

Place names are rarely studied from the semiotic perspective. It has long been out of the question that onymic signs perform a nominative function as they cannot express any notions, each of them being a name of an individual object devoid of the ability to generalize. By applying such an approach, we can't do anything with names but define their origin and elements that turn stems into proper names. This is a traditional language-centered approach which shows no connection of names to man's conscience or the outer world.

According to one of the founders of semiotics, the American philosopher Ch. Morris, the theory of signs consists of three parts: **semantics**, i. e., a relation of signs to objects; **syntactics**, i. e., a relation between signs; and **pragmatics**, i. e., a relation of subjects to signs (МОРРИС 1983: 37—89)]. In the second half of the twentieth century, this scheme underwent revision by the German Marxist philosopher Georg Klaus (КЛАУС 1967: 17). In particular, he emphasizes that relations between signs are formed both syntagmatically and paradigmatically; therefore, we could distinguish the aspect which determine the position of a sign in a system (paradigmatics, or semantics) alongside with syntactics, and consider it as a sense of a sign. Thus, he divides semantics into two more parts. Klaus distinguishes the reflection of a sign in our consciousness (paradigmatics, or **semantics**) and the relation of a sign to the object itself, or the referent (denotatics, or **sigmatics**).

The theory of Klaus received mostly negative reaction around Europe (NÖTH 1995: 52), but rather a positive appraisal from some post-Soviet researchers (ХОПМАН 2011: 311–317). A very interesting in-between point of view was presented by Johannes Heinrichs: “Georg Klaus was fundamentally right in postulating a fourth semiotic dimension... But his “materialistic” motivation must be restated in an action-oriented way instead of an object-oriented one” (HEINRICHS 2011: 237).

My goal is to justify the possibility of studying place names from the position of a sigmatic (denotative) dimension of a sign. Achieving this goal requires the following tasks to be solved: 1) to display indexical, iconic, and symbolic features of place names, select and analyze those of the features that help to explain their functional character; 2) to give a brief account of the history of studying three recognized semiotic dimensions of place names – syntactics, semantics, and pragmatics; 3) to propose a scheme of sigmatic (denotative) approach to geographical names.

1. From a set of linguistic signs used in society, proper names belong to a considerable group of words, which is often ranked as defective in comparison with common names. The former class has most often been studied scientifically as the one which most vividly displays the mythological nature of relationship between individual objects and the consciousness of the subject (ЛОТМАН 1992: 61). Yu. Lotman, in particular, says that proper names are “a differently arranged language which is incorporated into the depth of a natural language” (ЛОТМАН 1992: 62). By perceiving all names as symbols man automatically reduces all onyms to Peirce's symbols as it shows nothing but arbitrary bonds between the signifier and the signified of a proper name. The approach also gives ground to study onyms by using the methodology applied to common nouns. However it doesn't remove a number of questions concerning the causes and continuity of coining names. On the whole, reducing all the proper names to a group of non-motivated signs does not add much to its explanation. As if “behind the scenes” are the ideas of logicians and philosophers of language (G. Frege, B. Russell, et al.), who argued that “there is no reason to think that we “disable “consciousness” while using proper names” (РУДЕНКО 1988: 63).

Ch. Peirce insists on the traditionally indexical nature of proper names: "They should probably be regarded as Indices, since the actual connection (as we listen to talk) of Instances of the same typical words with the same Objects, alone causes them to be interpreted as denoting those Objects" (CP 4: 544). Indeed, a proper name is primarily aimed at pointing to an object, referring to it. By utilizing the opposition of mainly symbolical appellatives and mainly indexical onyms we could change the focus of onomastic research from using traditional algorithms of research applied both to appellatives and onyms towards considering the nature of individual objects first.

Possessing a sigmatic (denotative) aspect may be sufficient for certain linguistic signs. A proper name is a classic example in this respect. References to particular objects are required for onyms, but at the same time semantic information contained in them is close to a zero point (НОПМАН 2011: 312). Yet, even such a semantically reduced item is still able to generalize.

At the same time complicated interconnections behind linguistic signs let Ch. Peirce say that "it would be difficult if not impossible to instance an absolutely pure index, or to find any sign absolutely devoid of the indexical quality" (CP 2: 306).

