

## **Linguistic Analysis of Hyponymic And Radiation Relations in The System of Archaeological Terminology**

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**Abstract.** *This article examines the lexical-semantic system of archaeological terminology from a systemic and structural linguistic perspective. The study focuses on hyponymic, hyperonymic, and radiation-based relations that organize the hierarchical structure of archaeological concepts. It is argued that archaeological terminology forms multi-level semantic microsystems characterized by differential features and taxonomic classification. The research demonstrates that terminological units function not only as nominative means but also as conceptual mechanisms modeling scientific knowledge within the discipline. The findings highlight the interaction between thematic classification and logical hierarchy in the organization of archaeological terminology.*

**Key words:** *Archaeological Terminology, Lexical-Semantic System, Hyponymy, Hyperonymy, Hierarchical Structure, Radiation Relations, Terminological Microsystem*

Archaeological terminology constitutes a specialized lexical layer formed within the framework of interdisciplinary scientific discourse, representing the conceptual apparatus of the discipline of archaeology. As an essential component of scientific language, terminological units not only perform the function of naming but also reflect the structural model of scientific thinking.

The system of archaeological terms possesses a complex lexical-semantic structure, in which hyponymic, hyperonymic, and radiation-type relations serve as the main organizing factors. These relations ensure the hierarchical classification of concepts, their differentiation based on distinctive features, and the linguistic representation of methodological directions within the discipline.

From the perspective of modern terminology studies, a systematic analysis of archaeological terminology not only clarifies its internal semantic organization but also reveals the mechanisms of linguistic modeling of scientific knowledge. Therefore, this study aims to analyze the lexical-semantic structure of archaeological terms within the framework of hierarchical and radiation-type relationships.

Hierarchical relations between lexical units occupy an important place in the internal structure of archaeological terminology. This hierarchy is often based on the principle of generality and particularity and is characterized by the distinction between basic (hyperonymic), general, and specific (hyponymic) concepts [1].

These relationships are realized through the principle of hyponymy. Hyponymy is a semantic subordination between lexical units, in which the meaning takes on the meaning of a broader unit (hyperonym) [2]. In other words, the hyponym, as a component of the hyperonym, is semantically subordinate to it.

The semantic content of hyponyms is usually more detailed and enriched with differential

features than hyperonyms. Since hyponyms, in addition to the general dominant seme characteristic of hyperonyms, also include defining (differential) semantic components [3]. For example, the term “geometric microlith” (Eng. geometrical microlith) is a general hyperonymic unit in archaeology, which includes hyponyms denoting the following concrete forms: rhombus (Eng. rhombus), trapezoid (trapezoid), triangle (triangle), segment (segment) [4]. Each hyponym is characterized by a specific sematoconcretizer denoting the geometric shape of these tools.

This hierarchical structure not only ensures logical order between terms but also simplifies the classification and systematization of archaeological objects. Such semantic structural connections are one of the important stylistic principles for the language of science.

By analyzing hyponymic relations in the system of archaeological terminology, it is possible to identify complex hierarchical connections between concepts. This approach allows us to consider archaeological terms as a system of microsystems, in which each microsystem, in turn, is subdivided into subterminological systems.

In the structure of subsystems, fractional terms are usually located, which are in a particular opposition (oppositional) relationship, i.e., mutually exclusive or distinctive. This is explained by the fact that hyponyms have differential semes in relation to hyperonyms. Also, hyponymic connections sometimes appear in the form of a two-tiered hierarchical system. For example, the hyperonym “archaeological chronology” combines two main hyponyms:

*absolute archaeological chronology – абсолютная археологическая хронология;*

*relative archaeological chronology – относительная археологическая хронология.*

In this system, the main concept (chronology) plays a generalizing role, and opposing methodological approaches are subordinate to it as hyponyms. Similarly, under the general hyperonym “archaeology”, the following terms are placed, which have a personal (personal) opposition to each other:

*field archaeology – полевая археология;*

*laboratory archaeology – камерально лабораторная археология;*

*armchair archaeology – кабинетная археология.*

These terms represent different stages or methodological approaches of archaeological activity. Hyponyms of this category are subordinate to the general hyperonym “archaeology”, but their mutual semantic contradiction arises from the differentiation of different working environments and research methods. Thus, hyponymic relations in the system of archaeological terms:

- reflects the terminological hierarchy within the discipline;
- serves the systematic organization of the system of concepts;
- expresses the structure of scientific thinking and methodological differences through language.

In this case, hyponymy appears as a means of expressing not only semantic subordination, but also inter-conceptual connection and methodological specialization.

In archaeological terminology, hierarchical (subordinate) lexico-semantic relations are formed on the basis of a three-level structure, which includes general (hyperonym), specific (mezonym), and specific (hyponym) concepts. This system was formed in connection with the need for a clear classification and classification of concepts in the language of science and reflects the relationship between terms on a semantic basis. For example, “funeral ceremony” – погребальный обряд – burial rite (eng) serves as a hypernym with a common seme. This hypernym includes the following specific types:

Murdani joylashtirish – трупоположение; corpse placement

Murdani yoqish – трупосожжение – cremation.

These unique units, in turn, have hyponyms with an internal classification. For example: трупоположение на кровати – to‘shakda murdani holati – corpse placement on bedding, трупоположение на поверхности горизонта – murdani ochiq yerda joylashtirish – corpse on the earth, трупосожжение в печи – murdani pechda yoqish – cremation in oven;

трупосожжение со сторон – murdani yon tomonda yoqish – cremation from the sides[4].

These terms are placed under the hyperonym “funeral ceremony” and are united by a single semantic field – “the state of disposing of the corpse”.

