Fluvial sediments in eastern Georgia as palaeoenvironmental archives of the Late Quaternary

Hans von Suchodoletz (1,2) and Dominik Faust (1)

(1) University of Technology Dresden, Institute of Geography, Dresden, Germany. (2) Leipzig University, Institute of Geography, Leipzig, Germany (hans.von.suchodoletz@uni-leipzig.de)

The eastern part of the Republic of Georgia encompasses an intramontane basin situated between the Greater Caucasus in the north and the Lower Caucasus in the south, both showing a high tectonic activity. The climate is continental, separated from the Mediterranean climate by the Surami Mountain Range with a maximal altitude of about 1000 m. Due to its proximity to the “Fertile Crescent”, Neolithic activity started quite early here, beginning at the latest from 7.5 ka. Fluvial sediments outcropped at several terrace levels along different rivers (Kura, Algeti, Khrami, Shulaverichai) in the so-called Marneuli-depression south of Tbilisi are investigated in order to reveal the pattern of fluvial activity during the Late Pleistocene and the Holocene. Sedimentological and geochronological investigations of these sediments are complemented by geomorphic mapping of the distribution of fluvial terrace levels. A comparison of the fluvial dynamics of the rivers in the Marneuli depression with that from other rivers in eastern Georgia to be investigated (e.g. the Alazani river) aims to trace the pattern of fluvial activity in the larger region, in order to unravel climatic, anthropogenic and tectonic influences during the Late Quaternary.