# Textbook of the Vasyugan Khanty Language, Created by St. Makariy (Nevsky) in 1887, as a Source of Information About the Proto Khanty System of Vowel Phonemes

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# Textbook of the Vasyugan Khanty language, created by St. Makariy (Nevsky) in 1887, as a source of information about the Proto Khanty system of vowel phonemes

In 2021–2022 S. V. Kovylin created a glossed corpus of the publications of St. Makariy (Nevsky) "Materials for the language study of the Vasyugan foreigners (Ostyaks) of the Narym Territory" (1887), published in the Tomsk Eparchial Gazette (1890. No. 13. P. 1–24). Currently, its corpus is available online on the LingvoDoc platform. When referring to this source, it is clear that, from the point of view of vocalism, it differs significantly from the modern Vasyugan dialect: it contains 8 vowel graphemes, while in the Vakh-Vasyugan records for [DEWOs] there are 15 of them. According to E. Helimski, it is the Vakhovsko-Vasyugan system that underlies the Proto Khanty system, which has 14 vowel phonemes, see [Helimski 2001] for more details. Is it possible to interpret the system adopted in the records of St. Macarius (Nevsky) as simplified or inaccurate? Comparison of it with the Vasyugan data in [Pallas 1787–1789] showed that they coincide almost completely, and it became clear that the same vocal transcription presented by unrelated people, separated by a century, cannot be accidental. In this article, we will compare it with the most reliable sources available to us on the Vakhovsko-Vasyugan dialects in order to answer the question of how it happened that the notes of the eastern dialects of K. F. Karyalainen, which formed the basis of [DEWOs], made in Narym on the river Vasyugan in 1900 and considered the standard for the accuracy of the transmission of Eastern Khanty dialects, and St. Macarius (Nevsky), collected in the same area 13 years earlier, can differ so significantly.

The vowel system of the Vasyugan dialect, as far as we know, has not been analysed from a phonetic point of view. M. K. Mogutaev, a speaker of the Vasyugan dialect, who was born in 1915 in Anzhina, Kargasoksky district of the Tomsk region, distinguished 15 vowel phonemes in his dictionary [Mogutaev 1996]: *a, ä, e, ё, u, i, o, ö, у, ÿ, ы, э, ю, я, ӓ̈*.

N. I. Tereshkin distinguished 13 vowel phonemes in the Vakh Khanty dialect, see [Tereshkin 1961: 6]; after having carried out a phonetic analysis, whereas L. Schiefer has already identified 15 phonemes, see [Schiefer 1975: 114]:

*Table 1. Inventory of vowels of the Vakh dialect by [Schiefer 1975: 114]*

| Close vowels | *i* | *ü* | *i̮* | *u* |
|---|---|---|---|---|
| Close-mid vowels | *e ə* | *ö ö̆* | *ə* | *o ŏ* |
| Open vowels | *ä* | *ɔ̈* | *a* | *ɔ* |

In 2019, P. I. Lee conducted an experimental phonetic analysis of the audio dictionary of the Vakh dialect, collected by Tomsk researchers in 2017 in the villages of Laryak, Chekhlomei and Korliki, Nizhnevartovsk District, Khanty-Mansiysk Autonomous Okrug, Tyumen Region in the Praat program . This dictionary is also available on the platform

LingvoDoc  http://lingvodoc.ispras.ru/dictionary/1230/570/perspective/1230/571/view.  As a result, the researcher had identified 11 phonemes, which can be seen Fig. 1 and more in [Lee 2019].
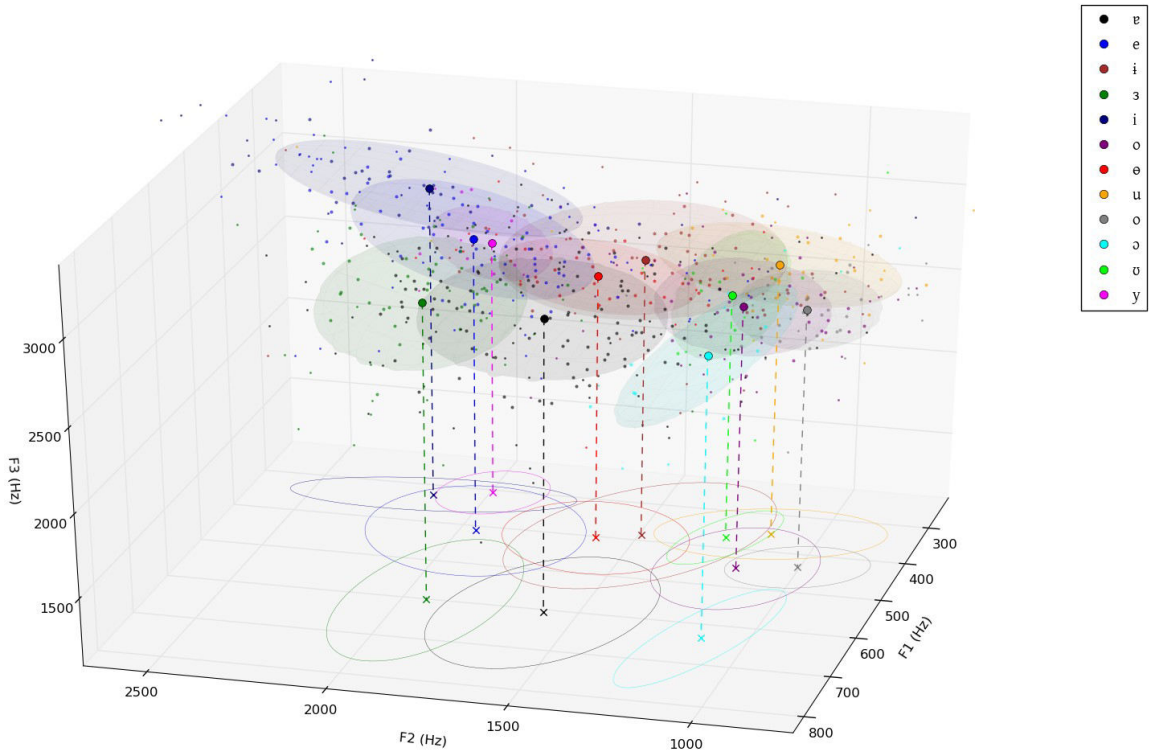


