

SUMMARIES OF THE ARTICLES IN ENGLISH

PHILOLOGY

P. 7. *Alyokhina Nina M.* Tomsk State University (Tomsk, Russia). **TRANSLATIONS OF INNOKENTY ANNENSKY IN CONTEXT OF HIS COLLECTION "QUIET SONGS"**. The connection of the first Innokenty Fyodorovich Annensky's book of poems "Quiet Songs" (1904) and its appendix, collected translations "Parnassians and Poètes Maudits", is a new unit in the study of Innokenty Annensky's works. The purpose of this article is to consider the book of his poems, "Quiet Songs", and its appendix as a single whole. Exploring the architecture of "Quiet Songs", we face a number of issues which have not been answered. Would Annensky put such a number of translations in the book published for his own money if they were not somehow important? In our view, the analysed appendix is an equal part of the collection "Quiet Songs". It is connected to the original works with ties-forming components: first of all, the space of one book and the common epigraph. The epigraph in combination with the pseudonym Nik. T-o impels us to voice the idea of the motif of search as the sense-line of "Quiet Songs". Annensky creates a dialogue between the original lyrics and translations, he distributes the basic senses of "Quiet Songs" between two sides. The main theme of the collection and its appendix is the search for the dialogue between the earthly and the heavenly, as well as movement of the poet to the poetic perfection. Appendix "Parnassians and Poètes Maudits" is opened by the poem "Ideal". The title work, the translation of S. Prudhomme, represents Annensky's fundamental opposition of "high – low" or "ideal – earthly", where the earth is a "pale field". The named translation is interesting in another aspect. In the original collection we find a poem which is entitled the same as the translation of S. Prudhomme – "Ideal". In this poem Annensky allows the reader to think about the other side of search, about the way to knowledge which takes place in the library room when reading books. Translations in the context of the collection "Quiet Songs" help to extend and to complement the author's ideas, to show possible large-scale branching of poetic thoughts concerning a range of issues, problems and ideas. The creativity concept in Annensky's poetry tells that life and the world in the art and, in particular, in the poetry is a universal space where the poet takes an issue already existent or specified by someone. The reason is that images, ideas, important poetic questions were once created, announced, developed, because "creations of poetry are projected into the endlessness". The above-mentioned conception allows us to suggest the connection between "Quiet Songs" and the collection "Parnassians and Poètes Maudits" in the context of the idea of universal connectivity and complementarity of poetic images exists. Raising a number of questions in the original poems, in the translations Annensky shows the reader other aspects of the poetic problem he raised, which, as pieces of glass in a kaleidoscope, form an overall picture of the endlessness poetic investigation. In the genre range of the two collections sonnet and ballad forms have special importance.

Key words: poetic translation; French Symbolism; theory of poetic image; I.F. Annensky.

P. 12. *Maryin Dmitriy V.* Altai State University (Barnaul, Russia). **WORKING NOTES OF V.M. SHUKSHIN: PRAGMATIC STATUS OF STATEMENT**. The working notes of a famous Russian writer and film director V.M. Shukshin relate to that part of the artistic heritage of the writer, that has been studied the least. So far there is no complete set of Shukshin's working notes, virtually no complex research devoted to them. However, the current level of development of Shukshin's studies search for a deeper view on the questions of origin and textology of the working notes, their genre identity, features of language and poetics, kind of influence on the literary works of Shukshin, etc., which essentially requires the comprehensive philological analysis of texts of the working notes. In this article the author turns to one of the main problems that researcher of Shukshin's working notes inevitably faces – the question of the pragmatic status of statements that can be viewed as the first step in determining the essence of the genre of working notes. Nowadays there is no agreement among researchers regarding the essence of the genre of working notes. The first publishers of the working notes – L. Anninsky and L. Fedoseeva-Shukshina – did not view them as works of art. Also these researchers introduced into scientific usage the term "working notes" as a special name for a certain part of the manuscript creative heritage of Shukshin. Some modern researchers as P. Glushakov tend to see working notes not only as works of art, but even as a single coherent text. In order to resolve this contradiction, the author of the article examines in detail the genre nature of Shukshin's working notes. In practice, working notes are extremely diverse in terms of the genre: they include records of creative and uncreative character, diary entries, aphorisms, quotations from literary works of other writers, some of the poems and oral statements of V.M. Shukshin. The analysis of the pragmatic status of statement of V.M. Shukshin's working notes (according to the model by famous French literary theorist J.-M. Schaeffer) showed that the traditionally used nomination ("working notes") does not reflect the whole specific of texts designated to this genre. Working notes differ in a number of genre factors (status of the statement, saying the status, the status of addressing communication with different illocutionary acts, etc.) and do not form a unity. Although each single working note is a text on its own, the whole body of the working notes did not form any kind of a text. Finally the author comes to conclusions: 1) the working notes of V.M. Shukshin are a combination of texts with heterogeneous pragmatic status, which prevents their integration within a non-fiction genre with the nomination "working notes" or writer's "notebook"; 2) in the future it is necessary to conduct a comprehensive analysis of the texts of the genre of working notes to clearly define their genre status.

Key words: Russian literature of 20 century; V.M. Shukshin; non-fiction genres; working notes.

P. 17. *Syskina Anna A.* Tomsk State University, Tomsk Polytechnic University (Tomsk, Russia). **V. VLADIMIROV'S TRANSLATION OF CHARLOTTE BRONTE'S JANE EYRE (1893): METHOD AND GENRE TRANSFORMATION**. The article is devoted to the modifications of the artistic method and genre of Charlotte Bronte's novel *Jane Eyre* in the translation of V.D. Vladimirov. This novel was published in 1847 in Great Britain in the Smith and Elder Publishing House and was received with great curiosity. It may be attributed to the mysteriousness of Currer Bell (Carrer Bell, Correr Bell, Cerrer Bell in the translation of Russian critics), who was known to be the author of *Jane Eyre*. The reception of Currer Bell in Russia was similar: people who knew English read the original version and admired it. Irinarkh Vvedensky was the first translator, he published it under the title *Jenny Eyre* in 1849 in the section Slovestnost of the journal *Otechestvennye zapisky* ('Notes of the Fatherland'). I. Vvedensky transformed greatly the poetics of the original novel adapting it to the specificity of Russian natural school of the 1840s. In the course of time his translation did

not conform to the needs of Russian literature that led to appearance of new translations of the novel. In 1857 in St. Petersburg A.F. Smirdin Publishing House Sofya Koshlakova, a teacher and philologist, published her *Jenny Eyre; ili, zapisky guvernantky* which was translated from the loose French translation *Jane Eyre. Mémoires d'une gouvernante*. Appealing to French text-mediator, abridged greatly in comparison with the original novel and performed as the trivial love-story novel, did not allow the translator to create a real new version of the novel. It is also worthy to mention a curious drama rewriting of *Jane Eyre* by Charlotte Birch-Pfeifer in 1889. At this time in 1893 St. Petersburg M.M. Lederle Publishing House published a new full translation of the novel by V.D. Vladimirov. Vladimirov is the pseudonym of Vladimir Dmitrievich Volfson, a biologist, hygienist, critic, translator of philosophical papers and belles-lettres. In addition V. D. Volfson wrote historical novels, tales and stories. The translation of V.D. Vladimirov was well received by the critics. It includes 590 pages and is divided by the translator into 2 parts, though the original text consists of 38 successive chapters. Vladimirov apparently appealed to the translation of Irinarkh Vvedensky and was influenced by it, but despite this fact he made his translation closer to the original text. He fitted his translation to the genre of mature psychological realism and balanced it between the traditions of the Victorian autobiographical novel and the Russian educational one. The features of subjectivity and originally romantic emotional excess were smoothed over by the translator, but the general centripetal structure of the novel was saved. The psychological image of *Jane Eyre* was transformed as well, it became strongly motivated.

Key words: *Jane Eyre*; poetics; translation; artistic method; romanticism; Victorian realism; late Russian realism; genre; novel.

P. 21. *Trizno Oksana A.* Tomsk State University (Tomsk, Russia). **ELEMENTS OF CARNIVAL AESTHETICS IN "LETTERS FROM FRANCE" BY D.I. FONVIZIN.** Despite a regular usage of laughter principle in "Letters from France" by D.I. Fonvizin combined with strongly emphasized hostility to France and the French, the text is far from satirical sketches. Laughter in "Letters" is rather close to carnival laughter which is ambivalent in its nature. It denounces and "slaughters", and at the same time laughter renews and revives. The evident traces of carnival aesthetics in the text of "Letters" prove it. Among these may be mentioned semantic vibration of the events and impressions between the sacred and the profane, between the high and the low, which in the carnival was a means of expression of "the pathos of change and renewal". Another distinguishing feature of the "Letters" is the too laid-back and almost cheeky tone in describing the events, which corresponds exactly to the familiarity of carnival communication between people, which is alien to any hierarchy. Finally, quite sharp and sarcastic, often to tactlessness, a form of expression of their position in the evaluating of the French reality in their function in the text is comparable to invectives to the "Aging Deity". Thus, the idea is overcome by the West as a mythological space and axiologically labeled as "Paradise" or the "Hell". In fact, Fonvizin debunks Paris as an idea in general, depriving it of any of the divine, sacred meaning, bringing it out of the sphere existence in the sphere of everyday life. France in the "Letters" is extraordinary material, visible and plastic. This opens up the possibility of its interpretation in the real socio-cultural, historical and geographical coordinates, which actually happens in the next important text – "Letters of a Russian Traveler" by N.M. Karamzin. A key step for such a rethink was overcoming of the dual reality resulted from the opposition and, as shown by historical experience, a total mismatch of noumenal and phenomenal realities that were equally real in the minds of Fonvizin's contemporaries. The key to this was the laughter and carnival principle of the "Letters" which as a buffer zone allows two antinomy ideas to come into dialogue relations that are not possible in the "seriousness" of the official world.

Key words: Fonvizin; France; carnival; laughter.

P. 24. *Khilo Yekaterina S.* Tomsk State University (Tomsk, Russia). **PERCEPTION OF HERITAGE OF S. YESENIN IN GERMANY: TRANSLATIONS AND THEIR EDITIONS.** Entry of Russian literature into the German cultural space began in the 19th century due to direct contacts of German writers and Russian authors. New surge in interest to Russian literature falls on post-revolutionary time in Russia and the period of the Weimar Republic in Germany. At the same time German poets paid attention to S. Yesenin's works. N. Shubnikova-Guseva, referring to M. Nikyo, notes that during the lifetime of the poet in 1920 Valdemar Gartman translated a small poem "Coming" (1917) and a poem "Autumn" (1914–1916) into German. These works were published as a part of V. Gartman's article "Russian revolutionary poetry of the latest generation" (*Der neue Merkur*. 1920, No. 2/3, for May-June). Nearly a year later there are Ivan Goll's translations, and in 1927 there are Maria Vys's translations. Thus, Germany became the first country which acquainted the readers with creativity of the original Russian poet. However, the question of German reception of Yesenin's heritage in literature science did not rise so far. As a result of searching we managed to collect the material of about twenty one editions of translations of S. Yesenin in Germany from 1958 to 2012. 1958 was the initial stage of the mass publication of sources in German, connected with S. Yesenin's name. The anthology "Liebstes Land, das Herz träumt leise" distinguishes free nature of translations: pronouncement of titles of poems, replacement, addition and omission of some images, syntax change. Possibly, absence of rigid requirements to translations in the 1950s gave a chance to publish these works. Besides A. Christof's and E. Bach's translations realized the main task of the edition of 1958 – acquaintance of the German-speaking reader to the lyrics. In the 1960s active entry of German readers into the world of poetry of Yesenin, was replaced by the calm 1970s. Then the period of intensification of German theory of translation begins: in the 1980s four Yesenin's editions were published, in the 1990s – seven, in the 2000s – four editions, and one in 2010s. Development of equipment and science gave the chance to issue two audio collections in the 2000s, allowing to hear the real voices of the authors. The latest collections of poetry of S. Yesenin reflect the individual approach of the translator to the represented material. Thus, the Russian-German literary connections already developing for over two centuries managed to be embodied in the steady area of comparative literary criticism. Not casually the reception of creativity of the most original Russian poet S. Yesenin is the longest in comparison with reception of this author in other foreign paradigms. It is possible to call German theory of translation a branch of the world Yesenin criticism.

