WORD FORMATION MODELS AND SEMANTIC FEATURES OF DERIVED WORDS IN ORHON INSCRIPTIONS (DERIVATIONS OF NOUNS AND ADJECTIVES).

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Abstract. In modern Turkological studies, the scientific interest in word formation arises not only from the need to study the ways of forming new words and enriching the vocabulary stock. The interest also comes from the fact that the word-formation process is often closely connected with grammatical structures and linguistic phenomena, which leads to new word formation. This work is devoted to studying the problems connected with word formation set in the language of Orhon Old Turkic inscriptions that recorded the language. These inscriptions are valuable written data about all aspects of studies of Turkology such as linguistics, history, culture etc. Furthermore, this paper considers suffixation and compounding as the main productive ways of word formation of language of Orhon inscriptions and gives semantic interpretation of noun and adjective derivatives. The author offers word-formation, morphemic and etymological analysis of structure of words, grouped according to word formation models. At the same time, data is given about modern Turkic languages, revealing unique features of word formation in the language of Orhon inscriptions. This data describes the phonological and semantic changes in word forming morphemes.

Key words: Orhon Inscriptions, word formation models, semantic analysis, suffixation, compounding, word formation meaning

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1. Introduction

Recently, the language of one of the oldest Turkic written records, dating back to the 7th–9th centuries, the Orhon Old Turkic, has been studied from different aspects. These inscriptions, found along the Orhon river in Mongolia, contain important historical, linguistic and cultural data of the Old Turkic period. In addition, the language of Old Turkic inscriptions, as the earliest valuable written
data for language reconstruction and establishment of genetic relations of modern Turkic languages, is still a frequent subject in Turkological studies, as well as in Altaic studies. Firstly, Turkic languages are believed to come from the Altaic family of languages, based on some similarities in phonology, grammar and lexicology. F. Strahlenberg offered a hypothesis of genetic relation of Uralic-Altaic languages, which is known as the Uralic-Altaic hypothesis in modern linguistics. Secondly, the earliest period, which covers the period until the 3rd century BC, in the history of Turkic languages, is accepted as the Altaic period by scholars. So far, no written records of this period have been found, and scholars give the description of the languages of that period based on comparative-historical analyses of old and modern languages. The language of Old Turkic inscriptions constitutes the earliest written data, important in language reconstruction.

After N. M. Yadrintsev, came across unknown inscriptions on the stones during his travel in Mongolia on the instructions of the East and West Siberia Geographical Society, he introduced them to the whole world of science. Since that time, Orhon inscriptions have been attracting the attention of researchers from different parts of the world. As runic writings on the stones found along the Orhon River in Mongolia were not deciphered for a long time, different hypotheses were made about them. Some scientists supported the hypothesis that the inscriptions were linked to Greek culture, and others held that they were related to old Mongolian, old Finnish, Scythian and Slavonic writings. None, however were able to decipher the manuscripts. Finally, V. Thomsen, a Danish scholar and professor of Copenhagen University, deciphered the scripts on 25 May 1893. He presented a paper about it at the conference of the Royal Academy of Science of Denmark, on 15 December of the same year. His findings put an end to the hypothesing about the origin of runic writings. In his paper, Thomsen concluded that the inscriptions were written in the protolanguage of Turkic languages. He claimed that the text is read from right to left and the first words he had read were ‘täŋri’ and ‘türk’. Soon the Russian scientist V. Radloff read the whole text with the help of Thomsen’s method, after which he translated the entire text into German.

Afterwards, scientists began to study the language and grammar of the inscriptions and a considerable number of research works were conducted on morphology, phonetics and lexicology. Consequently, the word formation of inscriptions was not an exception as far as the term morphology is generally used as a cover term for inflection (declension, conjugation, gradation) and word formation (derivation and compounding) (Schmitter, 2008).

Word formation as a separate section of linguistics in the second half of the 20th century and in the 21st century continues to remain topical. Recently, the interest of researchers in word formation of Turkic languages has increased the knowledge of common and different word-formation phenomena. This is very important for studying the historical development of modern Turkic languages.
Word formation of derived words in Orhon inscriptions

2. Theory and methodology of research

In Turkic language studies, there are fundamental works on morphological structure of the Old Turkic language and ways and means of word formation. The word formation of Orhon Old Turkic inscriptions is still one of the least developed areas of the Turkological studies. Most of the descriptions on the word formation and derivations of Orhon inscriptions are usually short and very traditional works on general grammar of Old Turkic and modern Turkic languages, simply listing formants or, rarely, papers on particular problems. However, research works on Old Turkic word formation and grammar by Marcel Erdal (Erdal, 1991), A.N. Kononov (Kononov, 1980) and A.S. Amonzholov’s *Old Turkic Verb Formation Structure* all capture Orkhon inscriptions as one of the language materials of Old Turkic. Also, G. Aidarov’s *The Language of Orhon Inscriptions*, in which he gives the general description of word formation and derivatives as a section of the grammar of Orhon inscriptions are very important from the theoretical and methodological point of view (Amanzholov, 2009; Aidarov, 1971).

Morphemic and word-formation analysis includes determining the structural and word formation features which are noted at the level of allocating morphemes and establishing the relations between the derivative components. In other words, it is necessary to arrange the derivations in accordance with structure and to estimate the word-formation potential of its components.

To comment on features of the morphemic and word-formation means of the word, we put forward the following goals:

- to define the word formation models;
- to comment on semantic interpretation of derivations and word forming formants;
- to provide a description of the current state of derivatives in modern Turkic languages, accurately differentiating between synchronic and diachronic approaches and the structure of the word.

Semantic aspects of word formation of Orhon inscriptions are less investigated, and the feature of semantic structure of the derivative word and the role of this nominative unit in the language system have not been explained. The semantic analysis of the derivative word allows understanding specifics of the word-forming morpheme as a special unit of the language system and, therefore, its differences from other linguistic units, thus establishing its status as a special unit. Only by analyzing the semantic nature and functions of word forming formants and the mechanism of semantic change in word formation can a comparison of semantic structures of derivative words with word formation patterns be revealed.

