

SUMMARIES OF THE ARTICLES IN ENGLISH

PHILOLOGY

P. 7. *Antoshina Yelena V.* Tomsk Economics and Law Institute (Tomsk, Russia). **HISTORICAL AND LITERARY ASPECTS OF THE PLOT OF V.V. NABOKOV'S STORY "ULTIMA THULE"**. The subject basis of the story "Ultima Thule" is the situation of the loss of the loved one owing to her death. The story is a conversation of artist Sineusov with his dead wife, in which he describes his dialogue with Falter. The character of V.V. Nabokov's story hopes that his beloved hears it, though she is far and unconscious. It should be noted that at the threshold of the 19th-20th centuries the subject of posthumous experience of the person was very popular and appeared in a large number of works devoted both to the experiences of "posthumous existence", and to commenting on these experiences by scientific theologians, in particular. The idea of real communication with the spirits of the dead arose at the intersection of natural-science and philosophical concepts at the end of the 18th – beginning of the 19th centuries. In 1774 a German doctor from Vienna F.A. Mesmer became interested in the healing practice by means of magnets and electricity. Mesmer's followers concentrated attention on the research of magnetic sleep-walking, which was later named hypnosis. Some phenomena described by the researchers of magnetism became literary plots and motives. Great interest was also caused by the crime and seduction subject in the condition of hypnosis. The plot of the story "Ultima Thule" can be perceived as a plot variation about a medium who received an "otherworldly revelation" in the somnambulism condition. Initially, the hero of the story is in a steady plot about the contact with the spirits of the dead or the "fallen spirits" replacing them by means of a medium. This type of the plot is attractive for V.V. Nabokov due to its ambiguity and internal discrepancy. That is why it is reproduced fragmentarily, the author shows all the inconsistent moments of the plot. Motives contradicting each other lead to the internal crisis of the plot, and it becomes the internal motivation of a new plot creation directly on the "fragments" of the previous one. The consciousness of the hero belongs to several levels of the uniform reality at the same time. Being in the "Falter plot" he is afraid that the spirit of his wife will answer him by knocking at the table-top; being in the plot of "uniform reality" he understands live connection with the soul of another person, feels the world as existing in the memory or imagination of the dead wife and, in turn, considers himself as the keeper of her world. That is, he does not perceive the world of the dead as the "otherworldly", but feels that his wife and he exist in the uniform reality.

Key words: V.V. Nabokov; plot; Russian literature of the 20th century; literature theory; poetics.

P. 16. *Basalaeva Yelena G.* Novosibirsk State Pedagogical University (Novosibirsk, Russia). **LANGUAGE REPRESENTATION OF ODOUR IN THE INTERNET PERFUME DISCOURSE**. Odourative perception seems to be one of the most important steps in familiarization of human mind with the material world around, but many researchers notice that there are quite poor vocabulary means to express this perceptual mode. Nowadays the most intensive development of odourative language units can be observed in a special and highly developed perfume discourse. On the one hand, we can mention the advertisement language with its clear standards and tendencies to attract the reader's attention to the particular product presented. On the other hand, it is not only the advertisement discourse itself: this type of discourse gives a chance for the speaker to be involved in it and to create one's own texts to express the person's opinion and the attitude to a specific scent. Analyzing such speech utterances on different Internet forums we can reveal the following language specifics in expressing personal feelings about the scents. The person describing a particular scent very often hesitates to define it and argues the absence of specialized language to speak about scents. Nominations and concrete expressions the person chooses are sometimes very subjective and quite far from any perception mode (e.g., *современный* = 'modern'). It causes the fact that not all personal concrete scent definitions can be accepted and understood by the others. Nevertheless, we should say that the person always tries to make the scent "familiar and personal" using specific language means. Inability to choose proper words to express the impressions about scents leads to one of two ways of personal communicative performance. The first way is to agree with the language conventions accepted in the advertisement discourse and, therefore, use the fixed terminology (defining the components or notes of the scent). The second way is when the speaker creates their own language full of metaphors in descriptions of scents and, therefore, widens the borders of odourative language. The last case can be presented mostly by the musical metaphors: revealing the scent can be similar to the changes in sounds. The scent can be expressed through the water and anthropomorphous metaphors as well. The scent can be similar to the person with their emotions, characters and actions. Spatial metaphors are also very frequent in this discourse: the most regular key points in scent description are such spatial objects as house, forest, seacoast, foreign country, and others. A very separate group of examples includes presenting of different personal associations connected with a particular scent. Such associations are unique and that is why the speakers compare the scents with something specific, not obvious for the general advertisement standards. Thus, the specific characters of odourative perception presented by the Internet discourse language are manifested mainly by the metaphorical means in verbalization of scents.

Key words: lexical meaning; metaphor; odourative perception; perfume discourse; Internet discourse.

P. 21. *Vysotska Zoryana I.* Odessa National Economic University (Odessa, Ukraine). **DEVELOPMENT OF SCIENTIFIC STYLE OF THE UKRAINIAN LITERARY LANGUAGE IN LATE 19TH – EARLY 20TH CENTURIES**. The functional variant of the literary language used for cognitive-informative purposes in the sphere of science and education is the scientific style combining sublanguages of different branches of science. The establishment process of the scientific style in different languages is under different historical conditions, which affects the intensity and nature of creating the link process with other speech styles. Genetically the scientific Ukrainian language has a long tradition. Its origins are shown in certain documents, such as contracts as the oldest examples of assembly language and legal terminology in pre-Christian Russia of the 10th century, but the rapid development of scientific speech is dated by the end of the 19th – beginning of the 20th centuries. In this paper the conditions and the features of the scientific style formation of the late 19th – early 20th centuries are traced, which became the basis for the formation of the modern scientific language. It determines the relevance of the research problem. The author focuses on the role of the few academic institutions and scientific works of that period, presented in different fields of science by separate titles for the overall development of the scientific style of the studied period. There were no Ukrainian academic institutions as well as higher education establishments, which conducted teaching of the

Ukrainian language, up to the 1920s except few humanities departments in the Universities of Lviv and Chernivtsy. The paper actualizes the questions of forming the Ukrainian terminology in late 19th – early 20th centuries, identifies the sources of its formation, as well as the linguistic and stylistic features of scientific papers of the period. The question of the Ukrainian scientific terminology formation was urgent in the 1860s as the research shows. The development of the scientific style of Ukrainian was affected by such factors as general state of science and scientific knowledge in Ukraine, the level of literary language development, the language practices of writers, scientists, public figures and artists who appealed to the language in their scientific, historical, economic, literary, critical, and other works. Thus, the language of science in Ukraine began to form in the 1860s. The most active period of its development occurs in the first quarter of the 20th century. The Ukrainian terminological school was founded by Ivan Franko who determined the future development of language terminological systems of Ukrainian science at the end of the 19th century. However, up to 1960s-1970s the scientific style was not specifically studied and described. Scientific terminology was studied or indicated only in the most general features of scientific language.

Key words: literary language; scientific style; scientific language; text units of scientific style; Ukrainian terminology; terminological duplication; syntactic mode of scientific style.

P. 26. *Kuznetsova Olga A.* Tomsk State University (Tomsk, Russia). **MOTIVATIONAL STRUCTURE OF LEXICAL-SEMANTIC FIELD "PRIDE" IN THE OLD RUSSIAN LANGUAGE.** In Old Russian the concept of "pride" had a different structure and content than in the modern Russian language, which can be traced already in the semantics of the adjective *гордыи*. In its basic semantics the adjective *гордыи* was a negatively evaluated attribute meaning 'arrogant, haughty, chesty' (*Не буи ни гордь ни величавь*), 'rebellious, defiant' (*гордаго льстеца*), 'violent, destructive' (*оубицю гордаго*), 'harsh, unrelenting' (*соудии гър<г>ыи*). The positive connotations of the word *гордыи* were only in the figurative meaning of 'glorious, outstanding' (*гърдаго ихъ хоудожьства*). In the modern Russian language the unit *гордый* has dual evaluation, its main meaning has a positive connotation (cf. *гордый* – 1) 'dignified'; 2) 'experiencing the satisfaction of knowing success', 3) 'arrogant', 4) fig. 'sublime, majestic'). Thus, the conceptual domain of pride in the Old Russian language was much wider than in modern Russian. Such a semantic structure of the word may indicate the syncretic nature of the concept of pride formed on the basis of the image of the person of a high social status (e.g., king, ruler). As a result, a set of attributes describing the image is treated as one integral quality (high social status, hardness, harshness). Analysis of the internal forms shows that the lexical-semantic field (LSF) "pride" in Old Russian had three main motivational models. The most productive of these was the motivational model of 'pride' as 'the outwardly underlined superiority over someone else', which is realized in different ways: 'pride' as 'emphasised superiority manifested in the overestimation of one's position in the society' (*высокыи, величавыи* etc.); 'emphasised superiority over others manifested in the behaviour of the subject' (*надменыи*), and others. Other motivational models within the LSF "pride" in Old Russian are 'pride / arrogance' as 'isolation of the subject from the society because of the feeling of superiority over others' (*высокосердыи, высокосердые*) and 'pride / arrogance' as 'overestimation of the importance of one's opinions, desires' (*самохотие*). The analysis of the motivational characteristics of the LSF "pride" has the following results: traditionally pride was metaphorically conceptualized through the semantics of height and increase in size. From olden times a proud person was the one demonstrating excellence in anything external: appearance, mental activity, behaviour. Also the proud was whoever seeking isolation from the society or highly regarding one's opinions and preferences. Naturally, for the support of the modern language speaker the connection of pride with the social status of the subject is not relevant, pride is not associated with cruelty and harshness. This quality is increasingly seen as the inner feeling of the subject, not necessarily expressed in the external behaviour or appearance.

Key words: historical linguistics; Old Russian language; lexical semantics; motivational features; motivational model; lexical-semantic field.

P. 30. *Otkidych Yelizaveta V.* Far Eastern Federal University (Vladivostok, Russia). **TEXT FUNCTIONS OF THE TEXT CONNECTOR "КСТАТИ".** Text is one of the central notions in the modern linguistics. One of the basic categories is the category of connectivity. In this paper such a tool of realization of this category as the text connector is being considered. The text connector is a phenomenon, which is relatively new and far not fully investigated. Even in using and interpretation of this term and its synonyms (as in defining its extent) there are certain differences. In our research we follow the opinion of A.F. Priyatkina, who thinks that the text connector is a text unit, which serves for connecting the parts of the text (and it is not possible to mix it with other units performing the function of connecting, conjunctions, for instance). One of the "typical" examples of the text connector is the connector *кстати*. It's general meaning is being formulated as "optional comment" (факультативный комментарий – the term of M.V. Lyapun). Depending on the specificity of a concrete usage this general meaning may transform into one of the three contextually conditioned variants: 1) the optional comment proper, 2) contraposition, 3) summarization. In the last case there can be two realizations: a) the connector adds a sentence, which contains the information already mentioned in the text (as if making a loopback inside the text) – summarization with pre-text support; b) the connector adds a sentence, which contains new information – summarization without pre-text support. The minimal context for the connector *кстати* is two sentences (one from the left and one from the right). *Кстати* can also work as a phrase connector. In this function the word can add rather big text fragments, it signals about the importance of these fragments, and announces a new theme in the text. It focuses the attention of a reader on the following information (pragmatic function). Two formal realizations of this function are possible: *кстати* as a separate sentence and the construction *кстати о + N₆*. The last construction can be specifically used in the titles (this usage is in some way paradoxical, because normally, being used inside of a text, such constructions have strong left connection, the title has no left connection a priori). It is interesting to pay attention to the punctuation with *кстати* as a phrase connector: all stops of the end of the sentence (except the question mark) and the colon are possible. Thereby the functional possibilities of the word *кстати* are broad enough: it can play the role of the text connector (in three contextually conditioned variants), it can be used as a phrase connector (and to fulfill not only the connecting, but also the signal function), and have the structure *кстати о + N₆*, which is also a phrase connector and has a specific usage in the titles.

Key words: syntax; text; text categories; connectivity; text connector; phrase connector.

