SUMMARIES OF THE ARTICLES IN ENGLISH

PHILOLOGY

P. 7. Brinyov Konstantin I. Altai State Pedagogical Academy (Barnaul, Russia). FORENSIC LINGUISTIC EXPERTISE IN TRIALS ON RELIGIOUS EXTREMISM. The paper describes the state of forensic linguistic expertise for the purpose of detecting signs of extremism. The author discovers inefficient theoretical presumptions that are used as a basis for linguistic analysis of religious texts (e.g., essentialist definitions, the concept of criteria). It is argued that the theory of definitions and the concept of criteria result in the expert's making legal decisions, which falls beyond the scope of their duties and competence. Another discussion in the paper concerns the expedience of employing specialists in psychology and religious studies as assistants in forensic linguistic expertise. The author analyses the conclusions of possibility, which are common in experts' statements, and characterises them in terms of empirical content.

Key words: religious extremism; forensic linguistic expertise; forensic linguist's competence.

P. 14. Ivan'tsova Yekaterina V. Tomsk State University (Tomsk, Russia). TEXT VARIABILITY AS A DIALECT LANGUAGE PERSONALITY SPEECH CULTURE MANIFESTATION. Little study of speech culture of the local dialects generates its mixed reviews. There is an opinion about the low level of dialect discourse textual organization. The observations of linguists of Tomsk School of Dialectology over speech dialect of the language personality show that the traditional dialect speaker has a developed speech ability manifested, in particular, in the creation of a variable text. Variability in this case refers to situational modifications of both the formal and the semantic sides of the text with an invariant core. The object of the analysis was the speech of a Siberian peasant, V.P. Vershinina, born in 1909, resident of Vereshinino Village of Tomsk Region. The source material is the text archive of the author – about 10,000 pages of the sounding speech decrypted from the tape recorded in easy talks during a quarter of a century. The article deals with the fragments of the informant's discourse in situations where the same event repeatedly served as the subject of discussion with different communication partners. The comparison showed that the studied texts, on the one hand, reflect the constant signs of the dialect discourse typical for a representative of the traditional language culture, on the other, they show a high level of variability of texts generated by the dialect speaker in spontaneous speech activity. The nuclear text indicators of the dialect language personality are anthropocentrism, egocentrism, factuality and detail, consistency, coherence, specificity, lack of categorialness. Text variability is determined by the place of the text in the overall idea of the narrative, the sub-themes (with the ability to choose the order of their presentation and omit minor thematic lines), the nature and details of the speech product, the communicative register (information / emotion / reproduction), the method of the subject of speech presentation, the presence / absence of comments leveling the background knowledge of communicants, the use of variant tools at different levels of language – phonetic, lexical, grammatical. Variability of the text is due to many factors. Among the objective reasons, which give the speaker an opportunity to create variable fragments of discourse, are the language system structure, which allows to render meanings in many different ways, and the general laws of the human thought to curtail / develop the sense in text creation. The subjective factors include the development degree of speech ability of the homo loquens, allowing the author to realize the idea of the narrative of the text, taking into account the pragmatic communicative situation (in the first place – the ability to be responsive to the recipient factor) and using a variety of the resources from the national language. Since the implementation of this ability is due to the communicative expediency and is based on the richness of the language resources of the dialect language personality, the variability of text generation can be considered a manifestation of the high level of the traditional language culture.

Key words: traditional speech culture; dialect language personality; text; variability.

P. 20. Nesterova Natalia G. Tomsk State University (Tomsk, Russia). ONLINE RADIO AS A NEW TYPE OF MEDIA AND THE BASIS OF NEW DISCURSIVE PRACTICES. Modern radio broadcasts at a new level, because Internet radio gave new opportunities to meet the diverse needs of the consumer in information, education, entertainment, advertising, etc. The study of special works of researchers and practitioners of journalism, the survey data of experts in radio communications and representatives of the audience – all this gives a reason to go beyond the discussion of the new media, their role and vectors of development, and updates the problem of discursive changes in modern radio discourse. First of all, the author indicates the fundamental discursive changes that occur in the representation of a radio product (radio text) by the technical capabilities of different media and a combination of different semiotic systems. The Internet has transformed the traditional auditory means of mass communication into a multi-tool providing the ability to perceive radio communication not only by ear, but also visually, as well as by print media opportunities. With the development of Internet radio the feature of the linearity of the radio text is lost, for Internet radio allows the recipient to determine the sequence of the perceived information, music and any other content, one can open several information windows almost simultaneously. It changes the perception of the radio text and expands the grounds for its classification as a hypertext of a complex structure. Posted archives of programs eliminates another feature of the traditional radio, the synchronicity of the message. More options offered to the client generates new discursive practices connected with a possible feedback from the radio host via a blog, an opportunity to see them at work through setevizor, online voting at the website, etc. Discursive changes due to the advent of Internet radio stations are associated with the expansion of the audience. This factor is connected with a number of positions. First of all, the Internet has expanded access to radio communication. It made the radio all-encompassing for Internet radio can broadcast where there is no radio signal. The Internet in the present context is an intermediary that provides radio communication with the audience who are out of the range of a radio station, and enables radio reception in any country of the world. With the development of new information and communication technologies the nature of interactivity has changed: online surveys, discussion groups, forums on topical issues. The Internet allows uniting radio fans. An important role is played by podcasting, which, as a new form of highly marketable radio content use, makes the audience an active participant in the communication. The study leads to a conclusion that there is every reason to qualify Internet radio as a condition for the emergence of new discursive practices in the field of radio communication.

