

***The decline of the Greek Polis Atarneus near the Eastern Aegean Coast:  
Consequence of a landscape change?***

Steffen SCHNEIDER<sup>1</sup>, Marlen SCHLÖFFEL<sup>2</sup>, Albrecht MATTHEI<sup>3</sup>, Barbara HOREJS<sup>4</sup>, Brigitta SCHÜTT<sup>1</sup>

<sup>1</sup> Freie Universität Berlin, Physical Geography, Berlin, GERMANY

<sup>2</sup> Osnabrück University, Institute of Geography, Osnabrück, GERMANY

<sup>3</sup> Marie Curie M4Human Fellow, Roma, ITALY

<sup>4</sup> Austrian Academy of Sciences, OREA, Wien, AUSTRIA

The ruins of the Greek polis of Atarneus are situated on a hill-top near the Turkish Aegean coast, ca. 80 km north of modern Izmir. In contrast to the extensively investigated Pergamon ca. 25 km further inland, little is known about the history of Atarneus. The ancient geographer Pausanias implies that Atarneus had to be abandoned because of the silting up of a Paleo-Gulf which was followed by a mosquito-plague (Pausanias Periegetes VII, 2, 11). However, there is no further evidence to support this theory.

To answer the question on Atarneus' fate and its connection with the landscape evolution, we coupled archaeological and geographical investigations. Ceramics, ancient literary and epigraphic texts, numismatics and architectural remains show that the settlement hill of Atarneus had been populated since late Bronze Age times. Atarneus as a Greek polis occupied the hill from the sixth century BC until the change of the eras. Afterwards, the hill was abandoned. It was newly populated in the second half of the twelfth and the first half of the thirteenth century AD. The lithostratigraphy of nine drilling cores, arranged in three transects and dated by AMS radiocarbon dating, shows that during the past 4000 years the sedimentary plains surrounding the settlement hill were aggraded by braided and meandering rivers, while colluviation and alluvial fan deposition occurred at the foot-slopes. Sedimentation totalled about 5-7 m in the past 4000 years, evidencing a 'drowning' of the landscape in terrestrial sediments. Although channels shifted repeatedly and alluvial fan deposition fluctuated, the depositional system did not change in general during the past 4000 years. Concluding, the lack of any sediment related to a Paleo-Gulf and the constant depositional system document that landscape deterioration did not contribute to the decline of Atarneus. Rather, socio-economic factors were crucial for the rise and fall of the Greek polis.

