

LANDSCAPE ARCHAEOLOGICAL RESEARCH IN *AKARNANIA*. PRELIMINARY RESULTS OF THE GREEK-GERMAN COLLABORATION

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Introduction and Statement of Goals

Since 1990 there has been a close collaboration between the Greek Ephorate Aitolioakarnanias and diverse German research institutions investigating Akarnania (Fig. 1)¹. The earliest cooperation began with the excavation of the ancient city of Stratos, which started in 1990². The area around Stratos, called Stratiké (Fig. 2-3), and the Plaghia peninsula were investigated within the framework of an intensive, multi-period survey (Fig. 1, 4-5). One of the main goals of these projects is to gain further knowledge about our historical understanding of this region. The archaeological and historical research was augmented by geoarchaeological and scientific research.

Topography

The two survey projects aim to answer the question of the impact which the natural environment had on the anthropogenic development of the rural area. The Stratiké and the Plaghia peninsula are diverse in their topographic configuration³. The Stratiké lies in the internal region, far from the coast, with Stratos as the easternmost settlement in Akarnania. It lies on the shore of the river Acheloos, which forms the border with Aetolia. The landscape is rather even with a large imposing agricultural area and rolling hills; in the west lies the lake Ozeros. Towards the north the region narrows towards

1. I would particularly like to thank the directors of the Department for Antiquities (Ephorate) – L. Kolonas, M. Petropoulos, M. Gatzi-Stavropoulou, O. Vikatou und F. Kefallonitou (†) – and the communities of Stratos and Palairos for their very generous and constant help.

2. These excavations were directed by L. Kolonas, the Ephoros for Aitolioakarnania at the time.

3. A selection of articles on Akarnania: Oberhummer 1887. Noack 1916. Murray 1988. Schoch 1997. Strauch 1996. Wacker 1998. Lang et al. 2007. Kaponis 2013. Kolonas 2013. Lang et al. 2013.

