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How a Greco-Roman City used its Sea- and River-shores: the example of Ainos in Thrace

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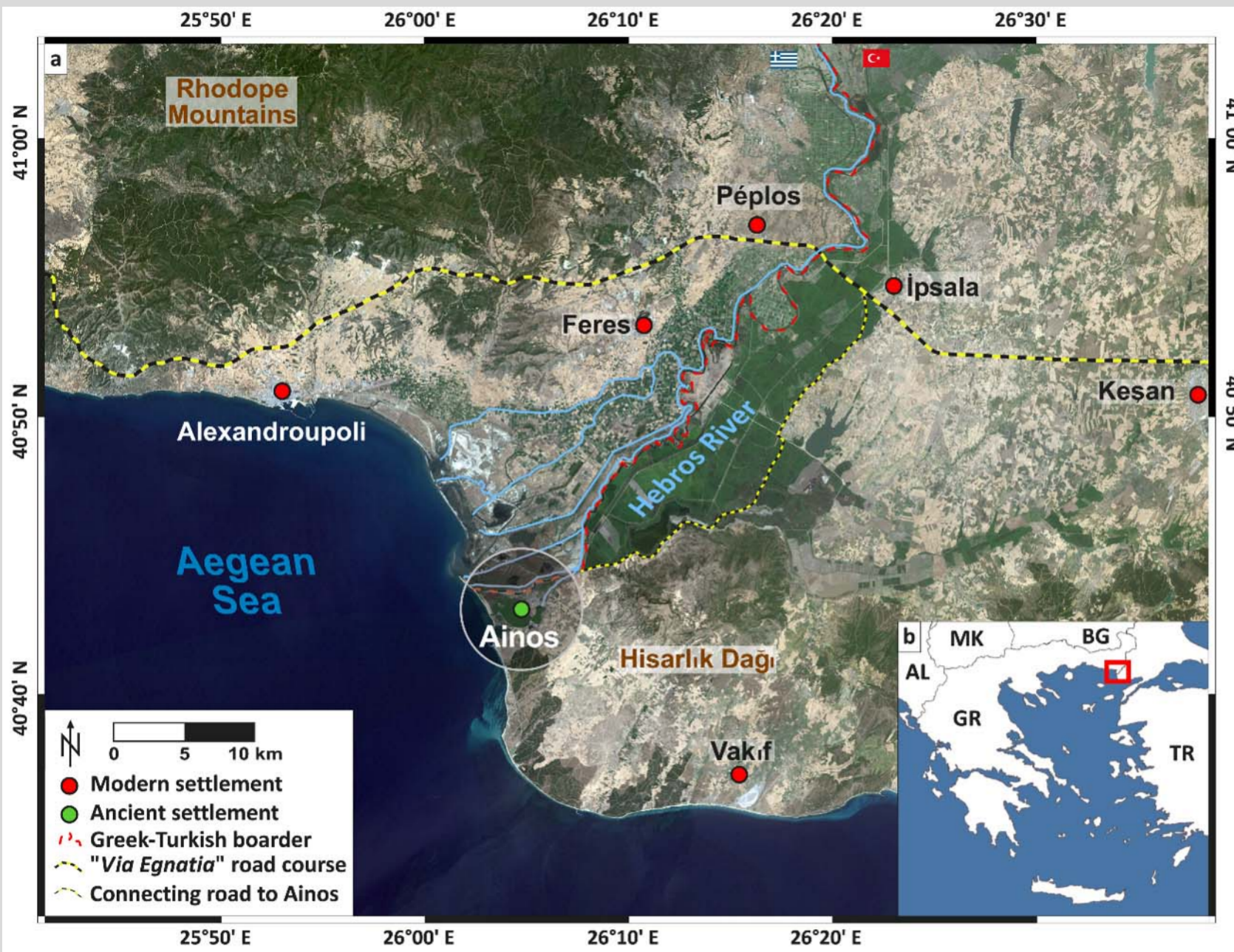


Fig. 1: Present situation of Ainos/Enez (Turkey) (@M. Seeliger).

