



Студенттер мен жас ғалымдардың
«ҒЫЛЫМ ЖӘНЕ БІЛІМ - 2018»
XIII Халықаралық ғылыми конференциясы

СБОРНИК МАТЕРИАЛОВ

XIII Международная научная конференция
студентов и молодых ученых
«НАУКА И ОБРАЗОВАНИЕ - 2018»

The XIII International Scientific Conference
for Students and Young Scientists
«SCIENCE AND EDUCATION - 2018»



12th April 2018, Astana

**ҚАЗАҚСТАН РЕСПУБЛИКАСЫ БІЛІМ ЖӘНЕ ҒЫЛЫМ МИНИСТРЛІГІ
Л.Н. ГУМИЛЕВ АТЫНДАҒЫ ЕУРАЗИЯ ҰЛТТЫҚ УНИВЕРСИТЕТІ**

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The proceedings are the papers of students, undergraduates, doctoral students and young researchers on topical issues of natural and technical sciences and humanities.

В сборник вошли доклады студентов, магистрантов, докторантов и молодых ученых по актуальным вопросам естественно-технических и гуманитарных наук.

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regions of Russia, such as Crimea and Republic of Sakha (Yakutia). Multilingualism issues were widely explored by a number of Russian scholars, who acknowledged the importance of cultural and linguistic diversity in a multicultural environment.

5. Conclusion

The topical issue of State Education Program of the Republic of Kazakhstan for 2011-2020 is to gain fluent mastery of three languages: Kazakh as the state language, Russian as the official and English as the language of International communication. As the result of the state program 100% of the population should speak Kazakh, 95% – Russian, 25% – English.

The data of sociolinguistic research proved that Kazakhstani undergraduates and secondary school students would like to be taught in three languages: Kazakh, Russian and English and master these languages fluently. However, the opinion on language preference among undergraduates and school students is divided. Undergraduates outlined English as the most preferable language for education, while secondary school students gave their choice in favor of Kazakh and English. To have a complete understanding of the objective situation it is important to conduct a deep sociolinguistic research. Study of the real situation with regard to trilingual education in Kazakhstan reveals that there are questions to be concerned and solved.

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ARABIC MANUSCRIPTS IN THE STREAM OF ANTIQUITY

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The Arabic language is one of the most beautiful languages in the world, which has a rich history, rich vocabulary and incredibly beautiful dialects in all Arab countries. Along with Chinese and Japanese languages, it is considered as the most difficult in the world, according to the Institute of the Diplomatic Service of the U.S. Department of State.

Alexander Savelievich Mikheev, a military interpreter of the USSR, confessed in his speech, “I will die admitting the fact that I don’t know this language at all!” [1] A. S. Mikheev is a true admirer of the Arabic language. His speech reflects the whole essence of the Arabic language. Without knowledge about the Arabic language, it is hard for the reader (learner) to imagine how extensive, rich and beautiful this Oriental language is. To clarify this fact, we have to remind that in Arabic there are over 12 million words, while the English dictionary in 2009 contained 1 million

words. [2]

However, the Arabic language in the field of linguistics is studied not so thoroughly. On the one hand, the reason is the vast territory of all the Arab countries (given the fact that the Bedouins in the Middle Ages were in close contact with Persia, African countries), which complicates the study of the oldest authentic Arabic manuscripts, on the other hand, the difficulty arises from the fact that the Arab world alternately was under the rule of several large empires (the Ottoman Empire, England-the Arabian Peninsula, France-North Africa), and in the Middle Ages the power was replaced by Persians, Turks, but not in all Arab countries. As a result, of attacks many valuable historical archives were burned or thrown into the river, as it was during the pillage of Baghdad by the Mongolian army under the command of Hulagu in 1258.

The origin of language is a significant problem primarily for Arabic studies. It is difficult to precisely name in what area the language was originally appeared, and which tribes of the Arabian Peninsula are the native speakers of this language. And, of course, the study of the language should be accompanied by knowledge of the history of the Arab countries, the lexicology of the Arabic language, its grammar, structure for a better understanding of the development of the Arabic language. In order to study the origin of this language from the point of view of linguistics, let us turn to the ancient literary monuments which have saved till our days.