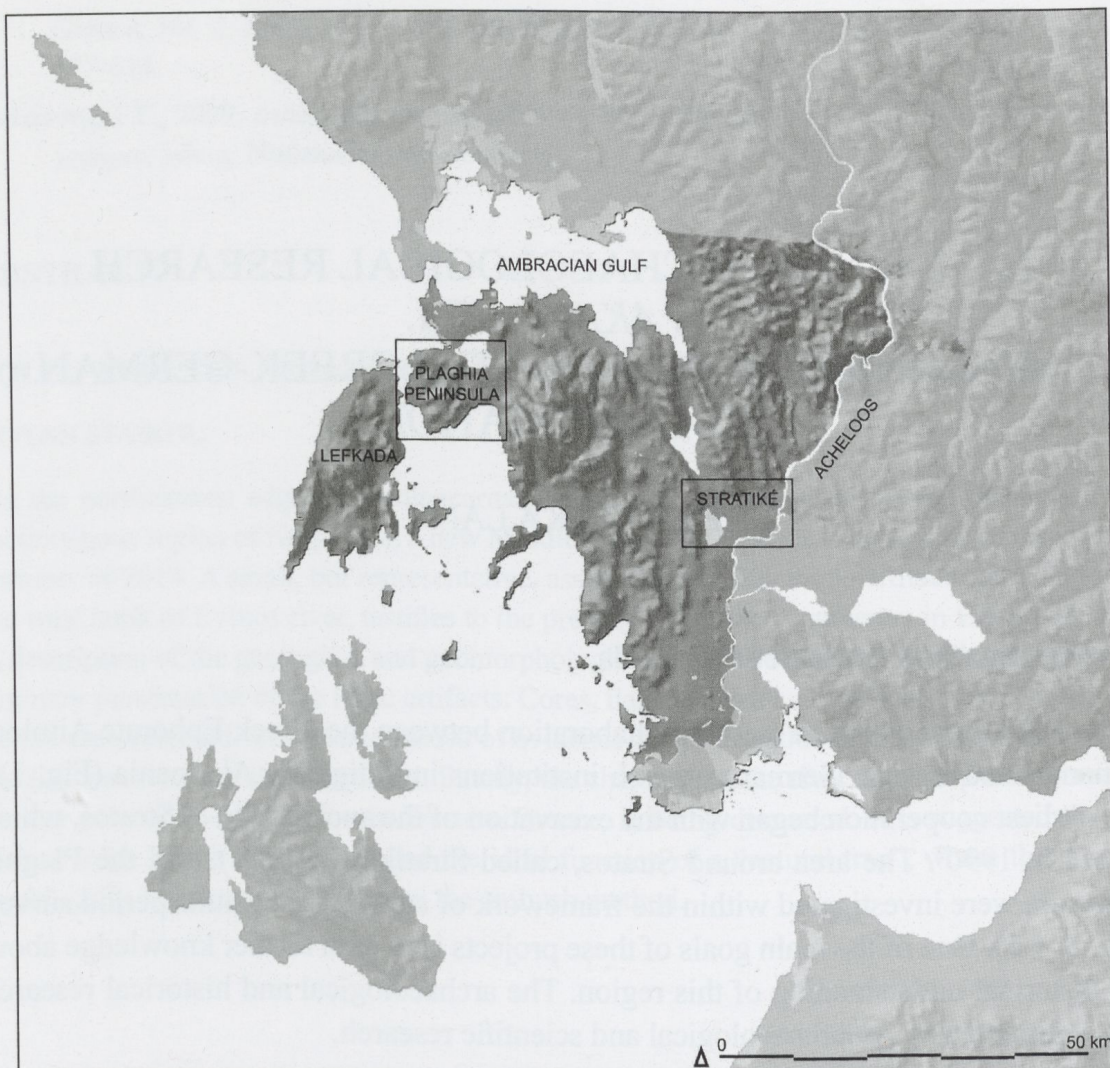


Fig. 1. Akarnania. Survey areas (author; C. Herbrik).

the village of Lepenou and leads to a valley (Fig. 2). The Plaghia peninsula, on the other hand, is marked by its rough terrain. High mountains are crossed by valleys, both narrow and wide (Fig. 4). This landscape enabled the development of small and larger settlement areas, separated into naturally defined zones. Flatlands, cliffs and plateaus follow one another. The coast of the peninsula is dotted with coves. At the same time there were only a few places which were suited as a harbor. The Sound of Leukas, which separates the island of Leukas from the Plaghia peninsula, was already a known and important sea route.

A Selection of Initial Results from the Classical-Hellenistic and Post-Antiquity Phases

The following will present first trends in the development of the region, focused on the Classical-Hellenistic and Byzantine-Ottoman phases. The oldest anthropogenic remains on the Plaghia peninsula date to the epipaleolithic. From the Neolithic on all chronologi-

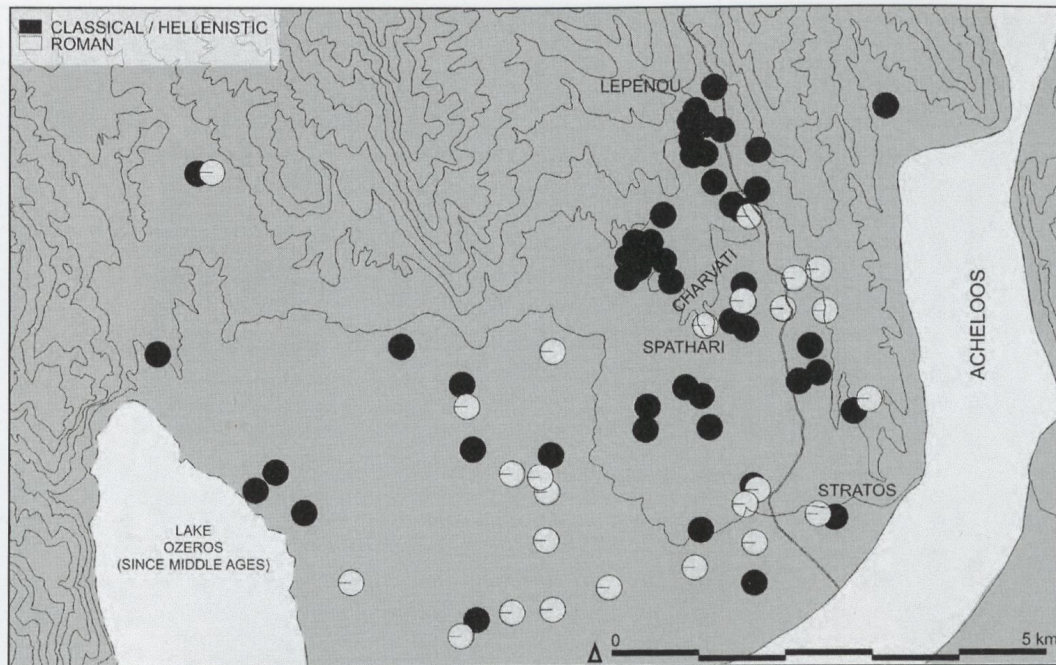


Fig. 2. Stratiké. Ancient sites (author, C. Herbrük).

cal periods can be found in both regions. In the 100 sq. km. survey area of Stratiké (Fig. 2) lies the city of Stratos with an extension of 80 hectares in the Classical-Hellenistic period (Lang 2001, Lang 1994). Several well-known elements of a Greek city – city wall, agora, theater and temple of Zeus – are present (Lang 2013, 141-149). The structure of the city, at least in the west, reveals a regular orthogonal system of house agglomerations which can be seen on the surface. Stratos is not only the largest but also the best preserved ancient city in Stratiké. Due to the high density of surface finds further settlements can probably be found around the lake Ozeros and the modern village of Lepenou.