Key words: new media; online radio; multimedia; interactivity; discourse changes; discursive practices.
P. 25. Poplavskaya Irina A. Tomsk State University (Tomsk, Russia). **KAROLINA PAVLOVA'S ESSAY "A DOUBLE LIFE" AS A PROSIMITREICAL TEXT.** K. Pavlova's essay "A Double Life" is considered as a type of the prosimetrical text in the article. Features of its esthetic nature on the synchronic level are conceptualized on the basis of the reception of the work in the Russian periodicals of 1848. The authors of the reviews in magazines "Sovremennik" (The Contemporary), "Biblioteka dlya chteniya" (Collection for Reading), "Otechestvennye zapiski" (Notes of the Fatherland), and "Moskvitiamin" (The Muscovite) emphasised the relationship of poetry and prose in the works of Pavlova, the relationship of form and content of the essay "A Double Life" for the unique nature of its genre. Following the commentators such prosaic and poetic works as a book of the German thinker and writer-romanticist G.G. Schubert "Die Symbolik des Traumes", a novel by Novalis "Heinrich von Ofterdingen", Byron's poem "The Dream" are indicated as the possible pretext of this essay. The essay by K. Pavlova as a prosimetrical text is analysed in the unity of its polyphonic content presented through the diverse genre speech styles: domestic fiction, dreams and prophecies represented by verses, intermediate realm between reality and dream expressed by rhetorical prose. Dialogue as a world-modelling, symbolic and genre-speech category is perceived as a structural element of the work of K. Pavlova. The dialogue of poetry and prose as an esthetic basis of prosimetry permeates here not only the home and the dream aspects of life, but also many content and structural elements of the essay: "day" and "night" chronotope, dreams of the character, plot, metasubject, composition, genre features. The question of philosophy of creativity is conceptualised in the article as a change in the mind of the heroine from the reality to the artistic image, which is defined as a picture of reality, idealised but not fully realised. From the point of view of the author, "the formula of creativity" includes poetic dreams, long reflection ("a cherished thought"), the acquisition of "word" and further life of the text independent of its creator. The creator has a secondary sensation of the work and the esthetic feeling. The article summarizes the poetics of K. Pavlova's essay "A Double Life" as a prosimetrical text. The most important feature of this type is seen in the original text mobility, variability of the author's attitude to the character, use of different points of view, esthetic play with them, dual imagery, in the productive synthesis of different speech genres and forms. "A Double Life" as a prosimetrical text is created on the basis of external, cumulative principle and, simultaneously, on the internal principle of structural and semantic switching, which makes the poetic and prosaic pictures of the world in the work are dynamic and transform into each other.

**Key words:** female writers; poetry; prose; criticism; publishing; literary process.

P. 32. Skripnik Alena V. Tomsk Branch of Russian State Social University (Tomsk, Russia). **PHENOMENON OF THE PUPPET AND PUPPET THEATRE IN N.V. GOGOL'S STORY "NEVSKY PROSPECT".** In 'Nevsky Prospect' Gogol synthesized traditions of "a violent school" and a spectacular folklore, especially in understanding the traditional as a trite (for example, the traditional and ceremonial behaviour of the walking people at the beginning of the story is perceived as a manifestation of lifelessness and platitude). The story also contains rudiments of romanticism: using the puppets as dead, spiritless and mechanical images. The term "puppet" is polysemantic. It can also be used for designation of various (sometimes interconnected) phenomena. In the context of our research, we should focus attention on the following substantial components: vivacity or deadness of the puppet. In our research, we understand the phenomenon of the puppet (including mechanical) as a mannequin and a puppet, and partial similarity of these concepts does not mean their full identity. Puppets first appear during the description of people walking along Nevsky Avenue. There is a feeling of lack of identity, alive feeling and the humanity due to the strengthening of the puppet element. First of all, it concerns the description of appearance of the characters. External tinsel replaces the internal content. These characters combine two puppet concepts: a mannequin and a mechanical puppet. In this world there is only a visibility of life, visibility of events and actions; therefore, the world is illusory, illusive, almost a mirage, and this feeling amplifies by the end of the story. The same world is in Piskarev's dream about his visiting a ball in the house of a beautiful girl. Besides mannequin and mechanical images, in the story there are images of a spectacular folklore – of the theatre of Petrushka and the raree show. In our opinion, in 'Nevsky Prospect' Gogol used the specified types of national representations. The story begins with a raree show, in which the metamorphoses of Nevsky Avenue are shown. It approaches a raree show in the aspect of the fast change of scenery. Further, the author also narrates in the tones of a puppet theatre about the destiny of two friends: artist Piskarev and lieutenant Pirogov, who can be compared with Pulcinella and Petrushka. Piskarev can be correlated with Pulcinella appearing in the story as a tragic variant of the Italian mask. Besides, all narration about Piskarev is accompanied by the Pulcinella and antique motives. The subject line connected with Pirogov is built on the standard scheme of representations of the theatre of Petrushka. Using the devices of the raree show and mechanical pictures in the story, Gogol puts the tradition of the puppet theatre of Petrushka-Pulcinella into the focus of attention, which emphasizes not only the puppet but also overall Italian traditions of the story.

