected, which belong to the Hellenistic period, and are analogous to the finds unearthed in the fortresses around the Ohrid and Struga plains as well as in the necropolises in Delogozhda and Trebenishko kale (cf. BITRAKOVA GROZDANOVA 1995).



**Fig. 4: Selected pottery from the surface survey on the hill Gradishte, Dolno Lakocherei (OH\_ID\_2026). Late Neolithic / Eneolithic: 1 - cup with incised decoration, OH17\_2026\_21; Bronze Age: 2 - cup with everted rim, OH17\_2026\_04 (drawings by C. Haubenthal & H. Havlíková).**

OH\_ID\_2077 (OHRID\_15\_01); necropolis, (R)?

An area called Banik situated north of Dolno Lakocherej, described in the AKM as a Roman necropolis especially noticeable for graves with glass vessels as offerings. Based on the rough directions given by the AKM, we reached a territory with many old rectangular ditches. The orientation of the ditches was very disordered, including different sizes and shapes, and rather than archaeological trenches they might be relics of military training, common in the area. Consequently, the precise location of the graves remains an open question.

OH\_ID\_2075; spolia – remains of a former church (?) (LA, EMA, MA, Ott)

The Church of Sv. Nikola in the village of Kosel (there are currently two churches, one old from the end of the 14<sup>th</sup> and the beginning of the 15<sup>th</sup> c. AD, and directly next to it, in the northern direction, one from the last few decades called Sv. Nikola). We recorded four relatively large spolia connected with the old church. The most spectacular one is a piece of a ‘double half column’ in breccia-like marble (h. 51.5 cm, w. 28 cm, t. 13 cm), which is incorporated into the southern window of the old church (it maintains its original function as it supports the frame of the window, see **Fig. 5**). These columns are representative for Late Antique and Early Medieval churches, originally used as parts of balustrades or window supports. Three more spolia were found in front of the main entrance to the old church (west of the church). These spolia are large marble slabs and, according to the church personnel, they were found during building activities connected with the reconstruction of the old church. The first is a rectangular (h. 35 cm, w. 70 cm, t. 36 cm) greyish metacarbonate stone or marble (?) with working traces on its surface, especially noticeable on its upper side. The second one is of a grey limestone or metacarbonate stone, also rectangular, although broken on one side (h. 38 cm, w. 81 cm, t. 65+ cm). On the upper surface, it has a casting hole (20.5 cm long) terminated by a circular hole (d. 15 cm, see **Fig. 6**). A quadrangular dowel hole 4×4 cm is located on the bottom of the circular hole. The rounded



**Fig. 5: Church of Sv. Nikola, Kosel (OH\_ID\_2075); spolium: marble ‘double half column’ (photo by C. Haubenthal).**



**Fig. 6: Church of Sv. Nikola, Kosel (OH\_ID\_2075); spolium: grey limestone or metacarbonate stone with casting hole (photo by C. Haubenthal).**

recessed part features reddish traces, most probably pointing to a former metal-filling. The last block is a rectangular (h. 19–20 cm, w. 100 cm, t. 48 cm) and strongly weathered grey stone. All the stones were most likely an inherent part of some architecture, perhaps of an older church (destroyed before the turn of the 14<sup>th</sup>/15<sup>th</sup> c. AD) standing on the place of the current one(s).

OH\_ID\_2027 (OHRID\_20\_02); settlement (BA)

According to the *AKM*, the location is a Bronze Age settlement known as Gradishte and located on the top of a hill (811 m.a.s.l.), overlooking the village of Kosel and the pass to Resen. The *AKM* describes defensive walls as well as a pottery scatter on the surface. During the survey, we found only several small fragments of an undiagnostic pottery and no remains of defensive walls. Nevertheless, the northern part of the hill features a bedrock naturally shaped as a line of stones. This phenomenon could have been misinterpreted as the fortification wall in the *AKM*.

OH\_ID\_2028 (OHRID\_20\_05); necropolis (Hell)

A Hellenistic necropolis, based on the *AKM*, located in the middle of Kosel village. Local inhabitants confirmed its location, currently built upon by a primary school, its yard and a local road (running in the east-west direction). The finds discovered by the excavation are kept in the Museum of Ohrid.

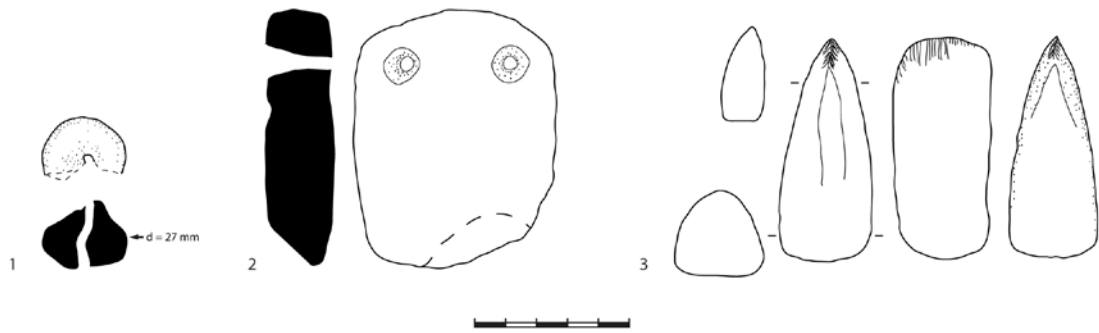
OH\_ID\_2029 (OHRID\_23\_02); settlement (N, BA, EIA, R, LA, MA)

An elevated hill (782 m.a.s.l.) again known as Goritsa, oriented NE–SW, located above the village of Leskoec. The hill is ca. 500 m long and 165 m wide, surrounded at its foot by modern houses built directly into the slope. The eastern part of the hill as well as its top are built on by houses and covered with car wrecks. Modern interventions to the hill are abundant. The most destructive are the traces of quarrying connected with lime production. The largest ditch (ca. 20×20×8 m) still preserves a lime furnace (‘varnica’) in its centre. The southern part of the hilltop features a concrete platform (for no obvious reason).

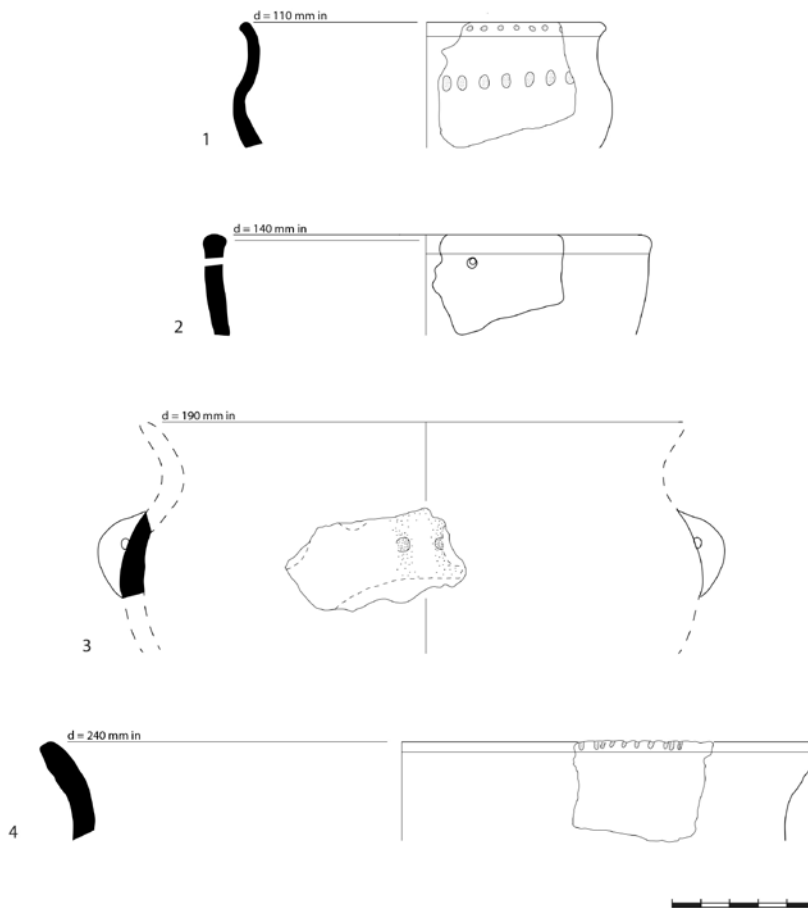
According to the *AKM*, signs of the Neolithic, Bronze Age, Late Antiquity and Medieval periods were found here. Pasco Kuzman kindly shared with us information that also material of the Roman period was detected on the hill.<sup>5</sup> During our visit, we discovered a fresh trench dug by a local gardener for soil, located on the western edge of the hill, right under the hilltop. The trench was about 1.6 m deep and 3.5 m long, with ca. 40 cm of topsoil, followed by an accumulation of stones. Some of the stones were irregular large blocks (ca. 70×70 cm), possibly part of a construction. Except for the large stones, the soil was filled with pottery fragments. Moreover, we identified one worked stone axe, a grinding stone and a loom weight (**Fig. 7:1-3**). The finds are dated to the time span from the Bronze Age to the Hellenistic period, while the pottery from the Archaic and Classical (6<sup>th</sup>–4<sup>th</sup> c. BC) periods is missing. Several of the well-preserved fragments allow for a further classification and a comparison of the early ceramic material (**Fig. 8:1-4**) with finds from the palafitte settlements. Moreover, the systematic excavations and intensive survey in the Korça basin south of the Lakes Ohrid, Sovjan and Maliq (KRAPF 2014; GORI – KRAPF 2015), provide further analogies in terms of stylistic and technological features; i.e. firing techniques evident in the brighter and reddish colours of the surface, clay pivot and plastic elements of the decoration. With regard to this, EIA tableware (bowls) has been identified for the first time on this site (**Fig. 9:1-2**). In the northern profile of the trench, pieces of human skull were found. This find might be related to the Middle Age necropolis as described in the *AKM* (see the next entry OH\_ID\_2081).