P. 33. *Rezanova Zoya I.* Tomsk State University (Tomsk, Russia). **INSTITUTIONAL AND PERSONAL PRESENTATION OF NATIONAL AND CULTURAL IDENTITY IN INTERNET COMMUNICATION: GENRE FORMS AND DISCURSIVE STRATEGIES.** In the paper the presentation aspects of the national and cultural identity are compared in the 'internal' personal and institutional discourses. The research is based on the text of official sites of social organizations, national cultural autonomies (NCAs) and community groups (CGs) of VK social network. The author believes that the sites of NCAs and CGs have a common basic

intention – translation of meanings of the national-cultural identity. However, this communicative intention is embodied in different forms of genre, using a variety of communication strategies and tactics. Variants of the genre form are motivated by the difference between types of institutional and personal communicative roles. Personal information on the site is presented on behalf of a social institution – a national-cultural autonomy, the content of the site actualizes the social aspect of ethnic identity. Social networks are a virtual communication network aimed primarily at the individual-personal presentation. The text content of the NCA site is dominated by the presentation of prevailing models of national and cultural identity in established genre forms. The intention of translation of the previously elaborated knowledge prevails, the site contains secondary genre forms of texts created earlier, especially the presentation, advertising, and news ones. Texts of CGs in VK social network differ from NCA texts in the expression of personal attitude of group members to the historical symbols of culture and current events. Presentation of texts is a secondary function, giving way to the expression of a personal, subjective, emotionally rich attitude to the facts, events, traditional symbols of culture. The intention of the expression of personal experiences of ethno-cultural identity determines the choice of genre forms (a discussion, a topical message, a game) and their transformation (declaration and report on the event combining the features of the informational and expressive genres). The strategy of developing the foundations of a tolerant perception of the ethnic group in the cultural environment in CGs in VK is not implemented. The strategy of actualisation of the multinational aspect of urban identity, which is expressed in NCA sites, gives expression of other aspects of urban identity in the content CGs of social networks.

Key words: ethnocultural identity; national cultural identity; national cultural autonomy; discourse; communicative strategy; communicative tactics; social network; community group of VK social network; website; Tomsk.

P. 42. *Trizno Oksana A.* Tomsk State University (Tomsk, Russia). **FEATURES OF THE IMAGE OF FRANCE IN THE RUSSIAN LITERATURE OF LATE 18TH – FIRST HALF OF 19TH CENTURY: FROM THE COMIC CONTEXT TO THE SERIOUS ONE.** Letters of a Russian Traveler by N. M. Karamzin signify the beginning of a new stage of the Russian-French dialogue when the comic literature context connected with the image of France changes into the neutral and serious one. One of the reasons for reaching this stage is changing of the type of aesthetic consciousness, which caused denial of the idea about reality as a hierarchy structure. As a result, there was no necessity in searching for the link (of comic nature) between two contrasting spheres of reality: real and ideal, low and high, which was crucial for the artistic perception of all phenomena including other cultures. Another reason for conversion from the comic context to the serious one was the high level of cultural fusion when focus on European lifestyle was habitual for the Russian nobility that led to reducing of laughter importance in solving international perception and communication problems. The analysis of the image of France makes us think that at this stage of Russian-French relations France (from the Russian point of view) becomes the anti-world incarnate. Anti-world, briefly, is a world of inverted meanings and values, world of the "entangled sign system". The key semantic cornerstones of the French culture are Russian cultural values turned inside out. For example, "sacred" is opposed to the overused "profane"; Romanticism and Realism literature efforts to understand the mysteries of people's inner world to reveal its complexity and ambivalence are opposed to the mask nature of the person's image in the French text; special relations between literature and reality when one's lifestyle and personality were built according to the already existing artistic model (kind of life-making) are opposed to the initially semiotic thus fictional nature of reality when life becomes its own simulacrum. And also the Russian of that time was shocked by the "easy-going" French attitude to their past which "overthrew", turned inside out Russians' precise evaluation of their own national path and history as "The Other" necessary for self-consciousness and gaining self-identity of either a single person or the whole culture. Comparing the individual elements of the "world" and the "anti-world", it must be remembered that the inverted reality is not a real image of Russia at that time but the ideal model of the sum of values of its culture. And despite the fact that "anti-world" is also primarily a mental construct in the case of France its actual shape is so close to that construct that interpenetration and elements of unity take place. That leads to the priority and domination of the set model over the reality and its perception.

Key words: France; anti-world; literary image; N.M. Karamzin; cultural dialogue.

PHILOSOPHY, SOCIAL AND POLITICAL SCIENCES

P. 46. *Borovkova Olga V.* Rubtsovsk Industrial Institute, Branch of I.I. Polzunov Altai State Technical University (Rubtsovsk, Russia). **THE PROBLEM OF DEFINITION OF THE HISTORICAL EVENT.** One of the most important problems of historical cognition is the problem of defining the concept of the historical event. Revelation of the essential features of the historical event and its place among the other categories of the historical science is necessary in order to solve the questions of demarcation both in the sphere of science itself and in correlation of scientific and non-scientific knowledge. The problem of definition of the historical event and detection of its peculiarities is not clear, however. The analysis of the conceptions of a number of researchers dealing with this problem lets us detect the essential features and properties of the event: it is a significant important happening characterized by novelty and unexpectedness in relation to actuality. In addition the event is defined as something unique or previously unknown. The historical event being partly characterized by the above mentioned features has however its own specific features going beyond the notion of the event. The historical process is also influenced by most disparate events: social, natural and transcendental ones. This leads to thoughts about the necessity of separating historical events from historically significant ones. Both of them influence the society and can change the course of history. Historically significant events, however, do not only cause historical events but also "annul" them. Natural and transcendental events are undoubtedly distinguished from the historical events proper as they are not connected with human actions and they are not purposeful. Immanuel Kant called in question the fact of both purposefulness and comprehension of human actions in the world arena. In his opinion it is sometimes not the intentions concerning the society at the bottom of these actions but some pragmatic interests, vanity or foolishness. Historical events are events taking place in a society; they are connected with human actions and based on ideas about the society. These events have both internal and external sides. Singleness, uniqueness and novelty of the historical event should be recognized as its essential peculiarities although uniqueness can be defined only against the background of typicality. All these peculiarities do not fully disclose the meaning of the historical event proper studied by the historical science; that is why it is necessary to add that historical events are considered to be those having known effects and the significance of which has already been determined both in the context of the past and the present. In other words an event in order to be understood and appreciated should be completed not only in its direct chronological framework but also from the point of view of long-term effects.

Key words: event; historical event; historical science; demarcation; socio-historical time.

P. 51. *Malakhova Yulia N.* Tomsk State University (Tomsk, Russia), Institute of Educational Systems of the Russian Academy of Education (Tomsk, Russia). **FUNCTIONING OF THE COMPETENCY APPROACH TO EDUCATION IN COMMUNICATIVE ONTOLOGY.** Communicative ontology as a principle of social organization is one of the branches of philosophical thought most promising for further development today. The increasing complexity of social relations in the multi-vector background of virtually all aspects of modern society requires the establishment of a theoretical basis that could be the basis of the social organizing. The place and role of education in society are closely connected with the information and communication environment in which they are located. Institute of Education in the framework of communicative ontology acquires the status of social organization that can be formed to introduce the subject in social reality, imparting its knowledge and skills to work with the information. The pedagogical paradigm is organized according to trends of pluralism of concepts and practices, of building a dialogue of cultures. Education understood as a combination of communicative action and communicative interaction aims at the development of an individual in a certain way, at the development of knowledge and skills for successful existence in the society. This is targeted development perceived as a natural way of being. The person in the communicative ontology is a continuously changing being, not the "initially prepared". The changes are a natural process, as this mode of existence is relevant to the dynamics of the society itself. In general it can be noted that the communicative purpose of educational ontology forms is aimed at educating a communicatively competent person by means of communicatively organized programs and resources of educational process organization with the use of communication methods and techniques. The modern phase of the reorganization of the Institute of Education has entered the stage of establishing the competency approach to education as the dominant one, which involves the development of means to maintain it. Features of the competence-based approach are that it is aimed at introducing the forming subject to the social reality by providing their knowledge, skills and abilities (primarily, work with various kinds of information), i.e., through the acquisition of the necessary skills. Such modern educational technologies as projects, model training, case study, small groups work, distance learning, and information technology developed from the pedagogy-centered educational theories and communicative practices of the early 20th century and, accordingly, are most relevant to the competence-based approach to education, which aims at the introduction of the subject of the contemporary social reality termed as communicative ontology.

Key words: communicative ontology; competence approach.

P. 55. *Syrov Vasily N., Agafonova Yelena V., Kruchinin Eduard A.* Tomsk State University (Tomsk, Russia). **ON THE PROBLEM OF THE GROUNDS OF MORAL BEHAVIOUR.** The paper deals with problem of the foundations of practical moral action. In other words, it is the problem of transition from "I ought" to "I will." We can see the main difficulties in the concepts of moral requirements functioning and reasons for their choice that originated in the Western European culture and traditions of research. So, if we interpret morality as a set of stiffened rules that must be applied to a variety of practical situations, the presence of conflict in the form of so-called moral dilemmas and moral issues will be guaranteed. In addition, the causes of the problems are the theoretical gap between the "I am" and "I ought", that is a connection between the anthropological and moral concepts. Concept "Ego Sum", starting with Descartes, is the concept of human nature of the Enlightenment. The individual in this framework is like a separate atom, driven by the forces of attraction and repulsion in the form of attraction to pleasure and avoidance of suffering. Thus, "I am" appears as "I want", namely, as the rational egoist. In this context, the society and culture are only secondary or superstructural formations that function as tools for satisfaction or limitation of desires. Theoretically, such a transition from the conception of human behaviour to the idea of duty as the principle of human action is impossible. It is possible to assert that within this conception the theory of justice will only be acceptable, both theoretically and practically, the one tending to the distributive justice. A good example is the theory of John Rawls. His approach to the conditions of selection of the initial principles of justice requires as a consequence such circumstances, in which selfish individuals must develop into moral persons. In other words, individuals that were constituted owing to profit should be reborn as individuals constituted according to the duty and respect. It is either impossible or requires a broader context for preferences, intentions, motives, than the one in Rawls's original position. Our thesis is that if we assume the possibility of formation of moral behaviour, we must follow another concept of specificity of the human being. It seems that the concept of Heidegger's life as co-existence with Others allows us to show the possibility and presence of the transition from "I ought" to "I will". The concept of co-existence allows us to treat it as an inherent element in the structure of human existence. First, co-existence means that any human feelings, thoughts and actions are not originally inherent in human existence but formed by means of the type of culture in which the individual is born. This means that we should interpret the individual in its own initial state as the individual who is constituted not by personal interests but by the feelings and motives in relation to others. Second, it is logical to assume that co-existence with Others is unthinkable without the presence of some kind of forms or degrees of normativity. Therefore, normativity should also be interpreted as an inherent element in the structure of human existence. Then the formation of a motive of respect, as well as the transition from normativity in general to moral norms, does not appear as a magical leap from no-moral state in the direction of morality, but it is a smooth transition from some norms to other, their transformation and modification.

Key words: morality; moral conduct; the grounds of morality; rational egoism; the theory of justice; J. Rawls; M. Heidegger; co-existence.

CULTUROLOGY

P. 61. *Pryadukha Natalia A.* Scientific and Production Association "Screen" (Barnaul, Russia). **MUSICAL LOGIC AS A FACTOR IN THE FORMATION OF THE CULTURAL LANDSCAPE OF THE CITY SQUARE.** This paper proposes an alternative music composition analysis of two squares of the city, in order to measure the possibility of interpenetration of musical and architectural languages and logics. The author reveals great similarity in the ranks of the logical rhetoric, music and architecture, which provides the possibility of finding a universal approach to the interpretation of texts in these areas. The existence of theoretical teachings on the subject and their application in the masterpieces of music and architecture makes the author's conclusions viable. Confirmation of these findings and analysis of interpenetration of musical and logic architecture as an example of real urban landscapes leads to the conclusion about the universality of the methodology presented. Any cultural phenomena are factors in the formation of cultural landscapes, which, in our opinion, are the richest places of refraction of many different linguistic and logical systems. Cultural landscape is understood as the sense aura created by signs and symbols associated with a particular territory in one way or another. Architecture, such as signs and

symbols, organizes most of the cultural landscapes, imbuing them with plenty of features, some of which are still poorly understood. The analysis of musical and audio features of October Square and Councils Square in the city of Barnaul enriches the semantic richness of these places and reveals rare patterns. The compositions of these squares are subject to the laws of the cyclic forms of music: rondo, suites, and variations. As a result, the architectural ensembles acquire abstract tempo, dynamics, timbre, genre, and other nuances, moreover, specific musical analogues. Decoding information ambiguity and diversity of the cultural landscape attributes allows to draw conclusions about the integrity of the world community and its laws, its universal order. We can reveal additional potential of particular existing sites (square) in the long term, form a holistic view of the location, city, region, country. The analysis of musical and sound characteristics of the two squares enables to confirm in one example the compatibility of at least two different languages, two options of logic that form additional aspects of the existing cultural landscapes. In the future, music and sound model of the city landscape can be its characteristics, non-standard component of the city's brand, its tourism and investment attraction.