**Key words:** a puppet; mannequin; mechanical puppet; puppet theatre; gallery; theatre of Petrushka.

P. 37. Starikova Galina N. Tomsk State University (Tomsk, Russia). **INFORMATIVE-ADVERTISING POTENTIAL OF NAMES WITH A COLOUR COMPONENT (FROM THE DATA OF EATING FACILITIES NAMES).** Colour is one of the most ancient categories of world comprehension. Every culture has its own particularity both in colour naming composition, and in different symbolic significance assortment of colours and in different levels of their symbolic nature. This thesis is proved in the article by the consideration of this vocabulary when it is used for naming eating places. Different peoples have their own peculiarities concerning colours, for example, the restaurant name "Red and White" is connected with the types of alcoholic drinks for the Russians, while Chinese people may understand it as a philosophical indication of the changeable character of existence: the idiom hóng bái xi (red and white) means life and death. The second important feature of this type is seen in the original text mobility, variability of the author's attitude to the character, use of different points of view, esthetic play with them, dual imagery, in the productive synthesis of different speech genres and forms. "A Double Life" as a prosimetrical text is created on the basis of external, cumulative principle and, simultaneously, on the internal principle of structural and semantic switching, which makes the poetic and prosaic pictures of the world in the work are dynamic and transform into each other.

**Key words:** female writers; poetry; prose; criticism; publishing; literary process.
PHILOSOPHY, SOCIAL AND POLITICAL SCIENCES

P. 43. Zamyatina Victoria S. Tomsk State University (Tomsk, Russia). PR COVERAGE IN MODERN SOCIETY. In this article the tendencies which exist in research literature on the issue of the term "public relations" definition and the history of its emergence are revealed. The careful analysis of the literature shows that there is a problem in the PR nature and functions definition which consists in discrepancy of declarations of PR-specialists claiming that "public relations" exists as a certain "science" the purpose of which is the impact on people. This discrepancy leads to existence of a huge range of various opinions on the issue of the PR definition, its functions and nature. Following the analysis of the existing definitions of the term "public relations" we came to a conclusion that in one case, "public relations" is treated as a way of communication and in this sense it is perceived as existing in the times of ancient civilizations. In another case "public relations" is an applied discipline which appears in the 20th century and is oriented towards the solution of specific problems specialists in the field of public relations face (creation of image of the organization, promotion of goods and services, interaction with the public). Such an interpretation promotes the treatment of PR as manipulation. Thus, the understanding of public relations as an applied discipline leads to the deformation or annihilation of the initial plan of PR, which consists in the establishment of benevolent relations between the organization and the public. This raises a question: is it possible to speak about the value of the institution going beyond the manipulation? The conceptual basis for the productive solution of the matter is The Theory of Communicative Action of Jürgen Habermas. The appeal to this theory allows drawing a conclusion that at the heart of the developed definitions of the term "public relations" it is possible to see the distinction of types of rationality, namely, the communicative type of rationality and the tool type. As a result, we come to a conclusion that PR can become a valuable social institution. If the phenomenon of public relations is to be treated as communication among various commercial structures and the public, PR then can be presented as an embodiment of communicative reason. Thereby, public relations act as a factor of solidarity and stability of the society. By means of this communication various social subjects come to mutual understanding, providing a notional reconstruction of the society. Thus, it is represented that the concept of the communicative reason of Jürgen Habermas can act as the theoretical and methodological basis both for studying the prospects of existence of public relations institution and for their practical realization.

Key words: public relations; communication; technology; the Theory of Communicative Action; Jürgen Habermas.

P. 47. Karpova Anna Yu., Karpov Dmitry A., Kryuchkov Yuri Yu. Tomsk Polytechnic University (Tomsk, Russia). OLD NEW TREND IN DETERMINATION OF ENGINEERING COMPETENCE. The article provides a brief overview of definitions of modern specialist competencies, in particular, a comprehension of the essence of engineering competencies. The authors take the view in which competence in general sense is understood as a triad: knowledge, skills, and the ability to effectively carry out professional activities at a high level. Experience shows that the newly minted engineers are not trained to work in a team and do not know how to systematically investigate the composition of demands and future competencies, to improve the mechanisms for their evaluation and assessment. Taking into account these competencies and, from personal experience, the authors offer a number of solutions that are appropriate for the training of successful engineers.