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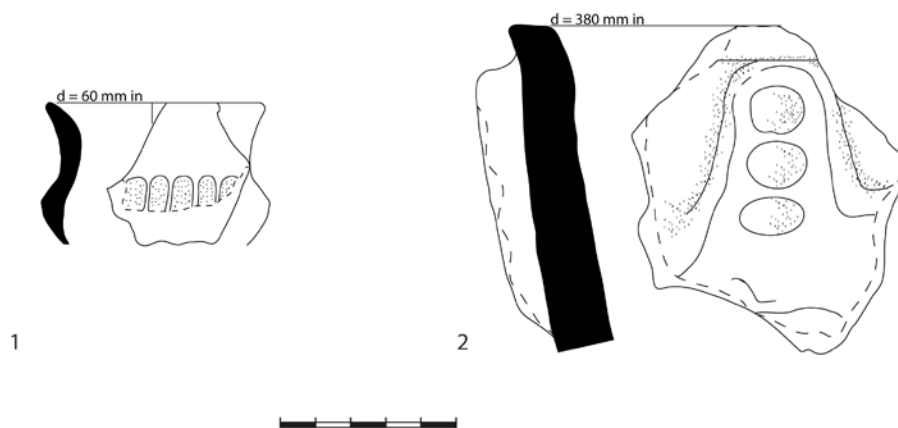
5 Personal communication, October 2017.



**Fig. 7: Selected tools from the surface survey on the hill Gradishte, above Leskoec (OH\_ID\_2029). Neolithic, Bronze Age: 1 - loom weight, OH17\_2029\_10; 2 - grinding stone, OH17\_2029\_33; 3 - stone axe, OH17\_2029\_30 (drawings by C. Haubenthal & H. Havlíková).**



**Fig. 8: Selected pottery from the surface survey on the hill Gradishte, above Leskoec (OH\_ID\_2029). Bronze Age: 1 - cup with everted rim and impressed decoration, OH17\_2029\_13; 2 - large coarse ware basin with in-turned rim and perforations below the lip, OH17\_2029\_11; 3 - bowl with horizontally pierced lug handles, OH17\_2029\_15; 4 - storage vessel with impressions on the rim, OH17\_2029\_08 (drawings by C. Haubenthal & H. Havlíková).**



**Fig. 9: Selected pottery from the surface survey on the hill Gradishte, above Leskoec (OH\_ID\_2029). Early Iron Age: 1 - deeper bowl with a marked shoulder, OH17\_2029\_17; 2 - storage vessel with vertical and horizontal finger impressed bands, OH17\_2029\_07 (drawings by C. Haubenthal & H. Havlíková).**

OH\_ID\_2081 (OHRID\_23\_02); necropolis (MA)

Based on the AKM, the north-eastern part of the Goritsa hill (OH\_ID\_2029) revealed graves in the cist form made of stone slabs; one of the graves contained a bronze cross. Other graves, also with bronze jewellery, were found by local villagers while digging material for lime production.

OH\_ID\_2030 (OHRID\_06\_06); settlement (IA)

The site is situated on a high hill (1014 m.a.s.l.) east of the village of Velgoshti. Based on the AKM, it is a fortified settlement named Olmek-Kulishte with a watchtower (10×10 m) dated to the Iron Age. The preserved width of the watchtower's northern and southern walls should reach 1 m. During our observations, we recorded only several old (overgrown by vegetation) robbers' trenches around the hill, and no architectural remains. In one of the trenches situated on the top, right next to the elevation point, we found fragments of one storage vessel.

OH\_ID\_2031 (OHRID\_34\_23); fortress (IA, A, Hell)

Sv. Erasmo-Kulishta, a Hellenistic fortress, when discovered erroneously interpreted as *Lychnidos* (LISIČAR 1953; BITRAKOVA GROZDANOVA 2004). It occupies 10 hectares on a high hill (880 m.a.s.l.), directly overlooking Lake Ohrid. The hill protrudes from the Gabavski Hillock which divides the Ohrid and Struga plains.

The fortress consists of an acropolis on the western part of the hill and an adjacent area in the east. While the former was uncovered for the first time in 1932 by W. Unverzagt (1954, 31–59), two more excavation seasons focusing on the examination of the outer bailey took place in 2008–2010 (under the supervision of P. Kuzman). However, the recent archaeological excavation addressed solely the northern fortification wall and, thereby, left the central and southern part of the site without further investigation in terms of a complex stratigraphic sequence.

The northern excavated part of the fortress features massive cyclopean walls built in *opus quadratum*, variant *pseudoisodomum*, which reach a thickness of about 2.2 m. A watchtower of regular shape strengthens the fortification each 32 m. The outer perimeter of every watchtower is 8×8 m, the inner 4×4 m. The main gate is located in the north-eastern part of the

outer bailey. The southern, 'lake part', of the fortification wall was uncovered partially and it is of much smaller dimensions. It seems that the settlement was well protected from here by a rocky slope. The walled acropolis, situated in the western part of the hill, is of a polygonal shape (with dimensions 42×32 m). In the east, the acropolis walls are reinforced and reach a width of approx. 1.5 m. A small entrance / gate connecting the outer bailey and the acropolis is located here. In the south, the wall is complemented by a watchtower (6.5×4.5 m).

The earliest phase of the settlement (fortified at that time?) dates back to the 1<sup>st</sup> half of the 1<sup>st</sup> mill. BC.<sup>6</sup> The massive ramparts and the acropolis were built in the second half of the 4<sup>th</sup> c. BC as confirmed by Hellenistic pottery and coins from the reign of Philip II, Alexander, and Cassander. Life in the settlement faded before the arrival of the Romans at the end of the 3<sup>rd</sup> c. BC (KUZMAN 2010, 50–52).

OH\_ID\_2032 (OHRID\_34\_01); kiln (LA)

A large Late Antique kiln for architecture ceramics, discovered (based on the AKM) in 1969 during construction works of a road leading from Ohrid to Sv. Naum. The kiln is well preserved, located under a protective roof next to the modern road (**Fig. 10**). The kiln has a rectangular plan of side ca. 3 m and features two chambers. The preserved height is also about 3 m. Based on parallels from Bulgaria and Romania, it might be with a high probability dated to the 6<sup>th</sup> c. AD and classed to the group of kilns producing bricks and roof tiles (YOTOV – HARIZANOV 2017).



**Fig. 10: LA kiln for architecture ceramics, OH\_ID\_2032 (photo by P. Tušlová).**

6 Excavations near the northern walls revealed several shards dated to the IA, as confirmed by the personal observations of P. Ardjanliev. The final publication of the recent excavation under the direction of P. Kuzman (2008–2010) is under preparation.

## OH\_ID\_2033; pottery scatter (Ott)

An elevated, north to south oriented hill (800×250 m) located on lowlands, south of the Orman village. Several houses are built around its southern edge and on its northern, highest part. The surface features a loose Ottoman period scatter of architectural ceramics and pottery.

## OH\_ID\_2035; palafitte settlement (LBA, EIA)

A palafitte settlement located in the 'Bay of Bones', on the site called Plocha Michov Grad, which dates to the end of the Bronze Age and beginning of the Iron Age (KUZMAN 2013a). The actual remains of the settlement are currently 3–5 m under the waters of Lake Ohrid. The settlement had been regularly explored by underwater archaeological activities between 1997 and 2005. In 2008, part of the settlement was reconstructed, and it is accessible to the public as an open-air museum, together with a small museum exhibiting the wooden pole remains, pottery and small finds identified in Lake Ohrid.

## OH\_ID\_2036 (OHRID\_36\_01); auxiliary camp (R)

A Roman Auxiliary camp situated on an elevated rocky spur (721 m.a.s.l.) known as Gradishte and protruding into Lake Ohrid, just 500 m north of the palafitte settlement. The camp is situated on its upper plateau in a north-south orientation with max. dimensions of 200×90 m. A massive fortification with four square towers set in front of the walls is preserved. The main (and the only) gate is in the south, also from both sides protected by the square towers. The camp was excavated in 2007–2008 and restored shortly after. Based on the excavation, it was dated to the 2<sup>nd</sup> c. AD (JOVANOVA 2013; MIKULČIĆ 2002, 483, Abb. 403).

## OH\_ID\_2048; architectural remains with pottery scatter [LA(?), Ott (?)]

A newly found feature located in the slope east of the village of Velgoshti. Construction works on the hill uncovered a structure of unworked stones covered by a red soil – in contrast to the otherwise brown clay mass of the hill. The loose big boulders recall the situation of Goritsa [OH\_ID\_2029 (OHRID\_23\_02)], where they are connected to a settlement/necropolis. Only one pottery shard was found here (most likely LA) and several pcs. of Ottoman roof tiles.

## OH\_ID\_2049; settlement (Ott)

A newly found elevated site situated in the slope south-east of the village of Velgoshti. Directly south of a dirt road, we recorded two-rooms with stone walls preserved up to the height of 1.3 m. The length of the whole structure is 10.65 m (W-E) and the width (N-S) is about a half of the length. Measured on the outer facades, the southern room is about 3 m wide and the walls are 0.55 m thick (the northern room was covered with a dense vegetation and, therefore, impossible to be measured). About 15 m west of the structure, we recorded a ca. 60 m long wall running from the north to the south, possibly a retaining wall. The last structure, a corner between walls running N-S and E-W, was found in the southern part, about 100 m south-east of the road. All the structures are out of roughly worked lime stones without mortar bonding. The area featuring the stone structures covers about 100×50 m. On the satellite images, it can be seen in the form of a rectangular plateau which continues further east where it is bounded by the road. Together with the eastern part which, however, does not contain any structures, we get an overall area of 100×100 m. We detected no pottery within the upper structures, but there were several Ottoman shards below the slope on which the walls are standing. Very likely, we can identify this as an Ottoman period house(s) or homestead(s).

OH\_ID\_2051 (OHRID\_15\_05); necropolis / settlement (?) (R)

The AKM describes the Lak-Predikaminca in the village of Dolno Lakocherej as a finding spot of a marble funerary statue of a woman holding a dove; a marble column shaft; and a marble column base. The funerary statue is exhibited in the Archaeological Museum of Macedonia in Skopje and the architectural remains are placed in the courtyard of the Church of Sv. Nedelja (OH\_ID\_2052), which is situated directly in the village. Based on the description in the AKM, the objects were found during the construction works of a new bridge over the Daljan River. The bridge is part of the main communication leading through the village and it is situated at its eastern border. Nowadays, the area is very disturbed, covered by recent waste and concrete blocks which seem to be part of the river bed. Big blocks of concrete, perhaps the remains of an old bridge, are placed around the area as well as inside the river bed.

