



## Prospects for the Development of Dictionaries of Geological Terms and Their Features

Barno Toirkulovna Turdikulova<sup>1</sup>; Oybek Saporbaevich Akhmedov<sup>2</sup>

<sup>1</sup> Senior lecturer, Gulistan State University, Uzbekistan

<sup>2</sup> Doctor of Philological Sciences, Professor, Uzbekistan State World Languages University, Uzbekistan

Email: barnoturdikulova512@gmail.com; axmedov.oybek@mail.ru

<http://dx.doi.org/10.47814/ijssrr.v5i5.328>

---

### **Abstract**

Scientific terminology is one of the important layers that replenish the vocabulary of the Uzbek and other languages. When compiling scientific and technical terminological dictionaries, it is necessary to pay attention to its practical orientation. When translating an English term into Uzbek or Russian, one or more of its meanings are given. By location, the main word (by meaning) is given as the first word. The article defines and deals with analyzing some types of dictionaries. Dictionaries of geological terms are analyzed properly; their structure is also briefly described. As well as practical recommendations are given for teachers and lexicographers of the geological direction on working with a dictionary and on compiling a dictionary.

**Keywords:** *Geological Terms; Terminology Dictionary; Phrase; Component; Multicomponent Terms; Professional Concept*

### **Introduction**

It is important that students studying geology understand the meaning of special texts, understand texts and sentences in foreign journals and books published in foreign languages and translate them into Uzbek, as there are a number of areas of geology, and new technologies are being introduced as new terms emerge.

It is known that the main component of the scientific method in any language are specific words and phrases, i.e. terms. Textbooks and manuals provide lexical and grammatical material that is usually underused. Today, special attention is paid to this issue, and efforts are being made to fill the new generation of textbooks with modern texts. Of course, for this, science teachers will need to be able to distinguish a term from a simple word, to teach the method of distinguishing specific terms related to this or that specialty from scientific and technical texts.

### ***Analysis of the Literature on the Subject***

In her dissertation research [6], the Russian scientist D.G. Kukasova made a comparative study of the terms related to oil and gas geology in Russian and English. There are currently a number of dictionaries in Russian that include geological terms and their definitions. The dictionary of terms on general geology published by Falklar [9] contains the most commonly used geological terms and concepts. Most of them are used in the description of endogenous and exogenous geological processes, geological structures and tectonic faults. The dictionary of geological terms and concepts compiled by V.P. Parnachev [10] which is intended for students studying in geological faculties. In a short geological dictionary for schoolchildren published by G.I. Nemkov [7] is given with explanations of more than 3,000 terms related to geology.

Apart from Uzbek-English, Russian-Uzbek-English dictionaries, textbooks and manuals, as well as general dictionaries published in Uzbekistan, only in some areas special dictionaries related to one field are published. For example, J. Dostmukhammedov published an English - Uzbek - Russian dictionary of economic terms.[3]. Concepts and terms related to the field of geology are explained in textbooks and manuals, or in the glossary section of teaching aids. For example, RE Eshbaev's textbook "Fundamentals of Geology, Geomorphology and Soil Science" provides explanations of geological terms. However, this guide contains many spelling errors that need to be seriously edited.[4].

The library of the Ziyonet site contains a total of 205 electronic versions of encyclopedias, reference books, dictionaries, among which we did not find dictionaries in the field of geology, especially Uzbek-English and English-Uzbek dictionaries. Among the books summarized here, for example, dictionaries such as Russian-Uzbek Glossary of Literary Terms (N.Hotamov), Uzbek-Russian-English Dictionary of Spirituality (N.Mahmudov) are placed [15]. The general English-Uzbek dictionary posted on Book.uz contains 75,000 words. Among them there are terms related to geology [12]. According to Jahonnoma.com, the first volume of the Uzbek-English Perfect Dictionary has been published in the United States. The main author of the dictionary is a well-known Uzbek scientist Jahongir Mamatov.

### ***Research Methodology***

The achievements of terminology in the systematic description of special geological lexicon in the Russian language are reflected in the works of a number of Russian scientists, such as S.G. Barkhudarov, A.S. Gerd, S.P. Grinev, V.M. Leichik.