The purpose of the research is to identify and interpret the features of derivative words in Orhon inscriptions. To achieve this goal the following tasks are set:

1) identification of word formation patterns;
2) systematization of derivatives according to the word formation models;
3) identification of the full structure of word forming formants, with determination of their semantic features.
The main aim of this research work is to identify the specific features of derivations in Orhon inscriptions in their semantic aspect. To achieve this aim, first we need to describe the formation system using a common model. Thus, the starting point for description and comparison is the language of Orhon inscriptions, comprising semantic units (categories) and rules of their connections. The description and comparison of the linguistic data based on the language of Orhon inscriptions will allow us to obtain an inventory of word formation models, to identify their productivity and specificity in modern Turkic languages. In this sense, it is a descriptive, comparative, etymological as well as a diachronic study.

The theoretical and methodological basis of this research includes works of modern linguists on word formation and morphology such as E. S. Kubryakova, N. K. Dmitriyev, A. N. Kononov, E. V. Sevoryan, N. A. Baskakov, G. Aidarov, M. Erdal and others. For interpretation of etymology of derivatives and their formants, we consulted etymological dictionaries and the dictionary of Old Turkic language.

3. Discussion and results

This work offers an opportunity to interpret semantic analysis of derivatives in Old Turkic and assess the productivity and activity of word-formation patterns. In word-formation of Old Turkic language, scholars identify the following types of derivations: compounding, suffixation, substantivization and calquing. In our research paper, we examine compounding and suffixation as productive means of word formation in the language of Orhon inscriptions. In addition, we give semantic interpretation of derived words through their word formation models.

3.1. Word formation models of compounds

Compounding is very a productive means of word formation in the language of Orhon inscriptions. \(N+N\) compounding: These types of compounds exist in three forms, \(N+N\) with antonymous formatives; \(N+N\) with synonymous formatives and adjunctions.

\(N+N\) compounding with antonymous words \(jer + sub\): In the Dictionary of the Old Turkic Language, the meaning of the compound word is given as ‘land’ or ‘continent’. The word formation meaning is directly derived from the meaning of the components \(jer\) denoting ‘land’ and \(sub\) meaning ‘water’, with the general idea of capturing the meaning of the whole land. In the phrase taken from Kul Tegin: “Ečümiz apamz tutiş jer sub idisiz bolmazun” (KT b 19) “May the land of our ancestors never be left without an owner” (OTD, 1969). In the text the word formation meaning is associated with metaphoric interpretation and has the meaning of ‘birthplace’. The dictionaries of modern Kazakh and Kirgiz languages give the interpretation of the compound word as \(žer-su\) (Kazakh), \(žer-su\u2019u\) (Kirgiz) ‘area’ or ‘land’, which shows the narrowing of the meaning. The derivational meaning ‘country’ or ‘land’ of ‘seršïv’ (ser-‘land’, šïv-‘water’) in modern Chuvash...
is close to the old Turkic meaning ‘continent’ or ‘land’. In the compound word 
jer-sub in modern Turkic languages, the first component žer exists with the sound 
change in the beginning of the word ž~y~s, and in the second, the consonant at 
the end of the word sub dropping of consonant at the end of the word is dropped. This 
is because the sound ‘b’ is one of the unstable sounds (Sagdyykuly, 2004). Other 
compound words with antonymous components are: oğ-qan ‘mother-father’, eči-
apa’.

**eb- barq eş - qadaš kegi-žariq, isi-küči, žer-sají t.б.**

2. сын есім+сын есім сөздерінің косарының жасалған күрделі сын есімдер: žabuz- žablaq, žoq-
čïγaz.

Анықтауышты күрделі зат есімдерінде а): алындығы зат есімен – sû bašï ‘әскер басы’, kïši oylu ‘адам баласы’ t.б.; з) алындығы сыны 
есімен qara bodun ‘бұқара халық’, kiçig atïγ ‘кіші шені эскер’ t.б.; б) алындығының сын есімнен ұтаратын – tort buluγ ‘торт тапан’, on oq ‘он оқ’

N+N →N compounding with synonymous components: The main root word in 
the compound ‘eb- barï’ is the word ‘eb’, which has the meaning of ‘house’ or ‘home’. The second element ‘barï’ means ‘properties’ and derives from ‘bar’
meaning ‘to have or own’. As in the phrase taken from Kul Tegin: Ebin barïmïn 
qals ïz quup kelürti KT. II; BK. I. 32. Translation: ‘They occupied and took all 
their properties including palace and wealth’ (Sartkozha, 2012). This compound 
word means ‘properties’ and ‘wealth’.

In Bilge Kagan’s inscription: Siŋar süsi ebi-barqïγ žulalï bardy BK. I.32. Translation: ‘The other part of the enemy’s army came to destroy the serai 
(palace) and sanctuary’ (Sartkozha, 2012). In the compound word ‘eb-barq’ the 
word ‘barq’ denotes ‘building’ or ‘a place of worship’. However, some scholars 
translate the word barq differently. Thomsen, who deciphered the runic writing, 
translates it as (edice) ‘a building’. This translation was later supported by the 
Russian scientist S. E. Malov, but A. N. Kononov considers it ‘a house’ (Tomsen: 
114, Malov:43, Kononov:130). Other scholars as S. G. Klyashtorny propose that 
its meaning is ‘a sanctuary or a building for worship’ (Klyashtorny: 238–255). 
Sartkozha supposes it to have two meanings: a) ‘a tomb or a grave memorial’, 
b) ‘a fence’ (Karzhaubai: 130–131). Anyway, we suppose that these two words 
‘eb’ and ‘barq’ have a general close meaning ‘building’, the first ‘a building for 
living’ and the second ‘a building for worship’ or ‘a building on a grave’. The 
word formation meaning is based on the meaning of the word forming components 
and has the sense of collectivity capturing the all types of buildings.