OH\_ID\_2052 (OHRID\_15\_05); spolia (R)

The Church of Sv. Nedelja is situated in the northern part of the village Dolno Lakocherej. The Roman period marble shaft and base found in the location OH\_ID\_2051 are incorporated into the church outer decoration along the entrance from the south, both painted in red (**Pl. 2/2**). The shaft is located on the left side of the door, with h. 77 cm, d. 26 cm, and with a dowel hole in the middle (d. 2.5 cm, 3 cm deep; **Fig. 11**). There is one more hole on the side of the upper part of the shaft; 3 cm deep and 1.5 cm wide. The base is located on the right side of the door. Its upper d. is 36 cm and lower d. 55 cm. The preserved height is 15 cm, with a 5 cm high torus (**Fig. 12**). Both architectural features are used as stands for flower pots which, in combination with the red paint covering their entire surface, makes them hardly recognizable at first sight.



**Fig. 11: OH\_ID\_2052, the marble shaft incorporated into the church outer decoration (photo by P. Tušlová).**



**Fig. 12: OH\_ID\_2052, the marble base in detail (photo by P. Tušlová).**



## OH\_ID\_2076; strategic hill (R-LA?, Ott)

An elevated hill (730 m.a.s.l.) of a kidney shape with dimensions 360×200 m, situated in the lowlands and oriented north to south. The hill is located about 2 km north of Samuel's fortress, already within the Ohrid agglomeration. The hill is in several places heavily disturbed by limestone quarries, with the biggest ones on the south face (ca. 52×60 m) and on the north-east face (ca. 100×60 m). On the top of the hill, a GPS station is located, and the north-western foot of the hill is cut by a factory of the Slovin Biljana company. This location was not described in the AKM, but it has a strategic position, directly encouraging it to be settled. Therefore, it was included in our survey. We found only several roof tiles and bricks, some of them very clearly from the Ottoman period. However, one of the bricks has the marks of fingers impressed in parallel lines before firing, a feature characteristic for the Roman period.

## OH\_ID\_2069 (OHRID\_48\_06); necropolis (Hell)

A necropolis dated to the Hellenistic period, located about 300 m south of the Trebenishko kale on a mountain pass. It was excavated in 1953–1954 and it revealed 17 burials with material from the 4<sup>th</sup>–3<sup>rd</sup> c. BC (LAHTOV 1959). The grave offerings, especially the fibulae, demonstrate a strong connection to the sites in eastern Albania (i.e. Selce, Irmaĵ) which were a part of the Dassareatean Kingdom at that time (BITRAKOVA GROZANOVA 1990).

## OH\_ID\_2070 (OHRID\_48\_06); fortified settlement (BA, IA, Hell, LA, EMA)

Trebenishko kale is a well-known fortified settlement (of 7–8 ha) inhabited during the Early Bronze Age, Iron Age, Hellenistic, Late Antique and Early Medieval (Byzantine) periods (LAHTOV 1959). The long timespan of the habitation might be most likely ascribed to its strategic location since it is situated on a high hill (1006 m.a.s.l.) overlooking the entire Struga plain as well as the six-kilometre long pass leading to the Ohrid plain.

Only the Late Antique fortification walls are visible in several places on the south and south-eastern slope of the hill. Their width is from ca. 1.5 m to 2.2 m, the preserved height reaches up to 1.5 m. Some walls are heavily eroding, in parts looking rather like a pile of stones arranged in lines. Most of the architectural remains are of lime- or sand-stones without bonding, only several places feature the remains of mortar. A large excavation trench (5×2.3 m, 3 m deep) from the 1950s is still visible directly on the top of the hill at the place where a foundation of a bigger architectural unit was originally supposed; more recent intrusions by robbers cannot be excluded, as different trenches / holes were observed in the area of the fortress. Within the central trench, four shards were collected, all dated to the Hellenistic period and having their best parallels in the ceramic material found in the nearby necropolis (OH\_ID\_2069).

## OH\_ID\_2072 (OHRID\_41\_01); necropolis (A, R)

Located in the eastern part of the village of Rechitsa, in the area called Zadrushni Shtali, the site is mentioned in the AKM as a Late Archaic and Roman necropolis found in 1952 when building an Agricultural Cooperative. Several graves were uncovered, but the place was not systematically excavated. We were brought to the place by Kliment Balev from the Ohrid Museum who was born and grew up in the village. The site is entirely overgrown, and the Agriculture Cooperative does not run anymore.

## OH\_ID\_2073 (OHRID\_41\_03); depot of jewellery (IA/A)

Location Lozishta, Developed Iron Age / Archaic period depot of bronze jewellery found in 1955 (KUZMAN 2013, 464–467). This is an approximate area of the finding place known from the AKM, again localised thanks to Kliment Balev.

OH\_ID\_2078 (OHRID\_15\_06); settlement (R)

Based on the AKM, a Roman settlement in the village of Dolno Lakocherej, placed right next to the church of Sv. Nedelja (see OH\_ID\_2079). The place is currently built-on with houses.

OH\_ID\_2079 (OHRID\_15\_06); necropolis (R)

Based on the AKM, a Roman necropolis found in the village of Dolno Lakocherej during the construction of the church of Sv. Nedelja (OH\_ID\_2052). The only visible remain of the necropolis is a fragment of an inscription inbuilt in the southern façade of the church (the same side where the shaft and base are placed, **Pl. 2/2**). The inscription is written in the Greek alphabet and it is most likely a dedication or building inscription. The letter shapes indicate 3<sup>rd</sup>-4<sup>th</sup> c. AD and possibly Christian origin.<sup>7</sup>

ΠΑΤΡΙ [---]  
 [Κ]ΠΑΤΙΣΤ [---]  
 ΟΥΤΕΚ [---]  
 [.]ΗΕΝΑ

#### STRUGA PLAIN

OH\_ID\_2047 (STRUGA\_36\_01); old road pavement (R?, Ott)

South-east of the village of Radozhda, which is stretched along the middle part of the western coast of Lake Ohrid, is situated a pavement of an old road (**Fig. 13**). The AKM as well as other publications (e.g. BITRAKOVA GROZDANOVA 1996; FASOLO 2003, 233) interpret the paved road as a part of the *Via Egnatia*. The actual remains are detectable in a hill at about 730 m.a.s.l., ca. 340 m west of Lake Ohrid. The upper half of the preserved pavement goes directly up the hill, the lower half follows the contour line to the south for about 155 m, then the pavement disappears, and the following communication turns into a dirt road. The width of the preserved part is 2.2 m, with confining stones of about 60×30 m detected along both sides. The in-fill stones are of about half the size of the confining stones or less.



**Fig. 13:** Road pavement near Radozhda, OH\_ID\_2047 (photo by P. Tušlová).

<sup>7</sup> We would like to thank Petra Janouchová for the identification of the type and chronology of the inscription.

OH\_ID\_2053; road pavement (R?, Ott)

Pavement of an old road orientated E-W. Parts of the road appear in several places in a section about 60 m long; the road width is 2.2 m. It is built from boulders, with larger lateral stones. The road leads along the necropolis (OH\_ID\_2083) which is placed just north of it.

OH\_ID\_2054 (STRUGA\_37\_01); bridge (R?, Ott, modern)

The location is described in the AKM as 'Kamen most-Opale'. The 'Kamen most' ('Stone bridge') was indeed standing here, just recently replaced by a concrete one. The old road OH\_ID\_2053 passed across the bridge, suggesting an Ottoman (or even earlier) system of communication in this area.

OH\_ID\_2055 (STRUGA\_37\_01); settlement (N)

OH\_ID\_2083 (STRUGA\_37\_01); necropolis (A)

According to the AKM, a Neolithic settlement (OH\_ID\_2055) and a Late Archaic necropolis (OH\_ID\_2083) are located north of the road OH\_ID\_2053. In the 1930s many objects were found on the field – including pottery, worked stones and bones. Excavations in 1935–1937 and 1947–1953 conducted by the National Museum in Belgrade followed, revealing several graves with rich bronze offerings. Another three graves were uncovered in 1955 during the excavation by Ohrid Museum (cf. POPOVIC 1958 for further reading). Since the targeted area is fenced, we did not manage to survey the field and evaluate the current situation, however, it is located on pasture which did not seem to be disturbed by looting activities.

OH\_ID\_2056 (STRUGA\_37\_03); basilica (LA)

An Early Christian three nave basilica from the end of the 5<sup>th</sup> c. AD is located about 500 m south-east of the village of Radolishta. The basilica was excavated during 1954–1976 (MALENKO 1987) and the whole ground plan was uncovered (ca. 40×22 m in W-E×N-S direction). Its stone foundations of roughly cut lime stones bound by mortar are restored and exposed *in situ*.

OH\_ID\_2057 (STRUGA\_37\_03); necropolis (EMA)

An Early Middle Age necropolis (7<sup>th</sup>–8<sup>th</sup> c. AD) excavated in 1976 (MALENKO 1985) and scattered all around the basilica (OH\_ID\_2056). The location is known as 'Ciganski grobishta' ('Gypsy graveyard').

OH\_ID\_2058 (STRUGA\_43\_01); necropolis (Hell)

A Hellenistic necropolis located on a slightly elevated hill situated next to the main square of the village of Shum, in the area currently used as a Muslim graveyard. The modern-day utilization also gave the name to the location: 'Arapski grobishta' ('Arab graveyard'). The Hellenistic necropolis excavated in 1956 revealed several graves (LAHTOV 1959, 37 – footnote 58). The position of the necropolis roughly corresponds to the burial mound OH\_ID\_123 marked on the Soviet topographical maps at scales of 1:25 000 and 1:50 000.

OH\_ID\_2059 (STRUGA\_10\_03); settlement (Hell, R – *villa rustica*)

About 600 m SE of Delogozhda, a Roman *villa rustica* was found on private property, situated within the location known as 'Padarnitsa'. Most of the Roman settlement seems to be placed under uncultivated fields, nowadays used as pasture (although they were cultivated in the past).<sup>8</sup> In 1956, parts of a *hypocaustum* were excavated; in 2001, supposedly during military

8 The owner took us around the area where he detected structures connected to the Roman settlement during ploughing. The rough approximation of the extent is about 140×240 m (N-S×E-W).

training, parts of stone foundations were uncovered. The stone walls relating to the latter action are still visible in the terrain. Although the ditches have been destroyed by erosion, it seems the topsoil covering the remains is about 60 cm thick. The walls are made of roughly cut lime stones with no mortar bonding. The width of the walls is around 65 cm; two lines of stones are uncovered, protruding about 30 cm above the ground. The longest preserved wall is 160 cm in length. The disrupted area is rich in architecture ceramics; however, we did not find any pottery.