Figure 1. The system of vowel phonemes in the Vakh dialect of vil. Korliki by [Li 2019] Of course, such discrepancies in the number of phonemes by different researchers show the complexity of this issue and possible dialectal variations.

On the contrary, the system of phonemes in the northwestern Khanty dialects, according to [Koshkareva 2013: 50], has only 8 vowel phonemes, see Table 2.

*Table 2. Inventory of vowels of the Vakh dialect by* [Koshkareva 2013: 50]

| Close vowels | i | | | | ŭ | |
| Close-mid vowels | | e | ŏ | ǫ | | ɔ |
| Open vowels | | | | | ă | a |

It is similar to the Vasyugan system of 8 graphemes of St. Macarius (Nevsky): *u, e, a, я, o, y, ю, ы* In terms of the number of phonemes

The question arises, what is the reason for such significant discrepancies in the number of vowel phonemes between the Western and Eastern Khanty dialects and when did they arise? Will a comparison of the systems of St. Makariy (Nevsky) and K.F. Karyalainen, which, as mentioned above, underlies the Pra-Khanty reconstruction by E.A. Helimski, who distinguished the following series of correspondences of Khanty vowels, see Table 3.

*Table 3. Reflexes of Proto Khanty vowels in dialects by [Helimski 2001]*

| Proto Khanty | Vakh-Vas. | Surg. | Irt. | Nizyam., Shurysh. | Kazym | Obdor. |
|---|---|---|---|---|---|---|
| ***aa*** | *a* | *å* | *o / a* | *ɔ* | *ɔ* | *a* |
| ***ää*** | *ä* | *ạ* | *ạ* | *a* | *a* | *ạ* |
| ***oo*** | *ɔ* | *o* | *u / o* | *u* | *ǫ* | *o (ǫ)* |
| ***öö*** | *ɔ̈* | *e* | *o / ạ* | *u / a* | *ǫ / a* | *o (ǫ) / ạ* |
| ***ɨɨ*** | *ɨ* | *ɨ* | *i / e* | *ĭ / ŭ, e* | *ĭ / ŭ* | *i / u, e* |
| ***ii*** | *i* | *i* | *i* | *ĭ / ŭ* | *ĭ / ŭ* | *i / u* |
| ***uu*** | *u* | *u* | *ü / u* | *ŭ / u* | *ŭ* | *u* |
| ***üü*** | *ü* | *i, J ü / i* | *i* | *ĭ* | *ĭ* | *ĭ* |
| ***a*** | *o* | *ŏ / ă* | *u / o* | *u* | *ǫ* | *o (ǫ)* |
| ***ä*** | *e / ö* | *ă / ŏ* | *e* | *e* | *e / ɛ* | *e / o (ǫ)* |
| ***i*** | *ă* | *ă* | *ă* | *ŏ / ă* | *ŏ / ă* | *ă / ŏ* |
| ***ɨ*** | *ə* | *ə* | *ə* | *ă / ĭ, ŭ* | *ă / ĭ, ŭ* | *ă / i, u* |
| ***u*** | *ȯ* | *ȯ* | *ă / ŏ, ə* | *ŏ / ŭ* | *ŏ / ŭ* | *ă / ŏ, u* |
| ***ü*** | *ŏ̈* | *ŏ / ə* | *ə / ŏ* | *ă / ĭ, ŭ* | *ă / ĭ, ŭ* | *ă / u, i* |

    This table shows that, in fact, the Proto-Khanty reconstruction according to E. A. Helimski is focused on the Vakh-Vasyugan dialects, and in more western dialects, part of the Pro-Khanty vowels coincided, in particular, in the Surgut PKh. *ii and *üü, *a and *ä; in Kazym coincided PKh. *ɨɨ with *ii and partly with *uu, *üü, *ü with *i, etc. Of course, this is a logical approach - to consider the most diverse system archaic, if we rely only on the data of dialects recorded in [DEWOs] and collected mostly in the 20th century.