Other examples of compounds of synonymous words are ‘ešim-qadašïm’ 
meaning ‘friends’. The components have close meanings ‘eš’- ‘friend’ and 
‘qadaš’- ‘fellow man’. All these above-mentioned compounds have the meaning 
of ‘collectiveness’, which regroup these words under the same semantic field. 
Other N+N models with the meaning of ‘collectiveness’ include ‘begleri-bodunu’ – ‘lords and people’, qïz-qudïz – ‘maidens’ and kïŋ-qul – ‘slave woman – slave 
man’. The next compound words of N+N model are atï-küsi ‘fame’, isi-küči 
‘deeds and efforts’ are abstract nouns with the semantic change of intensification
as ‘all his fame’, ‘all his efforts and deeds’. The compound word ‘kiši oylu’ meaning ‘mankind’ şū başšı ăskер басы’.

N+N → N compounding is very productive in formation of place names and titles in the language of Orhon inscriptions. For example, the names of places like Kadiρhan jiš and Temir kapiy, are derived from two noun stems. ‘Temir +kapïy’ is formed of two root nouns ‘temir’ meaning ‘a metal’ and ‘kapïy’ meaning ‘a gate’, and the word formation meaning probably implies ‘a safe place’. The second word ‘kapïy’ is dVN derivative, derived from a verb stem ‘qap-’ ‘to close’ and dVN suffix ‘-ïγ’ denoting ‘a gate’.

Concerning the historical location of the place of ‘Temir kapïγ’, Turkologists have different points of view. V. Bartold states that ‘Temir kapïγ’ is a mountainous passage of Talky, which leads from Mongolia to Ile (Shaимердинова, 2009). However, some scientists state that it a western boundary of Turkic Khanate and mountainous passage of Buzgala on the way from Balïkh to Samarkand (Milliyoransky, 1899). As we stated above, ‘Temir +kapïγ’ is formed of words ‘temir’ meaning ‘a metal’ and ‘kapïγ’ meaning ‘a gate’, consequently, the word ‘temir+kapïγ’ implies ‘strong’ and ‘safe’. In connection with this, ‘Temir kapïγ’ means ‘boundary’ or ‘hedge’, therefore, to reach ‘Temir kapïγ’ meant to achieve one’s goal or to win (Shaимерdinова, 2009). ‘Temir kapïγ’ is a place name reflecting the characteristics of a geographical object. In history, it is known as ‘Iron Gate’, one of the important geographical points in the ancient Turkic period.

In the Second Turkic Khanate, the Kagans and key persons of the khanate were given titles in respect to their contribution to their country and people. All titles are compound words such as ‘tɔŋa tegin’, consisting of tɔŋa meaning ‘lion’ and ‘tegin’ meaning ‘prince’ with the figurative meaning ‘brave prince like a lion’. Another title with the same word formation component, ‘tegin’ is ‘kül +tegin’ a word formation model, which is Adj.+N, discussed below.

Adj. + N compounding: The formatives of these compounds are descriptive adjectives + nouns. The word formation model is productive in Orhon inscriptions as well as in modern Turkic languages. ‘Kül +tegin’ is a title and nickname of a prince and army commander of the Second Khanate. The compound word consists of ‘kül’ (‘famous’) and ‘tegin’ (‘prince’). Other examples of Adj. + N compounding is the compound word ‘bengu taš’ (KT. 11) (a stone with writings on it) derived from ‘bengu’ meaning ‘immortal or everlasting’ and ‘taš’ meaning ‘a stone’. The word formation meaning is ‘monument’ implying a metaphoric meaning ‘immortal message for the next descendants’. The word ‘taš’ is used as a component of personal names, place names and metaphoric words and often exists in Turkic epics. In ancient times ‘taš’ (stone) was thought to be a symbol of wisdom and had a meaning of ‘strong as a stone’ (Sravnitel’no-istoricheskaya gramatica tjurkskih yazykov, 2006).
Adj.+N compounding is also widely used model in word formation of place names in Orhon texts: Kadirhan, Qara+Kum, Yasil+ Uguz etc. ‘Kadirhan jish’ denotes ‘the land of Kadýrhan’ (‘qadýr’ means ‘strong, firm’). Then the name of the khan of Karakhanids Dynasty ‘Qadirgan’ implies ‘very strong Khan’. Makhmud Kashgari also noted the link between Turkic ‘qadýr’ meaning ‘strong’ and Arabian ‘qadyr’ meaning ‘powerful’. However, it may denote a totemic meaning of ‘a strong bird’ (Sevortyan, 1997). Kadir+han belongs to the toponyms including social and class titles.

According to some scientists researching the inscriptions to gain insight into the language and worldview of Old Turkic peoples, the names of places in the text represent physical space. The concept of space in the old Turkic worldview is related to the meaning of a huge territory (land), which they defended from enemies. The impressive number of place names indicates that on the one hand all events described in the texts really existed, if we take into consideration the existence of the names of some of those toponyms (for instance: ‘Irish’, ‘Tibet’). On the other hand, Turks knew the territory they inhabited very well. Therefore, ‘Kadirhan jish’ probably today means the Hinggan Range (Shaimerdinova, 2009).

Other examples of Adj.+N model are the place names with colour code. For example, Qara+Kum derived of ‘qara’ meaning ‘dark’ and ‘kum’ meaning ‘sand’. The word qara ‘black or dark’ in Qara+Kum is a frequently used component in the word formation of compound words in Old Turkic and Modern Turkic languages. The semantic field of ‘qara’ ‘black’ captures a great many metaphoric meanings, e.g. ‘ill-fated’, ‘ill-starred’, ‘miserable’ in Chuvash; ‘bad’, ‘scary’, ‘terrible’, ‘nasty’, ‘ugly’, ‘bleak’, ‘tragic’, ‘dismal’ in Turkish and Kumyk; ‘usual’, ‘simple’; ‘tragic’; ‘mass’, ‘crowd’ in Kazakh; ‘great’, ‘powerful’, ‘severe’ used for rulers’ proper names of Karakhanid. For example, Qara khan means ‘a great founder of Karakhanid dynasty’; in Kazakh, Karakalpak, Noghay and Uyghur languages, it also has a meaning ‘cattle’. The metaphoric meanings ‘cattle’ and ‘mass’ or ‘crowd’ of the word ‘qara’ exists in Orhon texts. For example, the compound word ‘qara bodun’ means ‘the whole people (or population)’.