The owner of the land lives in its northern and highest part, overlooking the field as well as the entire valley. The favourable characteristic of the location is outlined by a natural spring situated next to the owner's house. During the house construction, the territory revealed a Roman floor mosaic.<sup>9</sup> The owner showed us a rich collection of finds which were all localized within his property. Among the most spectacular belong a 41 cm high marble eagle (with a missing head) on a quadrangular pedestal (w. 25 cm, h. 7 cm, depth 10 cm) with a hole in the centre of the base (w. 3 cm, h. 2.5 cm, depth 3 cm; **Fig. 14**); a very worn torso of a marble female statue (h. 27 cm, w. 14 cm, depth 14 cm; **Fig. 15**); part of a marble mortarium (complete h. 29 cm, upper d./w. ca. 32 cm, lower d./w. ca. 26 cm, upper wall thickness 2.5 cm); a marble base of Ionian type [complete h. 17.6 cm: stylobate (ca. 5 cm), torus (ca. 5 cm), trochilus (ca. 5 cm) and astragal (1–2 cm); the upper d. is ca. 26 cm; **Fig. 16**] and, two rectangular marble slabs (40×23×4 cm; 72×26×12 cm). The marble collection is accompanied by parts of architectural ceramics from the *hypocaustum*. According to the AKM, a Hellenistic settlement should also be located in the area of the 'Padarnitsa'. The owner did not keep much of the pottery, but several fragments he showed us are indeed Hellenistic, although their provenance might be rather related to the nearby Hellenistic-Roman necropolis (see OH\_ID\_2060).



**Fig. 14: Marble statue of an eagle, OH\_ID\_2059 (photo by P. Tušlová).**

<sup>9</sup> Based on the personal communication with the owner whilst documenting his collection of finds which he kindly showed us.



**Fig. 15: Torso of a marble female statue, OH\_ID\_2059 (photo by P. Tušlová).**



**Fig. 16: Marble base of Ionian type, OH\_ID\_2059 (photo by P. Tušlová).**

OH\_ID\_2060 (STRUGA\_10\_04); necropolis (A, Hell, R, EMA)

An elevated hill situated south-east of the village of Delogozhda. The Sv. Ilija necropolis dated to the Archaic, Hellenistic, Roman and Middle Age periods is placed about 400 m south-east of the *villa rustica* OH\_ID\_2059. The site was excavated between 1979 and 1990 by the Museum of Dr. Nikola Nezlobinski in Struga, under the supervision of prof. Vera Bitrakova Grozdanova. The excavations uncovered 102 graves and it is supposed by the excavators that the oldest graves from the 6<sup>th</sup> c. BC were placed below a burial mound (BITRAKOVA GROZDANOVA 1982; 1993). The surface of the hill is extensively disturbed by trenches from the old archaeological excavations as well as by relatively new treasure-hunters' ditches.

OH\_ID\_2061; road pavement (R?, Ott)

An old stone road to the south-east of the village of Delogozhda, following the NW-SE direction of a contour line (ca. 750 m.a.s.l.). It passes about 100 m south of the *villa rustica* (OH\_ID\_2059) and if it kept its direction and height, it would have passed ca. 70 m south of the necropolis of Sv. Ilija (OH\_ID\_2060). The road is badly preserved and overgrown with bushes. It seems to be, again, dated to the Ottoman period, although the convenient position<sup>10</sup> suggests an older predecessor.

OH\_ID\_2062; necropolis (Modern era?)

An abandoned necropolis with grave cists from rectangularly arranged roughly worked stone slabs, some of them covered with one stone plate from the top. They are oriented in the E-W direction. We saw several similar structures among modern graves in graveyards around monasteries. This cemetery features only these types of graves in a very bad state of

<sup>10</sup> Situated high enough to be protected from the water (floods), leading straight without natural barriers with a lot of space for sufficient width.

preservation – the upper plates are often missing, and the perimeter stones are leaning on their sides. We may identify them as Christian graves (according to the orientation), probably from the last few centuries.

OH\_ID\_2063; settlement (Modern era?)

A nowadays deserted village from the Modern era (last few centuries). We were informed about its existence by our guide whilst passing by to Kale (OH\_ID\_2064). Due to a lack of time, we did not visit the place, but only marked its approximate location.

OH\_ID\_2064 (STRUGA\_20\_04); settlement (IA, LA, MA)

Based on the AKM, a fortified settlement from the Iron Age, Late Antiquity and Middle Ages located on a high hill (1019 m.a.s.l.), situated about 2 km north-west of the village of Koroshishta. The view from the top covers not only the Struga plain, but also overlooks the majority of the long pass from the Sateska River Valley to Botun, which gives to this place an extra strategic position (**Fig. 17**).

On the top of the hill we found a robbers' trench, about 1.5×1.5 m and 2 m deep, dug partly into the rock. The upper 60 cm of the uncovered stratigraphy is created by a soil rich in stones and architectural ceramics (approx. date Roman or Late Antique). According to our local guide, a plastered cistern for rainwater was found on the top of the hill. Unfortunately, it is not detectable in the terrain anymore.



**Fig. 17:** View from the fortified site near Koroshishta, OH\_ID\_2064 (photo by P. Tušlová).

OH\_ID\_2065 (STRUGA\_32\_01); fortified settlement (Hell, R, LA)

A fortified settlement from the Hellenistic and Roman periods known as Gradishte Vajtos, located about 2 km south-west of the village of Oktisi (BITRAKOVA GROZDANOVA 2004, 26, fig. 3). The site is situated on one of the many hills placed in the second 'line' of the Jablanica mountain range, not directly connected to the Struga plain (Fig. 18 – view from the site towards Lake Ohrid). The position is ideal for guarding the four-kilometre long pass indirectly connecting the area today represented by the villages of Vishne and Oktisi.



**Fig. 18: View from the fortified site Vajtos-Oktisi, OH\_ID\_2065 (photo by P. Tušlová).**

The fortification long axis is oriented in the east-west direction and its length reaches about 160 m, the width is about 50 m. The northern fortification wall is made of big rectangular stones, in a *pseudo-isodomos* technique (varying between 125–180×45–95×40–45 cm). The remains in the south, identified as a part of the defensive architecture, are made of considerably smaller stones (max. 80×40×30 cm), possibly representing the remains of a watchtower. The eastern entrance to the rocky spur of the fortification (based on the terrain possibly the main entrance) is heavily damaged by several robbers' trenches which uncovered stone walls - some bound by mortar, some not. The walls can be attributed to several different phases of the settlement as they were built over each other in different directions (Fig. 19). The height of some of them exceeds 1 m, their width is about 40–50 cm. The eastern area yields the highest amount of surface material – architectural ceramics (roof tiles, one with an imprint of a pig hoof), three different rims of dolia and several pcs. of Hellenistic (black glaze) and Late Antique pottery (Fig. 20:1–4).





Fig. 19: Different phases of fortification walls (Hell, LA) in Vajtos-Oktisi, OH\_ID\_2065 (photo by P. Tušlová).

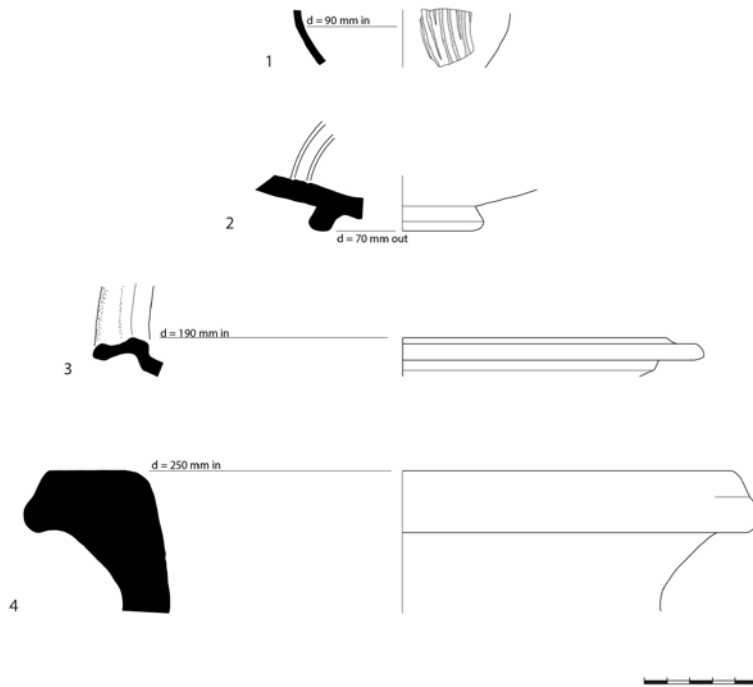


Fig. 20: Selected finds from the surface survey on the hill Vajtos-Oktisi, OH\_ID\_2065, Hellenistic period: 1 - black glaze cup with fluted ornamentation, OH\_ID\_2065\_06; 2 - base, OH17\_2065\_18; 3 - Plate with rolled rim, OH17\_2065\_17. Hellenistic period / Late Antiquity: 4 - pithos rim, OH17\_2065\_24 (drawings by C. Haubenthal & H. Havlíková).



## OH\_ID\_2066; road pavement (Ott)

An old stone pavement of road situated about 240 m north-west of the Vajtos Gradishte (OH\_ID\_2065). The road runs in a north-east direction and its southern end turns west. The preserved width is 1.5 m, the length about 10 m, with a scatter of single stones, possibly originally part of the road, going further to the north.

## OH\_ID\_2067 (STRUGA\_09\_05); fortified settlement (LA)

A fortified settlement on a hill with a small upper plateau in the location known as Crkva, on the topographical maps 1:25000 and 1:100000 also marked as Kula ('tower'). The hill is located at 1000 m.a.s.l. about 1700 m north-west of the village of Dolno Tateshi as the crow flies, with a long axis in the north-south direction (about 300 m long). We were taken to the place by a local from Dolno Tateshi. He informed us that for about 20 years looters had been regularly visiting and ravaging the settlement, having given up this activity just a couple of years ago after having concluded it was already completely looted. Unfortunately, the condition of the settlement corresponds with the ghastly description. The entire plateau is covered with a thick layer of stones, apparently originally parts of constructions, though it is hard to recognize any remains which could possibly be described as a kind of a solid structure. Only close to the hills' southern peak, we identified one robber's trench which revealed walls made of roughly worked lime- and sandstones with mortar, architectural ceramics and Late Roman pottery as well as roof tiles. The western edge of the hill preserves the foundations of a massive fortification wall reaching 1.6 m in width and about 100 m in length, running in the north-south direction. The local informant told us that he remembers the wall in a much better condition, with an entirely preserved width, and that its poor condition was caused by the treasure hunters. The eastern limitation of the fortification is not visible. Based on the terrain, the width of the settlement was not more than ca. 100 m.

