

## SOME ASPECTS OF THE FORMATION OF GEOLOGICAL TERMS IN ENGLISH AND UZBEK

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### ABSTRACT

The article shows the formation of international terms in geology and other fields in English and Uzbek, which are mainly mastered. The formation of geological terms in English with the help of the suffix -ite, their assimilation into Russian and Uzbek languages are analyzed. The purpose of the study is to study the methods and laws of structure and development of geological terms. Special attention was paid to the specific features, lexical-semantic and morphological features of the geological terms selected for the study.

### Keywords:

terminology, geological terms, international terms, word formation, suffix, assimilation.

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### Introduction

The creation of wide conditions for the development of national languages in Uzbekistan, the fact that today in our country educational institutions and the media operate in seven languages is an important factor in strengthening interethnic harmony and harmony in the life of our society. In recent years, in order to ensure the deeper integration of our country in the world community, a comprehensive system of teaching foreign languages, in particular, English, has been created and widely implemented in practice [1].

The idea that foreign language acquisition occurs in all languages is also consistent with terminology. "In all languages, to express a new concept, either a ready-made term from another language is adopted, or a word or term that already exists in that language is used, or a new term is created", wrote S. Akobirov [2]. Assimilation as a derivational process is much better studied in linguistics. The Russian linguist L.P.Krysin argues that it is usually considered as the transition of elements of one language to another language system as a result of a certain lengthy relationship between two languages [3].

The main purpose of the scientific and technical text is the exchange of scientific information, achievements in the field of science

and technology by different countries, scientists and others. It is important that the grammatical and lexical features of a text do not prevent them from being understood in order to be properly understood by scholars and workers who speak different languages. To do this, it is necessary to correctly identify and take into account the grammatical and lexical units of the translated scientific or technical text.

In English geological and mining terminology, as in any other technical terminology, nominative-specific nominal structures predominate, i.e. the following words are formed to name, designate objects, events, movements: *to mine (it is a verb i.e. action) and miner (this is a person)*. It is also common to use prepositional-nominal compounds instead of suffixes. There are cases of dropping articles, especially the article. Often this feature occurs in instructions, technical descriptions before certain parts or names, as well as before the names of scientific fields, example: *Ultimate mineral processing challenge*.

One of the main features of the scientific and technical literature is the consistency and logic of the material presented. Interrogative sentences are very rare in texts of this style, command sentences are basically absent because

they express a high emotion that is not typical of a scientific or technical style.

It is well known that one of the main means of creating terms is general word formation. There are several ways to create terms:

1. lexical-semantic way - the acquisition of different meanings by one word, the transition of a word from one part of speech to another and etc.;

2. morphological method (derivation) - a combination of morphemes based on the existing bases and word-formation suffixes in the language. In this method, the combination of morphemes can be done in the following ways: a) perfection, i.e. by adding a prefix to the base of the word (after injection, cross-drift, misconvergence, after cooler, etc.); suffixation, that is, with the addition of a suffix to the base (tractor, bulldozer, dynamite, vulcanite, dendrite, dissolver, clarifier, etc.); c) the addition of words, i.e. a new term is formed by the addition of existing bases (carbon-bond, coalhole) [3, p. 68].

## Methods

The linguistic method of distinguishing geological terms, the method of identifying terminological nests, comparative analysis, structural-semantic analysis and other methods were used to study and describe the geological terminological lexicon.

The methodological basis of the research was the work of scientists in the field of linguistics and, in particular, the theory of terminology. (G.O.Vinokur, V.V.Vinogradov, V.V.Gak, B.N.Golovin, V.P.Danilenko, T.A.Kandelaki, A.A.Reformatskiy, T.Berdieva, Ya.Kalontarov, Sh.Rustamov et al.).

Various sections of the geological dictionary of the Russian language E.V.Bessonova, V.A.Titova, O.I.Strijevskaya, L.M.Parfyonov, E.K.Lazarenko, A.N.Zavarinsky, N.B.Vassoevich, reflected in the work of M.G.Berger et al. To date, some Tajik scientists have tried to study the construction of geological terms in a comparative typological way. For example, R.M.Sultanova's dissertation is devoted to the comparative analysis of geological

terminology in Russian and Tajik languages [5]. Geological terms in the Uzbek language are not the subject of special research, and a comparative typological study of this system of terms is mainly given in scientific articles. The reason for this gap in comparative terminology is that the topic itself is complex. The linguist must analyze the geological terminology, inevitably combining the knowledge of the linguist and the geologist to a certain extent.

## Results

Geological terminology includes terms that define objects and their complexes. They can be of natural origin as well as artificially constructed and include natural phenomena and processes, artificially occurring events and processes. The number of lexical units in geological terminology depends on the amount of knowledge accumulated at each stage of geological development. As knowledge increases, so does the need for new terms, a phenomenon that is partially offset by the assimilation of terms from other areas as well as the structure of new terms.

