
SYSTEMATIC STUDY
OF ARID TERRITORIES

The Geographical Term “Steppe”: Its Origin, Evolution, and Distribution

A. A. Tishkov^{a, b, *}

^a *Institute of Geography, Russian Academy of Sciences, Moscow, 119017 Russia*

^b *Institute of Earth Sciences, Belgorod State Research University, Belgorod, 308015 Russia*

*e-mail: tishkov@igras.ru

Received January 29, 2025; revised February 1, 2025; accepted March 1, 2025

Abstract—The genesis and the transformation of the concept of “steppe” are discussed. It has been shown that initially the etymology of this term can be linked to a terrain feature and forestlessness and in general corresponds to the “steppe forefatherland” of Indo-European peoples and languages. We have found that this term has a dualistic nature, the latter having played a role in how it was interpreted in the ancient literature and scientific sources. We have traced the diversity of the meanings of “steppe” as an orographic term, its correlation with the concept of “field,” and how it happened that “steppe” became a landscape concept. For the first time, an attempt was made to explain the spread of this term based on the results obtained by the interdisciplinary collaboration of geneticists, linguists, and archaeologists and their estimates of the time of formation and settlement of Indo-European peoples.

Keywords: steppe, Wild field, semantics of the term, origin, distribution, Indo-European languages, steppe hypothesis

DOI: 10.1134/S2079096125700015

In 2024, we celebrated the 75th birthday of Academician Alexander Alexandrovich Chibilev, the outstanding geographer, and the founder, long-term director, and currently the scientific leader of the Institute of the Steppe, Ural Branch, Russian Academy of Sciences. This event brought the author back to considering the origin of the geographical concept (general concept) and term (its semantics) of *steppe* (Russian “степь,” transliteration “step”). It was E.M. Murzaev (1984) who drew attention to the observations of A.N. Shrenk (1850) made in the north of Russia. The latter author wrote: “...in the Mezen district, they call flat, treeless uplands lying in ranges across the forest plains steppes ...” (Murzaev, 1984, p. 368). In the same work, the author convincingly shows that, in the past, “steppe” was an orographic concept and “lost the meaning of upland,” but retained the meaning of the “open treeless place,” with reference to the etymological comparison made by V.A. Merkulova (1968) where *steppe*, from the Ukrainian “stipa, стіра,” is a “grass-covered upland” or “treeless mountain.”

Levykin et al. (2024) aiming to develop the ideas about the origin of the concept “steppe” only added more questions to what has been discovered so far by the experts in toponymy, linguistics, and geography. The well-grounded statement made by the authors that “the term *steppe* has different meanings in differ-

ent...” (Levykin et al., 2024, p. 8), is accompanied by a rather well-justified conclusion about the essence of the “steppe” concept: “the etymology of this word still remains unclear” (Levykin et al., 2024, p. 6). It reminded the author of the remark made by Murzaev: “The names of the main landscape types, geographical zones—tundra, taiga, forest, steppe, desert—got their “way to life” from such generic terms. Among them are the Turkic–Mongolian taiga, Finno–Ugric tundra, Indo-European forest, and Russian desert. The word *steppe* appears to have an unclear origin” (Murzaev, 1970, p. 18).

V.A. Bushakov and N.E. Drogobich (2003) drew attention to the need to dot the *i* regarding the origin of the word “steppe” as a landscape term and linked the transition of the orographic term into a landscape term with the appearance of “Cossacks who settled in the steppes....” In the discussion held at that time, we hypothesized a connection between the start of the expansion of the landscape term “steppe” across the Russian Plain and the omittance of the geographical term “field” in describing the steppe land.

The expansion of steppes, the territory they occupy today, is huge. The Eurasian steppe (the so-called Great Steppe) belt occupies more than 6000 kilometers from west to east and about 1000 kilometers from north to south. It would not be erroneous to claim the steppe to be the ancestral homeland of many peoples,

both nomadic and agricultural, including the Slavic, Turkic, Mongolian, Iranian, and Finno-Ugric people (Klein, 2017). As a historical, cultural, and economic region of Northern Eurasia, even now the steppe effectively acts as the “axis of life,” with the most population, industrial, and agricultural potential of many countries on the continent, including Russia, being concentrated in it. These factors only add relevance to the study of the origins of the concept of “steppe” and its use and transformation as a geographical term.

This article discusses the development of geographical (landscape) ideas about the origin, spread, and evolution of the term “steppe” and is devoted to the jubilee of Academician Alexander Alexandrovich Chibilev, the leading researcher of the Russian steppes.

MATERIALS AND METHODS

The material for this article was numerous publications made by fellow geographers (Murzaev, 1970 and 1974; Chibilev, 1990, 1992, and 1998), the data available on the website Preservation of Steppes in Russia (2015), and well-known dictionaries and reference books: linguistic, of geographical concepts, and terms (Murzaev, 1984; Dal', 1863); etymological (Fasmer, 1986); historical and etymological (Chernykh, 2009); and historical and literary (*Slovo...*, 1984). As the primary materials were synthesized, there appeared a need to analyze some private publications which considered the steppe term in more detail. As was in the case of the works of Levykin et al. (2024) and the preceding publications by Chibilev (1998), the main methods of research are comparative–geographical and semantic analysis and the study of context and word formation in Russian and other languages. In some cases, a comprehensive analysis of the stem-forming morphemes of the word “steppe” in the language under consideration was used for comparison.

