ISSN NO: 2770-8608
December 2024

Formation of Geological Terms and lexemes in English and Uzbek Languages

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Abstract
The article explains and interprets geological terminology and concepts. The significance of developing new terms and lexemes for the construction of terminology systems related to geological branches was demonstrated. Some scientists' viewpoints were expressed in this regard.
Keywords: term and terminology, professionalism, structural-genetic, lexical-semantic, morphological, language of science and technology, terminological system.

Introduction. Language, as a tool for human communication, and its lexical level are subject to continuous dynamic change and gradual development in all sciences and areas. If we look into the past, geology as a science arose based on practical activities of people and continues to develop day by day. Therefore, the formation of terminology in geology is inextricably linked with information about rocks, minerals, ores and layers of underground resources since the distant past. In the distant past, besides pure metals such as *iron, copper, gold, silver* and *bronze,* people could also find ores rich in tin and copper compounds. They also tried to solve the problems of the formation of the earth, rocks, land distribution and seas. The Greek philosopher Fales believed that everything around us originated from water and then turned back into water. BC In the 6th century, fossilized shells of marine mollusks were found on the mountain peaks. Strabo (63 BC - 20 years of the 1st century AD) believed that the earth was constantly changing, moving and sometimes rising, creating islands and continents, great mountains and sometimes sinking again. There is also geological terminology of terms denoting objects and their use[4]. We considered it appropriate to analyze them into the following groups, taking into account the following:

Materials and methods. Analyzing the stages of the formation of geological terminology on the basis of scientific and historical sources, we considered it permissible to periodize the development of the lexical units related to the subject as follows. At this point, based on the opinion of above-mentioned scientist, the following theoretical conclusions were drawn, to which we should attach importance in the formation of the geological terminology of the Uzbek language. 1. Foreign scientific words and terms must be fully translated into Uzbek; 2. It is appropriate to leave the untranslated words unchanged only when it is impossible to find a complete alternative (equivalent) to the Uzbek word or when it is widely used as a word borrowed from a foreign language; 3. In this case, it is correct to give the foreign term a form specific to the Uzbek language. At the same time, it is important to select words from new lexical units with the correct meaning, using the composition of the national vocabulary of the literary language in the formation of new terms. For example: in English: *observation, phenomenon, acid, fire glass, earth's axis, air pump, experience, movement, particle, fire-breathing mountain, laws of motion, refraction of rays, balance of bodies, slaked and quicklime, specific gravity, magnetic needle,* etc. In Uzbek: *kuzatish, hodisa, kislota, vitraj, globus, havo nasosi, tajriba, harakat, zarracha, olovli tog', harakat qonunlari, nurlarning sinishi, jismlar muvozanati, o'chgan va so'nmagan ohak, solishtirma og'irlik, magnit igna,* etc. [2]. The terms acid and magnetic needle in the Uzbek examples above can be an example of our second theoretical conclusion. In the 19th century, geology developed rapidly as an independent science. In turn, the number of lexical units making up geological terminology has increased and improved. During this period, terms such as: *bank, reef, underwater plateau, young platform, anthropogenic relief, asymmetry of relief, buried relief, river terrace, fossil relief, coral structure, coral reef, channel, adjacent reef* appeared in the languages of the world, especially in English , dunes lexical units such as *qirg'oq, rif, suv osti platosi, yosh platforma, antropogen relyef, relyefning assimetriyasi, ko'milgan relef, daryo terrasi, qazilma relyefi, marjon tuzilishi, marjon rifi, kanal, chegara*, appeared in the geological terminology of the Uzbek language. At the same time, when systematizing the terminology of mining and geology, it was important to use the term in accordance with the content of a particular concept, to create special explanatory

ISSN NO: 2770-8608
December 2024

dictionaries that reveal the functional-semantic boundaries. As a result, in 1841 the "Mining Dictionary" was published in Russian for the first time in Russia. This dictionary contained approximately 3,800 terms in the fields of geology, metallurgy, chemistry, physics, mechanics and civil engineering [4]. Thus, the publication of this dictionary contributed to the creation of the first complete system of mining and geological terminology in Russia at that time, organized in Russian, alphabetically.

Discussion. Thus, the publication of this dictionary contributed to the creation of the first complete system of mining and geological terminology in Russia at that time, arranged alphabetically in Russian. The next period of rapid development of the geological terminology corresponds to the last quarter of the 19th century. This period can be seen as an important stage in the emergence and gradual development of geosciences, more precisely geology. The terms of this period testify to the development of all scientific and technical ideas in the geological industry and indicate the systematic and progressive organization of terminology. As a result, the geological terminology is as follows: *cract hole, cractlayer – tirqish teshigi, yoriq, bogrelief – noqulay relef, accumulative terrace – akkumulyativ terrasa, dasht akkumulyativ tekisliklari, orogen – orogenez, denudation – denudatsiya, plateaus denudation – platolar denudatsiyasi, abrasion platform – abraziv qirg'oqlar, abraziv platforma, anticline – antiklinal struktura, the valley of the U-shaped - U shaklidagi vodiy, estuary – estuariya, couloir – dara mesorelief – mezorelef, mountainous terrain – tog'li relefi, blocky mountains -to'siqli tog'lar, accumulative shore – akkumulyativ qirg'oq* and other field terms were added [10].

