

## SUMMARIES OF THE ARTICLES IN ENGLISH

## PHILOLOGY

P. 7. *Antonova Maria K.* Tomsk State University (Tomsk, Russia). **METAPHORICAL REPRESENTATION OF MONEY AS WATER / LIQUID IN THE RUSSIAN LINGUISTIC WORLD-IMAGE.** The article is concerned with the metaphorical fragment of the Russian linguistic world-image which is represented by the metaphorical model "Money is water / liquid". The present study is a try to reveal some peculiarities of the structure of the mentioned model and to distinguish basic situations that are described by metaphors forming this metaphorical model. In the analysis an aspect of axiology is also dealt with: how evaluation of one or another situation is expressed when studied metaphors are used. Research units are the word combinations consisting of metaphors with initial semantics of water / liquid and words naming elements of monetary circulation (money, cash, finances, etc.). The methodological base of study is formed by techniques of structural semantics (componential analysis and distributive analysis) and cognitive linguistics (linguistic modeling and introspection). The majority of metaphors in the considered metaphorical model are verbs. These verbs can be conditionally divided into 2 groups: 1) metaphors that fix the idea of an active person who makes some operations with money; 2) metaphors that create an image of financial operations as processes independent of human actions. Metaphors of the first group can be used to describe following situations: making a profit, transfer of money, financial support. Metaphors of the second group can be used to say about such situations as receipt of money, money movement, spending money and disappearance of money. As a result of the research it is found out that verbs naming different kinds of water movement in their direct meanings are the majority of verbs metaphorically describing money. The metaphorical image is ambivalent: on the one hand, money is conceptualized as a mobile elemental substance that flows independently of human interference but, on the other hand, a person can control its movement and direct the money somewhere at will. The analysis from the aspect of axiology has shown that in the investigated metaphorical model the expression of evaluation first of all is characteristic for the metaphors describing some negative facts such as extortion, gaining money in a dishonest way, loss of money, etc.

**Key words:** linguistic world-image; cognitive linguistics; structural semantics; metaphorical model; metaphor of water, money.

P. 13. *Bychkova Alina Yu.* Tomsk State University (Tomsk, Russia). **THE IMAGE OF THE NOSE AS A BODY PART IN WORKS BY N.V. GOGOL AND IN WESTERN EUROPEAN LITERATURE.** The article offers an analysis of the image of the nose as a body part in the works of Gogol in comparison with rhinological motifs in the literature of Ludovico Ariosto, Cyrano de Bergerac, E.T.A. Hoffmann, Shakespeare, Rostand. The image of nose regarded in that light can be found in the poem "Dead Souls" which is connected with the story "The Nose" chronologically. Amongst the elements typical for this image is synesthesia. The sense of smell often replaces sight, hearing, touch and taste by the characters of Gogol. Also noses in his works are able to perceive not only sensory, but any kind of information. This is emphasized by the verb "pronyukhat" (to smell out) meaning "to learn, to find out". This category is important in the novel of E.T.A. Hoffmann "Meister Floh" too, where the author recalls the tragedy of Shakespeare "Romeo and Juliette" using a quotation from there in a form of words play uniting the ideas "nose" and "knowledge". Also Hoffman in this jocular fragment refers to the noses turning out to be a direct pass to the brain, where knowledge is stored. A similar plot is present in the work of Bergerac "L'Autre Monde: ou les États et Empires de la Lune" in the scene of parody on the biblical motif where a character having tasted an apple feels wisdom like a scent. Not only synesthesia, but also personification is typical for describing a literary nose. The motif of animacy fully presented in Gogol's novel "The Nose", also becomes apparent by this body part controlling the human. The noses get the same attributes as their owners have. They determine the behavior of the people not only in Gogol's works: in Hoffmann's "Meister Floh" is another example. It is not just about subjectivity, the objectivity is also inherent in the nose: it acts both like an animate being and like a thing, embracing all possible forms of existing. Another quality of noses is their aversion to the cabbage smell. This includes not only vegetables: the heads of characters in Gogol's works are sometimes heads of cabbage, too. Accordingly, we can see here the desire of the noses to oppose themselves to the human. This motif is confirmed by the facts of physiology: the part of brain responsible for perceiving smells – the olfactory brain – is functioning separately. Thereby, the nose and the sense of smell can be a metaphor for subconsciousness, so the nose of Kovalyov can be considered as an uncontrolled part of his personality having become an independent individual. Fastidiousness to the people and striving for the detached living appears in the novel "Diary of Madman", as well as in the poem of Ludovico Ariosto "Orlando Furioso". In this work the fantastic space of the moon keeps the minds of people in form of scents in the bottles. Separately existing noses having more intellect than people are presented by Bergerac and Rostand in the work "Cyrano de Bergerac". Animacy and independence of nose as a body part are therefore motifs regularly appearing in the rhinological literature.

**Key words:** Gogol; Hoffmann; Bergerac; Ariosto; Shakespeare; Rostand; nose; rhinology; smell; synesthesia.

P. 19. *Verkhoturova Natalya A.* Tomsk State University (Tomsk, Russia). **TEXTFORMING FUNCTION OF THE SYMBOL "BELL" IN EUROPEAN AND AMERICAN POETRY OF THE END OF 18TH – 19TH CC. AND RUSSIAN TRANSLATIONS.** In this paper we analyse the textforming function of the symbol "bell" on the material of the European and American poetry of late 18th – the end of the 19th centuries. The choice of the poetic material is not accidental. Creativity of the poets of this period is considered to apply to the period of romantic and symbolic areas in literature, a distinctive feature of which was expression of meaning through symbols, polysemantic images. As the material of the study, we examined English poems of poet-mystic William Blake, American romantic poets Henry Longfellow, Edgar Poe, French symbolist poet Charles Baudelaire. In the analyzed poems the symbol "bell" is the most important semantic content of the text, implementing a wide range of topics: religious faith, peace and war, life stages of human life, the world peace, creativity and creative aspirations, love. This symbol refers to the content of poetry, which may affect the phonetic, lexical and syntactic levels. The ambiguity of the image is embodied in the semantics of the considered poetic texts, reflecting the combination, the relationship and interaction of various regulatory and even opposing worlds, which promotes a holistic view-image picture of the world. The selection of words, their combinatorics, position, location in space of the text determine not only the surface meaning of the plot, but also a deeper meaning, in particular, show the interaction and dynamics of the

worlds in the general integrity of the image picture of the world, uniting heaven and earth, man and nature. Of great importance is the syntactic construction of a poetic text, which can be expressed through the rhythm of the poem, and ultimately the author's view is conceptually meaningful. Sound proposition is presented in the poems by various lexical means, but the sound remains the same object. Sound proposition has an important function – it simulates the spatial comprehension of the world. The understanding of space is inextricably linked with the binary opposition of the earthly and heavenly, divine and human, fleeting and eternal. Interacting with each other, the oppositions may contrast and overlap each other, creating, thus, the system of conceptually possible worlds. Textforming function of the symbol "bell" is manifested in the functioning of specific and recurring concepts: *war, God*, realizing in the system of oppositions: *art – war, love – war, world – war, God – man, God – the nature of God – creativity*, etc. Using specific oppositions in the text of the poetic text is determined by the author's conception of his philosophical system of beliefs, as well as the theme of poetry.

**Key words:** symbol; image; poetical; text modeling; romanticism; symbolism.

P. 25. *Kozlov Alexey Ye.* Novosibirsk State Pedagogical University (Novosibirsk, Russia). **TRANSFORMATION OF 'INTERNAL REVIEWS' GENRE IN THE PROVINCIAL TEXT OF 19TH CENTURY RUSSIAN LITERATURE.** The article is devoted to the study of internal reviews deformation in provincial text. In the beginning of the article we make an attempt to describe some characteristics of internal review. So, internal reviews were a "description of reality", on the one hand, and "description of art discourse", on the other. To our mind, we can compare internal reviews with "boundary layer" of Russian fiction of the 19th century. "Internal reviews" as a genre are determined by the provincial text of Russian literature. Many motifs, plots and "stories" connected with province theme, constructed this thematic field. It is due to such precedent texts as Gogol's "Dead souls", Herzen's "Who is to blame?", and Sologub's "Carriage". These masterpieces formed the main features of Russian hypertext and determined its semantic limit and range. So, the same representation of province towns in literature after "Dead souls" is closely connected with Gogol's myth, images and style. A town without a name and properties (city without history and face), N., Malinov and Kalinov became the main scene of artistic and inartistic texts. As E. Ertnier stated, "Province image is not a creative essence. This essence has a semiotic symbolic structure and operates like an indicator of a conditional province. This symbol of "dead soul" is not connected with reality perception, but with a literature model". Inartistic texts are transformed and modified in provincial text like part of the global art discourse. In the article we research some plots and peculiarities of narration in internal reviews. The principal part of the article is connected with the research of internal reviews taken from the Russian magazines "Patriotic Notes" ("Otechestvennye Zapiski") and "Ears of corn" ("Kolosya"). There are fictional stories, literature characters, motifs and reminiscences in the articles of magazines. Big part of "internal reviews" presented a normal everyday-life of N. For example, we research Sleptsov's and Melnikov's articles and novels: some peculiarities of this genre are presented in their narration. Ryazanov's statements and Krasilnikov's phrases allow to detect these peculiarities. In both cases we see replacement of factual information by a set of stable senses (with determined denotation), which is creation of a meta-language. We can say that internal reviews had some transformation in provincial context. Firstly, it is closely connected with the influence of Russian fiction and native narrative tradition. Secondly, "reviews" of provincial press were a productive material for satirical and ironic narration. Thirdly, internal reviews were written for the educated metropolitan reader. Finally, these peculiarities are due to phenomenological features of the province in the Russian culture. In conclusion, we can say that plots of internal reviews could be perceived and used by the authors of "provincial stories".

**Key words:** Russian literature; Russian journalism of the 19th century; provincial text.

P. 28. *Lappo Marina A.* Novosibirsk State Pedagogical University (Novosibirsk, Russia). **SELF-IDENTIFICATION: DIRECT, INDIRECT EXPLICIT AND INDIRECT IMPLICIT DESCRIPTION OF THE IDENTITY OF THE SPEAKER.** It has been typical for linguistics in recent years to search its aspects in the study of identity and issues related to (self) identification, studied in sociology, philosophy, psychology, cultural and other humanities fields. At the same time it is clear that in the rapidly emerging area of the research, there are gaps and lack of uniformity of terminology. This can partly be explained by the complexity, multi-dimensionality of the phenomenon of identity and self-identification. As a result of this ambiguity, the question of the possibility of understanding the subject's own identity is a matter of dispute. Thus, the researcher E. Balint believes that the experience of identity can not be expressed in language / speech [Balint, 1991]. It appears, however, that "the desire for solidarity with group ideals", marked E. Erickson, the founder of the theory of identity, can be expressed by all available means and ways, including language. Linguists have to define the role of language / speech in the process of self-identification as an integral part of the identity. As the result of the analyses of different essays on various linguistic aspects of the identity the latter was defined as follows: identity is a conscious or unconscious verbal and nonverbal marking of individuality, i.e., membership, desire for belonging or not of the speaking subject to any group / category, any class / level / type of people. Complex and in-depth experience of identity can manifest itself or, according to some scholars, is designed with a wide variety of ways – non-verbal and verbal, unwitting or deliberate symbolic actions: the choice of clothing, hairstyles, accessories, facial expressions and gestures, the use of certain vocabulary (even all language resources), marking the speaker's affiliation to a particular environment. Self-identification as verbal labeling of social identity is a complex structure that includes, in addition to various forms of identity, a description of the identity of the speaker, who can use direct, indirect and implicit methods. A description of the speaker's identity is a special kind of self-identification process, which can be called reflexive self-identity. Self-identification as a description of the identity is a nominative strategy of reckoning a person to a group / category, a class / level. The strategy of identity is closely linked with the communicative strategy of self-presentation, but it is not equal to it. In speech, in some specific discourses the description of identity is applied to all its other manifestations and, constructing and / or reconstructing identity is defined as a beacon in its recognition of the recipient.