Key words: engineering competence; knowledge; skills; ability to effectively carry out professional activities on a high level; technical and non-technical competencies; competencies of behaviour; assessment of competences; teamwork; self-organisation.
The article contains a critical view on the modern position of art as a place to develop transcendental positions which do not have anything in common with the nature of art. In this connection, the transcendental monopoly showing language privileges in the sphere of art must be recognised illegal and demoting the appropriate development of art. Attention is given to the situation in which there is a habit to set a point of view on art from a transcendental "place" as soon as a conversation turns to things of the "special kind" (works of art). This indicates an intention for analysts of art to follow the situation of "compliance" which conforms with the nature of the language, but is alien to the nature of artistic activity. As a result, the situation is valid in the context of transcendental schematism. It creates a gap between the "what" is analysed and the "how" this analysis is carried out. The analyst of art has to struggle to get closer to the subject of analysis in method and means, nevertheless they make a dissonance in the way of addressing to art, creating the impression of invisibility of experiences, meanings and representations in an attempt to combine the experience and meaning in something they call interpretation. It is not surprising that this kind of position in the field of arts & humanities creates conditions for the establishment of an epistemological space orienting to find the "right" (if not universal) transcendental grid allowing to clarify the essence of any work of art. This demonstrates the desire of analysts of art to the "privileged" position of possessing a separate and specific knowledge which (if) one can acquire only after it is applied. Therefore, it is quite obvious that no texts were ever written for the purpose of "correspondence" to a certain transcendental grid for understanding the work of art by searching for the artistic meaning in the material. As a consequence, it is necessary to take into account that representation is a very specific language tool which provides the convenience of finding and giving some sense in the world.

Key words: ritual; structuralism; post-structuralism; ordinary language philosophy; hermeneutics.

P. 55. Nekhaeva Iraida N. Omsk F.M. Dostoevsky State University (Omsk, Russia). CONFRONTATION OF EXPERIENCE AND REPRESENTATION IN THE ASPECT OF LANGUAGE PRIVILEGE: CRITICISM OF TRANSCENDENTALISM IN ART. The article contains a critical view on the modern position of art as a place to develop transcendental positions which do not have anything in common with the nature of art. In this connection, the transcendental monopoly showing language privileges in the sphere of art must be recognised illegal and demoting the appropriate development of art. Attention is given to the situation in which there is a habit to set a point of view on art from a transcendental "place" as soon as a conversation turns to things of the "special kind" (works of art). This indicates an intention for analysts of art to follow the situation of "compliance" which conforms with the nature of the language, but is alien to the nature of artistic activity. As a result, the situation is valid in the context of transcendental schematism. It creates a gap between the "what" is analysed and the "how" this analysis is carried out. The analyst of art has to struggle to get closer to the subject of analysis in method and means, nevertheless they make a dissonance in the way of addressing to art, creating the impression of invisibility of experiences, meanings and representations in an attempt to combine the experience and meaning in something they call interpretation. It is not surprising that this kind of position in the field of arts & humanities creates conditions for the establishment of an epistemological space orienting to find the "right" (if not universal) transcendental grid allowing to clarify the essence of any work of art. This demonstrates the desire of analysts of art to the "privileged" position of possessing a separate and specific knowledge which (if) one can acquire only after it is applied. Therefore, it is quite obvious that no texts were ever written for the purpose of "correspondence" to a certain transcendental grid for understanding the work of art by searching for the artistic meaning in the material. As a consequence, it is necessary to take into account that representation is a very specific language tool which provides the convenience of finding and giving some sense in the world.

Key words: transcendentalism; language; art; knowledge; experience; representation.

P. 59. Pirogov Sergey V. Tomsk State University (Tomsk, Russia). CONTOURS OF VISUAL STUDIES OF A CITY. The paper defines and analyzes the methodological optics options of vision of the city as a whole and its individual visual epiphenomena. In the naturalistic paradigm, the city appears to the researcher as a material object, the substrate of which is its architectonics, understood as the representation of the objective social reality. The structuralist paradigm draws attention to the interpretive nature of the images of the urban environment. Urban communities are considered as actors of the semantic construction of the urban environment reality and urban lifestyle. In the constructivist paradigm, the focus of attention is the role of socio-cultural background, which causes the difference in the vision of the urban reality. In the phenomenological horizon a special procedure of constructing the reality is articulated – the development of environment. In the phenomenological perspective the image of the city is a structure generating new meanings through the experience of the perception of the urban environment. The system of these paradigms proposes organization of the material gained in visual sociology of the city by subject areas and problem fields. In the naturalistic paradigm of understanding the visual as a reflection of objective social reality there develops a thesis that in the urban morphology one can see features of socio-economic and political organization and problems of a particular society. In the structuralist paradigm, the subject of analysis is semiotics of the urban environment – the visual text of the city. There are two types of text: the iconic and images of the environment appearing in the process of "colonization of space" (M. de Certeau). In the constructivist paradigm, attention is drawn to the fact that the space of the city is produced, not just interpreted. In this context, the visuals allow learning performative practices as ways to change and produce the social space. The most important subject and problem area of research in the constructivist paradigm is the public space of the city. The functions of public space are defined that can and should be studied with the help of visual aids: formation of identity, self-presentation of urban communities, formation of tolerance as spatial equality. The problems of public space are given, which are necessary not only to know, but to see – to diagnose their presence by visual tools: 1) privatization and commercialization of these spaces; 2) lack of demand for public spaces; 3) lack of skills and mechanisms of social and cultural integration of different styles and ways of life; 4) "space of flows" (M. Castells), 5) "desert of the real" (J. Baudrillard); 6) extinction of communication as a result of space utilization; and 7) the problem of environmental identity. In the phenomenological tradition, the city image is a projection of human life world formed in the process of experiencing a real life situation.