A complex geo-historical setting

Ainos (modern Enez, at the mouth of the Hebrus/Meriç, in the European part of Turkey, figs. 1, 2) was continuously occupied for more than 3000 years. During this period, the natural setting as well as the occupation patterns have continuously changed: the ancient necropoleis situated along the roads, confirmed the city's economic power during ancient and Byzantine times. Yet, geoarchaeological methods, combining geophysical (fig. 3), geomorphological (fig. 4), archaeological and historical proxies, are needed in order to explain Ainos' past prosperity, to find its production centres (of ceramics, salt & fish, cereals) and its harbour(s) of trade with the Thracian hinterland and with the Aegean Greeks.



Fig. 2: View of Enez from the South (Dalyan Gölü) to the Kale/Acropolis (@S. Başaran)



Fig. 3: Location of the geophysical surveys in Ainos/Enez (@E. Erkul, W. Rabbel, D. Wilkens, T. Wunderlich)



Fig. 4: Location of geomorphological corings (up to 2019) (@M. Seeliger, H. Brückner, F. Reize)

Between lagoons and lakes

When the first human groups settled at the SE extremity of Europe (in Neolithic times, at Hoça Çeşme, ca. 2.5 km inland from Enez), Ainos was an island. During the following millennia, the north-bound sea-current eroded the promontories and formed sandbars and beach ridges which progressively transformed the ancient gulfs into lagoons (like Taşaltı Gölü and Dalyan Gölü; fig. 4). During the same time, the deltas of the nearby rivers (the small Ayamana E of Enez, the big Hebrus/Meriç at the NE) progradated towards the sea, forming fluvial lakes (like Gala Gölü) and silting up the city's northern coasts. Ainos' lagoonal milieu had several advantages: like the fishing resources (attested since Athenaios of Naucratis, *Deipn.* 3.44) and the salines (mentioned by Kritoboulos from Imbros, 2.104-105). Nonetheless, the lagoons are also noxious to a human healthy life, in particular because of epidemics spread by mosquitoes.

The ancient harbour(s) as archives of the human impact on the environment

Fig. 5 represents the profile of coring Ain 5, drilled inside the Taşaltı lagoon, in the presumed basin of Ainos' most ancient harbour. On top of bedrock, the maritime sediments dating back to the 7th millennium BC prove that water depth was enough for the biggest ships of the Greek and even Roman times. The study of the macro- and microfauna confirms that this maritime and then open lagoonal environment was favourable for an ancient harbour. The pollen and charcoal analyses done on the parallel drill Ain 50 clearly illustrates the anthropic footprint in the harbour archives, starting in Chalcolithic times (with traces of deforestation and agriculture) and increasing with the arrival of the Greeks (deforestation, eutrophication) and with the Roman urbanization.