In writing the article, the method of linguistic description was used to consider the Uzbek, Russian and English terminological units. The method of comparative analysis was used to compare different phenomena in the system of terms and to identify similarities and differences between terms in different structural languages.

### ***Analysis and Results***

A characteristic feature of the current period in the development of the Uzbek language is the emergence of new phenomena in socio-economic, political and cultural life, the emergence of many neologisms, names and terminology in various fields of science, technology, industry, culture and art. When translating a scientific and technical text, ready-made terms that are available in the target language are often used. A.S. Gerd in his time in his book "Scientific and technical lexicography" [2, p.72] described the principles of compiling various terminological dictionaries. These include principles such as source selection, word order formation, and methods of interpreting meanings. When compiling a

dictionary, one may often encounter difficulties such as the lack of terminological dictionaries, a list of recommended terms, and the need to develop classifiers, rubrics, and information thesauruses.

Intersectoral terminological dictionaries include polytechnic dictionaries common in different countries. The main sources of terminological dictionaries include monographs and articles related to this field of science, written by leading scientists and experts. The sources involved will also include courses in specialized subjects intended for higher education institutions, as they will provide a clear definition of the concepts and terms of the relevant subject.

The terminological dictionary should also include all terms related to the field listed in the large encyclopedia, explanatory dictionaries. Uzbek-Russian and Russian-Uzbek dictionaries and annotated dictionaries are usually used in compiling terminological dictionaries in Uzbek language. Today, due to the development of international cooperation, the formation of joint ventures, the creation of special terminological dictionaries in various fields, including geology, is of particular importance.

In our opinion, the educational terminological dictionary should fully reflect the textual material in the science program and include all the terms found in the educational texts. The active dictionary of terms is minimal and should include only the most commonly used (most frequently) terms in the field. It would be useful to explain the terms included in the bilingual dictionary of scientific and technical terminology to be created.

Explanatory dictionaries in Uzbek and glossaries are usually used in compiling glossaries. In addition to Russian dictionaries, textbooks, scientific works, English dictionaries are used in compiling Uzbek-English, English-Uzbek dictionaries. In the course of the research, Russian-English and Anglo-Russian geological dictionaries were also analyzed. For example, P.P. Timofeev, M.N. Alekseev, T.A. The Anglo-Russian Geological Dictionary [11] compiled by the Sofianos lists more than 52,000 terms. The dictionary includes terms learned from the materials of various geological congresses and international councils. There are also outdated and obsolete terms. The chemical formulas are given next to the names of the minerals. The general and regional scales for the stratigraphic and chronological divisions of the English-speaking regions, such as the United Kingdom, the United States, Australia, New Zealand, and Canada, are given at the end of the dictionary in the form of special tables. The leading terms are arranged in alphabetical order. In terms of adjective and word, the leading term is replaced by language (~). Comments on Russian translations are in italics. The optional part of the terms is given in parentheses. Synonyms of English terms are placed in square brackets. In translation, close meanings are separated by commas, long meanings by dots and commas, and different meanings by numbers. For example:

**ablykite**- ablykite (clay mineral, containing aluminosilicate magnesium, calcium and sodium);

**abrasion** - abrasion, abrasion, mechanical rupture; fluvial ~ rechnaya abrasion; glacial [ice] ~ lednikovaya abrasion; marine ~ sea abrasion; water ~ water abrasion; wind ~ wind abrasion;

**action** : bergschrund ~ vliyanie bergshrunnda; frost ~ moroznoe vyvetrivanie [11, p.12-13].

The Russian-English Mountain Dictionary [8] contains more than 6,200 Russian mining terms, which have been translated into English. The dictionary mainly includes terms related to aerology, labor protection, mountain rescue work and firefighting techniques in mining. For example:

**bremberg** - brake incline, unclined drift, slope, gravity plane; ~ dvuxkoleynny - two-compartment gravity incline, double-tracked; ~ dvuxstoronniy - two-sided gravity incline; ~ diagonal - diagonal gravity incline; ~ capital - main gravity incline; ~ conveyor - belt incline; ~ odnokoleynny - single-compartment gravity incline; ~ otvalnyy - spoil-heap incline; ~ panelnyy - panel brake incline; ~

plastovyy - coal incline; ~ polevoy - stone brake incline; ~ relsovyy - tracked gravity incline; ~ s beskonechnym kanatom - gravity incline with endless rope haulage; ~ uchastkovyy - district incline;