    In this article, we will involve in the analysis of the reflexes of the Proto-Khanty vowels also earlier sources on the Vakh-Vasyugan dialects of the Khanty language, which have not yet been introduced into scientific circulation:

   **in Vakhovsky Khanty:**
– Russian-Khanty part of the dictionary [Dunin-Gorkavich 1910]. The dictionary was published, but we are not aware of scientific works devoted to a detailed analysis of its graphic system. Currently, the Khanty dictionary contains 999 lexemes with etymologies proposed by us, available online on the LingvoDoc platform
(http://lingvodoc.ispras.ru/dictionary/653/2/perspective/653/3/view);

    **in Vasyugan Khanty:**
– concordance of the textbook of St. Makariy (Nevsky) "Materials for studying the language of the Vasyugan foreigners (Ostyaks) of the Narym Territory" (1887), published in the Tomsk Diocesan Gazette. (1890. No. 13. S. 1–24). Previously, this book was not introduced into scientific circulation. The glossed corpus of the textbook was created by S. V. Kovylin (http://lingvodoc.ispras.ru/dictionary/2488/8764/perspective/2488/8767/view), the concordance contains 548 lexemes with paradigmatic forms and is also available online (http://lingvodoc.ispras.ru/dictionary/4860/74880/perspective/4860/93118/view?page=1).
– Dictionary of the Vasyugan dialect of the Khanty language by P. S. Pallas, previously unpublished and found in the archival fund of A. I. Sjogren in the archives of the Russian Academy of Sciences (St. Petersburg). The dictionary was written down in the 18th century. in Latin letters, contains 245 lexemes, available online

([http://lingvodoc.ispras.ru/dictionary/2059/5674/perspective/2059/5675/view](http://lingvodoc.ispras.ru/dictionary/2059/5674/perspective/2059/5675/view));

– Dictionary of the Vasyugan dialect of the Narym district by P. S. Pallas, previously unpublished and found in the archival fund of A. I. Shegren in the archive of the Russian Academy of Sciences (St. Petersburg). The dictionary was written down in the 18th century. in Cyrillic letters, contains 391 lexemes and is available online ([http://lingvodoc.ispras.ru/dictionary/2639/4152/perspective/2639/4156/view](http://lingvodoc.ispras.ru/dictionary/2639/4152/perspective/2639/4156/view));

These dictionaries by P. S. Pallas were not included in the "Comparative Dictionaries of All Languages and Dialects" [Pallas 1787–1789], they partially overlap with the Vasyugan materials of this dictionary, but have numerous phonetic and lexical differences, see for example:

– archival dictionaries: Vasyugan Narym. *начи*; vasyugan *njä´ge* 'white' vs. published: narym. *наве*, *чага*; yug. *неви*; lumpokol. *náге*, *каги*; vasyugan *ньяга* 'Бѣло' [Pallas 1789: 249];

– архивные словари: Vasyugan Narym. *рефъ*; Vasyugan *pélle* 'гора' vs. published: Narym. *репь*, *кы*; Yugan. *репь*; lumpokol. *лохь*, *пель*; Vasyugan *пелле*, *ряфь* 'Mountain' [Pallas 1787: 333];

– Archived dictionaries: Vasyugan Narym. *кахтымторомъ*; Vasyugan *kóckün_tórom* 'hail' vs. published: narym. *кéунгъ-лончь*, *лонсь-кéу*; yug. *коккынгьторомь*; lumpokol. *кэккингьтóромь*, *лоподь* 'hail' [Pallas 1787: 260].

A complete list of differences can be found in the online Cyrillic Vasyugan Dictionary of the Narym District, where M.P. Bezenova cited parallels for all words from the publication [Pallas 1787–1789] ([http://lingvodoc.ispras.ru/dictionary/2639/4152/perspective/2639/4156/view](http://lingvodoc.ispras.ru/dictionary/2639/4152/perspective/2639/4156/view)), and it is easy to see that in many cases the lexemes of this dictionary coincide with the Vasyugan dialect according to the edition [Pallas 1787–1789], but, as mentioned above, there are a number of differences, probably related to the fact that the dictionaries were collected in different settlements. If the vocalism in the edition [Pallas 1787–1789] differs from the handwritten forms, we also list them in the tables marked "edition". They coincide in all other cases, from the point of view of the vowels under consideration.

As a result of the analysis of these materials, we came to the conclusion that the reflexes of the Proto-Khanty vowels in these sources of the 18th - early 20th centuries. basically coincide and in some cases systematically differ from the Vakhovsky-Vasyugan reflexes of vowels fixed

– in [DEWOs] and in modern dialects:

– in the dictionary of the Vasyugan dialect [Mogutaev 1996] and

– in the dictionary of the Vakh dialect [Tereshkin 1961] and

– in the audio dictionary of the Vakhovsky dialect, collected by Tomsk researchers in 2017 in the villages of Laryak, Chekhlomei and Korliki, Nizhnevartovsk District, Khanty-Mansi Autonomous district and Tyumen Region, the dictionary is also available on the LingvoDoc platform ([http://lingvodoc.ispras.ru/dictionary/1230/570/perspective/1230/571/view](http://lingvodoc.ispras.ru/dictionary/1230/570/perspective/1230/571/view)), transcription was performed by P.I. Lee based on experimental phonetic analysis of the audio material, see details in [Lee 2019].

