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Report Zakynthos Archaeology Project 2015

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Introduction

The 2015 campaign in the Zakynthos Archaeology Project was unusual in the sense that it deviated from the research plan as originally intended: from 2006-2012 the survey teams have carried out archaeological and geological research in three areas near Limni Keriou (Area A), Machairado (area B) and Vasilikos (area C). In the summer of 2015, research was done in the area of Skoulikado-Kallimarchou, more to the north (Figure 1).



Figure 1. The research areas of the Zakynthos Archaeology Project 15 on the topographical map, The area of research in 2016 lies north of the other research areas.

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The immediate occasion for the 2015 campaign was the submission of several Mycenaean pottery finds (Figure 2) to the Ephorate of Antiquities on the island by one of the landowners in the area. The owner, mr. S. Desyllas, has stated that he found these fragments during excavation works for drainage channels on his land. He also testified of a wall at ca 1.50 meters of depth that was associated with the pottery. It seemed a good idea to investigate the area in more detail and to assess whether this would be a site suitable for excavation in the future. Also, the research at Skoulikado would enable us to put the results from the three other research areas in a wider landscape perspective.

The fieldwork at Skoulikado Kalimachos was carried out in three weeks from Monday 15 June to Friday 3 July. The goals of the project were:

1. To contextualize the finds made by the land-owner by having a good idea of the surface finds in the area surrounding the indicated fields;
2. To test whether any substructures are still *in situ* in the fields from which Mycenaean pottery was reported;
3. To understand better the geo-morphology of the area and in particular the vicinity of the coast through time.

Several types of research were incorporated in the campaign: archaeological surface survey using the same methods as in the other three research areas (1); geophysical research (electro-magnetometry and electrical resistivity tomography) in the fields indicated by the landowner (2); geomorphologic research into the genesis of the current landscape (3) and, of course, the continuation of the study of finds both from the 2015 and past campaigns (4). A total of twenty people participated in the campaign.*



Figure 2: Mycenaean finds reported to have been found in the research area of Skoulikado-Kalimachou

The research area

The research area of 2015 is situated about 1.2 km. north of the town of Skoulikado, and ca. 3.8 km south of the coastal resort of Alykes (Figure 3). The boundaries of the research area are created by three roads. The total size of the research area is 40,25 ha. The highest point

