MORPHOSTRUCTURAL METHOD OF MAPPING OF RELIEF OF THE MINOR CAUCASUS (within the Azerbaijan)

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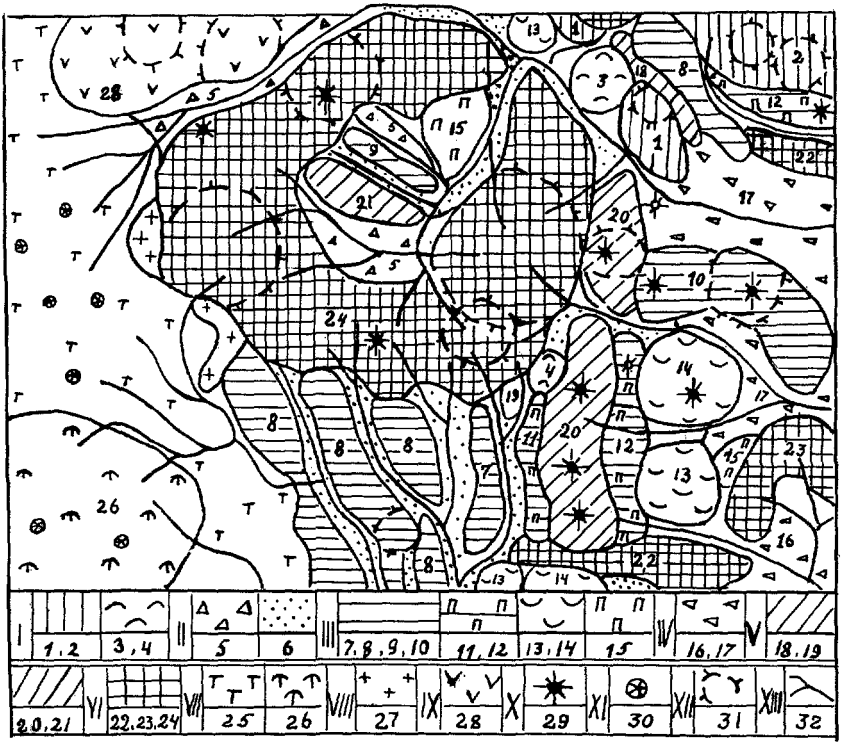
ABSTRACT

The work deals with some questions of morphostructural mapping and elucidates the content of compiled on this basis morphostructural map of the Minor Caucasus. The information completeness of such maps determines their perspectivity in knowledge of evolution of lithosphere and forecasting and searching of mineral deposits.

Morphostructural method is a highly actual and perspective method for drawing a map in geomorphology. Its theoretical, basis as the study of relief makes, being developed by us proceeding from dialectics of philosophical categories of content and form, the principle of correlativity. In accordance with it the morphostructure as volume-different orders, dynamics and integral-natural system of geomorphosphere is considered the geomorphologic form of movement of the continent, correlative endogenics of its constituent.

The morphostructural maps being the means of expression and cartographo-synthetic relation model of relief with geological structures (tectonic, magmathic, mudvolcanic) carry a considerable information about inner structure of alpine cover and more deep layers of lithosphere.

Realization of morphostructural method of mapping inseparably linked with classification of its object which forms the basis of legend of adequate morphostructural



Fragment of morphostructural map of the Minor Caucasus

I. Anticlinal-constructed, frequently tectono-magmathic and horst ranges (1,2) and dome like uplands (3,4). **II.** Anticlinal-constructed graben (5) and frequently fault valleys (6). **III.** Sinclinal constructed, partially tectono-magmathic horst ranges (7,8,9,10), piedmont step-like plateau (11,12), dome like uplands (13,14) and plateau (15). **IV.** Sinclinal constructed, frequently tectono-magmathic and graben basins (16,17). **V.** Monoclinal constructed, frequently tectono-magmathic horst ranges (18,19,20,21). **VI.** Disclinal constructed, frequently tectono-magmathic horst ranges (22,23,24). **VII.** Volcanic plateau (25) and shield like massives (26). **VIII.** Intrusive massives and uplands (27). **IX.** Volcano-tectonic horst-arc ranges (28). **X.** Extrusive dome like uplands (29). **XI.** Volcanic cones. **XII.** Borders of subor-

dinated dome like uplands (31). XIII. Modern hydonet (32).