In Uzbekistan, there are still not enough textbooks and training manuals in Uzbek covering the science of geology, which is a natural science. For example: "Dictionary of Geology" by O. Sodikov (T., 1958), G.O. Mavlanov, G.A. Utyushev "Dictionary of Russian-Uzbek geological terms" (T., 1978), firstly, printed in a few copies, secondly, they do not contain complete explanations of technical terms and, thirdly, understand the meaning of new terms and conceptual neologisms that have appeared in the last 35–40 years in have entered our language does not fully meet the ever-increasing needs of readers. In view of this, in 1995 "Russian-Uzbek explanatory dictionary of geology", consisting of 240 pages, was compiled under the authorship of T.N. Dolimov. The dictionary contains more than 2,500 of the most commonly used geological terms and, in our opinion, can be considered the first comprehensive geological terminology dictionary [7].

Not long after, in 2007, under the authorship of scientists such as B.A. Isakhodjaev created the "Russian-Uzbek explanatory dictionary of geological terms". This dictionary contains more than 7,400 definitions of geological concepts, i.e. terms. During this period, word acquisition is also important for the development of the geological terminology of the Uzbek language. Therefore, we found that most of the field terms came from the English language, but entered the Uzbek language through the middle Russian language and adapted to the phonetic and grammatical rules. The following borrowed terms below. For example: Uzbek borrowed terms: *minus, plus, diameter, radius, formula, barometer, horizon, ecliptic, microscope, meteorology, optics, horizontal, vertical, periphery, etc.; Russian borrowed terms: минус, плюс, диаметр, радиус, формула, барометр, горизонт, эклиптика, микроскоп, метеорология, оптика, горизонтальный, вертикальный, периферия; English terms: visual minus, plus, diameter, radius, formula, barometer, horizon, ecliptic, microscope, meteorology, optics, horizontal, vertical, periphery* [8].

If the above geological terms were formed in the English language in the 18th century, we can observe that they were widely used in the terminology of various areas in the Russian and Uzbek languages at the end of the 19th century and the beginning of the 20th century. The number of lexical units in geological terminology is proportional to the amount of knowledge and skills acquired at the historical stages of development of the field. Because as expertise increases, the need for new words and terms also increases. In most cases, this need is met through the acquisition of words and terms from different subject areas and the creation of new words and terms. The numerical growth of geological terminology in the English and Uzbek languages is closely related to the general development of the lexical fund of the literary language in both languages. It has been observed that the stages of development of geology-related units in English and Uzbek languages are inextricably linked with time and system in both languages. Although the use of geological lexical units in the Uzbek language and the English language goes back a long time, some of them were used as international terms as early as the 19th and 20th centuries.

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It should be noted that new periodical publications, educational and scientific literature, the emergence of new specialties, as well as the rapid development of science and technology ensure that the process of concept formation is somewhat disorganized and disordered [9].

Conclusion. Therefore, as a result of our analysis, we present three scientific views that are directly related to the formation of geological terms: 1) in the field of terminological units formed on the basis of the current English and Uzbek literary languages; 2) terminology of other languages, firmly established in the English and Uzbek languages and mastered by the people; 3) Using the terminology of other languages to create new terms in both languages, i.e. word acquisition is effective in forming geological terminology.

References:

1. Лотте Д.С. Как работат над терминологией // Основы и методы изучения терминологии. - М., 1968. - С. 39–48.
2. Simpson, J. A., and E. S. C. Weiner. 1989. The Oxford English Dictionary. Oxford: Clarendon Press, P. 742
3. Barno, T. (2022). Lexical-Semantic Features of Geological Terms and Lexemes in English and Uzbek Languages. *Central Asian Journal of Literature, Philosophy and Culture*, *3*(12), 148-152.
4. Turdikulova B. T., & Akhmedov, O. S. (2022). Prospects for the Development of Dictionaries of Geological Terms and Their Features. *International Journal of Social Science Research and Review*, *5*(5), 7-12.
5. Turdikulova B. T., & Akhmedov, O. S. (2022). International Journal of Social Science Research and Review.
6. Saporbayevich, A. O., & Toirkulovna, T. B. Translating Methods of English Geological Terms and the Problem of Computer Lexicography. *International Journal on Integrated Education*, *4*(4), 1-4.