Historically, the Arabic language is a part of one of the Semitic branch groups of an extensive language family, which is traditionally called the Semito-Hamitic or Hamito-Semitic, or the Afrasian language macrofamily. Other branches of this family are the Berber-Libyan, Ancient Egyptian, Cushitic and Chad. [3]. Undoubtedly, the mutual affinity and even close similarity of languages of Semitic branch is proved. According to the Bible, the people who speak Semitic languages have originated from Sim, the son of Noah, after the Global Flood.

Semitic languages are divided into three large groups: northern, eastern and southern. The northern group includes the Amoric, Ugaritic, Hebrew, Phoenician, Moabite and Aramaic languages with its branches. The eastern group is one Akkadian with its main dialects – Babylonian and Assyrian. The southern languages include the Arabic, South Arabian and Ethiopic languages, each of them is represented by numerous dialects. [3]

From the languages of the southern group, the South Arabian was the first to single out and acquire written form. It is represented exclusively by epigraphic monuments, which dated back from about the 8th century BC to the 6th AD. It distinguishes the dialects of Sabaeen, Ma'in, Kataban and Hadramaut, which were named after the small kingdoms in which they were used. Native people of South Arabia moved across the Red Sea to the African continent and founded colonies, bringing their language and their writing there.

Firstly, the South Arabic language in Africa experienced a strong substantial influence of local (Cushitic) languages and began to develop separately, giving rise to the literary Ethiopian language (ge'ez). [3]

Secondly, the South Arabian alphabet was used to transmit the closely related language of the northern Arabs for a whole millennium, but the tradition was not fixed and stalled along with the decline of South Arabian culture and writing. [4; 13] As far as we know, along with the fall of culture, language had been lost too and vice versa. Culture is inextricably connected with language. Whatever happens with any language, it immediately reflects on the culture. We can observe the same situation in the South of the Arabian Peninsula, namely, the territory of modern Yemen, where the Sabaeen kingdom once existed. It is also worth to note that The Incense trade route of the Bedouins ran through Yemen to the North, to the territory of modern Jordan and Palestine, to the Mediterranean Sea, which enriched and changed the original language of the Bedouins.

So, the other results were obtained by the Bedouins of Nabatea and Palmyra of the northwestern Semitic alphabet. From the version of the Aramaic alphabet used in the Nabataean inscriptions dating back to the 2 BC up to 3-4 AD, gradually developed a kind of letter, which later became Arab national.

This letter developed in the conditions of the Aramaic-Arabic bilingualism: the traditional written Aramaic language was used in the official sphere, and in everyday life the Nabataeans'

spoken language was dominated. We can observe intensified interaction and interpenetration of both languages. In the Aramaic language began to penetrate not only lexical borrowings, but also phonetic and morphological ones. Actually, the local Aramaic language, which was strongly influenced by Arabic and transmitted through the Aramaic alphabet, is called the Nabatean language. For its part, the local Arabic language, which was transmitted through the Aramaic script, retained a number of features of Arabic spelling. [4; 13]

In spite of their Arab origin, the Nabataeans used an Aramaic literary dialect as their written language, but their colloquial language was Arabic. The bilingual inscription, found in 1979 at Oboda ('En 'Avdat, Israel), should probably be dated between 88/9 and 125/6 AD. Its lines 1-3 and 5 are written in Aramaic, while lines 4-5 are obviously North-Arabian. The first sentence, read by the writer *fa-yaf'al lā fidā' wa-lā aṭara* ("And he acted neither for reward nor by self-interest"), is important from the linguistic point of view because the old preterite, corresponding to Akkadian letter, seems to be used there after the conjunction *fa-* as a narrative past tense. These inscriptions testify to the evolution of the Arabic language. There was no longer a fully functioning case system in the 3rd and 4th centuries AD. This appears from an inscription of Ḥeḡrā' (Madā'in Ṣāliḥ, Saudi Arabia), dated in 267/8 AD, and from the epitaph of "Mar' al-Qays Ibn 'Amr, King of all the Arabs", found at An-Namāra (Syria, to the south of Damascus) and bearing a date corresponding to 328 AD. The inscription was discovered in 1901 by René Dussaud and deciphered by Charles Clermont-Ganneau, who recognized that it was written in Arabic. The inscription was published by R. Dussaud in 1902, and Felix Peiser immediately noticed that Mar' al-Qays Ibn 'Amr was the Laḥmid king of Al-Ḥīra, known from Arab tradition. Three more inscriptions, also from Syria, date back to the 6th century, and are definitely Arabic not only in terms of language, but also in a separate letter. There is a fourth inscription, found in 1884 by Charles Huber and Julius Euting in the oasis of Taymā' (Saudi Arabia) and housed at present in the Louvre museum. It is written in a particular and irregular Nabataean script variety and it is engraved with embossed letters like the Taymā' stele of the 5th century BC. [5, 40]