In the archaeological lexico-semantic system, there are also four-tiered hierarchical structures. In this case, sequentially subordinate microsystems are located under hyperonyms of a high degree. In particular, within the concept of “archaeological monuments”, the following systems can be distinguished:

Hyperonym: archaeological monument – archaeological monument – archaeological site.

1. stage: Turar joy – жилище – dwelling;
2. stage: Manzilgoh (sto‘yanka) – стоянка – encampment;
3. stage: Torfli manzilgoh – торфяниковая стоянка – peat encampment;
4. stage: Allyuvial manzilgoh – аллювиальная стоянка – alluvial encampment;
5. stage: Dunali manzilgoh – дюнная стоянка – dune encampment.

The following structural examples can also be given: qadimiy shahar – древний город – ancient city, qishloq yodgorligi – селище – village monument.

Through such hierarchies, the semantic network of terms is determined, on the basis of which an ordered structural structure of hyponym-hyperonym relations is built in science. This circumstance proves the taxonomic, paradigmatic, and lexico-semantic systematization of archaeological terms.

One of the most complex forms of hierarchical semantic relations in archaeological terminology is a five-stage structure. As a hypernym arxeologik archaeological periodization (археологическая периодизация – davriylanishtirish) the concept emerges. It includes the following main historical periods: Stone Age (каменный век – tosh davri), Bronze Age (бронзовый век – bronza davri), Iron Age (железный век – temir davri).

Sometimes hyponymic groups are not directly subordinate to the dominant concept, but simultaneously spread to different narrow concepts. Such a state is the radiation structure (radiation structure). An example of this is the microstructure formed on the basis of the concept of an archaeological complex (archaeological complex). Here, the following are distinguished as hyponyms: open archaeological complex (открытый археологический комплекс); closed archaeological complex (закрытый археологический комплекс); burial complex (погребальный комплекс); economic complex (хозяйственно-бытовой комплекс). All of them are united under the common theme of the archaeological complex.

The system of terms of funeral rites (погребальные обряды) is also rich in hyponymic relations. For example, under the hyperonym “type of burial” (tip захоронeniya), the following are hyponyms: inhumation (ingumatsiya), cremation (кремация).

These groups, in turn, are divided into narrower hyponymic groups:

1. By type of grave: underground grave (подземная могила), monument grave (могила с конструкцией).
2. By burial form: catacomb burial (катакомбное захоронение), wooden burial (древесное погребение).
3. By skeletal position: flexed skeleton (согнутое положение), diagonal position (диагональное положение).

4. By direction: western orientation (западная ориентация), eastern orientation (восточная ориентация), meridional orientation (меридиональная ориентация).

In archaeological terminology, hyponymic relations are determined based on the analysis of the lexico-semantic structure of terms, and these relations are usually manifested at the semantic level. They may not always be in an open form with formal means of expression (for example: ovul – деревня – village, manzilgoh – стоянка – parking site, ko'hna shahar – древний город – ancient city). However, such semantic stratification is often expressed in the connections between language units based on logical-conceptual consistency, and this situation is manifested in the harmony of the structural-morphological structure of terms.

In archaeological microstructures with a radiation structure, hyponymic groups are often systematized based on general semantic criteria. For example, structures formed within the framework of the term scraper differ in their semantic-material basis and syntactic organization. In the structure of this hyperonym, such units as scraper on the plate, scraper on the shell, scraper on the rock are formed on the basis of prepositional models and are distinguished by semes that determine the material or method of production of the tool.

Some archaeological terms are formed simultaneously on the basis of several descriptive parameters and form a semantically multilayered system. Such units, as a complex nominative structure, comprehensively express the typological, functional, and technological features of the subject. For example, terms such as side cutting on a plate with a straight-breaking end or multi-beam cutting on a plate with a cross-breaking end clearly demonstrate the hierarchical relationship and differential meanings between the structural components.

Archaeological terminology constitutes a system of special linguistic units in the interdisciplinary sphere. The lexico-semantic features of this system distinguish it from other layers of the literary language. Terms, as a rule, express specific scientific concepts, and they are connected in mutual semantic relations - in the form of synonymy, antonymy, hyponymy, polysemy.

Within this typology, hyponymy is one of the most effective systems, and often thematic networks are formed around hyperonymic units. For example, tools such as a stone axe, knife, scraper are semantically grouped under the general concept of tool. This situation indicates the existence of a logical hierarchy between terms. At the same time, this structure is not always strictly hierarchical, since terms are often differentiated based on a practical task or morphological structure.

In archaeological lexicon, terms differentiated by attributive components are widespread. For example, the term excavation includes units such as exploration, protection, and rescue, which express a functional difference and create a hyponym-hyperonym relationship. However, such a hierarchical connection is not characteristic of all terms: some units (catakomba, dromos, covering) are used as independent, narrowly specialized nominations, and it is difficult to define a specific generalizing hyperonym for them.

In archaeological terminology, attributive differentiation based on form is widespread: units such as kilovidnyy, karandashovidnyy, klinovidnyy reflect the geometric shape of tools. Although this approach allows for a clear description of semantic groups, a consistent mechanism for standardizing terms is not always observed. As a result, the system of archaeological terms is closer to a thematic classification than to a strict logical hierarchy [5].

The structure of archaeological terminology represents a multi-layered and interconnected lexical-semantic system. Hyponymic and hyperonymic relations regulate hierarchical connections between concepts, providing a logical basis for terminological classification. Radiation-type structures, in turn, generate thematic micro-systems organized around a central concept.

Moreover, within the system of archaeological terms, alongside strict hierarchies, thematic classification principles also play a significant role. This reflects the dynamic nature of the terminological system and its intrinsic connection with the development of the discipline.

Thus, archaeological terminology is not merely a set of nominative units; it manifests as a

complex linguistic mechanism that facilitates the structuring, classification, and conceptual modeling of scientific knowledge.

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