## OH\_ID\_2068 (STRUGA\_40\_03); palafitte settlement (N, EN)

In the location of Ustie na Drim, a palafitte settlement of the Neolithic and Eneolithic period (cf. TODORSKA 2016 with further reading). It was found in 1961 during the extension of the riverbed of the Crni Drim River, directly in the centre of Struga, about 150 m inland of the current bank of Lake Ohrid. Based on the AKM, pottery, worked stones, flints and fishing equipment were found. The current appearance of the place does not in any way point to the existence of an archaeological site, since the new riverbed was actually built over it.

## RESEN PLAIN

## OH\_ID\_2074 (RESEN\_13\_01); necropolis (Hell)

A Hellenistic necropolis located on the north-eastern edge of the village of Izbishta. It was found in 1953 during the construction works connected with a road heading from the Ohrid plain to Resen (LAHTOV 1959, 27 footnote 32). Based on the AKM, two complete black slip kantharoi and one plate were found here. The necropolis is situated on a slightly elevated hill cut in half by the road. Two graves were found on the western part of the road. The western profile shows a probable S-N extent of the entire necropolis, since it unearthed the exact borders of an area where the bedrock was cut and removed, possibly in order to establish ground suitable for placing graves. Based on the profile and the remaining eastern half of the hill, the possible extent of the entire necropolis was 140×100 m (N-S×E-W). The location of the necropolis corresponds with the sign of burial mound (ID\_260) marked on the topographical map 1:50000.

OH_ID	AKM_ID	Village	Type	Chronology	TOPO (m.a.s.l.)	DEM (m.a.s.l.)	Longitude	Latitude
2014	OHRID_27_06	Mesheistha	Settlement	IA	922	914	20,7812844535	41,2478364989
2015	OHRID_NEW	Mesheistha	Scatter	Ott		744	20,7722080000	41,2310690000
2016	OHRID_12_04	Gorentsi	Necropolis	IA/A, C, Hell		715	20,7502490000	41,1879690000
2017	OHRID_33_02	Orovnik	Necropolis	IA		735	20,7550526922	41,1731493310
2018	OHRID_33_01	Orovnik	Settlement	Hell, R		731	20,7544587263	41,1731274778
2019	OHRID_33_01	Orovnik	Settlement	R		754	20,7558083096	41,1749281035
2020	OHRID_33_03	Orovnik	Necropolis	R		1023	20,7735200000	41,1777450000
2021	OHRID_NEW	Vapila	Scatter	Ott		750	20,8272297511	41,1912533417
2022	OHRID_NEW	Vapila	AC scatter	none		746	20,8178887152	41,1845425882
2024	OHRID_13_01	G. Lakocherej	Settlement	R		742	20,8120547599	41,1775373768
2025	OHRID_13_01	G. Lakocherej	Necropolis	R		740	20,8130600000	41,1777990000
2026	OHRID_15_03	D. Lakocherej	Settlement	BA, Hell	934	921	20,7812324065	41,1601828598
2027	OHRID_20_02	Kosel	Settlement	BA	811	806	20,8395280000	41,1741530000
2028	OHRID_20_05	Kosel	Necropolis	Hell		747	20,8359456383	41,174325181
2029	OHRID_23_02	D. Leskoec	Settlement	N, BA, EIA, R, LA, MA	782	767	20,8318260000	41,1514770000
2030	OHRID_06_06	Velghoshti	Settlement	IA	1014	995	20,8439760000	41,1265490000
2031	OHRID_34_23	Ohrid	Fortress	IA, A, Hell	880	860	20,7636324747	41,1436867414
2032	OHRID_34_01	Ohrid	Kiln	LA		696	20,8015490000	41,0648890000
2033	OHRID_NEW	Orman	Scatter	Ott		762	20,7853100000	41,1335580000
2035	OHRID_NEW	Peshitani	Pallafite Sett.	BA, EIA		x	20,7980350000	40,9942380000
2036	OHRID_36_01	Peshitani	Castrum	R	721	701	20,7973580000	40,9963230000
2047	STRUGA_36_01	Radzhda	Road	R?, Ott		730	20,6320776774	41,1000257784
2048	OHRID_NEW	Velghoshti	Structure	LA (?), Ott (?)		863	20,8412900000	41,1327060000
2049	OHRID_NEW	Velghoshti	Settlement	Ott		834	20,8408920447	41,1312824001
2051	OHRID_15_05	D. Lakocherej	Settlement	R		714	20,7964500000	41,1579920000
2052	OHRID_15_05	D. Lakocherej	Spolia	R		x	20,7953790000	41,1610690000
2053	STRUGA_NEW	Radolishta	Road	R?, Ott		693	20,6402968558	41,1719341282
2054	STRUGA_37_01	Radolishta	Bridge	R?, Ott, modern		693	20,6419650000	41,1718790000
2055	STRUGA_37_01	Radolishta	Settlement	N		693	20,6415034207	41,1721639337
2056	STRUGA_37_03	Radolishta	Church	LA		724	20,6268050000	41,1631540000

OH_ID	AKM_ID	Village	Type	Chronology	TOPO (m.a.s.l.)	DEM (m.a.s.l.)	Longitude	Latitude
2057	STRUGA_37_03	Radolishtha	Necropolis	EMA		724	20,6269696914	41,1631648801
2058	STRUGA_43_01	Shum	Necropolis	Hell		699	20,6352370000	41,1834980000
2059	STRUGA_10_03	Delogozhda	Settlement	Hell, R		762	20,7271790000	41,2559330000
2060	STRUGA_10_04	Delogozhda	Necropolis	A, Hell, R, EMA		754	20,7288310000	41,2540760000
2061	STRUGA_NEW	Delogozhda	Road	R?, Ott		754	20,7260838684	41,2554801991
2062	STRUGA_NEW	Delogozhda	Necropolis	Modern era?		754	20,7245395550	41,2554364657
2063	STRUGA_NEW	Delogozhda	Settlement	Modern era?		994	20,7348824020	41,266113232
2064	STRUGA_20_04	Koroshitshta	Fortified Sett.	IA, LA, MA		1005	20,7388621476	41,2608402036
2065	STRUGA_32_01	Oktisi	Fortified Sett.	Hell, R, LA		1142	20,5875589288	41,2255367849
2066	STRUGA_NEW	Oktisi	Road	Ott		1166	20,5851413707	41,2264926460
2067	STRUGA_09_05	G. Tateshi	Fortified Sett.	LA		954	20,6639657211	41,2672121091
2068	STRUGA_40_03	Struga	Pallafte Sett.	N		x	20,6781050000	41,1749626600
2069	OHRID_48_06	Trebenishta	Necropolis	Hell		944	20,7695650000	41,2001920000
2070	OHRID_48_06	Trebenishta	Settlement	BA, IA, Hell, LA, EMA		995	20,7685560193	41,2025647781
2072	OHRID_41_01	Rechica	Necropolis	A, R		1013	20,9403223196	41,2138721470
2073	OHRID_41_03	Rechica	Depot	IA/A		1062	20,9423640000	41,2164720000
2074	RESEN_13_01	Izbishta	Necropolis	Hell		945	21,0065968713	41,1357677151
2075	OHRID_NEW	Kosel	Spolia	LA, EMA, MA, Ott		757	20,8375010000	41,1738610000
2076	OHRID_NEW	Ohrid	Scatter	Rom?, LA?, Ott	730	718	20,7939184896	41,1273081601
2077	OHRID_15_01	D. Lakocherej	Necropolis	R		746	20,7934063770	41,1627606210
2078	OHRID_15_06	D. Lakocherej	Settlement	R		725	20,7953970086	41,1609761515
2079	OHRID_15_06	D. Lakocherej	Necropolis	R		725	20,7954994383	41,1610227299
2080	OHRID_33_01	Orovnik	Necropolis	Hell, R		731	20,7544223138	41,1731787350
2081	OHRID_23_02	D. Leskoec	Necropolis	MA		771	20,8330535541	41,1524918173
2082	OHRID_27_06	Mesheistha	Church	MA	922	904	20,7812844535	41,2478364989
2083	STRUGA_37_01	Radolishtha	Necropolis	A		694	20,6412852088	41,1722392575

**Tab. 2: Overview of the sites survey in 2017. The chronology is based on the AKM, updated with our survey results (based on the evaluation of pottery and architectural remains). The abbreviations stand for: D. = Dolno, G. = Gorno. The coordinates are given in decimal degrees. For the chronology see Tab. 1.**

## SELECTIVE FIELD SURVEY

Randomly selected fields in the cultivated flatlands of the Ohrid plain were walked in several meter distances between the walkers in their complete length (up to 150 m long transects, with ca. 10 m between walkers). In general, a very small amount of any material was found – two fields (OH\_ID\_2015 and OH\_ID\_2021) yielded a small amount of Ottoman period pottery and roof tiles. The only exception represents the site OH\_ID\_2024, located on an elevated (DEM: 742 m.a.s.l.) and partly cultivated hill situated in the lowlands, where a dense pottery and architectural ceramic (AC) scatter of the Roman period was detected.

Similar observations were made on the hills surrounding both of the plains: we detected only very little – if any – surface material (for the most part represented by roof tiles), dated to the Ottoman or Modern periods. Older material was possible to be detected almost solely in animal holes or robbers' trenches.