Pre-Islamic North-Arabian dialects are known thanks to the early Arab philologists, who have preserved some dialectal information from the 7th–8th centuries AD. As far as recorded in ancient Arabic sources, they have been examined by C. Rabin and F. Corriente. Thousands of Ṣafaitic graffiti from southern Syria, Jordan, and northern Saudi Arabia, still unpublished, and provide an older source for the Old Arabian dialects. Written in a variant of the South-Arabian alphabet, they date from the 1st century BC through the 4th century AD. They are called Ṣafaitic because they belong to a type of inscriptions first discovered and copied in 1857 by Cyril C. Graham in the basaltic desert of Ṣafā', southeast of Damascus. [5, 37] About 20,000 Ṣafaitic inscriptions are known at present. Their decipherment by E. Littmann was followed by a grammatical study joined to his publication of other Ṣafaitic inscriptions. Attempts to decipher them were made also by O. Blau and D.H. Müller.

The so-called Ṭamūdic graffiti form another group of North-Arabian inscriptions, deciphered by Enno Littmann. They are named after Ṭamūd, one of several Arabian tribes mentioned in Assyrian annals (Tamudi) and Neo-Babylonian letters. A mention of Ṭamūd occurs later in a bilingual Graeco-Nabataean temple foundation text, dating from 166/169 AD and found at Rawwafah, in northern Al-Ḥiḡāz. [5, 43-44]

An older stage of North-Arabian is represented by the Liḡyanite inscriptions from the 6th–4th centuries BC, engraved in a variety of the South-Arabian script. Liḡyanite is the local dialect of the oasis of Al-'Ulā, ancient Dedān, that had its own king in the 6th/5th century BC. The language is represented by a series of graffiti and of mainly monumental inscriptions engraved in a variety of the South-Arabian script, in an alphabet counting 28 letters. The available epigraphic material was increased twelve years ago by the excellent publication of 189 new inscriptions by Alexander Sima. This work is an important tool for the study of North-Arabian in the 5th–2nd centuries BC. [5, 46]

Finally, Ḥasaeen is the name given to the language of the inscriptions written in a variety of the South-Arabian script and found mainly in the great oasis of Al-Ḥasā', in the east of Saudi Arabia. Ḥasaeen inscriptions were first published by A. Jamme. A new edition was provided by A.

Sima. As a matter of fact, North-Arabian words occur also in other texts written in South-Arabian script. [5, 47]

Meanwhile, the form of the Arabic language, which formed the basis of the literary one, was born in the center of the Arabian Peninsula, where only a few epigraphic monuments were found. It originated and developed among the non-written nomadic tribes that inhabited the Najd Plateau. It was a poetic language. People, mostly, composed on it poems and songs. It is important to emphasize that the poetic language and tribal dialects represented different forms of one language: the sound, grammatical and lexical basis was undoubtedly common to them. Thanks to this commonality, the Arabic language was opposed to other languages. In this regard, E. Renan, called the Semitic languages “inorganic”, i.e. fossilized. So, with the spread of the poetic language, a kind of diglossia was established everywhere: two functional varieties of one language complemented each other and interacted.

Of the most common features inherent in the structure of this language, we are going to consider only a few that are very clearly and constantly appear in manuscripts, since they influenced the character of the texts created on it and the writing system through which the texts were recorded.

The phonemic composition of the Arabic language consists of 28 consonants and 6 vowels. The union of consonants with vowels in the formation of linguistic units is subject to certain rules: two vowels can not follow directly one after another, the syllable and the word begin only with a consonant. The root, as a rule, consists of 3 consonants, less often 4 or 2. The combination of “root plus vowel” forms nominal and verbal bases and plays a big role in the word change, but it is not the only means. Other means are: additional use of root elements, which can consist either in doubling (gemination) of the second or third consonant, or in their repetition. Verbs and adjectives can be formed from the core of the root within which the basic meaning is preserved. For example: “fariha” - to rejoice, “faraha” - to please somebody, “farihun” - joyful, pleased, “farahun” - joy, fun.

