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DETERMINOLOGIZATION AND LINGUOCULTURAL FUNCTIONS OF SOIL SCIENCE TERMS IN LITERARY TEXTS (BASED ON UZBEK PROSE AND POETRY)

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Abstract.

The article examines the use of soil science terms in Uzbek literary texts from the perspective of the process of determinologization and their linguocultural functions. Drawing on works ranging from classical literature to the present day, it identifies the ways in which terms such as shoʻrxok (solonchak), taqir (takyr), boʻz yer (grey soil land), qoʻriq (virgin land), shudgor (ploughed fallow), unumdorlik (fertility), qatlam (layer, horizon), eroziya (erosion) and chirindi (humus) enter literary texts, as well as the functions they perform. The nominative-realistic, symbolic-conceptual, ecological-publicistic and emotive-expressive functions of the terms are distinguished. It is substantiated that in literary texts soil science terms acquire spiritual and historical content and become a means of verbalizing the concepts “Homeland”, “ancestral heritage” and “historical memory”. The periodic evolution of the image of soil in Uzbek literature is also shown: from a “source of daily sustenance” to a “witness of ecological tragedy”.

Keywords: soil science term, literary text, determinologization, linguocultural function, symbol, concept, ecological discourse, image of soil, literary terminology.

Аннотация.

В статье рассматривается употребление почвоведческих терминов в узбекском художественном тексте с точки зрения процесса детерминологизации и лингвокультурных функций. На материале произведений от классической литературы до современности определяются пути проникновения в художественный текст и функции таких терминов, как шўрхок (солончак), тақир (такыр), бўз ер (сероземная земля), қўриқ (целина), шудгор (зябь), унумдорлик (плодородие), қатлам (слой), эрозия, чиринди (перегной). Выделяются номинативно-реалистическая, символико-концептуальная, эколого-публицистическая и эмоционально-экспрессивная функции терминов. Обосновывается, что в художественном тексте почвоведческие термины приобретают духовно-историческое содержание и становятся средством вербализации концептов «Родина», «отцовское наследие», «историческая память». Показана эволюция образа почвы в узбекской литературе – от «источника пропитания» до «свидетеля экологической трагедии».

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Ключевые слова: почвоведческий термин, художественный текст, детерминологизация, лингвокультурная функция, символ, концепт, экологический дискурс, образ почвы.

Аннотация.

Мақолада тупроқшунослик терминларининг ўзбек бадиий матнидаги қўлланиши детерминологизация жараёни ва лингвомаданий функциялар нуқтаи назаридан тадқиқ этилади. Мумтоз адабиётдан ҳозирги давргача бўлган асарлар материали асосида шўрхок, тақир, бўз ер, кўриқ, шудгор, унумдорлик, қатлам, эрозия, чиринди каби терминларнинг бадиий матнга кириш йўллари ва бажарадиган вазифалари аниқланади. Терминларнинг номинатив-реалистик, рамзий-концептуал, экологик-публицистик ва эмоционал-экспрессив функциялари ажратилади. Бадиий матнда тупроқшунослик терминлари маънавий-тарихий мазмун касб этиб, «Ватан», «ота мерос», «тарихий хотира» концептларини вербаллаштирувчи воситага айланиши асосланади. Шунингдек, ўзбек адабиётида тупроқ образининг даврий эволюцияси – «ризқ-рўз манбаи»дан «экологик фожиа гувоҳи»гача бўлган ўзгариши кўрсатиб берилади.

Калит сўзлар: тупроқшунослик термини, бадиий матн, детерминологизация, лингвомаданий функция, рамз, концепт, экологик дискурс, тупроқ образи, бадиий терминология.