The analysis is mainly focused on understanding the transformation of the concept of “steppe” in the Russian language. However, it should be emphasized that this paper is comparative–geographical and not linguistic and toponymic and was aimed to trace the transition of the Russian term from an orographic word to joining the family of landscape terms following the agricultural development of the steppe land.

Attempts to combine genogeographical, ethnographic, archaeological, and historical–linguistic information within the framework of the geographical interpretation of the “steppe hypothesis” of the origin of the Indo-European community of Eurasia have been made in accordance with the new interdisciplinary views (Heggarty et al., 2024).

RESULTS AND DISCUSSION

Dualistic semantics of the geographical term “steppe.” When one studies the ideas about the concept of

“steppe,” especially those that can be found in the foreign literature, one understands that there would not be so many uncertainties about the origin of this term were the translators aware of the cultural and linguistic context of this geographical term, which can have at least two interpretations: a terrain feature and an element of landscape. We don't even mention the geobotanical, ethnographic, historical–cultural, and theological ones. In the latter context, “steppe” can be synonymous with the word “paradise” or “Eden,” which comes from the Akkadian “*edinu*” and Sumerian “*eden*” both meaning rich and fertile plain, steppe. Hence. There are the attempts to analyze the first mention of the word “steppe” in the play “*A Midsummer Night's Dream*” by W. Shakespeare: “Come from the farthest steppe of India?” However, it is clear that in this case “steppe” means the “paradise nature” of distant India.

In the old literary sources, especially in the Latin ones, we can find the phrases “*planities arenoso-stepposa*,” “*planities stepposa*,” and “*campus planus herbosus*.” For example, Alexander Guagnini from Italy in his “*Description of Moscovy*” (Guagnini, 1578) called the Tatars, who lived on the steppe, “*tartorumque campestrium*” and a threat to the peoples of predominantly forested Russia, which comes from the south (*On the Origin of...*, 2024).

The main difficulty in translating the word “step” lies in the fact that the dictionaries in most European countries, including Slavic ones, contain this word, while there is no actual steppe existing in these countries nor have their population any real idea of steppe at all. Therefore, diversity reconstruction of the linguistic picture of the world and linguistic reality through the specific term “steppe” requires additional research. For example, this can be accomplished by performing the search for the place of its origin and the ways of its expansion within the delineated area of the Indo-European family of peoples and languages according to the “steppe hypothesis” (Haak et al., 2015; Allentoft et al., 2015) and its new synthetic interpretation (Haggarty et al., 2024).

It is convenient when the term is translated from/into and comparison is made among the languages spoken in the countries where steppes as flat or mountainous landscapes exist in real life, for example, in Arabic, Turkic, Mongolian, and other languages. Here, each nation has its own “clumps of words” to name it: for example, **tala**, **dala**, **talā**, **çöl**, **sül**, **şölçöl**, **kir**, and **yastı** in Turkic languages, or **tal**, **khödöö**, **kheer**, **xovu**, **gov**, and **góbi** in Mongolian languages. In most cases, the term denotes a natural grass pasture. This means that originally some certain idea of what is a steppe existed in these languages.

The Latin language, in which many geographical works describing the nature of the faraway countries, including Russia (Moscovia), were written in the Middle Ages, lacked the word “steppe” as such. For exam-

ple, the book “Ioannis Basilidis Magni Moscoviae Ducis Vita” (Oderborn, 2024) is the first European biography of Ivan IV the Terrible (1533–1584). It was written by Paul Oderborn (1550–1604) and was first published in Latin in Germany in 1585. This book is of much interest as a landmark of literature, a historical work, and an example of Renaissance political propaganda. Here, we find the word “steppe” in the context of “having passed the steppes of Kazan and Astrakhan...” (Oderborn, 2024, p. 18), but it is actually the translation of the Latin word “tesqua,” which was used in 1596, into the German “steppe.”

In our attempts to find the first references to the word “steppe” in relation to European Russia, it would be reasonable to turn to Sigismund von Herberstein’s book “Notes on Muscovy” published in 1549 (Gilberstein, 2008). However, although he considered Moscovia as belonging to the steppe part of the Golden Horde, he found forest zone regions in it. And even when describing the lower reaches of the River Don, he did not “notice” steppes. He was the first to introduce the Eurocentric views of Russia into the geographical literature, “Moscow is located in Asia, not in Europe”, and thereby gave start to the tendentious opposition “Russia and Europe.”