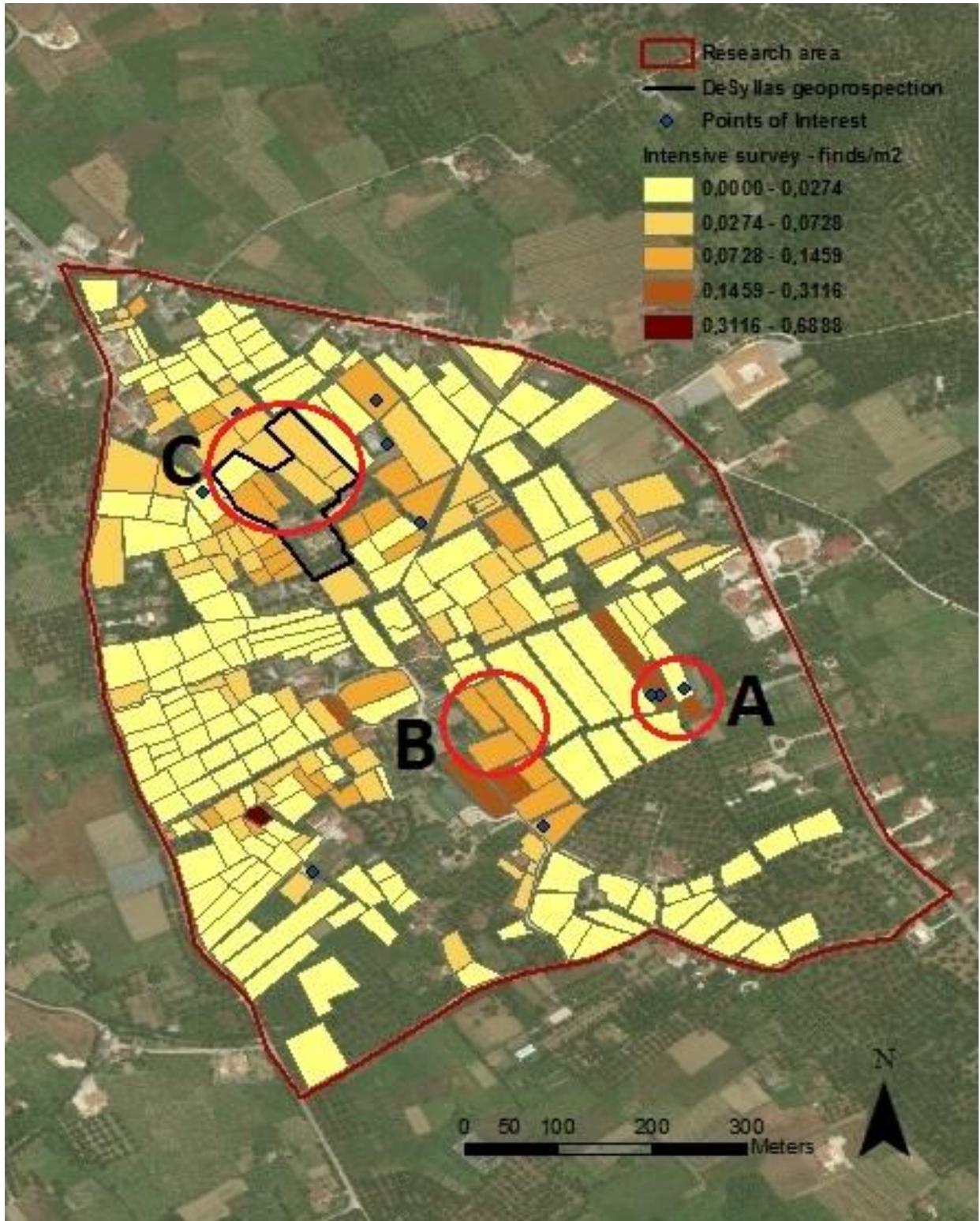


Figure 3. Density map of the surveyed tracts. The fields from which Mycenaean pottery was reported are outlined in black (near C).

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in the research area, in the southern part is ca.27.50 m. above sea level. The area slopes down gently to the north, where the plain of Alykes begins at ca. 4 m. above sea level. The area is in agricultural use, consisting mainly of olive groves and vineyards. Also, there is some horticulture. The fields where the Mycenaean finds are reported to have come from are situated in the northern part of the research area.

The area of research is referred to by the local population as Skoulikado-Kalimachou. No previous archaeological research has been undertaken in this area. However, in 1904, Duke Ludwig Salvator from Austria has reported on some archaeological finds near the house of Skoulikado Kallimarchou: at a spot referred to as Mavroyeniá, a stele with an unclear Greek inscription has been found in 1816. Moreover, locals told Salvator about a column drum hidden in the vines and an oxidized metal statue, which was found next to the stele. The current whereabouts of the stele is not known.



Figure 4 The survey team in the vines

The intensive archaeological field survey

The archaeological field survey was conducted by one survey team consisting of 5 to 6 students, an assistant and the team supervisor, M. Spegi. The survey teams used the same methodology of fieldwalking back-and-forth as in previous years of the Zakynthos Archaeology campaign, measuring find densities by counting and collecting all visible finds in a 2 meter wide strip of every field walker. A total of 261 tracts were surveyed, covering an area of 21.54 ha. A total of 7524 surface finds have been collected, mostly pottery fragments, but there were also 487 lithic artefacts. Based on the surface density of the finds

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and the preliminary dating, three concentrations of archaeological material can be identified (Figure 3).