**Key words:** identity; self-identification; speech strategy; description of identity; discourse.

P. 33. *Nikonova Natalia Ye.* Tomsk State University (Tomsk, Russia). **V.A. ZHUKOVSKY AND GERMAN PAINTERS: FROM C.D. FRIEDRICH TO THE NAZARENES. ARTICLE 2.** Zhukovsky owes his intimate knowledge of the philosophy of new religious art and of familiarity with the Nazarenes to famous German scholar and diplomat Carl von Bunsen, who presented him the Eternal City in 1833 in the light of the German world. This strengthened the romanticist's love of the country. J.F. Overbeck, Cornelius, Steinle and other German artists settling in Rome influenced Zhukovsky's becoming a painter and art collector. August Kestner was Zhukovsky's Rome guide when the latter accompanied the Heir to the Throne in December 1838 – January 1839. The guide was introduced to the Heir, and with Zhukovsky's permission, Kestner dedicated poetic lines to the Heir. The message addressed by German Diaspora in Rome to the Heir to the Throne of the Russian Empire consisted of four sextains and showed deep respect and blessing to

future Alexander II. In 1840s Zhukovsky with his family was living in an inextricable connection with G. Reutern, his father-in-law, who supported the Nazarenes' ideas. One of Zhukovsky's companions was Principal of the Art Academy in Dusseldorf, successor of P. Cornelius and founder of School of Painting in Dusseldorf, Friedrich Wilhelm von Schadow. In Frankfurt on the Main the romanticist developed a good rapport with the youngest and the last of the most outstanding Overbeck's pupils, Professor Edward Jakob von Steinle. The second part of Zhukovsky's creative career of a painter, connoisseur of painting and art collector was under the German religious art sign. The deep feeling of religion, individual self-improvement, conservatism (commitment to the classics of painting), and all-embracing universalism embodied in particular and tangible forms and declared in theoretical works and canvas by the chers maitres of the school, appealed to the Russian romanticist's artistic vision. The profound idea of moral and didactic, educational part of visual art seemed intrinsically close to Zhukovsky in the quality of a teacher. Surrounded by the Nazarenes and pietistic Reutern-Shwaertzel family, Zhukovsky turned to understanding the canonical texts of Christianity, which resulted in the literary translations of the New Testament, the Apocalypse, the poem about Ahasuerus, his own applied Christian philosophy, "sacred prose" of the second part of 1840s–1850s.

**Key words:** V.A. Zhukovsky; painting; G. Reutern; C. Bunsen; A. Kestner; E. Steinle.

P. 40. *Petrunina Nadezhda V.* Tomsk State University (Tomsk, Russia). **TRANSFORMATIONS OF ESOTERIC METAPHORS IN RUSSIAN TRANSLATIONS OF W.B. YEATS'S EARLY VERSE.** The paper represents an attempt to figure out the specificity of the transformation of metaphors in Russian translations of William Butler Yeats's verse. While analysing this, we rely on the early poems by Yeats, written from 1889 to 1914, and their Russian translations by Grigory Kruzikov. We regard Yeatsian metaphors through the prism of esoteric philosophy. Referring to historians of alternative religions, we define esotericism as a syncretic system of religious and philosophical doctrines and practices, predominantly characterised as secret and inaccessible. The esoteric element within Yeats's system of intertwined poetics and style is regarded as a bilateral linguistic sign – with its own signified (motifs as recurring meanings) and signifier (metaphors as tropes based on similarity). In other words, metaphor – a bright feature of Yeats's style – expresses esoteric motifs. Due to the cryptic character of Yeats's verse, it makes sense to divide esoteric metaphors into closed and open ones – according to the contextual clarity. The mechanism of a closed metaphor is based on the clear connection between comparison subject and comparison object, which are expressed via parameter word and argument word respectively. An open metaphor (a symbol), on the contrary, is empty of direct verbal markers of the comparison object. Closed and open metaphors in early Yeats's verse reflect four esoteric motifs linked to the ontology and ethics of the three doctrines, namely, Theosophy, Hermetism and Rosicrucianism. Those four motifs can be described as 'the interaction between the Seen and the Unseen', 'the importance of self-improvement and spiritual enlightenment', 'the sacralisation of Beauty', 'the integration of the world religions and cults'. Early Yeats's esoteric metaphors are quite thoroughly reconstructed by the Russian translator. Despite this fact, the detailed analysis reveals significant translation transformations – the changes of parameter word, argument word and/or syntagmatically related words. These changes cause subsequent alterations of the poetic information. The translation transformations of Yeats's metaphors can be described as four different groups: extension, interchange, addition, and substitution. As a result, the Russian translations become more expressive, concrete, visualised than the original texts. Grigory Kruzikov pays more attention both to the emotional colouring of verse and its style in general, whereas the meaning (be it esoteric motif or any other piece of meaning) seems to have minor importance.

**Key words:** William Butler Yeats; esotericism; poetic metaphor; poetic translation; translation transformations.

P. 45. *Tivyaeva Irina V.* Tula State University (Tula, Russia). **MNEMONIC UTTERANCE AND ITS IDENTIFICATION.** The focus of the current research is individual memory operating both with a person's past and present experiences and linguistic manifestation of its work, that is, the verbal result of the said mnemonic function. In accordance with observations conducted as part of this research, a person's cognitive activities in the mnemonic situation result in an utterance representing specific mnemonic processes involved in the current mnemonic situation. Utterances of this kind will be further referred to as mnemonic utterances, the term meaning an utterance, both oral and written, produced by the subject of a mnemonic situation and representing one or more mnemonic processes. The methodology used in the research work to identify mnemonic utterances and demarcate them from other units within the text set under analysis is based on three criteria: communicative, semantic and formal. The research results show that the verbal outcome of a person's cognitive activities in the mnemonic situation takes the form of a mnemonic utterance, which is a recurring speech formation represented by three types: a retrospective monologue, a mnemonic dialogue and a retrospective narrative. When processing the data under analysis, mnemonic dialogues were registered in all sorts of mnemonic situations while the usage scope of the retrospective monologue and retrospective narrative was limited to mnemonic situations of storing information in memory and reproducing information from memory. The retrospective monologue and the mnemonic dialogue are used in person-to-person communication with passive and active feedback respectively, while the retrospective narrative does not presuppose any personal interaction between the sender of the message and the addressee. Unlike the mnemonic dialogue, which serves as a verbal manifestation of memory operations processing both the past and present mnemonic experience, the retrospective monologue and retrospective narrative are thematically related to fragments of past held in memory and reconstructed verbally. Common formal markers of the mnemonic utterance are found both on the lexical level and the level of grammar. They include verbs denoting mnemonic processes, nouns and adjectives of retrospective semantics, temporal adverbials and a range of appropriate tense forms.

**Key words:** memory; mnemonic situation; mnemonic process; mnemonic utterance; mnemonic dialogue; retrospective monologue; retrospective narrative.

P. 49. *Tretyakov Yevgeniy O.* Tomsk State University (Tomsk, Russia). **PHILOSOPHY AND POETICS OF THE FOUR ELEMENTS IN THE POEM "GANZ KYUHELGARTEN" BY N.V. GOGOL.** Early poem "Ganz Kyuhelgarten. Idyll in pictures" (1829) by N.V. Gogol is considered in the paradigm of the modern study of Gogol as a full and integral part of the behavioral text of the writer. In this regard, the role is stressed of the idyllic tendency in all subsequent works of the artist and the connection of the poem "Ganz Kyuhelgarten" with "Evenings on a Farm near Dikanka", with the story "The Old-World Landowners" (V.V. Gippius calls it the "second idyll") and the texts of late Gogol, in particular, the "Selected Passages from correspondence with Friends" ("third idyll"). Indeed, Gogol calls his poem an "idyll" on purpose: a combination of formal orientation to the canons of the romantic poem lyric-epic type and following the traditions of the idyllic setting generates a principal author setting – striving for synthesis and cosmogony. Genre definition becomes a philosopheme, which contains a set of ontological laws of the universe and axiological values. The phrase "idyll in paintings" emphasizes the focus on "Pictures of nature" by Alexander von Humboldt. The basis of the work of the German scientist is a

lot of empirical evidence that forms soulful integrity, harmonious structure of the universe. Of course, the attraction of Gogol to synthesis is correlated with the precepts of Humboldt. A kind of "key" to the ideological and axiological dominants of the poem is poetics of four elements. Indeed, the text includes many references to the elements that form the concept sphere which operates according to certain laws. Thus, each of the elements is rarely presented in isolation from the other primary elements, and their synchronous system has no contradiction and division into the center and the periphery, thus reviving organic archaic-mythological syncretism that enabled cosmogony. "Striving of life and Elements" (Lotman) in the world of the poem is not observed either, in contrast, the patriarchal way of life is due to the ontological laws of being, which are manifested in the elements. The main conflict of the poem is that between the original harmony of the ontology of being and aspirations of the people who do not see this harmony. Due to the interaction between the ontological and anthropological aspects of the problems of "Ganz Kyuhelgarten" the romantic antinomy of "wanderer" and "homebody" is made topical. The romantic conflict between the worldview positions of "wanderer" and "homebody" is born in the controversy of important works of V.A. Zhukovsky and K.N. Batiushkov – "Theon and Aeschines" (1814) and "The Wanderer and Homebody" (1814–1815), respectively. In "Ganz Kyuhelgarten", the problem transfers to a qualitatively new level of understanding, because the hero combines both "wanderer" and "homebody". This is a synthesis that combines the thesis and antithesis, which are claimed in the works of Zhukovsky and Batiushkov. The person in the idyllic chronotope of the poem is an integral part of the ontology of life, and the four elements are the point of contact, in which the interpenetration of ontology and anthropology occurs, and it is possible to reconcile "wanderer" and "homebody" in one person, and include the history of humankind in the eternal natural cycle. Thus, in the poem "Ganz Kyuhelgarten" the patriarchal values of idyllic life and the romantic impulses of a restless soul reconcile. Four elements interact in the ontology of being without opposition. This clearly shows the tendency of young Gogol to synthesis and cosmogony.

**Key words:** Gogol; "Ganz Kyuhelgarten"; four elements; ontology of being; idyllic chronotope.

P. 53. *Cheremisina Ksenia A.* Tomsk State University (Tomsk, Russia). **THE PROBLEM OF SPIRITUAL SELF-IDENTIFICATION OF THE RUSSIAN PERSON IN LESKOV'S LATE JOURNALISM (1880S).** The views of late N.S. Leskov in the 1880s are characterized by the tendency to comprehend the depth and complexity of the human nature, essence of his relationship with the society, history, God, and are vividly presented in his publicistic works which refer to a specific type of utterance revealing thoughts and ideas of the author. By the 1880s the publicistic heritage of the writer turns into a dynamic system open for interaction with literary activity and with reality in all its manifestations. Starting in the 1860s, there is a break-up of the patriarchal mode of Russian national life, destruction of the moral values of the past, the so-called 'raschlovechivaniye' (de-humanization) of the Russian person, understanding the problem of spiritual awakening, spiritual growth of the Russian person, especially the one from the national environment who, according to Leskov, has features of integrity, ability to cope with the crisis and through the fall and cleansing from a sin move to a higher stage. In the 1880s the writer reaches a higher stage of his development and returns to the theme of spiritual crisis of the Russian person, that is now transformed in his conscience into the theme of 'Russian hatred'. The publicistic system of the writer undergoes certain changes. First of all, it becomes larger quantitatively. In the 1880s the author wrote more than 300 articles. Moreover, the system is expanding thematically, seeking inclusiveness, completeness of interpreting the Russian reality. But the thematic diversity is combined with the general, main problem which supports the integrity of the live system being its core. This is the problem of spiritual self-determination of the Russian person and Russian world in the reality of the current situation – 'Russian hatred'. It is significant that the problem is considered by Leskov in its philosophical, moral and ethical view. Ideas of late Leskov dealing with the person and society become universal, placing new emphasis on his philosophical and sociological concepts that underlie the publicism of the previous periods. The thought about the paramount importance of social reality, sociological methods of interpreting the person and his environment become less important in the publicism of the 1880s, the constituent elements of Leskov's new publicistic system become universal laws of existence, the most important of them being morality which can and should spread its influence on all and everyone relying on the inborn instincts of good and justice, and inherent striving for the spiritual growth. We think that such transformations in publicism, author's understanding of its role and function in society become the natural result of its long-lasting interaction with the artistic heritage of the writer. The fact proves the systematic character of the publicism and the possibility to interpret the whole body of his artistic heritage as an integral artistic system.