Systemic differences in vowel reflexes in vs. [DEWOs] and in later dictionaries refer to the reflexes of nine Proto-Khanty phonemes according to the reconstruction of E. A. Helimski:

PKh. *oo > vakh.-vasyug. ɔ;
PKh. *öö > vakh.-vasyug. ɔ̈;
PKh. *ɨɨ > vakh.-vasyug. ɨ;
PKh. *ɨ > vakh.-vasyug. ă;
PKh. *i > wah.-vasyug. ə;
PKh. *ü > vakh.-vasyug. ŏ̈;
PKh. *u > vakh.-vasyug. ȯ;
PKh. *ä > vakh.-vasyug. e/ö.

From Table 3 it can be seen that just these phonemes, with the exception of *ɨ > vakh.-vasyug. ă, and distinguish the Vakh-Vasyugan dialects from the Western Khanty group, which, according to the reconstruction of E. A. Helimski, is more innovative. However, as the analysis of the sources showed, the reflexes of these phonemes found in them are in most cases closest to the northwestern: Kazym, Obdor, Shuryshkar and intermediate: Nizyam Khanty dialects.

Below, in the form of a table, all reflexes in the dictionaries and concordances under consideration will be given, but only a few examples will be given for each case; complete lists of lexemes with the corresponding reflexion can be found in online dictionaries, which also contain modern parallels.

*Table 4. Proto Khanty *oo > Vakh.-Vas. ɔ*

| | Vas. [St. Makariy 1887] | Vas Narym P. S. Pallas | Vas. P. S. Pallas | Vakh [Dunin-Gorkavich 1910] | Vakh-Vas. [DEWOs] | Vakh [Tereshkin 1961] | Vakh. [Li 2019] | Vas [Mogutaev 1996] |
|---|---|---|---|---|---|---|---|---|
| head | ох | охъ | | охъ | ɔɣ | оɣ | ɔɣ | ох |
| door | | охпе | óggере | óхне | ɔɣ | оɣпы | ɔɣрɔj | охпы |
| to hear | | кóлын-та | колын-та | колынта | qɔl | қол- | kólme- | қол- |
| raven | | | | кóлокъ | kɔḷək | қолəқ | | қоɭақ |
| goose | лонъ | лонтъ | lont | лонтъ | lɔnt | лонт | | лонт |

It can be seen that indications of a special phoneme in this position are only in [DEWOs], as one of the possible reflexes, it is also present in [Lee 2019]. In the audio dictionary of the Vakhovsky dialect from v. Korliki can see that not always ɔ according to [DEWOs] corresponds to ɔ according to the transcription of P. I. Lee. As will be shown below, Vakh-Vasug has external correspondences. ɔ in [DEWOs] also coincides with o, so it was probably one phoneme, and ɔ was its allophone.

*Table 5. Proto Khanty *öö > Vakh.-Vas. ɔ̄*

|  | Vas. [St. Makariy 1887] | Vas Narym P. S. Pallas | Vas. P. S. Pallas | Vakh [Dunin-Gorkavich 1910] | Vakh-Vas. [DEWOs] | Vakh [Tereshkin 1961] | Vakh. [Li 2019] | Vas [Mogutaev 1996] |
|---|---|---|---|---|---|---|---|---|
| log |  |  |  | пе́горъ | pɔ̈ɣərt | nöɣə̈ṛt |  |  |
| bump |  |  |  | пе́ки | pɔ̈ki | nöки |  | пёки |
| magpie |  |  |  | сехъ | sɔ̈ɣ | cöɣ |  |  |
| road | лок |  | löäck | лекъ | ḷɔ̄k | лӧк |  | ḻӧк |
| circle |  | iбгалтывъ | югалтыбъ |  | ḷɔ̄k |  |  | ḻӧк |
| foam |  |  |  | не́уръ | ńɔ̄ɣər |  |  |  |

Here we see special recflex *e* in the Wakhovsky materials of A. A. Dunin-Gorkavich and the absence of indications of umlaut in the Vasyugan textbook of St. Macarius (Nevsky) and in the Vasyugan vocabulary of the Narym district of P.S. Pallas. Unfortunately, the last statement is based on only one example for each dialect. This is due to the small number of words with PKh. *öö*. As can be seen from Table 3, Dunin-Gorkavich's Vakhovsky *e* corresponds to the modern Surgut data, and the Vasyugan reflections correlate with the northwestern Khanty ones.

*Table 6. Proto Khanty *ɨɨ > Vakh.-Vas. ɨ*

|  | Vas. [St. Makariy 1887] | Vas Narym P. S. Pallas | Vas. P. S. Pallas | Vakh [Dunin-Gorkavich 1910] | Vakh-Vas. [DEWOs] | Vakh [Tereshkin 1961] | Vakh. [Li 2019] | Vas [Mogutaev 1996] |
|---|---|---|---|---|---|---|---|---|
| sleeve |  |  |  | лытъ | lɨṭ | лыт |  |  |
| leaf |  | лыватъ | luwot | (юхъ)-лыватъ | ḻɨwət | лывэт | liβit | ḻыват |
| eight | ниллахъ | нилахъ | níglach | нюлахъ | nɨ̈ləɣ | н'ыләɣ | ɲilɐx | нилақ |
| eighty |  | ниматъ | nigloch_ ʃut | ни́лсатъ | nɨ̈lsāt | н'ылсат | ɲilɐɣsɐt | нилақсат |
| shoes | нирна | нирогъ | nigr |  | nɨ̈r | н'ыр | ɲir | нир |