Being classified as indices, place names nevertheless could hardly be fully disclosed as solely indexical signs. Most traditional papers point at the onymic tendency toward loss of motivation, i. e. "increasing thirst for symbolism" (ПУТ 1992: 108). For instance, according to estimates made by V. Zhuchkevich, only 23 and 28 out of every 100 names of Belarusian rivers and lakes respectively could be more or less accurately interpreted (ЖУЧКЕВИЧ 1961: 10). Undoubtedly, a significant number of names for the largest natural bodies of water (rivers, lakes) can now be seen as Peirce's symbols, but it would be an oversimplification to consider the work of a system of place names as a process of mere attaching "labels" to objects. Moreover, Ch. Peirce in his "Prolegomena to an Apology for Pragmatism" (ПИРС 2000: 223) speaks about the absence of explanatory potential of symbols. A symbol is an agreement between the communicants, a habit that should be remembered, but not understood.

A name could also be used as an icon. Applying to icons occurs mainly when it is necessary to display likeness or unlikeness of objects and to establish the degree of this (un)likeness (e.g. images, metaphors, diagrams). Ch. Peirce considered that "it is by icons only that we really reason" (CP 4: 127).

Modern toponymic system is poor in metaphorical units. They are found in the names of geographical objects very rarely, sporadically (НЕЧАЙ 1991: 90). In addition, even in presumably uncontested metaphorical place names such as a reep Blr. *Kaŭryga* 'round loaf of bread' "informants give the meaning of a word not as certainties, but as probabilities" (ПУТ 1992: 108). However, man can't but express his attitude to various objects of the world and notice similarities in the same types of objects. The imagery of names can sometimes be unnoticed only because they are no longer linguistic metaphors. Similarities move from an area of direct displaying the likeness of objects in a word (e.g., names of marshes Blr. *Žarnavok*, Eng. *Little Hell*) to schematizations, frames, etc. Different attitude to the realities is not seen in separate examples, but it is easily detected in cases of comparing groups of names en masse. Modern iconic place names could be classified as icons-diagrams, not icons-images.

Iconicity is easily found in place names. The linguists engaged in structural studies repeatedly pointed out that a place name tends to come off the appellative which motivates the onym. Usually a toponymic formant is added to a stem to form a place name. The onym-building role is not necessarily played by derivational morphemes, e.g. the indicators of number and gender could equally perform as formants in Slavic languages. In such a case the gender of a place name is not necessarily correlated with the gender of a geographical appellative representing the object: *balota* (neut.) 'swamp' *Biarozavik* (masc.), *raka* 'river' (fem.) *Nieman* (masc.), etc. A plural form often doesn't

indicate a real multiplicity of objects (settlements *Kalinkovichi*, *Khoiniki* et al. with the inflection -i denoting plurality). Thus, the formation of Slavic place names is performed, in fact, only by means of derivative morphemes. The appearance of derivational means in place names (including gender or number inflections) indicates special man's attention to the object, a desire to distinguish the name from the motivating appellative stem, and to get rid of "toponymic homonymy" by means of word-formation: Blr. *most* 'a bridge' > *balota* 'swamp' *Masty* 'bridges' (though only one bridge is found in the vicinity of the swamp).

Eloquent examples of iconicity in place naming are also found when proper names are formed on the basis of other names by means of morphemes and words: *vioska* 'village' *Talynava* > *balota* 'swamp' *Talynaŭski Moch*, et al. Derivatives will be at least one morpheme longer than the words which play the role of a motivating appellative stem. So, in a certain sense this correlation will repeat the relations between the geographical objects. The name of the village (in the example above) is more suitable for orientation. It doesn't need another place name to be a reference point for a man. Typically, the name of a macroobject is duplicated in the name of a microobject.

Semantic derivatives among place names are also very representative in this respect. They don't add any formant to the motivating appellative stem. The researcher could easily notice that smaller and unstable objects are endowed with such names more often than large and stable objects. Small water objects, for example, appear and disappear when time passes: they can overgrow, dry up, be filled with water. They are not as easily followed by humans as macroobjects. A changed landscape is not always accurately reflected in the language signs because of the high dynamics of changes in reality (or man doesn't want to change the habits and gives the same name to an object which has already changed its status). The object could also be seen by a name-giver as a less visible and therefore less significant landmark. In the latter case, the name displays not the object itself but its surrounding: *balota* 'swamp' *Kamienny Log* 'stone ravine'.

2. The aspects of toponymic signs are not studied equally well. Syntactics is predictably the most developed part of the sign theory of place names. It is easily explained because distinguishing simple, compound, and complex names (syntactics) is easier than describing the meanings of obsolete stems of hydronyms or changeable references of field names (semantics), and searching for ethnic and cultural behaviour enclosed in names (pragmatics). This aspect is presented in different theories of names, such as "empty labels", "mythological" layer of units unchanged in all "possible worlds", and the like (J.S. Mill, S. Kripke, Yu. Lotman, etc.).