Key words: music; logic; language; architecture; cultural landscape area.

P. 68. *Sizova Irina A.* Tomsk State University (Tomsk, Russia). **THE STATE AND MUNICIPAL PARTS OF THE MUSEUM NETWORK OF TOMSK REGION IN 1990–2000.** The paper researches trends in the museum in the new historical conditions of the turn of the 20th – 21st centuries. Functioning of the Museum network in the territory of the region at that time was associated with changes in social-economic and political spheres of the society, and, as a consequence, changes in the state system of culture management: the Ministry of Culture of the USSR was abolished, a new office, the Ministry of Culture of the Russian Federation, appeared. The Department of Museum Affairs was a part of it. In the region new management structures were formed, and economic management methods (self-financing, election of the leaders by staff) were used in the activities of institutions of culture. There was an increase in the state network of Tomsk Region. To manage it the Department of Culture of Tomsk Region was reformed. There were changes in the governance of the cultural sphere, the growth of the state museum network by increasing the number of branches of the museums, the emergence of municipal museums. The growth of the number of museums requires to develop special tools for their management and development. Such tools are: creation of the Association of Museums of Tomsk Region (2008) with the aim of uniting the efforts for the successful development of the museum sphere of Tomsk Region; conducting museum forums (2007, 2009, 2011); different conferences and the action "Night in a Museum". In 2009, the law "On Museums and Museum Business in Tomsk Region" was adopted, which was provided by the law of 1996 "On the Museum Fund and Museum of the Russian Federation". The urgent need for this law was dictated by the necessity to integrate into the common cultural space of a significant number of subjects of the museum activities, which exist on the territory of the region. They differ not only in the scale of the collection, profile, directions and principles of activity, but also the departmental affiliation (state, municipal, departmental museums, museums of educational institutions), as well as a significant number of private collectors. The main task was to set the common rules of the game. The concepts of "registry", "directory", "establishment of the museum type" and "formation of the museum type" were first introduced into legislative use, which distinguishes Tomsk law from similar laws adopted in other regions.

Key words: museums; museum network; part of state museum network; municipal museums.

HISTORY

P. 73. *Zinoviev Vasily P.* Tomsk State University (Tomsk, Russia). **THE WORK YEAR IN THE MOUNTAIN MINES OF SIBERIA IN LATE 19TH – EARLY 20TH CENTURIES.** One of the fundamental problems of the economic situation of wage workers is working time. Eight-hour working day was considered as a radical improvement of working conditions. The reduction of working time had always been one of the main demands of proletariat. In turn, industrialists aspired to get the most surplus value by the lengthening of working time. In the works on the history of working class studying the issue of working time is traditionally paid close attention to (monographs by E.E. Cruze, Yu.I. Kiryanov, etc.). The development of issue of working time requires detailed and systematic statistical material. The researchers of the economic situation of workers in Siberia use the materials of mining inspectorate. This paper deals with the dynamics and the structure of the work year of the miners in Siberia in late 19th – early 20th centuries based on the official departmental reports. The feature of Siberian mines was seasonality. Metal and salt production plants (with a break for the last repair), gold and silver-lead mines, coal mines, some large quarries for extraction of limestone worked all the year round. Most of the mines, small mines and quarries, and salt lakes were developed seasonally, usually in the summer. The average work duration of the mines was low and amounted to half a year. However, dividing the company by the duration of the working season and the number of workers, one can make a conclusion that a group of mines, working over 270 days a year amounted to 67.2% of all workers in 1915–1917, and mines equipped with dredges – 73.4% of all workers. The reduction of seasonality created the conditions to form the permanent body of workers. Operating mines in Siberia with the annual cycle of work (317 days) in the late 19th – early 20th centuries usually worked 305 days, missed 3 days, had 9 sick days. In July 1914, according to enterprise management responses to the questionnaires by the Mining Department, the company worked 24.1 days, the workers – 21.1 days, the main professions (cutters, drillers, dredgers) – 20.5 days. Before World War I the workers of coal mines of Siberia had 3.3 days less at work per month than the miners of Donbass, in 1916 it was one day less. The workers of gold mining companies worked more days per year than the workers in other industries in the country, the former worked about 284 days, the latter – 260–275 days. Consequently, the glitter of gold urged the gold miners and the workers, but on the whole the Siberian miners lived by the same rules as the miners throughout Russia. Seasonality of production declined, norms and traditions of relationships of workers and employers were established.

Key words: work year; work time; mines; miners.

P. 79. *Kosterev Anton G.*, Tomsk University of Control Systems and Radioelectronics (Tomsk, Russia); *Khaminov Dmitry V.* Tomsk State University (Tomsk, Russia). **REGIONAL SCIENTIFIC-EDUCATIONAL COMPLEXES OF RUSSIA: PROBLEMS AND STUDY PROSPECTS (THE WESTERN SIBERIA SCIENTIFIC-EDUCATIONAL COMPLEX OF 1875–1950S).** In the paper a short review of the basic problems in studying the regional science and higher education system in their connection with the main all-Russian historical tendencies is presented. Here we consider the role of the Siberian science and higher education (system of preparation of highly-skilled personnel) in the economic development of Siberia (broader – the so-called "internal colonisation"), in sociocultural region development, and in general for the country modernisation processes. Besides, for the deeper analysis of internal logic of the

research object evolution the concept "centre-peripheral" relations in the science organisation system is involved. The most significant stages in respect of new knowledge reception as priority directions of the further methodological and concrete historical scientific search are designated. The authors' conclusions emphasise the specific place and role of Siberia in the critical epoch connected with forced renewal of interrupted modernisation of the first half of the 20th century. The analysis of the major factors and features of state modernisation accompanied by the ongoing colonisation of the vast region allowed to reveal the second important subject – scientific, technical and teaching personnel. We make an attempt to verbalise the socio-political and socio-cultural roles played by the local scientific and pedagogical community in these processes. The description presented on the basis of the system analysis of the basic pluses and minuses of the system of science and higher education in Siberia, its main achievements, revealing the reasons of its failures allow to draw a basic conclusion that the development of the regional scientific-educational complex, first of all, was caused by the objective problems that both the state and the region (if to consider it as a certain geosocial whole) faced. Thus, the main contradiction slowing further development and application of the scientific-educational potential accumulated by the region was the lack of mechanisms of independent self-control, statement and solution of perspective tasks, transregional integration caused by hypercentralisation of management and redistribution of economic and personnel resources, characteristic for the science and higher education management system that had been formed by the end of the stated period.

Key words: science; higher education; Western Siberia; modernization; centre-peripheral relations.

P. 85. *Kurenkov Artyom V.* Tomsk State University (Tomsk, Russia). **TOMSK PROVINCIAL ORGANIZATION OF THE RUSSIAN COMMUNIST PARTY OF BOLSHEVIKS AT THE END OF 1919 – JULY 1920.** After Tomsk Province was freed from the Kolchak's troops the Bolsheviks renewed the legal political activity and were able to build a system of party organs. On December 23, 1919 Tomsk organizational bureau of the Russian Communist Party of Bolsheviks consisting of three people was elected, the scope of its activity was limited to Tomsk District only because of the temporary transfer of the provincial centre to Novonikolayevsk. In early January 1920 in Novonikolayevsk a provincial Party bureau was formed as the highest body of the Party control in the province. Its members then were re-elected in mid-January and mid-February. In the period from December 1919 to February 1920 the Party structures were established in the places. After the start of legal activity Tomsk Bolsheviks faced serious difficulties, which, first of all, were the lack of trained personnel, poor communication with the central Party and government organizations, lack of guidance and instructions. The first activities undertaken by the provincial Party bureau, was to regulate the work of Soviet institutions, to organise training courses for the Party members, to resume publications by the official organ, to conduct "Subbotniks", weeks of transport, to create national sectors in the district Party organizations. At the end of April 1920 by the decision of the Siberian revolutionary committee the centre of Tomsk Province was moved back to Tomsk, which led to another restructuring of the provincial Party apparatus. On May 7 the new Tomsk provincial bureau was elected, which included five people. One of the main problems the provincial bureau faced in this period was a severe shortage of responsible Party staff. In this regard, at the provincial meeting of representatives of county and district Party organizations the need was stated to obtain the maximum use of the available Party members in the province. At the same meeting a mechanism of accountability of party organs was developed: each lower Party organization had to give monthly progress reports to the higher one. On June 19-27, 1920 a member of Siberian bureau of the central committee of the Russian Communist Party of Bolsheviks V.N. Yakovleva visited Tomsk. After analysing the state of the provincial Party organization, she came to a conclusion about its extreme weakness and inefficiency. On July 25-26, 1920 the first Tomsk provincial Party conference took place, where the first results of Party organisation in the province were summed up. Upon completion of its work, Tomsk provincial committee of the Russian Communist Party of Bolsheviks was elected, which replaced the provincial Party bureau and thus became the supreme organ of the Party management in the province.

Key words: Tomsk Province; provincial bureau of the Russian Communist Party of Bolsheviks; provincial conference.

P. 88. *Nesterov Yevgeniy A.* Tomsk State University (Tomsk, Russia). **ACTIVITIES OF THE SCIENTIFIC PRODUCTION CENTRE "HERITAGE" IN THE FIELD OF PRESERVATION OF ARCHEOLOGICAL HERITAGE AND DEVELOPMENT OF MUSEUMS OF ALTAI IN 1992 – 2000.** On May 5, 2005 a law "On Objects of Cultural Heritage" was adopted in Altai, which prescribes to inform the Altai cultural heritage protection body in case of discovery of monuments of archeology. Altai Legislative Assembly may make a decision on creation of the reserve of historical significance in the territory. By the law, the scientific production centre "Heritage", opened in 1992, is engaged in identification, use, restoration, conservation, promotion of monuments of history. The centre has a Department of Archeology, which employs specialists-archaeologists. The staff of the Department work in the following directions in the field of conservation and use of archaeological heritage: inspection, monitoring, preparation of schemes of territorial planning, security excavations, acquisition of archeology monuments by museums. In Altai the work on protection of monuments of archeology began only in 2000 due to the staff of the centre. The archaeological monument is cleared from the soil; objects are set in their historical position. On the territory of the V.M. Shukshin Reserve the program of the tour includes the monuments of archeology on Picket mountain. Employees of the centre give tours in the Denisova Cave. On the territory of the tourist complex "Turquoise Katun" over the medieval mounds of Turks wooden pavilions are built for tours, information boards are installed with the historical details. In the Museum of the City History in Barnaul employees of the centre established the Department of Exposition that displays the mining Altai of the 18th – 19th centuries. Thus, objects collected in the expeditions of the scientific production centre "Heritage" are used for educational purposes. In addition, documents created by the centre can be used by the administration of the region to design programs of tourism development in Altai, and by museums to create plans of formation of archaeological collections. Agents of the travel industry of Altai can use the database of the centre to learn about the archaeological resources of the region.

Key words: scientific production centre "Heritage"; Altai; museum; archeological expedition.