Key words: S. Yesenin; translation; reception.

PHILOSOPHY, SOCIAL AND POLITICAL SCIENCES

P. 28. *Avanesova Yelena G.* Tomsk State University (Tomsk, Russia). **MUNICIPAL REFORM IN TOMSK REGION, FROM GOALS TO RESULTS.** On January 1, 2006 Federal Law № 131 of October 06, 2003 "On general principles of organization of local self-government in the Russian Federation" was launched on the territory of the Russian Federation. This law became the basis for the reform of local self-government in the Russian Federation. The period of the reform of local government can be divided into two stages. The main objective of the first phase of reforms (2006–2010) was the territorial and structural organization of local government; the

most important task of the second stage (2011–2012) is a change in the economic basis of local government. The main aim of the article is to find solutions to the key problems of the second stage of the reform of local government on the territory of Tomsk Region. The information base for the study was the normative legal acts of the regional and municipal levels of government in Tomsk Region. In order to solve the economic problems of the municipal areas in Tomsk region a number of measures aimed at achieving greater independence of local self-government have been taken: 1. Change of the legal status of municipal institutions. The new status of institutions means, on the one hand, the obligatory fulfillment of the state order, and, on the other, more freedom and independence in the management of resources. Financial freedom does not change, but assumes control over the quality of services provided. Thus, the reform of public institutions is followed by the reform of municipal services. 2. Formation of a system for monitoring the quality and accessibility of public and municipal services. The region has approved a program of activities designed for 2011–2013, key units of which are the development of a system for monitoring and controlling the quality of fulfillment of state and municipal functions in Tomsk Region and modernization of public and municipal services. 3. Development and support of small and medium enterprises. Active realization of a long-term program which brings together the executive bodies of state power and local government of Tomsk Region for the support and development of small and medium enterprises began in the area. 4. Addressing staffing issues. In 2011, the Tomsk Oblast Administration has approved a program which aimed at retraining specialists in state and municipal management. The second phase of the reform cannot be regarded as complete today as it requires further work to provide a regulatory framework necessary to improve the fiscal and budgetary spheres of local government, and for the practical implementation of measures aimed at increasing the financial autonomy of local budgets. Solutions of existing financial problems will have a direct impact not only on the level of economic development of the municipalities but also on the quality of municipal services.

Key words: municipal reform; local government financial problems.

P. 33. *Barazgova Yevgenia S., Bondarenko Yekaterina N.* Russian Presidential Academy of National Economy and Public Administration (Moscow, Russia), Ural Federal University (Yekaterinburg, Russia). **LIFE GOALS OF RUSSIAN AND AMERICAN STUDENTS IN GLOBAL PERSPECTIVE: RESULTS OF SOCIOLOGICAL MONITORING.** In modern society the impact of globalization is manifested not only in economy modernization, but also in the formation of new consciousness and mentality, based on the principles and ideals of a global world. The process of destroying the structure of the old world, elements of which were presented by closed social systems, includes gradual surrender of people's closed minds, which define life goals in transitional societies. In order to prove this hypothesis, the authors found it useful to conduct the comparative sociological studies, presented in the article. Registration and comparison of life goals and values of today's college students from the USA and Russia makes it possible to predict the interaction of professionals from different countries in global perspective. For the purpose of the stated objective a study was undertaken in 2012 at two big universities in Russia and the USA – the Ural Federal University named after the first Russian President B. Yeltsin, Yekaterinburg, Russia, and the University of Denver, Denver, USA. The answers analysis of the respondents-students revealed the differences and similarities in life goals and values of young people in Russia and the United States. The identified tendencies are as following: – Russian students are more focused on achievement than self-realization in their life goals, whereas the analysis of US responses indicates the dominance of desire for self-realization and self-management: young Americans achieve their social success focusing on their own individuality; – Russian respondents were consistent in their desire to increase personal adaptive resource that can help in achieving success in the "open society"; – the responses of US students reveal their desire for public recognition and service; – the answers of the respondents found the difference in their understanding of happiness value as sense of life and work: in Russia young people do not consider the goal of happiness to be rational and pragmatic, the pursuit of happiness is supplanted by the pursuit of success; – the leading position among students' values in both countries is taken by the value of private life: for Russian youth it is health, family, children, love, and for US young people it is health, independence, freedom and love. The results of this study make it possible to establish fruitful collaboration of American and Russian professionals in the near future. Participation of US partners will be motivated by a desire of social and professional fulfillment; and their Russian partners will be motivated by a desire to enrich adaptive resource and enhance personal prestige. Thus, we can predict the interaction of professionals in the global arena through penetration and complementarity of their life goals and values.

Key words: globalization; young students; values; goals.

P. 38. *Dumnova Elnara M.* Novosibirsk State Academy of Architecture and Arts (Novosibirsk, Russia). **PROBLEM OF MENTALITY TRANSFORMATION IN LATE 20 – EARLY 21 CENTURIES.** In this article the author substantiates the following preconditions for actualization of the Russian studies of mentality at the end of the 20th – the beginning of the 21st century: socio-economic change in the society, contradictoriness of the social processes, the impact of globalization on both the social and the individual consciousness and the changing social role of religion. On the basis of the analysis of socioeconomic changes in Russia at the end of the 20th century the author comes to conclusion that the transformation of the Russian mentality is objectively preconditioned. A theoretical justification of the interrelation between the concepts "the ethnic Russian mentality", "the Soviet mentality" and "the Russian mentality" is given. The consideration of different approaches to the interrelation between the Russian and the Soviet mentality, which are present in the Russian social philosophy has become the foundation for the author's argumentation for her own point of view on the process of mentality transformation. The ability of mentality to change is presented as one of the major reasons to investigate it. The author takes notice of the two-layer structure of mentality, represented by its basic (foundational) and external (vital) blocks, where the second block is more prone to change. Thus, the main features of mentality are preserved in the transformation process. The importance of the introduction of the new type of economic relations, which produced a deep crisis in the Russian society due to its unpreparedness to such drastic changes, is revealed. The process of westernization is viewed as a negative factor for the mentality change, as it contributed to introduction of pseudo-values (hedonism, extreme individualism, nihilism), incommensurable with the world-view of the majority of the Russians and often not characteristic for the western society, into the Russian society. In consequence of the Russian society's outgrowth of the communal consciousness, the propaganda of individualism as the foundation for the new world outlook has led to the tremendous societal atomization and escalation of social tension. The author pays attention to the characteristic feature of the Russian mentality – its openness, the ability to accept new things, which in the period of social anomia aggravated its vulnerability. The author substantiates the great importance and necessity to study the youth mentality. The youth is characterized by its lability of consciousness, its world-view is in the process of formation, which takes place in quite contradictory social circumstances. For the aforementioned reasons the youth mentality is more prone to virtualization. Such socio-group forms of youth mentality as mentality of the urban and rural youth are specified. To investigate peculiarities of each of them is relevant from both theoretical and practical points of views.

Key words: mentality; youth; socioeconomic change; sociocultural space.

P. 42. *Markhel Yekaterina Yu.* Tomsk State University (Tomsk, Russia). **TAO AND LOGOS: INTERRELATION OF CONCEPTS.** In the modern world a Westerner has plenty of opportunities to meet his needs. However, the development of technology and material comfort is not a guarantee of harmony. In the East, on the contrary, greater importance is attached to the spiritual riches of the person. In order to recreate the balance between material and spiritual values, it is necessary to refer to the ancient philosophy, which influenced the development of the mentality of the nations. Western philosophy originated in Greece. For the ancient Greeks, it was typical to understand the world through the concept of the Logos. Heraclitus of Ephesus interpreted the Logos as universal world law. The Logos is the force that creates the cosmic order (makes harmony). The Logos is not similar to anything but only identical to itself. Despite the fact that people see the manifestation of the Logos, they do not think of it. The Logos organizes all the things but the people are not aware of their actions and do not relate them to the great law. In ancient China, there was also a term for the optimal development of the world – the Tao. Lao Tzu defines the Tao as spirit which cannot be comprehended by senses. The Tao is above all earthly and sensual things. The Tao does not have a name. It is easier to define the Tao through negation (through what it is not), because it is the highest law, which can not be expressed per se. The Tao produces all things in the world: everything comes from it and everything comes back to it. The Tao leads all beings to the perfection, and perfection is rest. To know the Tao, one should only be able to see the manifestation of the world of law and not to interfere with the natural rhythms of life. A person, who has attained the highest level of knowledge of the true law, merges with it, eventually finding harmony and peace. According to Confucius, the Tao is directly connected with man, has anthropogenic bases. Through the teaching Confucius wants to set people on the right path, have power over them, influence their mind and behaviour, thoughts and actions. To comprehend the Tao means to gain the truth. All human life must be devoted to the search of the truth. To cognize the Tao is the meaning and the essence of human life. However, Confucius doubted the possibility of each person to comprehend the Tao. The Tao and the Logos are a universal law of the world, the fundamental principle of the world. These concepts are similar in meaning, but at the same time they are different. In modern world their complementarity and inter-penetration are necessary, only then we will have a complete picture of the harmonious world. There must be the meeting of the Tao and the Logos.
Key words: Tao; Logos; Heraclitus of Ephesus; Lao-tzu; Confucius.

P. 45. *Faritov Vyacheslav T.* Ulyanovsk State Technical University (Ulyanovsk, Russia). **BENEDICT SPINOZA'S TEACHING AND PHILOSOPHY OF EXISTENTIAL-SEMANTIC PERSPECTIVISM (BETWEEN TRANSCENDENCE AND TRANSGRESSION).** Spinoza's philosophy reveals the radical difference from ontology of transcendentalist type. None is based on the hierarchical order of transcendence, claiming as the supreme being the ever unattainable first principle, in relation to which all things seem secondary emanation in need to fill the gap. Spinoza says substance is immanent, and each mode is the state of a substance rather than a ghostly shadow of the prototype shining in the rays of transcendence or an event of the "thing in itself" closed to our knowledge. One of the most significant moments in this regard is the interpretation of the phenomenon of the body. For Spinoza, the body is not a special substance, but its existence is determined primarily by the nature of communication of its elements – other bodies. If the emphasis shifts from the specific substance of the nature of communication and organization, then it can be concluded that the body is essentially a form of discourse – as discourse is nothing more than a way to organize many disparate elements into something whole, subordinate to one existential-semantic term. Discourse does not only speak, but in the form of the body it also acts, turns to exist on the basis of certain prospects in the material and physical. The nature of mode or discourse is not only the desire to maintain its existence, but also the desire to achieve the maximum degree of perfection, or, equivalently, the maximum degree of power, the highest power of acting on the basis of its existential-semantic perspective. In other words, to assert their existence means to increase the level of discourse and the power of its vision and at the same time to resist other discourses seeking to increase their power. In the discourse-analytic approach of Laclau and Mouffe this situation of clash and confrontation of different discourses is called antagonism – the struggle of different discourses for "creating meaning" or, in our proposed terms, for approving existential-semantic perspective. A way of solving antagonism is hegemony – approval of perspectives of one discourse and subordination of other discourse perspectives to it. For Spinoza, the establishment of such a despotic meta-perspective (civil state) is only a consequence of the inadequacy of our knowledge. There is another meta-perspective that frees people from the power of passions that always entail them in different directions and, as a consequence, collide with each other. This is the meta-perspective of a substance. This ontology is developed not on the basis of the prospects of transcendence with vertical hierarchical relations on the principle of "land-sky", but comes from the horizontal perspective of the sea, where individual waves are modes of a single substance. Spinoza's conception of substance is the result of transfer of the transcendent in the immanent. This process results in the elimination of hierarchical opposition between two planes of existence (metaphysical theory of two worlds) and the disclosure of the horizon of totality – the universal and comprehensive existential-semantic perspective, in which all other perspectives become intense degrees or, using the Hegelian term, moments. Before Spinoza the transcendent was transferred in the immanent by Nicholas of Cusa and G. Bruno, after – by Hegel. This horizon is intermediate between transcendence and transgression.
Key words: discourse; existential-semantic perspective; transcendence; transgression; totality.