Key words: visual, city image, paradigm of cognition.
CULTUROLOGY

P. 64. Panova Olga B., Belova Alexandra N. Tomsk State University (Tomsk, Russia). GOETHE AND THE ORIENT WORLD: ON THE WORLDVIEW UNIVERSALS OF THE CULTURE. Increased attention to the eastern culture and eastern worldview is caused by the apparent importance of the dialogue between East and West, whose influence on the further development of the world culture in general and the universal worldview is no longer in doubt. Of particular interest in this regard is the "eastern" part of the heritage of the world culture classics, which depicted the most important historical moments of the process of spiritual interaction between East and West. In the history of humankind there are thinkers and poets, in whose works the souls of the East and the West are truly united and really form a whole. On the eternal journey of the West to the East one of those was Goethe, a classic of the World Culture. The appearance of a person with such a spiritual level in the history of humankind itself is the evidence of not only the millenial dialogue of Eastern and Western cultures, but also about the primordial unity of East and West, eternally forming a whole – the Unity of Culture. Goethe's personality, creativity, and the philosophical and poetic quest open up the opportunities for deep reflection about the intimate spiritual relationship of the West and the East, and the interest shown to it – about the intellectual communication of the European, Russian and Eastern thinkers. Goethe consciously appealed to the East throughout his long life. His attention was attracted by the Jewish antiquity, the Arab East, Persia, China, India. However, a deep bond of Goethe's poetic world with the world of the East is due not only to this serious interest in the Eastern culture, which is evident throughout his entire career. The uniqueness of Goethe, his fundamental difference from other Western thinkers is that he had an inborn "eastern" poetic perception of the world. The united "eastern" Goethe's text is composed of the poetic cycles like "West-Eastern Divan", "God and World," "Sino-German Seasons and Hours" and prose "Israel in the Desert", "The Persians", "The Arabs". All together it expresses the essence of his philosophy of life creation, is a call to comprehend the Unity of Culture and the higher spirituality that pervades the Universe. Goethe takes the Universal Unity of Humankind as deeply personal in the real sense, i.e., the intimate, sacred. The language of his poetry stores the "eastern" wisdom of the poet's soul, the memory of the earliest revelations of the East. The conceptosphere of his "Eastern" heritage is formed by the semantic unity of conceptual universals: Soul of the World - Unity - Creation of the World - Love - Truth - Joy - Eternity - Nature - Eternal Femininity - Beauty. And these are, in fact, the common cultural worldview universals, accumulating all the historically stored spiritual experience of the humankind since the ancient times as a whole, turning the human mind to the origins, universals of the World Cultures, the source and the origin of which is the Oriental Soul.

Key words: Culture; East; West; poetry; language; worldview; cultural universals.

P. 76. Pryadukha Natalia A. Scientific and Production Association "Screen" (Barnaul, Russia). MUSIC AND SOUND PATTERNS IN THE ORGANIZATION OF THE CULTURAL LANDSCAPE OF DEMIDOV SQUARE IN BARNaul. Music and sound approach to the reading of the architectural ensemble of Demidov Square of Barnaul is the basis of the methodology of the proposed research. The ultimate goal of the association is to enrich the cultural landscape of the field, specifically the existing places of the city, forming its sense of uniqueness, value, detecting patterns and similarities in the formation of these landscapes. Analysis of the composition and facades of the buildings that make up the ensemble of the square can draw analogies with ancient music forms of sonatas (Allegro, Andante, Menuet, Final) and the ancient dance suite (Alemanda, Courante, Sarabanda, Gigue). This comparison authorizes the granting of all parts of the cycle specific sound settings: high, up tempo, tonal range, the characteristics of the texture and melody, agitation, mood, etc. The revealed dramatic development cycle enables to visually experience the dynamic properties of an architectural monument, its integrity as a major cultural phenomenon, the interconnectedness of its components, on the other hand, it deprives the architectural ensemble of the uniqueness of reading and interpretation. New means of expression form an additional layer of associative component of the cultural landscape, introducing it to the world of music, its history and circumstances, means of expression. Music and sound characteristics that appear in the analysis of the composition of the square and some architectural elements of the facades of buildings included in this architectural ensemble can experience the benefits of an integrated approach to the phenomena of synthesis of the arts, to realize their versatility and consistency with the general laws of the organization of the World. Some elements of the ensemble (Demidov Pillar, Church of Dimitry of Rostov) in musical interpretation demonstrate commonality with other attributes of the landscape of the city, making it a significant square and an integral part of it, at the same time denoting relevance, importance and the need for further research. But, of course, already in this state, Demidov Square of Barnaul is a new educational and cultural environment in the long term, a new point of unique hiking routes, a source of scientific research, publications, and museum exhibits. Such an interpretation, which introduces the world of the now existing cultural heritage to the process of constant inspiration, increases the axiological significance of this place and updates the need to educate citizens and preserve the rich cultural landscape.