P. 91. *Ostrovskiy Leonid K.* Novosibirsk State University of Architecture and Civil Engineering (Novosibirsk, Russia). **THE CONTRIBUTION OF THE POLES TO THE DEVELOPMENT OF HEALTH SERVICE OF WESTERN SIBERIA (1890 – 1917).** Siberia in the late 19th – early 20th centuries had quite a lot of Poles among medical workers. In Tomsk a group of Poles was in the structure of the Society of Naturalists and Doctors, Practicing Doctors, Obstetricians and Gynecologists. Among them the most famous was Vladislav Pirusskiy, a specialist in internal, children and nervous diseases. Pirusskiy was one of the organizers of the Society of Practicing Doctors in Tomsk, he was the propagandist of the healthy way of life, he became the creator of the first promotion society of physical development of children in Siberia that began its work in Tomsk in 1896. Another representative of the Polish community

who made great contribution to the development of health service in Tomsk was Florentin Orzheshko. In Tomsk Orzheshko became famous for his philanthropic activity, he had great authority among Tomsk prisoners. The House of Orzheshko united the Polish community of the town. Polish doctors worked in the towns and villages of Tomsk Province. In another region of Western Siberia, Akmolinsk Region, according to the census of 1897 17 Poles worked as doctors and hospital attendants, nine of them worked in Omsk. On the whole 8 doctors, 6 obstetricians, 4 doctor's assistants worked in Omsk in 1904. In 1916-1918 Vladislav Melianovskiy carried out research work in the field of ophthalmology. Melianovskiy took an active part in the life of the Polish community in Omsk, he was Vice-Chairman of the Polish society of help to the victims of war in Omsk. At the beginning of the 20th century the share of the Polish doctors among medical workers was great in the towns of Tobolsk Province. In 1901 about 50% of the ten doctors working in Tobolsk were Poles (including Birzhishko, Bonchkovskiy, Krasovskiy and Kevlich). Olgerd Grzegorzewskiy was a famous doctor and a public figure in Tobolsk. After working for 8 years as a county doctor, Grzegorzewskiy was appointed Director of Obstetric and Medical School in Tobolsk. There were few doctors, teachers and scientists in Siberia. So the political exiled people had great significance in this kind of activity. The representatives of the Polish diaspora made great contribution to the development of health service of Western Siberia. Poles played a particularly great role in the development of health service of provincial and regional centres of Siberia: Tomsk, Tobolsk, and Omsk. Doctors who lived in the cities of Siberia showed themselves as active participants of public life, they were among the members of the Polish local communities.

Key words: health service; Polish diaspora; Western Siberia.

P. 97. *Saynakov Nikolay A.* Tomsk State University (Tomsk, Russia). **DEFINITION OF MARGINALITY. METHODOLOGICAL PERSPECTIVES IN HISTORICAL STUDIES.** Definition of marginality is becoming more and more relevant for the Humanities, in this connection its methodological potential for historical science needs to be studied. The emergence of the marginality definition traces back to the American School of Sociology of the 1930s. This definition is based on the social and psychological aspects of socialization and cultural conflict, connected with the period of removal, changing, which can be defined as a crisis. The further development of American Sociology led to the expansion of the described marginality cases. New approaches appeared, marginality became a sociological definition to a large extent, the study of the social causes of marginalization began to dominate. Sociology became the science studying the social structure of the society, and persons, who "really" were in a position marginal to the defined social structure, began to be called "marginal persons". The psychological aspects of marginality receded into the background. Therefore, in our opinion, the monolithic notion of marginality phenomenon could not be worked out in sociology of our country as well as in sociology of other countries. The scientists either cannot explain the definition of marginal persons or expand this definition to all people. Therefore, to use this definition in the historical science we propose to return to the psychological understanding of this definition and to define marginality as the crisis state of uncertainty, vagueness or self-determination of a person in the world. It means that this understanding of marginality is based not on the position of the person in the social structure, which can be regarded as a secondary phenomenon, but on the doubts of the person about the stability of their social position. Such a person has a definite motivation and demonstrates typical behaviour, what is important to take into account for the study of a medieval person. Ivan the Terrible can be regarded as a glaring example of a marginal medieval person. According to the traditional point of view it is impossible to define Ivan IV as a marginal person, because the Tsar is considered to be on the top of the social hierarchy. Many scientists rather prefer to call him a brain-sick person than to explain his specific behaviour. But the use of marginality conception lets us see the conflict between the Tsar and the society, which was caused not by the different notions of political, ideological doctrines or psychological crises but by the different notions of morality, the due, which underlie socialization. The use of our definition of marginality let us study effectively and distinguish types of marginal groups, for example, insurgent peasants, suppressed ethnic minorities, sectarians, etc.

Key words: marginality; marginal culture; cultural conflict; psychological crisis; historiography.

P. 102. *Stas Igor N.* Tyumen State Oil and Gas University (Tyumen, Russia). **CONFLICT OF INTERESTS IN THE URBAN DEVELOPMENT OF OIL-PRODUCING AREAS IN WESTERN SIBERIA (1960S – 1970S).** The urban development of oil-producing areas in Western Siberia began in the mid-1960s. In the process of the urban development policy in the areas of oil production two major phases can be traced: 1) 1960 – 1970. 2) 1980 – the beginning of the 1990s. The first phase saw the formation of the concept of urban development and resettlement of new industries' workers. At the end of 1960s it was decided to build big base cities, which were to be oil production centres with the direct exploitation of deposits shifts. In the second phase the idea of the group resettlement of workers was developed, according to which small towns and workers' resettlements situated close to the fields should be developed instead of big cities. In this paper the conflict of interests between institutions involved in the process of extractive industries' developing in Tyumen Region and representatives of the regional elite regarding the implementation of the urban development of oil-producing areas is discussed. The main theme here is the confrontation between the Ministry of Oil Industry of the USSR and Tyumen Regional Committee of the Communist Party of the Soviet Union on the issue of the building of big cities, the developing of population centres and construction financing. According to the author, the conflict came to an end with the victory of institutions, when in the late 1970s a new concept of urban development was formed. The conflict of interests between institutional and local elites accompanied the formation of the urban development policy in the areas of Tyumen Region. At the end of 1960s Tyumen Regional Committee of the Communist Party of the Soviet Union adopted an approach which provided the building of big cities and fields development in accordance with the rotating scheme. The group resettlement of workers, according to which the populated areas were to be built at the places of oil production and which was supported by the representatives of the Ministry of Oil Industry of the USSR, was rejected. However, in reality institutions built up rotation camps; housing and sociocultural development and urban redevelopment of oil producing cities were poor. All these caused Tyumen leaders' discontent. There was no complete mutual understanding between the ministries themselves; each of them worked for solving their own compartmentalized interests. Eventually, institutions' policy led to the fact that the state dismissed the resettlement system in big cities in favour of the urban development concept proposed by the Ministry of Oil Industry of the USSR.

Key words: conflict of interests; institutions; urban development; Ministry of Oil Industry of the USSR; Tyumen Regional Committee of the Communist Party of the Soviet Union; elite.

P. 106. *Troitskiy Yevgeniy F.* Tomsk State University (Tomsk, Russia). **INDIA'S POLICY IN CENTRAL ASIA (2001–2012).** The paper focuses on the factors accounting for the rising activism of Indian diplomacy in Central Asia and on the major elements of India's policy in the region. It analyses the difficulties India faced in its search for stronger positions in Central Asia. In the first decade of the

21st century India made an attempt to become one of the powers influencing the countries of Central Asia and the regional subsystem of international relations. India's greater activism in Central Asia was stimulated by the fears of China's growing economic and military power and political weight, the threat of a renewed conflict with Pakistan which pushed New Delhi to seek for military presence on Pakistan's northern borders and the country's increasing dependence on oil and gas imports. In the first half of the 2000s the political dialogue between India and Central Asian countries intensified significantly. Declaring Central Asia to be part of India's "extended security horizon", New Delhi tried to develop military and political partnerships with Central Asian countries. The military cooperation with Tajikistan advanced to the point that a small contingent of Indian military engineers was deployed at the Ayni Air Base and the training of military personnel for the Tajik army began in India. Another area of India's policy in Central Asia was the search for participation in the development and transportation of the region's oil and gas resources. In the early 2000s India joined the trans-Afghan gas pipeline project. India expressed an interest in investing into the oil industry of Kazakhstan and gas extraction in Uzbekistan and Tajikistan. However, the initial outcome of New Delhi's efforts that had not relied on sufficient political and financial resources and had encountered tough competition from China turned out to be very modest. Only in the late 2000s India managed to join the club of countries participating in the development of Kazakhstan oil and gas resources when "KazMunaiGaz" and ONGC Mittal Energy signed an agreement on the joint exploration of the "Satpaev" Caspian oilfield. In 2012 the Indian leadership declared that it was launching a new political project aimed at consolidating Indian positions in Central Asia and named "Connect Central Asia". On the whole, the increase in India's political influence and political presence in Central Asia in 2001–2012 was not substantial and sufficient for the advancement of India's interests in the region. Although the consolidation of political cooperation and military contacts with Tajikistan brought India an additional advantage in its rivalry with Pakistan, New Delhi failed to provide a genuine competition to China in Central Asian arena.

Key words: India; Central Asia; Ayni Air Base; "Connect Central Asia" policy.

P. 109. *Shchipkova Yevgenia A.* Tomsk State University (Tomsk, Russia). **USA, IMF AND ECONOMIC CRISIS IN ARGENTINA (2001–2004)**. This paper analyses the position of G.W. Bush administration regarding the international financial aid for Argentina during the regional economic recession of 2001 – 2004. At this time the Republican administration was trying to maintain a new stricter approach to the lending mechanism of the International Monetary Fund. According to this pragmatic concept, the IMF should have decreased both the amount and the size of loans, which could be approved only for those countries that had already begun to take necessary economic measures. After intensive negotiations, the USA approved an IMF loan for Argentina in August 2001, but the inadequate nature of this loan, which was too small and neglected one of the key problems of the Argentine economy, evidenced that the Bush team was not seriously concerned about the possible regional dissemination of the crisis. In light of the 9/11 terror attack and the following preparations for the war in Afghanistan, the USA adopted a "wait-and-see" attitude and were not willing to authorize a large-scale aid package for Argentina. After the Argentine debt default in December 2001, the Bush administration faced criticism from both Latin American countries, which blamed it for the disregard of the regional welfare and stability, and the US Congress that called for a more consecutive and moderate policy concerning IMF loans. From 2003 to 2004 the main disagreement point between the IMF and Argentina was the problem of interest compensations to private investors. The Bush administration became a mediator in these negotiations. Moreover, it changed the traditional American strategy and supported not the international investors, but the left-wing Argentine government, whose priority was performing its social commitments. This change can be explained by some factors. First of all, the USA tried to bring Argentina on their side in the context of the changed political landscape in Latin America, as well as the raise of anti-Americanism and hard talks on the Free Trade Area of the Americas and the Doha Round (WTO). The enhanced regional partnership became especially important for the Bush administration due to the global war on terrorism and the preparations started for the Iraqi war. Besides, the Bush neoliberal economic team was eager to reinforce the new approach to financial crises prevention, when investors would bear full responsibility for their risks. Thus, the Bush administration had to balance between an attempt to demonstrate the new conception for IMF lending and the need to maintain the loyalty of Latin American countries to the US policy in unfavourable regional and global circumstances.

Key words: G.W. Bush administration; International Monetary Fund; Argentina.

P. 112. *Yun Sergey M.* Tomsk State University (Tomsk, Russia). **THE EUROPEAN NEIGHBOURHOOD POLICY AND THE SETTLEMENT OF POST-SOVIET CONFLICTS**. Implementing a more active policy towards the 'frozen conflicts' in the CIS was one of the elements of the European Neighbourhood Policy approved by the EU in 2004. It was inspired by the launch of the EU peacekeeping mechanism since 2003 and the adoption of the European Security Strategy in December 2003. Among the unresolved conflicts, the EU gave priority to the Transnistrian one. In the 2003-2005 period the EU significantly increased its participation in conflict resolution. It adopted sanctions against the Transnistrian leadership, torpedoed the Russian 'Kozak plan' of peace, sent observers to monitor the Moldova-Ukraine border, joined the multilateral negotiation mechanism, etc. However, a strong pro-Moldova stand of Brussels probably prevented the negotiations which were suspended in February 2006. The European Union continued to be passive in case of the Nagorno-Karabakh conflict, due to the nature of the situation, and the positions of the conflicting parties and some EU countries. It only offered political support for the OSCE Minsk Group. At the same time, the EU members succeeded in approving measures to promote the settlement of the Abkhazia and South Ossetia conflicts, but not to the same extent as it was done in the case of Transnistria. Given the deterioration of relations between Russia and Georgia in 2006, the EU tried to negotiate an additional package of confidence building measures to be implemented in the conflict zone, but it was interrupted by the Russian-Georgian war of 2008. The 2008 war encouraged the EU member states interest in the post-Soviet conflicts, but the impact of EU policy has remained low. Mediation between Moscow and Tbilisi, sending an observer mission, the co-chairmanship to "Geneva talks", funding social and economic projects and other steps have strengthened the EU presence in the Abkhazia and South Ossetia conflict area, but it was a belated action in view of Russia's recognition of the two territories. Informal multilateral negotiations on the Transnistria conflict resumed in 2007. The official negotiations restarted in 2011. The normalization of relations between Chisinau and Tiraspol urged the EU to conduct a more balanced policy. In 2010 the EU suspended the sanctions against the Transnistrian leadership. On the other hand, the EU members failed to approve the joint 'Meseberg initiative' of Berlin and Moscow that would win Russia's support in resolving the Transnistria conflict. Also, it is still unclear what impact EU-Moldova trade and visa liberalization will have on Transnistria, and how the two goals – Moldova and Transnistria's reunification and Moldova's integration with the EU – will correlate in EU policy. Finally, the EU as an alliance continues to be a bystander in regard to the settlement of the Nagorno-Karabakh conflict.