**Key words:** publicism; system; N.S. Leskov; spiritual self-identification; faith; religion; spiritualism; Jewish theme.

P. 58. *Shilyaev Konstantin S.* Tomsk State University (Tomsk, Russia). **FRAME ARCHITECTURE OF THE KEY TEXTUAL METAPHOR IN "WHITE FANG" AND "THE CALL OF THE WILD" BY J. LONDON.** The article is devoted to the study of functioning of metaphor in the text of a work of fiction. Two works of Jack London are analyzed with the aim of bringing forth the frame system structuring the key textual metaphor. The study is conducted in the framework of lingual-cognitive approach to language. The paper makes use of the following terms: *conceptual metaphor*, construed as an association of two conceptual domains, one of which is structured in terms of the other; *lexical metaphor*, understood as a lexical unit resulting from the transfer of the name of one notion onto another, based on their likeness; *key textual metaphor*, which is the metaphor that unites the whole text of a work of literature, provides it with semantic and imagery coherence and organizes it on the derivational level. The key textual metaphor is essentially conceptual, and is implemented via a system of linguistic *metaphorical models*. A *metaphorical model* is both a linguistic and conceptual phenomenon. It is a unity of a mental scheme and the system of its linguistic representations, i.e. lexical metaphors. In order to represent the cognitive structure of metaphorical models, the format of frame structures (frames) is chosen. Frames are viewed as data structures for representing stereotypical situations. They are presented as networks of terminals or slots that can be filled with information. A scenario is a frame that allows to represent a certain situation as a succession of actions, processes and relations. At the core of a scenario are dynamic relations expressed with verbs that determine the possible terminals: subjects, objects and additional parts. For the purpose of describing scenarios we use the terminology of logical semantics. We introduce the notions of *source frame* and *target frame* of a metaphorical model. The *source frame* is a cognitive entity and its function is to structure a more abstract or absent target frame in the process of metaphorization. The terminals of source frame are filled on the basis of lexical implementations of the key textual metaphor on the surface level of the text. In the works analysed, we define the three basic frames of the key anthropomorphic metaphor: the *emotions* frame, the *mental activity* frame and the *social relations* frame. Each of these frames can be presented as a system of interconnected subframes. A special emphasis is placed on the *social relations* frame. We outline its internal subframe architecture and demonstrate its relations to other frames of the analyzed works. The *social relations* frame is found to include the following subframes: *friendship/comradeship*, *working relations*, *law and morals*, *power*, *schooling*, *talking* and *religious relations*.

The cognitive framework discovered in the research supposedly functions in other works by J. London that have dogs as their protagonists. This being true, certain domains of key textual metaphor implementation on the surface level may vary in terms of quantity or structure.

**Key words:** key textual metaphor; frame architecture; frame; subframe; metaphorical model; Jack London.

## PHILOSOPHY, SOCIAL AND POLITICAL SCIENCES

P. 64. *Kushchenko Sergey V.* Novosibirsk State Technical University (Novosibirsk, Russia). **SOCIAL POLICY OF THE STATE AS COMPLEX SYSTEMS MANAGEMENT TOOL.** The purpose of this article is to show the state as an instrument of control of complex systems in the sphere of social policy. The named scope includes many complex systems, the management of which requires an integrated, systemic approach and does not always imply the achievement of unambiguous results. With a great degree of certainty one can say that in social policy to achieve unambiguous results, planned in advance, is not always successful. This is explained, in our opinion, by the peculiarities of social policy, in particular, the inclusion of an endless variety of social ties between the subjects of social activities in it. An infinite variety of social ties to some extent is regulated by such a powerful instrument of social policy, as a state. What is the role of the state in social policy depends largely on the effectiveness of social control. In turn, the role of the state in many respects depends on the implementation of the social policy of the state interests. If one tries to find something in common in different versions of the definition of "public interest", the following can be noted. All these options provide different methods (sometimes contradictory) of the decision of one and the same question about the collision between state and corporate interests. The term "corporation" in this case is used in the broadest sense as an association of people of interest: economic, bureaucratic, social, national, political, etc. It should be borne in mind that all of these options reflect the real processes taking place in practically all countries of the world. This undeniable fact must be taken into account in the formulation of the national interests. In this context the problem of formulating state interests is in an inconsistent, simultaneous and constant interaction and confrontation of the government and corporate interests. It is this interaction and confrontation that constitute the problem, it is its content, the essence of it. It would be a mistake to assume that this problem can only be solved in favor of the state or corporations. The solution of the problem should be sought in the optimal mix of corporate and government (in the broad sense) interests. It is obvious and has long proved that without the state as the main management body of the company it is impossible to achieve a consensus in the society as a number of corporations that have different interests. Hence inevitably follows that the optimality criterion are the signs of the state as such, the signs of the state, which "should be". Unlike corporations, which can appear and disappear, the state as such (regardless of the form of government and political system) "must be there". The state as such has a number of well-known immutable attributes, which can be reduced to three main: 1) territory; 2) population; 3) resources of all kinds (economic, political, intellectual, natural, etc.).

**Key words:** social policy; management; state; difficult systems; corporations.

P. 67. *Ratnikova Yelena V.* Institute of Philosophy of National Academy of Science of Ukraine (Kiev, Ukraine). **ON SOURCES AND SINGULARITIES OF POSTMODERNIST PLURALISM.** In the article sources, premises and essence of pluralism in postmodernist philosophy are analyzed. In the beginning the content of concepts "pluralism" and "relativism" is described in short; the attention to its ambiguity is paid. Ancient Greek sophistry is considered as one of the early sources of pluralism and relativism. Having a pragmatist component, many authors consider postmodernism differently concerning the premises. In the article we consider W. James's position as one of the major premises of postmodernist pluralism, and his criticism of the absolutes and the empty, ineffective abstractions anticipated much in postmodernism. In particular, James's thought that pluralism is a natural consequence of his doctrine of radical empiricism is underlined. The latter is, mainly, ontological pluralism by James. The close connection of postmodernist pluralism with R.Rorty's philosophy and with his criticism of Platonism and of the traditional concept of representation is shown. One of the consequences of this criticism is the refusal from the traditional correspondence conception of truth which, finally, results in pluralism and relativism. Thereupon, the concept of a simulacrum and its role in the development of ideas of pluralism is considered. In the article it is marked that postmodernism developed against antagonism of two hard lines – traditional epistemological and pragmatist. The basis of pragmatist strategy in postmodernism is the idea about a truly creative nature of the person who creates truths, instead of discovering them. Thus, the true becomes contextual, pluralistic. The major sphere of life activity of the creative person is language and speech communications where the person expresses oneself, constructing the experience as some kind of a text. As a result, the meaning of concept "pluralism" was transformed from the traditional ontological and gnoseological meaning to a variety of more concrete meanings with expansion of the sphere of its applicability to social and cultural areas. However, even in traditional spheres there was its concretization: methodological pluralism branches off from gnoseological pluralism, and the area of pluralism of realities is allocated in ontological pluralism – pluralism of simulacrum in postmodernism and pluralism of value of diversity in modern natural sciences. Nevertheless, despite the expanded set of versions of pluralism, they something in common: connection with such ideas as the idea of relativity, the idea of flexibility, the idea of justification of diversity, the idea of correspondence to a context.

**Key words:** pluralism; relativism; postmodernism; true; simulacrum; R.Rorty's philosophy.

P. 72. *Felde Viktoria G.* Omsk State Pedagogical University (Omsk, Russia). **MODELS OF CONTACTS OF "SELF" AND "OTHER".** The article is devoted to the problem of interrelation of the categories of "mine" and "other". The author keeps to the opinion that "the history of the society" is the history of relations between "self" and "other". The work contains classifications within "self" and "other" which is represented by the corresponding examples. At the early stage (mythological), there was no subdivision of the opposition. Accentuation as a device is used in this work to develop the theme and the idea. The author of the research expresses striving of the person to visit or meet "other" in the following models of contacts: starting off, pilgrimage, travel, tourism, post-tourism. Models of contacts offered here are considered as reflection of the essence of this or that historical epoch. World outlook, on the one hand, is determined by the model of contact with "other", on the other hand, it determines the possibility or impossibility of this contact. Basic ideas of the article are the following: - The model of starting off is characteristic for the mythological epoch, the principle of which is "selfing" the "other" (possible under the condition of integrity of the subjects). This model enriches both "self" and "other". The contact leads the mythological character to a qualitatively new level. - Pilgrimage is divided into kinds which represent different models of meeting "other", one of them leads to meeting God. - Travel tends to make "self" something, which is not really "self", and determines the epoch of great geographical discoveries. For travellers meeting "other" is not important, it is the way and finding new

ways which is important for them. - Tourism is a well-organised kind of activity, which appeared in the USSR and was the means of propaganda of communist values, the way of acquiring habits and skills, the way of teaching discipline. The aim of tourism is not meeting "other" but preserving "self" in certain frames. - Post-tourism is the model of meeting "other" in modern society. Post-tourism does not overcome hardships and changes, does not meet "other". Post-tourism results in collection of souvenirs from visited places and collection of photos taken there. The author of the article presents the comparative analysis of contact models but at the same time she emphasizes the features of their likeness at certain moments. In conclusion the author advances the idea that all the models were originally inserted into culture but developed chronologically and every other epoch, under domination of a certain model, has models of preceding epochs.

**Key words:** "self"; "other"; meeting.

## HISTORY

P. 76. *Voronin Dmitriy V.* Prokopievsk Branch of Tomsk State University (Prokopievsk, Russia). **USSR STATE ARBITRATION IN TRANSITION PERIOD (1985–1990).** Activity of the state arbitration in the USSR in the transition period (1985–1990) is considered. Analyzing the functioning of the system of arbitration during "reorganization", the author of the article notes that along with some changes, as a whole its tasks have not changed essentially. On the basis of the analysis of archival materials and regulations the process of reorganization of structures of the system of arbitration of various levels, providing additional rights to them for checking enterprises, establishments, organizations of departmental arbitration and other bodies, resolving economic disputes is considered. Incompleteness of the right of arbitration concerning heads for non-performance of instructions by the latter about elimination of the revealed violations of the law is noted. Influence of the transition period to market economy on the activity of the regional systems of arbitration, which one of the first began to receive signals of the crisis state of socialist economy, is investigated. Features of relationship between managing subjects, increase of the role of contracts, introduction of "original self-financing" are briefly characterized. The analysis of the reasons of divergence of positions between the system of arbitration and Party governmental bodies is given. The process of transformation of the system of arbitration in arbitration court independent of anybody is considered. The role of the system of arbitration in existing Soviet economic system, formation of positive experience of arbitration legal proceedings necessary for development is emphasized. The considered period is characterized by the fact that many enterprises did not satisfy conditions of signed contracts owing to preserving the mechanism of state order, therefore volumes of planned tasks began to exceed production capacities. Difficulties in carrying out an economic reform connected with command and administrative methods of economy, low level of organization of work of ministries, departments, associations and enterprises to create economic connections and sign new contracts are designated. The author reveals a feature in the activity of the system of arbitration connected with the function of protection of labor collectives from unreasonable intervention in their activity from branch ministries and departments. On materials of regional archives contradictions in the activity of the system of arbitration supporting development of economic independence of enterprises and at the same time criticizing aspiration of enterprises to achieve economic interests are traced.

**Key words:** reorganization; system of arbitration; contract; self-financing; ministry; department; economic reform; labor collectives; arbitration court.