P. 49. *Fedorova Natalia G.* Tomsk State University (Tomsk, Russia). **DYNAMICS OF SCIENTIFIC COMMUNICATION IN CLASSICAL AND NON-CLASSICAL SCIENCE.** The essence and role of scientific communication in research activity are revealed in this article. The forms, ways, mechanisms of scientific communication in the conditions of classical and non-classical science are detected. The concept "scientific communication" gets new senses and values in modern conditions. The scientific communication is one of the main mechanisms of science development, presented as information movement (information gathering – research process – reception of new information) which occurs by means of interaction of researchers. The scientific communication is the basic mechanism of functioning and science development. Opening the role of communication in the scientific knowledge, it is possible to allocate its basic functions in research activity: gnoseological and social. The gnoseological functions are as following: 1) registration of result of scientific knowledge – scientific knowledge – in the form of defined objectified system; 2) application of the unified scientific language accepted in a given scientific community, standards, formalisations, etc.; 3) through communication the system of world outlook, methodological and other specifications and principles is transferred; 4) transfer of the way of vision, paradigm, scientific tradition, implicit knowledge; 5) realisation of the form of development of knowledge and application of such "communicative forms" of knowledge and perception as an argument, substantiation, explanation, refutation, etc. Communication also carries out a number of social functions: 1) socialisation of the scientist; 2) stratification of the scientific community. Analysing transformations of the scientific communication at transition from classical to non-classical science it is necessary to pay attention to the role of the subject in the scientific activity and to revision of the concept of the scientific truth. The principle of a strict division of the subject and the object learnt and learning is laid at the base of classical science. The subject of classical science was considered as the participant of communication: it asked the ques-

tions to the realities and received answers to them. But, in fact, communication was unilateral. The validity of knowledge within classical science was provided with its conformity to the studied subject. The features of non-classical science are connected with the change of the scheme of the subject-objective relation. There is no clear demarcation line between the subject and object in science. The truth in non-classical science becomes a process, conventional, inter-subjective, interdisciplinary. Thus, realization of scientific communication is one of the major conditions of cognitive activity.

Key words: scientific communication; classical science; non-classical science; subject; object; scientific truth; interdisciplinarity; scientific community; communicative rationality.

P. 52. *Khitrak Yekaterina B.* Tomsk State University (Tomsk, Russia). **"MAN IS FORMING": PROBLEM OF MASCULINITY UNDER GENDER RESEARCH.** New kind of researches is begun under the so-called "second wave" of feminism force after the middle of the 20th century. Researches under consideration deal with the man nature, i.e., the standard of masculinity to fit the general conditions of man and his socialization. Initiators of "man problem" are men themselves, who have been gradually become conscious of their deep personality needs and the objectively changed social interactions incompatible with the tradition of "real masculinity". Classical "canon of masculinity" became doubtful, it is detected contradictory and unachievable as such. One of the most outstanding results of man studies was the "discovery" of male, i.e., the realization of the fact that man is not a human in general, but a human with certain sex indicators dependent on culture representations of how a man should behave, or what he should be like. In traditional culture the man image was often identified with the human image, with woman recognized as a deviation of the human. Frenchwoman researcher Elizabeth Badenter determines two main defining factors of traditional masculinity: formation and negation. 1. Formation. E. Badenter, using the analysis of the use of the category of masculinity and its characteristics in language, concludes that masculinity cannot be understood as a biological given a group of individuals has from birth or acquires in the process of natural development. There is no doubt that the main part in the standard structure of masculinity is formation of a man, i.e., the natural process of getting the status of a "real man". In other words, masculinity is not a biological given, but a cultural, discursively defined goal. 2. Negation. The general property of man formation is its mainly marked negation character. Negation supposes existence of the Negated or Another, by means of rejecting it formation is possible. E. Badenter detects three main images of Another significant for man formation: child, woman, homosexual. All of these three negations may and must relate to one negation: the woman element. It is the man who gradually proves his principle distinguished feature from female sex through the manifold tests during all his life.

Key words: man; masculinity; femininity; man problem; gender research; initiation; negation; formation.

HISTORY

P. 58. *Bocharov Aleksey V., Skobelev Konstantin V.* Tomsk State University (Tomsk, Russia), Ishim State Pedagogical Institute (Ishim, Russia). **EXPERIENCE OF CONTENT ANALYSIS TECHNIQUE DESIGN OF PEASANT LIFE REFLECTION IN SIBERIAN PERIODICALS OF EARLY 20 CENTURY (NEWSPAPER "VOSTOCHNOE OBOZRENIIE", JANUARY 1905).** We developed a method of content analysis of unstructured information of periodicals published before the Revolution time. The analysis is made on the basis of the newspaper "Vostochnoe Obozrenie" of January 1905. The developed content analysis tool can also be used for investigation of modern machine readable periodicals. It will give an additional chance to the researchers to compare it with the modernity of the investigations of contemporary phenomena and processes of past time (for example, rural life or public opinion). Using concrete historical example we were able to test how a modern method of linguistic analysis can clarify the known information or reveal new information and to facilitate the review of previous views. The method of content analysis on the topic "peasant life" was based on the separation of lexical indicators-markers on the context-dependent and context-independent. Lexical indicators can be interpreted as subtopics or secondary topics within the primary one. From the linguistic point of view, they are interpreted as hyponyms in relation to hyperonym "Peasantry". Context-independent lexical indicators mark phenomena, objects and processes that are unique to rural life. These markers do not show the historical context of interactions of the peasantry with different spheres of life and phenomena outside of agriculture and the countryside. Context-independent lexical indicators mark specificity and uniqueness of life and mentality of the Russian peasantry in the history of the period under study. Context-sensitive lexical indicators mark phenomena, objects and processes that are not only unique to country life, but also provide the historical context of interactions of the peasantry with different spheres of life and phenomena outside of agriculture and rural life. We have 59 invariant lexical indicators of the theme "peasant life." 31 of them display context-independent, and 28 – context-sensitive indicators. Thematic intent-analysis that we made at the next stage of the study allowed us to identify 14 themes of peasant life: "rural poverty", "hunger", "development of capitalism in the Siberian village", "control of the Siberian village", "crime", "ethnic conflicts", "rural people's drunkenness", "rural people's health", "education for rural people", "charity", "environment (deforestation)", "Siberian character", "agricultural reform". These themes can be grouped into five blocks of generalizing: economy, politics, social relations, culture and future of the Siberian countryside. For each topic we identified intention of perception of events by correspondents who are the authors of the newspaper articles. The intentions are the direction and mindsets of consciousness. Most often intentions are embodied in the text explicitly or implicitly in clear pronouncements of assessments, declarations, explanations of the main ideas, sense of metaphors, allegories and insinuations. A structured analysis of the source did not give reason to doubt the existing approaches to understanding the history of Siberian peasants, but made additional method to organize the vast array of specific historical information in the press.

Key words: history of Siberia; periodical press; content-analysis; intent-analysis; peasantry.

P. 64. *Yegorov Aleksandr I.* Dzerzhinsk Polytechnic Institute of Nizhny Novgorod State Technical University (Dzerzhinsk, Russia). **GERMANY'S POSITION ON NONPROLIFERATION OF WEAPONS OF MASS DESTRUCTION AND NUCLEAR MATERIALS (1990S–EARLY 2000S).** In the post-bipolar epoch issues of multilateral disarmament diplomacy have become a priority. These included measures to strengthen nonproliferation of weapons of mass destruction. Germany's position in the nonproliferation policy is determined by several conditions, especially the nonnuclear status of the state. However, Germany has taken a privileged international position than other countries that did not belong to the "nuclear club", because from the moment of union it acted as a central element of European security policy. It tried to take over the task of maintaining the balance of power between the nuclear and nonnuclear states. Freedom of action of Germany's nuclear policy has been limited. But under favorable circumstances, it got a chance to play the role of support of the nuclear nonproliferation regime. The activity of Germany contributed to the signing of the Declaration of the

Moscow Summit of Heads of State and Government of the G-7 and Russia on nuclear security issues. Minister of Foreign Affairs of Germany K. Kinkel (FDP) was one of the first to put his signature under the Comprehensive Test Ban Treaty. The official Bonn was not afraid in a soft but strong and open form to criticize the US refusal to ratify the treaty. Serious threat to Germany was represented by the illegal trade of nuclear materials. The federal government considered it necessary to cut off the channels of leakage of hazardous materials. This forced to intensify cooperation with the members of the "nuclear club", one of which was the Russian Federation. The integration in the fight against illicit trafficking of nuclear materials was carried out through cooperation between the intelligence agencies of the two countries, as well as cooperation between German and Russian scientists who have studied the confiscated dangerous materials. The obvious problem is the safe storage of nuclear weapons removed from combat duty. Disintegration processes that engulfed the post-soviet space, were a serious obstacle to its solution. This led to a deepening of scientific and technical relations of Germany and Russia in the nuclear field. Concern "Siemens" has opened its own plant for the production of fuel rods for nuclear reactors in Russia. An important area of German-Russian cooperation was the implementation of the Convention on the prohibition of the development, production, stockpiling and use of chemical weapons and their destruction. Since 1992 German companies have been supplying test equipment and laboratory equipment for the facility in Gornyy. Germany also allocated funds for the destruction of chemical weapons. In general, the action of Germany in the field of nonproliferation of weapons of mass destruction and nuclear materials was measured, which emphasized realism of thinking and pragmatism of actions of German politicians.

Key words: Germany; weapons of mass destruction; security; nuclear power; nonproliferation regime; nuclear materials; chemical weapons.

P. 69. *Kvitkov Gennadiy G.* Tomsk State Pedagogical University (Tomsk, Russia). **SERGEY AVERINTSEV IN RUSSIAN HISTORIOGRAPHY.** The article concerns historiographic situation with works by Sergey Averintsev. 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. From the literature provided we can distinguish two groups of works, written from the apologetic and critical points correspondingly. The first approach is represented by Christian authors and the most notable of them is Olga Sedakova. There are two main issues of Averintsev's works which are studied by these authors most intently – his "recipient-oriented" knowledge model and its connection with the Christian tradition. Recipient orientation means that Averintsev's writings unlike many other works in humanities are not only an increase of knowledge, but also a transmission of certain existential, universal meanings. As these meanings become topical in dialogue, Averintsev's knowledge always implies a final recipient, it is "targeted" and communicatively-oriented. Unlike positivist "non-targeted" knowledge it is truly "humane knowledge of the humane". For Christian authors meanings deriving from Averintsev's works are inevitably connected with the Tradition. Thus, his works are valuable for enlightening the Soviet reader with religious truths unknown to them from the authoritative positions of rigid science; and his works are significant not as a new knowledge but as a form of latent sermon. This apologetic approach is opposed by the critical one, presented by Mikhail Gasparov and others. Ideological interpretation of Averintsev's writings is unacceptable for Gasparov – his point is that Averintsev's works present scientific content in the first place which cannot be reduced to some sort of "camouflaged" missionary activity. Gasparov's follower Natalia Avtonomova in turn supposes Averintsev and Gasparov are agents of two opposite approaches to research of culture and knowledge in the whole. Targeted, full of meanings, rooted in Tradition knowledge of Averintsev is opposed by technocratic, based on strict methods and search of objective regularities, non-subject knowledge of Gasparov. It is the latter approach, which, by Avtonomova, can provide true methodological criticism of Averintsev's ideas.

Key words: Averintsev; historiography; language; tradition; Christianity.