Key words: European Union; European Neighborhood Policy; conflict resolution; Moldova; Transnistria; Azerbaijan; Armenia; Nagorno-Karabakh; Georgia; South Ossetia; Abkhazia.

LAW

P. 116. *Alekseeva Tatiana A.* Tomsk State University (Tomsk, Russia). **THE CRIMINALISTIC DESCRIPTION OF VOCALICITY AS A STRUCTURAL ELEMENT OF ORAL SPEECH.** The paper deals with the concept of oral speech, the description of its structure and criminalistic significance of vocalicity as one of the elements of oral speech. Ability to speak is one of the unique properties of the human, and speech is the most important factor in the development of the human psyche. Speech has long interested the researchers in linguistics and psychology, it is also the object of study in criminalistic science. Recorded speech becomes the carrier of forensically relevant information needed to identify and solve crimes. Speech carries signs and individual characteristics of the person. Speech is the most common source of information, both in everyday life and in the work of the investigator. The interest in the criminalistic study of speech is not surprising, since the investigator has traditionally received most of the information about a crime in the production of communicative investigation. Currently, studies of speech are important when choosing interrogation tactics, assessing the validity of the words of the person giving testimony. Oral speech is expressed with sounds, it has a sound form and can be heard. The structure of oral speech can be distinguished by its division into three elements: vocalicity, tone, and content. Vocal features include voice volume and speech tempo. These features are individual due to the unique structure of the vocal apparatus of each person. Volume is the value of the subjective perception of the intensity of the signal that depends on the frequency of the basic tone. Tempo means the number (duration) of certain parts of speech in time and pauses between speech segments. The psychological state of the person, expressed in the vocal characteristics of voice, in situations of greatest tension (for example, interrogation) can be used to objectively assess and control their emotional condition. Studying the properties of the voice of a criminal can help solve the crime by analyzing the vocal voice features during communicative investigation. Such characteristics include, first of all, the tempo of speech, which reduces in the state of apathy and increases in anger and rage. Vocal characteristics of the person depend on their belonging to a psychological type, details of which will help the investigator not only to establish psychological contact, but also to apply the most effective tactics in the production of interrogation.

Key words: speech; vocalic; volume; rate of speech; personality; psychological type.

P. 119. *Shesler Aleksandr V.* Tomsk State University (Tomsk, Russia); *Borovskikh Roman N.* Novosibirsk Law Institute, Branch of Tomsk State University (Novosibirsk, Russia). **TYPES OF ANTI-CORRUPTION EXPERT STUDY.** Crime is the most dangerous manifestation of corruption. In this connection, the expert function of criminology and the science of criminal law is particularly important. Accordingly subjects of these science should be distinguished: criminological expert study and criminal law expert study. Criminological expert examination is the study of different social events for detection of facts proving cases of corruption. Criminological anti-corruption examination reveals corruption spheres of our society. Criminal law anti-corruption expert examination is the study of criminal law acts and other legal acts for detection of legal provisions, which can be useful for committing corruption crimes and other corruption offences. The necessity for anti-corruption legal expert study, its legal significance and subjects is enshrined in legislation. It also fixes rules and methodology of the anti-corruption expert study of legal acts and projects of legal acts. It is possible to identify two groups of criteria for determining legal provisions, which can be used for corrupt purposes. The first group includes legal provisions that give the law enforcer the unnecessarily wide margin of appreciation or the possibility of unjustified use of exceptions to the general rule (the latitude of discretion, definition of powers as "rights", selective changes in the volume of rights, excessive freedom by law rule making, missing or incomplete administrative procedures, etc.). The second group consists of the provisions dealing with uncertain, intractable, and (or) burdensome requirements for citizens and organizations (excessive demands to face requirements for the implementation of one's right, lack of clear regulation of the rights of citizens and organizations, use of unsettled, ambiguous terms and evaluative categories). Every branch of law is characterized by a specific legal impact on social relations, therefore, the criteria for determining the rules of corruption nature cannot be the same. For a typical civil law the dispositive method is applicable. Legal anti-corruption expert study in such cases should be aimed at identifying corrupt norms, not discrete ones. Discrete standards in the legislation are the basis for corruption. In this case, one should strive to eliminate or minimize the discretionary provisions in public law acts.

Key words: corruption; fight against corruption; anti-corruption expert study of legal acts and projects of legal acts; criminological expert study; criminal law expert study.

ECONOMICS

P. 122. *Akerman Yelena N.*, Tomsk Polytechnic University (Tomsk, Russia), Tomsk State University (Tomsk, Russia); *Burets Yulia S.* Tomsk Polytechnic University (Tomsk, Russia). **METHODOLOGICAL APPROACH TO THE ASSESSMENT OF INTELLECTUAL RENT AT THE REGIONAL LEVEL.** Due to the transition of Russia to the innovative way of development, the need of research of the social and economic relations for the sphere of intellectual, innovative activity, including questions of formation of the innovative income which in large part have the rent nature is staticised. Methodological approach is used when assessing the intellectual rent of the region on the basis of the definition of intellectual rent, its structure and opportunities of the innovative sphere statistics. On the basis of the offered methodological approach the analysis is carried out of interrelations between the main indicators of the technique and various indicators of innovative development by example of the Association of Innovative Regions of Russia to define the "influence points" on the volume of intellectual rent of regions in interests of the innovative income formation management. The conclusion about paramount value of development of the market of intellectual property is drawn and a number of problems interfering the transformation of intellectual potential into intellectual rent are designated. On the basis of the analysis of the state support measures influence on innovative activity two main models of the regional innovative development are designed. Their features cause the need of correction of innovative policy, including activation of accumulation of intellectual rent.

Key words: intellectual rent; methodological approach; intellectual property; Association of Innovative Regions of Russia; model of innovative development.

P. 127. *Spitsyna Lyubov Yu.* Tomsk Polytechnic University (Tomsk, Russia). **GOVERNMENT PROCUREMENT AS A WAY TO CREATE AN INSTITUTIONAL ENVIRONMENT STIMULATING THE INNOVATIVE ECONOMY DEVELOPMENT.** The innovative economy is one of the chief objects in view of the officials in Russia, and one of the ways to achieve it is to increase the national demand for innovative products. Government procurement is one of the largest purchasing units gathering 13% of Russian GNP in 2012 and may be used as a method of the innovative economy development stimulation. The existing institutions of government procurement oppose the innovative development. The contracting authority is ultimately responsible for the implementation of mutually exclusive goals: qualitative performance of its core functions (implementation of the objectives of social and economic policy of the state); economical and efficient spending of the budget; creation of an "institutional environment favourable to the development of innovative economy"; implementation of procurement procedures in strict accordance with the law. Based on the author's analysis, to use public procurement as a tool of creating an institutional environment that supports the development of innovative economy there is a need to change the current 2006–2012 system of law and practice institutions in the field of public procurement, including: 1. Development and adoption of federal laws (law institutions), which will: give clear, comprehensive, understandable definition for customers and suppliers of innovative products and services (in Russia and abroad); establish the conditions for the purchase of innovative products and services (including the possible establishment of the volume of the mandatory procurement of innovative products and services for each customer as a mechanism to stimulate their production in the economy of the Russian Federation); form the guidelines for the preparation of technical specifications for the purchase of the above items to the lists of relevant technical and quality characteristics depending on the type of goods, works or services. 2. Creation of a system of measures to attract highly qualified specialists able to track the innovative changes in assigned areas, to use the latest technology to place orders, and to take legislative initiatives to build a comfortable institutional environment that supports innovation development. 3. Creation at the federal level of information and consultation of infrastructure, which will deal with tracking the entry of new innovative products and services, the description of their technical and functional characteristics, and bringing this information to all state and municipal customers. In the preparation of such regulations the pre-feasibility analysis should be made to support innovation in the economy through the mechanisms of placing orders for goods, works and services for state and municipal needs.
Key words: government procurement; innovative development; institutional environment; law and practice institutions.

PSYCHOLOGY AND PEDAGOGICS

P. 130. *Aksenova Anastasia V.* Tomsk State Pedagogical University (Tomsk, Russia). **IDEAS OF SOCIAL DEVELOPMENT OF YOUNGER SCHOOLCHILDREN IN THE PROCESS OF PHYSICAL EDUCATION IN THE THEORY AND PRACTICE OF P.F. LESGAFT AND V.S. PIRUSSKY.** The order of the society for education of independent, successful, and creative people able to interact effectively with surrounding people has existed for many years. However, today the problem of successful social development of younger generation in our country is the sharpest, and obligation of orientation to social development of younger schoolchildren is fixed by the state policy in the field of education. Physical Education classes give a chance of active interaction of pupils, of broad application of active forms of education such as outdoor and sport games, relay races, competitive situations, so physical education assumes the formation of independence, responsibility, mobility, organizing abilities, abilities to work in pairs and groups, to participate in an activity in different role positions of the pupil. Besides, physical education in practice does not exist without intellectual, esthetic, moral, and labour education, that is the spiritual shape of the person forms by correctly organized classes. This paper is devoted to the scientific and practical activities of great teachers of the end of the 19th – beginning of the 20th centuries, Peter Frantsevich Lesgaf and Vladislav Stanislavovich Pirussky, in whose works and undertakings the ideas of the need of children's social development in the process of physical education more than 100 years ago were brightly shown. Lesgaf is called the founder of the system of physical culture of Russia. The first Institute of Physical Culture opened in Petersburg in 1919 is named after him. Pirussky is called the "Siberian Lesgaf" because he spread the progressive ideas of promoting the forces of nature and physical exercises in Tomsk. Our research is to find the analogies and distinctions in Peter Lesgaf's and Vladislav Pirussky's scientific and practical activities, and also to identify their ideas about the need of children's social development in the process of physical education. Both P. Lesgaf and V. Pirussky are called outstanding doctors and teachers, humanists by the contemporaries and historians. Their progressive views in many respects predetermined the content and forms of physical education at modern school. Many provisions and theories they offered are still relevant even today, when introducing the new federal state educational standards in educational institutions.
Key words: social development of personality; physical education; younger schoolchildren; history of physical culture; Peter Frantsevich Lesgaf; Vladislav Stanislavovich Pirussky.

P. 135. *Bokhan Tatyana G.*, Tomsk State University (Tomsk, Russia); *Alekseeva Lyudmila F.*, Siberian State Medical University (Tomsk, Russia); *Shabalovskaya Marina V.*, Siberian State Medical University (Tomsk, Russia); *Moreva Svetlana A.*, Siberian State Medical University (Tomsk, Russia). **PROFESSIONAL IDENTITY IN THE STRUCTURE OF INDIVIDUAL AND SOCIAL IDENTITY OF MEDICAL STUDENTS.** Results of studying of professional identity are presented in the paper in the structure of individual and social identity, its content and dynamics at the main stages of professional formation in a higher education institution for students of medical specialties. It is revealed that many students of all courses are headed for the future, they have their purposes and plans, many of which are connected with the chosen profession, i.e., the existential and criterion function of identity of the many is defined by the problem of professional formation. The number of such respondents decreases by the 6th course which can indicate some anxiety and tension experience concerning the future of graduates. The majority of students of all courses are active and are mindful of themselves in the present. For the majority of students of the final year the content of identity is the relevance of their present and the future. For an insignificant group of students of the first and third years the content of identity belongs to the past. Thus the analysis of the form of characteristics of identity of the first year students shows the experience of dissatisfaction, restrictions, difficulties of social and psychological adaptation in the present. The high importance of identification of individual characteristics in the content of identity is common for all students, especially for the first year students, which can testify to the experience of identity crisis. Students of the 6th year show the tendency of decrease in occurrence of individual characteristics and increase in the number of social roles occurrence. The characteristics of identity connected with the professional sphere are present in the majority of responses of students of all years participating in the research. It is defined that in the 6th year the semantic space of professional identification extends. In the content of identity of students of all courses limitation of the semantic space of educational professional activity is established. High frequency of

occurrence of characteristics of the "active I" in the structure of students' identity testifies to their activity, openness to the world around, the semantic fullness of their vital world that can be considered as a personal resource in dealing with difficult life situations. To a lesser extent material values and values of the "physical I" are presented in the content of identity. More intensive (by number of respondents) in the structure of identity of respondents of all courses are the characteristics of "reflexive I", "perspective I", "active I", "social I".