P. 80. *Gavrilova Vera A.* Tomsk State University (Tomsk, Russia), Novosibirsk State Technical University (Novosibirsk, Russia). **US POLICY IN SOUTH ASIA AFTER THE END OF COLD WAR.** US strategy in South Asia after the Cold war was driven by a desire to build the balance of power that would shut out the growth of any regional hegemony. Attention that US gave to South Asia resulted from the end of the Cold war situation in the region: confrontation between India and Pakistan which strove for possession of nuclear weapons that could lead to the destabilization of the whole region. In the beginning of 1990s US tried to decide whether to continue support of Pakistan, their close ally during the Cold war, or it is better to strengthen relations with the developing India, and which of the two is worth being the US strategic partner. In 1994 the first step to improve relations between India and US was made. At the meeting with prime-minister of India Narosima Rao the issues of economic and trade cooperation as well as nonproliferation of nuclear weapons were raised. By the end of 1990s US focus on relations with India became clearer; it can be explained by the shift in India's policy from "alienated democracy" to "attractive democracy" in the post-cold era. In 1998 India and Pakistan tested nuclear weapons. Those nuclear tests led to a shift in US foreign policy: from nonproliferation of nuclear weapons to much broader goals. The goals were to prevent nuclear war, to promote the spread of democracy and international stability, to ensure economic growth and to foster political and military cooperation. Despite the fact that Indo-Pakistani nuclear tests had polarized US Congress, Clinton administration's strive to promote cooperation with South Asia was heightened with US national interest. In general, US policy in South Asia at this period of time could be described as a rethinking of the region's role in terms of US strategic interests. In fact at some time the change of US geographic priorities can be noted. The continuous maneuvering between India and Pakistan is the evidence that White House sought, on the one hand, not to lose Pakistan with its influence in Afghanistan, and, on the other hand, to show a willingness to make concessions to India in order to build new relations which could overgrow to the strategic partnership. Further the Republican Party went the same path when it tried to come closer with India and prevent rapprochement between Pakistan and China.

**Key words:** South Asia; US policy; India; Pakistan.

P. 84. *Gaevoy Gleb Ye.* Tomsk State University (Tomsk, Russia). **ANTI-AMERICANISM IN GERMANY AT G.W. BUSH'S ADMINISTRATION.** After the end of the Cold War, the US remained the only superpower in the world. Along with a positive attitude there is a criticism and prejudice towards the US, called anti-Americanism. There are various definitions of anti-Americanism. The general definition of the term anti-Americanism is the opposition or hostility to policies, culture, society, economy and international role of the United States. Given the fact that the US and Germany are allies and partners in NATO it is not serious to talk about the military and political anti-Americanism. The reason of the German -US relations deterioration in the last few years could be a clash of political cultures, accelerated by active Bush's foreign policy. The approach of his administration was based on the Americanocentrism, i.e., economic and, above all, moral superiority of the United States to any other nation. For a long time, the relations between Germany and the United States were determined exclusively by military and political cooperation. After the USSR collapse and the end of the Cold War confrontation came the new phase for Berlin – Washington relations: the search for a new urgent topics that can give an impetus for transatlantic cooperation. Cooperation in the field of environmental protection could be such a topic, but revealed significant differences

in the area. In culture, anti-Americanism was grounded on an understanding of the historical cultural superiority of the European countries, including Germany, over the US. At the beginning, brave, active and entrepreneurial people were needed for the North America development, education and a high level of culture were not among the essential qualities. Over time, the US became an economically developed country, the main export product of which is the "American way of life". A breeding ground for anti-Americanism is a cultural conservative-minded part of German society, as a rule, religious and nostalgic about the old days of the German cultural power. The phenomenon of anti-Americanism has a long history and a wide geography. Present in different areas of life, it plays an important role in contemporary international relations. Being a strategic partner and ally of the United States, Germany faces the existence of political, economic and cultural conditions for anti-Americanism growth. Like any other social phenomenon, anti-Americanism is adjusting to the constantly changing demands of modern society and the political agenda.

**Key words:** anti-Americanism; USA; Germany.

P. 87. *Guseva Nataliya S.* Ershov Teacher Training Institute in Ishim (Ishim, Russia). **MATHEMATICAL METHODS IN HISTORICAL SCIENCE: FORMATION OF CLIOMETRICS IN HISTORIOGRAPHY IN THE SECOND HALF OF THE 20th CENTURY.** The article is centered around methodological changes in the historical science of the 20th century. In particular, it deals with the heritage of the Annales school, the methodology of which gave a start to the development of the idea of interdisciplinary synthesis. Special attention is paid to a new direction based on using mathematical methods called cliometrics. A broad mastering of interdisciplinary methodology in the second half of the 20th century became a basis of "new historical science" inside of which such new interdisciplinary disciplines as psychohistory, "modern social history", history of mentalities, every day history, "female" history, gender history, were formed. At the same time, using the idea of interdisciplinary synthesis became possible not only in the context of interaction of humanities and social sciences, but also by means of using exact sciences, including mathematics in historical research. A striking example of the processes is cliometrics (in other words, quantitative history), based on application of mathematical methods, computer models and programs in historical researches. Within this article the greatest interest was caused by the development of native (Soviet) and American "modern economic history". As a result, the history of formation of quantitative history is considered, the role and value of cliometrics in historical science is shown. Thus, for example, in our country the activity of using quantitative methods in historical researches was carried out under Academician I.D. Kovalchenko. Being the founder of the new direction, Kovalchenko became the main initiator of creation of seminars, groups, and commissions on application of mathematical methods and computers in historical researches (1979–1994). Among the prominent representatives of "quantitative history" in the USA the greatest interest was caused by scientific researches of R. Fogel, D. North, S. Engerman. It should be added that American cliometrics was actively engaged in historical modeling, preferring to use so-called "alternative" models of historical processes: designing artificial phenomena and situations, and then comparing these models with the real historical phenomena and giving assessment of its historical development. It is necessary to recognize that the quantitative history has always had a huge scientific potential. At the same time, its claims for creating general, universal methodology of history are insolvent owing to the fact that historical processes cannot be studied exclusively by means of mathematics.

**Key words:** neo-Kantian movement; cliometrics; Annales school; interdisciplinary character.

P. 91. *Dankov Artyom G.* Tomsk State University (Tomsk, Russia). **BRITISH HISTORIOGRAPHY OF BRITISH POLICY IN NORTH-WEST FRONTIER OF INDIA IN LATE 19th CENTURY.** The second half of the 19th century was a dramatic period in the history of British policy in Central Asia. The Crimean War in 1854-1856 and "Sepoy Uprising" in 1857-1858 in India had a significant impact on the state of international relations in Asia and forced the British authors turn their attention to the study of the goals and objectives of British policy in Central Asia and its role for the British India. During the second half of the 19th century there was escalating rivalry between the two great powers – Russia and the UK, and British historiography "Great Game" was formed, which influenced the works of British writers of the time. In Soviet historiography, the study of basic ideological concepts of British colonial policy was put "on a grand scale." In the 1960s – 1980s numerous papers were published in the Soviet Union which analyzed the aims and objectives of British policy in British India and neighboring countries. Unfortunately, none of these studies bore the imprint of the ideological confrontation between the Soviet Union and the West. Only now, when the ideology does not have such a strong influence on the study of history, a more balanced approach to the assessment of British policy in Asia is possible, including in the north-western borders of India in the immediate vicinity of the lands of the Russian Empire. This article aims to review the works of British historians of the late 19th century in terms of their assessment of the goals and objectives Britain had in the region throughout the nineteenth century. Summing up, it is worth noting that the problem of policy in the north-western border of British India occupied an important place in the historiography of the British colonial period. Regardless of affiliation to one of the schools ("masterly inactivity" or "forward policy"), it was seen by British historians, politicians and diplomats in the late 19th century from the point of view of security of British colonial possessions. All other aspects of foreign policy: economy, trade, transport and communication – were subject to a single task. This task was to ensure stability in the north-western borders of India, which had the proud name of "jewel in the crown of the British Empire".

**Key words:** British historiography; British India; Anglo-Afghan wars.

P. 98. *Dmitrienko Nadezhda M.* Tomsk State University (Tomsk, Russia). **THE PIONEERING ATTEMPT OF MUSEUM PROJECT IN TOMSK.** The pioneers of museum project in Russia in the early 19th century were F.P. Adelung, B.G. Vikhman and their followers – P.P. Svinyin, Princess Z.A. Volkonskaya, A.P. Bogolubov, and others. The first Russian museum projects helped to realize the importance of museum as a protector of cultural heritage. So, it was not a mere chance that Tomsk City Council (Gorodskaya Duma) decided to mark the 50th anniversary of the abolition of serfdom in Russia by foundation of the Siberian Scientific and Art Museum. In order to realize that decision a Museum Committee was specially organized in Tomsk in 1911. The members of the Committee were independent researchers G.N. Potanin and A.V. Adrianov, architects T.L. Fischel, V.F. Orzheszko, officials B.A. Aminov, F.Ya. Nesselov, founder and the first director of Tomsk Technological Institute, Professor Ye.L. Zubashev, owner and philanthropist P.I. Makushin, and others. Many members of the Committee were connected with museums and collections, with studying of Siberia. They were rather skilled to start up the museum creation. The authors of the project considered the museum as a resource of objects of nature, human life and folklife, as a unique institution for securing cultural values. The Siberian Museum was designated as an institution for research and education. An important idea was formulated: the museum was to be universal, so uneducated and illiterate people could acquire knowledge there and at the same time scientists could use it for their research. The

museum structure was developed, it consisted of departments of natural history and public history (they said, "live and dead days of old"). Later, in 1915, the third department was set up. It was dedicated to the events of World War I. The project contained a detailed list of items for the museum, instructions on how to collect, identify and exhibit museum's objects, specimens and collections. The problem of financing the museum was solved. There were 50 thousand rubles from the city budget, donation of land for the construction of the museum building. And Tomsk Governor granted approval of fund raising. The project of the Siberian Regional Museum was prepared, but in the face of the military-revolutionary time the museum was not opened. However, the first museum project in Tomsk was not lost, it was new and significant on the museum scene, showed willingness of museum specialists to create a multifunctional storage of cultural heritage.

**Key words:** history of museum practice; museum project; role of museum in society.

P. 101. *Yermekbai Zharas A. R.B. Suleimenov Institute of Oriental Studies (Almaty, Kazakhstan). THE TRIP OF CHOKAN VALIKHANOV TO EAST TURKESTAN (TO THE 155TH ANNIVERSARY OF KASHGAR EXPEDITION OF CHOKAN VALIKHANOV).* Before the beginning of the graduate of Omsk cadet corps, the young lieutenant's journey, only a few Europeans had visited East Turkestan. It was the renowned Marco Polo in the 13th century, Jesuit monk Gaes in the 17th century. Then in the second half of the 19th century German traveller, apprentice of the great Humboldt, Adolf Schlagintweit, who disappeared during his bold expedition to Central Asia, came to Kashgariya. It is not hard to imagine the feeling Chokan Valikhanov stepped over the Chinese border with. Neither in Europe, nor in Russia had anybody any idea of what was happening in this huge and closed area of Asia. It is not surprising that the journey to Kashgar, from which the brave traveller brought unique scientific material, remained in the annals of Russian geographic science forever. During his stay in East Turkestan Chokan could not directly question people and make notes in his diary. He composed the picture of Kashgar's political life, the map of the area basing on the snatches of conversations, on people's memories about different political events, visiting public places, including mosques and bazaars. All that he learned about economy, political life, history, geography, ethnography of Kashgar was a result of hard work; a lot of information had to be memorised. While preparing a report on the Kashgar expedition "On the condition of Altyshar or six Eastern cities of the Chinese province Nan-Lu (Small Bukhariya) in 1858-1859", Valikhanov presented a comprehensive geographic review, made a note about the population, eastern system of town administration, economic and political condition of the region. Later the report on the Kashgar trip became the basis of "Dzungaria essays" published in the "Notes of the Imperial Russian Geographic Society" at the beginning of 1861. The data on East Turkestan, included in Chokan Valikhanov's report was actively used. The scientist's work was highly appreciated by both Russian and foreign orientalists, and it was soon re-published in English. Having finished writing the report at the beginning of 1860, Chokan arrived in St. Petersburg. High Petersburg's authorities in the face of ministers, officials and Emperor Alexander II himself treated him as a hero, brave traveller and outstanding explorer, who had discovered Asia for European science. For performing the important government task Chokan Valikhanov was appointed Staff-Captain and awarded with the order of St. Vladimir. He gained the fame of a brave traveller.