P. 74. *Larkov Nikolay S.* Tomsk State University (Tomsk, Russia). **POLITICAL ACTIVITY OF A. ADRIANOV DURING CIVIL WAR.** The article concerns some little-known aspects of the biography of Alexander Adrianov, Siberian scientist, public and political figure, talented journalist, the editor of "Sibirskaya Zhizn (Siberian Life)" newspaper that was one of the most powerful in pre-revolutionary Siberia. Published and archive resources allow to conclude that after the Bolsheviks came to power in 1917, A. Adrianov started an irreconcilable fight against them using his publishing activity and illegal methods as well. But in historical literature this side of his political life is pictured only through scattered facts and references. A. Adrianov was one of the most active members of the so-called "Potanin's circle" in Tomsk, participated in development and practical application of its political platform. In spring of 1918 he contacted anti-Bolshevik underground organizations in Tomsk, at the end of April he met the delegation of general V. Flug that illegally came to Siberia by the order of generals M. Alekseev and L. Kornilov who formed the White Movement in the South of Russia. After the Soviet rule was overthrown, he was in secret correspondence with Prime-Minister of the Provisional Siberian Government P. Volodgskii and Commander of Siberian Army A. Grishin-Almazov. The article contains fragments of Adrianov's letters that show his attempts to influence the political course and cadre of Siberian governing institutions in 1918–19, his part in closure of the newspaper "Rabocheye Znamya" in Tomsk. Being a deputy of Siberian Regional Duma, he ran private meetings of its members who were in Tomsk in June-July. During the Duma sessions he was the head of a joint group of the Oblastniks and non-party deputies, tried to exert an influence upon changing the staff of the Duma that consisted mostly of the members of the Socialist-Revolutionary Party and its political line but did not have any success. At the end he actively encouraged its dissolving. Contrary to some historians' beliefs, when Admiral A. Kolchak, the Supreme Ruler of Russia, came to power, A. Adrianov did not belong to those who unconditionally supported the military dictatorship regime, he critically assessed personal and professional qualities of its representatives, including high-rankers. When military clique tried to interfere into the policy of editorial staff of "Siberian Life", he had conflicts with representatives of the military rule. Nevertheless, till the end of his life he and his newspaper had an anti-Bolshevik position. After the Soviet rule was restored in December of 1919, A. Adrianov became one of the first victims of Bolshevik terror. By the decision of Tomsk Extraordinary Commission to Combat Counter-Revolution he was executed by shooting at the beginning of March, 1920.

Key words: A.V. Adrianov; Siberia; Civil War.

P. 81. *Sorokin Aleksandr N.* Tomsk State University (Tomsk, Russia). **IMPORTANCE AND ROLE OF SIBERIAN PHYSICAL TECHNICAL INSTITUTE NAMED AFTER ACADEMICIAN V.D. KUZNETSOV OF TOMSK STATE UNIVERSITY AS CENTRE OF PHYSICAL RESEARCH IN 1960S.** The article analyzes the development of the Siberian Physical Technical Institute named after academician V.D. Kuznetsov of Tomsk State University in the 1960s. SPTI was included in the process of rapid development of science and technology. During this period in the institute large-scale research in the most promising and relevant areas of sci-

ence and technology began. Special attention was paid to the development of fundamental and applied research in the field of semiconductor physics and optics and the atmosphere. The paper identifies and analyzes the key factors of successful development of scientific research in SPTI. The Institute has strong and broad scientific, educational and industrial relations with the leading academic and research institutions in the country, making it possible to perform SPTI advanced scientific research, and the results have important theoretical and practical significance, and were in high demand in the industrial and academic institutions throughout the country. The personal factor in the development of research by example of the founders and leaders of scientific schools in the field of semiconductor physics and optics and atmosphere, V.A. Presnov, N.A. Prilezhaeva, V.E. Zuev, and others is disclosed. In the Institute there were created large skilled research teams that carried out studies of fundamental and practical significance. So, in 1963, N.I. Muravyov and his graduate students A.N. Soldatov and V. Shcherbik launched the first laser operating on helium. In the laboratory of semiconductors under the direction of V.A. Presnov research on new semiconductor material – gallium arsenide – was conducted. Thus, even at that time SPTI was a recognized laser centre in the country and a research centre in the field of gallium arsenide. However, the fairly scant financing of SPTI by the Ministry of Higher and Secondary Special Education of the RSFSR raised the issue of further deployment of large-scale research. Due to persistent and skillful organizational efforts of V.E. Zuev and V.A. Presnov and support of the party and state institutions research and development Institute of Semiconductor Devices (1960) and the Institute of Atmospheric Optics of the Siberian Branch of the Academy of Sciences of the USSR (1968) were organized in Tomsk, which marked the beginning of academic science in Tomsk. On the other hand, the transfer of the key personnel from SPTI had a negative impact on the development of many scientific fields in the institute. The period of intense development of SPTI in the 1960s was followed by the stage of its weakening in late 1960s – early 1970s.

Key words: physical science; SPTI; Siberia; scientific-technical progress.

P. 84. *Sharafieva Oksana Kh.* Tomsk State University (Tomsk, Russia). **INTER-TAJIK NEGOTIATIONS AS MODEL OF INTERNAL CONFLICT RESOLUTION.** The article analyses Inter-Tajik negotiations as a model of relatively successful internal conflict resolution. Civil War in Tajikistan was the bloodiest after the collapse of the USSR. Active hostilities continued for less than a year from April to December 1992, and then the war became positional and protracted. After the years of violations the war termination became the burning issue. The participants of Inter-Tajik Dialog launched in March 1993 within the Dartmouth Conferences began to clear the way for the future negotiations. In one year in April 1994 the official negotiations started. There are three first stages of conflict resolution: to cease the violation, to carry on a dialogue, to begin the negotiation process. In case of Inter-Tajik negotiations all these three stages took place simultaneously, not sequentially. The negotiations continued for more than three years. The parties discussed a whole number of important issues from the plight of the refugees to the political reforms. At first it was very hard to continue negotiations because the parties did not trust each other. Even some insignificant agreement required great efforts, but very often it was not realized due to disagreements inside the belligerents. Many times the negotiations were on the verge of breakdown and continued due to foreign pressure. The situation in neighbouring Afghanistan influenced the negotiation process very much. After the seizure of power by Taliban in September 1996 the Russian Federation pressed upon both parties to hasten the peace process. At the end of more than three years of talks and personal meetings of two leaders the General agreement was signed. It permitted to establish peace in Tajikistan, still it was not full reconciliation. As a result of agreements the opposition was involved in distribution of political resources, but to some extent. Today the situation in the Republic is uneasy; the government controls not all the territory of the country, armed clashes between government and certain alignments of opposition continue in some regions. In fact, peace process is incomplete, but the naked violence actions are minimized. Since the 15 years when General Agreement was signed there were not grave violations endangering the peace. The implementation of General Agreement permits to accomplish the main goals: to bring the conflict to an end and to maintain the territorial integrity of Tajikistan.

Key words: Civil War in Tajikistan; conflict resolution; peace negotiations.

P. 92. *Shvedov Maksim N.* Tomsk State University (Tomsk, Russia). **"WHEN I DIE, BURY ME AS I AM": SPIRITUAL QUEST OF EARLY MEDIEVAL CHINA'S INTELLECTUALS.** The period after the collapse of the Han dynasty, long internecine war and following division of the country into pieces with the short periods of reunion was one of the pivotal points in the long history of China. That was the period of deep changes in all the spheres of Ancient Chinese society. Although orthodox Chinese historiography showed this period as the period of chaos, destruction and decline, even superficial overview of the early medieval (III–VI A.D.) shows that in spite of or may be due to the political disasters of the time it was the golden age of culture. The whole culture of the time was passing through a deep rebirth. Critics of the official Confucian ideology that began during the Han dynasty led to considerable ideological emancipation of a person. Although Confucianism was still the official ideology of bureaucracy, this spiritual turbulence showed a significant impact on the moral and ethic foundations of the society. Endless wars and riots that took place after the Han dynasty had collapsed put the most educated aristocrats before an important choice: either to join the fight for power or to be moved to the periphery of the political life. And the fight was not a competition in skills and knowledge, there were cruel behind-the-scene activities, bloody battles, betrayal and guile. Those who had found themselves pushed out from the "stage" faced the reality of impossibility to self realize, to apply skills and knowledge gained in decades of study. The growing pessimism and apathy took some of the most talented people of the time to the Taoist heritage. They admired Chuang-tsu's ability to "free and boundless wandering" (xiao yao) and "sitting in oblivion" (zuo wang) and using wine were trying to reach these ideals. They disdained hypocrisy of the public morality and Li (Ritual propriety). They were called the Ming Shi (famous people) and their life was the expression of the new "style", which later was called "Wind and Flow" (Feng Liu). Those who were Feng Liu were looking for self-expression unobstructed with social boundaries, and sometimes it took shape of craziness, which others called Fang Dan (willfulness and indulgement) as later Liu Yiqing, the author of "Essays and Criticism" (Shi Shuo Xin Yu) named the twenty third chapter, where he shows examples of such a behaviour of the early period of ming shi like the scholars, writers and musicians of an intellectual group of The Seven Sages of the Bamboo Grove (Zhu Lin Qi Xian). The system crisis, which took place in early medieval China, forced deep transformation of Ancient Chinese society and according to some researchers, due to the changes this transformation brought, we can now see the difference between the Ancient Chinese people and modern Chinese as between Ancient Romans and modern Italians.

Key words: Wei and Jin dynasties; "wind and flow"; wine; powder of five minerals; famous people.

LAW

P. 95. *Gongalo Sergey I.* National University of Ostroh Academy (Ostroh, Ukraine). **CLASSIFICATION OF ELECTRONIC DOCUMENTS AS OBJECTS OF JUDICIAL TECHNICAL-CRIMINALISTIC EXAMINATION OF DOCUMENTS.** The article deals with the classification of electronic documents as objects of technical and forensic documents used as evidence in the materials before the courts. Classification of electronic documents helps to use them as evidence to promote the collection, testing and handling of evidence in the investigation and prosecution of cases. Electronic documents fully apply to the generally accepted traditional division into direct and indirect, primary and derivatives, indictments and acquittals, personal and real, official and private, procedural, and not procedural. Since the object of technical and legal documents is forensic material document, for the classification of electronic documents as objects of judicial forensic technical documents the type of media is important: internal (PC memory, servers, computer networks, electronic archives) and external (disks, flash memory cards, floppy disks, plastic, paper, tape). By the source of existence there are electronic documents created by the user and the computer system (i.e. electronic medium). By the content electronic documents can be files with text information, graphics, animation, background, or video images, as well as information specific machine codes and symbols. As for protection of electronic documents they are open and closed. By material media there are documents that exist in physical form of computer information (external memory devices: magnetic and optical discs, magnetic tapes and magnetic cards, flash memory, etc.), in the random access memory of an electronic computer, peripheral, computer and network hardware. The stages of production of documents, including electronic ones, are divided into the original, duplicate, copy, and extract. When exploring the electronic document as an object of technical and forensic study one should pay more attention to its external form, distinguishing between documents and manuscripts produced by technical means. The handwritten form of entering information in the computer is relatively new. But for the foreseeable future these documents may be subject to forensic investigation. When classifying electronic documents as objects of technical and forensic examination, one should pay attention to them as to documents in general, and as to specific objects of forensic investigations. Two types are identified: 1) materialized electronic documents, 2) electronic documents, which are stored in electronic devices. The conclusion is that the objects of technical and forensic documents are only the first group of electronic documents, that is, those which were transferred to the physical media: paper, cardboard and plastic.

Key words: classification; document examination; object.