Introduction. In linguistics, the relationship between the term and the literary word has long been interpreted as an opposition: the term was regarded as a monosemous, emotionally neutral unit with a precise definition, and the literary word as a polysemous, figurative and expressive unit. However, modern cognitive and linguocultural research has shown that this boundary is relative. A.V. Superanskaya, N.V. Podolskaya and N.V. Vasilyeva emphasized that when a term moves beyond the terminological system to which it belongs, its meaning changes according to the laws of the general language [7]. V.M. Leichik substantiated that a term “lives” in various discourses and acquires different functional statuses in them [8].

Uzbek literature has developed in close connection with farming culture. While Farhad’s cutting through a mountain to bring water to the waterless steppe in Alisher Navoi’s epic poem “Farhad and Shirin” is an artistic expression of the idea of making land flourish, Zahiriddin Muhammad Babur’s “Baburnama” contains descriptions of the nature, water and fertility of the lands of Fergana, Kabul and India characteristic of an observant naturalist. In the 20th century, historical processes such as the land and water reform, collectivization, the development of the steppes, the cotton monoculture and the Aral Sea tragedy further broadened the theme of soil in literature. As a result, terms such as sho‘r yer (saline land), bo‘z yer (grey soil land), qo‘riq (virgin land), taqir (takyr), shudgor (ploughed fallow) and yer unumdorligi (soil fertility) actively entered literary texts.

At the same time, soil science terms in literary texts have not been specifically studied in Uzbek linguistics. Works on the linguistic analysis of literary texts (D. Khudoyberganova, N. Mahmudov, et al.) have mainly examined common vocabulary and figurative means [4; 5], while works on sectoral terminology have often overlooked the life of terms in literary speech. Yet under present conditions of

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aggravated environmental problems, fiction has become one of the important means of conveying scientific concepts to the wider public and of shaping ecological culture.

Research material and methods. The research material comprised works of Uzbek classical literature (Alisher Navoi, Zahiriddin Muhammad Babur), 20th-century prose (Abdulla Qodiriy, Abdulla Qahhor, Oybek), and prose and poetry of the late 20th and early 21st centuries (Tog‘ay Murod, O‘tkir Hoshimov, Abdulla Oripov, Erkin Vohidov, et al.). The main criterion for selecting the material was that the subject of the work be related to farming, land and water relations, rural life or ecology.

The analysis employed contextual analysis, componential analysis, linguopoetic analysis, conceptual analysis and linguocultural interpretation. The use of each term was studied in two stages: first, the scientific definition of the term in soil science was established [9; 10]; then, the semantic facets it acquired or lost in the literary context were identified. This method makes it possible to assess the degree of determinologization.

Analysis and results. The research material showed that soil science terms enter literary texts in three main ways.

The first way is entry through vernacular names. Units such as bo‘z (grey soil), sho‘r (saline), sho‘rxok (solonchak), taqir (takyr), qumloq (sandy soil), qo‘riq (virgin land), lalmi (rain-fed land), shudgor (ploughed fallow), kesak (clod) and loy (mud) originally took shape in the vernacular and were later adopted into scientific terminology. They are easily assimilated in literary texts because they are understandable and culturally “familiar” to the reader. For example, the unit bo‘z yer or bo‘z tuproq is used in its literal meaning in the prose of Abdulla Qodiriy and Abdulla Qahhor to depict the rural landscape. In literary texts these units become a means of creating national colour without “losing” their terminological properties.

The second way is entry through scientific and official discourse. Terms such as unumdorlik (fertility), melioratsiya (land reclamation), eroziya (erosion), drenaj (drainage), mineral o‘g‘it (mineral fertilizer), gumus (chirindi, humus), sho‘r yuvish (salt leaching) and kollektor (collector drain) spread widely in the second half of the 20th century through the press, radio and official documents and entered literary works, especially prose depicting rural life. Such terms often occur in the speech of characters such as agronomists, collective farm chairmen, brigade leaders and land reclamation specialists and reflect the spirit of the era.

