



## **The Sacred Canals of the Temple of Bastet at Bubastis: New Findings from Geomorphological Investigations and Electrical Resistivity Tomography (ERT)**

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The excavation site of Bubastis (Tell Basta) is located in the south-eastern Nile delta at the southeastern city border of Zagazig. Bubastis had an outstanding cultural and political importance from the Predynastic Period (late 4th mill. BC) to its decline in the time of the Roman dominion. It even served as the capital or residential city of the Libyan kings of the 22nd dynasty in the 1st mill. BC. Since the late 19th century, the site was the subject of several archaeological investigations which focused mainly on the ancient remains in the northern and central part of the site, e.g. the Temple of Bastet, the Middle Kingdom Palace and the cemeteries of the Old, Middle and New Kingdom. However, large areas of the site remain unexplored, especially the south-eastern part of the Tell.

This contribution highlights recent findings of geomorphological and geophysical investigations including ERT measurements, drillings, and sediment analyses that were undertaken at Bubastis in 2016 and 2018 in order to find evidence on the existence and location of the sacred canals of Bubastis described by Herodotus in the 5th century BC. None of the preceding archaeological missions have reported remains of these canals.

The drillings and sediment analyses have revealed clayey/silty deposits in the central position of the site at depths below 2.5 m asl, close to the northern enclosure of the temple of Bastet. The recovered sediments were situated well below the floor level of the temple of Bastet of the 1st mill. These deposits with a thickness of at least four metres, containing pottery of different periods were interpreted as canal infills that were most likely accumulated in a fluvial system of very low energy. Presumptively, this canal was fed by a tributary situated north or north-west of the temples of Bastet and Pepi I. 1D and 2D Electrical surveying corroborated the drilling results. Those investigations indicated trench-like layers of low subsurface resistivities adjunct to the northern enclosure of the temple of Bastet. Overall, the possible detection of the existence and course of the northern part of the sacred canals, the Isheru of the ancient Egyptian texts, that once surrounded the temple of Bastet at Bubastis is of high relevance: for the first time now, we possess more than written accounts for their existence.