P. 98. *Zubenko Yulia S., Shitvov Aleksey P.* Gorno-Altai State University (Gorno-Altai, Russia), Queen's University of Belfast (Belfast, United Kingdom of Great Britain and Northern Ireland). **TREASURE HUNTING AND LAW: PRACTICE OF THE UNITED KINGDOM.** In the United Kingdom, the coroners locally represent the Crown law and act as the authoritative experts in legal precedents. The office of coroner was formally established in England in 1194. Nowadays, the function of coroners in recording the treasure and finds is regulated by the English Treasure Act of 1996. Noticeably, the Act of 1996 is legally operative only in England, Wales and Northern Ireland. There is separate law in Scotland. Both laws ascend to the Roman law, which defines treasure (*thesaurus*) as *vetus quaedam depositio pecuniae, cuius non extat memoria, ut jam dominum non habeat* (an ancient deposit of money, of which no memory exists, so that it has no present owner). Under the emperors, if treasure was found on a person's own land or on sacred or religious land, the finder was entitled to keep it. However, if the treasure was found fortuitously, and not by deliberate search, on another person's land, half went to the finder and half to the owner of the land, who might be the emperor, the public treasury, or some other proprietor. The Act of 1996 states that all finds which are believed to be treasure must be reported to a coroner, who initiates enquiry in order to establish if the find is actually treasure. If so, the proprietary right is vested to the Crown. All treasure in fact belongs to the Crown. The Act of 1996 does not define the award to the finder or landowner, thus this matter is entirely at the discretion of the Crown. The British Museum has a legal responsibility under the terms of the 1996 Treasure Act to process treasure finds from England and Wales. If a find is declared treasure at inquest, both local and national museums have the opportunity to acquire it. The full market value of a find, as established by the independent Treasure Valuation Committee, is granted to the finders and landowners in the event of its acquisition by a museum. Only in the event of a find being declared 'not treasure', or where no museum expresses an interest in acquiring a find, will it be returned to the finder who could dispose it at his own convenience. In 2009 English Heritage presented a report which stated that from 1995 to 2008 more than 240 heritage sites, a third of which being in the state care, were attacked by treasure hunters, whilst the total number of attacks was much more. It was argued that only one of seven landowners attacked reported the illegal excavations.

Key words: treasure; law; United Kingdom.

ECONOMICS

P. 100. *Akerman Yelena N.* Tomsk State University (Tomsk, Russia). **CLUSTERING SOCIAL-ECONOMIC HIGHER EDUCATION INSTITUTIONS ON ENTRANCE TEST RATING BASIS.** Considering relevance of the problem of increase of efficiency of functioning of institutions of higher education and carried-out work on improvement of the mechanism of redistribution of means in the public sector of education (higher education institution financing depending on its demand and quality of the set of the entrants, defined on the basis of the rating of higher education institutions of the Russian Federation by the Unified State Examination GPA), in the article the results of the multidimensional statistical analysis of the quality of the entrants to social and economic higher education institutions of the country is presented with use of correlation, factorial, cluster and dispersive analyses. In the presented model the clustering of social and economic higher education institutions is carried out by indicators: the applicants' Unified State Examination GPA; share of the entrants enrolled by competition of points of Unified State Examination, by the target set, by the Olympiads and by privileges. This approach allows to analyse in detail forms of entrance tests and the quality of entrants of social and economic higher education institutions of the country. By results of the research in the four-dimensional factorial space a nine-cluster model allowing to carry out classification of social and economic higher education institutions in the nominal scale of measurements is constructed. According to the received results the highest share of the entrants by the target set is noted in eleven social and economic higher education institutions, by results of the Olympiads – in six, by the privileges – in eleven, and by the Unified State Examination GPA – in thirty three social and economic higher education institutions. The obtained data can be considered within the reform of the higher education, in particular at making decisions on optimization of the network system of the higher education.

Keywords: multidimensional statistical analysis; entrance tests; economic education; cluster.

P. 105. *Ivasenko Anatoliy G.* Berdsk Branch of Novosibirsk State Technical University (Novosibirsk, Russia). **DESIGN OF LAND AND MORTGAGE LENDING SYSTEM AT REGIONAL LEVEL.** One of the regions of the Russian Federation, which have successfully introduced new methods of management, is Oryol Region. Despite its relatively small size, Oryol Region, along with Saratov and Volgograd Regions, is one of the leading places in the regions by agricultural land per capita of the European part of Russia (Central, Central Black Earth Region, Volga-Vyatka, Povolzhsk economic regions, including Ingushetia, Rostov Oblast, Stavropol Krai and Krasnodar Krai). This fact together with favourable weather and climatic conditions determine the total agro-industrial orientation of the development of the national economy. More than 70% of the area is used by agricultural organizations and by farmers' households, 35.6% of the population of the region lives in rural areas. 341 agricultural organizations, 1280 farms and about 150 thousand personal household plots were engaged in agricultural activities in 2011. An essential condition and base for effective agricultural production is increased investment in technical and technological modernization of production. However, in recent years due to low profitability of capital in agricultural production, high risk, volatile pricing situation investment in agriculture is declining. Increase of investment attractiveness of agriculture and revitalization of the private sector in agricultural production is possible by the development of land and mortgage lending. In the article the algorithm of implementation of a regional system of land and mortgage lending is given. The feature of development of land relations in Oryol Region is the existence of a land investment company. JSC "Oryol Investment Land Company" acts as an operator on the market of land in the area and has provided economic and legal services in the sphere of land relations, including in agriculture. The company takes part in the relationship with local and federal authorities, investors and owners, respecting their mutual interests. Effective use of loans secured by land is the basis of the proposed methodological approach to the system of land and mortgage crediting of agricultural enterprises, the influence of credit funds on increase of production efficiency, the relationship of land and mortgage loan with the final results of agricultural production in general and in certain enterprises. Efficiency of use of credit under pledge of land lies in the degree of their impact on the development of agricultural production and growth of gross output.
Key words: land and mortgage lending; agricultural production.

P. 111. *Kazakov Vladimir V.* Tomsk State University (Tomsk, Russia). **SYSTEMS APPROACH TO STUDY OF INNOVATION PROCESSES IN REGIONAL ECONOMIC SYSTEMS.** Generally accepted in the theoretical and practical aspects is the assertion that the sustainable development of the Russian economy and enhancing of its competitiveness in the world market is impossible without using an innovative type of development. The regional level is increasingly important to strengthen innovation processes, to provide targeted support to innovating firms and academic institutions. This fact is due, on the one hand, to the nature of the innovation processes of a localized nature; on the other hand, to the need to take into account the differentiation of Russian regions, utilizing the benefits of specialization. Non-linearity, complexity and dynamism of the innovative processes necessitated the use of a systematic approach to build innovative systems at the national and regional levels. It allows to take into account most affecting nuances and factors. Using a systems approach and multidimensional analysis it seems possible to choose indicators, identify patterns, and the sphere of influence of individual spatial systems on the economy and on that basis determine the role of innovation processes in the region in the national economy, defined as participation in the formation and effect on outcome of macroeconomic indicators. The region is, on the one hand, part of a series of systems that implement different purposes of society and, on the other hand, is itself a complex socio-technical system; numerous internal and external objectives must be consistent. Hence the objective of harmonization of various kinds of administrative activity in different areas of a regional mechanism is to match the levels of its components necessary for their effective cooperation. This article explores the region as a socio-economic system, which is a combination of five main subsystems: technical, economic, social, information, communication and management. Analysis of the relationship of the three hierarchy levels strategies allowed the author to single out the following regional innovation management and form the basis for innovation typology of regions. The diversity of regional development in Russia defines non-uniformity of processes, development, deployment and diffusion of innovation in the economy of the country, exacerbating differences between regions, both economically and socially. Therefore, the definition of the state innovation policy and strategy for sustainable regional development is one of the most important tasks of modern economic science.
Key words: innovative processes; regional innovation system.

P. 117. *Nikonova Yana I.* Berdsk Branch of Novosibirsk State Technical University (Novosibirsk, Russia). **MODERN TENDENCIES OF ECONOMIC SYSTEMS INNOVATIVE DEVELOPMENT STRATEGY FORMATION.** Economic growth, sustainable development, raising living standards are the main tasks of modern Russia. The task of doubling GDP within 10 years has created a situation where, on the one hand, there is a specific indicator of impact assessment in the economy and, on the other hand, it became necessary to qualitatively change the policies of the country, which can be labeled as a transition to the innovative development strategies at both the macro and micro levels. The need to take the economy to the innovation way of development is stated in the Strategy and Concept of Socio-Economic Development of the Russian Federation up to the year 2020, developed and adopted in the upper echelons of power. However, the process of building an innovative economy in Russia is extremely slow. Emphasis on commodity development model diverts investment and human resources from solving tasks of modernization of Russian industry, the development of high- and medium-tech industries, so that the technological gap between Russia and the developed countries is steadily increasing. Strategy of innovation development, on the one hand, is intended to regulate the functioning of the innovation sphere, i.e., refers to the horizontal component of the socio-economic policy and, on the other hand, includes separate economic and motivational elements (for example, tax regulation of innovation). Hierarchical structure of the strategy of innovative development is linked to the strategic allocation of four levels: macro level, regional level, sectoral and micro levels. Experience in formulation and implementation of State innovation strategy in many countries shows that it is generally not a pure expression of a theoretical model, and consists in a composition of various kinds. The article highlights several critical areas of the State strategy of innovative development at the present stage of development of the world economy, and identifies the main factors that affect the pace and content of the strategy of innovative development. In conditions of transition economy to the innovation way of development the innovation strategy needs to take a new position in the whole system of State regulation. It cannot be an isolated fragment of the socio-economic development strategy, and becomes the centre of the system of State regulation and permeates all aspects of it. It should be focused on stimulating the transfer of knowledge, including acquiring the form of technology transfer. Innovation strategy in the period of economic reforms and various kinds of extreme situations should be active, more rigid and defined.
Key words: strategy of innovative development; current trends; world experience.

P. 123. *Tsap Natalya G., Malakhovskaya Marina V.* Tomsk State University of Architecture and Building (Tomsk, Russia). **NECESSITY OF COMPENSATORY APPROACH IN USE OF RESOURCES BY MULTI-FUNCTIONAL GOOD MODEL DEVELOPMENT.** The increasing anthropogenic pressure upon the environment as a result of influence of the extensive economic growth again returns experts and researchers to questions of understanding of resource maintenance of public and, in particular, economic dynamics. Society, absorbing resources from the environment, reflects the constantly developing needs. Transformation of the economic and social structures of society under the influence of scientific and technological progress changes the society's needs, which leads to the variability of functions of the good as resources of their satisfaction. Particular importance in the description of the nature of the good, performing the function of reproduction of the human capital at the public and individual level, has its social character. In private use such good may be irreversibly damaged. Consumed by the user the social good demands its compensation. By compensation we understand the elimination of destructive factors on the good, which destroy its integrity. Due to the complexity of involvement by many users of the good in the process of their own reproduction and uncertainty of the results of this involvement the concept of multi-functionality of the good is developing. It becomes clear that the multi functionality of the good is composed of many components and is not an independently existing phenomenon (in particular, this is true for natural wealth, with different functions of the reproductive process). The process and the fact of transformation of wealth during its involvement in social reproduction can be reflected in the model of multidisciplinary good. At the methodological level, a multidisciplinary system is understood as a system that is formed by multi-composite, multi-level systems, and territoriality. The maintenance of multi-disciplinarity, reflected in the preservation of the qualitative and quantitative composition of the good, determines the possibility of realization of the desirable functions of the good and should rely on the principle of compensation of the withdrawn element. The use of non-destructive methods of influence on the good assumes the demand of the compensation approach that leads to the reversible exhaustibility of natural wealth. Conditionally reversible exhaustible natural good is the good, the method of involvement of which into the economy allows to provide its reproductive function. The need of the compensation approach is connected with ensuring the preservation and reproduction of the diversity of the good that allows to obtain benefit by the users. Multi-functionality of the good is the result of its multidisciplinary (multi-composite, multi-level, and territorial) factors.

Key words: good; resource; compensation; multi-composition; multi-functionality.