The third way is entry through metaphorical reinterpretation. This is the most complex way: the term retains its scientific meaning while acquiring a new, symbolic one. For example, qatlam (layer) is used in the sense of layers of historical memory, eroziya (erosion) in the sense of spiritual decay, sho‘rlanish (salinization) in the sense of a bitter, fruitless life, and qo‘riq (virgin land) in the sense of an as-yet-untapped opportunity. It is precisely this way that most fully reveals the linguocultural potential of the term.

The analysis showed that soil science terms perform five main functions in literary texts:

1. Nominative-realistic function. If the setting in which the events of a literary work take place is not clearly depicted, no realistic impression is created. In works devoted to rural life, units such as bo‘z yer (grey soil land), lalmi yer (rain-fed land), shudgor (ploughed fallow), ariq (irrigation ditch), paykal (field plot) and egat (furrow)

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"bring the setting to life". In Abdulla Qahhor's novel "The Lights of Qo'shchinor", vocabulary related to agricultural work and the distribution of land and water serves to create a truthful picture of rural life. In this function, the term stays closest to its scientific meaning; however, it is no longer a definition but a detail of the landscape.

2. Characterological function. In a literary work, a character's speech reveals who they are. The occurrence of terms such as unumdorlik (fertility), gumus (humus), meliorativ holat (reclamation status) and drenaj (drainage) in the speech of an agronomist or specialist shows their scientific knowledge, whereas vernacular expressions in the speech of an ordinary farmer, such as yer och qoldi ("the land has gone hungry"), yer horidi ("the land is exhausted") and sho'r bosdi ("salt has taken over"), reveal their life experience. Thus, "scientific" and "folk" soil science languages collide within a single text. This collision often becomes a source of artistic conflict: the conflict between a manager who knows the land through a "plan on paper" and a farmer who knows it "with the palm of the hand" is one of the traditional motifs of Uzbek prose.

3. Symbolic-conceptual function. In this function, soil science terms express the core concepts of national culture. In Uzbek poetry, the units ona tuproq ("mother soil"), Vatan tuprog'i ("the soil of the Homeland") and ota-bobolar xoki ("the dust of the forefathers") are the central verbalizers of the concept of Homeland. In the poems of Abdulla Oripov and Erkin Vohidov on the theme of the Homeland, the image of soil is interpreted as a living witness of history and a sacred space where the spirit of ancestors is preserved.

4. Ecological-publicistic function. From the 1980s onwards, the ecological theme intensified sharply in Uzbek literature. The cotton monoculture, the excessive use of toxic chemicals, soil salinization and the drying up of the Aral Sea began to be discussed openly and sharply in literature. In Tog'ay Murod's novel "The Fields Left by My Father", the fates of the land and the farmer are depicted as inseparable: the poisoning and exhaustion of the land by chemicals are presented in parallel with the farmer's spiritual and physical condition. In this work, the lexemes yer (land), dala (field) and tuproq (soil) are elevated to the level of a central image expressing personal and national tragedy.

In works of this period, units such as sho'rlanish (salinization), sho'rxok (solonchak), taqir (takyr), qatqaloq (soil crust) and yer horishi (land exhaustion) became a means of evaluating not only a natural phenomenon but also the attitude of the socio-political system towards people and nature. In this sense, soil science terms function as keywords of ecological discourse in literary texts. In poetry on the Aral Sea tragedy, images such as sho'r qum (salty sand), tuz bo'roni (salt storm) and qurigan tubdagi taqir (the takyr of the dried-up seabed) appear as warning symbols reminding humanity of its responsibility.

5. Emotive-expressive function. Soil science terms are also actively used to depict a character's state of mind. For example, in contexts such as ko'ngli taqirdek bo'm-bo'sh ("their heart is as empty as a takyr"), yuragi qatqaloq bo'lib yorilgan ("their heart has crusted and cracked") and hayoti sho'r bosgan yerdek behosil ("their life is as barren as salt-covered land"), the physical state of soil is projected onto a person's inner state. What is significant here from the standpoint of soil science is that literary texts select precisely the signs of soil degradation (drying, cracking, salinization, crust formation) to express mental crisis, despair and loneliness.