The Ukrainian authors Bushakov and Drohobych (2003) insisted that the word “steppe” could be found in the spoken language of the Terek, Don, and Zaporozhian Cossacks as early as in the 15th century, and it was in use among the Polish people even earlier. Polish chronicles mention the Cossacks starting from the late fifteenth century. However, for example, in Marcin Bielski’s “The Polish Chronicle” (Bielski, 1957), which brings us up to 1598, steppes as the typical landscapes of southern Russia are not mentioned, only the “wild field” (Polish “Dzikie Pole”). In his “Description of Ukraine,” Guillaume Levasseur de Beauplan (De Beauplan, 1660), the French engineer who was building fortifications against the Cossacks on the Dnieper River, mentioned the steppes as “les campagnes” and “les champs” meaning fields or plains. Moreover, Joachim Jerlicz’s “Chronicle of Various Affairs and Events” (Jerlicz, 1853), which covers the period from 1620 to 1671, does not have this word, although it was already in use in Russia. And even the epic poem “Voina domova s kazakami...,” which is oversaturated with borrowings from all languages, does not feature the word “steppe.” This word started to be used frequently only in the so-called “Cossack” chronicles of the late seventeenth and early eighteenth centuries (Bushakov and Drohobych, 2003).

According to Murzaev (1984, p. 213), “steppe” as an *orographic concept* is defined in the Russian language as follows: “flat treeless upland, watershed, interstream”; in Ukrainian, “stepa” is a “cliff, rock, mountain”; and in Old Russian, it is a “step, threshold, foothill, elevation.” It is a semantic transmittance of the primary meaning of the word which went as

“ridge, back, withers of a bull, cow, horse,” or “back of a greyhound dog” (Merkulova, 1968). A similar situation exists with the words “stepa,” “back”, or “ridge” in the Novgorod dialects and “stepa,” “cliff, rock, mountain” in the Carpathian accents of the Ukrainian language. At the end of his essay “Step’,” Murzaev refers us to the concept of “tap” (Murzaev, 1984, p. 235), which means “plain, flat field”, “tapastan,” steppe (Armenian), and “tapa,” “space, barren land” (Hindi).

In the search for a formant of the word “steppe=сьтеп” (step’), it is easy to come across the words present in many Indo-European languages: in Old Russian, “топтать” (transliteration “toptat,” English “to trample”), стоптанное (transliteration “stoptannoe,” English “trampled down”), “вытоптанное место” (transliteration “vytoptannoe mesto,” English “downtrotten place”), “тепти” (transliteration “tepti,” meaning place to cut down, to beat, to trample), and “сьтепъ,” “something which expands,” “an expanse”; in Lithuanian, *stiēptis, staipytis* (to stretch out); in Latvian, *stiept, staipt* (to pull, to extend); in Ossetian, *t’æpæn* (flat, level); and in Iranian, *tap* or (s)tep (flat). Which is primary and in which language did it appear first? It is difficult to say. But in our opinion, in this case, to look for the analogs of the word formation from “tapan ~ taban” (sole; flat place), which occurred in Turkic languages, is not quite logical.

The Russian language has many cognate words associated with the concept of “steppe” that are geomorphological and related concepts including “стоп” (transliteration “stop”), “ступень” (transliteration “stupen’,” English step), “уступ” (transliteration “ustup,” English ledge, step), “вступление” (transliteration “vstuplenie,” English entrance, introduction), “наступление” (transliteration “nastuplenie,” English military advance, but a military action is not the only meaning, but also beginning, onset), “поступь” (transliteration “postup’,” English gait), “ступã (transliteration *stupã*), “ступай” (transliteration *Stupaï*, English imperative Go!), “ступица” (transliteration “stupitsa,” an element of the wheel, known among the steppe Eurasian peoples since the Bronze Age), “ступа” (transliteration “stupa,” English mortar, and compare with the Sanskrit *stūpa*, which means “top, heap of earth, stones, earthen hill,” but at the same time “Buddhist religious building,” the prototypes of which could be the mounds found in the steppe; Khizhnyak, 2008). In our view, the geomorphological meaning of this concept can be expressed as follows: as an element of the steppe catena, the steppe occupied the top position on the way from the river floodplain up to the watershed, when after a gradual rise—from the low floodplain through afforested terraces—one climbs the “last step” and finds one’s self on a relatively flat watershed with grassy vegetation. One ascends from the river valley and here is the last step = steppe. The obscurity which exists

about the formant of the word “steppe” arises from the fact that initially this word answered the question “Where are you?” rather than “What is it?”—(On) the steppe; “Where are you going?” (To) the steppe; or “Where are you from?” (From/of) the steppe (Russian “(с/из) степи,” transliteration (s/iz)tepi). Now, the essence of the geographical phenomenon “steppe” also becomes clear: it is what is at the next step, beyond the step (doorstep), or the (u)stup, when one leaves the river valley and steps “into the steppe.”

Transformation of the concept of “Pole” (Russian “поле,” English “field”) into the concept of “Steppe” in Russia. A Wild Field (Russian “Дикое поле,” Ukrainian “Dikie Pole,” Polish “Dzikie Pole,” Latin “Loca deserta”) in many historical and geographical sources is considered as a millennia-old toponym denoting the area between the Dniester, Dnieper, Don, and Volga rivers. It turns out that ancient steppe toponyms should be sought far away from the real steppe. For example, Steepe is the name of a village and civil parish in Hampshire, England (known by this name since the eleventh or twelfth centuries). There are many similar landmarks in other regions of the Indo-European languages: Steep Point is a promontory in Australia, Stipanici is a village in Canton X of the Federation of Bosnia and Herzegovina, Źtip is a town in the eastern part of Northern Macedonia, and Stipenka is a village in Novgorod oblast.