The situation on the Plaghia peninsula is diverse in various aspects (Fig. 4). The eastern and western borders of the peninsula were each marked by an ancient walled city: Palairos in the East (Lang et al. 2007, 138ff. Lang 2013) and Ag. Georghios in the West. While in Ag. Georghios only the city wall and a few walls of the city can be identified, due in part to the presence of a later Venetian fort (Dörpfeld 1927, 133-134, 269ff. Lang 2008, 231-232), the structure of Palairos, with its city wall, Agora, dwellings and baths, can be clearly identified. Palairos lies high on a mountain in a remote area, far from major transportation routes. Ag. Georghios, on the other hand, is visible directly on the sea route across from the island of Leukas. Between the two primary cities of Palairos and Ag. Georghios there were further settlements. The find distribution and quantity indicates that a larger settlement might be found in the area of the modern village of Pogonia. The finds from other areas indicate the presence of smaller villages or farmhouses.

As was already the case in the older periods, in the Byzantine-Ottoman period the eastern half of Stratiké was more heavily settled than the western (Fig. 3). On the Char-

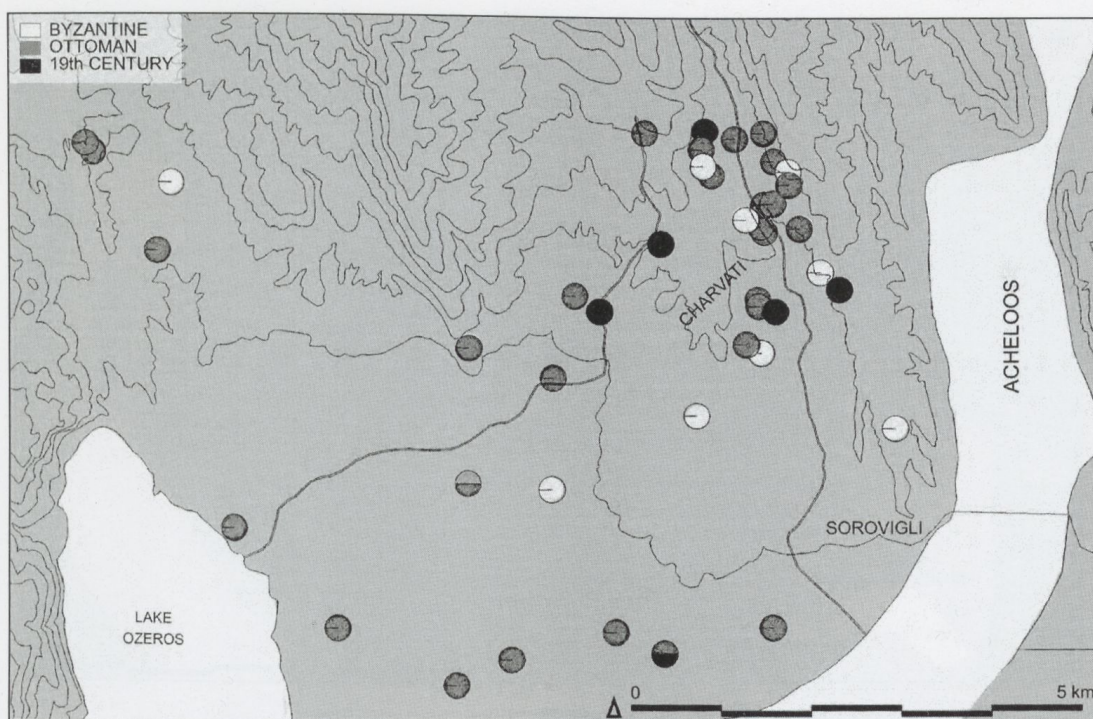


Fig. 3. Stratiké. Mediaeval sites (author, C. Herbrik).

vati hill there was a settlement with several dwellings and a church. A further settlement with similar house types existed on the ancient Acropolis of Stratos and to the north. Ancient Stratos was renamed in the mediaeval period to Gerovigli and Sorovigli (Schwandner 1994). In the 19th century Stratos was only lightly settled, and on the ancient Agora there were temporary shepherd huts⁴.

