



## **Geomorphological studies in the Middle Valley of the Kura River (Azerbaijan) First key to understand the Postglacial landscape mutations linked to climate changes and human occupation**

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This geomorphological study is the first step to a better knowledge of the archaeological site environment at different spatial and temporal scales in the middle valley of the Kura river (Azerbaijan). The ultimate goal is to propose a precise definition of the relationships between Man, landscapes and climate changes from the sixth to the third millennia BC in this area of major cultural importance. This work is developed in the context of the French-German ANR research program Ancient Kura directed by Bertille Lyonnet (Collège de France, ProCauLAC-UMR 7192, CNRS Paris, France) and Barbara Helwing (Deutsches Archäologisches Institut, Berlin, Germany). These preliminary data concern the middle valley of the Kura River and its tributaries and are the result of a collaboration between French, Azerbaijani and German teams. Attractive crossroad, sensitive to changes in the relative level of the Caspian Sea, Kura is a privileged witness of palaeoenvironmental and societal changes over several millennia. The effects of the Caspian Sea mobility to the Kura valley causes significant changes in the landscape linked to the Quaternary climatic variations. The studied area concern the North Western part of Azerbaijan. It encompasses the middle valley of the Kura and its tributaries that drain the eastern foothills of the Lesser Caucasus. The period between the sixth and the third millennium BC is framed by two major rapid climate change, the 8.2 Ka cal BP and the 4.2 Ka cal BP RCC. These two RCC probably had an influence on the societies. The period from third to sixth millennium BC is also affected by variations in the relative level of the Caspian Sea. Landscapes have necessarily followed these environmental changes (climate and sea level mobility). The questions concern various aspects of man and his environment :

In which environmental context Neolithic / Chalcolithic populations lived in the middle valley of the Kura ?

What are the modalities, the amplitude and the frequency of landscape changes in this area ?

Did the upstream hydrosystems studied, where are most of the archaeological sites, have responded to changes in the Caspian sea level ?

Did the landscape mutations were enough significant to affect the human occupation modes ?

The developed methodology uses the fundamentals of geomorphology :

Field surveys in each valley from the mountainous upstream to the downstream part connected to the Kura, definition of the morphosedimentary units, geomorphological mapping and stratigraphic records, sampling for radiocarbon or U/Th dating and palaeoecology, connection of the compiled data with archaeology.

A first morphogenical synthesis can be proposed. This review shows the variability of the deposits / incisions phases of the Kura tributaries. These trends seem to follow the temporal fluctuations of the Caspian Sea. Ultimately, regional comparisons can be made from ongoing work in the Lesser Caucasus.