Let us consider how “field” and “steppe,” which have close semantics, coexisted for a long time in the Russian population and how they transformed when the ways of life had changed. Why did the fertile black earth steppe lands of the East European Plain remain undeveloped for a long time? Was it that the peoples of Russia were not aware about the fertility of black earth? No, they were and they tried to make the most use of it. A spore–pollen analysis has demonstrated that agricultural development of these lands began as early as 2500 years ago.

The ancient word “plye—p(O)lye” (Russian “плье—п(О)лье”) was in circulation even before the Slavic people split into separate ethnic groups. It meant an “open space,” “bare land,” figuratively, a “free land.” At the very start of formation of the Russian statehood, the word “field” had a more common meaning of a treeless space used by the nomadic neighbors in their multiyear rotation cattle grazing system. It should be mentioned that the “wild field” in the southern part of the East European Plain, the Caspian Lowland, and the steppe areas of the Fore-Caucasus remained land “without cities” and state (tribal) borders. It was bordered in the north by the zone of conditionally continuous forests, which later formed the core of the “felling belt,” while in the east it extended from the Dnieper to the Volga. The entry of the year 1152 in the Ipatiev Chronicle says exactly this: “the whole Polovtsian land, what is theirs between the Volga and the Dnieper...” (Syrnev, 1996).

Here it seems quite reasonable to recall the idiom “volya” (Russian “воля,” English here “freedom”), which has the same essential meaning “freedom” as the word “pole” does, and their semantic proximity with the concept of “step’.” Then it becomes clear that the peoples of the Baltic Arc and the East European Plain including “Polyane” (Russian “поляне”), “Volynyane” (Russian “волынiane”), “Polaby” (Russian “полабы”), “Palve” (or Prussians, Russian “пальве”) got their names as a result of their liberation from dependence on someone else (for example, from the numerous independent early medieval “cities”), and not because they were some “steppe people.” As a lexeme with the meaning of the “open land,” “pole” (from the common root “pla”), like “step’,” is widely spread across the areas of functioning of Indo-European languages: planina (Russian “планина”), polonina (Russian “полонина”), ploskost’ (Russian “плоскость,” English plane, flat surface), pol (Russian “пол,” in the meaning of a lowland), plast (Russian “пласт,” English layer, stratum), plug (Russian “плуг,” English plough), plakha (Russian “плаха,” English scaffold), ploshka (Russian “плошка,” English bowl), plamyа (Russian “пламя,” English flame, from the basic Indo-European meaning of “burned out plain,” free of forest), place, palace, playa, Polonia, etc.

In “The Tale of Igor’s Campaign” (*Slovo o polku Igoreve*, Russian “Слово о полку Игореве”), we come across the “Wild Field” referred to as “waterless field,” “the end of the Polovtsian field,” and “the field unknown in the Polovtsian land; the ground is black under the horse hooves...” (*Slovo...*, 1985, p. 408). In terms of agriculture, the “Wild Field” remained attractive for the Slavic people at the time of “The Tale of Igor’s Campaign,” and was already being developed by farmers. The poem lists the Russian towns located in the “steppe” (Novgorod Severskii, Putivl’, Chernigov, Yvr’, and Pereyasavl’). It also highlights the role of the forest–steppe Kursk as the starting point of the Russian princes’ campaign against the Polovtsians.

But if we are trying to find out how the transformation of the geographical concept and toponym “field” into the landscape concept “steppe” began, we should consider the period of the secondary migration of the Slavic people from the forest zone to the south, i.e., to the steppe. These people originally had a “steppe” (and “forest–steppe”) mentality: used the corresponding vocabulary and had the corresponding skills and agricultural calendar. Not without reason, it was the East Slavs who even in the forest zone transformed (adapted for life) the landscape frontally in the direction of imitating the “forest–steppe” landscape. It was much unlike the indigenous forest Finno-Ugric population, who created the so-called “foci of development” inside the forest for their agrarian production.

In the cycle of agricultural activity, it was since the time when the peasants entered the “step” that the word “pole” started to develop the meaning of the field, arable land, and the element of agricultural property. From this time on, it is the word “step,” not “pole,” to designate the “free land,” not used for agrarian production, virgin land, or fallow land in the black earth areas. In the middle of the sixteenth century, with the start of the construction of the Great Abatis Border (Russian “Большой засечной черты”) to protect the country against the aggressive nomads of the “Wild Field” and the Crimean Tatars, the expansion of agricultural production into the forestless black earth lands began. The Abatis Border became not only a defensive military construction, but also a state border, or a frontier from which the development of steppe lands began. Russian military servants at the frontier were granted plots of “steppe” land. This differed significantly from the way the development of the “Wild Field” took place from the west by the Polish–Lithuanian invaders. The so-called “privileges of the szlachta” with regard to the colonization of the steppe on the right bank of the Dnieper and in the Black Sea region were implemented through the construction of fortresses against the Turks and Crimean Tatars, surrounded by captured Russian villages, which were the first to be devastated during the Turkish and Crimean Tatar raids.