Key words: square; musical form; suite; composition; sonata; ensemble.

HISTORY

P. 81. Babaev Elchin A. Krasnoyarsk State Pedagogical University (Krasnoyarsk, Russia). BASIC DIRECTIONS OF THE CANADIAN FOREIGN POLICY IN 1984-1993 (ON MATERIALS OF THE ARCHIVE OF FOREIGN POLICY OF THE RUSSIAN FEDERATION). The foreign policy of the government of B. Mulroney received the name "politics of continentalism" in foreign historiography. As a prime measure the new Canadian management suggested to enter into the agreement on creation of a zone of free trade in Northern America. The government of Canada acted in September 1985 with the initiative, offering the United States to begin negotiations on establishment of a bilateral mode of free trade. Negotiations about creation of a zone of free trade proceeded for more than two years and ended productively. In January 1988 the Canada-U.S. Agreement on free trade (FTA) which provided liquidation of barriers in the bilateral exchange of goods and services, and also joint settlement of trading conflicts and disputes was signed. The steadfast attention to neighbours on North American continent did not mean that within B. Mulroney's board Canada "has forgotten" about other foreign policy directions. Except "continental", the priority directions of foreign policy in the official documents of Canada of that time were also European, Pacific and Latin American. The European direction in the Canadian policy of "Mulroney's era" dominated with the problems of safety and political issues, while traditionally important trade and economic contacts were set aside. In the second half of the 1980s – beginning of the 1990s the basic interests of Canada were connected with the changes in the
countries of the Eastern Europe, their gradual democratisation, their loss of the USSR influence. In the Asian-Pacific region policy, basic attention was paid to the issues of trade and economic cooperation with Japan, the People's Republic of China and the new industrial countries. The basis of the new Canadian vision of the prospects of political development of the Asian-Pacific region first stated in a statement by Minister of Foreign Affairs of Canada J. Clark on July, 17, 1990 is the thesis about the necessity of a more active multilateral diplomacy in order "to melt the ice of the "cold war " in this part of the world". According to the New Political Strategy approved by the Cabinet in October, 1989 Latin America was also determined a new foreign policy priority. The core of the new Latin American strategy of Ottawa became the task of more active promotion of the Canadian economic interests in the region. In this aspect the most perspective were connections with such countries as Mexico, Brazil, Argentina, Chile, Venezuela, Uruguay and Peru. As a whole, B. Mulroney's foreign policy can be divided into two periods. At the first stage (before FTA in the beginning of 1989) the overall objective was to enter into the Agreement on creation of a free trade zone with the USA. At the second stage B. Mulroney concentrated the attention on other major foreign policy directions to balance the external connections of the country whenever possible. Therefore characterizing the foreign policy of Canada in 1984-1993 it is necessary to use the concept "balanced continentalism".

Key words: foreign policy of Canada; B. Mulroney; the USA; FTA; Mexico; NAFTA.

P. 85. Gefner Olga V. Siberian Branch of the Russian Institute for Cultural Research (Omsk, Russia). THEATRICAL ACTIVITY OF THE MILITARY MEN IN THE CULTURAL LIFE OF THE CITIES OF WESTERN SIBERIA (LATE 19TH – EARLY 20TH CENTURIES). Military men essentially and significantly contributed to the development of the theatrical culture of the cities of Western Siberia in the end of the 19th – beginning of the 20th centuries. The professional theatre in the Siberian province during this period was poorly developed. Therefore, the theatrical art here developed, mainly, in the form of amateur activity of various layers of the city society, including military men. Granting of military buildings for various mass actions was one of forms of assistance of military men to the development of entertainment culture in cities. Because of the absence of special theatrical premises in many cities, use of various military buildings was a widespread phenomenon: military meetings, military arenas, soldiers' barracks, tea rooms were used for theatrical performances, concerts, and other shows. Among officers, military officials and members of their families there were many fans of theatrical art who took an active part in the organization of theatrical performances, there were talented actors. Amateur performances organised by military intelligentsia collected numerous public. Many of performances were charity events. Officers were especially active theatrically in Omsk, Tobolsk, Tomsk, Tyumen, and Kokchetav. Soldiers' theatres were also important for the cultural life of the cities of the region. During this period the theatre becomes an educational means used by officers in training soldiers. Soldiers' performances were held in Omsk, Tomsk, Berezov, and Turinsk. Performing promoted intellectual, moral and esthetic development of soldiers, introduced the world of drama art, brought up the spectator culture, in the entertaining form acquainted them with the plots of the Bible and Russian history, fairy tales and bylinas. Soldiers' performances accompanied national celebrations, city holidays, charity events. Performances enjoyed wide popularity and success among the spectators from the lower class of urban population. The local public highly appreciated soldiers' theatres.