A high degree of regularity of forms from standard roots has a number of consequences both for the Arabic system itself and for the functional areas of its application. First of all, this explains the so-called algebraic nature of Arabic grammar. [4, 19] The richness and homogeneity of the Arabic dictionary is connected with this. Available borrowings from closely related languages in Arabic are almost unrecognizable, as they are adjusted to some root. For example, the unit “shurbatun” (the soup) was taken from the Persian “shurb”. However, it is actively used in everyday life instead of the Arabic “hasa”. From the Persian word “shurb” the Arabs took the three-letter root sh – r – b and formed a verb according to the rules of the Arabic language. So, the word “shariba” has the meaning “to drink”, “sharraba” – to give someone a drink, “shaaraba” - to drink with someone, “sharib” – suitable for drinking. Another example can serve as a unit of “gybs” (gypsum), borrowed from either English or Latin. Using the basis in the form of three consonants (g – p – s), the Arabs formed the verb “jabbasa” with the semantics “covered with plaster, gypsum”.

To conclude, Arabic is the wealthiest language in terms of lingual treasure. Non-Arabs contributed immensely to the richness of Arabic during the Umayyad and Abbasid periods. They translated into Arabic important books from Greek, Persian and Sanskrit and enriched the language in many ways. Thanks to the integration of the peoples of Asia into the Middle Ages, numerous languages across the world were influenced by Arabic. Countless Arabic words were borrowed by foreign languages like English, French, Portuguese, Spanish, Sicilian and Albanian. Some languages like Persian, Urdu, Pashto, Kashmiri, Tajik, Turkish, Kurdish, Hebrew, Somali, Swahili, Tigrini, Tigri, Oromian, Fulani, Hausa, Maltese, Bhasa Malayu, Divehi etc. borrowed more than 30 percent of their vocabularies from Arabic. Many also adopted the Arabic script. Even Sanskrit, Tamil and Malayali were written in the Arabic script at some point of time. Some of them still use the Arabic script like Persian, Urdu, Kashmiri, Pashto, Sindhi, Kurdish and Bahasa Melayu as used in Brunei, Aceh and Java. [6]

Regarding the history and origin of the language, scientific research in the field of linguistics is insufficient, which remains a significant problem for philology and Arabic studies. The data are

scanty and fragmentary, which creates a barrier to the full comprehensive study of the Arabic language from the point of view of the development of Arabic linguistics.

According to the available materials, we came to the conclusion that the ancestral Arabic language in antiquity had close ties with the Aramaic, which later became the basis of the modern language. Pure Arabic language it is, in the main, literary language, the language of poetry. Today, in each of the 22 Arab countries, there are significant differences in the dialects, which make communication between Arabs and foreigners difficult and complicated, given the fact that not everyone knows the literary classical language or local dialects.

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TRILINGUALISM AS A WAY TO COMPUTER LITERACY

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Greetings from one of the luckiest generations in the world. Nowadays we have everything and anything we can wish for. New era, new technologies give us so many opportunities. We live in the digital world. As our first president said in his yearly message: «Today the world is entering the era of the Fourth Industrial Revolution, an era of profound and rapid changes: technological, economic and social. New technologies significantly change the way we work, exercise our civil rights, and raise children. Also he mentioned the term “digital Kazakhstan“.

What is digital Kazakhstan?

In today's world, digital technology plays an increasingly important role in the development of countries' economy. Even today, more than 40% of the world population have access to the Internet, and almost every 7 out of 10 households have a mobile phone. Digital technologies have a number of advantages – simplification of the public and business access to public services, the acceleration of the information exchange, the emergence of new business opportunities, the creation of new digital products, etc.

The main goal of the government program “Digital Kazakhstan” is the improvement of the competitiveness of Kazakhstan's economy and quality of life through the progressive development of the digital ecosystem.

The implementation of the State Program “Digital Kazakhstan” will be held in **four key areas**:

1. Creating a “**Digital Silk Road**”. This is the development of the reliable, affordable, high-speed, secure digital infrastructure.

2. Creating a “**creative society**”. This is the development of competences and skills for the digital economy, the upgrading of digital literacy, training of ICT specialists for industries.

3. **Digital transformation in the economy branches**. It is the wide spread introduction of