Key words: professional identity; individual identity; social identity; image of future; students of medical specialties.

P. 141. *Lalaeva Galina S., Dyakova Yelena Yu., Mironov Artyom A.* Tomsk State University (Tomsk, Russia). **INTRODUCTION OF THE PROGRAM OF TRAINING PROCESS WITH A SPECIAL SET OF JUMPING EXERCISES FOR ATHLETES AGED 9-10.** Many authors call the ability to jump one of the important qualitative aspects of the motor activity of young athletes. Previous studies showed that the method of Yu. Verkhoshansky using jumping is more effective for the development of the basic physical characteristics of young athletes than the running technique. However, it was found that the athletes find it hard for the initial training to master technically difficult exercises when using this technique. A program was developed of the training process using a special set of jumping exercises, which suited the athletes aged 9-10, and allowed to develop comprehensive basic physical qualities of young athletes at the early stage of preparation on this basis. The experiment was conducted from September 2012 to May 2013 on the basis of the Children and Youth School of Olympic Reserve No.1 in Athletics in Tomsk, in the athletics arena "Harmony". The study involved 30 athletes. The experimental group (15 people) worked on the developed program of the training process using a special set of jumping exercises. The control group (15 people) were engaged by the method of N.G. Ozolin using treadmill training. A control test and electromyography of the thigh muscles was carried out to assess the results of the experiment. All the results were processed using the method of mathematical statistics – the Mann-Whitney U test. Control testing and study of bioelectric activity of the leg muscles of athletes showed no statistically significant difference in rates at the beginning of the experiment. The results of the standing long jump, the standing triple jump, the 30-metre run, and the 500-metre run in the experimental group were significantly higher than those in the control group after the pedagogical experiment. The athletes of the experimental group had higher rates of the amplitude and a greater reduction in the oscillation frequency of bioelectrical activity of the thigh muscles of the jumping leg. On this basis, it can be concluded that the option of sports training in the experimental group using a special set of jumping exercises is more suitable for beginner athletes (9-10-year olds), it is more effective to increase the level of fitness, as it allows complex development of basic physical qualities of young athletes.

Key words: initial stage of athletes' training; pedagogical experiment; surface electromyography.

P. 144. *Lobanov Victor V.* Tomsk State Pedagogical University (Tomsk, Russia). **N.O. MASSALITINOVA, THE MEMBER OF V.S. PIRUSSKY PEDAGOGICAL SCHOOL: HER OPINION AND INFLUENCE ON THE PRACTICAL ACTIVITY OF S.T. SHATSKY.** This paper was the first to point out the formation of the authoritative pedagogical school on the basis of the ideas and practice of V.S. Pirussky at the end of the 19th – beginning of the 20th century. This school united the members of Tomsk Society for Physical Development Assistance. The realization of V.S. Pirussky's ideas at the school level can be seen in the following factors: the formation of a stable follower group, a member of which was N.N. Burdenko, later an Academician of the Academy of Sciences of the USSR, recognised tutors N.O. Massalitinova (Masalitinova), M.V. Lyange, V.O. Boldyrev, etc; publishing of the periodical "Health for All"; systematic professional training courses for members of the school and for physical education instructors and tutors in particular; consecutive and successful implementation of theories of V.S. Pirussky in various structures, from children's colonies to out-of-school institutions. The originality and practical value of medico-pedagogical theories helped this school to gain recognition outside Siberia. In this regard of particular interest is the activity of N.O. Massalitinova, the follower of V.S. Pirussky, who successfully worked as the child and youth counsellor in Tomsk and Moscow. On the basis of her memoirs and archival materials, the author of this paper analyses the influence of pedagogical experience of Tomsk Doctor V.S. Pirussky on the practice of an outstanding capital counselor S.T. Shatsky. N. O. Massalitinova's impressions about the work of this Moscow tutor were very skeptical, because she joined the group of the beginning talented enthusiast S.T. Shatsky as a skilled and methodical expert who critically perceived his spontaneity and "nonconstructive democratism". N.O. Massalitinova became an irreplaceable assistant with rich experience and knowledge acquired in the Siberian taiga. Also, S.T. Shatsky repeatedly noted that N.O. Massalitinova was able to think independently and reasonably. On her part, N.O. Massalitinova was very objective about the work of S.T. Shatsky, as can be seen in her letters to her Tomsk adviser Pirussky. Thus, in this paper the conceptions of V.S. Pirussky and S.T. Shatsky are reexamined from N.O. Massalitinova's pedagogical position and are shown for the possible interest of contemporary social work enthusiasts, teachers, physicians and managers.

Key words: Vladislav Stanislavovich Pirussky; Nadezhda Osipovna Massalitinova; Stanislav Teofilovich Shatsky; social pedagogy; history of pedagogy.

P. 148. *Lukyanov Oleg V.,* Tomsk State University (Tomsk, Russia); *Shcheglova Eleonora A.,* Tomsk State University (Tomsk, Russia); *Neyaskina Yulia Yu.,* Vitus Bering Kamchatka State University (Petropavlovsk-Kamchatskiy, Russia). **PSYCHOLOGICAL CORRELATES OF WORK ADDICTION RISK AMONG ADULT WORKING RUSSIANS.** The work was supported by RFH (project 13-06-18012). The paper is based on the field research of work addiction, which was made in different regions of Russia in 2013. During the research personal ideas of adult Russians from different regions concerning their life were collected (methods of observation, interview and a number of tests were used). 323 persons (66 male and 257 female Russians) from 17 to 67 years old ($M=33$; $\sigma=11,078$) from different Russian cities (Tomsk, Seversk, Kargasok, Bakchar, Tyumen, Nizhniy Novgorod, Samara, Novokuibyshevsk, Dzerzhinsk, Kemerovo, Leninsk-Kuznetskiy, Novokuznetsk, Mezhdurechensk, Prokopyevsk, Tisul, Krasnoyarsk, Petropavlovsk-Kamchatskiy, Elizovo, Yakutsk, Ridder, Rubtsovsk) took part in the field research in 2013. The aim of the research was to collect the data which would give the opportunity to perfect the existing approach to the self-identity problem, thinking metamorphose, human potential loss (work addiction, e.g.). This approach is based on the methodology of thinking experience transtemporal interpretation and self-identity analysis as a condition of maintaining stability by a human being in social variation and social development. This paper presents the results of correlation analysis of the available data. The analysis we made proves the hypothesis that work addiction risk in Russia is connected with wrong ideas of people about the place of work in their life, the rise of aloofness from nature, the weakening of personality (the lowering of resilience) and uncertainty in close relationships. The results allow us to perfect the existing approach to work addiction risk studies and to elaborate practical measures to correct work addiction and human potential in whole. The work addiction scale brings to light a small percentage of people with the high level of risk. But psychological factors which correlate with the high level of work addiction allow us to suppose that in reality the situation is much more serious than we think. We believe that the features that appear earlier than the obvious features of work

addiction (such as narrowing and impoverishment of ideas about the dynamics and completeness of life, narrowing of time horizons, simplification of life, etc) should be taken into account.

Key words: work addiction; ideas; human potential; risk work addiction.

P. 153. *Maystrenko Yelena V., Maystrenko Valentin I.* Surgut State University (Surgut, Russia). **THE INTERCONNECTION BETWEEN THE DEGREE OF MANIFESTATION OF THE EMOTIONAL BURNOUT SYNDROME SYMPTOMS AND CEREBRAL HEMISPHERIC DOMINANCE OF YUGRA TEACHERS.** Professional activity of teachers is characterized by a number of features allowing to reckon it among the group of risk of origination and development of emotional burnout syndrome. Thus, there is a negative change in psychosomatic health of teachers and reduction of their effectiveness. Many factors, including the typological features of the individual, can help or hinder the development of emotional burnout syndrome. The goal of the research was to establish interconnection between the degree of manifestation of emotional burnout syndrome symptoms and the functional asymmetry of the cerebral hemispheres of Yugra teachers. The paper presents the results of school teachers analysis (217 women) aged 23 to 69, with the mean age of 43 years and professional experience from 1 to 40 years. The teachers have passed "Emotional and Professional Burnout" test (V.V. Boyko) and emotional burnout MBI questionnaire (adapted by N.E. Vodopyanova). There were also determined the psychic asymmetry of the hemispheres and the profile of lateral organization (by E.D. Khomsky and others). According to the results of the research it was found that none of the emotional burnout syndrome symptoms are formed, and at the stage of formation are the symptoms of the "resistance" phase. In the process of division of teachers (in %) according to the psychic asymmetry of the cerebral hemispheres and formation degree of each of the 4 symptoms of "resistance" phase, it was found that the most part of them were sinistrocerebral – 55–65%, ambidextrous – 20–30%, dextrocerebral – 7–19%. It is set that the number of the dextrocerebral for symptom V "improper emotional response" from the stage "unformed" to the stage "formed" increases (from 8.33 to 19.59%). The same pattern – increasing of the number of the dextrocerebral – but less evident can also be seen in the formation of symptoms VII – "expansion of the economy of the emotional sphere", VIII – "reduction of professional duties". Negative emotions are mostly associated with the right hemisphere, and positive – with the left one. We suppose that this is what explains the increase of the number of the dextrocerebral in the formation of the considered symptoms, especially of the symptom of "improper emotional response." Low coefficient of correlation between the psychic asymmetry and the profile of the lateral organization in the group of teachers ($r = 0.13$) indicates that psychic asymmetry little depends on the motor, visual and auditory asymmetry. The results of the research confirm the correlation between the characteristics of psychic asymmetry of the cerebral hemispheres and the development of emotional burnout syndrome symptoms.

Key words: emotional burnout syndrome; tension; resistance; exhaustion; functional brain asymmetry; profile of lateral organization.

P. 158. *Revyakina Valentina I.* Tomsk State Pedagogical University (Tomsk, Russia). **COMPARATIVE ANALYSIS OF SOCIAL-PEDAGOGICAL EXPERIMENTS OF V.S. PIRUSSKY, V.P. KASHCHENKO, S.T. SHATSKY (1895 – EARLY 20TH CENTURY).** The analysis of foreign recreational-upbringing children's practice revealed that for the first time the prototypes of contemporary summer rest camps were founded in the beginning of the 1870s in Switzerland in the form of several out-of-city 'vacation colonies' for physically exhausted primary students from poor families. These first experiments became popular in Switzerland, as well as in other European countries (Germany, Austria-Hungary, Belgium, England, Spain, Norway, Sweden), which started the annual sending of primary students for summer rest. European organizers of students' summer rest realized that the main objective of out-of-city 'vacation colonies' was to rehabilitate health with the help of clean air, exercises, hygiene, good nutrition, sports games and educational classes. Integrated experience of the countries above showed that the stay of weakened children during several weeks in the conditions of the simplest but healthy environment in the fresh air had a curative impact on the children: they got strong, had a rest and returned to the city cheerful and healthy. The history of Russian educational-upbringing practice of the 1890s – the first quarter of the 20th century was rich in numerous medical-recreational and upbringing-educational experiments, which can be truly considered as those giving rise to innovative forms, methods and content of extracurricular pedagogical work with children and teenagers from the low social stratum. The paper deals with the activity of Russian pioneers of the 1895 – early 20th century period similar to the European one: a Tomsk doctor, public personality V.S. Pirussky; a general practitioner V.P. Kashchenko (Moscow) and an enthusiastic teacher S.T. Shatsky (Moscow). They had a common complex activity of the social character, experimental searches and finds in the organization of practical work with children and teenagers that can be called 'curative pedagogics'. These people made a great contribution to pedagogics, medicine, social work, working out and introduction of pedagogical innovations, however, in this paper the readers' attention is drawn to the recreational aspects of their curative-pedagogical activity in children's institutions. Physically handicapped, educationally neglected children, children with deviations were temporarily kept in summer camps for several weeks. According to the doctors and teachers, this children's category needed 'curative pedagogics' including the combination of medical-therapeutic, pedagogical and upbringing techniques targeting correction of the child's character and the individual on the whole. After a detailed analysis of 'curative pedagogics' as a dominant activity of these prominent personalities we can define their activities as somatic and first of all as a social-moral recreation of rising the generation of pre-revolutionary Russia.