Summing up all given semantic interpretations, we come to the conclusion that ‘Qara kum’ has two meanings: ‘a huge dry land or earth’, which denotes a type sand; and ‘the dark northern part of the horizon’ (which might also be interpreted as the northern horde of Qarakhans). According to Gabain, the meaning ‘black nothern’ of the word ‘qara’ in Qara kum is related to its territorial situation in the northern part of Khorasan. Supporting Gabain’s point of view, we suppose that ‘Qara kum’ denotes ‘nothern sandy desert’. Some scholars suppose that ‘Qara kum’ is the name of a sandy desert situated on the northern frontier of China and on the northern slope of Insane, close to Huanghe River. The components of compound word are widely used in the word formation of modern Turkic languages: Qara Kum, Qarabaj etc.

‘Yasil+ Uguz’ is translated as ‘a green river’ formed of ‘yasil’ (‘green’) and ‘uguz’ (‘river’). The first component, ‘yasil’, implies the color ‘green’ in Old Turkic as well as in all modern Turkic languages and ‘bright green’ in Old Uighur.
It may have figurative meaning of ‘fresh’ or ‘watery’, in connection with the meaning of the root word. It was derived from ‘yaş-’ meaning (1) ‘young’ or ‘fresh’ and (2) ‘green’ with the suffix –(ş)il weakening the feature of the object (Bang, 1915). But we suppose that the suffix here – il is different from –(ş)il weakening the feature of the object. We consider that it implies the meaning ‘owing the feature’. The second component ‘ügüz’ with the meaning ‘river’ exist in modern Turkic languages with phonetic changes. Hypotheses of scholars on the semantic interpretation of the place name are different. However, most of the scholars suppose that the meaning of the place name is related to a colour meaning. In accordance with Bang’s hypothesis on the suffix –(ş)il, weakening the feature of the object, ‘yaşil’ denotes ‘light green’, which may have semantic change ‘light green’→ ‘dark yellow’ → ‘yellow’. In this sense, it implies ‘yellow river’, which is close to the meaning of Huanghe River with the same meaning ‘huang’ (‘yellow’) and ‘he’ (‘river’) and is supposed to be a calqued word. According to L.N. Gumilyev, ‘Yaşil Ügüz’ is nowadays Huanghe River, which is situated in China, and he notes that the river has a yellow color (Gumilyev, 2002). In modern Turkic languages ‘sari’ meaning ‘yellow’ is mostly used as a component of compound place names, but not ‘yaşil’ meaning ‘green’. Furthermore, ‘sari’ in toponymic structure of modern Turkic languages implies not only color but also the meaning ‘huge’, ‘wide’ as in ‘Saryarkha’ (in modern Kazakh) ‘a huge steppe of Arkha’.

N+Adj. compounding is formed of nouns + relative adjectives. For example, the compound word ‘kün+ tüz’ (day time) consists of two root words with the meaning ‘kün’ – ‘day’ and the adjective ‘tüz’ meaning ‘equal’ or ‘straight right’. This compound word still exists in modern Turkic languages with a sound interchange of t~d; the semantic interpretation of the derivation is ‘high sun’ or ‘the condition of the sun being directly overhead (analogous to noon), which eliminates shadows on the surface’. The semantic change in the word formation meaning is based on narrowing of the meaning and analogy.

Languages, the earliest meanings of the word ‘žabuz’ are ‘angry’, ‘bad’ and ‘poor’, the other meanings are semantic derivations of the word ‘žabuz’, applied as a result of extension of meaning in the latest period of language history (EDTL ‘i’-‘ž’, 1989:48).

F. Korsh pointed out the relation between ‘jabuz’ in Turkish and ‘jablaq’ in Orhon inscriptions. He also noted the relation between the Altaic ‘jabal’ and the general Turkic word ‘jaman’ or ‘žaman’ (since there is j~ž sound interchange at the beginning of the word in Turkic languages). According to Korsh, the root word is ‘žab-’ (//jam-), and B. Bang isolates the -z as a deverbial suffix, which derives from abstract nouns (Brockelman, OGM: 120). G. Clauson gives the root as a verb ‘jav-’ in ‘javuz’, homonymous with the root word ‘jav-’ in javlak → javla→ k (Clauson: 881-882). M. Rasanen relates the geteregous root words ‘jab’→jav > jov (Turkish) and japa > japiir (in Turkmen) denoting ‘to lower’, ‘to move down’, žapiž (in Kirgiz) with the meaning ‘mean spirited or mean’ (EDTL: 48). So, ‘javiz’ (žabuz), as it was pointed out above, is a qualitative adjective derived from verb root ‘jav-’, which does not occur in the language of inscriptions. Other compound adjectives with this formative in Old Turkic inscriptions are ‘javγan javuz’ meaning ‘bad’ or ‘mean spirited’, ‘erig javγan’ ‘unpleasant’ or ‘bad’ (OTD: 219). ‘Javγan’ meaning ‘rude’ and ‘javri-’ meaning ‘to decline’ or ‘to go downhill’ (about condition), ‘to thin down’ (because of illness and poverty), ‘to be miserable’ (Kashgari ) and ‘to be unhappy’ (in Turkish dialect). The suffix –z is an adverbial adjective suffix corresponding to ‘a verb-adjective’ as in ‘sem+iz’ (‘fat’) from the verb ‘semir-’ ‘to fatten’ and ‘qut+uz’ (‘mad’) from the verb ‘qutur-’ ‘to go mad’. The existence of compound parallels with root jab~jav places the etymology of the root word ‘jab-’ back to the Altaic Period.

The second formative of the compound adjective ‘jab+laq’ (~žab+laq) implies the same meaning, ‘bad’, supposedly an archaic meaning of the word (EDTL: 47). As a result of extension of the meaning, the semantic field of the word ‘žab+laq’ includes: ‘great’ in Old Uighur; ‘strange’ and ‘amazing’ in Turkish dialect; and ‘hard’ and ‘strong’ and ‘extremely’ in Horezm Turkic (EDTL: 48). The scholars V. Bartold and Š. Malov consider the last ones to be secondary meanings or derived meanings.