Key words: military men; theatrical activity; city culture.

P. 90. Nam Yelena V. Tomsk State University (Tomsk, Russia). MYTH AND ARCHETYPE AS A BASIS OF THE SHAMANIC WORLDVIEW. The present article considers the symbolic function of a myth as the earliest example of the understanding and symbolization of human experience of reality; and it also shows how mythological consciousness gives birth to the shamanic worldview and to a specific type of psycho-mental activity, namely, the shamanic practice. The creation of a symbol implies some intellectual operation of eliminating contradictions, and it is a process of mediation. Claude Levi-Strauss established that a myth is an indispensably binary structure as it is a logical tool for conflict resolution. Myths as symbolic structures are needed for mediation and reconciliation of consciousness with the reality. Myths, as manifested images printed in the consciousness and cultural memory of people, are deeply rooted in psychic structures where the kingdom of archetypes lies. Archetypes, like instincts, are much older than culture and therefore they are not transmitted through traditions but inherited together with the brain structure. Archetypes are linked to that part of instincts that can be manifested by means of symbolic forms only and thus could be called a "form of inborn intuition". So, by the moment a human made a step toward consciousness and so to culture, s/he already had tools thanks to which s/he was able to adapt psychic activity to the production of unique cultural forms and to meaningful being. The presence of the archetypal structure in human mind helps understand the mechanisms of creation of symbols and their functioning in the cultural space of archaic and contemporary communities. It can be assumed that the possession of the physic energy, now hidden in the unconscious but readily accessible for a human of the remote past, could clear the way for vast creative activity of denoting reality and creating myths. The symbolic concept of culture complemented by the theory of archetypes can be successfully applied for analysis and reconstruction of the mythical-ritual tradition of Siberian shamanism. It appears to be of interest to study shamanism as an early universal worldview system where basic psychic structures and processes were converted to symbolic (mental) images and actions with the aim of existential adaptation of a society (primitive community) to the state of apartness from the natural world and the necessity of interaction with it. It is within the context of the development of human individuality and the shift from early collective perceptions that an iconic figure of a shaman appears with his/her mysterious experience which tends to have a different from the collective – individual – character and to serve the goal of the collective adaptation to new cultural realities. It is not by accident that Sergey M. Shirokogorov called shamanism "safety valve and self-regulating mechanism of the psychic sphere". In fact, in the person of a shaman there took place a substitution of mythological characters capable of coming into the living of a primitive community by a real person, a socially important figure capable of reviving a myth through exploring archetypal layers of consciousness and capable of integrating the life of a community into the system of relations with the sphere of sacred existence. For a traditional society, a shaman is, first of all, a symbolic figure capable of carrying out the ritual (and so the real) embodiment of the archetypical scheme. A shaman is a living symbol of the connection between humans and the supernatural, non-human, sacred world. A shaman is able to travel to the "mythological field" of the cultural tradition and thus remaining a human, s/he becomes a part of the mythical reality, a full participant of mythological events.

Key words: myth; archetype; ritual; shamanism.

P. 96. Polezhaeva Tatiana V. Tomsk State University (Tomsk, Russia). LANGUAGE AS A FACTOR OF NATIONAL UNITY (DEBATES BETWEEN THE ARCHAISTS AND THE KARAMZINIZANS IN EARLY 19TH CENTURY). This study considers issues related to the linguistic situation at the border of the 18th and the 19th centuries. It analyses historical and linguistic concepts of A. S. Shishkov, who was the leader of archaists and the founder of the literary circle "Beseda Lubilitei Russkogo Sloven"; and who
The stages of its functioning. The first stage lasted from October 28, 1941 to November 4, 1941. It is characterized by making a number of important decisions: to make the population get ready to meet the attack, to evacuation, to work in the industry. But the military administration, that is the Commander of Defence Area in Sevastopol Admiral Filipp Oktjabrsky. From the middle of May to the end of June urgent meetings for discussing current issues were held. By the end of the month the city's administration was absolutely disturbed. All agencies and the Municipal Committee of Defence finished their work. Thus, while the defence of city, two agencies with extreme powers were functioning. Only during the third attack the Municipal Committee of Defence became the main body of civil administration.