The remains on the Plaghia peninsula increase significantly in the post-antique periods (Fig. 5). A total of 6 settlements with dwellings were found on the Plaghia peninsula. Palaiochori, west of Pogonia has been known for quite some time (Lang et al. 2007, 150). Similar house types were found in other settlements on the plain: Kechropoula at the foot of the ancient Palairos, Ag. Elias on the southern slope of Prophitis Elias; on the western side of the peninsula lay Ag. Athanassios on the Tambouraki mountain, and a further settlement which lay southwest of Peratia. On the hill of Palati, south of the village of Ag. Nikolaos, the remains of a farmhouse were found. Several churches were found on the peninsula, and due to their architecture can be differentiated into parish churches in settlements and rural churches outside of settlements (Türk 2005).

Military construction: Military constructions are a particular form of architecture. The 7 km. long city wall of Stratos and an observation tower north of the lake Ozeros are the only evidence of this architectural type in Stratiké. The defensive structures of Stratiké

4. Heuzey 1860, 333 note the city plan.

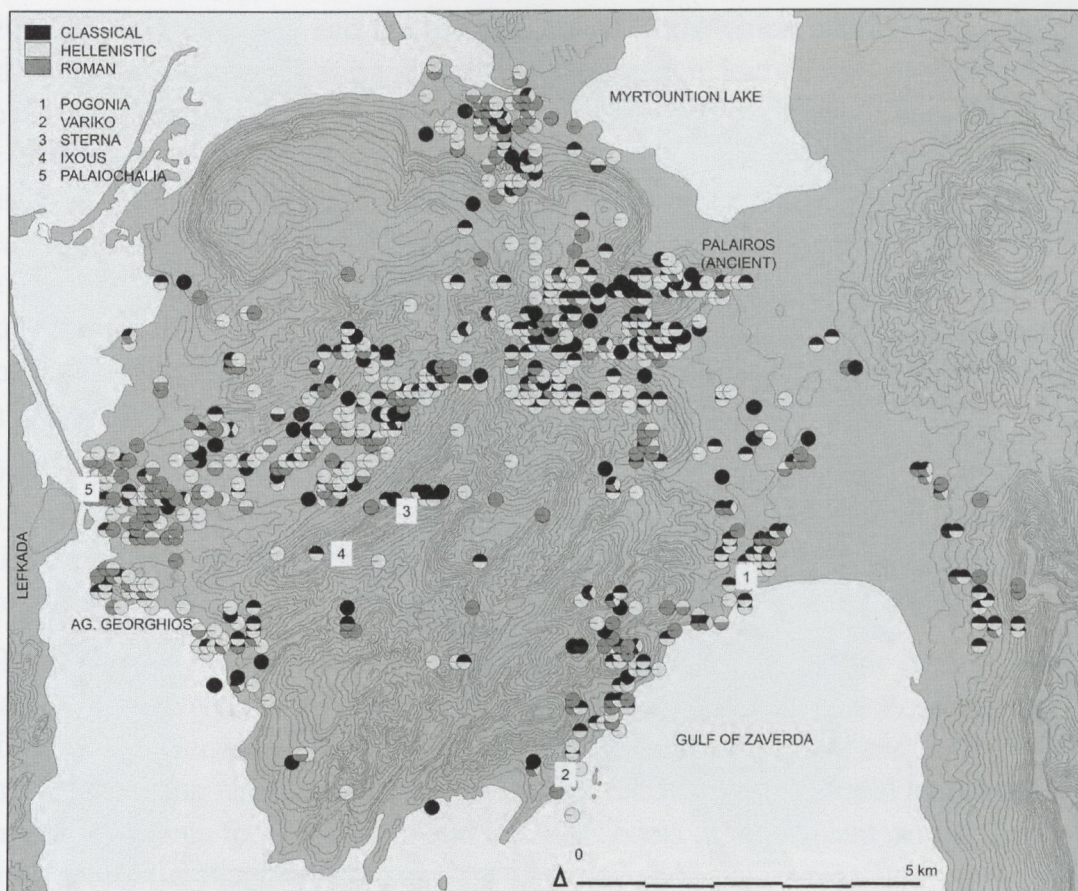


Fig. 4. *Plaghia peninsula. Ancient sites (author, C. Herbrük).*

might have been linked in a regional military system together with the ancient towers at Agrinion and Kastraki.

The number of defensive structures on the Plaghia peninsula is particularly high (Lang et al. 2007, 160-165. Ley 2009). The architectural footprint varies from simple towers, through larger buildings to the exceptional construction at Sterna (Schwandner 2008). Sterna was much more than just a fort – it crowned the highest part of the peninsula and included a particularly complex defensive wall, cult places and unique finds (Lang 2016).

In the Post-Antiquity period the Acropolis of Stratos was enclosed by a Byzantine wall, and the west coast of the Plaghia peninsula was defended by several defensive structures (Ag. Georghios, Palaiochalia, Ag. Mavra, Tambouraki und Teki-Schloss) (Lang 2008, 231-232).