All scholars consider the žab+laq derived from jab-, jav- somewhat differently. B. Bang sees it as deverbial noun formed of the verb ‘jabla’ (Bang: 35–36). A. Goben states the generic relation of words ‘javγan’, ‘žab+üz’ and ‘žab+lay’ derived from verb jab~ žab-. G. Clauson points out the semantic relation of ‘žab+üz’ and ‘žab+lay’ (EDTL: 222).

We support all of the above-mentioned hypotheses and suppose that the derivatives ‘žabuz’ and ‘žablaq’ are derived from one root word, ‘jab-’. All words with the ‘jab-’ formative are connected with one general ‘negative’ seme. The word formation meaning of the compound adjective ‘žab+üz - žab+lay’ is ‘extremely poor or weak’, which shows the intensification of the meaning of both formatives, ‘poor or weak’. As far as, in the context of Orhon inscriptions, the author states that “he came to govern very poor or weak people without food to
eat, without clothes to wear”. In modern Kazakh, the word ‘žaman’ belonging to the same semantic field of words with ‘jab-’ formative, denotes ‘extremely’ or ‘much’ as in ‘žaman ademi’ meaning ‘extremely beautiful’. This fact also supports our view. ‘kicig atış’ ‘junior in rank’ consisting of

$V+N$ compounding: The compound word, ‘ağır taşıy’, is an example of $V+N$ compounding. In the phrase: ‘ Ağır taşıy, bariq žaratdim’ BK. IV.14. Translation: “I built stone statue and temple” (Sartkozha, 2012) the compound word has the meaning ‘stone statue’. Ağır taşıy is close to ‘bengu taş’ in meaning and with the same formative ‘taş’. The compound word ‘ağır taş’ denotes ‘sculpture’ or ‘stone statue’. This compound word derived from the verb ‘ağır’ (the root ‘aŋ-’ meaning ‘to be astonished’ or ‘wonder’ and -ir, the suffix of the present, future tense, substantivized (OTD: 667) and the noun ‘taş’. According to academic opinion, the stone sculptures were special installations erected in honor of prominent figures who had passed away (Karin, 2013). This was a tradition of Old Turks. William of Rubruck, a famous medieval traveler, wrote in his sketches: “…Kypchaks, bestowing honors to famous people who have passed away, put up a stone sculpture, imitating a man, who holds a bowl and faces east, on the top of a burial hill” (Pletneva,1974).

$N+V → N$ word formation models of compounds are productive in formation of titles and names of people:

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The word formation meaning of the above compounds are ‘elteris’ – ‘uniting the country’, eletmiş – ‘founder or establisher of the country’, ‘elteber’ – ‘promoter of the country’. They are used as titles and nicknames of kagans and key figures of old Turkic society, marking their contribution to the country. K. Sartkozha states that the titles ‘elteris’ and ‘eletmiş’ were given to honorable key figures of Turkic aristocracy. The founder of the Turkic Khanate, Kutluγ, was given the title of ‘elteris’ and Tur-Ajïn was honored with the title of ‘eletmiş’ because he united the Turkic people (Sartkhozha, 2012). And ‘elteber’ was a title given as a military rank.

3.2 Word formation models of suffixal derivations.

Suffixation is a widely used word formation in Old Turkic as well as in modern Turkic languages as agglutinative languages. The second main element in suffixal derivations is – word-forming suffixes. Suffixes have definite functions in word formation. Suffixes add a specific meaning and add a new word category. As K. Lim states in his research work on derivations of verbs in the Old Turkic language, suffixes in Turkic languages carry very important semantic functions (An Kim Lim, 2011).
A meaning extension of suffixes had begun in the period of the Old Turkic language. In order to identify the etymology and historical development of the suffixes, it is necessary to capture the phonological, lexical-semantic, morphological and morphological features. The study of suffixal morphemes in the language of Orhon inscriptions is important in reconstructing archetypes and the etymological base of suffixes and historical development of word formation process of modern Turkic languages. According to the structure of suffixal derivatives we identify the following word formation models of suffixal derivations:

a) $X_{n} + l\gamma$, $(lUq, lIk, l\tilde{\gamma}) \rightarrow$ Adj. Relative adjective formation with noun + relative adj. forming suffixes –l$\tilde{\gamma}$; -lig: Bodun+l$\gamma$ with the meaning ‘national’ which is directly related to the meaning of the root word ‘bodun’ ‘nation’. The suffix –l$\tilde{\gamma}$ implies the relativity to noun stem. Čöl+lig denotes ‘from desert or steppe’. In the phrase ‘Žoq čï sïγït čïöŋ re küün tuγsïqta bökl göllig el tabyač...’ KT I. 4. Translation: “Those who grieve, moan from the deserted steppe of Bokli...” (Sartkozha, 2012), the derivative ‘bökli göllig’ implies (people or tribal organization) from the desert or inhabiting the desert’. The word formation meaning is derived from the meaning of the noun root ‘čöl’, denoting ‘desert, steppe’, which exists in all Turkic languages and is used in different derivations as the root word. The DNA suffix forms adjectives with the meaning of possession, which is designated by the root word of derivation. In the above mentioned derivatives as well as other derivations such as ‘ton+-l$\tilde{\gamma}$’ meaning ‘having clothes’ (KT. 29), ‘kül+ lig’ meaning ‘famous, well known’ (KT. 4), the -l$\tilde{\gamma}$ suffix forms the meaning of possession designated by root words. Another example of relative adjective ‘el+lig’ means ‘owning a country’ (Kononov, 1980). ‘Ellig bodun ertim’ KT. 9. Translation: “We were people owning a country”. But we suppose that it implies the meaning ‘with a country’. The root word ‘el’ meaning ‘people, country’ is widely used root word in formation of derivatives in both Old Turkic inscriptions and modern Turkic languages.