The emergence of geological terminology dates back to ancient times. Precious stones, minerals and minerals were mined in Central Asia in ancient and medieval times. The collected rocks and minerals were described by Abu Rayhan Beruni in his book, which is called "A Collection of Information on the Knowledge of Precious Minerals". Abu Ali ibn Sina also studied rocks, ores and minerals.

During the former Soviet era, many discoveries were made in the field of geology. Also, the works of foreign scientists, scientific achievements were generalized and geological dictionaries were compiled.

Using the method of quantitative analysis of the collected materials, it was found that only 19% of the Russian geological terminology consists of ancient Russian terms. The main part of geological terminology consists of words borrowed from other languages. It was also determined by the method of quantitative analysis that 40% of the total number of geological terms

are single-word terms. Almost half of these are mineral names, mostly assimilation words. If we pay attention to the etymology of the assimilated words, we will see that most of the geological terms are derived from the Greek language (35%). In turn, it can be seen that 15% of the terms are derived from Latin, 5% from German, 4% from English, 4% from French, 1% from Turkish, 0.5% from Swedish, and 0.5% from Spanish.

The role of terms learned from Greek, Latin, German and French in the formation and enrichment of various field terms in English is special. Ecology (Greek. Oekos - housing, logos - science) - ecology as a term derived from English into Russian; biology (Greek. bios - life, logos - subject); reservoir (French: reservoir - swimming pool); acclimatization (lat. for ac-, Greek. klimatos - climate); algology (Lat. algalogy - doctrine), antagonism (Greek. antagonisma - debate, struggle), population (lat. population - people) and so on. Some terms in Russian are also borrowed mainly from Latin, Greek and French: *абиотическая среда* (Greek.  $\acute{\alpha}$  - negative particle, *bioticos* - vital); *абориген* (lat. *aborigenes* - from the beginning); *абразия* (lat. *abrasio* - digging); *биом* (Greek. *bios* - haet + lot. *omat*, *oma*); *бонитировка почв* (lat. *bonitas* - good, positive); *валеология* (lat. *vale* - health and *logos* - knowledge); *деградация среды* (fr. *degradation* - to degrade, to go backwards, to decline in quality); *локальный* (lat. *localis* - local).

Most terms in Uzbek are borrowed from Russian. International terms from English to Russian, and then from Russian to Uzbek, are also common in the geological field. Some of them are made with the help of the suffix *-ite* in modern English. In scientific language, it is used to make horses that represent the names of minerals, salts, various acids, explosives, organic compounds, and chemical products [6]. For example: *lignite*—*lignit*; *abukumalite* — *abukumalit*, *sternite* - *sternit*; *dynamite* - *dynamit*; *barite* - *barit*, *cordite* - *cordit*; *arsenopyrite* - *arsenopyrit*, *arfvedsonite* - *arfvedsonit*, *aragonite* - *aragonit*. The *-ite* suffix is especially common in mineral names. In making

such names, it is added to the cores of two semantic classes of words:

1) It is added to the stem of a famous horse denoting the person who first discovered the mineral, explosive, etc., or to the stem of a horse denoting the name of the place where it was first discovered and discovered. Example: *Prehnite* – (after the Dutch Colonel van Prehn who in 1774 brought it from the *Martensite* – (after prof. A. Martens, German naturalist). *Cape of Good Hope*). *Lyddite* – (so named from the proving grounds at Lydd, England). *Lewisite* – (after G.N. Lewis). *Dolomite* – (after the French geologist *Dolomier*). *Pyrite* – (from *Ypres*, a town in N.W. Belgium). *Monzonite* - (from *Monzoni* in Tyrol, the place from which first described). *Okenite* – (after *Lorenz Oken*, German naturalist).

2) With the help of this suffix, a mineral, a chemical element or an explosive substance, which is named, is added to the stem of a horse, which represents a characteristic sign or property of an explosive. For example: *Roburite* - *roburit*, a powerful explosive (lat. *Robur* - power). *Sepiolite* - *sepiolit* (lat. *Sepia* - *sepia* (*karakatitsa*)). *Specularite* - *specularity* (gr. *specula*- look a lot of time to someone). *Stellite* – *stellit* (lat. *Stella* -star). *Stilbite* - *stilbit*, (gr. *Stilbe* - glossy).

## Discussion

Geological terminology, like terminology in other fields, has its own morphological, lexical-semantic features. As a result of the rapid development of technology, new terms are emerging in the fields of mining, oil and gas. The study of the linguistic features of lexical units on this topic, the creation of bilingual and multilingual annotated dictionaries should be an integral part of the research work of leading experts in the field of linguistics.

In English, geological terms are formed using productive prefixes and suffixes. In addition to the suffix *-ite*, the following suffixes can be found in the developed international geological terms: - ant, - ent; -ar; -ard; -ate; -ete; -ute; - id; - ide; -ile; -ine; - oid.

In order to regulate and unify geological terms, geological dictionaries are created. They include interpretations of terms, interpretations, translation from one language to another, linguistic research of terminological nomination. For example, in the 3-volume "Explanatory Dictionary of English Geological Terms" [7, 8, 9], the main part of the terminological base is minerals.

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