Figure 5: small black-gloss fragments from tract ZAP15_1212

In the area indicated by A in figure 3, a large concentration of ancient material was attested. The tracts concerned (1212, 1213, 1218 and the revisit of 1259) clearly distinguished themselves by extremely high numbers of finds: more than 300 in the southern tip of tract 1212 alone. Unfortunately, in spite of the large numbers, the finds of this concentration show a very high degree of fragmentation and wear. Most of the finds are very worn pieces of tile, but there were also many fragments of unglazed pottery that can roughly be dated from Classical to Roman times. Because there are several pieces of black-gloss pottery (Figure 5), the concentration of finds has tentatively been assigned to the Hellenistic-Early Roman period. Interestingly, this concentration is situated in fields immediately north of a higher terrace (tract 1613), which, according to local inhabitants, is the area of Mavroyeniá, the spot of origin of the stele discussed by Ludwig Salvator in 1904.

Three tracts in the area marked by B in figure 3 (1232, 1233 and 1234) yielded relatively many lithic artefacts (Figure 6). In addition, these fields and the adjoining tracts 1235 and 1239 yielded relatively high numbers of prehistoric pottery. Unfortunately, the prehistoric pottery is very fragmented and cannot be dated securely. It consists of fragments of soft baked coarse ware with a grey core and a pink to dark-reddish surface that we usually date in the Neolithic or Early-Middle Bronze Age. The combination of these fragments with the lithic artefacts suggests the presence of a prehistoric site in the area.



Figure 6: lithic artefacts from tract ZAP15_1234

Of special interest, of course was the property of Mr DeSyllas and the fields immediately adjacent to it. In these fields slightly higher densities of ancient finds were indeed attested. Unfortunately, the preliminary dating of the finds from this period does not show a coherent picture. In one field (tract 1115) a concentration of lithic artefacts and debris was attested. A few Mycenaean finds were found in a field (tract 1111) adjacent to that where the owner had reported to have seen a wall during excavation works. Most of the ancient finds in these fields, however, can be classified only very generally as Prehistoric-Roman. On the basis of the surface finds alone, there is no conclusive evidence for an archaeological site in this area.

Survey experiments

In addition to the systematic intensive survey to identify concentrations of archaeological materials, several experiments were conducted to evaluate the survey methods that were used during the Zakynthos Archaeology Project. For example, an extensive, high speed survey was conducted in part of the research area with field walkers lined up in the same manner as in the regular survey, but where finds were not collected or studied, but counted only. The idea behind it was to see whether concentrations of finds could also be detected by faster methods. A total of 86 tracts were surveyed this way, covering a total of 7,52 hectare. The results of these experiments are not yet conclusive and the exact consequences and possibilities to speed up intensive survey methods are now being researched.



Figure 7. Field walkers practicing different types of field walking in tract 1535 (photograph Domna Isaakidou)

The most important survey experiment addressed the issue of survey reliability. In two tracts (1535 and 1238) different scales of survey were used: field walkers walked up straight, or on their knees to look for finds. Moreover checks were made to which extent the line of vision was important: finds at different distances from the centre line of field walking were marked to assess the degree to which the 2 meter strip of each field walker is indeed addressed fully (Figure 7). Finally, an experiment was conducted concerning the classification of finds, which was done in the field by survey team members, at our base by archaeologists while the finds were not yet washed and by a person experienced in pottery determination at Zakynthos after washing. These experiments are now being studied and will help to assess the reliability of this year's campaign and field survey in general.

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Figure 8: The EM profiler operated by a member of the Patras University team.

Geophysical prospection in the fields from which Mycenaean finds were reported

In the fields from which Mycenaean finds had been reported, geophysical prospection was carried out by a team from Patras University.* The landowner has testified of the presence of a wall at ca. 1.5 m. depth, of which, unfortunately, he had taken out the stones. The aim of the geophysical research was to assess whether archaeological structures were present below the surface and, if so, their extent and lay-out. Two different methods were used: an electromagnetic survey was conducted by EM profiler and an Electrical Resistivity (ERT) survey was carried out (Figure 8). The field work took place in four days from Monday 29 June to Thursday 2 July 2015.

