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# Translating Methods of English Geological Terms and The Problem of Computer Lexicography

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***Abstract***

*In recent years, much attention has been paid to teaching ESP (English for Specific Purposes), since the study of "special" texts, with their terminology, increases the motivation of the student, replenishes the vocabulary that will be useful in a future profession. When expanding the research topic, the work of scientists who studied the translation of geological terms in different years was analyzed, the names of some minerals were selected, their morphological structure was studied, and compared with the translation. The results of the study showed that to date in Uzbekistan there are no electronic dictionaries on geological terms. Therefore, we believe that in universities where there are areas of geology, we should pay the attention of teachers of foreign languages to teaching English for special purposes, and conduct their research in accordance with this specialty.*

***Keywords****: geological term, mineral, morphological structure, translation, comparison, borrowing.*

## Introduction

It is known that the development of the concept of ESP teaching was determined by three important factors: the growing need for English to be used in certain areas; new trends in linguistics and teaching methods, the transfer of attention to the interests of the learner, etc. All of these factors determined the need for specialization in language learning [1, p.69] . The role of English as an international language of communication is growing as globalization processes grow; The introduction of new technologies in foreign language teaching is also of great importance. All this has created a wide range of opportunities for learning English and using it in various fields. One of the factors that makes ESP more relevant is the growing need for the learner's first professionalization. The focus is on the learner's personality, needs, interests, attitude to the learning process. Now it is important that the content of education meets the requirements and interests of the learner, defining the methodological and didactic principles of teaching. Emphasis is placed on the use of special thematic texts in teaching English to undergraduate students, such as texts on biology for biologists, texts on geology for geologists, texts on economics for economists, and so on. Studying such special texts, understanding their terminology increases the learner's motivation and makes the teaching process more efficient.

There are many geological terms in geological texts. We analyze mineral terms here. When translating English geological terms into Uzbek, it is necessary to analyze their morphological structure, etymology, semantics, to understand the principles of naming.

When translating geological terms into Uzbek, they are often translated from English into Russian and then into Uzbek. Therefore, it is important to compare English and Russian terms, to interpret the concepts correctly, to identify differences in the system of concepts expressed by the

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terms in the original and translated languages. These are done to select the correct equivalent during translation. Only in this way can uniformity in scientific language, or at least as close as possible, be achieved.

In recent years, the number of scientific researches, doctoral dissertations, participation in international conferences in all spheres, including geology, has been increasing in our country. Literature written in Russian and English is used in writing doctoral dissertations. Abstracts are required to be prepared in Uzbek, Russian and English.

Analyzing the structure of the translation of mineral names selected from the encyclopedia of bilingual illustrations by P. Corbel and M. Novak [ 3 ] , we can identify a number of features.

English terms can be represented by 8 structural types. In many cases the morphological structure of the English term is translated into Russian with the same morphological structure of the Russian term. The differences between the structure and methods of construction of Russian and English terms are very small. For example, it is possible to compare the English names of minerals and their translations into Russian and Uzbek. Morphological structures often coincide when English terms are translated into Russian. When translated into Uzbek, some terms are pronounced the same as in Russian. In some of them, there are some changes in the terms with Uzbek words:

1) Simple: Quartz - Quartz, Zircon - Zircon, Amethyst - Amethyst, Topaz - Topaz, Grossular - Grossular; Chalcedony - Halcedon, Corundum - Corundum, Labradorite - Labrador. Russian and Uzbek translations are the same.

2) Artificial (derivative) words, with a suffixal morpheme: Hessite - Gessite, Graphite - Graphite, Pyrrhotite - Pyrrhotite, Chalcocite - Chalcosine, Ruby - Ruby. The terms in this group are also translated into Russian and Uzbek.

3) Artificial, suffixal two morphemes: Molybdenite - Molybdenite, Uraninite - Uraninite, Cubanite - Kubanite, Valentinite - Valentinite; Platinum - Platinum, Vesuvianite - Vesuvian. In this group, "platinum" can be translated into Uzbek as "platinum" and "gold".

4) Artificial, prefixal-suffixal: Ferro-columbite - Ferro-columbite, Ferri-molybdite - Ferri-molybdite. Most of the minerals in this group are derived from Russian.

5) Compound: Euclase - Euclidean, Actinolite - Actinolite, Rauchtopaz - Rauxtopaz, Chrysoprase - Chrysoprase, Heliotrope - Heliotrope; Hornblende - Rogovaya obmanka - Shiny shale ( obmanka - a word in the name of some minerals, translated into Uzbek as "shiny". For example: mednaya obmanka - shiny mistosh, zinc shale - shiny rukhtosh) .

6) Compound-artificial, 2 bases and suffixes: Rhodochrosite - Rhodoxrozite, Tridymite - Tridimite, Wolframite - Wolframite, Pyrolusite - Pyrolyusite, Chalcopyrite - Chalcopyrite.

7) Abbreviations: Orpiment - Auripigment, Loparite- (Ce) - Loparite- (Ce).

8) Two- component phrases: Rock crystal - Gornyy crystal - rock crystal ; Hawk's eye - Sokolinyy eye - the eyes of a hawk , Tiger's eye - Tigrovyy eye - the eyes of a tiger . These are the literal translation of terms.