PSYCHOLOGY AND PEDAGOGICS

P. 128. *Atamanova Inna V., Starichenko Olga N., Bogomaz Sergey A.* Tomsk State University (Tomsk, Russia). **PSYCHOLOGICAL FEATURES OF MASTER AND DOCTORAL STUDENTS AT UNIVERSITIES ORIENTED TOWARDS CLASSICAL AND ENGINEERING EDUCATION.** The emerging knowledge-based society is calling for countries' innovative development as one of the global challenges. From the psychological perspective, innovative activity is defined as a form of human activity realized by 'going beyond', i.e. going beyond the existing attitudes and behavioural patterns (V.Ye. Klochko). In this connection, potentiality is becoming a key factor of human personal and professional development. One of the main goals of modernizing the current system of higher education in Russia is to promote university students' research and entrepreneurial activity which is innovative by its very essence. The paper presents the study which was firstly aimed at examining possible relationships between university master and doctoral students' career orientations and characteristics of their personal potential. The second research question was how the study participants' subjective evaluation of basic value realizability in the local settings (Tomsk is viewed as a region with high innovative potential) was related to their career orientations. The study subjects represented two universities of Tomsk (both have gained the status of the National Research University), one of which is considered to be a classical university (Tomsk State University); the other mainly provides engineering education in a great variety of fields (Tomsk Polytechnic University). The results obtained revealed statistically significant between-group differences in a number of career orientations including that towards entrepreneurship. The Polytechnic University master and doctoral students were more oriented towards entrepreneurial and innovative activity and this could be interpreted as their higher competitiveness and better employability perspectives in the current economic situation. Moreover, their orientation towards entrepreneurship was positively correlated with a number of self-organization of activity parameters (characteristics of personal potential). In turn, this means that the more representatives of this university are oriented towards entrepreneurial activity, the more purposeful, inclined to planning, focused on the present and persistent they are in their activity. Meanwhile, the State University master and doctoral students (only science students were included in the analysis) showed a significant positive correlation between their innovative index scores and a number of self-determination parameters (characteristics of personal potential). In other words, the more representatives of this university are oriented towards innovative activity, the more they feel that their life has value and meaning, it is in accordance with their desires and intentions and they follow their own way. As for subjective evaluation of basic value realizability, the two groups showed positive evaluation, but the State University master and doctoral students had higher scores. It can be suggested that representatives of this university are likely to be less realistic compared with their counterparts, who differ in their practicality and pragmatism. Moreover, both groups believed Tomsk to be first of all favourable for love and marriage and only then for their professional development and career perspectives. Therefore, it is necessary to develop special measures enabling university students to be more aware of the local potential for their personal and professional development.

Key words: career orientations; basic values; personal potential; orientation towards entrepreneurship; classical and engineering education.

P. 136. *Gizatullina Aygul G.* Semey State University n.a. Shakarim (Semey, Kazakhstan). **LONELINESS – DEFICIT OF OPENNESS IN SITUATION OF CHANGES.** The article proposes to clarify the understanding of the problems of loneliness of adolescents and young people in light of modern scientific knowledge and research data. In this article the attitude to the specific aspects of the age of loneliness (the content of identity crisis in adolescence) is reconsidered: it is proposed to identify the positive meaning of loneliness (willingness to be one to one with its work and life) and the negative meaning of loneliness (estrangement from its life, career and business) and to test the hypothesis that loneliness in the positive meaning is different from loneliness in its negative aspect: in the first case, the structure of existence coincides with the trends of human development and human in person, but in the second case, the structure of existence does not coincide with it. There is an assumption that loneliness in adolescence and youth is the result of associating various factors and life changing trends. In the article the results of an empirical research of degree of loneliness (social isolation) of 187 students of 7–10 forms of Semey schools are described, the interrelation indicators of loneliness and degree of depression,

the level of loneliness and personal anxiety are given. The key measure was determination of the degree of loneliness (social isolation) by the method of D. Russell and M. Ferguson. The research of personal anxiety was carried out by the technique of Spielberg, which was modified by Hanin. Determining the degree of depression was conducted on the Beck scale (Russian-adapted version). Some respondents were examined using a reduced modified form of Minnesota Multiphasic Personality Inventory – MMPI. In the statistical analysis of the data parametric and non-parametric methods were used. As a boundary criterion of statistical significance in order to refute the null hypothesis $p < 0.05$ was accepted. The results of the research of social isolation indicate a high level of loneliness of adolescents and young people (the percentage of individuals with high levels of loneliness in both gender groups exceeded 60%) contrary to a popular stereotype of the extent of loneliness among adolescents and young people. A statistically significant difference was revealed in the level of personal anxiety between the group of people with high levels of loneliness and the group of people with a low level of social isolation: excess in the first case was 34.4% ($p < 0.05$). A statistically significant interrelation of loneliness and depression was revealed: in the group with low levels of loneliness the indicator prevailed of values which are in sub-depression, and in groups with a high level of loneliness the indicator prevailed of values, which are in moderate depression. This way, it was found that young people who showed signs of increased anxiety, introversion and tendency to depression had a clearly defined tendency to loneliness in various meanings. On the basis that the hypothesis is confirmed the prospect is indicated of further study of conformity-non-conformity of the structure of existence (individual human life in the context of updating and integrity) of trends of human development.

Key words: teenage and youth loneliness; social isolation; growing crisis; uneasiness; depression.

P. 139. *Gritsay Lyudmila A.* Ryazan State University (Ryazan, Russia). **PEDAGOGICAL IDEAS AND EVERYDAY EXPERIENCES OF PARENTING CHILDREN IN CULTURE OF 18-CENTURY RUSSIAN ENLIGHTENMENT.** Parental education as a philosophical and historical phenomenon in the domestic culture of the Russian Enlightenment of the 18th century is studied in this article. The author considers the following concepts of parenting: government education, class division, Christian education, cooperating education and civic education. These concepts are presented in pedagogical works and in everyday experience of family life. Representatives of the first concept are F. Polikarpov, F. Saltykov, V. Tatishchev, I. Betskoy, Catherine II, A. Barsov, and others. Partial substitution of education in the family by public education is the essence of the concept. Distrust of the "outdated" education of children in the family and demand of distancing parents from children during their learning is also considered. As a result, of the division of parenting children in the families of the nobility and other Russian classes (peasants, merchants, priests and petty bourgeoisie) the second concept arises. Among the peasants, merchants, clergy and middle class the traditional understanding of the relationship between parents and children preserves. In the aristocratic circles the relationship between parents and children during the 18th century completely changes: from the neglect of parental duties at the beginning of the century to the idea of fatherhood and motherhood as a duty and joy for everyone at the end of the century. Representatives of the concept of Christian education are I. Pososhkov M. Lomonosov, I. Bogdanovich, and others. These researchers recommended the use of educational potential of Christian values and broad education of the people of all classes. The representatives of the concept of union of parents and teachers in their children's education are F. Jankovic de Mirievo, E. Dashkova, A. Prokopovich-Antonsky, N. Novikov, A. Bestuzhev, and others. Civic education concept of raising children in the family was typical for the pedagogical views of A. Radishchev. The scientist saw the essence of this concept in the education of worthy "sons of the Homeland", the true patriots and honest citizens. The 18th century was an important step in understanding the issues of family, parenthood and childhood. It preserved the traditional national Christian view of the nature of relations between parents and children in the family, as well as created new ones, based on ideas of nationhood and education as a means of raising of the younger generation. The era of the Russian Enlightenment characterizes the belief in education based on principles of reasonableness and harmony as an effective tool for changing people for the better. This explains the desire of the state to take the matter of raising, training and education of young people into their own hands and to partly "liberate" their parents. "Opening the world of childhood" as an important and special period in human life with its demands and needs took place in the works of Russian educators.

Key words: parental education; concept of parenting; value attitudes to parenthood.

P. 147. *Dyakova Yelena Yu., Zakharova Anna N.* Tomsk State University (Tomsk, Russia). **PHYSIOLOGICAL CHARACTERISTICS OF PRIMARY SCHOOL CHILDREN ENROLLED IN ACCELERATED SWIMMING TRAINING.** Swimming has a positive effect on the functional status of children. Swimming is an exercise, that promotes the growth of the child, because when a person is swimming in partial gravity in the horizontal position, the spine is temporarily discharged from its usual gravitational forces. However, the positive effect of swimming lessons can be achieved only with the proper organization of the training process, which is especially important for children of primary school in the initial training. Currently, there are many programs of accelerated swimming training aimed at training young athletes in a short time. A team of trainers has developed such a program for primary school children in Sports School № 8 in Tomsk, adapted to the conditions the sports school offers. The available literature does not have enough information about the physiology of the organism of young athletes involved in the program of accelerated swimming training, despite the large number of similar programs. Therefore the purpose of this study was to identify physiological characteristics of primary school children enrolled in accelerated swimming training. The study was conducted in the city of Tomsk in Sports School № 8 of swimming in the period from October 2011 to February 2012 in groups of the first year of initial training. The experiment involved 22 children aged 7–8 with the doctor's permission to swim. The children were divided into two groups: control and experimental. The control group of 10 people enrolled in A.A. Kashkin Program, which is standard for teaching children to swim at the initial stage of training. The experimental group of 12 people enrolled in the accelerated swimming training, developed by a team of trainers of Sports School № 8. As a result, children of the experimental group showed better results in terms of the level of physical development (indicator of dynamometry, life index, Erisman's index, chest excursion) than the control group children. Mathematical processing of the data revealed a statistically significant difference. According to the results of the orthostatic test the growth rate in the experimental group was higher than in the control one. According to the results of Rufe test in the control group the increase was large, but statistically significant differences were found. Thus, based on these results, we can conclude that the children engaged in the program of accelerated swimming training are ahead of their peers involved in the standard program by the level of development of functional systems.

Key words: children of primary school age; accelerated swimming training; functional state.

P. 151. *Zyubanova Irina A., Uskov Vladimir A., Kapilevich Leonid V.* **BIOMECHANICAL MODEL CHARACTERISTICS OF ATTACKING HIT PERFORMANCE IN VOLLEYBALL.** Methods of strain measurement, optoelectronic recording and electromyography were used to study the determining biomechanical model characteristics of attacking hit performance in volleyball. We saw

longer average electrical activity of muscles in the preparatory phase as compared to the main phase. It means that the player during the attacking hit spends more time on the perception of elements of the task content and solution than on the hit, and the dynamic stereotype in the main phase is more stable than in the preliminary phase. From the physiological point of view, this is due to the fact that the longer the person makes the move, the more it is subjected to correction. This proves by the consistent display of electrical activity in the muscles of the athlete. When performing the accurate attacking hit, the highest coefficient of electrical activity parameters variation is observed in the main phase of movement. Consequently, the internal mechanisms of the cognitive program of the game action form in the preparatory phase and are implemented in the main phase through the motor program under control of the higher parts of the central nervous system. The perception of the environment of the game in solving tactical problems is determined by fixing the attention of athletes on objects in search for the problem and understanding its essence. The priority direction of the symmetry axis is allocated as the are for searching the target. Performance of techniques in sports connected with accurate hits of the ball in the target is characterized by consecutive inclusion in the movement of the "working" muscles providing realization of the target-hitting function, and also relative stability of indicators of work of these muscles by amplitude, time and order of their inclusion in work; relative stability of kinematic characteristics of movement: time and values of components of support reaction, angle sizes, angle speeds of body links, etc. At the same time performance of techniques in sports that do not provide accurate hits of the ball is characterized by lack of synchronization in consecutive inclusion of "working" muscles (late inclusion, disorder in inclusion, etc.) and also high variability of indicators of work of these muscles by amplitude, time and an inclusion order; high variability of kinematic characteristics of movement by all indicators of reaction of support and angle values; increase in time of reaction of support in all components (to Fx, Fy, Fz) and increase in values of indicators of horizontal, forward and back elements of support reaction up to 12% (rather accurate attempts). Thus, the measure of technical and tactical skills of athletes in sports associated with the successful implementation of tactical decisions can serve as a performance technique at optimum stability of the kinematic characteristics (the form of movement), and certain sequences included in the necessary work of muscles and stability of their performance (the mechanism of movement).

Key words: biomechanics; electromyography; volleyball; forward stroke; model characteristics.