maps. In order to provide completeness of mapping and cover all totality of existing within the limits of Azerbaijan morphostructure, as well as determination of their place in global system of the Earth's relief worked out on the basis of especial researches and analysis of literature data the genetic and taxonomic classification have been carried out on a planetary level.

A wide diapason of genetic rank of morphostructures includes numerous types and their typologic varieties. In this respect here it is distinguished: according to type and complication of organizing geological structures, correspondingly - morphostructure, morphomagmature, morphopeloture and hemogenic, heterogenic; according to nature of interrelation of "form" and "content" - conformal, disconformal; according to stage of development -primary, rejuvenated, newformed; with respect to deep structure- through, overhanged, superimposed; according to direction of strike in regard to general orographic plan and plan of folding, accordingly - concordant, discordant, heterocordant and conplicative, displicative, neuplicative; according to morphologic mark and morphology, accordingly - positive, negative, flat and isometric, linear (ring, arc, rectilinear); according to geotectonic conditions of development - inherited, inverted.

Morphostructural mapping gave rise the necessity of marking out the especial type of morphostructures.This disclinal (disclinor) morphostructures differ from traditional anticlinal, sinclinal, monclinal conclinal morphostructures that they limiting by pair tectonic

faults forming horst and grabens are formed on transversal intersection of different fold structures.

In the scheme of taxonomic classification of morphostructures of rank category the latters include eight orders with special denominations of taxonomic and morphostructural denominations from supermorphostructures (contitecture, talatecture), to picomorphostructure (plikaorides, plikadepresides and so on).

Though, the presented morphostructural map does not reflect taxonomic characteristics of region and the whole totality of typological variety of developing here morphostructures. Nevertheless, the worked out on the basis of executed classificated schemes of reproduced in the form of matric table of the part of legend providing its considerable capacity reflect the main typologic varieties of morphostructures.

Natural borders of morphostructures in many cases are fault deformations whichgiving them horst and graben character are conditioned their sharp outlineness. Whereas the faults expressing in relief by river valleys, steps, anamol bends, saddle lowerings and other morphologic elements quite often form own morphostructure-lineament.

As a whole the morphostructures are marked out as isolated geomorphological formations which characterize the common character of genesis and morphology and often unite different structural elements in a single whole. Complex sedimentary, magmathic and methamorphic rocks from cambrian to quaternary includingly take part in their construction.

The plan of dislocation and morphological peculiarity of morphostructures in particular one-sided asymmetry in

their structure display the natural relation with plate-tectonic mechanism of the evolution of lithosphere. This and other structural and geodynamic peculiarities of epi geosinclinal orogen partially are reflected on compiled map.

Thus, morphostructural mapping has of great importance in knowledge of evolution and structure of lithosphere and can play a great role for forecasting and searching of mineral deposits. Sunsequently, improvement and providing of wide application of this method in geologo-geomorphological mapping need the efforts of great number of researchers in mentioned field.

Table.Additional characteristics of morphostructures

MORPHOSTRUCTURES							
Main types		Morphostructures				Morphomagmature	
		Homogenic		Hetorogenic		Homogenic	Heterogenic
		Conform	Disconform	Conform	Disconform	Conform	
Concordant	Conplicative	1,18	6,7	16,20	11,8		25,26
	displicative						
Discordant	Conplicative	19	5,9	17,21	12,6		
	Displicative	22					
Heterocordant	Conplicative			2			29
	Displicative	23	15,6	24			
	Neiplicative	3	13	4	10,14	27,28	