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Conversely, images of soft, porous, moist and fertile soil serve as symbols of love and affection, abundance and hope.

In classical literature, soil was interpreted mainly in two directions: first, through the opposition of obod (“flourishing”) and vayron (“ruined”), land was presented as a space made to flourish by human labour; second, through the image of xok (“dust”), it was a symbol of human transience and humility. In Navoi’s epic poem “Farhad and Shirin”, Farhad’s creative activity is interpreted as the restoration of the balance between land and water.

In the first half of the 20th century, land is depicted as an object of social relations. The land and water reform and questions of property and justice are expressed in literature through units such as yer-suv (“land and water”), yer egasi (“landowner”) and yersiz dehqon (“landless peasant”). In the second half of the 20th century, the idea of “subjugating nature” prevailed, and expressions such as qo‘riq ochish (“breaking virgin land”), cho‘lni o‘zlashtirish (“developing the steppe”) and bo‘z yerlarni gullatish (“making the grey lands bloom”) were used in positive, heroic contexts.

From the end of the 20th century, however, this paradigm changed fundamentally: soil began to be interpreted as a wounded, “sick” living being in need of human protection. This change is consonant with the development of the concepts of soil health, soil degradation and soil conservation in modern soil science. Consequently, the image of soil in literary texts functions as a “linguocultural mirror” that reflects changes in scientific thought and public consciousness in its own distinctive way.

Soil science terms in literary texts can be divided into three groups according to the degree of determinologization:

1) **zero degree** – the term fully retains its scientific meaning and performs only the nominative-realistic or characterological function (drenaj – drainage, melioratsiya – land reclamation, gumus – humus, mineral o‘g‘it – mineral fertilizer);

2) **partial determinologization** – the term retains its scientific meaning while acquiring an additional evaluative and emotional shade (sho‘rxok – solonchak, taqir – takyr, qatqaloq – soil crust, eroziya – erosion);

3) **complete determinologization** – the term becomes a general figurative unit and is used independently in contexts outside the field (qo‘riq ochmoq – “to break virgin land”, ilm qo‘rig‘i – “the virgin land of science”, qatlamlar – “layers”, ildiz otmoq – “to take root”, tuproq bo‘lmoq – “to become soil”, i.e. to die).

The practical significance of this classification is that it shows the “trajectory” of the transition of soil science terms into the general literary language. As a rule, terms borrowed from the vernacular (qo‘riq, taqir, sho‘r) are more prone to determinologization because they already possess cultural and figurative content. International terms (eroziya, melioratsiya, drenaj), by contrast, usually remain at the zero or partial degree in literary texts. At the same time, the recent use of the term eroziya in journalism in collocations such as ma’naviy eroziya (“spiritual erosion”) and qadriyatlar eroziyasi (“erosion of values”) shows that it too is moving towards complete determinologization.

Conclusion. To sum up:

1. Soil science terms enter Uzbek literary texts in three ways: through vernacular names, through scientific and official discourse, and through metaphorical

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reinterpretation. Terms borrowed from the vernacular constitute the most active and culturally richest layer in literary texts.

2. In literary texts, soil science terms perform nominative-realistic, symbolic-conceptual, ecological-publicistic and emotive-expressive functions. The most important of these is the symbolic-conceptual function, through which the concepts “Homeland”, “ancestral heritage” and “historical memory” are verbalized.

3. In Uzbek literature, the image of soil has evolved from the classical period’s “space to be made flourishing and symbol of transience” to the late 20th-century image of a “wounded living being”. This evolution is consonant with paradigm shifts in scientific soil science.

4. According to the degree of determinologization, terms are divided into groups of zero, partial and complete determinologization. The results of the study can be used to record the general literary meanings of terms in terminological dictionaries, as well as in classes on the linguopoetics of literary texts and on environmental education.

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