P. 154. *Mindeeva Svetlana V.* Irkutsk State University of Railway Engineering (Irkutsk, Russia). **MEDIA EDUCATION: ON SCIENTIFIC TERMINOLOGY SYSTEMATIZATION.** Media education is a pedagogical direction that has a rich history and a wide geography. The word phrase "media education" has come into the Russian language in the late 1980s. It was the Declaration of Grunwald 1982 that paved the way for media education at the international level having been unanimously adopted at the International Symposium of UNESCO. UNESCO has defined the media education as a priority area of cultural and pedagogical development of the 21st century, and recommended its global introduction into all state national curriculums, so that media education in Russia has great prospects today. The history of media education counts more than a dozen years but despite this fact different researchers determine its meaning in a different way, and sometimes their definitions do not coincide with the definition laid down in the dictionary. The versions of media education definition being notable are given by such domestic researchers as A.V. Fedorov, A.V. Sharikov, A.V. Spichkin, S.N. Penzin, L.S. Zaznobina, T.A. Stefanovskaya, Yu.N. Usov, O.A. Baranov, L.A. Ivanova, etc. In this paper, we are considering the existing approaches to this concept from different points of view of the scientists. The analysis study of the scientific literature in this field has shown that it is possible to find different formulas for this concept determination. The viability of all definitions is enhanced when the authors' positions, the goals the authors pursued, and the context of use are considered. The lack of a common understanding of the term "media education" causes differences in goal-setting. The purpose of media education is one of the most important issues. As there is no consensus on the term definition of "media education" there is no consensus on its leading goal. Educational purposes may vary depending on the specific theme and objectives of the lesson, age of the audience and some theoretical media education bases. By the definition of "media education" we follow taking into account the information needs of the society, we understand the purpose of media education in media competence formation by the individual. Nowadays the term "media competence" can be considered broadly popular due to the circumstances that have been predetermined by the informational conditions our society lives in. Many Russian media teachers and tutors keep addressing the issue and dealing with the problem of media education, which proves by the numerous works that do not cease to be published. The impact that the means of communication has on the human, makes the society deal with the problems of media education such as studying, complementing the existing expertise in this area and implementing media education in teaching. Prospects of development in this field are defined in the Concept of Socio-Economic Development of the Russian Federation for the period up to 2020.

Key words: media education; media competence; media educator; concepts; goals.

P. 158. *Nyman Yevgeniy A., Gural Svetlana K., Smokotin Vladimir M.* Tomsk State University (Tomsk, Russia). **ENGLISH AS LANGUAGE OF GLOBAL COMMUNICATION IN SPHERE OF EDUCATION.** The paper considers consequences of the unprecedented phenomenon in the world's system of languages, i.e. the transformation of the English language into the language of global communication as the result of information revolution and globalization of all aspects of human activities, which have changed generally accepted ideas about foreign languages and the notion of literacy. The emergence of a new educational paradigm according to which the English language is no longer considered as "foreign", but as a sine qua non of ensuring the participation of all Europeans in the new knowledge society has been recognized by the European Commission in its document issued in 2005, "A New Framework Strategy for Multilingualism". The paper presents an analysis of reasons which have brought about the acquiring by the English language of the status of the language of world communication, and takes on the question of what the language of world communication is and in which way it differs from the national variants of the English language. One of the characteristic features of the English language as a lingua franca is its high variability, which is not confined to differences in grammatical and lexical structures of the two major variants of the English language that have developed historically in the course of the emergence of the North American standard of the English language. The paper next considers the problem of the world standard of English as the global language and argues the unfoundedness of the thesis about the need of recognizing the right of developing language norms by the users of English as the second language, even though their number at present significantly exceeds the number of native speakers. Summing up, a conclusion can be made that the transformation of English into the language of global communication calls forth a revision of the traditional approach to teaching foreign languages. English as the global lingua franca has lost its status as a foreign language. This demands a reorganization of language education based on a transition to multilingual teaching and learning in which English language teaching is envisioned not as traditional teaching of one of the national variants of English, which leads to acquiring the corresponding dominant cultures, but as teaching English as the language of world communication used for overcoming interlingual and intercultural barriers in the globalizing world. The transition

to multilingual teaching is based on regarding English as a necessary condition for entry into the world economic, political and cultural areas and includes, alongside with the native (or state) language and English as a language of global communication, teaching at least one of the foreign languages offered by the educational system.

Key words: linguistic education; multilingual teaching and learning; language of global communication; ethnocultural identity; globalization.

P. 165. *Yazykov Kostantin G., Abushaeva Magipervas E.* Tomsk State University (Tomsk, Russia), Tomsk Polytechnic University (Tomsk, Russia). **NATURE OF PSYCHOLOGICAL COGNITION IN "LANGUAGE" SYNERGY.** The paper aims to get closer to the understanding of the potential function of the language as a bearer and creator of knowledge. The paper gives different approaches to reveal the nature of psychological cognition, using the only possible human method, the method of finding meanings through languages. In this context we can talk about language dynamics, linguistic nature of hermeneutic experience. Problems of cognitive and biological preconditions of the language and nature of language synergy have been set. DNA is supposed to have such a structural conjugation and meaning (existence), that underlies the entire semantic and linguistic code. N. Chomsky developed a pre-forming theory of speech development as a genetically set system of rules in brain speech structures. Palaeo-scientific findings prove that an event in point "X" directed Logos energy to create inert and live substance with no possession of autopoietic properties. During evolution there was a transition from simple subjects of self-organization (fluctuations of physical field) to genes and then to more complex replicators. Signs and symbols acquired some constructive energy of Logos. There are connections between Neoplatonism, Jungian psychology and neurophenomenology, which provide views on human nature. It is a kind of a convergent model of "substance spiritualization" and "spirit hardening". On the way of understanding this energy dialectics reveals, which implies interaction between energy of cognition and energy of symbol, and a rise of new potency possessing properties of autopoiesis. This anticipates the embodiment in the form of cognitive energy (cogenergy). Such a conclusion is anthropological, since a human being is the only source of knowledge for oneself. This knowledge is only aimed at self-finding and acquittal of The Creation and The Creator. Human thought-forms (TF) are also "organisms" co-evolutioning in accordance with human development. Any TF is embodied in a language, and therefore a great importance has always been given to the language in the course of human evolution. One can claim that spontaneous evolution of "texts" as earlier evolution of genetic languages accompanies human psycho-genesis. A new paradigm of communicative "neurosynergetics" includes complicated evolutioning systems – human brain and autopoietic languages. In ultimate meanings, symbolic systems developed from ancient to Christian forms. S. Khoruzhiy considers religious anthropological model to be truly human-dimensional. Here Dimension of a Human acquires full existence. The Christian model of a human being determines extreme meanings of existence, algorithms, and strategies of reaching the Anthropologic Border. Both destructive and constructive proximity of the Border is possible in relation to a human. The codes to describe human existence in these worlds have profound meaning and become semes.

Key words: new anthropological model; synergy; language.

SCIENCES ABOUT EARTH

P. 170. *Bystritskaya Lyudmila I., Rychkova Irina V.* Tomsk State University (Tomsk, Russia), Tomsk Polytechnic University (Tomsk, Russia). **NEW FINDS OF FERNS FROM MIDDLE JURASSIC DEPOSITS OF OB-TAZOVSKY FACIES AREA OF WESTERN SIBERIA.** The article describes the Middle Jurassic ferns from the core of wells in the central part of Western Siberia (the Ob-Tazovsky facies area). The studied plants have the Bajocian-Bath age and belong to the deposits of the Tyumen suite (Azharminskiy and Malyshevskiy complexes of plants of the Tomsk phytogorizon). The macroflora of Western Siberia is important for phytostratigraphic segmentation and for palaeo-geographic reconstruction. The Malyshevsky complex of plants of Ob-Tazovsky facies area contains ferns: *Coniopteris vialovae*, *C. depensis*, *Raphaelia diamensis*, *R. stricta*. The Ob-Tazovsky facies area is located in the central part of Western Siberia and is a place of distribution of deposits of transitional deposits, a part of the Tyumen suite of the Middle Jurassic age. New finds of the Middle Jurassic ferns are selected from cuts of wells of Frolovsky, Tymsky, Nyurolsky and Varyegansky structural facies regions of the Ob-Tazovsky facies area. Each print of a fern is unique by nature, it plays an important role in phytostratigraphic segmentation of deposits of transitional deposits in the studied area, and also broadens the horizons of our ideas of structure and evolution of the Jurassic vegetation of all Western Siberia. For deposits of the Tyumen suite prints of ferns, ginkgo, *Czekanovskia*, and *Equisetales* are characteristic. Among ferns *Coniopteris*, *Cladophlebis*, and, to a lesser extent, *Raphaelia* are widespread. Prints of macroflora are important for phytostratigraphic segmentation of Western Siberia. The complex of plants of the Ob-Tazovsky facies area studied by us (*Coniopteris vialovae*, *C. burejensis*, *C. kalinoviensis*, *C. depensis*, *Raphaelia diamensis* and *R. stricta*) should be assigned to Bath deposits (the Malyshevsky complex of plants of the Tomsk phytogorizon). *Raphaelia* finds in the Ob-Tazovsky facies area allow to increase areas of its distribution during the Middle Jurassic era further to the southeast of Western Siberia. New finds of prints of *Coniopteris* and *Raphaelia* help not only with biostratigraphic segmentation, but also are indicators of tropical conditions with high and uniform humidity, which were established during the Middle Jurassic era in the central part of Western Siberia.

Key words: phytostratigraphy; ferns; Bajocian; Bath; Malyshevsky horizon; Tomsk phytogorizon; Tyumen suite; *Raphaelia diamensis*; *R. stricta*.

P. 177. *Mardanov Ikham Ildyrym Ogly.* Sumqayit State University (Sumqayit, Azerbaijan). **RESEARCH OF LANDSCAPE STRUCTURE OF HIGH-MOUNTAINOUS PART OF INTERSTREAM AREA OF QARASU AND QURMUXCHAI RIVERS.** The research of exogenic relief forming processes allows to consider the particularities of forming of high-mountainous landscapes of the Azerbaijan part of the Great Caucasus and their space and time difference on the example of various massives. Some results of visual interpretation of aero photo images of scale 1:25000 and analysis of field study in this work allow us to characterize the condition of part of landscapes of the Southern Slope of the Main Caucasian Ridge for making optimal natural defense measures. The researches in this direction allow making a sketch map of erosion danger, which may serve the theoretical base for correction in the organization of economy activity. Research of the landscape situation in high mountains of the Southern Slope of the Main Caucasian Ridge has always been complicated by difficult environment. For this reason there is a sharp need in objective estimation of its condition in scientific researches. Experience shows that an effective tool for these purposes is the use of space information including aerial photographs. With their help it is possible to track the changes occurring in the mountain-meadow landscape zone actively used as pastures and hay making areas, and, most importantly, to define the most vulnerable sites for carrying out of nature protection actions. Besides, during the last

decade the given territory is more actively involved in the sphere of tourist industry, which, along with agriculture, already is an important component of human activity in the high mountains of the Azerbaijan part of the Great Caucasus. Large tourist complexes ready to host a considerable number of people are under construction here. Tourist routes, along which a developed infrastructure that would influence mountain landscapes can be created in the future, are defined. For this reason there is a necessity of revision of traditional classification of settlements, inclusion of "recreation centres" as an independent settlement type, which is crucial for defining the character of anthropogenic load on high-mountainous landscapes. Researches in this zone have quite an applied character. So, the given territory, where ancient settlements and historical monuments are located, tourist objects are built, needs assessment of safety of buildings, their security from landslides and mud flows. Various ministries and departments, along with scientists, should be involved in the work as this problem gets strategic character for the state, where development of non-oil sphere is an important state problem for the near future.

Key words: exogenic; slope; slope slide; erosion; mountain-meadow.