Extra-urban Cultic Locations: The remains of two extra-urban cultic buildings were discovered during the Stratiké survey. In the district Spathari (Fig. 2) an archaic temple was rebuilt in the Hellenistic period and covered with a new roof (Schwandner 1996. Schwandner 2000, 13-16). A further cultic location was discovered due to the large number of terracotta figurines found in a location on the plain between Spathari and

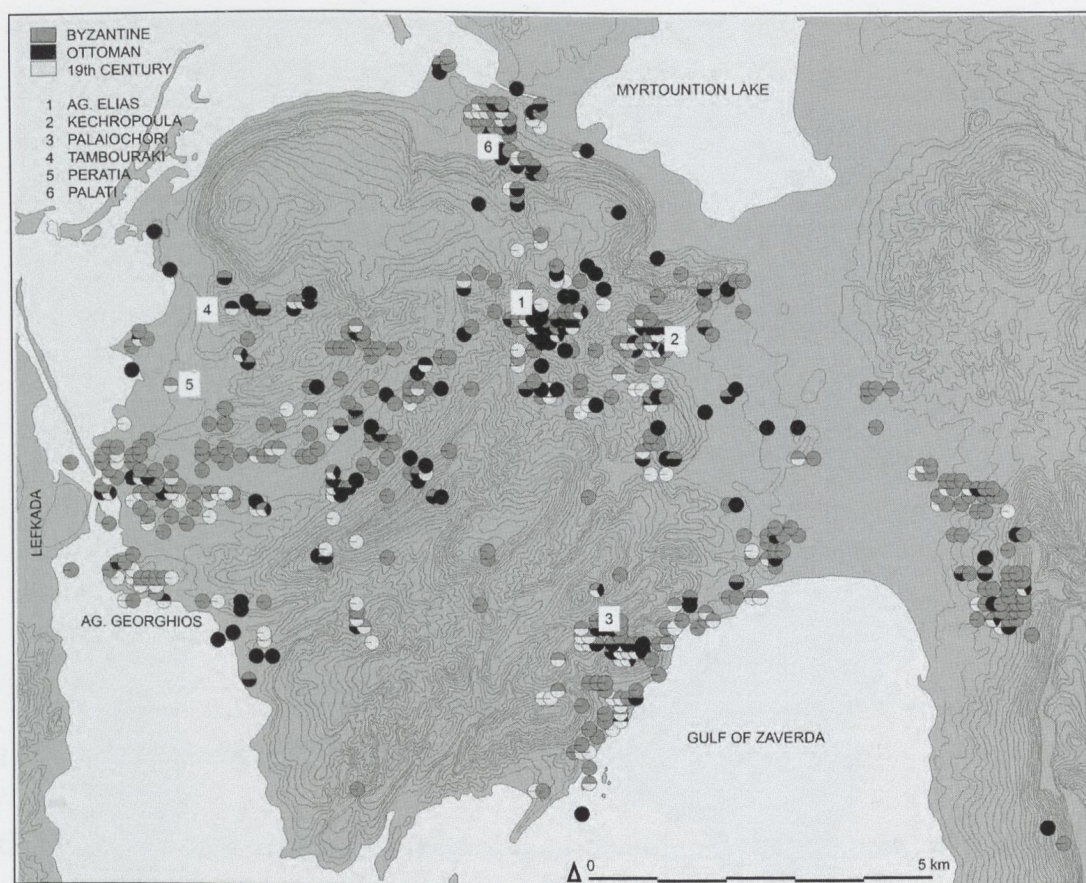


Fig. 5. *Plaghia peninsula. Mediaeval sites (author, C. Herbrik).*

temple of Zeus⁵. The meaning of these three cultic structures and their relationship is still being investigated; the cultic structure near Palaioikastro excavated by L. Kolonas may need to be added to this list as well (Kolonas 1991).

Above the ancient city of Palairos (the so-called Temple Plateau) a temple and a monumental altar (Faisst, Kolonas 1990), clear evidence of a cultic use of this plateau, while for the same chronological period no temples have been found inside the city of Palairos. Indirect evidences for further cultic constructions in various areas on the Plaghia peninsula give us a rich collection of terracotta figurines, for example on the northern side of the Ixous river.

Graves: Inhumations were common in both regions in the Classical-Hellenistic as well as the Byzantine-Ottoman periods. The ancient burials were cist-graves lined with orthogonal limestone blocks. The ancient necropoleis of Palairos and Stratos lay to the north, west and south of the cities; these necropoleis were already being heavily plundered in the late 19th century.