**burenie** - drilling; ~almaznoe - diamond drilling; ~ vrashchatelnoe - rotary drilling; ~ vrashchatelno-udarnoe - rotary-percussive drilling; ~ mokroe - wet [water-flush] drilling; ~ directed - directional drilling; ~ pnevmaticheskoe - pneumatic [compressed-air] drilling; ~ po porode - rock drilling; ~ razvedochnoe - exploratory drilling, prospect drilling; ~ s produvkoy - air-flush drilling; ~ s produvkoy sjatym vozduxom - air-flush drilling; ~ s promыvkoy - circulation drilling, flush boring, flush drilling, wash drilling; ~ udarnoe - percussive drilling; ~ shnekovoe - auger drilling; ~ shtangovoe - rod drilling.

As for the Russian-Uzbek geological dictionaries, it is worth noting the dictionary published in 2007. The dictionary explains more than 7,400 terms related to geology and related fields. The dictionary is intended for research and production staff involved in geology and mining, as well as students of higher and secondary special educational institutions, and others. It translates Russian terms into Uzbek and explains them as follows:

Graphitization ugley - the graphitization of coal seams is a conversion process consisting of the gradual arrangement of the thin structure of coal, the transition of flat carbon meshes to the three-dimensional crystalline structure of graphite [5, p.80].

Karetka burilnaya - Drilling Karetka - a portable device used for drilling boreholes and wells in underground mines [5, p.129].

When compiling a bilingual dictionary of geological terms, for example, English-Uzbek, terms related to different branches of geology can be formed either in the form of a general list in alphabetical order, or separately by branches. In addition to the translation, the term can be explained or defined in Uzbek.

Students majoring in geology can be given the task of compiling a trilingual English, ie English-Russian-Uzbek dictionary. To do this, the teacher prepares English texts on geology. Students distinguish geological terms from their texts and explain them in Uzbek.

In addition, it would be expedient to include in the dictionary basic phrases that express different professional concepts, or concepts and phrases that have different associative relationships with them. During the academic year, the student must master 150 new terms. The total volume of the educational terminological dictionary should consist of 100 to 200 units. These words and phrases will have to be mastered by 1st, 2nd, and 3rd year students majoring in geology, and other areas of geology (eg, oil and gas, mineralogy, mining) in classroom and independent extracurricular activities. Having mastered such a wide range of terminological units, the student can understand scientific information from the literature in Russian and English in his specialty, and translate and use the information obtained. It should be noted that, according to linguistics, the earliest, most frequently used words cover almost 80% of a text or conversation. The rest of the words seemed to consist of special terms. Explain to students that terms can be ambiguous. When translating a term, one must first find its (common) meaning in general consumption and then translate its other meanings as well. When working with text, you need to find the meaning that is closest to the content of the text.

### ***Conclusions and Recommendations***

When analyzing geological dictionaries, we found it appropriate to make the following recommendations:

- 1) when compiling a dictionary, it is necessary to explain to students that it is necessary not to give all the meanings of the term, but only the meanings that are directly related to the specialty;
- 2) it should be explained that the dictionaries being created are educational dictionaries and do not intend to include more words and phrases related to this area of knowledge, so the dictionary or glossary can reflect only terms related to the specialty and reading the literature;
- 3) after translating the term, it is necessary to give a brief explanation of it in the language being translated;
- 4) The dictionary should also include international words translated into Uzbek.

In conclusion, it should be noted that in recent years, Uzbekistan is being comprehensively developed and included in the list of developed countries in the world, with a focus on the development of all sectors of the economy. Uzbekistan is rich in surface and underground natural resources, mineral resources, and geology plays an important role. Completion of the first stage of construction of the University of Geological Sciences and their commissioning has been extended until December 2021. The first students were admitted to this university. It is necessary to create new geological dictionaries by professors and teachers of the university, especially in collaboration with scientists of UzSWLU, English-Uzbek and Uzbek-English terminological dictionaries. Because in order to speak and debate in English at events such as international symposiums and meetings, experts also need to know the English version of industry terms.