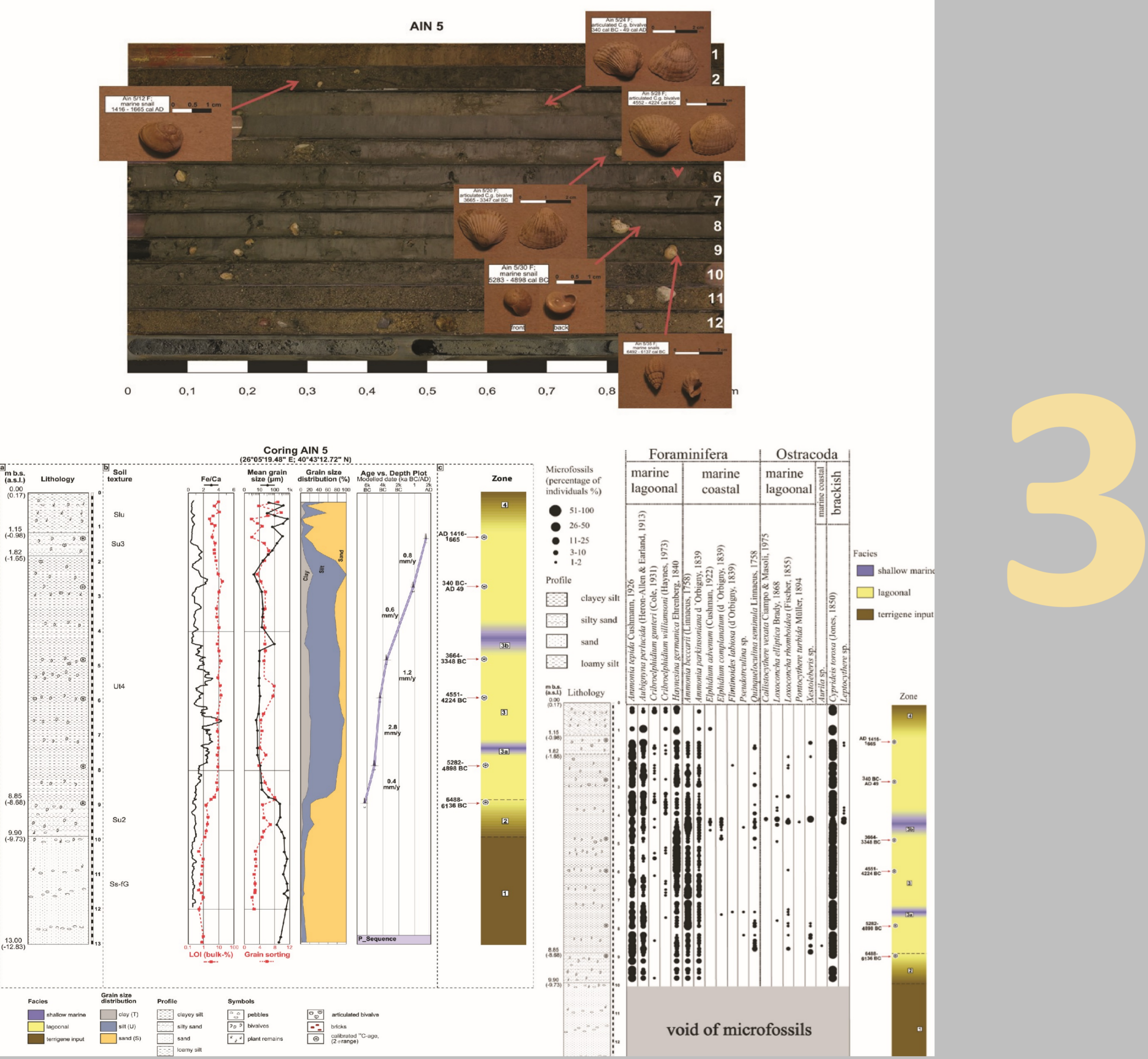


Fig. 5: Geochemical and paleobiological study of Ain 5 (@H. Brückner, M. Seeliger, A. Pint).