From this it can be concluded that assimilation, as a method of translation, used direct translation. In accordance with the classification of assimilations by S.V. Grinev- Grinevich, based on the nature of the assimilated material [2 , p.6 ], we distinguish the methods used here:

1) material - mastering the material form of the term in a foreign language, in which the following are distinguished:

- lexical - the assimilation of the material form of the word by its content (for example, the mineral "Quartz" - "Quartz" German "querkluftertz" - poperechnaya ruda, transverse ore );

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- formal - just assimilating the material form of the word and filling it with new content (e.g. “Onyx” mineral - “Onyx” Greek “onyx” - nail);
- morphological - the acquisition of primitive or word-forming morphemes to form new terms in the host language (for example, the mineral "Geocronite" - "Geocronite" Greek "geo" - Earth and "kronos" - Saturn, i.e., surma and lead (Russian: surma i svinets) .

2) Kalkalash - without assimilating the material form of the lexical unit, only its structure or meaning is assimilated:

- phraseological - a literal translation of a phrase in a foreign language (for example, the mineral "Rock crystal" - Russian: "Mountain Crystal", Uzbek: "Mountain Crystal").

It can be seen that among the names of English minerals the most common are borrowings from the ancient Greek and Latin languages, i.e. material morphological names.

The names of the two-component minerals are phraseologically skewed in structure. If the minerals are named after the place where they are found or after the names and surnames of the people, they will be transliterated, i.e., the graphic form of the word in the original language is represented by the language being translated. For example, “Cubanite” - “Kubanite” (Cuban island), “Hessite” - “Gessit” (G.I. Gess). This is stated in the recommendations of the Commission on New Minerals, Nomenclature and Classification [ 10 ], as well as E. X. Nickel, D. D. Grays' article [ 4 ] states : "The name must be transliterated in Latin letters and printed with the original name of the mineral."

## Conclusion

In conclusion, it should be noted that today more than 5,000 minerals are known. If a trilingual dictionary was created using an English-Uzbek or English-Russian dictionary for their names, it would be a practical help for our specialists and students studying geology, as well as for future translators. Today, the International Mineralogical Association (IMA), in particular its structural subdivision, the Commission on New Minerals, Nomenclature and Classification (CNMNC), is responsible for coordinating actions and unifying terms in the field of mineralogy.

Computer technologies for compiling and using dictionaries are being developed within the framework of computer lexicography. Special programs - databases, computer files, word processing programs - allow you to automatically create dictionary articles, store information in dictionaries. Many different computer lexicographic programs fall into 2 major groups: programs that support lexicographic work and various types of automated dictionaries that include a lexicographic database. An automatic dictionary is a dictionary in a special machine format designed for a user (human) or computer program (word processing program). Automatic dictionaries for end-user-human are different from automatic dictionaries, which are included in machine translation systems, automatic reference system, information retrieval system according to the interface and dictionary article. Often they consist of computerized versions of simple dictionaries known to all. In the software market there are computer analogues of English annotated dictionaries (for example: automatic Webster, automatic annotated dictionary of English by Calling Publishing, automatic version of the New Great English-Russian dictionary edited by Yu.D. Apresyan and E.M. Mednikova), as well as Ojegov There is also a computer version of the dictionary. [6]

Today, for the purpose of studying English for special purposes, including the introduction of geological terms to students majoring in geology, it is necessary to create dictionaries in Uzbek. It would be useful to explain their structure and etymology in dictionaries.

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## References

1. Afanaseva M.V. ESP - angliyskiy dlya spetsialnyx tseley: istoriya i sovremennost // Gumanitarnye nauki. №3 (7). 2012. S.68-70.
2. Grinev-Grinevich S.V. Terminovedenie: ucheb. posobie dlya vuzov. M .: Akademiya, 2008.
3. Korbel P., Novak M. Mineraly. Illyustrirovannaya entsiklopediya / per. s angl. T. Kitainoy. M .: Labirint Press, 2004. 296 p.
4. Nickel E.X., Grays D.D. KNMNM MMA: rules and guidelines for the nomenclature of minerals / per. s angl. A.G. Bulaxa, P.I. Karchevskogo // Zapiski Rossiyskogo mineralogicheskogo obshchestva. 1999. Ch. 128, vyp. 2. S. 51-65.
5. Explanatory dictionary of English geological terms: v 3-x t. / pod red. M. Geri, R. Mak-Afi ml., K.. Vulfa; per. s angl. under red. L.P. Zonenshayna. M .: Mir, 1977. T. 1: af. 592 s. ; M .: Mir, 1978. T. 2: gp. 592 s. ; M .: Mir, 1979. T. 3: qz. 544 s.
6. Computer linguistics. // [ E lektronnyy resource ] URL : https://www.krugosvet.ru/enc/lingvistika/kompyuternaya-lingvistika (Data Contacts location. 7.06.2020)
7. Samsonov Ya.P., Turinge A.P. Samotsvety SS SR: spravochnoe posobie / pod red. V.I. Smirnova. M .: Nedra, 1984. 335 p.
8. Farndon D. Dragotsenniye i podelochniye kamni, polezniye iskopaemiye i mineraly. Encyclopedia collector / per. s angl. O. Stroganovoy; nauch. consultant A.S. Tarantov. M .: Eksmo, 2010. 256 p.
9. Korbel P., Novak M. The complete encyclopedia of minerals. Description of over 600 minerals from around the world. United Kingdom: Grange Books PLC, 2001.296 p.
10. Commission on New Minerals, Nomenclature and Classification [Electronic resource]. URL: http://nrmima.nrm.se//