**Key words:** East Turkestan; Seven rivers; Issyk-Kul; caravan.

P. 106. *Zagoskin Denis V., Chernyak Eduard I., Shirko Konstantin N. Tomsk State University (Tomsk, Russia), Tomsk Regional Museum (Tomsk, Russia). MUSEUM FALSIFIER OF HISTORY: A SUBJECT OR A TOOL?* The article deals with the prerequisites and conditions for the development of practices to falsify history in museums. The problem of studying these practices and resilience is becoming increasingly important with the increasing public awareness of the museum business, increase of museum institutions visitors, development of specific techniques for working with the museum visitor audience. In connection with not random is the transformation of museums in the area of ideological and political confrontation, reflected in the increasing number of museum and ideological projects, such as "museum of Soviet occupation" in Eastern Europe and the former Soviet Union, as well as the active discussion of the falsification of various historical themes in various museum events taking place on the Internet and in the media. These processes make the study of the museum as a specific subject of history falsification topical along with identifying and describing its features. The article suggests an inevitable inclusion of museums in interactions with key carriers of significant social influences - stakeholders. This inclusion is a natural result of the evolution of museum enthusiast voluntary associations that arise in the interests of self-expression of creative figures in regular institutions that organize specific production processes. The regular nature of the facilities requires regular access to the infrastructure, resources, financial resources and availability of institutionalized rules of operation. This, in turn, leads to the vital needs of the museums in the relationship with stakeholders. These relationships can be arranged according to various scenarios, including the "monopoly" model of the relationship, suggesting the imposition of falsifying implementation practices by stakeholders on museum institutions for manipulation of consciousness of museum audience ("ideological" falsification). This imposition is in return for access to the necessary factors of museum production and ignores many specific features of museum production technology. The latter circumstance contributes to the violation of these technologies and to the criminal and technical history fraud. Thus, the very nature of the museum, its unavoidable dependence on agents of important social influences, creates a risk of systemic conditions for the development of practices to falsify history.

**Key words:** falsification of history; museum; stakeholders; monopoly.

P. 110. *Kvitkov Gennadiy G. Tomsk State University (Tomsk, Russia). METHODOLOGICAL ASPECTS OF WORKS BY SERGEY AVERINTSEV.* The issue of the article is methodological aspects of work "Poetics of Early Byzantine Literature" by Sergey Averintsev. Averintsev is an outstanding Russian scholar and a crucial figure in Russian humanities of the late 20th century. Unlike many other scholars, Averintsev is endowed with the significance far beyond academic matters, so the literature on him largely deals with estimation of him as a social phenomenon rather than with scientific criticism of his ideas. Methodological criticism on him is found in lesser part of papers on Averintsev. As there is practically no works on such a subject as Averintsev's method, this article is one of the first attempts to analyze it. Methodological basis of Averintsev researches, which derives from problems studied by scholars of the 20th century such as Losev, Spengler, Huizinga, and others, lies in the approach to culture as integrity, in which single phenomena can be described as manifestations of more common grounds of this culture. This means that phenomena of culture even diverse on the surface are connected integrally by the conceptual unity of a given culture. Thus, there appears an opportunity of interpretation of these phenomena based on non-formal, substantial correlation. The methodological background of these ideas consists of two points. Firstly, it is the idea of culture as a universum of meanings. These meanings provide culture with some potentials which are realized in its historical being. Secondly it is the idea of a "key" to such a network of meanings. Therefore, such a problematic demands search of a certain integral principle, constitutive to culture. Many classical studies by Averintsev present the described

approach. There are some methodological points, introduced by Averintsev. 1) Integral principle of culture is regarded as connection between people's mindset and beliefs and cultural phenomena produced by them. 2) Such a connection does not mean simple equality between either parts. 3) Cultural phenomena have a hierarchic structure – from the level of beliefs to the level of concrete products of culture. 4) "Vertical connections" between mindset and cultural products do not imply the necessity of "horizontal" ones. 5) However, cultural phenomena being source or result of cultural synthesis can be connected. 6) Thus, we can both inductively reconstruct mindset of a given culture deriving it from its concrete phenomena, and deductively interpret these phenomena deriving them from its common cultural mindset.

**Key words:** Averintsev; Early Byzantine literature; culture; integrity.

P. 114. *Koleva Galina Yu.* Tyumen State Oil and Gas University (Tyumen, Russia). **PERSON IN THE HISTORICAL PROCESS: ALEXANDER K. PROTOZANOV.** The article is devoted to the historical person, who spearheaded the West Siberian oil and gas region. It focuses on the personality of Alexander Konstantinovich Protozanov, whose memory is almost forgotten. Analysis of archival material, memories of the actors of oil and gas exploration in the region have identified the role of A.K. Protozanov in changing of the direction of development of Tyumen region. This article describes his activities related to the expansion of exploration and preparation of the conditions for the commencement of commercial oil and gas development. We established his authorship and role in the resolution of the USSR Council of Ministers № 1208 of December 4, 1963 "On organization of preparatory work on the industrial development of new oil and gas fields and further development of exploration in Tyumen region", which embodied the basic ideas of A.K. Protozanov and took on life due to his intense and persistent activities. The Industrial Regional Party Committee, headed by A.K. Protozanov in 1963–1964 did a huge amount of work, which stimulated the birth of the oil industry, deployment of pipeline Shaim-Tyumen, preparatory works on gas development in the region, start of construction of Tyumen-Surgut railroad. At the same time the Industrial Regional Party considered a wide range of issues: development of air service in the region, creation of an independent Office of Civil Aviation in Tyumen, providing Tyumen aviation group with new models of planes and helicopters. Great attention was paid to the health care system, fight against infectious diseases, and establishment of health institutions. To train for health care in 1963, A.K. Protozanov succeeded to promote the opening of a Medical Institute in Tyumen. To provide expertise in the newly created industries, A.K. Protozanov helped in the issue of introduction of salary coefficients of 1.5 and 1.7. Much attention was paid to the employee assistance in the developing areas of oil and gas extraction, to construction of cities to the north of Tyumen. The object of our study initiated higher engineering education in Tyumen region, helped to establish Tyumen Industrial Institute, was personally in charge of the construction of a building for it. With the start of oil and gas extraction Protozanov, deprived of the right for strategic decision-making, managed to include the construction of Surgut hydroelectric power station in the title lists of 1968, and organised the issue of construction of a petrochemical complex before he moved from Tyumen region.

**Key words:** Tyumen region; oil; gas; geology; personality.

P. 120. *Mirkin Vladimir V.* Tomsk State University (Tomsk, Russia). **THE EVOLUTION OF THE SOVIET RADIO-RELAY COMMUNICATION SYSTEMS.** Radio-relay communication is a form of radio communication, implemented through the chain of receiving and transmitting stations, usually separated from each other by the sight of their antennas. Radio-relay communication is used for multi-channel transmission of telephone, telegraph and television signals. According to its technical capabilities, number of transmitted messages, range and stability, radio relay lines did not concede to even coaxial cable lines. In the longer distances, terrain and topography of the country radio relay lines were widely used. They could be built in difficult terrains: mountain areas, taiga, over water obstacles, in deserts, etc. The extensive development of radio-relay communications of direct visibility in the USSR began after the introduction of the production of radio-relay systems R-60/120 and R-600 ("Vesna" ("Spring")). On their basis in 1958–1967 an extensive network of radio-relay links was established that provided a large part of the USSR territory with the Central TV studio programs. Successors of lamp systems R-60/120 and R-600, the first generation of radio-relay equipment, were high-capacity long-haul systems "Druzhba" ("Friendship") and "Voskhod" ("Sunrise"). Being developed in the first phase mainly as a means of delivery of television programs, the network of radio-relay links was more and more used for transmitting the signals of multi-line phones, including all secondary multiplexing (tone telegraph, photo telegraphy, etc.), and transfer of broadcast signals on the combined telephone channels and newspaper texts by the photoelectric method for secondary paths. A qualitatively new stage in the development of radio-relay communication was the development in the mid-1970s of "KURS" ("Course") – a set of unified radio-relay communication systems. The last Soviet development for the trunk radio-relay systems was the establishment of "Raduga" ("Rainbow") set. Radio-relay communications of direct visibility (with the maximum distance of 40 km without repeaters) could provide the connection neither the Far North nor the remote areas of Siberia. Repeater stations required the creation of an infrastructure necessary for life support of the staff. In these circumstances tropospheric (over-the-horizon) communication lines were created with the distances between places of hundreds of kilometers. Tropospheric communication used the effect of radio wave scattering at inhomogeneities (sporadic layers) of the atmosphere. The appearance in the late 1960s – early 1970s of satellite connections and their wide application since the 1980s, and a significant reduction of the cost of building radio-relay communication systems of direct visibility have significantly reduced the area of tropospheric communication use.

**Key words:** technique; radio-relay communication; multichannel communications.

P. 126. *Molkin Maksim A.* Tomsk State University (Tomsk, Russia). **TOMSK STATE UNIVERSITY STUDENTS' LIVING AND EDUCATIONAL PROCESS CONDITIONS DURING THE SOVIET UNION'S GREAT PATRIOTIC WAR.** In the article the author analyzes the living and educational process conditions of students studying at Tomsk State University during the Soviet Union's Great Patriotic War (1941–1945). The War had a dramatic impact on educational process and students' everyday live. In the years of war 400 students were called in field army or voluntary left for the front. The total number of students at the university reduced from 1130 people on the eve of war to 812 by the beginning of 1942/43 academic year. The majority of people leaving to protect the Homeland were young men, so the overwhelming part of the students were girls. The material base changed cardinally, too. Since the very beginning of the Great Patriotic War in 1941 the university's student dormitories, as well as some lecture buildings, were transformed into hospitals for soldiers injured on the battlefields. Nevertheless even in those harsh conditions students continued their education. The author examines the scholarship provision at the university during the war period, despite severe economic situation both at the university and in the country as a whole. Special attention in the research is paid to the situation regarding students' food supply and work of the university's catering establishments. Extremely unsatisfactorily was the provision of students with meals ready to eat,

because their delivery was late, interrupted and quite often of poor quality. In the years of war there was a shortage in providing students with manufactured goods : shoes, linen, outerwear, socks, soap, etc. Some aspects of life and educational process of the disabled war veterans who decided to start or continue their education at Tomsk State University are also covered in the article. Students' biographical data, as well as different university's official documents and personal history records, were analyzed as important facts sources for the research. The documentary base of the research includes a wide complex of sources, such as official documents, students' portfolios, sources of personal origin. Owing to these sources there is an opportunity to track the material living conditions of of Tomsk University students' life in the conditions of wartime. Thus, students of Tomsk University in the years of war were compelled to study in difficult material and living conditions. All this, undoubtedly, affected the educational process. But, despite it, students endured all the hardships of military burdens, combining study with active public work and help to national economy.