## BURIAL MOUNDS

Another aim of the season 2017 was to clarify the meaning of the brown circle symbol with radiated lines around it, appearing on Soviet topographical maps (**Fig. 21**). The symbol should represent a burial mound, as directly follows not only from the legend belonging to the maps, but it has also been confirmed by recent archaeological surveys conducted in the territory of nowadays Bulgaria.<sup>11</sup>

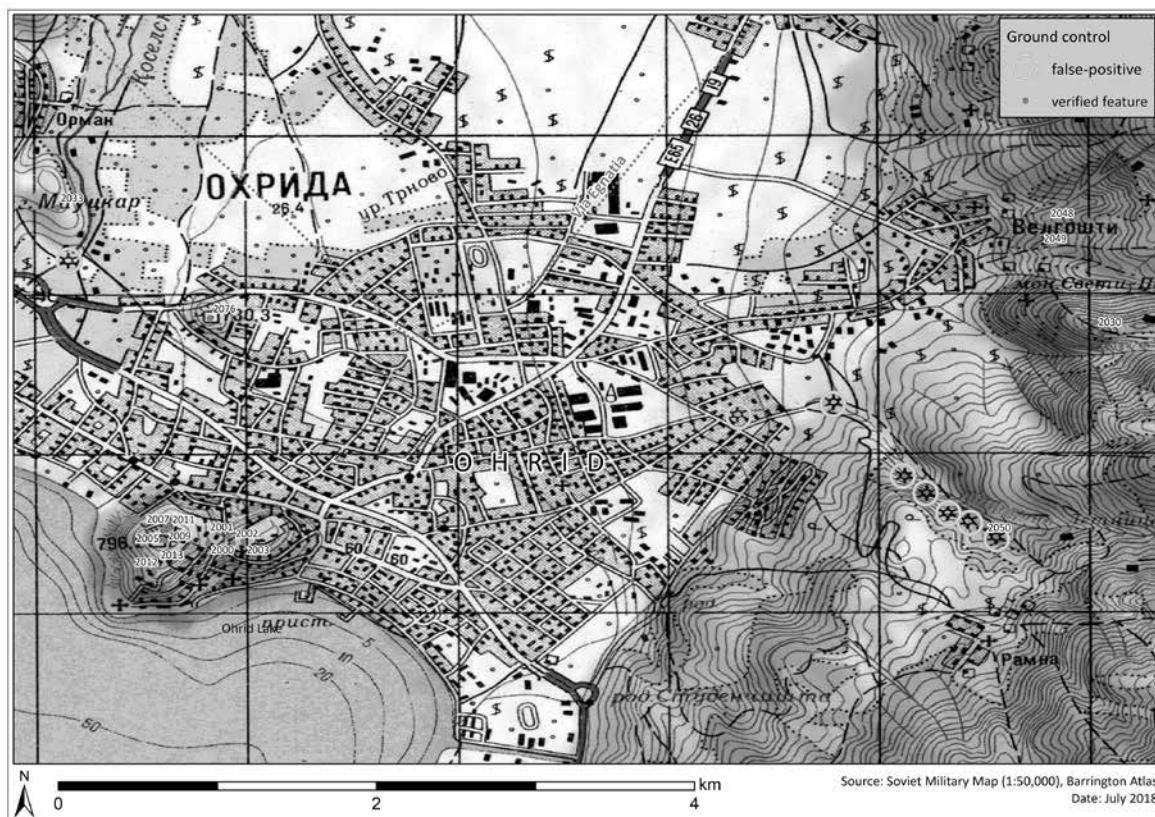
To prove the correctness of the supposition, we conducted several rudimentary steps. During the first step, we digitised all the points – possible burial mounds – in the targeted area spreading north and north-east of Lake Ohrid, and interfering with the plains of Ohrid, Struga and Resen. The Soviet topographical maps we had at our disposal included three different scales: 1:100 000, 1:50 000 and 1:25 000, differing in numbers and positions of the expected burial mounds.

The second step took place in the terrain. Considering all the crucial variables and their uniform representation within the sample (including elevation, types of clustering, strategic position, source scale etc.), we selected 32 points which were subsequently visited in the terrain. Out of the 32 points marked on the maps as burial mounds, a mere five of them (16 %) were confirmed as true-positives, i.e. possibly relating to ancient burial(s) (**Pl. 2/3**).

During the last step, we evaluated the data obtained in the terrain. Analysing the true-positive sample in more detail, we can see a considerable diversity within the sources and certainty. Two of the visited places (burial mound OH\_ID\_123 and \_260) correspond with descriptions of Hellenistic necropolises in the *AKM*. Even though we would not be certain about the existence of burials in these spots based on our own observations in the terrain, the records in the *AKM* gave us the certainty as well as the chronological frame. From the remaining points, only one could be confidently associated with a burial mound (OH\_ID\_405) in its current state. It is located to the north of Trebenishko Kale, in the pass to Ohrid plain. The mound was, however, entirely looted, with the preserved embankment reaching to ca. 3 m (**Fig. 22**). From the remaining mounds, one mound (OH\_ID\_386) was very low and spread into the

11 The survey focused on the clarification of symbols used on the Soviet topographical maps has been carried on, e.g., in Bulgaria – Yambol and Kazanlak Districts since 2009 under the supervision of Adéla Sobotková (co-director of the FAIMS project) and Barbora Weissová. It had been successfully proven that the symbol represents burial mounds in the investigated areas.

terrain, revealing mere two undiagnostic shards. We learned about the last one (OH\_ID\_387), from a local. He told us it was completely dug out by treasure hunters; nowadays there are no signs of it.



**Fig. 21: Section of the Soviet topographical map (city of Ohrid) with presumed symbols for burial mounds marked in circles (map by B. Weissová).**

The group of false-positives, i.e. present on the map but not in the terrain, includes 27 points (84%). Looking for the reasons for their absence, we could explain 20 of them as the results of human activities including recent constructions, agriculture and looting. However, seven of them are supposed to be situated on very steep slopes, and as we confirmed during the survey, these locations seem to be entirely inconvenient for burial mounds. This fact let us question the primary correctness of the map-derived symbols.

Comparing the present sample, though still very small, with the results from the Yambol District, the outcomes feature enormous differences. The survey in the Yambol District confirmed 90% of the map-derived points as true-positives and a mere 10% as false-positives<sup>12</sup> which gives us an almost opposite ratio of true and false results. Due to the relatively small sample of map-derived points, it is necessary to continue with the same procedure in the area in order to prove or disprove our preliminary observations, hitherto suggesting a great ambiguity of the symbols in the surveyed area.

12 For more details, see WEISSOVÁ 2016, 118–119.



**Fig. 22: Burial mound (OH\_ID\_405) located to the north of the Trebenishko Kale (photo by P. Tušlová).**

## CHALLENGES OF THE FIELD SURVEY

One of the several points of our trial field season was to get familiar with the landscape and the settings of the archaeological sites around Lake Ohrid. It turned out to be the key aspect of our visit. The area forms one of the most active seismic zones in Albania/Macedonia, and the specific geomorphological systems largely affect(ed) the historical landscape; e.g. major earthquakes followed by destructive floods, an event documented already in the early medieval period (cf. WAGNER *et al.* 2016; the last ones in 1962/1963). This and the following environmental as well as anthropogenic determinants and characteristics need to be taken into consideration for any future study:

- Frequent floods by the main inflows of Lake Ohrid (Sateska and Daljan River) have transported sediments southwards and caused shallow alluvial fans in both the Struga and Ohrid plains.
- Several high levels of the lake with coastal flooding have been reported during the last century (e.g. 1936 and 1956). These short-term flood events covered the coastal areas and did not exceed 695 m.a.s.l. in the Struga plain (HOFFMANN *et al.* 2012, 108, 110 footnote 41).
- Erosion of the steep slopes of the mountains Galicica and Mokra, especially strong and destructive due to extreme temperature fluctuations during the day, and previous deforestation of the area; the pollen record indicates a significant deforestation and enhanced agricultural activity in the area north of the lake started in the period around 450 BC (WAGNER *et al.* 2008, 425).

- Artificial afforestation (planting of conifers in the mountains and on the local hilltops in the 1970s).
- Limestone quarries (hills at/near the villages are being uncontrollably extracted, even if they preserve archaeological sites).

As a result of above mentioned, the plains are dominated by clastic input consisting of alluvial and lacustrine soils mixed with eroded limestones (HOFFMANN *et al.* 2012, 107). Floods of the inflows, Crni Drim – which drains Lake Ohrid into the Adriatic Sea – and of the lake itself, affect the local villages and villagers even in modern times; e.g. the entire village of Koroshista, located on the north-east of the Struga plain, was moved further from the Sateska River due to floods in 1963. Likewise, the increasing sedimentation of the same river led over time to a backfilling of the river bed and to a change of its course (Pl. 2/1 and 2/3).<sup>13</sup> Mountains surrounding the plains as well as the elevated hills in the lowlands were either forested and now they are ribbed by deep furrows with grown conifers, or, when not affected by afforestation, eroded down to the bedrock (cf. OH\_ID\_2026). Limestone hills near to the villages are being extracted from different angles with no effective protection of the archaeological sites located on the top of them (cf. OH\_ID\_2029).

On the other hand, the eastern shore of Lake Ohrid shows a coastal marsh/lagoon environment, weakly influenced by clastic input from the inflows (e.g. the Velestovo Creek). The marly lake sediments are overlain by a thick package of peat, suggesting a sudden change in the depositional environment caused by a rapid lake-level drop or tectonic activity (HOFFMANN *et al.* 2012, 107).

All these aspects affected the present appearance of the local landscape, very beautiful at first sight, but very challenging from an archaeological point of view. A systematic field survey in the lowlands is basically excluded from the possible archaeological methods unless focused on the most recent periods. On the hills, the topsoil is either 50–60 cm thick, or it is entirely missing, directly exposing the bedrock. The lowlands are difficult to evaluate, as the Roman sites, except one – OH\_ID\_2024 – were buried from 60 cm (on the lowlands) to 300 cm (on the foothills) under the ground. Consequently, we may expect the older periods to be hardly detectible on the surface and deeper trenches to be necessary to reach any archaeological material. A selective survey targeting the verification of the points marked in the AKM needs to be undertaken with a local guide or consulted upon with the locals, since most of the features are by now hardly identifiable in the countryside / towns.

## CONCLUSION AND FUTURE PERSPECTIVES

The trial field survey conducted north of the Lake Ohrid basin in October 2017 was part of a broader international project *Frontier Studies* (in cooperation between the Charles University, Prague and Archaeological Museum of Macedonia, Skopje), which intends a micro-regional study in order to address questions regarding the development of the habitation and the socio-cultural environment on the edge of the Aegean cultural *koine*. The main aim of the survey was to evaluate the suitability of the landscape in the Ohrid and Struga plains and the surrounding mountains for a further systematic field survey, and to review archaeological as well as historical sites in the area in terms of chronology, exact geographic position, regional

<sup>13</sup> The Sateska River has been channeled since 1963 and today dewateres partly into the Crni Drim and partly into Lake Ohrid (JORDANOSKI *et al.* 2010).

settings and current state of preservation. Finally, the symbols appearing on topographical maps and identified as 'burial mounds' were verified in the field.

In summary, 43 archaeological and historical sites recorded in the AKM were verified and reviewed, and another 13 new positions were identified and documented in the first-year of the project (**Pl. 2/1; Tab. 2**). Moreover, five out of 32 selected points marked on the Soviet topographic maps as burial mounds were confirmed as true-positives, i.e. related to ancient burial(s) (**Pl. 2/3**).