Along this vector of development, which included the formation of Cossacks on the territories occupied by the “Wild Field,” the secondary involvement of the term “Steppe” in the daily practice of agricultural life and the transformation of its meaning could not happen. The presence of toponyms associated with the word “steppe” in the “Big Drawing of the Moscow State,” completed exactly in 1552, does not serve the grounds for linking the start of the use of this term with the emergence of the Cossacks. Its description, “The Book” (1838), which was published later, in 1627, had the full name of “The Book to the Big Drawing of the whole Moscow state, towns, and **Field**, and rivers, and all **field** named areas.” The book contained the description of lands from the White Sea to the Black Sea. “Field” is still called “pole” in it, and under “field named areas,” Cossack steppe “pamyati” (Russian “памяти”), or settlements on the Don, Severskii Donets, Aidar, Derkul, Terek, and other rivers, are meant. Later they became large stanitsy (Russian “станция”, English village) and towns (Mityakinskaya, Luganskaya, Starobel’skaya, Belovodsk, Ostrogzhskii, Trekhizbennii, and Raigorodok). Almost no old toponyms including the base “step” can be found here (except for the Podstepnye canals on the Terek, which have been mentioned numerous times in publications). In the steppe, the steppe itself cannot be a landmark, but it can become a unique object worthy of being included in a toponym in the case of high agricultural development of lands (for example, two Stepnoe settlements in Zaporizhzhya

oblast, Kamennaya step’ in Voronezh oblast, Streletskaya and Kazatskaya step’ in Kursk oblast, Yamskaya step’ in Belgorod oblast, and Strel’tsovskaya step’ in the Lugansk Peoples Republic).

In the context of the analysis of the transformation of the concept of “field” into the concept of “steppe” on the East European Plain, it is necessary to return to the idea of colonization of the “external” and “internal” Russia, where the main driver of the permanent development of new lands was the “peasant farmer.” The “people’s colonization” of lands (by peasants, unrestricted, natural) was of the resettlement nature: it was a change of residence, accompanied by the transfer of peasant traditions, terminology, and ways of living into the new conditions (Etkind, 2022; Kolinichenko, 2023). The steppe south of Russia at the time of the start of the secondary development of the chernozems of the “Wild Field” remained “internal Russia,” where there should be no ambiguous interpretation of the word “Pole” as there should be no toponymic significance of this word retained for the peasant farmer. Thus, the word “step” (steppe) became more than just a virgin land, but acquired its modern landscape meaning.

The Indo-European basis of the concept of “steppe”: *Time of origin and expansion.* In order to strengthen the positions in understanding the transit and spread of the universal meaning of the word “steppe” and to converge the views of geographers, linguists, and historians, it was necessary to combine the results of their work with the results of geneticists’ research aimed at verifying the “steppe hypothesis” of the origin of Indo-European peoples. Until recently, the “steppe hypothesis” on the location of the Indo-European ancestral homeland remained just one of the numerous hypotheses on the origin of the peoples themselves and the common Indo-European protolanguage (Klein, 2015). The preservation of the base (s)tep=tap “to be flat, level,” “an open flat place,” etc., in all Indo-European languages, was only to confirm this (Klein, 2015). Even among the peoples who in the process of their migration and settlement found themselves outside the steppe zone (for example, those who lived in the forest zone), the meaning of this word underwent no significant changes, and in the case of their secondary settlement in the steppe areas (as the East Slavs did), the word retained its original interpretation.

A sensational change to the solution of the above-mentioned problem was brought by genogeography. In recent years, linguists and historians have argued over the hypotheses about the location of the ancestral homeland of the Indo-European peoples: was it located (1) in the Balkans, (2) in Asia Minor (Anatolia), (3) in the Pontic-Caspian steppe, (4) on the Armenian Plateau, or (5) in the Trans-Urals. All of them had little evidence to support them. In 2015, a number of articles published by geneticists (Haak

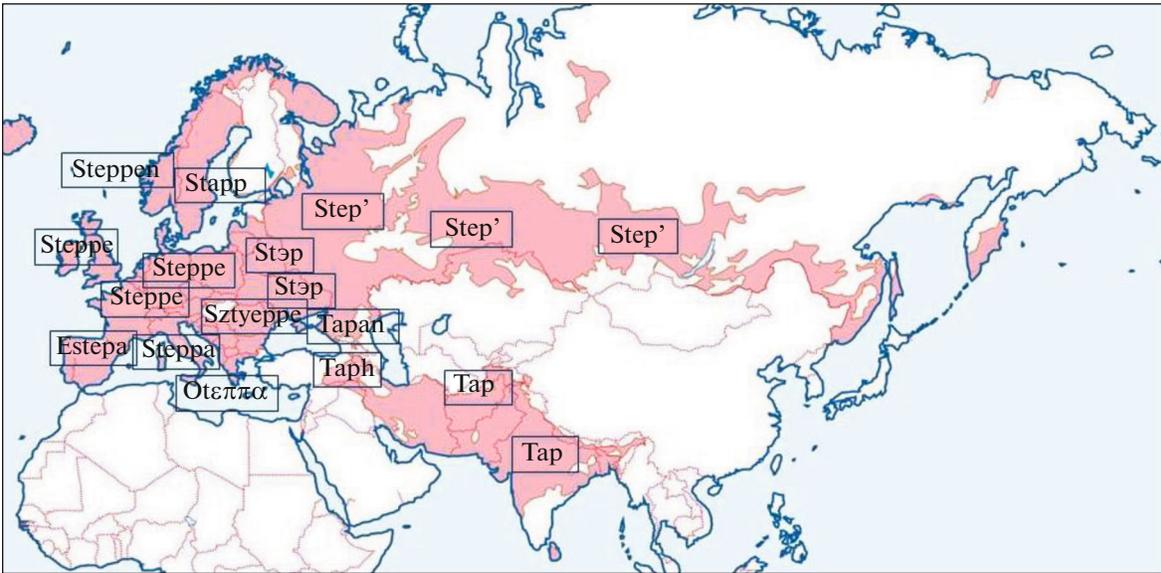


Fig. 1. The areal of the Indo-European languages in Eurasia and the diversity and distribution of the concept “steppe.”