**Key words:** students; Tomsk State University; Great Patriotic War.

P. 130. *Solovenko Igor S.* Yurga Institute of Technology of National Research Tomsk Polytechnic University (Yurga, Russia). **ATTITUDES TO KUZBASS MINERS PROTESTS IN THE PERIOD OF TRANSITION TO MARKET ECONOMY (1992–1999).** Miners of Kuznetsk region in the 1990s no longer had the unconditional support of the society as it was in the late Soviet era. Market relations changed public consciousness, increased susceptibility to conflicting views of citizens on social and political processes, including forms and methods of protest. The deteriorating economic situation, increased social differentiation, competition forced people to have a new look at the struggle of miners. In the new conditions of struggle the attitude of the miners to the society changes, too. They start to look for the "points" of mass discontent and express the interests of broad social layers. Meanwhile, the Kremlin's decision of a problem automatically reduced the popularity of miner protests. If in 1992–1998 miners "managed" to find a serious problem in the policy of the state and become a "sign" of the struggle of workers quite easily, in 1999, in strengthening economic and political stability, it was more difficult to do. The peak of public support of Kuzbass miners was in 1998, when the country was paralyzed by the crisis of the system, and Russian President Boris Yeltsin had a low confidence rating of the population. The dynamic spread of radical protests of Kuzbass miners in 1998 shows courage of workers of coal industry. The broad public support for the Kuzbass miners was caused by many factors: frustrating reforms, similar socio-economic situation, appeal of slogans. The protests of Kuzbass miners during the transition to the market also had a negative reaction in the society. This was facilitated by the following factors: 1) the conflicting results of the miners' movement in the years of perestroika, 2) uncertainty in the results of struggle because of the natural character of the protest movement of miners, 3) the severe economic consequences of protests in the crisis of the economy, 4) the difference in living standards between miners and residents of more affluent RF subjects, 5) fear of possible social upheavals, 6) criticism of protests of miners in the government-controlled media. In general, people of Kemerovo region, people of Russia supported miners when they used the "peaceful" protest form. Individual pickets, rallies and strikes, in general, did not have the devastating effect on other segments of the population. But as soon as the region and the country began to shake with massive, lengthy and radical forms of protests of coal industry workers, public opinion immediately changed against them.

**Key words:** transition to market economy; Kuzbass; miners; protests; public opinion.

P. 134. *Turnaev Valeriy I.* Tomsk Polytechnic University (Tomsk, Russia). **HISTORICAL PROCESS OF MODERNIZATION OF RUSSIA AND THE PETERSBURG ACADEMY OF SCIENCE.** The article is about the contribution of Petersburg scientists to the historical process of the Russian society modernization. The Petersburg Academy of Sciences, which in the first decades of its existence mainly had West European, predominantly German, scientists, in post-Peter's time was the engine of public processes in Russia. The western scientists brought not only knowledge, but also samples of the western public life organization. Formed in other social environment, brought up in other public relations, they did not want to accept the rules imposed on them. The claims they put to the Russian government concerned self-government of the Academy and the rights of scientists as foreigners. For twenty years scientists did not give up the attempts to win. The government did not pay attention to the demarches until 1745 when the accumulated discontent led to defiance. The scientists demanded to reform the Academy – give self-government, liquidate bureaucratic institutes, provide employees with social protection, bring academic facilities in accordance with the progress requirements. The program document of the movement, December "Report" of 1745, contained the ideas far advancing that time. Despite the defeat, the Petersburg scientists' movement was, according to the author, a dramatic event in the history of the Russian and European science. It showed to the world an impressive example of fight for civil rights. The ideological banner of fight against the Russian bureaucracy was Peter I's reformatory ideas. In the article features of the historical phenomenon the author named corporate movement of scientists are investigated. Going to Russia, West European scientists did not intend, according to the author, to take part in politics. However, the circumstances they faced, forced them to change life plans and to fight for the social rights. They were not radicals in the modern meaning of this word. Their fight was not consecutive and free from mistakes. However, it is these scientists, the author claims, that should be recognized as the pioneers in democratic traditions of Russia. The fight, started by the Petersburg scientists, covered a wide social field. The Court, the Senate, the capital nobility, Petersburg commoners and foreign scientists were involved in it.

**Key words:** Russian society modernization; the Petersburg Academy of Sciences; corporate movement of scientists.

P. 137. *Kharus Olga A.* Tomsk State University (Tomsk, Russia). **"ORGANIC WORK" UNDER THE CONDITIONS OF JUNE 3 SYSTEM: POLITICAL EXPERIENCE OF THE STATE DUMA'S DEPUTY FROM TOMSK PROVINCE N.V. NEKRASOV.** The article is devoted to the analysis of N.V. Nekrasov's deputy activity in the State Duma. N.V. Nekrasov's political experience allows not only to refine the understanding of his role and place in Russia's public policy in the early 20th century, but also to evaluate a real chance to implement liberal reforms through law-making in the State Duma formed on the basis of the electoral law of June 3, 1907. As a deputy of the Third Duma from the province of Tomsk N.V. Nekrasov began his work with the firm intention to reject the way of "irresponsible opposition" and to strive for improvement of legislation by introducing bills that could actually be passed. N.V. Nekrasov found the tactics of compromise in lawmaking desirable, and clearly defined its limits, but the issues of civil rights and liberties were left beyond these bounds. These tactical concepts were fully embodied in concrete actions and speeches of the deputy as a member of the Duma's committees and the Siberian parliamentary group, and a representative from the faction of the Party of People's Freedom. However, the results of the "organic work" in the Third Duma were modest and did not meet expectations of N.V. Nekrasov. Nevertheless, becoming sure in the inability of the State Duma to make constructive legislative activity, he was not disappointed in the whole idea of parliamentarianism. In an effort to implement the liberal ideal of the people's representatives N.V. Nekrasov focused his

efforts as a member of the Duma of the fourth convocation on upholding the principle of universal suffrage. The symptoms of the increasing oppositional feelings of Tomsk province deputy due to the national crisis in the country resulted in the refusal of the tactics of compromise and cooperation with the leftist factions in the Duma, and appeal to the Kadet Party to move "from the passive defense to offense". The evolution of tactical positions of N.V. Nekrasov - from striving for organic work in the Third Duma to the obvious skepticism regarding its legislative capacity and ability to implement liberal reforms – can be seen as a subjective reflection of the real role of the political institution. All attempts of dialogue and constructive cooperation with the ruling circles, undertaken by the people holding the same views as Tomsk deputy, ended in failure. The authoritarian regime appeared to ignore the compromise solutions of the pressing problems proposed by the Cadets, thereby blocking their reform efforts. In this situation, the State Duma provided some imitation of parliamentarianism, actually far from being its embodiment.

**Key words:** the State Duma; parliamentary tactics; parliamentary activity.

P. 144. *Cherepanov Aleksandr S.* Tomsk State University (Tomsk, Russia), Lesosibirsk Pedagogical Institute, Branch of Siberian Federal University (Lesosibirsk, Russia). **HISTORY AND KABBALAH IN THE CONCEPT OF MICHAEL LAITMAN.** The article is devoted to some aspects of the historical ideas of Michael Laitman. Laitman is not a historian. He is a specialist in Kabbalah. In some of his books and articles he comments on events of the past. In the end, we can talk about an original conception of history. There is egoism, reincarnation and Kabbalah in his historical views. Egoism is desire to receive pleasure. Laitman writes that developing of egoism changes the desire of pleasure. The person has five stages of desire development (bodily desires, wealth, honor and power, knowledge and spiritual desire). Change of desire of pleasure affects the development of culture and civilization. Thus, egoism is the causality of historical development. On the one hand, egoism creates social conflicts, for example, wars and terrorism. On the other hand, egoism stimulates technological and intellectual development. So, desire of pleasure motivates people to change the world and create new benefits. Thus, all that is created in the world is merely the change of desire to receive pleasure. The modern time is time of a global crisis in the opinion of Michael Laitman. He warns about danger, for example, world war. An alternative to war is spiritual development. People should understand that egoism is defect. They should begin to correct their nature. So, Laitman asks the question of what the purpose of history is. History has moral and mystical purposes. People should correct their egoistic nature and begin spiritual development. Laitman writes that souls return to this world over many lifetimes, until the moment when a person fulfills their task. This process reminds the Hindu idea of reincarnation. Kabbalah is spiritual knowledge; it is a method to study universe and improve the person. Kabbalah takes an important place in the history of peoples. Its origins are rooted in deep antiquity, from the time of ancient Babylon. People who study Kabbalah are called Kabbalists. Kabbalists experienced a crisis two thousand years ago. As a result of this crisis Jews were scattered among other peoples, Kabbalah became a secret doctrine. At the same period modern Judaism and some mysticisms doctrines were formed. Despite of the crisis Kabbalists continued their history. Later Kabbalah and Kabbalists had influence on the history of Europe and the Near East, for example, freemasonry or Hasidism. Historical ideas of Michael Laitman contain some contradictions, for example, the problem of genesis of Kabbalah, the problem of authorship of the book "Zohar", etc.

**Key words:** Laitman; Kabbalah; historical views.

## PSYCHOLOGY AND PEDAGOGICS

P. 148. *Guzhov Fyodor A., Lozhkina Maria B., Kapilevich Leonid V.* Tomsk Polytechnic University (Tomsk, Russia), Tomsk State University (Tomsk, Russia). **CAUSED POTENTIALS OF BRAIN OF MARTIAL ARTISTS (BY EXAMPLE OF SPORTS KARATE).** Characteristics of the caused potentials of the brain of martial artists (by example of sports karate) depending on sports qualification are studied. The object of the research were 30 men aged 18-23 (the average age was  $19.8 \pm 2.83$ ); they were divided into two groups. The group of low qualification had 15 athletes training in this specialization for less than a year, not having adult sports categories. The group of high qualification included 15 athletes engaged in chosen specialization for over three years and having sports qualification of the master of sports or candidates for the master of sports. Registration of the visual caused potentials (VCP) and the somatosensory caused potentials (SSCP) was made by means of the device "Neuro-MVP-Micro". It is shown that in the course of sports improvement martial artists have a decrease in the latent period and an increase in VCP. There is also a decrease in the latent periods and amplitudes of SSCP of the brain in the occipital area. These changes are better expressed in the components reflecting early approach of primary cortical activation of the somatosensory zone. The results suggest that in the process of training in combat there are changes in the nervous system, manifested primarily in reducing the latency of SSCP, resulting in activation of the primary somatosensory cortical areas much earlier. According to it highly skilled martial artists show that the speed of the analysis of sensory information is increased. Decrease in the latent period of VCP testifies to faster course of processes of transfer and incentive processing of martial artists. It is possible to assume that thus there is a creation of new temporary connections in the cerebral cortex that leads to improvement of all motive coordination. Another important indicator of development of sports skill in combat sport is reaction time. The time of response to an irritant of athletes decreases with skill growth. Reduction of the latent period of VCP testifies to reduction of the number of synaptic contacts, and increase in amplitude of VCP – to synchronization of work of ensembles of neurons, which leads to activation of cortical processes, and, therefore, to emergence of the new temporary connections, fuller analysis and irritant recognition, increase in speed of response to irritation.

**Key words:** sports karate; visual and somatosensory caused potentials.

P. 152. *Zagrevsky Vyacheslav O.* Tomsk State University (Tomsk, Russia). **STRUCTURE OF GYMNASTIC EXERCISES.** In the article the stage-phase approach to the analysis of the structure of gymnastic exercises is described. Specialists involved in studying engineering of sports exercises often turn to the stage-phase construction of the structure in biomechanical analysis, which allows to identify those phases of the holistic motor actions that need to be taught first. By example of the standard classification of the structure of gymnastic exercises we show the role of the stages and phases in the context of the pedagogical tasks undertaken by an athlete at each stage. The author considers the structure of gymnastic exercises basing on the works of N.A. Kurerova, N.G. Suchilina, Yu.K. Gaverdovsky, gives examples of motor tasks athletes have at each stage. Structural division of sports exercises by phase composition allows to emphasize in the motor action control movements that realize the flexion-extension motion in the joints, and propose a specific method of teaching an exercise, or a group of gymnastic exercises. Since teaching gymnastic exercises is not standardized, in each case the coach and the trainee should have a clear idea of the nature of cause and effect in motion, which is

determined when analyzing stage-phase structures of gymnastic exercises. Stages preceding the main one play an important role in the teaching process, as their technically correct execution results in a perfect performance of exercises and the ability to perform them at all. On the model of the gymnastic exercise Tkachev salto on the bar we analyze its structure with allocation of periods, stages and phases of actions-movements. The exercise includes three periods: 1) supported, 2) unsupported, and 3) supported. Further subdivisions are presented in stages. In our study these are: the preparatory phase, the main stage, the implementation, the concluding stage. In accordance with the scheme of allocation of the structure of exercises by their biomechanical component, Tkachev salto is subdivided in the first supported period on the phases: action phase "Handstand", action phase "Travelling upwards", phase action phase "Throw", phase action phase "Counter tempo". The second period (unsupported) has the phase "Flight" and the third (supported) – the phase "Regrasp". Analysis of the composition and functional properties of each phase of the supported period of Tkachev salto allows to build a rational methodology for training this complex exercise.