From the very first steps place names studies were considered a discipline aimed at distinguishing a stem and a formant of a name. Special interest to singling out formal structures and elements is indispensable at the very beginning of any research. It resulted in comparative-historical and structural investigations of names. As a result of a special interest to the most ancient names (primarily rivers and lakes) which very often lack inner form, an etymological method took the lead in investigations. Suffixes were proclaimed the most important elements of names because only a word-formation act let researchers define the time when a place name was coined. Interest in the distribution of formants was primarily connected with history. The distribution of suffixes was used to explain the movement of peoples: *-sa*, *-ža*, *-ishki* (Baltic), *-ica*, *-ka*, *-shchyna* (Slavic), etc. (Blr. *Biarezha*, *Lučosa*, *Hlybačka*, *Rybnica*, etc.). The status of a sign for a place name in such a formal research is lost. It's not a toponymic sign that matters, but a formant localization.

Subsequent interest in the structural characteristics of names of other types of geographical objects and the algorithm for analyzing them was to a great extent predetermined by the previous comparative-historical experience which added value to a very few classes of names (БЕРЕЗОВИЧ 2001: 41). Structural linguistics paid even less

attention to extralinguistic factor attempting to focus on the language itself and search for declarative knowledge. A database of onymic stems and formants was the main result for such a kind of analysis: Blr. *harely* ‘burnt’ > *Harel-iec*; *kaza* ‘goat’ + *bor* ‘coniferous forest’ > *Kazibor*; *miaža* ‘border’ + *balota* ‘swamp’ > *Miež-naje balota*; Amer. Ind. *Appoqueneme* ‘wounded duck’ or ‘view of settlement’; *Floyd* (man’s name) > *Floyd Cove* > *Floyd Cove Reservoir*, a castle > *Castle Creek* > *Castle Creek Marsh*, etc.

Formants of a place name is a purely grammatical or “formal” class of elements in structural research. They tend to be either consistent with grammatical characteristics of geographical appellatives like *lies* ‘forest’ or *polie* ‘field’: *Lagazínski lies* ‘Lagazinski forest’ (sing., masc.), *Rashatkóŭskae polie* ‘Rashatkóŭskae field’ (sing., neut.), etc. – or just confirm belonging a place name to the category of object, e.g., *Vágaravščyna*, *Čapyalíca*, et al.

According to Morris, “successfully developed semantics is provided by a relatively highly developed syntactics” (МОРРИС 1983: 55). However, it is impossible to unconditionally accept the term “semantics of place names”. It is evident that a mandatory component of individuality and uniqueness, which is present in each proper name, does not allow it to get into conceptual, common usage. So, linguists search for the semantics of stems, not the semantics of names. The former is not transparent rather often, especially in the names of large and ancient objects.

Nowadays, pragmatics is the aspect which is actively used by place names researchers. It has been noticed long ago that names could bear a good deal of extralinguistic information about the object, including space perception (G. Frege, B. Russell, A. Superanskaya, E. Berezovich, etc.). As soon as researchers apply less to ‘archaeologically-oriented’ names and more to the names of small-scale objects, a stem of a name becomes the main aim of research. The stem reflects encyclopedic semantics and keeps the peculiarities of spatial cognition in a certain culture which could be interpreted through their analysis alongside with other cultural codes. An abstract of pragmatic classification made by E. Berezovich is given below.

- 1) manifestation / implication of the subject of observation: Rus. *Bližneje* ‘Near’ (orientation from the subject), *Za Kamienkoj* ‘Behind Kamenka’ (orientation from the object);
- 2) direction of reference: Rus. *Pravaja Storona* ‘Right Side’;
- 3) coordinating mechanism: Rus. *Dun’kina Ber’oza* ‘Dunka’s Birch’;
- 4) coverage of the territory: Rus. *Za Bolotom* ‘Behind the Swamp’, *Pod ovragom* ‘Under the ravine’;
- 5) character of cohesion of elements of a spatial picture of the world: Rus. *Vas’utina Baba* ‘Vas’utin’s Woman’ and parts of the object *Noga* ‘Foot’, *Seredina* ‘Middle’, *Golova* ‘Head’,
etc. (БЕРЕЗОВИЧ 2009).

Pragmatics retains interest to the motivation of names, attempting to make explanations based on senses and culture of a particular group of people. Nevertheless, pragmatic approach still sees only a set of varied qualities of separate objects in place names. This drawback of detailed consideration of qualities was criticized by the Polish linguist Jan Michał Rozwadowski more than a hundred years ago: “there is always only one side of the object, one feature of ... representations that stands out in a name of the subject ... Distinguishing of this feature depends on the momentary view on the object and has nothing to do with logical reflections on the essence of the object and its constituent parts” (ROZWADOWSKI 1961: 32).

