



The River Valley Construction And Its Significance For Human Activity

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The river valleys are the object which is most mastering by human activity. But its construction is very complex than it is rendering. Valley structure differs along and transversal directions. As plant so mountain valleys have the buried alluvium. It is characterized by different thickness, composition and ages. Complex of the geomorphologic, biostratigraphic, lithologic, physical data established the history of relief development and the spatial distribution of the different age and genetic homogeneous relief fragments and sediment. These data show that relief and correlative sediment are formed as a result of the complex cyclical, non-one-trend fluvial processes at the Quaternary period. The several erosion cycles of relief and sediment development are established at the Quaternary period. It differed in the intensity, character and duration of the forming. This is the cause that the morpholithogenetic results of these stages are different. These are the different size of the valleys deepening and increasing of the relief height amplitude at the every cycle. The recurrence of fluvial activity is sequent of climate rhythms of Quaternary. Because the Quaternary geological body is local it is very important to know their chronological successive rise and the regularity of their spatial disposal. Now it is known that already at the beginning of Pleistocene the valleys was nearly so deep how modern. All following time the river worked in them during not less than 7 erosion cycles. Disproportionate wide of recent valleys and modern river streams is explained by integral results of different size stream working of all erosion cycles.

Fragmentary safe keeping of buried alluvium is very imported quality of recent valleys. That is why the thickness of alluvium has the different capacity throughout the whole valley. There are two extremes cases. One of them is when the buried layers are situated under recent bottom. Usually in that case the thickness of alluvium layers is small and the bore-hole always reveals it easily. Opposite case is when the buried alluvium is separated by cliff from the flood-plane and low terraces alluvium. In that case it is difficult to find out the ancient channel buried by grand mellow rock thickness. The second choice is characteristic the grand valleys.

The processes in the modern valleys depend on the thickness of mellow. In itself the alluvial fragment can play different role at various contemporary conditions. Alluvium can be source of sweet water. Just its ancient channels are used for drainage the water on level with modern streams. Alluvium can also be used as construction material. But at opposite cases these thicknesses can be dangerous factor. Not revealed at the projection stage the ancient drainage system can be reason that storage pond can not accumulate the water or can lose it and disappear. At case of prolonged atmospheric precipitation it can be solid constituents of mudflow or form landslip or dewy ground creep.

For designing of engineering structure at river valleys it is necessary to investigate base of dam rock with a view to find out the structure disposition and nature of bottom rocks. Taking proper account of such river valley structure it is possible to avoid the influence of weakly marked influence of this hazardous natural process and material losses as early as the stage of projection. It is important with relation to structural and economic calculation.