et al., 2015; Allentoft et al., 2015) tipped the scales decisively in favor of the “steppe hypothesis.” The results of studies performed by two interdisciplinary (geneticists, linguists, and archaeologists) and multinational teams have convincingly proved the priority of the “steppe hypothesis.” They have discovered the similarity of the gene pools of the Corded Ware Culture in Europe and the Early Bronze Age Yamnaya Culture of the East European steppe. This can be regarded as evidence of the mass migration of the Yamnaya culture from the steppe to Central and Northern Europe, where the Corded Ware Cultures, generally recognized as Indo-European, were formed on its basis (Klein, 2017; Haak et al., 2015; Allentoft et al., 2015).

A study on the ethnogenesis of the peoples of Europe and the spread of Indo-European languages has shown that the migration from the steppe led to the replacement of about 3/4 of the genes of the central Europeans (Haak et al., 2015). The “steppe hypothesis” suggests that the bearers of the Indo-European language were cattle keepers living in the steppe areas of the Black Sea region and the Caspian lowland, that their languages “arrived” in Europe upon the invention of wheeled carts, and the steppe became the source of Indo-European languages about 4500 years ago. Many authors link both migrations and changes in the lifestyle of the Yamnaya culture peoples to climate aridization.

Mapping the modern distribution (areal) of Indo-European languages and the data on the distribution of the word “step” (Fig. 1) confirms to some extent the “steppe hypothesis” on the origin of Indo-European languages and their distribution in Europe, although it does not exclude cases of language

exchange with neighboring peoples, for example, from the Iranian and Hindi languages to Turkic languages.

The journal *Science* has published a work by Heggarty et al. (2023), in which an attempt was made to reconcile the hypotheses made by archaeologists, historians, and linguists on the ancestral homeland of Indo-European peoples and languages. The reconstructed Proto-Indo-European language existed about 8000 years ago in the Southern Caucasus, from where the speakers of its different branches spread across Eurasia. Some of them ended up in Europe following the Anatolian route, and the others, apparently, through the Pontic-Caspian steppe. The analysis confirmed that Indo-European languages are divided into ten main branches: Anatolian, Tocharian, Albanian (Paleobalkan), Armenian, Greek, Indic-Iranic, Baltic-Slavic, Germanic, Italic, and Celtic (Heggarty et al., 2023). In all these languages, the base “tap, (s)tep”, denoting the fertile, rich in resources, forestless grassy plain where the ancestors of the Indo-Europeans—the gatherers, hunters, and later farmers—dwelt, could be traced.

The practice of using the word “steppe” in its archaic form depended on the presence of its image and the corresponding landscape with xerophilic and mesophilic vegetation predominated by cereals. When the speakers of Indo-European languages migrated, the type of the “host landscape” changed. For example, for the Slavic-Baltic and Germanic peoples, the forests of central and eastern Europe became such a “host landscape.” It took thousands of years of transformation of forest landscapes and the “return” to the black earth south of the Russian Plain in the process of migration for the word “steppe” to become in demand among the Slavs again.

CONCLUSIONS

Numerous recent attempts on the analysis of the emergence and historical transformations of the geographical term “steppe” involved increasingly greater linguistic and historical sources, but did not solve the problem. Most researchers starting with Murzaev (1970) and the comments made by Chibilev (1992) unambiguously stated the transition of the concept “steppe” from the orographic to the landscape one. We have revealed a range of interpretations related to the base “step” and terms that confirms the “steppe hypothesis” for the origin of Indo-European languages.

In the thousand-years-long history of Slavic languages on the East European Plain, the transformation (interchange) of the terms “step” and “pole,” which started with the development of the free virgin lands of the “wild field” lying beyond the Abatis Border in the sixteenth and seventeenth centuries, turned out to be a fundamentally important issue. We have not found confirmation of it among the toponyms associated with the word “pole” in the “Big Drawing of the Moscow State” published in 1552, but we do find them in the “Book to the Big Drawing” published later (1838). However, in the everyday language of the colonizers of the new black earth lands, the peasant farmers, it was in the sixteenth and seventeenth centuries that “step” became a synonym of the virgin lands not involved in agricultural production, while the word “pole” became a synonym of the arable land.

Finally, the reconciliation of genogeographic, ethnographic, archaeological, and historical–linguistic information in the framework of the geographical interpretation of the “Steppe hypothesis” of the origin and formation of the Indo-European community of Eurasian peoples and their migration to Europe was achieved by the international interdisciplinary teams, including researchers from Russia (Haak et al., 2015; Heggarty et al., 2023). They have confirmed that the Indo-European language and steppe terminology are ancient and already existed a long time ago even in the forested areas where the steppe was absent during the migration process. Eventually, the relic character of the word “step” allowed it either to gain other meanings and other uses at different stages of language formation or to retain its original meaning.