If we remain at the level of individual characteristics of objects and representations of people about them, it could be possible to collect the totality of all the properties of

objects. This step, however, would give us just an average image of different types of objects and meanings people attain to them. It is highly unlikely that men's attitude towards rivers as compared to e.g. lakes or swamps, or towards forests as compared to plains is the same (even if we consider only names of individual objects). To see that we would adhere to the necessity to distinguish the fourth dimension of a sign – its sigmatics.

3. Despite the long-observed differences of an onym and an appellative, the first is still investigated in the same way manner as the second (see point 1 of the article). From my point of view, it would be logical to go after Ch. Peirce. Any word, including a place name, generalizes. By confirming the status of place names as indexical units, the researcher recognizes the possibility of an onym to have a special type of generalization which is different from that of an appellative. Such a slight assumption makes researchers search for a different way of processing onymic material which would take an object and the indicators of it in names (not its occasional properties) as the initial point for further investigation.

Generalization are carried out by affixes in common names: Eng. *occupation*, *maximize*, etc.; Blr. *цяжка* 'difficult', *пераадолець* 'overcome', etc. Thus, the elements given in bold in this paragraph could conditionally be called "symbolizers" for they add conventionality to linguistic units (Eng. **-tion** refer to a thing or phenomenon, **-ize** is used when naming actions; Blr. **-a** gives the characteristic of an action while **-ць** confirms the status of a verb).

We could see a totally different situation in toponyms. The stem of a place name has a tendency to deetymologization while functioning. To see that one could remember the names of the largest rivers: Blr. *Dnieper*, Rus. *Volga*, Eng. *Thames*, etc. The formant of a place name shows no stability either. It loses its referential significance in the course of time, and this is true both to analytical names (Amer. names of bays: *Gig Harbor*, *Oak Harbor*; Blr. names of swamps *Ržavy Luh* 'Rusty Meadow', *Svaža Pušča* 'Own dense forest', etc.) and synthetical names (Blr. *miadzviedz* 'bear' > *Miadzviედnia*, *čysty* 'clean' > *Čyscik*, etc.). The formants of the latter names (**-nia**, **-ik**) are used in the names of different kinds of objects, e.g. rivers, lakes, swamps, populated places, etc.

It is obvious from the above that generalization in place names is not discovered in the same way as in common names, since they refer to the objects differently. At the same time, it would be an oversimplification to assume that a generalized structure remains invariant and does not change depending on the context of its use.

Since affixes often lose its classifying role, and the stem points at an "occasional" attribute, researchers could rely only on relations between the categories of the object and the attribute. There are 4 types of "stem + formant" meaningful relations. I call them sigmatic frames as they display how the category of individual object is successively expanded in place names. It starts from analyzing the correspondence of a formant to the kind of object it represents.

When a human naming activity starts man usually tries to find a model in his previous experience to fit the object he observes. Therefore, the first name that comes to our mind while observing an object is a common name that is applied to a number of objects of the same nature: *bay*, *meadow*, *swamp*, *stream*, *lake* etc. These words allow to point at an object and adequately classify it. Any person having a command of language is able to do it. Besides, these words are most frequently used in geographic names and can be considered core elements of proper names. American toponymic system is an example itself, for more than 99% of names here are given geographic appellatives. Besides, the most natural way of perceiving an individual object is to define the nature of it before giving an individual name. So, a geographic appellatives is one of the two principal and equal parts of a place name.

So, first we define the feature type under investigation and search for key words (geographic appellatives) representing it in the names of a toponymic subsystem. These are such words as *a stream, a lake, a swamp, a pond* and other words designating a certain kind of toponymic objects. Geographic appellatives sometimes turn into place names after changing an indefinite article into a definite one, though it is not a usual case: *the Run, the Swale, the Peak, the Cove, the Desert*. What's most intriguing is that at least one name without any differentiating attribute can be found in almost all toponymic subfields: *the Arm* (bay), *the Narrow* (channel), *the Palisades* (cliff), *the Dalles* (falls), *the Island* (island), *the Lagoon* (lake), *the Butte* (summit), *the Gorge* (valley) etc.

