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About the buried soils of the Ferghana region - (Uchkoprik district on the example of the Sarikurgan hill)

Ostanakulova Gozalkhon Nosirjon kizi, Zakirova Sanoatkhon Khomdomovna,
Researcher and Professor at Ferghana State University.
phone: (998) 93 737 19 91, E-mail: artikovaguzal40@gmail.com

Abstract
The main occurrence of buried soils on the Sarigurgan hill, which is now located in the Ferghana region, is to study their properties and composition. It was also studied how the fortress, which served as a fortress in ancient times, appeared over the centuries, and its functions.
Keywords: Sarikurgan, Sokh, buried soils, geomorphology, valley, relief, debris, height, biological, geological, ethnographic, mountain, nature, research.

Introduction.
The periphery of the Fergana Valley Gods is a mountain range sediment surrounded by high mountains. Between the high mountains and the central Plains, small relief Heights are found, and they, in turn, are divided into two: mountain ranges and a chain of Adirs. In the southern part of the Fergana Valley, three ridges are found, separated from each other by ridges, and between them there are tectonic sediments, in which permanent waterways are rare. The river and streams flowing from the south crossed the transverse chain of Adirs and formed its own (river) valleys. According to N.P.Vasilkovskiy (1937), the front mountain ranges are not very high.
V.N.Veber described the southern parts of the valley as the plains outcrops of mountain rivers, describing them as the completed parts and the rocks cited as the last accumulation deities, and referred to them as the “dry delta”. Conglomerate rocks of the Quaternary Period have scattered low Adirs from Conibodome to Fergana in the upper and lower gods, sometimes indicating occurrence in the lower arcs, recording Fergana bottlenecks from these sites as beginning to form from the Quaternary. The southern mountain rivers (Isfara, Sokh) laid out their conglomerate rocks (dry deltas) that brought them from the mountain exits (1929-1930).
The Fergana Valley is characterized by the complexity of its relief, and its geological structure, its location between mountains and its occurrence in tectonics in a mixed way of tertiary and quaternary scarring has caused great complications. Valley gods tectonic and denudation ruins gave rise to denudation and accamulative forms of relief of different ages in later periods, and they are distinguished by the character of sedimentary and covering rocks. The formation of Valley geomorphology occurred within the framework of the interaction of relief forms, geological structure, climatic conditions and biological factors. By the present time, several research works have been done on geomorphological zoning of Valley deities. One case is prominent in all zoning work, that is, in the Lands of the Fergana Valley it is seen that zones of geomorphological regions are separated. To such research work N.P.Vasil'kovsky, N. Ye. Minakova, O.K.Lenge, W.A.Gaines, A.Shevchenko, M.A.Pankov, Yu.A.Skversov, O.Yu.Poslavskaya and others can be included in their work.

The Main Part
Below the high mountains that surround the valley are the mountain slopes, thick-layered limestone and gravel in the mountaintop valleys, prolyuvial deposits sometimes made up of lyosses, and a chain of adjacent, slightly flattened Adirs. In the orographic structure of the valley, the Adirs are characterized by being located in a two- and three-line system in some areas, in large areas with valleys, adirorti and Inter-Adir sediments crossed by mountain rivers. These sediments are overlain by prolyuvial-alluvial and delyuvial rocks brought from the surrounding mountains and Adirs. The lowland part of the valley was occupied by the springs of rivers and streams flowing from all the surrounding mountains, which sometimes merged, sometimes dressing the inter-arc lowlands.

It is emphasized that the system of interactions between nature and society is the traditional culture of our people's use of nature as a practical solution to various emerging environmental problems.

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Historical-cultural (ethnographic) regions are formed in a certain cultural community as a result of a single historical fate and long-term interaction of peoples living in similar landscapes. In such regions, a historical past with local specific characteristics, common material and spiritual culture is formed in time and space.

The basis of the research methodology is the analysis of data from soil maps of the studied territories, generalization of the results of comparative geographical, soil-cartographic, laboratory-cameral-analytical studies, and methods for assessing the quality of irrigated lands. Preparatory, field, cameral and cartographic work was carried out on the basis of instructions, laboratory-analytical work was carried out on the basis of generally accepted methodologies, and soil quality assessment was carried out on the basis of instructions.

During the years of independence, our republic has implemented a wide range of measures aimed at the effective use of irrigated stony-gravelly, degraded lands and improving the ecological reclamation condition of the lands. At the same time, insufficient attention has been paid to research on the genesis of stony-gravelly lands with a difficult reclamation condition, their morphological characteristics, and the development of optimal agrotechnologies aimed at preventing erosion processes. The Fergana Valley is one of the lowlands of the Central Asian intermountain region and, according to the natural geographical and soil-climatic zoning scheme, is included in the Fergana district, located in the easternmost part of the republic, between the Tien Shan and Pamir-Aloy mountain ranges. The district is surrounded by mountains on three sides, with the Pamirs - Aloy and Turkestan from the south, Fergana and Otoynak from the east, Chatkal from the north, Kurama and Karamozor from the northwest, and Mugiltag from the west. The valley adjoins the Dilvarzin and Mirzachul plains in the west through the narrow (9-40 km) "Khojand" or "Fergana" gate.