**Key words:** stage; action phase; motor action; structure of sports exercises.

P. 156. *Kosova Vera V.* N.F. Katanov Khakass State University (Abakan, Russia). **RESEARCH OF FORM CREATION EFFECTIVENESS IN THE EXTRACURRICULAR WORK AT SCHOOL.** The intensive school education reform urges to improve effectiveness in both the teaching-educational process on the whole and extracurricular activities (one of its important constituents) in the pedagogically appropriate forms. That is why our research is up to date and important. We made a research on the problem of *pedagogical form*. The analysis of the theoretical literature let us come to the conclusion that the pedagogical form is being discussed among many scientists and school books authors, but they still have not come to the consensus. Our understanding and definition of the pedagogical form is given in the context of the pedagogical mutual activity. We consider the pedagogical form as the means of functions distribution among the participants of mutual activity (G.N. Prozumentova). We discuss the question of the pedagogical form formation. General genesis of the conditions of their formation in the out-of-class space is presented in the domestic scholars' manuscripts and papers. G.N. Prozumentova thinks that if the forms creation is analyzed in the pedagogical practice during the process of goal formation, then the subject's goals of this practice, their definition, retrieval and production cause the form to appear. We researched the process of creation, implementation and development of pedagogical forms in the extracurricular educational school space in Sayanogorsk. Practice shows that this process goes most effectively in "free zones", which appear in the extracurricular space of a school, and subjective views are developed by both teachers and pupils as they are subjects of mutual activity. At the first stage of our research we conducted some problem stating workshops with the teachers of different categories, where we discussed and analyzed school educational practice in the town, and set the problems. We analyzed different pedagogical practices for changing the quality and forms of extracurricular work. Then we tried and approved such a form of the extracurricular work as camps where teachers could use the form of the collective creative work with pupils (CCW). It is an unusual extracurricular work model for the town – the model of mutual activity. The second stage of our experiment carried out in the camps showed multirole and polyfunctional character of compatibility: the change of the forms of interaction - from teacher-pupil cooperation according to the type "director-subordinate" to the type "partner-partner". During the experiment we defined and phrased the indexes which we used to measure the form creation effectiveness. We think that the result of our experiment is the change of the teachers' professional conception about the pedagogical form, which demonstrates the development of teachers' pedagogical thinking culture. We stated that the process of form formation influences the change in the quality of goals carried out by teachers during the extracurricular work. The hypothesis that the participation in the pedagogical form creation assists the subjective child's attitude coming into being is proved. The analysis of the empiric data lets us state that the immediate participation in the new forms creation "educates" pupils as fully functioning subjects of the mutual work. This is one of the strategic lines in the organization of the educational process in a modern school.

**Key words:** pedagogical form; shaping; mutual activity; subjectivity.

P. 163. *Krutolevich Anna N.* Gomel Engineering Institute of the Ministry for Emergency Situations of the Republic of Belarus (Gomel, Belarus). **FUNCTIONAL LEVEL OF MENTAL AND PHYSICAL HEALTH OF RESCUE WORKERS.** The study led to the conclusion that the prevalence of secondary traumatization of rescue workers at the time of the study was 13.1%, of which 7.7% in line with mild to moderate form of the disorder, 5.4% - strongly. 11.9% of the respondents have alcohol abuse, whereas 49.4% of the respondents do sports exercises 5 times a week for at least 30 minutes a day. There was no significant difference between the two groups (firefighters and medical workers) with respect to sports ( $U = 2612.000$ ,  $p = 0.086$ ) or alcohol abuse ( $U = 3021.500$ ,  $p = 0.874$ ) according to the statistical method Mann-Whitney. The functional level of physical and mental health of medical workers is much lower than that of firefighters. The difference between the two groups in the health assessment is statistically significant, confirmed by the results of the statistical method Mann-Whitney. Thus, with respect to the criterion of "physical health" indicator  $U = 2405.5$  at  $p = 0.028$  with respect to the criterion of "mental health" indicator  $U = 2141.5$  at  $p = 0.002$ . It is important to note the fact that those who do sports exercises at least 5 times a week for half an hour, assess physical condition as well as mental health significantly higher than those who are not engaged in regular exercise. The level of health of those who play sports was  $M_{phys.} = 51.05$  ( $S = 6.55$ ), and  $M_{ment.} = 48.50$  ( $S = 10.20$ ), of those who are not engaged in regular exercise  $M_{phys.} = 48.43$  ( $S = 8.16$ ), and  $M_{ment.} = 45.19$  ( $S = 10.12$ ). It is interesting that those who abuse alcohol, assess the state of their mental health and physical health significantly lower. The level of health of those who abuse alcohol was  $M_{phys.} = 45.27$  ( $S = 9.83$ ), and  $M_{ment.} = 43.10$  ( $S = 10.88$ ), and of those who do not abuse alcohol  $M_{phys.} = 50.33$  ( $S = 6.96$ ), and  $M_{ment.} = 47.33$  ( $S = 10.11$ ). The study found no statistically significant relationship between the level of mental and physical health and level of education, marital status, presence of children, living conditions. The results of the correlation analysis suggest the following: age and length of service time significantly affect the functional level of mental and physical health of rescue workers. The correlation coefficient for the two factors in relation to the physical and mental health is negative. The presence of post-traumatic stress disorder leads to poor mental health workers extreme services. The relationship between mental health of rescue workers and the secondary traumatization indicates the correlation coefficient of  $- .34$ .

**Key words:** rescue workers; level of physical health; level of mental health; physical activity; alcohol abuse; prevalence of secondary traumatization.

P. 167. *Sherin Vladimir S.* Tomsk State University (Tomsk, Russia). **BASIC PRINCIPLES OF PREPARATION AND TRAINING TECHNOLOGY IN GYMNASTICS.** The notion of technology has recently become fashionable and, unfortunately, is not always used for its designated purpose. It is used in three meanings: as a synonym of the notion "methods" or form of education organization; as a set of all methods used in concrete pedagogical system of means and forms. In reality we have technologies in the form of a teaching

technique; as a set and sequence of methods, methodical receptions and processes allowing to receive a product with the set quality. Possession of technology relieves teachers to search methods of training by "tests and mistakes" because it gives a clear idea of how to turn inexact and incomplete knowledge into the strictly scientific one. In gymnastics it is possible to reach good results on the international arena adhering only to accurately over thought and approved technology of training. The modern technology of gymnasts' preparation represents a rigid sequence of carefully over thought, approved and strictly regulated operations, which allow to get step by step the difficult from the simple, and the most difficult from the difficult. The modern technology of integrated preparation of the national team of Russian gymnasts provides development and use of the following target perspective and predictive models: the model of victorious team; the model of all-round champion; the model of a champion on gymnastics apparatus; individual models. Now the technology of training in gymnastic exercises has a conventional algorithm: 1) acquaintance with the trained exercise, reconstruction of an overall picture of motive action, its structure and sequence from initial to final body position (demonstration, video reproduction), rather full information on the main errors of execution; 2) skill activity using a dismembered-constructive or a complete method depending on group of difficulty of the studied gymnastic element and also with the use of preparatory and lead-up exercises; 3) reinforcement and improvement of execution of exercise techniques. Nowadays, many trainers-teachers, preparing and training qualified gymnasts in exercises of progressing complexity experience difficulties: what to teach and how to teach. It slows down the process of preparation and complicates competitiveness of the Russian gymnasts on the international arena. Therefore to optimize the process of gymnasts preparation and training it is necessary to use a technology, which is scientifically reasonable and exact in the content. At the heart of its contents there has to be a certain circle of the lead-up and preparatory exercises adequate to the studied exercises. It is obvious that the larger the circle of such exercises the trainer has, the more effectively the training process will proceed. In this regard the prospect of our research is to analyze the content of technological systems of gymnastic exercises training of various structural groups.

**Key words:** technology of teaching; technology of preparation; methods; gymnastic exercises; system of preparation.

P. 170. *Shchelin Igor V.* Tomsk State University (Tomsk, Russia). **MICROSOCIAL FACTORS AS DETERMINANTS OF NON-TRADITIONAL SEXUAL ORIENTATION OF YOUNG MALES.** At present time the shift of gender roles – the feminization of men and women – touches upon the global issues of organization of the modern society and the relationship between sexes. There is no common reason for homosexuality, so there is a debate about male homosexuality origin between proponents of innateness and heritability of this sexual orientation and proponents of its acquisition during the life. One of the microsocial determinants of orientation, in our opinion, may be characteristics of the child-parent relationships in family. Thereupon there was a research concentrated on the analysis of the impact of microsocial factors, such as characteristics of the child-parent relationships on formation of non-traditional sexual orientation (NSO) of young people. There was an empirical study in Kemerovo and Tomsk (the project LaSky Kemerovo, Tomsk). The researcher sets forth the goal of study and its process, it was confidential. 30 men aged between 16 and 32, who have non-traditional sexual orientation, have taken part in it. The test of T. Leary "Behavior of parents and attitude of teenagers to them" was used for the collection of the empirical data. The questionnaire-interview was used to study the mother's image and father's image and opinion about non-traditional sexual orientation. 13 open questions were given. The results were processed by means of content-analysis. Mathematical data processing of psychological diagnosing was carried out by means of correlation analysis with using U-criterion of Mann-Whitney. According to the goals of the research the categories of content-analysis revealed relevant topics. In the answers there was a positive attitude to NSO and positive relation to mother in comparison with relation to father. The young people have suspiciousness and subordination that may be connected with the situation of a long conflict and lack of self-confidence. Mother's image in perception of the respondents was more directive than the father's. The research of interconnection of NSO and the results of "attitude to mother" and "attitude to father" made it possible to surmise that NSO is connected with the positive attitude to mother and aggression of father. Results of this empirical study enable to conjecture that some microsocial factors such as relations in the family may be determinants of non-traditional sexual orientation of young males, along with other factors.

**Key words:** non-traditional sexual orientation; child-parent relationships.

## SCIENCES ABOUT EARTH

P. 173. *Barashkova Nadezhda K., Kuzhevskaya Irina V., Poliakov Denis V.* Tomsk State University (Tomsk, Russia). **WEATHER ANOMALY IN TOMSK REGION DURING SUMMER 2012 AS A REFLECTION OF THE CURRENT GLOBAL CLIMATE.** According to the data weather center in Tomsk anomalous heat waves were observed in the period from May 30 to August 2, which does not have analogues over the past 60 years in Tomsk region. Information on meteorological conditions is presented. These conditions formed weather anomaly in Tomsk region during the summer of 2012. The character of losses incurred by region's economy is described. Many industries had damages from the heat waves, such as river transport, fisheries and forestry. Throughout the territory region there were forest and peat fires. The most difficult situation was in rural areas such as Verkhneketskiy, Teguldetskiy and Kargasok areas. During the period of emergency there were registered 518 forest fires in the area over 1000 km<sup>2</sup>. During the period from June to August forest fires in the area and neighboring regions formed high level of air pollution by combustion products. Satellite photos show the smoke which extends to villages and the city of Tomsk. Smoke was accompanied by a decrease visibility and deteriorating air quality. Analysis of daily data of air temperature, precipitation and Selyaninov's coefficient allowed to classify the weather conditions taking into account heat and moisture. In summer 2012 the average Selyaninov's coefficient was the smallest in Tomsk region in the last 50 years. Thus, the considered conditions can be characterized as a season of drought of mean intensity. The closest to 2012 by hydrothermal conditions was a drought of low intensity in 1981 and 1999 – the mode of insufficient moisture. The weather conditions accelerated the emergence of a large population of insect pests, by mid-July damage to the plants was noted at 50% of the area. The actual contribution of adverse agrometeorological conditions of this period in shortage of harvest crops was at least 50%. Analysis of meteorological conditions and synoptic situation showed that the extreme mode of summer 2012 in Tomsk region is the occasional combination of adverse weather conditions and their duration. In the next few years repeating the described conditions in Russia is expected with high probability. It confirms the presence of a ratio between the increasing blocking and activation of the solar activity. The drought is an essential part of the climate in Tomsk region. For constructing effective predictors for seasonal forecast of abnormal weather conditions in the south of Western Siberia to continue such kind of the research is needed. Agricultural companies in

Tomsk region must concern more responsibly to official long-term weather forecast, and the regional weather center must give quality information to these weather forecasts.