Can such a name be called a proper name? If we consider the function of this element of language then no, it can't. The proper name of this kind doesn't individualize. Still it works as a name in a system. Names without descriptive attributes can appear only in places, which are devoid of numerous objects of a certain kind. In case we have many objects of the same kind on a small territory, these names will not perform their function properly. Then the only explanation for their occurrence in the system is preserving of such a type of names in man's mind as **the first type** of "stem + formant" meaningful relations. I call it "**stating of the presence**".

Yet, there is one more group of toponyms that could join names like *the Portage, the Slide, the Parks, the Horn* etc. Sometimes the geographic term of a name has nothing in common with the present state of the object in question. Names of harbors are frequently used in the names of bays: *Gig Harbor, Oak Harbor, Big Beef Harbor*. Helonyms (names of swamps) are full of inappropriate terms from many toponymic fields, especially if we look across the whole country: *Beljica Meadows Lake, Cow Creek Meadows, Turtle Hole, Finley Meadows, Old Channel*. Hence, man perceives not the object but its surroundings. What adds much to this view is the scale of the objects that serve as motivating stems for the names: proper names of other objects are most frequently taken by smaller objects. The element of microlevel only occasionally appears on macrolevel: *Granite Mountain Potholes* (lake).

It is of a great importance that the term shift is most frequently used in the names of smaller objects, i.e. microtoponyms. Less significance of microobjects for man is obvious. Besides, they are unstable for they can suddenly disappear and emerge again, sometimes in different aspects. It also influences names. This is **the second type** – "**translating the environment**".

If nothing is added to the stem to create a new name, then what knowledge a language speaker adds to the information, which has long existed in common and proper names before this naming act? Probably in both ways of naming man does not expect an object to be worth of any special attention. For men's conscience, a small object hasn't yet become a significant landmark to be used in orientation. This is the stage when man doesn't notice specific features of an object.

A "true" geographic name appears as soon as it singles one object out of all the others. It happens when a name reflects the only and specific characteristic of the object in question: either its depth, or cleanliness, or the inhabitants of the territory etc. Both a classifying noun and a differentiating attribute constitute a proper name now: *Legoe Bay, Guemes Channel, Horseshoe Slough, Ancient Lake, Judy Reservoir, Willow Spring* etc. Since an attribute is added to a geographic appellative, which correctly translates reality, the interest of man in this kind of objects is supposed to be obvious. Man does not establish the object availability any more. He turns to its own qualities and connections.

Words laying the basis of a new proper name may now be of various semantics, but availability of an extra onym-making element as against the names of the two previous types makes us prove the existence of **a third type** – "**recognizing a place name**".

individuality". It is aimed at getting and representing an individualized part of man's categorizing and naming object. Naming techniques is getting more complicated but the unit, which has been found at the initial stage (presented by a geographical appellative), still exists in man's mind.

In spite of the fact that "true place names" have already appeared in the system, the process of naming individual objects doesn't stop. Changes observed in nature lead to emerging of some new objects and disappearing other, lead to joining and dividing into two, three or more objects. Of course, it is easier for man to get orientated if connections to the previous name of a divided object are preserved. Therefore, the objects, which have obtained a differentiator once, sometimes need to be repeatedly differentiated. It often happens when two or more objects with the same individualizing attribute appear too close to each other: *Greider Lake* > **Big Greider Lake**, **Little Greider Lake**, *Eureka Channel* > *Eureka Lower Channel*, *Eureka Upper Channel*, *Ahtanum Creek* > **North Fork Ahtanum Creek**.

One can describe **the fourth type** – "distinguishing proper similarities" as a name-giver's intention to elaborate, which of the two or more objects is meant. The angle of observing is predictably getting narrow.

Each of the four types is a distinctive interruption in the activities of human's mind aimed at keeping the achievements of a cognizing-and-communicative mechanism. The process of perceiving information about objects starts at the level of feelings and finish in creating a restricted number of frames. Once frames are started up, they create all the names around us, employing different classifiers and attributes but keeping to the same frames.

The results of studying place names indicate that microtoponyms most frequently use the types 1 and 2, while the other place names prefer the type 3. The fourth variant is observed in the names of objects that were once part of the whole, or still exist in close proximity (most often names of villages), or remain part of the object (rivers or river tributaries).

Toponymic classes should be considered not only and not so much individually (showing all their essential properties), but on the background of each other (considering the quantitative differences of each subsystem).

Thus, a place name, as well as other fully-fledged linguistic signs, can't be given a predetermined place in semiotic classifications. The explanatory power to research can be given by a combination of pragmatic and sigmatic aspects which allows to study the correlation of signs to one another, their relations to the world, and man's relation to different types of objects in the world. The elements are viewed as interconnected parts of a single system, and the activity of the interpreter does not go beyond the borders of signs.

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