2Here and below, wah-vasyug is given. reflexes according to [Helimski 2001], which relied on [DEWOs], however, as will be shown below, vowels in [DEWOs] have a number of systemic differences from dictionaries [Tereshkin 1961; Mogutaev 1996] and modern audio dictionaries. Further, the analysis will take into account all types of reflexes of different periods.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| to sit | ымыл-та | | | úмсалъ | i̯məl- | ымəлта | | ымалта |
| at the bottom | илын | | i̯lən | | i̯lə | ылəн | il | ылан |

It can be seen from the data in the table that PKh. *ï̈ only in [DEWOs; Tereshkin 1961] has a reflex i (ы), in other dictionaries there are reflexes i // ï and even u with a predominance of i in the Vasyugan material of the 18th–19th centuries, which, as will be seen from Table 3, is typical of the northwestern Khanty dialects. Based on these data, it can be assumed that initially this phoneme had a more i-shaped character, and the transition i > ï began in the 18th century.

*Table 7. Proto Khanty *ï > Vakh.-Vas. ă*

| | Vas. [St. Makariy 1887] | Vas Narym P. S. Pallas | Vas. P. S. Pallas | Vakh [Dunin-Gorkavich 1910] | Vakh-Vas. [DEWOs] | Vakh [Tereshkin 1961] | Vakh. [Li 2019] | Vas [Mogutaev 1996] |
|---|---|---|---|---|---|---|---|---|
| to put | понмена | | | панá | păn- | пəнта | pənta | панта |
| son | ног / нох | | | пахъ | păɣ | пəɣ | | пах |
| sand | сангы | санкай | санкай | | săŋki̯ | сəŋқы | | саӈқы |
| to lie | | алында | алында | алы́нт | ăla- | əлата | | алата |
| to write | канджи- | | chánte | | kăṋča- | қəнчата | qĕṋt͡sintɐ | қанты-та |
| dead man | | | kóllagan | калы́ | kăla- | қəлы | | қалы |
| to cook | | молонда | молонда | | măla- | мəлата | | малата |
| life | вулта | вулта | вулта | | wăl- | вəлта | | валта |

As can be seen from the above materials, the coomon reflex of PKh. *ï in the Vakh-Vasyugan dialects is represented only in dictionaries of the XX century. At the same time, you can hear in the audio dictionary that there are different reflexes in different words. Perhaps these are allophones of the same phoneme. In the sources of the XVIII–XIX centuries. there is variation: the rounded variants are fixed, first of all, after the labial consonants p-, m-, w-, but they also occur in other positions. This reflex, as can be seen from Table 3, again brings together the Vasyugan monuments of the XVIII–XIX centuries. with northwestern Khanty dialects.

*Table 8. Proto Khanty *ï > Vakh.-Vas. ə*

| | Vas. [St. Makariy 1887] | Vas Narym P. S. Pallas | Vas. P. S. Pallas | Vakh [Dunin-Gorkavich 1910] | Vakh-Vas. [DEWOs] | Vakh [Tereshkin 1961] | Vakh. [Li 2019] | Vas [Mogutaev 1996] |
|---|---|---|---|---|---|---|---|---|

| | Vas. [St. Makariy 1887] | Vas Narym P. S. Pallas | Vas. P. S. Pallas | Vakh [Dunin-Gorkavich 1910] | Vakh-Vas. [DEWOs] | Vakh [Tereshkin 1961] | Vakh. [Li 2019] | Vas [Mogutaev 1996] |
|---|---|---|---|---|---|---|---|---|
| to go | минта | мина | ménlem | минта | | мэ̄нтӓ | | мянта |
| water | инк | инкъ | jing | инкъ | jĕŋk | jə̄ŋk | | яŋк |
| earth | мыгаты | мыхъ | мыхь- | мыхъ | tĕγ | mə̄γ̈ | | мях |
| mother | эссель | исьсель | eʃsém | | | ə̄с | | |
| spoon | пень | пинь | pin | пинь | | пə̄н | | пянь |
| big | елле | илле | ülle (?) | илле | | ə̄ллə̄ | ĕlʲlʲĕki | |

The table shows that as a reflex PKh. *i in the Vakhovsky dialect is represented by the middle vowel after [DEWOs; Tereshkin 1961; Li 2019], and in the Vasyugan dialect according to [Mogutaev 1996] it is a low vowel. So, already the data of the XX-XXI centuries. show that the quality of the vowel in different Eastern Khanty dialects was not uniform. Therefore, the difference between PKh reflexes. *i in the sources is not surprising. Statistically, the most frequent reflex is i, sometimes ɨ appears after labial consonants. In a number of words e appears, only in one word form is the reflex ü present. Considering that starting from [DEWOs] the reflex i is not preserved, but it is characteristic of the Western Khanty dialects, we can assume that the PKh. *i > ĕ/ə̄ just went in the 18th-19th centuries, therefore, in the dictionaries of P.S. Pallas, St. Makariy (Nevsky), A. A. Dunina-Gorkavich e as PKh reflex. *i is quite rare, and in [DEWOs; Tereshkin 1961] becomes the main reflex.