5. Probably intended is the find spot mentioned in *BCH*, 83, 1959, 663.

Production: Farmhouses and the archaeological finds which include fragments of oil and wine presses as well as hand mills give indirect evidence for wine, oil and wheat production (Lang et al. 2007, 144 fig. 38). Along with evidence of agrarian economy are resources for tradecrafts and local production. Next to locally produced ceramics, which are visible through mis-fired pieces and the tools for ceramic production, in the area of Stratos there is a lot of evidence for quarrying⁶. About 3 km. west of Stratos at the Charvati hill a quarry was discovered; here there were raw materials for capitals and columns for the temple of Zeus in Stratos (Schwandner 2000, 17). On the Plaghia peninsula near Palaiochalia and Variko other quarries were found. Their vicinity to the sea would have given a lot of possibilities for transport.

Infrastructure: The remains of a fountain house show the infrastructural importance of the small river Rhyakos west of Stratos. Its date of origin in 1742 is clearly testified by an inscription (Schwandner 2000, 17-18). Stratos was, despite its position in the hinterland, well connected to the sea over the Acheloos river.

Evidence for the infrastructure on the Plaghia peninsula include moles, which are meant as breakwaters to protect ships against the open sea, as near Pogonia. The mole in front of Ag. Georghios closed the Sound of Leukas to the south and at the same time controlled passing ships. Sheltered coves with sandy beaches would have offered further landing points for the smaller and keel-less boats of the ancient period. In terms of infrastructure the Plaghia peninsula is well connected to other regions.

Epigraphical, Geoarchaeological, Palynological and Paleozoological Studies: The work in Akarnania included epigraphic studies. The inscriptions in the local museums of Agrinion and Thyreion were re-documented, edited and were organized into separate Corpora (Antonetti, Funke, in press).

The palynological and paleozoological studies gave more than basic information into the vegetation and agricultural history in Akarnania (Jahns 2005. Prust 2013). For the Stratiké one could identify further hydromorphological changes in the Mediaeval period (Fig. 2-3). The results show that the modern lake Ozeros to the west of Stratiké appeared only in the 11th century BC (Jahns 2013). This new freshwater sea would have expanded the Mediaeval food sources with fish.

The geoarchaeological studies on the Plaghia peninsula gave evidence not only as to the changes to Palaeo-environment in particular the seacoast, but also the coasts of the peninsula show that the coasts suffered a series of high-energy events, most likely caused by earthquakes (Brockmüller et al. 2013. Floth et al. 2013. Vött et al. 2008. Vött et al. 2011). The studies looking into the effects of flooding in the archaeological record are still in their infancy.

6. See the city plan in Courby, Picard 1924.

Conclusions

Changes in the settlement layout in both regions show a similar development in the diverse periods. In the Classical-Hellenistic period a differentiated settlement hierarchy can be seen. The center of the Stratiké is Stratos, which served at times as the capital city of the Akarnania league. In the rest of this region people settled in small villages and farmhouses. On the Plaghia peninsula one settlement dominated in the east (Palairos) and one in the west (Ag. Georghios), between these two places smaller settlements and farmhouses were distributed. Due to the topography of the peninsula a series of smaller settlement clusters could be found, Choironisi (south-west) or Ag. Nikolaos (north) for example.

The situation in the post-antiquity period is different for both Stratiké and the Plaghia peninsula. Larger, dominating settlements are absent, and the settlement hierarchy is flat with relatively equal sized settlements. In addition to the settlements there were farmhouses.

In general the settlement areas which have a denser settlement structure and a higher number of finds remain unchanged over the various periods. In particular the area between Stratos and Lepenou in Stratiké and the west coast as well as the area of Palairos of the Plaghia peninsula were the core areas for the two regions.

BIBLIOGRAPHY

- Antonetti, C., Funke, P. (eds.) 2017-2018. *Collezioni epigrafiche della Grecia occidentale, Epigraphische Sammlungen von Westgriechenland, Faszikel (Akarnanien-Forschungen 2)*, Bonn.
- Brockmüller, S., Vött, A., Brückner, H., 2013. Geoarchive, archäologische Befunde und historische Quellen, Mosaiksteine zur Rekonstruktion der holozänen Küstenentwicklung am Sund von Leukas, in F. Lang et al. (eds.), *Interdisziplinäre Forschungen in Akarnanien (Akarnanien-Forschungen 1)*, Bonn, 15-30.
- Courby, F., Picard, Ch., 1924. *Recherches archéologiques à Stratos d'Acarnanie*, Paris.
- Dörpfeld, W., 1927. *Alt-Ithaka*, München-Gräfelfing: Uhde.
- Faisst, G., Kolonas, L., 1990. Ein monumentaler Stufenaltar bei Palairos in Akarnanien, *AA*, 379-395.
- Floth, U. et al., 2013. Extreme Wave Events in the Coastal Zone of Lefkada and Akarnania and their Possible Influence on Civil Structure, in F. Lang et al. (eds.), *Interdisziplinäre Forschungen in Akarnanien (Akarnanien-Forschungen 1)*, Bonn, 31-40.
- Heuzey, L.A., 1860. *Le mont Olympe et l'Acarnanie. Exploration des ces deux régions, avec l'étude de leurs antiquités, de leurs populations anciennes et modernes, de leur géographie et de leur histoire*, Paris.
- Jahns, S., 2005. The Holocene History of Vegetation and Settlement of the Coastal Site of Lake Voulkaria in Akarnania, *Vegetation History and Archaeobotany*, 14(1), 55.

