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Change in mountainous river system due to human influence (on the example of Chorna Tisha, Ukrainian Carpathians)

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Changes in river valleys due to human activity can be seen at many sites throughout the world. Nowadays, this notorious issue becomes extremely relevant due to the intensification of floods in developed regions. Therefore, investigating changes in the valley after the flood can help the local government develop rules related to the use of the valley. The work is an attempt of valley typological classification and analyze of human influence on intensification of flood in 2020. Chorna Tisha is an example of a site where signs of strong antropopresion reach 200 years. The Chorna Tisha river was mapped from the mouth of the Apshynets river to the mouth of the Biala Tisha river (about 45 kilometers). The mapping method contributes to the analysis of the distribution of valley forms. The effects of the hydro-engineering structures (splash dams), road building, and gravel extraction can be seen after the typological classification of the valley. The erosion curve of selected valley is non-classical, due to local geological conditions, but due to human activity, most of the parts where we can predict the accumulation of gravel material are now transportation sites. This result led to the conclusion that the river valleys in mountainous areas of Ukraine are highly altered.