The adnominal adj. suffix –lïq allomorphs –l$\tilde{\gamma}$; –lïq; –lu$\gamma$; –lüg; They unite suffix and vowel and consonant changes in harmony with the root word vowel. The most probably used derivations of ‘baš’ are formed with dNN suffix –lïq in almost all Turkic languages (with different phonetic modifications) and old Turkic inscriptions: for example, ‘baš+ lïq’ (‘the head’ or ‘leader’. The suffix –l$\tilde{\gamma}$ in some modern Turkic languages exist in –l$\tilde{\gamma}$; –lïq; –lï forms. From the historical phonology of Turkic languages, we know the last consonants as $\gamma$, g, q, k are dropped in some modern Turkic languages. This –l$\tilde{\gamma}$ suffixation is still in modern Turkic languages the productive means of relative adjective formation: daš+ tïγ (‘stony’), day+ lïγ (‘mountainous’) in Tuva; ton+ nïγ (‘dressed in fur coat’) in Khakass and ton+dï ‘rigged out with clothes or wealthy’ with metonymic change in semantic in Kazakh (Tomanov, 1981).

The historical development of the suffix in Historical Grammar of Kazakh Language (Tomanov, 1981) gives the extension of meaning of –l\$\tilde{\gamma}$; –lïq; –lï derivational adjectives in some modern Turkic languages (in comparison with the
Old Turkic language): the suffixes determine the meaning of belonging to a nation or place. For example, in Kharashai belonging to a nation: ‘qïtai-lï’ meaning ‘Chinese’, ‘Karashai-lï’ meaning ‘Kharashai’; in Turkish and Turkmen belonging to a place: ‘Istanbul-lï’ meaning ‘from Istanbul’, ‘Morï-lï’ meaning ‘from Morï’.

In modern Kazakh word formation, the suffix –lï /li is used in compound adjectives in descript. adj. + relative adj. and noun+ relative adj. structures as a formant. For instance, qïz minez+di meaning ‘shy, kind (direct. ‘maidenlike character’), žumïr bas+tï (pende) meaning ‘servant of God’; žas bala+lï meaning ‘with a little child’, tereŋ oi+lï meaning ‘profound thinker’ etc.

(Oralbayeva, Kurmanaliyev, 2009).

b) Xn+sIz → Adj.: M. Erdal states that adjectives of privative oppositions with suffixes –sïz/-siz are widespread and they are added to both the noun base and adjective base, implying the meaning of lack and negation (E. Marcel, 1991). The –sïz/-siz suffix exists in four forms and is productive in Old Turkic Inscriptions as well as in modern Turkic languages except Altai, Chor, Khakass, Yakut and Tuva Turkic languages. A.N. Kononov considers the genetic relation of the suffix –sïz/-siz with –sïr/sir, compared to the Chuvash and Mongolian suffix –sar/-sär (Kononov, 1980), but he does not give any examples from these languages. We give some examples in Chuvash: bahat+sar ‘timeless’ and hisep+ser ‘countless’.

The following provides some examples of adjectives with this word formation model taken from the Orhon texts.

Buŋ+siz derives from the root noun of abstract content ‘buŋ’ – ‘grief’ or ‘sadness’ and negative making suffix –siz, equivalent to the English suffix –less, which forms word formation meaning in contrast to -lïγ derivations (Kono-

no

v,1980; Türkçenin ekleri, 2006). The same process of formation of derivative meaning is observed in derivatives such as sub+ siz meaning ‘without water or’, san+ siz meaning ‘countless’ and oq+suz meaning ‘without an arrow or bullet’.

(Drevnetujrkski slovar, 1969). In the language of monuments the privative adjective ‘buŋ+siz’ is used in two meanings ‘griefless’ and ‘countless’. We consider that the second meaning, ‘countless’, is a transferred meaning. Anyway, the adjective forming -siz/-siz suffixes derive adjectives analogically with opposed meaning to -lïγ; -fïq; -lï derivational adjectives.

c) X n + ċI (šI) → N: In the language of Orhon texts, derivations with -či/-či noun forming suffixes denote ability, habit and profession of a person. In the text of inscriptions: ‘...Mayrač tamyacač, Oğuz Bilge tamyacač kelti’ (KTs. 53.). Translation: “Magrach master, Oguz master came” (Sartkzha, 2012) the derivation of tamyacač means ‘a person who keeps a seal or a seal keeper’ > the root ‘tamy’ meaning ‘a seal’ and the noun-forming suffix –či with the functional meaning ‘profession of a person’.

Scholars give different views on the etymology of -či,-či noun forming suffix. According to G. I. Ramsted, the etymology of -či,-či suffixes goes back to the Altaic period and comes from the Chinese and Korean word ‘čija’ meaning ‘a man’ (Ramstedt, 1957). E. V. Sevoryan links these suffixes with adjective forming suffixes –li; -li; –di; –di; -ti; -ti, both implying the characteristics of a person and
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a thing (Sevoryan, 1966). The other Turkologists connect their etymology with adjective forming suffixes, -śïl; - šil (Kononov, 1972). B. A. Serebrennikov relates the etymology of these suffixes to – čï; - či; - čij diminutive suffixes and states that they kept the meaning ‘ability of a person’ (Serebrennikov, 1963).