- Jahns, S., 2013. Palynologische Untersuchungen an Sedimenten des Ozeros-Sees, in F. Lang et al. (eds.), *Interdisziplinäre Forschungen in Akarnanien (Akarnanien-Forschungen 1)*, Bonn, 81-86.
- Kaponis, N.C., 2013. Acarnania. A Byzantine Landscape and its Study, in F. Lang et al. (eds.), *Interdisziplinäre Forschungen in Akarnanien (Akarnanien-Forschungen 1)*, Bonn, 87-106.
- Kolonas, L., 1991. Αρχαϊκό αγροτικό ιερό στη Σπολαΐτα Αιτωλοακαρνανίας, in I. Moschonas (ed.), *Α' Αρχαιολογικό και Ιστορικό συνέδριο Αιτωλοακαρνανίας*, Agrinion, 162ff.
- Kolonas, L., 2013. Twenty Years of Greek-German Interdisciplinary Collaboration in Akarnania, in F. Lang et al. (eds.), *Interdisziplinäre Forschungen in Akarnanien (Akarnanien-Forschungen 1)*, Bonn, 1-6.
- Lang, F., 1994. Veränderungen des Siedlungsbildes in Akarnanien von der klassisch-hellenistischen zur römischen Zeit, *Klio*, 76, 239-254.
- Lang, F., 2001. The Dimensions of the Material Topography, in J. Isager (ed.), *Foundation and Destruction, Nikopolis and Northwestern Greece, The Archaeological Evidence for the City Destructions, the Foundation of Nikopolis and the Synoecism*, Danish Institute at Athens, Athens, 205-221.
- Lang, F. et al., 2007. Interdisziplinäre Landschaftsforschungen im westgriechischen Akarnanien, *AA* (1), 95-178.
- Lang, F., 2008. Die andere Seite - Horizontalstratigraphische Forschungen am östlichen Sund von Lefkas, in C. Papadatou-Giannopoulou (ed.), *Διεθνές συνέδριο αφιερωμένο στον Wilhelm Dörpfeld*, Patras, 227-250.
- Lang, F., 2013. Differenzanalyse städtischer Praxis in Akarnanien, in F. Lang et al. (eds.), *Interdisziplinäre Forschungen in Akarnanien (Akarnanien-Forschungen 1)*, Bonn, 137-160.
- Lang, F., 2016. Felsen und Steine. Mutmaßungen über an-ikonische Kultstätten in Akarnanien, in M. Giannopoulou, Ch. Kallini (eds.), *ήχάδιν Ι., Τιμητικός τόμος για τη Στέλλα Δρούγου*, Αθήνα, 738-758.
- Ley, J., 2009. *Stadtbefestigungen in Akarnanien, Ein bauhistorischer Beitrag zur urbanen Entwicklungsgeschichte einer antiken Landschaft* (PhD TU Berlin D83).
- Murray, W.M., 1988. *The Coastal Sites of Western Akarnania, A Topographical-Historical Survey* (Dissertation 1982), Ann Arbor: University Microfilms International.
- Noack, F., 1916. Befestigte griechische Städte in Aetolien und Akarnanien, *AA* (3/4).
- Oberhummer, E., 1887. *Akarnanien, Ambrakia, Amphilochien, Leukas im Altertum*, München.
- Prust, A., 2013. Faunal remains from Stratos, Acarnania, in F. Lang et al. (eds.), *Interdisziplinäre Forschungen in Akarnanien (Akarnanien-Forschungen 1)*, Bonn, 205-218.
- Schoch, M., 1997. *Beiträge zur Topographie Akarnaniens in klassischer und hellenistischer Zeit, (Studien zur Geschichte Nordwest-Griechenlands 2)*, Würzburg.
- Schwandner, E.L., 1994. Stratos am Acheloos, *Φηγός. Τιμητικός τόμος για τον καθηγητή Σωτήρη Δάκαρη*, Ioannina, 459ff.
- Schwandner, E.L., 1996. Spathari. Tempel ohne Säule und Gebälk? in E.-L. Schwandner (ed.), *Säule und Gebälk. Zu Struktur und Wandlungsprozess griechisch-römischer Architektur* (Diskussionen zur archäologischen Bauforschung 6), Mainz am Rhein, 48-54.