*Table 9. Proto Khanty *ü > Vakh.-Vas. ŏ*

| | Vas. [St. Makariy 1887] | Vas Narym P. S. Pallas | Vas. P. S. Pallas | Vakh [Dunin-Gorkavich 1910] | Vakh-Vas. [DEWOs] | Vakh [Tereshkin 1961] | Vakh. [Li 2019] | Vas [Mogutaev 1996] |
|---|---|---|---|---|---|---|---|---|
| to come | юнта | юга | | | jŏ̃- | jəγəta | | ёхата |
| back | чун | чунжъ | tjüntʃch | чунчъ | čŏ̃ŋč | чөŋч | t͡sʊŋt͡s | |
| coal | суй | | ʃui | | sŏj | cөj | | сёй |
| nails | | кончи̇ | кончи | кунчъ | kŏ̃ŋč | көŋч | | кёŋṭ |
| birch | | | | су́гумъ-юхъ | sŏγmət | cөγмəт | | сёхмит |
| fire | | туготъ | tugot | ту́готъ | tŏγ̈ət | Төγ̈əm | tʊγɨt | möхäт |

The table shows that the site data, on the one hand, are completely correlated with each other PKh. *ü > u as an exception, ü, o are presented in only one word form, and are quite close to the field records of the 21st century. according to transcription [Lee 2019], they also partially correlate with Western Khanty dictionaries, where u is indicated as one of the reflexes. On the other hand, three independent sources and field recordings of the Vasyugan dialect made by V. V. Vorobeva and E. K. Kovaleva and available at LingvoDoc (http://lingvodoc.ispras.ru/dictionary/906/6/perspective/906/    7/view) also confirm the

presence of a mid-rise vowel as a PKh reflex *u. We assume that the sources reflect a more archaic situation, which also corresponds to the Western Khanty data. Further, in some dialects, u becomes ö, but in the dialect with. Korliki preserved an archaic situation.

*Table 10. Proto Khanty *u > Vakh.-Vas. ȯ*

| | Vas. [St. Makariy 1887] | Vas Narym P. S. Pallas | Vas. P. S. Pallas | Vakh [Dunin-Gorkavich 1910] | Vakh-Vas. [DEWOs] | Vakh [Tereshkin 1961] | Vakh. [Li 2019] | Vas [Mogutaev 1996] |
|---|---|---|---|---|---|---|---|---|
| comp-letely | *мурту* | *мурто* | | | *tŏr̂ᵊ* | *мӨрты* | *mᴜrtɨ* | *морох* |
| to say | *тулмана* | | *túllogwel* | | *tŏĺəɣta* | *тӨĺəɣта* | *toĺóɣtɐ* | *тоᴧахта* |
| skin | *сохъ* | *сохъ* | *сохъ* | *сухъ* | *sŏɣ* | *сӨɣ* | *sox* | |
| belly | | *конъ* | *kun* | *кунъ* | *kŏṇ* | *қӨн* | | *қон* |
| lake | | *тогъ* | *tuch* | *тухъ* | *tŏɣ* | *тӨɣ* | | *mox* |
| swan | | | | *кутýмъ* | *kŏtəŋ* | *қӨтəŋ* | | *қотаӈ* |

PKh. *u is preserved unchanged in the Vakhovsky dictionary of A. A. Dunin-Gorkavich, in the Vasyugan sources it has two possible reflexes: u, o while u is a more frequent reflex, this reflexion completely coincides with the Kazym, Nizyam and Shuryshkar dialects. In the eastern dialects of the XX-XXI centuries. by [DEWOs; Tereshkin 1961; Mogutaev 1996; Lee 2019] as a PKh reflex. *u is already present only o, that is, it is obvious that this is an innovation that occurred only after 1910, when A. A. Dunin-Gorkavich's dictionary was published, containing only the reflex u.

*Table 11. Proto Khanty *ä > Vakh.-Vas. e/ö*

| | Vas. [St. Makariy 1887] | Vas Narym P. S. Pallas | Vas. P. S. Pallas | Vakh [Dunin-Gorkavich 1910] | Vakh-Vas. [DEWOs] | Vakh [Tereshkin 1961] | Vakh. [Li 2019] | Vas [Mogutaev 1996] |
|---|---|---|---|---|---|---|---|---|
| daughter | *огы* | *аини* | *öggöt аивй* | *áины* | *öɣi* | *öɣu* | | *öхи* |
| name | | *немъ* | *нимта* | *нáменъ* | *пет* | *нэм* | | *нэм* |
| eye | | *семъ* | *ʃem* | *сэмъ* | *sem* | *сэм* | *sʲemʲ* | *сем* |
| stone | *кохъ* | *когъ* | *kôch* | *кохъ* | *köɣ* | *кöɣ* | *kөɣ* | |
| hand | *кот* | *коть* | *köt* | *котъ кетъ* | *köt* | *кöт* | *kөt* | *кёт* |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| tooth | | *(ипъ)пі̂мкъ* | *(ип)пю̂мкъ* | *пёнкъ* | *pöŋk* | *пӧ̈ŋк* | *пё̈ŋк* |
| mouse | | *iо̂мгуръ* | *júnker iо̂мгурь* | *лё̈нкуръ* | *löŋkər/ jöŋkər* | *jöŋк* | *ё̈ŋкяр* |

From this table it can be seen that the main difference between reflexion in the sources was that in some lexemes the reflex a is presented, most of all such words are in the Vakhovsky dictionary of A. A. Dunin-Gorkavich, in the Vasyugan dictionaries of P. S. Pallas, such an example was found one times, this is the word *аини / áины* ʿdaught', which in published materials has the form *öggöm*, St. Macarius (Nevsky), such cases, apparently, have not been recorded. Thus, it can be assumed that the dictionary of A. A. Dunin-Gorkavich presents exactly the Vakhovsky feature, which correlates with the Surgut material. A similar correlation was noted for PKh. *öö*. Because the reflection PKh. *ä > a* does not find parallels in the Western Khanty dialects, this is probably an innovative feature that united the Vakh and Surgut dialects at a certain stage, then it was levelled, perhaps due to the influence of neighbouring, in particular, Vasyugan dialects.