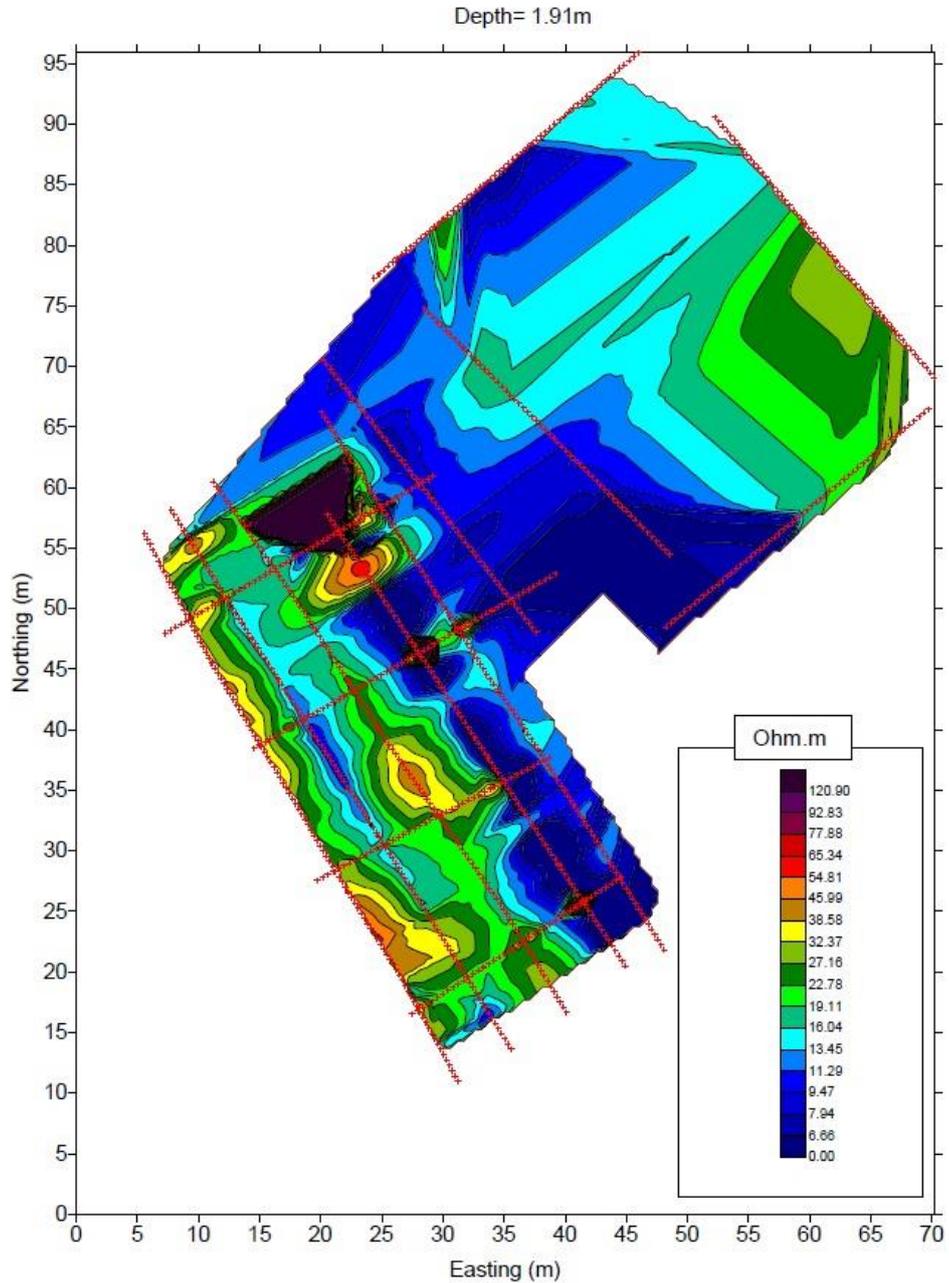


Figure 8. Imagery from Electrical resistivity at a depth of 1.91 meters

After carrying out twelve different surveys in two separate fields by EM profiler, there could not be identified any subsurface structures that could be attributed to human building. In the field of the reported Mycenaean finds, were recorded strong spatially elongated conductivity signals due to a metal water pipe. The ERT survey also did not show any anomalies that could be contributed to architectural structures or other human activity. Three layers were investigated up to a depth of 5 meters (Figure 9). Overall, the variations in resistivity values were very small and could not be attributed to human activities in the past



Figure 10. Florens van Puijenbroek and Eelco Alink about to start a coring in the Alykes lagoon.