In modern Turkic languages, Old Turkic noun forming suffixes, -čï;-či, added to both the verb and noun stem, kept their general grammatical meaning but exist with some phonetic variants and extensions of meaning. In modern Turkic languages, these suffixes imply:

- the habit of a person: in Shor, uruš+ča ‘scandalous or argumentative’;
- the belonging of a person to a definite society: in Uzbek, respublika+či ‘republican’, monarhiya+či ‘monarchist’; in Kazakh, stahanov+ši ‘Stahanovite’;
- the identification of a birthplace and the place of inhabitance of a person: in Karachay-Balkar, Tuva, Nålčik+ či ‘the citizen of Nalchik town’ and Kızıl. či ‘the citizen of Kyzyl city’, in Kazakh, it is given by the suffix – liq: Astana+ liq ‘citizen of Astana’;
- the profession of a person: in Modern Turkic languages, -čï;-či suffixes denoting profession of a person exist with some phonetic invariants: el+ či(ši) ‘ambassador’, ören+ ži ‘student’. However, in Yakut, this meaning is given by -šï, -sut, - či, - čit, - žït: ballïq+ šï ‘fisherman’, suol+ žut ‘road worker’ (Tomanov, 1981).

d) X_n, lIg, (Ugq, Ilk, Ilγ) → N. Derivations with -liγ/-lig/-luq/-lük suffixes, which are substantivized in the context. Some scholars consider the -liγ/-lig/-luq/-lük suffixes as both noun and adjective formants. However, we think that -liγ/-lig/-luq/-lük are relative adjective forming suffixes, some derivative words with these suffixes are substantivized. For example, in the phrase ‘Baššïγ žükündürmiš, tizligig sökürmüš’ KT.I.2. (“We conquered the leaders and forced strong people to their knees”), the relative adjectives, ‘baššïγ’ (with head or headed) and ‘tizlig’ (with knees) are substantivized (Drevnetjurksky slovar’, 1969). However, we suppose, that the word formation meaning based on metonymic change and mean ‘baššïγ’ meaning ‘leader’ or ‘boss’, ‘tizlig’ meaning ‘strong or powerful’. This hypothesis is based on the derived word ‘tize+li’ with transferred meaning ‘strong’ or ‘powerful’ and phraseological word formation with this word formation component ‘tize büktiru’ (word by word translation is ‘to force smb to the knees’) meaning ‘to conquer’ and the etymology of which may go back to the Old Turkic period.

The root word ‘baš’ has the meaning of ‘head’ in all Old Turkic inscriptions and modern Turkic languages, and the EDTL gives the Proto-Turkic form of the word as ‘baš’ (EDTL, 1989). Besides this word ‘baš’ denotes several meanings such as ‘beginning’ or ‘origin’, ‘the head (leader)’, ‘main’, ‘the first’, ‘senior (or high-ranking)’. The meanings form the determiner of the semantic kernel of the word ‘baš’, where most of the derivatives of the word ‘baš’ originate.

Another relative adjective with –lIg < el+lIg, ‘owning a country’, in the phrase taken from the text of Kultegin: ‘Ellig bodun ertim’ (KT 9), translated as “We
were people owing (or having) a country.” However, we suppose that it implies the meaning ‘with a country’. The root word er ‘people, country’ is a widely used root word in the formation of derivatives in both Old Turkic inscriptions and modern Turkic languages. The dN suffix -lï (with some different phonetic variations) form relative adjectives and nouns. The derivations with this suffix and its semantic field are given the above stated semantic analysis of the derivation baš+îlï.

The word forming structure of some noun derivations is complicated. The root words qïš-, jaj- are nouns, -la is a verb forming suffix and -γ is a noun formant. In these derivations the suffix -γ implies the meaning ‘a place’:

- qïš- ‘winter’< qïš+la ‘to spend the winter’ <-γ ‘a place for inhabiting in winter’
- jaj- ‘summer’< jajla ‘to spend the summer’ <-γ ‘a place for inhabiting in summer’

In modern Turkic languages, this derived noun exists with phonetic changes: Kaz. qïš+tau, žai+lau (in some modern Turkic languages the last consonant -γ is replaced by -u: For example, the Old Turkic tayγ ‘mountain’, in Kazakh exists in the form ‘tau’); in Uzb. qïš+layγ exist in the form of qïš+loq and with semantic change ‘a village’.

e) Xv + ğï → N: agent nouns or V doer. In the language of Orhon inscriptions productive noun forming -čï;-či suffixes come with the verb stems, denoting a habit, an ability of a person: ‘aiγu, či ‘advisor’, sïγït+ či ‘greeter or one who grieves’. The etymology and phonological description is given above. However, the noun forming -čï;-či suffixes of Orhon inscriptions have kept their semantic feature in modern Turkic languages.

f) Xv + Ig (Uq) → N: word formation models in the texts form abstract nouns such as bil+ig ‘knowledge’ → bil- ‘to know’ and bujγ+uq ‘order’ → root word bujγ- ‘to order, to command’ imply the meaning ‘the act of process’.

A. N. Kononov gives six meanings of -ig; -γγ; -g,-q/-k, -iγ/-ük, -γγ/-ik/-ig suffixes: 1. the act of process bil-ig ‘knowledge’ from bil- ‘to know’; 2. the result of an activity öl-üγ ‘dead’; 3. an objective point qap-ig ‘gate’; 4. subject of activity; 5. place of activity; 6. instrument of activity (Kononov, 1980). In the language of Old Turkic inscriptions, the -γ/-g,q/-k, -uq/-ük, -γγ/ik/-ig have a noun formation function and are still productive in word formation of modern Turkic languages.

g) Xv + Uš (Is) → N: The derivations sïnγ, iš ‘war’ and ‘teγ+is ‘attack’ are derived from verb stems ‘sïnγ-’ meaning ‘to fight’ and ‘teγ-’ meaning ‘to attack’ and noun forming suffixes -is; iš. The function of noun forming suffixes, -is/-iš; -iš/-iš; -uš/-iš, in the language of inscriptions is to form abstract nouns implying ‘the process of activity’. In modern Turkic languages, these suffixes exist with phonetic variants: in Kazakh (‘søγ + iš’), in Uzbek (‘ur+ uš’), in Turkish (‘sav+aš’) with the meaning ‘war’. The etymology of -is/-iš; -iš/-iš; -uš/-iš suffixes is very close in meaning and function to Mongolian suffixes: ‘boš+ug’ (‘order’) and ‘žeješ+ig’ (‘comparison’) (Tuimebayev, Yeskeeva, 2013).
h) $X_v + -il$ and $X_n + -il \rightarrow Adj.$: There are some suffixes, etymology and word forming function, which evoke discussions among Turkologists who have different views. The adjective forming suffix $-il$ is only used in word formation of color names such as $kizil$ ‘red’ and $yasil$ ‘green’. The adjective $kizil$ is derived of the verb stem $'kiz-'$ ‘to be or to become red hot’. $'Ya\til$’ comes from the noun stem ‘fresh’ or ‘moist’ and the word formation meaning is associated with the color of fresh plants. As we pointed out in section 3.1, Bang refers to both derivations of the same semantic field with $'ak +sil$’ meaning ‘whitish’ in Kazakh, giving the archetype of their structure as $kiz+(s)il$ and $ya+(s)il$ weakening the feature of the color. The suffix $-sil$ has the meaning of ‘the object does not possess the feature of the color completely’ (Bang, 1915). But M. Erdal claims that the existence of $-(s)il$ in the structure of $'kizil$’ and $'ya\til$’ are no more than a hypothesis (Erdal, 1991). We support Erdal’s statement about $'kizil$, ‘ya\til’. They stand for the names of color features ‘red’, ‘green’. So word formation meaning is associated with the phenomenon of reality. The meaning of the suffix $-il$ is ‘the object possess the feature’.