Key words: extracurricular institutions; children's rest camp; recreational colony; social and public work; foreign experience; curative pedagogics; upbringing practice.

P. 163. *Starichenko Olga N., Chuchalova Olga N., Shmyreva Maria A.* Tomsk State University (Tomsk, Russia). **PSYCHOLOGICAL AND EDUCATIONAL OPPORTUNITIES OF ACHIEVEMENT POTENTIAL ACTUALIZATION TECHNOLOGY OF MASTER STUDENTS.** In the conditions of modern Russia there are real opportunities for young people to be engaged in innovative activities already at the stage of training. The demand for the quality of specialists' training increases; they should have a set of social, personal, psychological competences allowing them to be included in innovative activities quickly enough. The process of joining the innovation activity needs certain support. One of the directions of this work is psychological and educational support. The analysis of the research carried out for a number of years at the Faculty of Psychology of Tomsk State University allows to allocate the following psychological deficits, characteristic of contemporary youth: low level of the communicative culture; low level of inner motivation; lack of goal-setting skills; low level of tolerance to uncertainty; low level of flexibility; low level of trust in oneself. Special attention deserves the fact that young people who have a positive experience of participation in innovative competitions also express such psychological deficits as lack of formation of self-presentation and team work skills. In this regard, there is a special urgency of the problem of minimizing the existing socio-psychological deficits and formation of relevant skills. One of the variants of psycho-

educational technology is developed by the authors of this paper. It is the technology of Achievements Potential Actualization. The purpose of the technology is to increase the level of personal efficiency of young people. This technology is aimed at the development of such competences as the ability to take the initiative including the situations of uncertainty; the ability to make non-standard decisions, to resolve problem situations; the ability of effective communication, mastering the skills of analysis of their activity; the ability to organize their activities and self-organization, ability to manage their emotions, mastering the skills of self-presentation. Psychological-educational technology includes various forms of activities: training, lectures, seminars. The implementation of the technology involves organization of a special method for educational interaction including the technologies widely used in the educational practice: the problem introduction, case-study, discussion, debate, project method. The technology is developed on the modular principle. Modules are independent of each other. Depending on the specifics of the group the content of each module can be modified.

Key words: potential achievements; psychological; educational technology; young people included in innovative activity.

P. 165. *Sharafeeva Alla B.* Tomsk State University (Tomsk, Russia). **FORMATION OF SPORTS AND RECREATIONAL COMPETENCE OF FUTURE SPECIALISTS IN PHYSICAL CULTURE AND SPORTS.** The aim of this study is to provide a form of educational technology sports and recreational competence of future specialists in physical culture and sports. To test the effectiveness of the technology a pedagogical experiment conducted at the Faculty of Physical Education of Tomsk State University. The criteria and indicators of formation of sports and recreational competence of students have the following components: motivational, cognitive, object-professional, analytical and reflective, communicative. To determine the level of formation of sports and recreation competence of students the cumulative score was used. Successful professional activities require modern specialists in physical culture and sports to show excellence, activity, creativity and in-depth knowledge and skills of both the subject-professional and the specific nature associated with the peculiarities of professional activities. The modern university graduate should be able to organize and conduct training with sports and recreational tasks for various population groups. This activity is called recreational in the federal educational standard of higher education. Sports and recreation activities are targets of sports and physical education, but in the educational process of sports higher schools and faculties training to prepare for implementation of this activity is not given due attention to. Underestimating physical recreation as a function of a specialist in physical culture is one side of the problem. The other is the lack of training of teachers for this activity. The purpose of the study is the creation of educational technology aimed at formation of sports and recreational competence of future specialists in physical culture. Formation of sports and recreational competence is assigned to a specific organizational structure, which acts as a manifestation of the levels of competence and has level features. At the heart of each level is the degree of formation of sports and recreational skills in the form of individual development of the student. To analyse the degree of formation of sports and recreational competence, we have developed four levels. The aim of our technology is to develop sports and recreational competence of future professionals. To achieve this goal we have developed a course of Physical Recreation. To test the effectiveness of the developed technological model for the formation of sports and recreational competence we made a pedagogical experiment, with the third year students (the experimental group of 20 persons) and the fifth year students (the control group of 20 persons) of the Faculty of Physical Education of Tomsk State University participating. The preliminary stage was conducted in order to determine the initial level of formation of sports and recreational competence of students in the control and experimental groups to use the experimental educational technology forming sports and recreational competence. At the next stage of the pedagogical experiment we used the developed educational technology in the educational process of the experimental group. The final stage of the pedagogical experiment revealed the changes in the formation of sports and recreational competence in the experimental group of students after having the course of Physical Recreation and assessed the dynamics of these changes in relation to the control group. As a result of the experimental work on the practical implementation of the technology of formation of sports and recreational competence of students of the Faculty of Physical Education it was established that in the experimental group, the values obtained for all components are higher than in the control group. The results of the pedagogical experiment confirm the positive impact of the developed and implemented technology of sports and recreational competence formation of students in the educational training of specialists in physical culture and sports.

Key words: specialist; physical recreation; sports and recreational activities; sports and recreation competence.

SCIENCES ABOUT EARTH

P. 169. *Zhuravlev Georgy G.*, Tomsk State University (Tomsk, Russia); *Kuskov Arkady I.* Institute of Monitoring of Climatic and Ecological Systems (Tomsk, Russia); *Ivanova Ella V.* Institute of Monitoring of Climatic and Ecological Systems (Tomsk, Russia). **THE USE OF ROBUST PROCEDURES FOR AIR POLLUTION ESTIMATION IN TOMSK.** To solve the problem of air pollution it is necessary to examine pollution levels in space and time. Measuring the air pollutants concentrations it is difficult to avoid different mistakes. That is why the correct estimation of the pollution level is necessary for making optimal environmental decisions. As a rule, in a sample, crude measurement errors or bad values occur, these errors and bad values garble the average value, especially the dispersion value. The paper gives a link where 10% of measurements producing bad values twice increase the dispersion estimation. Many researchers exclude bad values from data processing as they do not belong to this distribution. Other researchers exclude the drop out observations and examine them separately, as bad values can be of greater interest than the sample itself. There are a lot of recommendations on the detection and screening of bad values. The paper considers one of the methods of estimation of the pollutant fields distribution parameters. This method deals with the procedures insensitive to the data structure – the robust estimation procedures. Two most common robust estimations, Winsorized and trimmed estimators, are applied. Two variants of the statistic characteristics calculation of pollution levels are used. In the first variant the calculation was conducted using the whole data base including cases with zero pollution level. In the second variant only cases with the pollution level different from zero were used. The results showed that the value of the average pollution level when calculated by the second variant was 2-3 times higher in comparison with the first variant. Standard deviation values in both variants do not differ. In the structure of the annual course of standard deviations two maximums in May and December can be traced, they differ from other months values by 2-3 times. It has been discovered that the nitrogen dioxide concentration in May exceeds the maximum permissible concentration by 5 times, in December – by 2 times. These cases can be referred to as abnormal. The comparison of results shows that the average value, the average quadratic deviation and the confidence interval value is lower or equal when the trimmed estimator is applied rather than the Winsorized one. Thus, the usage of the robust

estimations allows not only to correct the average values of the sample taking into account emissions but also to define the abnormal pollutants concentrations values.

Key words: robust procedures; air pollution level; Winsorized and trimmed estimators.

P. 174. *Kizhner Lyubov I., Barashkova Nadezhda K., Akhmetshina Anna S., Bart Andrey A., Poliakov Denis V.* Tomsk State University (Tomsk, Russia). **ASSESSMENT OF THE ACCURACY OF NUMERICAL FORECASTS OF METEOROLOGICAL CONDITIONS IN THE REGION OF TOMSK USING WRF MODEL.** The paper describes the results of errors assessment of major meteorological values forecast using the predictive WRF (Weather Research & Forecasting, version 3.4.1) system in its local variant. Hourly meteorological prognostic values for the period from 6 p.m. of June 15, 2012 to 12 p.m. of June 17, 2012 and the actual weather during this period were the material for our research. The research was made by repeated launching of the WRF modeling system with changing parameterization of humidity microphysics while parameterization of other processes remained the same. The calculations were performed in the three embedded areas with a common centre in the city of Tomsk. The size of the local area was 50 × 50 km with 1 km step grid spacing. Assessment of forecast quality was made for this area. The accuracy of temperature, pressure, humidity, wind speed and direction, rainfall forecasts were assessed by the following criteria: mean absolute, mean squared and mean arithmetic errors. To assess the rainfall forecast other characteristics were also calculated. We received the following results: 1. The implementation of the local WRF model, version 3.4.1, of meteorological values and phenomena forecast for Tomsk showed good opportunities and prospects for its use in the assessment of local weather conditions. 2. Characteristics of the model's accuracy is satisfactory: the accuracy of the air temperature forecast corresponds to the achieved level of other modern models (e.g., COSMO-RU); dew point temperature and wind speed forecasts were slightly better than those of well-known models; rainfall forecast by the number and fact of their existence is comparable to the used mezo-models and in some characteristics was better; the forecast of the cloud base height and their capacity proved to be completely realistic, but the cloud base height was overstated by 1–2 km. Additional attraction of prognostic data on relative humidity of air allows to clarify the height of cloud base and at high humidity (over 90%) to also diagnose the presence of fog or haze. Air pressure forecast at the station level requires further elaboration. 3. Different parameterization of microphysical processes in the model resulted in different accuracy of basic meteorological values forecast, but in general they are comparable. WSM5 scheme and ETA gave the best results for the forecast of rain. Lin system gave the worst results. In general, greater detail is required on the cloud model parameters for the lower 1–2-km layer, which is particularly important for the local weather forecast. Exploring the capacities of the WRF model and other models to determine the best and its further implementation in forecasting should continue. The work is of interest for the improvement of local and mesoscale numerical weather prediction.

Key words: numerical weather forecast; forecast system WRF; assessment of the accuracy of local forecast.

P. 179. *Makarenko Yelizaveta P.* Tomsk State University (Tomsk, Russia). **RECREATIONAL-ECOLOGICAL ASSESSMENT OF WATER BODIES AS AN IMPORTANT PART OF TOURISM-RECREATIONAL POTENTIAL ASSESSMENT (BY EXAMPLE OF TOMSK DISTRICT).** The basis of the recreational use of the territory is primarily natural factors, as they are not only tourism-recreational resources, but also the conditions of recreational activities. For their rational use it is necessary to give a complex assessment. An example of it is the recreational-ecological assessment of water bodies of Tomsk District, which takes into account the suitability of water for the organization of therapeutic (beach) recreation and sports tourism. In addition, the studied territory is estimated by the supply of drinking water and the ecological condition of the water bodies. A favourable site for development of beach recreation is only the left bank of the Tom River near Takhtamyshovo Village. Other water bodies and their sites are rather favourable for beach recreation: the right bank of the Tom River higher than Tomsk; Peschanoe Lake; Tom River inflows (the Tugoyakovka, Basandayka, Ushayka, Kyrgyzka, Poros Rivers); Kirek Lake; Bogashevo Lake; Luchanovo Lake; Akseonovo Lakes; Kandinsky Reservoir. Larino and Staroe Lakes are bad for beach recreation, but they have good conditions for fishing. For sports tourism water objects are estimated depending on the type of boating. Water objects of Tomsk District (mainly, the Tom River and numerous lakes) are used for driving on snowmobiles (in the winter), on hydrocycles, motor boats and boats (in the summer). Boating and rafting on the rivers of Tomsk District (the Ushayka, Tugoyakovka, Basandayka, Kyrgyzka Rivers) are used mainly for trainings of athletes, competitions of school students and family rest. Due to the mineral structure and character of water discharge on the surface springs of Tomsk District often form hydrogeologically interesting formations: bowls (Talovskye Bowls, Sukhorechinskyye and Berezovskyye Bowls), terraces (the Zvezdny Spring). To provide the population of Tomsk Region with drinking water underground waters are used. The degree of extent of resources exploration of underground waters is low. The main problems of water objects condition in the territory of Tomsk District by the data of Tomsk CGMS are: quality of drinking waters and pollution of sources of drinking water supply; pollution of superficial water objects; condition of river courses and banks of water objects; marshiness of the territory of Tomsk District. Thus, amateur rest in unequipped territories on the banks of the Tom River and its inflows, and also on some lakes is mostly developed; which, in turn, affects negatively both the district and the region's economy, and sanitary and hygienic condition of objects of recreation. Therefore, taking measures, directed on stabilization and strengthening of the water management complex, construction and equipment of vacation spots, prevention and elimination of harmful effects of waters is necessary.