We hope that the presented results of the analysis will help the researchers of steppes in understanding their nature, as well as in finding common ground for development of international cooperation in different areas of study and in the practical preservation of the steppe biota and ecosystems.

FUNDING

This article was supported by a State Assignment for the Institute of Geography, Russian Academy of Sciences, project no. FMWS 2024-0007.

ETHICS APPROVAL AND CONSENT TO PARTICIPATE

This work does not contain any studies involving human and animal subjects.

CONFLICT OF INTEREST

The author of this work declares that he has no conflicts of interest.

REFERENCES

- Allentoft, E., Population genomics of Bronze Age Eurasia, *Nature*, 2015, vol. 522, p. 167–172.
- Bielski, M., *Kronika Polska*, Kraków, 1957. <https://jbc.bj.uj.edu.pl/dlibra/doccontent?id=230623>. Accessed December 12, 2024.
- Bushakov, V.A. and Drogobich, N.E., On the origin of the landscape term “Steppe”, in *Materialy III Mezhdunarodnogo simpoziuma “Stepi Severnoi Evrazii: Etalonnnye stepnye landshafty”* (Proc. III Int. Symp. “Steppes of Northern Eurasia: Reference Steppe Landscapes”), Orenburg: Gazprompechat, 2003.
- Chibilev, A.A., *Lik stepi: ekologo-geograficheskie ocherki o stepnoi zone SSSR* (The Face of the Steppe: Ecological and Geographical Essays on the Steppe Zone of the USSR), Leningrad: Gidrometeoizdat, 1990.
- Chibilev, A.A., *Ekologicheskaya optimizatsiya stepnykh landshaftov* (Ecological Optimization of Steppe Landscapes), Sverdlovsk: Ural. Otd. Akad. Nauk SSSR, 1992.
- Chibilev, A.A., *Stepi Severnoi Evrazii* (Steppes of Northern Eurasia), Ekaterinburg: Ural. Otd. Ross. Akd. Nauk, 1998.
- Conservation of Steppes in Russia, 2015. <http://save-steppe.org/ru/steppe/>. Accessed December 12, 2024.
- Dal’, V.I., *Tolkovyi slovar’ zhivogo velikorusskogo yazyka: v 4 ch.* (Explanatory Dictionary of the Living Great Russian Language), Moscow: O-vo Lyubitelei Ross. Slovesnosti, 1863.
- De Beauplan, G.L., *Description d’Vkraine, Qui Sont Plusieurs Prouinces du Royaume de Pologne. Contenuës Depuis les Confins de la Moscouie, Jusques aux Limites de la Transilvanie*, 1660. [https://commons.wikimedia.org/w/index.php?title=File:Description_d%27Vkraine,_qui_sont_plusieurs_prouinces_du_royaume_de_Pologne._Contenu%C3%ABs_depuis_les_-confins_de_la_Moscouie,_jusques_aux_limites_de_la_Transilvanie._-Ensemble_leurs_moeurs_\(IA_descriptiondvkra00beau\).pdf&page=7](https://commons.wikimedia.org/w/index.php?title=File:Description_d%27Vkraine,_qui_sont_plusieurs_prouinces_du_royaume_de_Pologne._Contenu%C3%ABs_depuis_les_-confins_de_la_Moscouie,_jusques_aux_limites_de_la_Transilvanie._-Ensemble_leurs_moeurs_(IA_descriptiondvkra00beau).pdf&page=7). Accessed December 12, 2024.
- Etimologicheskii slovar’ russkogo yazyka* (Etymological Dictionary of the Russian Language), Tsyganenko, G.P., Ed., Kyiv, 1989, 2nd ed.
- Etkind, A., *Internal Colonization. Russia’s Imperial Experience*, Cambridge: Polity Press, 2011.
- Gerbershtein, S., *Zapiski o Moskovii* (Notes on Muscovy), vol. 1: *Latinskii i nemetskii teksty* (Latin and German Texts), Khoroshkevich, A.L., Ed., Moscow: Pamyatniki Istoricheskoi Mysli, 2008.