The initial studies of the soil cover and soil-climatic conditions of the Fergana Valley date back to the end of the eighteenth century.

Just as soil-climatic conditions differ in different regions, they are also expressed in different indicators in the regions of the Fergana Valley, which indicates that natural conditions are not uniform. The selection of plant varieties for planting agricultural crops, their physiological requirements, growth period, temperature adequacy and suitability for soil-climatic conditions, and the periods of stable temperature rise are of great importance in practice.

The information provided by scientists consists of the following, which has been reflected in the description given to the Sarykurgan hill over the years.

Sarykurgan is an archaeological hill, the emergence of this object dates back to the period of antiquity and the early Middle Ages. The exact date is considered to be from the 1st to the 7th to the 8th centuries. The first mention of this fortress monument was made in the literature in 1882 by A.F. Middendorf. Historians V.V. Bartold paid attention to the notes of Arab historians and geographers. In 1939, M.E. Masson and Ya. Gulyamov determined the first plans of Sarykurgan and estimated that it belonged to the century BC. This fortress is rectangular in shape, the facade faces the east, the upper area is 60-60 m. The remains of five towers have been identified, four of the towers are located on the edges of the fortress, and one tower is located in the middle on the eastern facade.

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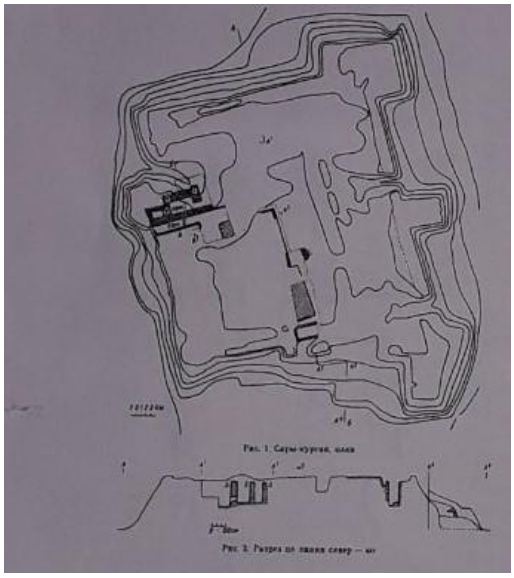

Figure 1. General scheme of the Sarykurgan monument

Sokh is one of the classical historical sites of the Fergana Valley, one of the centers of the first human settlement thousands of years ago.

The district is located in the south of the Fergana region, in the Sokh River valley. The Sokh oasis is rich in monuments of the Stone Age, ancient (Paleolithic), middle (Mesolithic) and new (Neolithic), and existed as a city with its own monuments as the main center of the Great Silk Road near the Ancient Davan.

One of the most important archaeological monuments of Sokh is the Sarykurgan fortress. The fortress is located on the right bank of the Sokh River, 25 km south of the city of Kokand. Its plan is almost square (60*60 m). Initially, a small fortress was built at the beginning of the AD, then in the 7th-8th centuries it was expanded and the fortress in its current state was built. The construction used mud and raw bricks. Intermediate towers (6 in total) are clearly visible in the quadrangle and on the two side walls of the monument. So, in the defense of the city, the main attention was paid to the strength and perfection of the walls on the four sides and the towers on them, two rows of bastions were made on the walls and towers. Sarykurgan is a fortress built at the beginning of the main water source of the Sokh oasis, its function was to control and protect water reserves. Such structures were also rebuilt on the banks of the Karadarya, Kuvasoy, Isfarasoy rivers of the valley. Sarykurgan is an important engineering monument in the study of the architecture of fortresses not only of the Fergana Valley, but also of Central Asia.

Conclusion

The State Inspectorate for the Protection and Use of Cultural Heritage Sites of the Fergana Region issued a passport on 20.05.2014. According to the passport compilers T. Sobirov and Kholmatov, in 2013 it was re-examined by an archaeological expedition of the Institute of Archeology of the Academy of Sciences of the Republic of Uzbekistan. Today, the monument is partially destroyed.

The main task of our scientific work is to study the main composition, biochemical properties, and agrophysical properties of the soils brought to the Sarykurgan hill.

A general view of the Sarykurgan hill is presented, which reflects the general condition of the hill, its height, and the current state of the mineralogical rocks of the soil. There is also a cave there, which has a passage from one side of the hill to the other, which was used by the population to hide from external enemies.

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Figure 2. General view of Sarykurgan Hill

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