### ***References***

1. Axmedov O.S. Ingliz va o'zbek tillarida soliq-bojxona terminlarining lingvistik tahlili va tarjima muammolari. Fil.fanlari doktori diss. Toshkent. 2016. 256 b.
2. Akhmedov O.S., Khudoyqulova D.Q. Diachronic Study of Pharmaceutical Terms. *Journal of Critical Reviews*. Vol 7, Issue 12, 2020. p.117-119.
3. Akhmedov O.S., B.T.Turdikulova. Translating Methods of English Geological Terms and The Problem of Computer Lexicography. *International Journal on Integrated Education*. Volume 4, Issue 4, April 2021.
4. Resolution of the President of the Republic of Uzbekistan. "On additional measures to actively attract investment in the field of geology, the transformation of enterprises in the industry and the expansion of the mineral resource base of the Republic." <https://lex.uz/docs/5383715>
5. Gerd, A.S. *Osnovy nauchno-tehnicheskoy leksikografii* / A.S.Gerd. - L. : Leningrad University Press, 1986. - 72s.
6. Dostmuhammedov J. *English - Uzbek - Russian Dictionary of Economic Terms* / J. Dostmuhammedov. - T. : Uzbekistan, 1994.
7. Eshboev, R.E. *Fundamentals of geology, geomorphology and soil science* / R.E. Eshboev. - T., 2002. - 111 p.

8. Isaxodjaev B.A, Umarxodjaev M.U, Adilov A.A, Pirnaearov M.M, Azimov A.M. Russian-Uzbek dictionary of geological terms. Volume 1 A-L. / B.A.Isahodjaev and b. - Tashkent: MRI, 2007. P 154 .
9. Kukasova D.G. Strukturno-semanticheskiy analiz terminov neftegazopromyslovoy geologii v russkom i angliyskom yazykax. Diss... k.filol.n. - Ufa, 2019. - 267 p.
10. Nemkov G.I., Karskiy B.E., Lin N.G. Kratkiy geologicheskiy slovar dlya shkolnikov / G.I.Nemkov i dr. - M.: Nedra, 1989. - 175 p.
11. Russian-English mountain dictionary. Uchebnoe posobie / Sost. V.A. Stukalo. - Donetsk: DonNTU, 2012. - 149 p.
12. Glossary of terms in general geology: uchebnoe posobie / sost .: M.I. Shaminova, A.Yu. Falk. - Tomsk: Izd-vo Tomskogo politexnicheskogo universiteta, 2014 - 72 p.
13. Glossary geological terms and concepts. Compiled by: prof. Parnachev V.P., prof. Vyltsan I.A., prof. Tanzybaev M.G., prof. Rudoy A.N., inj. Kotelnikova I.V. 1-izd. - Tomsk, 1992. - 60 p. 2-izd. - Tomsk, 1995. - 83 p.
14. Timofeev P.P, Alekseev M.N, Sofiano T.A. Anglo-Russian geological dictionary / P.P.Timofeev et al. - M., 1988. 540 p.
15. English-Uzbek dictionary. 75,000 words. // [electronic resource] URL: [book.uz > 75000soz](http://book.uz/75000soz)
16. Inglizcha - o'zbekcha lug'at / English-uzbek dictionary. Compiled by: U.Isakov // [electronic resource] URL : [kitobxon.com > O'zb > kitob / ingilis\\_ ozbekcha ...](http://kitobxon.com/O'zb/kitob/ingilis_ozbekcha...)
17. New book: "Uzbek-English Comprehensive Dictionary" // [electronic resource] URL: [worldnoma.com > 2009/02/10 / lightat /](http://worldnoma.com/2009/02/10/lightat/)
18. [ziyouz.uz > Library > Ziyouz.com library > References](http://ziyouz.uz)

## Copyrights

Copyright for this article is retained by the author(s), with first publication rights granted to the journal.

This is an open-access article distributed under the terms and conditions of the Creative Commons Attribution license (<http://creativecommons.org/licenses/by/4.0/>).