Key words: ecotourism; water body; beach recreation; sports tourism; recreational-ecological assessment; Tomsk District.

P. 183. *Savichev Oleg G., Bernatonis Pavel V., Bernatonis Vilis K.* Tomsk Polytechnic University (Tomsk, Russia). **GEOCHEMICAL CONDITIONS OF CUTTINGS DISPOSAL AND UTILIZATION IN SIBERIAN PEAT-BOG GEOSYSTEMS.** Vast majority of Siberian oil and gas fields are located within peat-bog geosystems, exhibiting the following specific geochemical characteristics: decreased mineral substance content to ensure normal functioning conditions of forest biogeocoenosis in taiga zones; increased concentration of organic substances, iron compounds, ammonium and nitrate ions; acid reaction environment and excessive moistening. Such benign environments affect the growth of hydrophylic swamp vegetation. The comparative chemical composition analysis of solid substances in mud pits, mineralized soils, peats and swamp waters indicate that solid and liquid drilling wastes (cuttings) are applicable for the reclamation of disturbed peat bog areas. This could be paradoxical except for the fact that there is a higher content of calcium, magnesium, potassium and nitrogen compounds in these drilling wastes than in the peats and swamp waters. However, there exist definite constraints in applying drilling wastes for land reclamation. These drilling wastes contain a significant amount of sodium and chlorides inhibiting any variety of vegetation. Drilling wastes for reclamation of disturbed peat soils could be used only in the following two cases: (1) positive toxic component sedimentation and \ or (2) natural decrease of toxic component concentration during storage in

mud pits. Regardless of the significant dissolved salt waters in pit waters, they continue to be undersaturated pertaining to aluminosilicate sources. At the same time, pit waters are oversaturated in carbonate minerals and humacite of metals providing possible concentration decrease of various liquid-phase substances in cuttings during their storage in mud pits. Thermodynamic modeling of the chemical composition changes in pit waters highlights the key role of the carbonate barrier which determines the continuous removal of calcite and dolomite from the solution. In this case, only clay minerals and humacite of metals become sediments, resulting in the natural decrease of macro-component concentrations in pit waters up to 40% even in lack of specific exposure limits. This, in turn, furthers additional concentration decrease of dissolved and suspended substances in pit waters. Natural decrease of the total dissolved salt content in pit waters is more than 40% which shows their mixing with pit waters due to the leak-off of these mud pits. Cuttings mixed with utility fluids, swamp waters, peats and quicklime could be used for the reclamation of disturbed peat bog areas producing favourable functioning conditions for non-swampy forest ecosystems due to the decrease of sodium, chloride, organic acid and toxic micro-element concentrations in the cuttings and simultaneous content increase of biogenic substances, calcium, magnesium, potassium, nitrogen and other fertilizer elements in reclamation soil.

Key words: cuttings; mud pits; peat swamps; chemical composition; Siberia.

P. 187. *Talanov Yevgeniy A.* Al-Farabi Kazakh National University, Kazakhstan, Almaty. **EVALUATION OF SHOESTRING GULLY EROSION AND BASIC REGULARITY OF MUDFLOW HAZARDS IN MOUNTAIN REGIONS.** The structure hydrographical network of the two regions: Central Asia and Kazakhstan, south-east of Western Siberia. The laws of the structure of river systems, installed R.E. Horton and modified A.N. Strahler, are described Yu.B. Vinogradov as a system: 1) The law of the spatial density flows: $\sigma = s(i) / s(i-1)$; $s(i) = s(1) \sigma^{i-1}$; $s(1; n) = s(1) (\sigma^n - 1) / (\sigma - 1)$, where σ – the ratio of channel network densities; $s(1)$ – channel network density of first order, i.e. *their number per unit area*; $s(i)$ and $s(1; n)$ – the same thread i -th order, and orders from 1 to n -th; 2) The law of the lengths of streams: $\lambda = l(i) / l(i-1)$; $l(i) = l(1) \lambda^{i-1}$, where λ – the ratio lengths of streams; $l(1)$ and $l(i)$ – the average length of streams 1 and i -th order; 3) The channel network density – 1-th order: $\phi(1) = l(1) s(1)$; i -th order: $\phi(i) = l(i) s(i) = l(1) s(1) (\lambda \sigma)^{i-1}$; all orders up to and including n -th: $\phi(1; n) = l(1) s(1) [(\lambda \sigma)^n - 1] / (\lambda \sigma - 1)$; 4) The area law: $\varphi = f(i) / f(i-1)$; i -th order: $f(i) = f(1) \varphi^{i-1}$; where φ – the ratio of catchment areas; $f(1)$ and $f(i)$ – the average area of watershed streams 1 and i -th order; 5) The acclivity law: $\beta = tg \alpha(i) / tg \alpha(i-1)$; $tg \alpha(i) = tg \alpha(1) \beta^{i-1}$; where β – the ratio of slopes; $\alpha(1)$, $\alpha(i)$ – average angles overland flow 1 and i -th order. For the Altay landscape of mudflow origination site minimum length is in the range 0,022–0,108 km (*highlands*) and in the range 0,150–0,270 km (Anuj and Peschanai basins, district Teleckiy lake). The average length mudflow channel in the range of 1,57–1,79 km (Cocsa, Katun rivers) and 0,80–1,12 km almost all mudflow basins. In the Altai area representative debris basin is 9–11 km² (average height of 1890–2400 m above sea level) and 5–6 km² (average height of 920–1080 m). Here within mudflow basins ratio between the area of watershed streams and their length is described by a power function $l = 0,96 F^{0,67}$ with closely connected to the empirical data $R^2 = 0,89$. The central part of the northern slope of the Zailiyskiy Alatau length mudflow channel proportional to the area basin level 0,76. Then a representative of their area is 9–10 km². Dependence of length channel of denuded area of basin Gavasay approximated expression $l_{oc} = 2,83 F^{0,62}$. In Chust-Pap adyrs thalwegs core length 2-fold higher than those for conditions of the Altai region. This is closely connected to the different grain-size classification soils.

Key words: topography; acclivity; wady; surface runoff; mudflow; erosion.

CHEMISTRY

P. 194. *Biryukov Aleksandr A., Gotovtseva Yekaterina Yu., Izaak Tatiana I., Svetlichnyi Valeriy A.* Tomsk State University (Tomsk, Russia). **THE STUDY OF PHOTO-POLYMERIZATION KINETICS OF METHYLMETHACRYLATE INITIATED BY THE QUANTUM DOTS OF CADMIUM SULFIDE.** Media containing quantum dots (QDots) of semiconductor AIBVI groups are unique materials whose optical properties depend on the size and shape of the nanoparticles. QDots of such materials are widely used: fluorescent labels, bio and chemical sensors, luminescent solar concentrators, layers of active elements of solar cells and other practical interest composites consisting of acrylic polymers and QDots. A promising approach is the synthesis of quantum dots directly into the environment and following polymerization of the monomer in the block composites. Under photopolymerization of CdS / MMA the size and properties of QDots change. Nanoparticles affect the polymerization process, too. To create composites of CdS / PMMA QDots with desired properties it is important to know the mechanisms of the processes occurring during the synthesis and to be able to manage them. In this paper we study the effect of size, particle concentration and irradiation parameters on the kinetics of photopolymerization medium. The dynamics of changes in the size and properties of CdS nanoparticles with different concentrations and ratios of precursor components under photopolymerization of CdS / MMA colloids were investigated. To study the changes in the characteristics of nanoparticles in colloidal solutions of CdS / MMA and mechanisms of the photopolymerization process, three samples were synthesized with different average particle size. To do this, at a fixed concentration of the precursor (CF₃COO)₂Cd we varied the concentration of the precipitant H₂S. During the experiment at different doses of colloidal solutions of QDots of CdS / MMA, the conversion of MMA in PMMA, the concentration and size of nanoparticles were determined and the absorption spectra were recorded. Investigation of the processes occurring during irradiation of colloidal solutions of QDots of CdS / MMA made it possible to establish the following regularities and draw conclusions: 1. At the initial stage of irradiation (20 minutes) the rate of polymer formation is low (induction phase). During this time the CdS particles effectively absorb a considerable amount of photons, which leads to the generation of electrons (e⁻) and holes (h⁺) on their surface. At the same time, the charge stock from the particles to MMA and the recombination of electrons and holes are small, which leads to thermodynamic instability. In the medium the processes of photocorrosion and photodegradation occur efficiently, which reduces the average size and increases the number of particles per volume unit. 2. The speed of photopolymerization under irradiation of colloidal solutions of QDots of CdS / MMA does not correlate with the number of particles, but with the surface area of cadmium sulfide nanoparticles in the monomer. 3. The features of photopolymerization flow and dimensional change of QDots under irradiation of different samples of colloidal solutions of QDots of CdS / MMA are connected with the amount and nature of nanoparticle defects (depending on the ratio of sulfur / cadmium used in the synthesis of nanoparticles). The

results will be used in the synthesis of polymeric composite materials for multilayer luminescent solar concentrators (LSC) and other fluorescent optical converters.

Key words: photopolymerization; kinetics; quantum dots; cadmium sulfide; polymethyl methacrylate.

P. 200. *Shabalina Anastasia V., Fakhrutdinova Yelena D., Fedotova Marina I., Belova Ksenia A., Bykova Polina V.* Tomsk State University (Tomsk, Russia). **WATER PH CHANGING UNDER OZONATION INVESTIGATION.** Ozonation is known as one of the most effective water purification methods that removes different water pollutants, disinfects and decontaminates water. In the present paper results of pH changing for different objects ozonation investigation are represented. Ozonation of several objects was investigated: distilled water, deionized water, tap water, river water, different inorganic salts model water solutions. The authors have shown that after a 30-minute ozone-air treatment of the investigated objects pH decreases down to 1–2. It was pointed out that at the beginning of the ozonation process the nature of the pH change is different for distilled, deionized, river water and for tap water. In case of tap water pH changes slowly in the first 10 minutes, and pH sharp change takes place later than during other samples ozonation. To find out the reasons of pH changing the concentration of dissolved ozone during ozonation was investigated. For this dissolved ozone concentration measurements were carried out simultaneously with pH measurements of the probes. It was shown that O₃ concentration in water under ozonation increases systematically regardless of pH changing. Dissolved ozone concentration increase is a result of high O₃ molecule stability in comparison with its low stability under basic pH. To find out the reason for different pH change nature for different water types the influence of some metal salts presence in the water on pH decreasing under ozonation was studied. It was found out that there is no pH decreasing at the presence of such salts as calcium carbonate, magnesium carbonate, iron sulfate and manganese sulfate. Thus, water hardness salts present in tap water do not influence the processes in water under ozonation that lead to pH decreasing. Some assumptions about the reasons of water acidification during ozonation were expressed. Firstly, gaseous mixture brings huge amount of CO₂ to the water treated. It can lead to the increase of carbonate and hydro-carbonate ions concentration in water. According to literature data that could significantly decrease water pH. On the other hand, the authors point out the possibility of nitric acid formation in water during ozonation with using air as the initial gas. In this case nitrogen can react with ozone to form nitrogen oxides up to N₂O₅, which dissolves in water with HNO₃ formation.

Key words: water ozonation; ozone stability; ozone water reactions; pH changing.