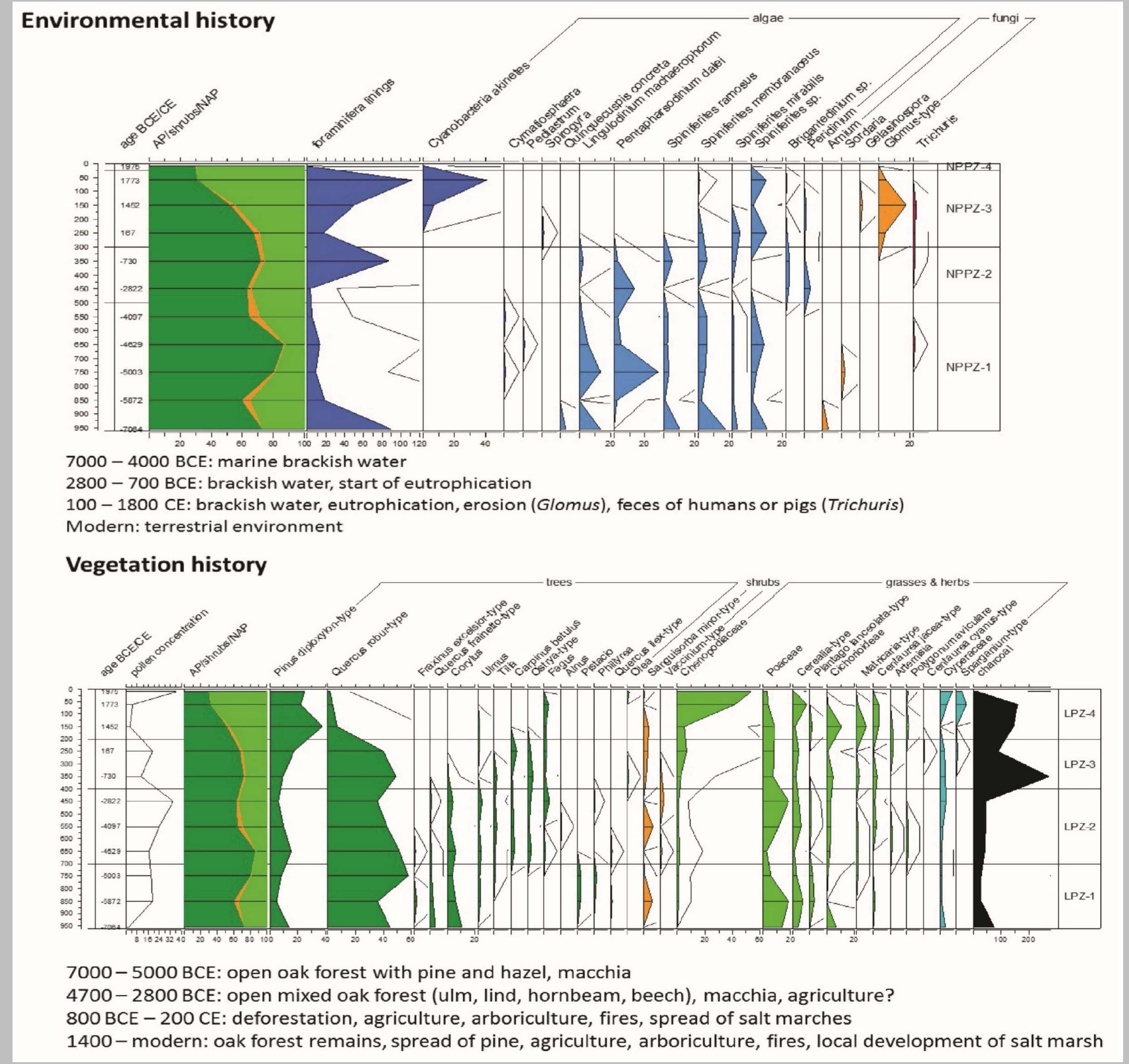


Fig. 6: Palynological study of Ain 50 (@L. Shumilovskikh).

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References:

Dan, A., S. Başaran, H. Brückner, E. Erkul, A. Pint, W. Rabbel, L. Shumilovskikh, D. Wilken, T. Wunderlich, « Ainos in Thrace: Research Perspectives in Historical Geography and Geoarchaeology », *Anatolia Antiqua* 27, 2019, 127-144.
 Dan, A., S. Başaran, H. Brückner, E. Erkul, A. Pint, W. Rabbel, L. Shumilovskikh, M. Tanghe, D. Wilken, T. Wunderlich, « Nouvelles recherches historiques et géoarchéologiques à Ainos : pour une première restitution graphique de la ville et du territoire antique », in « Bulletin de la société française d'archéologie classique (XLX, 2018-2019) », *Revue archéologique* 69, 1/2020, 141-191 (p. 152-162).
 Schmidts, Th., S. Başaran, A. Bolten, H. Brückner, H. Bücherl, A. Cramer, E., Erkul, A. Dan, M. Dennert, G. Heinz, M. Koçak, A. Pint, M. Seeliger, I. Triantafyllidis, D. Wilken, T. Wunderlich, «Die thrakische Hafenstadt Ainos – Ergebnisse eines interdisziplinären Forschungsprojektes », *Archäologischer Anzeiger*, 2020/2, 2-62.
 Seeliger, M., A. Pint, P. Frenzel, N. Marriner, G. Spada, M. Vacchi, S. Başaran, A. Dan, F. Seeger, K. Seeger, Th. Schmidts, H. Brückner, « Mid- to late-Holocene sea-level evolution of the northeastern Aegean Sea », *The Holocene* 2021, <https://doi.org/10.1177/09596836211025967>.