The Vasyugan development *ä > a*, on the contrary, fully correlates with the Obdorsk material.

*Table 12. Proto Khanty \*ää > Vakh.-Vas. ä*

| | Vas. [St. Makariy 1887] | Vas Narym P. S. Pallas | Vas. P. S. Pallas | Vakh [Dunin-Gorkavich 1910] | Vakh [Tereshkin 1961] |
|---|---|---|---|---|---|
| dog | | *амбъ* | *atp* | | *ätp* |
| sister | | *аниль* | *anim* | | *än'i* |
| knee | | *чаньчь* | | | *čäṇč* |
| language | | *налемъ* | *njălem* | *ня́лемъ* | *n'äləm* |
| green | | *нярахъ* | *njärichbam* | | |
| light | *сянки* | | *ʃjäanki* | *ся́нки* | *säŋki* |
| to cross | *тарынта* | | | | |
| to take care | *ляильта* | | | | *läɣəltä* |

So, the analysis shows that the reflection in the Vasyugan sources coincided, but in the Vakhovsky ones it had a number of differences, so we added two columns to Table 3 proposed by E. A. Helimski: "Vasyugan sources" and "Vakhovsky sources", combining the cells, where the reflection coincided.

Table 13. Reflexes of Proto Khanty vowels in archive sources and modern dialects

| Proto Khanty | Vakh-Vas. | Surg. | Irt. | Nizyam., Shurysh. | Kazym | Obdor. | Kaz. | O |
|---|---|---|---|---|---|---|---|---|
| *aa | a | | a | å | o / a | ɔ | ɔ | a |
| *ää | ä/a | ä | ä | ą | ą | a | a | ą |
| *oo *a | o | | ɔ / o | o / ŏ / ă | u / o | u | ǫ | o (ǫ) |
| *öö | o | e | ɔ̈ | e | o / ą | u / a | ǫ / a | o (ǫ) / ą |
| *ä | e/o | e/o/a | e / ö | ą̆ / ŏ | e | e | e / ɛ | e / o (ǫ) |
| *ɨɨ | i/ɨ | | i | i | i / e | ĭ / ŭ, e | ĭ / ŭ | i / u, e |
| *i | i/i/e | i/ɨ | ə | ə | ə | ă / ĭ, ŭ | ă / ĭ, ŭ | ą̆ / i, u |
| *ii | i | | i | i | i | ĭ / ŭ | ĭ / ŭ | i / u |
| *uu | u | | u | u | ü / u | ŭ / u | ŭ | u |
| *üü | ?³ | | ü | i, J ü / i | i | ĭ | ĭ | ĭ |
| *u | u/o | u | ȯ | ȯ | ă / ŏ, ə | ŏ / ŭ | ŏ / ŭ | ą̆ / ŏ, u |
| *ü | u | | ŏ̆ | ŏ /ə | ŏ / ə | ă / ĭ, ŭ | ă / ĭ, ŭ | ą̆ / u, i |
| *ɨ | a/o/u | a | ă | ă | ă | ŏ / ă | ŏ / ă | ă / ŏ |

Summing up the analysis, it can be noted that in four out of six cases, when the reflexes in the Vakhovsky dictionary [Dunin-Gorkavich 1910] differ from the Vasyugan ones according to P.S. Pallas and St. Makariy (Nevsky), they coincide with those of Surgut in [DEWOs]. This is about PKh. *ää, *ä, *öö, *i. Differences from the Surgut dialect in [DEWOs] are present in PKh reflexes. *i, *u, *ü. A complete analysis of the reflection of the Proto-Khanty phonemes in the Surgut first dictionaries is, of course, the topic of a separate article. But the pilot data of PKh analysis. *i, *u, *ü in the Surgut dialects of P. S. Pallas (Yugan and Lumpokol) and the Surgut dialect in the manuscript found by us in the archive of A. I. Sjogren (http://lingvodoc.ispras.ru/dictionary/ 2639/1263/perspective/2639/1267/view) show that for these phonemes they present a reflexion that coincides with the Wachian one by A. A. Dunina-Gorkavich. Thus, it is obvious that in the XVIII - early XX century. Vakhovsky and Surgut dialects were united in relation to the system of vowel phonemes.

Another, even greater and unexpected, correlation is observed between the Eastern Vasyugan vowel reflexes, presented in three sources, which were written by two independent authors separated by a century - P. S. Pallas and St. Makariy (Nevsky), - and the western Obdorsky Khanty dialect. It is characteristic of all Proto Khanty phonemes. But for PKh. *öö, *ɨɨ, *i, *ii, *u, *ü in Obdorian there are other reflexes as doublets, which, apparently, are innovative. In most cases, with the exception of PKh. *aa, *a, *oo, *öö, reflexes in Vasyugan coincide with the Kazym, Shuryshkar and Nizyam dialects. Based on this, it can be assumed that it is in Vasyugan and Obdor that coinciding reflexes should be reconstructed for the Proto-Khanty language, and different reflexes arose as innovative ones.

