

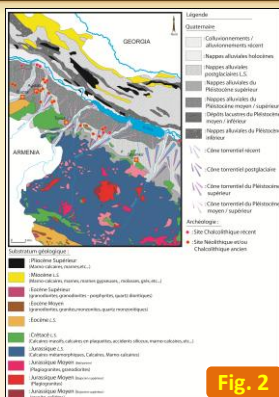
Geomorphological studies in the Middle Valley of the Kura River (Azerbaijan) : First key to understand the Postglacial landscape mutations linked to climate changes and human occupation

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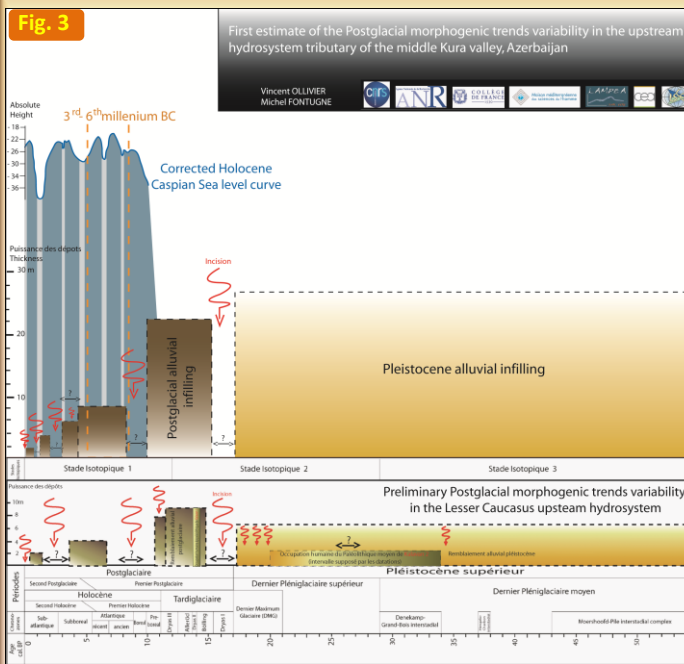
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General context



Preliminary results



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.

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) with reversals in morphogenical tendencies leading to changes in patterns of human occupation.

Our initial findings (FIG. 3) indicate several phases of incision of hydrosystems following the decline in sea level of the Caspian Sea. Research must continue in order to clarify the dynamics.

Conclusions

A first morphogenical synthesis can be proposed (FIG. 3). 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.



The developed 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 ?

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).

The studied area concern the North Western part of Azerbaijan. It encompasses the middle valley of the Kura and its tributaries (Shamkir çayı, Zeyem çayı, Tovuz çayı and Agstafa çayı) that drain the eastern foothills of the Lesser Caucasus (FIG. 1).

A detailed geomorphological map was performed to define the organization of landscape units and identify the sedimentary formation concerning Neolithic and Chalcolithic archaeological sites (FIG. 2). The landscape geological and geomorphological organization is as follows : Jurassic, cretaceous volcanic, metamorphic and sedimentary rocks; Miocene transgressive deposits and Pliocene tectonized; Alluvial fans from the torrential rivers of the Lesser Caucasus foothills, connected to the middle Kura valley ; Alluvial terraces from the Kura