- Schwandner, E.L., 2000-2001. Akarnanien, die unbekannte Landschaft Griechenlands. Feldforschungen in Stratos und Palairos, *Nürnberger Blätter zur Archäologie*, 17, 9-22.
- Schwandner, E.L., 2008. Nerikos und die akarnanische Peraia der Leukadier, in C. Papadatou-Giannopoulou (ed.), *Διεθνές συνέδριο αφιερωμένο στον Wilhelm Dörpfeld*, Patras, 407ff.
- Strauch, D., 1996. *Römische Politik und griechische Tradition. Die Umgestaltung Nordwest-Griechenlands unter römischer Herrschaft*, München.
- Türk, H., 2005. *Kirchen auf der Plaghia-Halbinsel. Typologie und Baugeschichte* (Diplomarbeit, TU Berlin).
- Vött, A. et al., 2008. Tsunami Impacts on the Lefkada Coastal Zone during the Past Millennia and their Palaeogeographical Implications, in C. Papadatou-Giannopoulou (ed.), *Διεθνές συνέδριο αφιερωμένο στον Wilhelm Dörpfeld*, Patras, 419-438.
- Vött, A. et al., 2011. Sedimentological and Geoarchaeological Evidence of Multiple Tsunami-genic Imprint on the Bay of Palairos-Pogonia, *Quaternary International*, 242, 213-239.
- Wacker, C., 1998. *Palairos. Eine historische Landeskunde der Halbinsel Plagia in Akarnanien, (Studien zur Geschichte Nordwest-Griechenlands)*, München.

ΠΕΡΙΛΗΨΗ

ΕΡΕΥΝΕΣ ΑΡΧΑΙΟΛΟΓΙΑΣ ΤΟΠΙΟΥ ΣΤΗΝ ΑΚΑΡΝΑΝΙΑ. ΠΡΟΚΑΤΑΡΚΤΙΚΑ ΑΠΟΤΕΛΕΣΜΑΤΑ ΤΗΣ ΕΛΛΗΝΟΓΕΡΜΑΝΙΚΗΣ ΣΥΝΕΡΓΑΣΙΑΣ

FRANZISKA LANG

Από το 1990 υπάρχει μια στενή συνεργασία ανάμεσα στην Εφορεία Αρχαιοτήτων Αιτωλοακαρνανίας και διάφορα γερμανικά ερευνητικά ινστιτούτα με θέμα τη διερεύνηση της Ακαρνανίας. Μεταξύ άλλων μελετών διεξήχθησαν δύο έρευνες πεδίου: η επιφανειακή έρευνα της Στρατικής και η επιφανειακή έρευνα της χερσονήσου της Πλαγιάς. Οι δύο αυτές αρχαιολογικές έρευνες τοπίου επέκτειναν τις γνώσεις μας σχετικά με την ιστορία της Ακαρνανίας. Σε αυτό το διεπιστημονικό πρόγραμμα συμμετείχαν οι τομείς της Αρχαιολογίας, της Γεωαρχαιολογίας και της Αρχαίας Ιστορίας.

Μια πρώτη συγκριτική ανάλυση των δύο επιφανειακών ερευνών παρουσιάζει παρόμοιες δομές οικισμών σε διάφορες περιόδους. Παραδείγματος χάριν, στις περιόδους μετά την αρχαία εποχή απουσιάζουν οι μεγάλοι και κυρίαρχοι οικισμοί και στη Στρατική και στη χερσόνησο της Πλαγιάς. Αντ' αυτού, υπάρχει μια επίπεδη ιεραρχία από περίπου ισομεγέθεις οικισμούς. Στην κλασική και την ελληνιστική εποχή παρατηρούνται όμως αποκλίσεις. Ενώ στη Στρατική συμπεριλαμβάνονται με τη Στράτο, τη μοναδική μεγάλη πόλη, και μερικοί μικροί οικισμοί, στη χερσόνησο της Πλαγιάς υπάρχουν δύο μεσαίου μεγέθους πόλεις (Πάλαιρος και Άγιος Γεώργιος), οι οποίες είναι περιτριγυρισμένες από χωριά και αγροικίες. Αυτό υποδηλώνει ότι οι απαιτήσεις στη δομή των οικισμών ήταν διαφορετικές στην εκάστοτε εποχή. Για τη διαφορά στην κλασική και την ελληνιστική εποχή μπορεί να επέδρασε μεταξύ άλλων η διαφορετική τοπογραφία: η Στράτος βρίσκεται σε μια μεγάλη εύφορη πεδιάδα, ενώ η χερσόνησος της Πλαγιάς περιβάλλεται από λόφους.