Let's also note that PKh. *oo and *a should be considered one Proto-Khanty phoneme,

since their reflexes coincide everywhere, except for the Vakhovsko-Vasyugan dialects, where *o* and *ɔ* differ only in [DEWOs], but the data of sources and modern dialects show that this difference probably was not phonological. Interestingly, as shown in [Normanskaya 2018: 320], PKh. *\*oo* and *\*a* also have the same external correspondences, namely, they are a reflex of PU / FU *\*u*:

**PU / FU *\*u* > PKh. *\*oō*:**
1) FU *\*kuδ́e-* 'to spawn' > Khant. *kɔj-* (V), *χuj-* (DN), *χǫj-* (Kaz.); 2) PU *\*kulke-* 'move, walk' > Khant. *kɔγəl-* (V), *χoχət-* (DN), *χǫχəl-* (Kaz.) 'step, run'; 3) PU *\*kulta-* 'to fish (with a net)' > Khant. *кол-* (Trj.) 'to fish in a special way', *χǫлt-* (Kaz.) 'to fish with a floating net', *kɔltə* (Vj.) 'kind of a net', *χuttə* (Kam.) 'fishing net', *χolti* (O) 'to fish with a floating net'.

**PU / PU *\*u* > Pkh. *\*a*:**
1) FU *\*kumte* 'wide' > Khant. *komət* (V), *χumət* (Kam.) 'wide'; 2) FU *\*pućV-rV-* 'squeeze out' > Khant. *posər-* (VK) 'press on the chest', *pusər-* (Kr.) 'squeeze in hands'; 3) PU *\*puna* 'knit, weave' > Khant. *ponəl-* (V), *punttə-* (DN), *рǫnəл-* (Kaz.) 'weave'.

So, as can be seen from the table, in the Vakhovsko-Vasyugan dialects recorded in [DEWOs], there have been numerous innovations: six new middle vowels appeared *ɔ̈, ö, ȯ, ǒ, ɔ, ə*. As can be seen from Tables 4, 5, 7, 9 and 10, the transcription of [DEWOs] not only does not fully correlate with sources, but differs in the case of these phonemes from modern dictionaries as well. As mentioned above, in [DEWOs], the forms of the Vakhovsko-Vasyugan dialects are cited from the notes of K. F. Karjalainen. Presumably, these phonemes sounded rather strange to a non-native Finnish scholar, so we should not rely on this transcription. In the modern audio dictionary of the Vakh dialect of the Khanty language, the transcription of which was made by P.I. Li on the basis of experimental phonetic analysis, it is clear how often it differs significantly from the traditional record, see for more details [Li 2019]. Therefore, of course, the question of the phonological status of the vowels *ɔ̈, ö, ȯ, ǒ, ɔ, ə* in the Eastern Khanty dialects of that period needs further study, since the analysis of the sources shows that they must have appeared between 1887, when records were made of St. Macarius (Nevsky), and 1900, when also in Narym in the area of the river. Vasyugan worked for K. F. Karjalainen. Obviously, the appearance of 6 special phonemes within 13 years is unlikely. Probably, it was about allophones, which were noted by K. F. Karjalainen; later, some of them acquired a phonological status in the Vakhovsky and Vasyugan dialects. In any case, non-trivial correlations between the Vasyugan sources of the 18th–19th centuries and Western Khanty dialects show the accuracy of the records of the first Vasyugan dictionaries and texts created by P. S. Pallas and St. Makariy (Nevsky), and a large number of innovative developments in the Eastern Khanty dialects of the XX-XXI centuries. Taking into account the fact that in the Vakh dialect, recorded in the Salekhard region by A.A. Dunin-Gorkavich, there were innovations that were joint with Surgut and not so numerous, we assume that the Narym region on the river became the epicentre of innovation. Vasyugan, where K. F. Karyalainen worked. It can be assumed that these changes arose among the Vasyugan Khanty under the influence of the Narym dialect of the Selkup language, with the speakers of which lived in the same area. Even in the Vasyugan textbook of St. Macarius (Nevsky), there are numerous Selkup words. As you can see, the Narym Selkup audio dictionary, also available

online on the LingvoDoc platform (http://lingvodoc.ispras.ru/dictionary/334/3/perspective/334/4/view), contains a large number of middle vowels: *e, ɛ, ɛː, ə, ɵ, ɵː, ɔ, ɔː, o*.

Thus, the analysis of the textbook of the Vasyugan language, created by St. Makariy (Nevsky) and its comparison with the Vasyugan materials of P.S. Pallas a vowel system was introduced that was closest to the Proto-Khanty, and this system later underwent various changes, especially significant in the Eastern Khanty dialects under the influence of contacts with native speakers of the Selkup language.

**Abbreviations**

PKh – Proto Khanty
Vakh-vas. – Vakh-Vasyugan dialect
Irt. – Irtysh dialect
Kaz. – Kazymsky dialect
Nizyam. – Nizyamsky dialect
Obd. – Obdor dialect
Surg. – Surgut dialect
Shurysh. – Shuryshkar  dialect

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