GEOARCHAEOLOGICAL RESEARCH IN LOWER KHUZESTAN: STATE OF THE ART

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1. Introduction

Up to now, geoarchaeological research in the Mesopotamian region has primarily focussed on the evolution of the floodplain of the ‘twin rivers,’ Tigris and Euphrates, and Upper Khuzestan, because remains of the great ancient civilizations have been discovered in these two areas. For the Lower Khuzestan plain such information is still lacking. Within the framework of the Belgian Interuniversity Attraction Pole ‘Greater Mesopotamia: Reconstruction of its Environment and History’ (IAP 6/34, and its predecessor IAP 5/14), research was initiated on the landscapes of Lower Khuzestan (Fig. 1). The main goal of this research project is to investigate the history of human-environmental interactions, i.e. how humans adapted to and/or changed their environment. The multidisciplinary team covers a wide range of research fields, including geology, archaeology, history and remote sensing.

In 2004, with the cooperation of Iranian colleagues, two field campaigns in the Lower Khuzestan plain were undertaken to collect geological and archaeological data. In addition, field control was done to verify the remote sensing data. The data from these surveys were published in a number of progress reports in the journal *Akkadica* (Baeteman et al. 2004/2005; Gasche/Paymani 2005). This paper presents an overview of the research carried out since then, including new evidence on the Holocene palaeoenvironmental evolution of the plain, in particular the positions of the Persian Gulf coastline and the main rivers. The reconstruction is based on the analysis of the geological and archaeological data collected during the field campaigns in 2004, and new evidence derived from textual sources, maps, satellite images and aerial photographs. It concerns mainly the integration of the results of three recently completed PhD studies (Heyvaert 2007; Ooghe 2007; Verkinderen 2009) and additional remote sensing data (Walstra et al. 2011). By means of a number of case-studies, the different datasets were integrated with a recently completed geomorphological map (Walstra et al. 2010a–b; Heyvaert et al. 2012). The case-studies provide new insights into the complex human-environmental interactions in the plain, and demonstrate the added value of a multidisciplinary approach in such studies.

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The Khuzestan plain is located in southwestern Iran and geologically forms the southeastern extension of the Mesopotamian sedimentary basin. In the north and east the plain is bordered by foothills of the Zagros Mountains, in the south by the Khor Musa tidal inlet and Persian Gulf, and in the west by the Tigris and Shatt al-Arab estuary (Fig. 1) Subsidence of the Mesopotamian