

THE PALAEOGEOMORPHOLOGICAL MAPPING OF INTER-  
MONTANE DEPRESSIONS (ON THE PATTERN OF THE  
KÜR DEPRESSION)

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ABSTRACT

Stagely (oligocene-pleistocene) palaeogeomorphological mapping of the Kür basin has permitted to reveal the beginning of formation of the present basin relief. The perspective areas in regard to oil-gas, underground fresh waters, building material and oth. have been revealed by the help of mapping.

The palaeogeomorphological mapping is in the stage of material elaboration. Its main point is connected with the special purpose assignment of maps and character of territory. Each palaeogeomorphological map has its own specificity, which is conditioned by complication the obtaining of united, generalized indecies. In compiling of palaeogeomorphological maps of Kür intermontane depression, situated between the mountain systems of the Major and Minor Caucasus and opened in the east to the Caspian Lake which was the result of many years palaeogeomorphological investigations and generally is the quintessence of such researches, the following methods have been used widely: analysis of faces and thickness of deposits, palaeotectonic and palaeofacial maps, geophysical data, statistic materials and oth. The genetic types of relief both in the land and in the bottom of sea basin (contour in color), forms of relief (by hachures), lithology of rocks (by marks), age (by index),

border of sea (by lines) and etc. have been shown in the maps. The palaeomorphological maps of intermontane depression, mainly in our case, have great scientific-applied importance. Compiled stagely, as it was done by us for the Kür depression (from Maikop to Holocene), they excellently illustrate the origin of development in some cases even the reorientation of morphostructures in time and space, beginning of display and development of mud volcanism (one of the specific characters of depression relief) and fault tectonics, reconstruction of river net (important moment), changing in contours of sea and land and etc. which have a colossal scientific importance. The compiled geochronological palaeogeomorphological maps of the Kür depression precisely represent direct and inherited development of depression relief, without any significant cataclysms, which could bring to reversibility of this development. And this in spite of that the territory of the Kür intermontane depression is very mobile, continually exposed to transgressions and regressions of sea basin, enough seismic active to displaying of mud volcanism and etc. All these allow to forecast the further course of development of depression relief. At the same time the palaeogeomorphological maps have a practical importance. Thus, for example, represented in these maps the areas and forms of relief buried in posterior transgressions are, as we think, perspective for search in them the oil, gas, underground fresh waters, building materials and etc. In this territory as the Kür depression, which is rich with oil-gas displayings it is impossible that there is no palaeotraps of oil, existence of which has been shown in the maps by us. All these can bring a great benefit to the national economy.

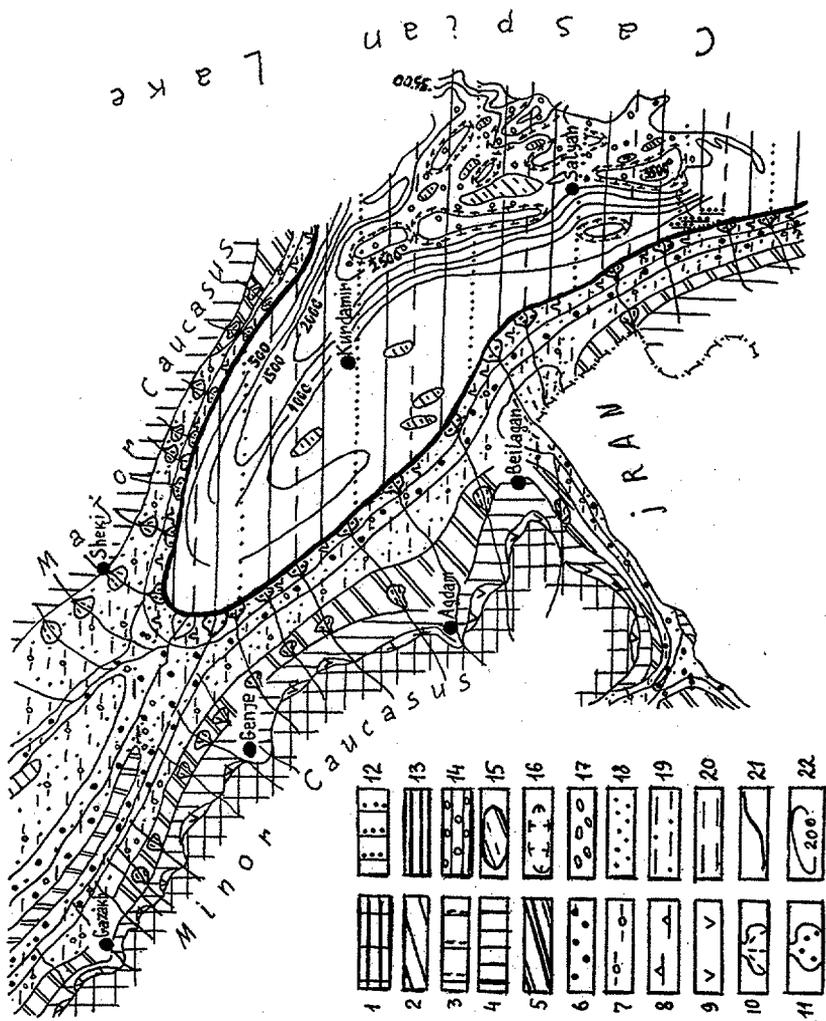


Fig. Palaeomorphological map of the Kur depression of the age of productive strata ( transgressive phase)

LAND. Types of relief. Mountains: 1. Low-altitude ranges and ridges; 2. Anticlinal interdepression, weak dissected uplands and ridges.

Plains: Denudation: 3. Uval-hilly weak lifted, weak dissected; 4. Inclined dissected. Denudation accumulative: 5. Alluvial-proluvial weak inclined, weak dissected.

Accumulative: 6. Alluvial flat, weak dissected 7. Alluvial-proluvial weak inclined, weak dissected; 8. Alluvial-sea flat, undissected; 9. Proluvial-deluvial weak inclined, weak dissected.

Forms of relief. Accumulative: 10. Alluvial cones; 11. Deltas.

SEA. Types of relief (submarine). Plains: 12. Abrasion-accumulative inclined; 13. Accumulative weak inclined (to centre), complicated by submarine ouvalas and basins; 14. Accumulative flat ouval-basin.

Forms of relief: 15. Ouvalas; 16. Basins. Lithology of loose deposits: 17. Single beds; 18. Sands; 19. Loams; 20. Clays. Others: 21. Coastal lines of sea and lake basins; 22. Isolines of equal thicknesses.

As an example we give a palaeogeomorphological map of the K ur intermontane depression the age of productive strata in transgressive phase (fig.) compiled by us. The transgression and regression of sea basins have left a great mark on the development of depression relief. They were characteristic for all stages of the development of depression relief, alternating twice within the limits of each geological section of the depression. This is the one of the most specific features of relief development of the K ur depression according to the time and space.