P. 183. *Otgonbayar Demberel*. Khovd University (Khovd, Mongolia). **MODERN GLACIERS OF MOUNTAIN RANGE TSAMBAGARAV (MONGOLIAN ALTAI)**. In this paper, the author researches the glaciated mountain range Tsambagarav, ranges Sutai and Munhhairhan, one of the greatest centres of modern glaciation of the Mongolian Altai. In this study of the glaciated mountain range Tsambagarav, ranges Sutai and Munhhairhan, the author takes into consideration certain interpretations of the multichannel satellite imagery "Landsat-7" (August, years 2002, 2008). The author studies the topographical maps at a scale of 1:100000 of the glaciers of mountain ranges Tsambagarav and Sutai, Munhhairhan of 1945 and 1975. Image processing and thematic interpretation of these images has been performed using computer programs MICRODEM/Terra Base-II and the decoding of the glaciers has been carried out using a digital terrain model according to the SRTM. Analysis of remote sensing mountain glaciers monitoring site Tsambagarav, mountain ranges Munhhairhan and Sutai provides an electronic data bank of glaciers. The created data bank consists of a cartographic database, thematic databases in the format DBASE, attribute tables of digital layers, directories and classifiers. The thematic interpretation of these images by using computer programs GOOGLE EARTH, MICRODEM/Terra Base-II is able to provide acceptable accuracy of estimates of the size and morphology of glaciers. As a result of remote sensing monitoring we have defined the area, volume, length, thickness, height of glaciers and their morphological types, as well as the exposition of glaciers. This article gives a general description of the glacial regions under consideration, including characteristics of the distribution of glaciers in the territory, their size, morphology and distribution of exposures. In addition, the study of the structure of complex glaciers is of independent interest. The study results establish additional indicators that can be used to describe the glacial regions. We see problems for further studies of the Mongolian Altai glaciers in the following: 1) since the hydro-meteorological network in the Mongolian Altai is extremely rare and completely ignores the highlands region, it is very important to organize more permanent meteorological stations and posts in the highland zone; 2) given the uniqueness of regime of East Pamir glaciers, the next stage of glaciological work is required – a year-round permanent glacier study area; 3) make greater use of satellite imagery to describe the evolution of the regime and the freezing of the Mongolian Altai.

Key words: glacier; glaciation area; basin; exposure.

P. 186. *Savichev Oleg G., Semenova Natalya M.* Tomsk Polytechnic University (Tomsk, Russia), Tomsk State University (Tomsk, Russia). **CHEMICAL COMPOSITION AND QUALITY OF LAKE WATERS IN TAIGA ZONE OF TOMSK REGION**. Research of the chemical composition and quality of lake waters in the taiga zone of Western Siberia within the limits of Tomsk Region is made. Research is based on the data which are received with participation of the authors in Tomsk Polytechnic and Tomsk State Universities, Open Society "Tomskgeomonitring" in 2002–2012. The objects of the research are thirteen lakes located in the middle part of the boggy basin of the Vasyugan River, in the bottom part of the Tom River basin, in the watershed of the Ket and the Tym rivers and near the Ob River valley from the Tym River mouth to Strezhevoy. At the moment of inspection these lakes did not have direct anthropogenic influence (dump of sewage, engineering objects in water areas or in the water-security zone, water collection, drainage of bogs by the lake, etc.). Researches included: 1) field works on selection and preservation of tests of lake waters for further definition of their chemical composition in the accredited hydrogeochemical laboratories of Tomsk Polytechnic University, Open Society "Tomskgeomonitring" and regional company "Oblcompriroda"; 2) generalization and statistical analysis of the received materials. The general geochemical condition and quality of waters of lakes of boggy landscapes in the taiga zone within the limits of Tomsk Region is estimated as satisfactory (from the point of view of prevalence of natural processes of formation of chemical composition of waters) and corresponding to the minimum level of anthropogenic influence on water objects (natural condition). At the same time cases of essential excess of water quality parameters established in the Russian Federation are marked in objects for fishing purposes in pH, in content of NO_2^- , NH_4^+ , Fe, Al, Mn, Cu, Zn, Hg, substances identified as oil hydrocarbons; in objects for drinking purpose these are pH, content of NH_4^+ , Fe, substances identified as oil hydrocarbons, phenols under condition of water chlorination. Principle causes of the specified deviations are the surface runoff from boggy territories to the lakes and in-lake processes. Background values of physical, chemical and hydrochemical parameters of non-polluted lake waters in summer and autumn low water, including the content of sediment substances (8.64 mg/dm^3), are established. Thus, the basis for estimation of anthropogenic changes of lake waters in the zone of activity of an oil-and-gas complex in Tomsk Region and in the adjoining territories of Hanty-Mansy region is prepared.

Key words: lake waters; chemical composition and quality of natural waters; taiga zone; Tomsk Region.

P. 190. *Strokova Ludmila A.* Tomsk Polytechnic University (Tomsk, Russia). **DETERMINATION OF STRAIN PARAMETERS OF SOILS FOR ELASTOPLASTIC MODELS**. The city of Munich forms the core of a fast growing urban region in the Alpine foreland of Bavaria, in southern Germany. The subsurface is composed of Neogene and Quaternary formations made up of loose alluvial, fine- to coarse-grained sediments. Today's landscape is known as the Munich gravel plain, which comprises sander terraces formed during the Pleistocene glacial periods, as well as the modern floodplain of the River Isar. Caused by a major unconformity and hiatus, these rather young gravel terraces overlie Neogene Molasse deposits of the Alpine foreland basin, which in contrast comprise fine-grained fluvial and lacustrine facies. The geology of Munich is well known due to numerous underground structures (e.g. subway tunnels), which were built in the past decades. Nevertheless, the multiphase geological history and the complex sedimentary architecture in combination with new construction methods constantly raises new geotechnical problems and challenges. Requirements for geological site investigation and ground modelling thus are very high as it is the case in many other urban areas worldwide, which face similar ground conditions, e.g. cities in major floodplains, coastal areas or forelands of mountain belts. The use of the finite element (FE) analysis has become widespread and popular in geotechnical practice as means of controlling and optimizing engineering tasks. However, the quality of any

stress-strain prediction depends on the adequate model being adopted in the study. In general, a more realistic prediction of ground movements requires using the models which account for pre-failure behaviour of soil, i.e. a non-linear stress-strain relationship before reaching the ultimate state. Such behaviour, mathematically modelled with non-linear elasticity, is characterized by a strong variation of soil stiffness, which depends on the magnitude of strain levels occurring during construction stages. Pre-failure stiffness plays a crucial role in modelling typical geotechnical problems such as deep excavations supported by retaining walls or tunnel excavations in densely built-up urban areas. An important aspect by the construction of urban tunnels is the control of surface subsidence to minimize any disturbance to nearby buildings and services. The available empirical, analytical solutions coupled with numerical modelling of strain of soils allow sufficient predictions of surface settlement trough due to tunnelling. This paper presents the results of determination of the modules of deformation from compression, K_0 -triaxial and dilatometer tests and calibration of their values by numerical simulation of these tests. Numerical simulations are carried out using elasto-plastic model with hardening (PLAXIS Hardening Soil). Only the HS model could describe deformations under loading, unloading and reloading realistically. Simulations using the MC model only represent the initial loading well. The module of deformation is undoubtedly the geomechanical parameter that best represents the mechanical behaviour of soils. The characteristic of model with the list of the parameters entering into it is given. In detail it is shown how to find nonlinearity parameter of a compression curve. Design values of deformability of soils are established.

Key words: elastoplastic models; strain; soil.

CHEMISTRY

P. 195. *Babkina Olga V., Novikov Victor T., Knyazev Alexey S., Alekseenko Kira V.* Tomsk State University (Tomsk, Russia). **METHOD TO PRODUCE LACTIDE OF MEDICAL PURITY.** Lactide is a cyclic dimer of lactic acid and an intermediate in production of biodegradable homo- and copolymers with high molecular mass. These polymers are used to produce resorbable medical materials and products. Lactide synthesis is comprised in thermal catalytic depolymerization of D,L-lactic acid. To synthesize lactide a Russian-produced 50% lactic acid was used. Using HPLC method it was stated that lactic acid has large amount of impurities caused by synthesis method. To purify lactic acid the methods of extraction and azeotropic water distillation of acids (impurities) was used. Several esters (isoamyl, butylacetate, etc.) and alcohols were used for extraction. However, this method was rejected since no phase boundary was observed. Other extraction agents (chlorobenzene, toluene, CCl_4 , etc.), which can be used in azeotropic distillation, were tested. It was shown that toluene is the best extraction agent to purify lactic acid. It has high flashing temperature, is chemically stable, available, does not dissolve in lactic acid, and breaks down readily. The preliminary purification of lactic acid allows achieving higher quality of lactide. After toluene extraction the concentrating and depolymerization of oligomer in rotary evaporator took place. The major conditions to produce oligomer and its subsequent depolymerization are as follows: mixer rate of 80–120 rpm, reactor wall temperature of 250–260°C, gradual decrease of temperature in the bulk of the reactor and pressure buildup. Hydrodynamic parameters of lactide synthesis in reactor with mixer were studied in conditions of two-phase system of "liquid-vapor-gas mixture". The lactide yield of 72–73% was achieved at depolymerization temperature of 235–240°C and reaction time of 30–34 min. The degree of regeneration (extraction) of lactide from mother liquor was 86–88%. The purification of crude lactide was carried out using triple backboiling from ethyl acetate. Identification of the received lactides was carried out according to measurement techniques certified at Tomsk Regional Collective Use Centre. Depending on the quality of initial lactic acid the crude lactide with melting temperature of 110–115°C was obtained. The lactide yield of 70–85% was achieved. The drying of the resulting product was carried out in vacuum drying box using nitrogen blanket at 45–50°C. It was stated that to maintain the purity of lactide one should keep it in airless and water-vapor-less conditions at the temperature of no more than 4°C. Thus, in the course of work it was stated that to produce high-purity lactide to be used in production of medical polymers it is necessary to preliminary purify the lactic acid using toluene extraction and carry out the synthesis in rotary film evaporator with subsequent recrystallization from ethyl acetate, drying in vacuum drying box under nitrogen blanket at 45–50°C.

Key words: lactide; biodegradable polymers; method of synthesis.

P. 200. *Malkov Viktor S., Kotelnikov Oleg A., Tuguldurova Vera P., Grabchenko Maria V.* Tomsk State University (Tomsk, Russia). **REGULARITIES OF 2-METHYLIMIDAZOLE SYNTHESIS AND TECHNOLOGY OF ITS PRODUCTION.** The regularities of 2-methylimidazole synthesis are represented in the article. The basic reaction for 2-methylimidazole synthesis is condensation of glyoxal, acetaldehyde and ammonia. The process is carried out in four stages: first of all the acetaldehyde reacts with ammonia at 0–5°C and further intermediate condenses with glyoxal. Then reaction mixture is evaporated and distilled. The study of the process was carried out by means of the laboratory reactor, the products were identified with IR-spectroscopy, NMR-spectroscopy, differential scanning calorimetry and gas chromatography. It has shown that the intermediate and glyoxal should be mixed at maximum 70°C and further condensation should be carried out at maximum 95°C. The main product evolving conditions for vacuum evaporation and distillation were optimized. Vacuum evaporation (i.e. reaction mixture concentration) should be carried out at 65–75°C and 1,5–2 kPa. Finally reaction mixture should be dried at 110 °C and main product distillation should be at 160°C. In addition, the time of synthesis was determined and it has shown that condensation should be carried out for at least 3 hours to achieve the declared yield of 2-methylimidazole. The lowering of synthesis duration leads to sharp decreasing of 2-methylimidazole yield, longer synthesis does not lead to 2-methylimidazole yield changes. The optimal molar ratio of reagents was determined. 2-methylimidazole synthesis is necessary to be carried out with molar ratio applicable to reaction stoichiometry, i.e. glyoxal : acetaldehyde : ammonia = 1 : 1 : 2.

Key words: 2-methylimidazole; glyoxal; synthesis; pharm-substances; heterocyclic compounds.