The evaluation of the potential for a further examination in terms of an intensive field survey in the plains and an extensive survey in the mountain areas reveals major difficulties relating to the landscape in focus. The area around Lake Ohrid has changed dramatically due to a combination of seismic, environmental and anthropogenic interventions resulting in very challenging survey conditions: The fields in the northern plains are covered by clastic input (alluvial sedimentation), while the surrounding mountains and the eastern shore of the lake are eroded and/or artificially afforested. Therefore, close cooperation with the natural sciences is one of the musts in order to explain how exactly these changes affected the Lake Ohrid basin, and, subsequently, to adjust the survey methodology accordingly. Further geological and environmental studies should, in this regard, be based on and complement the results of the research conducted in the last decade (e.g. the deep drilling project SCOPSCO; WAGNER *et al.* 2017 with further readings).

Taking the results of the trial field survey and the above-mentioned constraints into consideration, future field work will address the following research questions:

a) settlements: based on the collected samples and verification of features from the topographic and satellite maps, which seem to feature some uniformity, the minimal elevation of settlements should be reconstructed diachronically and related to the geomorphological and environmental developments in the region, i.e. the impact of the sedimentation, alluvial processes or coastline evolution and marsh/lagoon environment should be taken into consideration

b) fortifications: the archaeological remains of four fortified sites (OH\_ID\_2031, 2064, 2065, 2070) located on the ridges in the Struga and Ohrid municipality underscore the assumption of centralisation processes in the region in the Hellenistic period (cf. BITRAKOVA GROZANOVA 2004). An extensive survey of additional fortifications as well as a GIS-based analysis (visibility-, interaction- etc.) could reveal important data regarding the extent, socio-political and economic patterns of the first proto-state structure in the region – in the historical sources known as the Dassareatean Kingdom.

c) burial mounds: given the insufficient state of research on this subject in the region, in particular for the Bronze Age and Early / Developed Iron Age (cf. PAPAZOVSKA – HEILMANN 2018), the further examination of burial mounds will aim to answer the questions of their location, state of preservation, chronology and construction.

d) communications: given that the current reconstruction of the main communication route in the region, the Candavian Road or the *Via Egnacia*, follows the northern shore of Lake Ohrid, seems to be rather impossible due to the coastal marsh/lagoon environment; a reconsideration of the course should be conducted using the GIS-based analysis and an extensive field survey.

e) chronology: approximately only one half, 22 of the 56 already known or newly identified sites in the region exhibit a fixed chronological sequence verified by archaeological excavations or analysis of findings (**Tab. 2** – grey). However, the presented data often reveal gaps caused by short-term field work or different research questions (e.g. OH\_ID\_2032). Hence, a proper



re-evaluation of the excavated archaeological material (now at the museums in Struga and Ohrid), combined with test pits on selected archaeological sites, is necessary in order to create a steady framework for further research.

According to these research questions, the tasks of the next field work are as follows:

- a) to complement the review of the already known archaeological and historical sites in the Struga plain in cooperation with local archaeologists and residents.
- b) to conduct an extensive survey in the valley connecting the Ohrid and Struga plain.
- c) to start an architectural and epigraphic survey in the region with a focus on the local churches in cooperation with the Kommission für Alte Geschichte und Epigraphik des Deutschen Archäologischen Institutes in München (prof. Dr. Christoph Schuler).
- d) to undertake a geological and a subsequent palynological investigation of the coastal and riverine areas in the Ohrid basin.

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## BIBLIOGRAPHY

- AKM = Археолошка карта на република Македонија 2 (Archaeological Map of the Republic of Macedonia 2), Skopje 1996.
- ARDJANLIEV, P. 2017: Enlightening identity. Reconsidering burial practices in the Lychnidos region from the Iron Age until the end of the Hellenistic period. In: M. Trefný – B. Jennings (eds.): *Inter-regional contacts during the first millennium B.C. in Europe*. Proceedings from the session organized during the 19<sup>th</sup> meeting of European Association of Archaeologists, Pilsen 5<sup>th</sup>–9<sup>th</sup> September 2013. Hradec Králové, 132–145.
- БИТРАКОВА ГРОЗДАНОВА 1982 = Битракова Грозданова, В.: Ископувањата на античката некропола во Делогожда 1979. *Macedoniae Acta Archaeologica* 6, 63–68.
- БИТРАКОВА ГРОЗДАНОВА 1990 = Битракова Грозданова, В.: За гробот број 3 од Требенишко кале. *Macedoniae Acta Archaeologica* 11, 119–126.
- БИТРАКОВА ГРОЗДАНОВА, V. 1993: La nécropole antique de Delogožda et sa chronologie. In: M. Andronikos (ed.): *Ancient Macedonia V*. Papers read at the fifth International Symposium held in Thessaloniki, October 10–15, 1989. Thessaloniki, 167–177.
- БИТРАКОВА ГРОЗДАНОВА 1995 = Битракова Грозданова, В.: За карактеристиките на хеленистичката керамика во регионот на Охрид и Преспа. *Зборник Археологија* 1, 123–138.
- БИТРАКОВА ГРОЗДАНОВА, V. 1996: La Via Egnatia entre Lychnidos et Pons Servilii. *Ancient Macedonia* 1, 153–165.
- БИТРАКОВА ГРОЗДАНОВА, V. 2003: Ranoantička Naselja Ohridsko-Prespanske Regije. *Historia Antiqua* 11, 23–31.
- BLASEVSKA 2013 = Блажевска, S.: Раната антика и хеленистичкиот период во Македонија (археологија). In: KUZMAN – DIMITROVA – DONEV 2013, 637–731.
- DAUBNER, F. 2012: Von Pfahlbauern zu Bischöfen. Antike Stätten in Nordmakedonien. *Antike Welt* 2012/4, 75–83.

- BURKHARDT, N. – DAUBNER, F. 2018: *Makedonien nach den Königen (168 v. Chr.–14. n. Chr.)*. Historia – Einzelschriften 251, Stuttgart.
- FASOLO, M. 2003: *La Via Egnatia I, Da Apollonia e Dyrrachium ad Herakleia Lynkestidos*. Viae Publicae Romanae 1. Roma.
- GORI, M. – KRAPP, T. 2015: The Bronze and Iron Age Pottery from Sovjan. *Iliria* 39, 91–136.
- HAMMOND, N.G.L. 1972: *A History of Macedonia I. Historical Geography and Prehistory*. Oxford.
- HOFFMANN, N. – REICHERTER, K. – GRÜTZNER, CHR. – HÜRTGEN, J. – RUDERSDORF, A. – VIEHBERG, F. – WESSELS, M. 2012: Quaternary coastline evolution of Lake Ohrid (Macedonia/Albania). *Central European Journal of Geoscience* 4/1, 94–110.
- JORDANOSKI, M. – LOKOSKA, L. – VELJANOSKA-SARAFILOSKA, E. 2010: The River Sateska and Consequences of its Diversion to Lake Ohrid. In: *Balwois Conference 2010 Proceedings*. Ohrid, 1–7.
- JOVANOVA 2013 = ЈОВАНОВА, Л.: Македонија во римскиот период (археологија). In: KUZMAN – DIMITROVA – DONEV 2013, 789–930.
- KRAPF, T. 2014: The Late Bronze Age Pottery of Macedonia. Comparisons with the Plain of Korçë. In: E. Stefani – N. Merousis – A. Dimoula (eds.): *A Century of Research in Prehistoric Macedonia*. International Conference Proceedings, Archaeological Museum of Thessaloniki, 22–24 November 2012. Thessaloniki, 585–597.
- KUZMAN 2010 = Кузман, П.: ОХРИД. *Sub specie aeternitatis*. Скопје.
- KUZMAN 2013a = Кузман, П.: Праисториски палафитни населби во македонија. In: KUZMAN – DIMITROVA – DONEV 2013, 296–430.
- KUZMAN 2013b = Кузман, П.: Архијскиот период во македонија. In: KUZMAN – DIMITROVA – DONEV 2013, 431–482.
- KUZMAN, P. 2016: The Archaeological Evidence of St. Clement of Ohrid's Activities in the Ohrid Region. *Slovëne. International Journal of Slavic Studies* 5/2, 136–178.
- KUZMAN, P. 2017: Chronological and Geographical Routes of Ohrid's Oldest Population. *Археолошки информатор* 1, 156–164.
- KUZMAN – DIMITROVA – DONEV 2013 = Кузман, П.– Димитрова, Е. – Донеv, Ј.: Македонија. *Милениумски културно-историски факти*. Скопје.
- ЛАНТОВ 1959 = Лахтов, В.: Археолошко ископување на Требенишко кале во телото Требениште – Охридско 1953–1954 година. *Лихнид, годишен Зборник на народниот музеј во Охрид* II–III, 11–78.
- LISIČAR, P. 1953: Legenda o Kadmu, I Veze Lihnida s Egejom I Jadranom. *Živa Antika* 3, 245–261.
- DE MARIGNY, E.M. 2013: *Ceramic Typology of the Bylazora Excavations (2008–2012)*. Canyon Lake.
- MALENKO, V. 1985: Ranohristijanski objekti vo Ohrid i Ohridsko. *Lihnid* 7, 3–22.
- MIKULČIĆ, I. 2002: *Spätantike und frühbyzantinische Befestigungen in Nordmakedonien. Städte – Vici – Refugien – Kastelle*. München.
- MITREVSKI, D. 2013 = Митревски, Д.: Праисторија на Републиката Македонија. In: KUZMAN – DIMITROVA – DONEV (eds.) 2013, 84–266.
- MITREVSKI, D. 1997: *Протоисториските заедници во Македонија*. Скопје.
- NAUMOV, G. 2016: Among Wetlands and Lakes. The Network of Neolithic Communities in Pelagonia and Lake Ohrid, Republic of Macedonia. In: K. Bacvarov – R. Gleser (eds.): *Southeast Europe and Anatolia in Prehistory. Essays in Honour of Vasil Nikolov on his 65<sup>th</sup> Anniversary*. Universitätsforschungen zur prähistorischen Archäologie 293. Bonn, 175–188.
- PAPAZOVSKA, A. – HEILMANN, D. 2018: Burial Customs in the Iron Age and the Late Archaic Period in the Ohrid Region. In: P. Ardjanliev et al. (eds.): *100 години Требениште*. Скопје, in print.
- ПОРОВИЌ 1958 = Поповић, Љ.: Радолиште. *Зборник Народног музеја – Археологија* 1, 76–94.
- RISTESKI 1989 = Ристески, С.: *Оровник*. Ohrid.
- ROTROFF, S. 1997: *Hellenistic Pottery. Athenian and Imported Wheelmade Table Ware and Related Material*. The Athenian Agora 29. Princeton.
- STANKOVIĆ, S. 1960: *The Balkan Lake Ohrid and its Living World*. The Hague.

