

## THE USAGE OF TRANSLATION TRANSFORMATIONS IN THE SPHERE OF GEOLOGY

UzWSLU

L.A. Rikhsieva

**Annotatsiya:** Ushbu maqolada geologiya sohasida qo‘llanadigan tarjima usullari bayon etilgan va shu sohada faoliyat olib boradigan tarjimonlarni tayyorlashda geologiya terminlarni o‘zlashtirish va chuqur o‘rganish uchun sohaviy tarjima darslarida tarjima ko‘nikmani rivojlantirishga qaratilgan mashqlar namuna sifatida berilgan.

**Abstract:** This article describes the transformations of translation used in the sphere of geology, and provides examples of exercises aimed at developing translation skills in tutorials translation classes for mastering and in-depth study of geological terms in the training of translators in this sphere.

**Аннотация:** В статье описаны трансформации перевода, используемые в сфере геологии, и приведены примеры упражнений, направленных на развитие навыков перевода на учебных занятиях по переводу для освоения и углубленного изучения геологических терминов при подготовке переводчиков этой сферы.

**Key words:** translation, technical translation, lexical transformations, geology

Translation in the certain sphere is classified as scientific and technical translation and translators must have special experience. Scientific literature in the scientific and technical direction is often characterized by a large number of highly specialized terms and term combinations, grammatically difficult structure of sentences, and the need for a deep understanding of the concepts used in the field. According to N.N. Bobyreva: «When performing a scientific and technical translation, the translator should not only be a linguist, but also have special knowledge in this field, because understanding the meaning of the material being translated, it is adequate and correct for the intended language. It is absolutely necessary to convey»[1,27-28]. In mostly, when we talk about scientific and technical translation, we mean text translation. Currently, about 70% of translators work with scientific and technical texts. Translation of this type of literature is very common and in high demand. Translation theory faces an important task in the form of theoretically in-depth analysis of the specific features of scientific and technical translation. The content in various scientific, technological and knowledge-based fields is considered as a specific translation object. A distinctive feature of these materials is the clear expression of thought achieved through the wide use of terms. According to P. Newmark: «In addition to the difficulty of mastering the subject and perfectly knowing the terms used in the field, in order to achieve an adequate



translation product, it is required to be aware of and comply with the stylistic requirements of scientific and technical materials»[2,153]. A term is a lexical combination specially used to express concepts related to a certain internal field of science, technology, trade, law, sports or geology, according to the definitions given in scientific research. Translators should learn and study the terminology of the relevant field, be aware of translation transformations(methods) and use them, and do a lot of research in order to effectively translate the information in the field. In order to obtain positive results when translating texts related to geology from English into Uzbek in translation process the lexical transformations like *transcription and transliteration, concretization (specification); generalization, calque or half-calque* are available. For example, terms such as names of geological processes, rocks and minerals in English are recognized and used by the world community of geologists are transferred to Uzbek through transcription and transliteration methods: **diabase, diorite, gabbro, magma—magma, lava—lava**. One of the lexical transformation which is called generalization and in translation practice it is less commonly used compared to the concretization method. Generalization in the sphere of geology, there are such famous nouns, and some of them can be translated in a generalized way: **Pahoehoe lava—Balzatli lava**. In fact, when you think of an erupting volcano, with vast rivers of lava flowing out, that’s **pahoehoe** – it’s a Hawaiian term. It’s a basaltic lava that once hardened has a smooth, ropy surface. The nicknames of geological notions in the original texts may be presented as important information to the speakers of that language, but to the receivers of the translation they are seen as irrelevant and redundant information. In the field of geology, there are such famous notions, and some of them can be translated using of generalization transformation like **pahoehoe lava—balzatli lava**.

In the course of translation in the branches of geology the grammatical and lexical-grammatical transformations, such as *substitution, transposition, integration, portioning, explication, reduction (omission), antonymic translation* were carried out in the translation of terms and term combinations in geological texts:

**Source Language:** **Collapse** *calderas form when a large magma **chamber is emptied** by a volcanic eruption or by subsurface magma movement*[3].

**Target Language:** *Katta magma o‘chog‘i vulqon otilishidan **bo‘shab qolishi** yoki er ostida magma harakatining natijasida **o‘pirilgan** kalderalar hosil bo‘ladi.*

**Analysis:** *In source language the word **collapse** is a noun, whereas in translation it is transformed as a participle **o‘pirilgan**, **chamber is emptied** in passive voice is transformed as adverb, that is why in target language the type of grammatical transformation substitution is used. Furthermore, the another*

*type of grammatical transformation transposition is used because the components of sentences are changed.*

It is an essential part and will be worth mentioning that practical exercises should be elaborated to develop translation skills and learn geological terms among students of field translation. For example: **A set of tasks for developing students' skills of translating special sphere-related texts:**

Translate the terms and term combination in geology from English and determine the type of lexical transformation: *transcription, transliteration, calque or half-calque: abyssal, alluvial, ash flow, basalt, geyser, granite, Iron Ore, lava flows, sedimentary rocks, serpentine.*

Translate the terms in bold from passage below into your native language and define the type of lexical transformation is used in translation:

**Source language:** *Igneous rocks form from the solidification of once-molten rock material. When this mushy melt is found underground penetrating other rocks, it's called magma, and the solidified rock is termed intrusive. By contrast, molten material that has erupted onto the Earth's surface is named lava, which cools into what geologists call extrusive (or volcanic) rocks [3].*

Match the following terms(1-6) with definitions(a-f):

<b>Terms</b>	<b>Definitions</b>
intrusive igneous rocks	a) rocks have been modified by heat, pressure, and chemical processes, usually while buried deep below Earth's surface.
extrusive igneous rocks	b) a specific kind of mudflow made up of volcanic debris
metamorphic rocks	c) rocks erupt onto the surface, where they cool quickly to form small crystals.
breccia	d) rocks crystallize below Earth's surface, and the slow cooling that occurs there allows large crystals to form.
lava is	e) a clastic sedimentary rock that is composed of large (over two-millimeter diameter) angular fragments
lahar is	f) molten rock that flows out of a volcano or volcanic vent

Check your answers :



Intrusive igneous rocks crystallize below Earth's surface, and the slow cooling that occurs there allows large crystals to form. Extrusive igneous rocks erupt onto the surface, where they cool quickly to form small crystals. Metamorphic rocks have been modified by heat, pressure, and chemical processes, usually while buried deep below Earth's surface. Breccia is a term most often used for clastic sedimentary rocks that are composed of large angular fragments (over two millimeters in diameter). Lava is molten rock that flows out of a volcano or volcanic vent. Lahar is a specific kind of mudflow made up of volcanic debris [3].

In conclusion, it should be noted that in order to overcome difficulties in translation and achieve equivalence, the translator has to master and correctly apply various translation transformations. The most important thing is that elaboration exercises of translation transformations for training students in certain sphere should be aimed at achieving the alternative in the translation language.

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