Geomorphologic reconstruction

The aims of the geomorphologic survey were to reconstruct the morphogenesis of the research area and its immediate surroundings and, in particular, to determine the palaeocoastline. For this research, 37 cores were conducted by hand using an Edelman core of 7 centimetre diameter to a maximum depth of 5.9 meters. These cores were set in a straight line from the current coastline towards the research area and in a line perpendicular to it (Figure 11). The location of the perpendicular line was determined on the basis of changes in altitude. Soil samples were taken at intervals of 20 centimetres and 86 of these samples were analysed at the VU Amsterdam Sediment laboratory. Both Grain Size analysis and ThermoGraviometric Analysis were carried out on the samples. The geomorphologic campaign was carried out by a team from VU University at Amsterdam.*



Figure 11. Location of the 37 cores for the geomorphologic research

On the basis of the clay and silt content, the soil colours and the inclusions in the soils a profile was created of layers with several characteristics (Figure 11). Layers H and I in figure 12 represent terrestrial layers, while all other layers are marine in nature. The material properties resulting from the lab work showed that there were few differences between the different soil layers, but that there was a large variation within the soil layers themselves. However, there were clear differences between the soil formation close to the current coast line and inland.

Unfortunately, none of the soil samples contained enough organic remains for radiocarbon dating. Some samples contained archaeological artefacts, which, however, could be assigned a very general date only. Since these finds may also have been transported vertically after deposition, the dating of the various profiles is, as yet, not very secure. Further study and correlation with previous research in the area should provide a better idea about the development of the coastline near the research area.