- Guagnini, A., *Sarmatiae Europae Descriptio, Quae Regnum Poloniae, Lituaniam, Samogitiam, Russiam, Masouiam, Prussiam, Pomeraniam, Liunioniam, & Moschouiae, Tartariaeque Partem Complectitur*, 1578. https://archive.org/details/bub_gb_ULz4bTnQRRoC/page/n13/mode/2up. Accessed December 12, 2024.
- Haak, W., Lazaridis, I., Patterson, N., Rohland, N., Mallick, S., Llamas, B., Brandt, G., Nordenfelt, S., Harney, E., Stewardson, K., Fu, Q., Mittnik, A., Bánffy, E., Economou, C., Francken, M., Friederich, S., Pena, R.G., Hallgren, F., Khartanovich, V., Khokhlov, A., Kunst, M., Kuznetsov, P., Meller, H., Mochalov, O., Moiseyev, V., Nicklisch, N., Pichler, S.L., Risch, R., Guerra, M.A.R., Roth, C., Szécsényi-Nagy, A., Wahl, J., Meyer, M., Krause, J., Brown, D., Anthony, D., Cooper, A., Alt, K.W., and Reich, D., Massive migration from steppe was a source for Indo-European languages in Europe, *Nature*, 2015, vol. 522, pp. 207–221.
- Heggarty, P., Scarborough, M., King, B., Bouckaert, R., Jocz, L., Kümmel, M.J., Jügel, T., Irlinger, B., Pooth, R., Liljegren, H., Richard, F., Strand, Haig, G., Macák, M., Kim, R.I., Anonby, E., Pronk, T., Belyaev, O., Dewey-Findell, T.K., Boutilier, M., Freiberg, C., Tegethoff, R., Serangeli, M., Liosis, N., Stroński, K., Schulte, K., Gupta, G.K., Haak, W., Krause, J., Atkinson, Q.D., Greenhill, S.J., Kühner, D., and Gray, R.D., Language trees with sampled ancestors support a hybrid model for the origin of Indo-European languages, *Science*, 2024, vol. 381, no. 6656, p. eabg0818.
- Jerlicz, J., *Latopisiec Albo Kroniczka Joachima Jerlicza*, 1853, vols. 1–2. <https://pbc.biaman.pl/dlibra/publication/1687/edition/1555/content>. Accessed December 12, 2024.
- Khizhnyak, O.S., *Stupa: nachalo formirovaniya buddiiskogo kul'ta* (Stupa: The Beginning of the Formation of the Buddhist Cult), St. Petersburg: S.-Peterb. Gos. Univ., 2008.
- Klein, L., Archaeological basis of the steppe hypothesis for the origin of Indo-European languages: A critical view, 2015. https://xn--c1acc6aafal1c.xn--plai/?page_id=4424. Accessed January 6, 2025.
- Klein, L., The steppe ancestral homeland of Indo-Europeans as a hypothesis, 2017. https://генофонд.рф/?page_id=24226. Accessed December 12, 2024.
- Kniga Bol'shomu chertezhu, ili Drevnyaya karta Rossiiskogo gosudarstva, ponovlennaya v Razryade i spisannaya v knigu 1627 goda* (The Book for the Great Drawing, or the Ancient Map of the Russian State, Renewed in the Discharge and Copied into a Book in 1627), St. Petersburg, 1838, 2nd ed. https://upload.wikimedia.org/wikipedia/commons/c/c6/%D0%9A%D0%BD%D0%B8%D0%B3%D0%B0_%D0%91%D0%BE%D0%BB%D1%8C%D1%88%D0%BE%D0%BC%D1%83_%D1%87%D0%B5%D1%80%D1%82%D0%B5%D0%B6%D1%83_%281838%29.pdf. Accessed December 12, 2024.
- Kolinichenko, V.S., Internal colonization of Russia, *Molodoi Uchenyi*, 2023, no. 5 (452), pp. 63–68.
- Levykin, S.V., Kazachkov, G.V., and Levykina, N.P., Development of ideas about steppe terminology on the example of the origin of the term “steppe”, *Voprosy Stepevedeniya*, 2024, no. 3, pp. 4–11.
- Merkulova, V.A., Notes from the history and etymology of words, in *Etimologiya (Etymology)*, Moscow, 1968, pp. 79–91.
- Murzaev, E.M., Local geographical terms and their role in toponymy, *Vopr. Geogr.*, 1970, no. 81, pp. 16–35.
- Murzaev, E.M., *Ocherki toponimiki* (Essays on Toponymy), Moscow: Mysl', 1974.
- Murzaev, E.M., *Slovar' narodnykh geograficheskikh terminov* (Dictionary of Folk Geographical Terms), Moscow: Mysl', 1984.
- Oderborn, P., *Zhizn' Ivana Vasil'evicha, velikogo knyazya Moskovii* (Life of Ivan Vasilyevich, Grand Duke of Muscovy), Rybakov, V.V., Filyushkin, A.I., and Khrustalev, D.G., Eds., St. Petersburg: Nauka, 2024.
- Olearii, A., *Opisanie puteshestviya v Moskoviyu i cherez Moskoviyu v Persiyu i obratno* (Description of the Journey to Muscovy and Through Muscovy to Persia and Back), Lovyagin, A.M., Ed., St. Petersburg: Izd. A.M. Suvorina, 1906.
- On the origin of the landscape term “steppe”, 2024. <https://orensteppe.org/content/o-proishozhdenii-landshaftnogo-termina-step>. Accessed December 12, 2024.
- Slovo o polku Igoreve* (The Tale of Igor's Campaign), Rybakov, B.A., Ed., Moscow: Nauka, 1985.
- Syrnev, I.P., *Put' igorevoi rati* (The Path of Igor's Army), Moscow: LA Varyag, 1996.
- Vasmer, M., *Russisches Etymologisches Wörterbuch*, Heidelberg, 1950–1958, vol. 3.

Translated by E. Martynova

Publisher's Note. Pleiades Publishing remains neutral with regard to jurisdictional claims in published maps and institutional affiliations. AI tools may have been used in the translation or editing of this article.