**Key words:** anomalous hot weather; drought.

P. 180. *Makarenko Nicolay A., Arkhipov Aleksandr L., Parnachev Valeriy P.* Tomsk State University (Tomsk, Russia). **SOME PROBLEMS OF NAPHTHIDES GENESIS IN SOKHOCHUL LOCALITY (KHAKASSIA REPUBLIC).** Problematic aspects of the genesis of the naphthides manifestation in Sokhochul locality in the vicinity of the village Shira (Khakassia) are considered in the article. This object is the subject of a detailed study by many researchers in terms of organogenic, magmatic and man-made genetic concepts. Most geologists postulate the natural character of liquid bitumen arising due to repeated penetration of deep juvenile oil through fractures in basalts. Spatial contingency of naphthides with Devonian volcanic and sedimentary rocks, in their opinion, enhances greatly the prospects of finding hydrocarbon deposits in the Paleozoic, not only of Khakassia, but also of neighboring areas (analogue method). In contrast to this view, we have proposed an alternative model of the Sokhochul manifestation due to a single man-made flood of the used motor oil. This opinion is confirmed by both geological and geochemical characteristics of the object. So, bitumen "hat" retains its original size till now (ninety square meters), which contradicts the assertion of the multiple entry of natural oil from the depth for a long time. There are no signs of liquid oil through the fractures along the crush zones. Bitumen impregnates the soil only, underlying basalts are "clean", melt and rain water does not contain iridescent films, basalt samples do not give a glow in the ultraviolet light. The chemical composition of hydrocarbon fluids, consisting of almost 100% of naphthenic hydrocarbons, has no analogues among the natural oils. The concentrations of trace elements in the asphaltenes from the maltha of Sokhochul almost always exceed by far the values of the global geochemical background, and often go beyond the maximum possible contents of trace elements in naphthides in Russia, to the appearance of hurricane values for Ba, Pb, Fe and Mn. The above mentioned individual geochemical features of naphthides from the Sokhochul locality are also quite understandable from the standpoint of ideas developed by us. Thus, the dominant content of naphthenic hydrocarbons in the hydrocarbon fluid may be due to "the bleeding" of light fractions (distillates) from the sealing of the man-made "hat". These emanations are secondary and have no relation to the primary (deep) oil. Hurricane Ba concentration (2.6 kg/t) is due to the use of Ba sulphonates with high mass fraction of that element in the detergent-dispersant additives for engine oils. Anomalous Pb (2.8 kg/t) and Mn (0.3 kg/t) contents are the result of the interaction of engine oils with the products of combustion of fuels, containing compounds of these metals. Iron oxides can also build up due to pollution of waste oils by secondary extraneous impurities.

**Key words:** Sokhochul; bitumen "hat"; man-made oils; trace elements; concentration ratios.

P. 184. *Mongush Andrey A., Terleev Alexandr A., Tokarev Dmitriy A., Druzhkova Yevgeniya K.* Tuvian Institute for the Exploration of Natural Resources SB RAS (Kyzyl, Russia), A.A. Trofimuk Institute of Petroleum Geology and Geophysics SB RAS (Novosibirsk, Russia). **GRANITOIDS AND LIMESTONES FROM CONGLOMERATES OF FORARC OF TANNU-OLA – HAMSARA ISLAND ARC SYSTEM (TUVA): GEOCHEMISTRY, PALEONTOLOGY, CORRELATION.** Primary lateral connection of preaccretionary, particularly island-arc structures are commonly faulted by postaccretionary tectonics in the mosaic-block structure of the Central Asian fold belt. Tannu-Ola–Khamsara island-arc system is marked out as one of the largest island-arc structures of the Central Asian fold belt, this is a large fragment island arc–back-arc basin system that existed in Paleo-Asian Ocean at Vendian–beginning of Early Cambrian. Tannu-Ola–Khamsara island-arc system has a north-eastern strike, its length is about 550 km, its width is about 300 km, it contacts with turbidites of Western Sayan on the north-west, with metamorphites of Sangilen on the south-east. Obtained geochemical data indicate the fact of zone inclination of paleo-subduction in direction from Ondum to Tannu-Ola subzone of Tannu-Ola–Khamsara island-arc zone. The study of clust composition of magmatic and carbonate rocks from Low Cambrian conglomerates of Bayankol suite and their correlation with magmatic and carbonate rocks from island-arc complexes of Ondum subzone of Tannu-Ola–Khamsara zone was carried out by other free investigate methods for the purpose of confirmation of Ondum subzone frontal position. Bayankol suite was accumulating in the middle of Early Cambrian in the forarc basin, which apparently links to the geomorphological island-arc structure of Tannu-Ola–Khamsara island-arc system folded by volcanics of Late Vendian–Early Cambrian volcanic-plutonic series of significantly acidic composition. Island-arc zone uplift was fixed by the middle of Early Cambrian whereby plutonic rocks of noted volcanic-plutonic series lifted in an erosion level, disintegration of which has led to crust appearance in Bayankol suite conglomerates. It proves by correlation of geochemical and paleontological data on granitoid and carbonate rocks from conglomerate clusts of Bayankol suite and island-arc complexes of Ondum subzone Tannu-Ola–Khamsara island-arc zone. Ondum and Tannu-Ola subzones are one segment of island-arc area, thereby island-arc structures of Tannu-Ola subzone locate in backarc of Ondum subzone. Uplift process of island-arc zone is confirmed by stratigraphic break of Low Cambrian Ilchir suite formation and formational breaks of suite of analogue formation. A scheme of structural-formational zoning of caledonides of Tannu-Ola–Khamsara island-arc system is carried out.

**Key words:** conglomerates; provenance; microphytolithes.

P. 193. *Ruban Dmitriy A.* Southern Federal University (Rostov-on-Don, Russia). **CONCEPTUAL ANALYSIS OF DIVERSITY OF THE GEOLOGICAL HERITAGE OBJECTS BELONGING TO THE MAGMATIC TYPE.** Geoconservation, which is aimed at sustainable use of the geological heritage at global, national, regional, and local levels, is one of the main direction of nature conservation practice both in the whole world and in Russia. In its most general treatment, geodiversity can be understood as a quantity of types of geological heritage objects. It should be specially noted, however, that many sub-types can be distinguished within each type of the geological heritage. Two classes can be established among the geological heritage objects belonging to the magmatic type. The first of them include geological monuments (in situ objects), namely the outcrops (natural and artificial) of magmatic rocks and volcanic phenomena. Ex situ objects can be outlined logically as the second class, and they include samples from museum collections, magmatic rocks used for architectural purposes and construction, and also art objects produced or designed with such rocks. The diversity of objects of the both classes is determined by the composition of rocks they expose. But in such a case, it is linked strongly to the employed classifications of magmatic formations. Additionally, the geological heritage objects of the first class differs by which bodies are exhibited in them. Two approaches for characteristics of geological bodies should be noted here. The first approach is based on the establishment of intrusive bodies (batholiths, laccoliths, etc.), hypabyssal bodies (dikes), and effusive bodies (e.g., sheets) by structural-geological considerations. Such bodies can be classified in more details, i.e., with a definition of such specific units as intrusive dome and so on. The second approach is based, on the one hand, on the lithodem stratigraphy, and, on the other hand, it is based on

available nomenclature of layered intrusions. The above-mentioned bodies, irrespectively of how they are established, can coincide with complex massives as a result. Moreover, the appearance of such bodies in the geological monuments can differ significantly, which, particularly, depends on the hierarchical level of analysis of a given formation. To understand better the diversity of the geological heritage objects belonging to the magmatic type, their distinction by such criteria as rock composition, morphology of geological bodies, textural and structural peculiarities, facies and natural assemblages of rocks and bodies, tectonic and palaeotectonic position of massives, etc. is significant. Moreover, attention should be paid to the coincidence of magmatic and other types, as well as to the historical-cultural and archaeological values of magmatic formations. The analysis of diversity of the geological heritage objects belonging to the magmatic type is important for correct evaluation of their uniqueness (rarity) and development of optimal strategies for geoconservation and geotourism activities within a given territory. This paper emphasizes on the Dakh Crystalline Massif, which is situated in the Northwestern Caucasus, which is a characteristic example of the geological heritage object belonging to the magmatic type, and it also permits to discuss many questions linked to the diversity of such objects.

**Key words:** geoconservation; Dakh Crystalline Massif; historical-cultural heritage; lithodems; magmatic rocks; magmatic bodies; geological heritage objects.

P. 197. *Surkov Vitaliy V.* Lomonosov Moscow State University (Moscow, Russia). **LAYERING OF NATURAL TERRITORIAL COMPLEXES IN RIVER FLOODPLAINS AS A FUNCTION OF CHANNEL AND HYDROLOGICAL PROCESSES.**

Layering of the morphological structure of the floodplain landscape is determined by the weakening of the influence of fluvial factors and the increasing role of non-fluvial factors with distance from the river and with the floodplain height rise. Tier is the high-rise floor of the floodplain landscape structure, the morphology of which is due to the kind of horizontal and vertical channel deformations prevailing during its formation, and the uniformity of the natural territorial complexes and its components (primarily vegetation, as most mobile) is provided by the stability of the hydrological regime. Layering is the basis of the traditional division of the floodplain into low, medium and high levels, but usually on the floodplains of large rivers there can be traced from 5 to 7–10 tiers. It is expressed on the streams at facies grade, and tiered location of the natural complexes is visible on the slopes of the valley. At the medium river floodplains tiers are formed from stows, on large river floodplains - the complex stows and even localities. The increase in discharge of the river increases the amount of layering options in its floodplain. For stream floodplains can only be one or two options, on the floodplains of large rivers there are 15–20 and more options, for the forest, meadow complexes, for the complexes of the manes, troughs, other elements of the floodplain relief. On step floodplains incising rivers layering of the natural complexes is expressed better than on the flat and banked floodplains with dominated accumulation. At the 12-meter high-rise Yenisei floodplain interval tier reaches 2.5 m, at the 5-meter Ob floodplain below the confluence of the Biya and Katun rivers – 1.5 m. On the accumulation river floodplains tier high-rise intervals rarely exceed 0.5 m, which blurs the boundaries of tiers, and reduces their quantity. On a very wide flat floodplains layering is replaced by a horizontal differentiation of the natural territorial complexes, since the duration of flooding depends not only on the height above the water level, but also on the ability to access water for one or another array. The tier clarity is determined by the regular flooding. Layering step floodplains is always the same type (direct): from primary, weak turf-covered by pioneer sedges and grasses bed forms and young shrub floodplains lower tiers to mature high arrays with the forest and meadow vegetation and to the zonal complexes on terraces and non-flooded areas. Layering on the accumulating rivers floodplains is more complicated. Here are two common types – for riverbed complexes and for hydromorphic complexes in the interior part of the floodplain. The latter is characterized by the proliferation of peaty marsh complexes at low levels, meadow-shrub and forest complexes – in the higher. In exceptional cases, if the channel is above the banked alluvial plain, we can see the reverse layering – riverbank floodplain systems, located on levees, can be positioned hypsometrically above close to the zonal complexes on its main rarely flooded surface. This situation is typical for the floodplains of the Amu Darya in the foothills, the Yellow River within the North China Plain.

**Key words:** floodplains; floodplain landscapes; landscape structure.