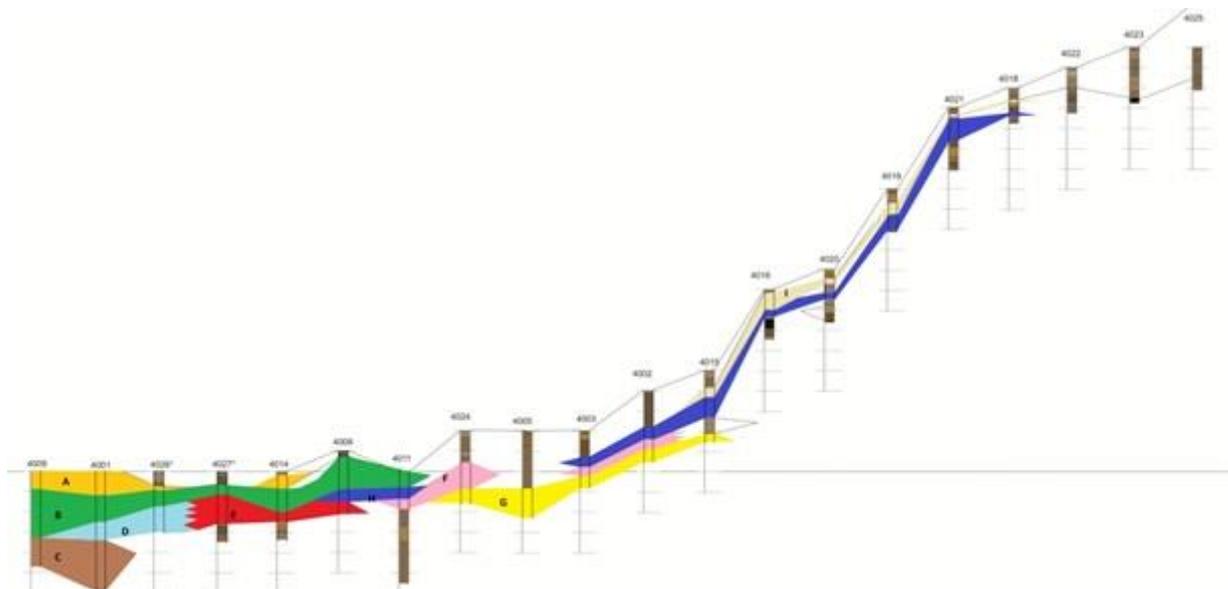


Figure 12. Soil profile from the coast (left) to the research area inland (right).

Material Studies

In addition to the fieldwork in the summer, material studies of the finds from previous campaigns continued. N. Pieters finished the microscopic description of the thin sections of pottery from the campaigns of 2015-2012. Moreover, she was able to compare the fabric descriptions of the pottery from the Zakynthos Archaeology Project with that of pottery from chance finds elsewhere on the island, such as at Kambi, Maries and Lithakia. Ms Pieters' PhD research is expected to be finished in 2016. V. Stissi visited the project during the summer to continue the research on the Archaic-Hellenistic finds of the project.

Assessment and summary

The specific aims of the 2015 project were to contextualize and assess the archaeological finds that were reported to be found in the research area. On a more general level, the campaign was held to place the project as a whole in a wider landscape perspective. Preliminary conclusions of the 2015 campaign are:

- There is insufficient evidence for the presence of an archaeological site in the fields from which the Mycenaean pottery was reported.
- The wall that was said to have been seen during excavation works has not been attested by Geophysical research.
- Two concentrations of archaeological finds indicate the existence of archaeological remains in the area. One site, possibly representing a farmstead, dates to the Hellenistic-Roman period. A concentration of prehistoric finds should be dated in the period of the Neolithic-Early Bronze Age.
- In antiquity, the coast line of Alykes Bay was much closer to the research area, but the exact chronology is unclear.

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* The Zakynthos Archaeology Project 2015 is directed by C. Merkouri from the Ephorate of Antiquities at Zakynthos (EAZ) and G. van Wijngaarden from the University of Amsterdam (UvA). Domna Isaakidou and Andromachi Katopodi of the Hellenic Ministry of Culture participated in the survey, as did Katerina Koutliani (EAZ). Survey team leader was Myrsini Spegi (UvA). Participating students were: Eelco Alink, Samira Benneker, Marieke den Boer, Vita Gerritsen, Catalina Labra Odde, Luna Scipione, Nina Willemszorg (all UvA). Maria Spinou, a student of the Kapodistrian University at Athens participated in the survey for one week. The find processing at the storerooms was coordinated and supervised by Anne Versloot (UvA). The experiments in survey methodology were designed and supervised by Jitte Waagen (UvA), who was also responsible for the GIS. Max Caspers assisted in the GIS works and made valuable maps. The geomorphologic research was done by Florens van Puijenbroek from VU University at Amsterdam (VU) in the framework of a research assignment in his study of Earth Sciences. He was supervised by Dr. Sjoerd Kluiving (VU). The Geophysical research was carried out by a team from Patras University (PU), headed by Pavlos Avramidis and Efthimios Sokos. Paraskevas Paraskevopoulos and Nikolaos Avrantinis also participated in the research. The directors of ZAP15 are grateful to all participants for their expertise, energy and companionship.

The research at Zakynthos is carried out under the authority of the Netherlands Institute at Athens and we thank the staff of the NIA and, in particular, the director Dr Winfred van de Put. The 2015 campaign would not have been possible without the valuable financial support of the University of Amsterdam, and the Institute for Aegean Prehistory (INSTAP). We also thank our landlord Dimitris Therianos of the Therianos Villas who helped us in many ways. Likewise, we thank wholeheartedly the family DeSyllas, who allowed us to carry out archaeological research on their property and the kind people of the Skoulikado area, who received the survey teams with much hospitality.