- STIBBE, C. – VASIĆ, R. 2002: *Trebenishte. The Fortunes of an unusual excavation*. Studia Archaeologica 121. Roma.
- TODORSKA 2010 = ТОДОРСКА, В.: Палафитно наоѓалиште Врбник, Струга. *Macedoniae Acta Archaeologica* 19, 147–156.
- TODORSKA 2016 = ТОДОРСКА, В.: Палафитната населба „Устие на Дрим“. In: L. Fidanoski – G. Naumov (eds.): *Neolithic in Macedonia. New Knowledge and Perspectives*. Magnansken – Skopje 2016, 41–54.
- УТОВ – HARIZANOV 2017 = ЎТОВ, В. – Харизанов, А.: Пеш за строителна керамика (VI в.) на јужниот брег на залива Св. Атанас край Бяла, Варненско. *Добруджа* 32, 487–496.
- VASIĆ, R. 1999: The “Poor” Graves of Trebenishte. In: E. Petrova (ed.): *Macedonia and the Neighbouring Regions from 3<sup>rd</sup> to 1<sup>st</sup> Millennium BC*. Papers Presented at the International Symposium in Struga, 1997. Skopje, 63–66.
- WAGNER *et al.* 2008 = WAGNER, B. – LOTTER, A. – NOWACZYK, N. – REED, J. – SCHWALB, A. – SULPIZIO, R. – VALSECCHI, V. – WESSELS, M. – ZANCHETTA, G.: A 40,000-year record of environmental change from ancient Lake Ohrid (Albania and Macedonia). *Journal of Paleolimnology* 41, 407–430.
- WAGNER *et al.* 2016 = WAGNER, B. – FRANCKE, A. – SULPIZIO, R. – ZANCHETTA, G. – LINDHORST, K. – KRASTEL, S. – VOGEL, H. – DAUT, G. – GRAZHDANI, A. – LUSHAJ, B. – TRAJANOVSKI, S.: Possible earthquake trigger for 6<sup>th</sup> century mass wasting deposit at Lake Ohrid (Macedonia/Albania). *Climate of the Past* 8, 2069–2078.
- WAGNER *et al.* 2017 = WAGNER, B. – WILKE, T. – ALBRECHT, CHR. – BAUMGARTEN, H.: The environmental and evolutionary history of Lake Ohrid (FYROM/Albania): interim results from the SCOPSCO deep drilling project. *Biogeosciences* 14/8, 2033–2054.
- WEISSOVÁ, B. 2013: Preliminary Report of the Verification of Burial Mounds in the Regions of Stara Zagora, Yambol and Pazardzhik. In: L. Bombardieri – A. D’Agostino – G. Guarducci – V. Orsi – S. Valentini (eds.): *SOMA 2012. Identity and Connectivity*. Proceedings of the 16<sup>th</sup> Symposium on Mediterranean Archaeology, Florence, Italy, 1–3 March 2012. British Archaeological Reports, International Series 2581/2. Oxford, 1047–1052.
- WEISSOVÁ, B. 2016: Quantification of Burial Mounds in Yambol District, Ancient Thrace, *Ancient West and East* 15, 115–129.

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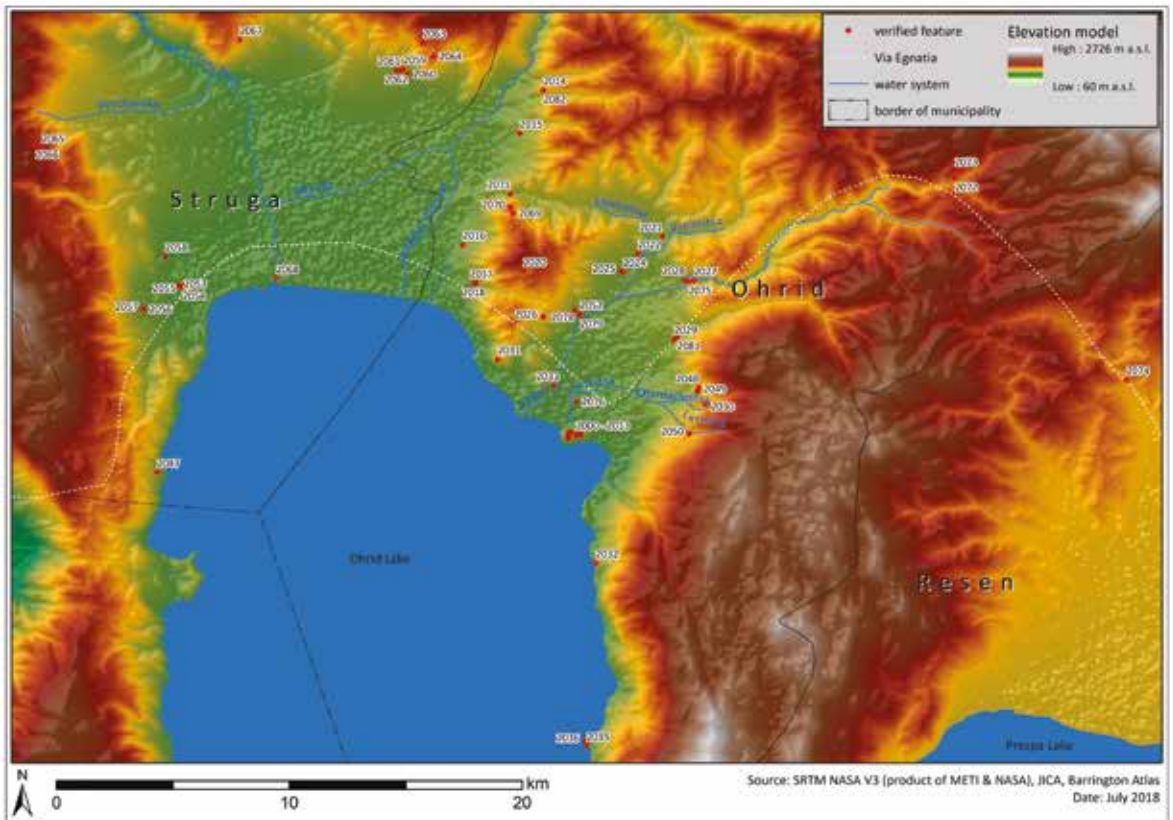
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**Pl. 1/1: Emporion Pistiros sherds representing the color scale, from left to right - Grey, Red Brown, and Yellow Brown.**

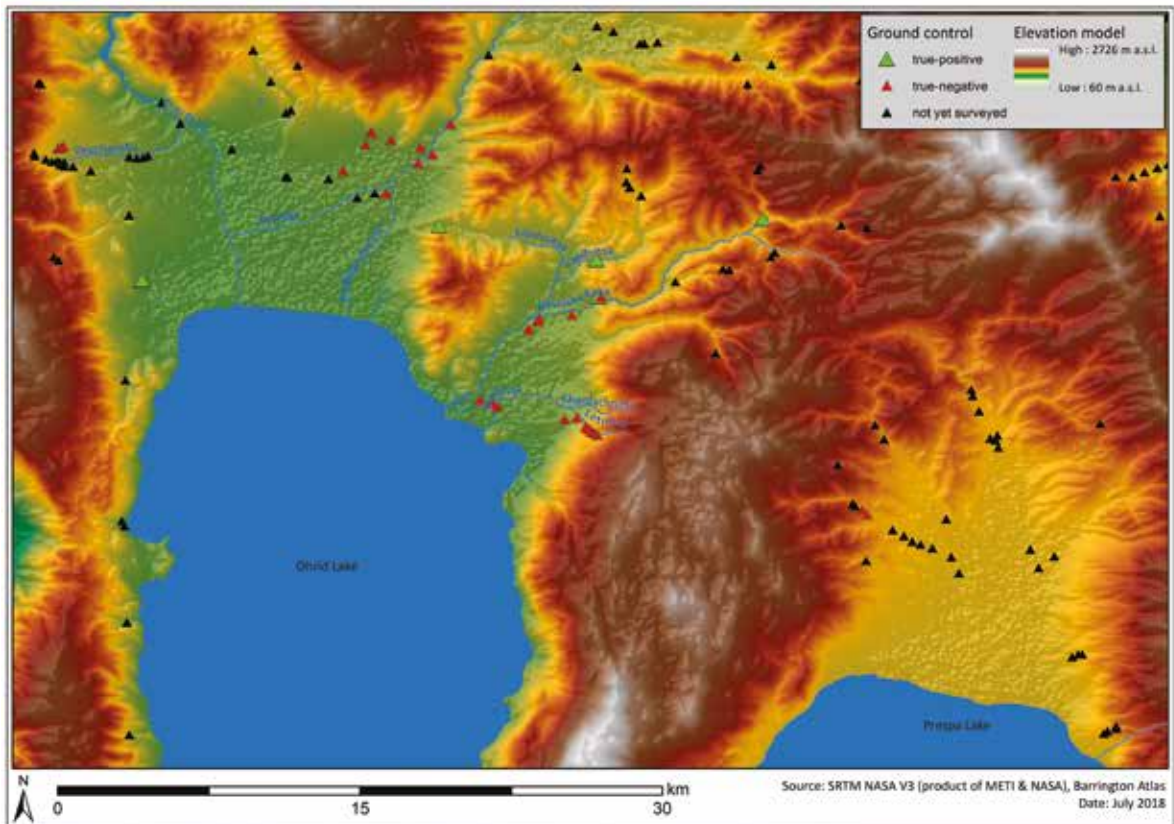


**Pl. 2/1: Features verified during the first-year field work, combined with the route of Via Egnatia and the original river bed of the Sateska River (map by B. Weissová, Via Egnatia according to the Barrington Atlas).**





Pl. 2/2: The church of Sv. Nedelja with the column shaft on the left side of the door and the capital on the right side. The Roman period inscription is incorporated in the wall above candle stands. Dolno Lakocherej, OH\_ID\_2052 (photo by P. Tušlová).



Pl. 2/3: Surveyed mounds in the Ohrid and Struga plains, combined with the route of *Via Egnatia* and the original river bed of the Sateska River (map by B. Weissová, *Via Egnatia* according to the Barrington Atlas).