![Figure 1. The semantic structure of word formation pattern.](image)

i) $X_v + -\gamma X_l \rightarrow Adj.$: Lexemes formed with the suffix $-\gamma X_l$ denoting animals are formed from names of the parts of their body, where a particular body part is white or has a white spot. For example, the word $bas+\gamma il$ in Orhon inscriptions has the meaning ‘an animal with white head’. The word forming component $bas$- ‘head’ indicates the part of body where there is white: $-\gamma X_l$ ‘a white spot or white color’. There are some more lexemes with this suffix, in other Old Turkic inscriptions: $yal + \gamma il$ ‘a horse with white mane ($yal$)’; $tar + \gamma il$ ‘an animal with narrow ($tar$) white and black stripes on its back’ (Erdal, 1991).

According to the above samples, the suffix $-\gamma X_l$ has an association with ‘white’. On the other hand, these derivations seem to have something in common with ‘kizil’ and ‘yasil’. In this sense, the suffix $-\gamma X_l$ might be a lexeme, $ ay+il$,
which possess its γXl form as a result of linguistic economy: ayïl → γïl. So ay+ïl might denote ‘in possession of the color white’.

The following illustration sums up semantic changes in word formation meaning of compounds and suffixal derivations.

![Figure 2. Semantic change in word formation meaning of derivations.](image)

As we see in Figure 2, the word formation meaning of derivations implies the meaning of intensification, extension of meaning, metonymic change, metaphor, etc.

**Conclusion**

Summing up the above stated linguistic data and word formation analyses, we come to conclusion that in the language of Orhon Old Turkic inscriptions compounding and suffixation were the productive means of word formation, just as in Modern Turkic languages. We have identified the following word formation models of compounds: NN, AN, NA, AA, VN and NV. Some N+N compounding comes with antonymous and synonymous components. The formatives of the Adj. + N models are descriptive adjective and noun. Both compounding models are productive in word formation of place names. Adj.+ Adj. compounding is derived of adj. + descriptive adj. and descriptive adj. + relatative adj. while N+Adj. models
consist of noun+ relative adjective components. V+N and N+V compounding are less productive among other compounds. In the onomasiological aspect word formation models of compound words are very productive in place names, titles and names of people, which continues in modern Turkic languages.

According to the structure of suffixal derivatives, we identify the following word formation models of suffixal derivations:

- $X_n + lXg, (lXq, lXk, lXγ) \rightarrow Adj$
- $X_n + sXz \rightarrow Adj.$
- $X_n + çX (šX) \rightarrow N$
- $X_n, lXg, (lXq, lXk, lXγ) \rightarrow N$
- $X_v + çI \rightarrow N$
- $X_v + Ig (Uq) \rightarrow N$
- $X_v + Uš (Is) \rightarrow N$:
- $X_v + $ıll and $X_n + $ıll $\rightarrow Adj.$:
- $X_v + $ıll $\rightarrow Adj.$:

Suffixes in word formation of Old Turkic inscriptions carry special function and semantic feature. In our research work, we defined the following semantic categories of derived nouns with V + –$ig/-ıγ;-üg/-uγ; -ïk/ ïq; –üg/uγ productive word formation models:

- V $\rightarrow$ ‘nomination of process or action, abstract noun’(bilig ‘knowledge’ > bil- ‘to know’);
- V $\rightarrow$ ‘result of activity’ (ölig ‘dead or corpse’> öI- ‘to die’);
- V $\rightarrow$ ‘result of activity, an artefact’(sünjug ‘a spear’ > sünjü- ‘to stick or to thrust into’);
- V $\rightarrow$ ‘the object of activity’ (qapïγ ‘a gate’ > qap- ‘to close’);
- V $\rightarrow$ V- doer or agent noun’ (körüg ‘spier’ > kör- ‘to see or to watch’);
- V $\rightarrow$ ‘the place of activity’ (keçig ‘passage’ Ton. 35 > keç- ‘to pass’, turïq ‘encampment (nomads)’ KCh. 21; MCh. 30; KT. 9. > tur- ‘to stop or to settle’).

In the texts the derived words with –$Iγ/-Ig adjective forming suffixes are substantivized. In accordance with the proof given above, we consider the semantic changes in word formation meaning of the derivatives as an intensification and extension of meaning, metonymic change and other word formation of derivatives in the language of inscriptions.

As a result of this study, we can say that the derivatives in the language of Orhon inscriptions are formed in accordance with the word formation rules and have a nominative function. In other words, the derivatives were formed as there was a need for a secondary naming of new objects and phenomena.

**Abbreviations**

- KTb – Kultegin, a big text
- KT$s$ – Kultegin, a small text
- BK – Bilge Kagan inscription
References


Mellyoransky P. M. (1899) *Pamjatnik v čest Kul-Tegina*. Sankt Petersburg.: ZVRAO.

Sartkhozhauy K. *Objedenienenny kaganat tjurkov*. Astana.

Thomsen V. (1896) *Inscriptions de l’Orkhon*. (Memoires de la Societe Finno-Ougrienne.) Helsing-fors.