Meetings of the Municipal Committee of Defence were renewed on January 5, 1942. Up to the middle of May, 1942 the agency had no meetings. The Bureau of the Municipal Party Committee was making all the decisions about defence. The following questions were discussed: city's restoration, evacuation, military training of population, and improvement of administration.

The Bureau of the Municipal Party Committee was making all the decisions about defense. The extreme situation the Municipal Committee of Defence became the agency that headed the work of the Soviet and Party bodies aimed to secure well co-ordinated work of the state, party and social structures of administration. According to its structure the regular basis. Firstly, a number of questions were discussed in the Bureau, and then they were submitted for approval by the Committee of Defence. The functions of these agencies were not clarified and separated. The Bureau discussed and made decisions on some important issues (food supply for population, for example). In the middle of May, 1942 the situation changed. The Soviet Army was defeated in Kerch Peninsula. Now, all efforts of the German command were directed to the fast capture of Sevastopol. In such an extreme situation the Municipal Committee of Defence became the agency that headed the work of the Soviet and Party bodies aimed to meet the third attack. The active functioning stage of the Municipal Committee of Defence started. It worked in a close contact with military administration, that is the Commander of Defence Area in Sevastopol Admiral Filipp Oktjabrsky. From the middle of May to the end of June urgent meetings for discussing current issues were held. By the end of the month the city administration was absolutely disturbed. All agencies and the Municipal Committee of Defence finished their work. Thus, while the defence of city, two agencies with extreme powers were functioning. Only during the third attack the Municipal Committee of Defence became the main body of civil administration.

Key words: A.S. Shishkov; archaists; national identity; "Slovo o Polku Igoreve"; "Kraledvorskaya rukopis".

P. 101. Racayev Stanislav V. Museum of Military Glory of Ural (Yekaterinburg, Russia). THE CITY DEFENCE COMMITTEE IN THE SYSTEM OF GOVERNMENT AGENCIES IN THE CITY OF SEVASTOPOL (OCTOBER 1941 – JUNE 1942). Sevastopol Municipal Committee of Defence was founded on October 23, 1941. The aim of its foundation was centralization of power on the ground to guarantee well co-ordinated work of the state, party and social structures of administration. According to its structure and functions it imitated the Bureau of the Municipal Party Committee a lot. Boris Borisov, First Secretary of Municipal Party Committee, headed both the agencies. The functions were identical: military education of citizens, ensuring of military industry, organization of local air defence, etc. After studying the reports of the Municipal Committee of Defence one can detect three basic stages of its functioning. The first stage lasted from October 28, 1941 to November 4, 1941. It is characterized by making a number of important decisions: to make the population get ready to meet the attack, to evacuation, to work in the industry. But the military administration doubted the necessity to establish this agency. It could cause the committee's work suspension. From November, 1941 to January, 1942 the agency had no meetings. The Bureau of the Municipal Party Committee was making all the decisions about defence. Meetings of the Municipal Committee of Defence were renewed on January 5, 1942. Up to the middle of May, 1942 9 meetings were held. The following questions were discussed: city's restoration, evacuation, military training of population, and improvement of epidemic environment. The Bureau of the Municipal Party Committee continued its functioning, the Party administration assembled on the regular basis. Firstly, a number of questions were discussed in the Bureau, and then they were submitted for approval by the Committee of Defence. The functions of these agencies were not clarified and separated. The Bureau discussed and made decisions on some important issues (food supply for population, for example). In the middle of May, 1942 the situation changed. The Soviet Army was defeated in Kerch Peninsula. Now, all efforts of the German command were directed to the fast capture of Sevastopol. In such an extreme situation the Municipal Committee of Defence became the agency that headed the work of the Soviet and Party bodies aimed to meet the third attack. The active functioning stage of the Municipal Committee of Defence started. It worked in a close contact with military administration, that is the Commander of Defence Area in Sevastopol Admiral Filipp Oktjabrsky. From the middle of May to the end of June urgent meetings for discussing current issues were held. By the end of the month the city administration was absolutely disturbed. All agencies and the Municipal Committee of Defence finished their work. Thus, while the defence of city, two agencies with extreme powers were functioning. Only during the third attack the Municipal Committee of Defence became the main body of civil administration.

Key words: Sevastopol Municipal Committee; defence of Sevastopol; emergency authorities.

P. 104. Savosichev Andrey Yu. Orel State University (Orel, Russia). PROBLEM OF THE ORIGIN OF CLERKS AND ASSISTANT CLERKS IN 14TH – 17TH CENTURIES IN MODERN HISTORIOGRAPHY. In the modern historical science the traditional approaches to the problem of the social origin of clerks and assistant clerks, set before 1917 and developed in the works of the Soviet period researchers are still used. I. Gralya devoted a monograph to the activity of a clerk, Ivan Mikhailovich Viskovaty. The author came to a conclusion that most part of clerks come from the nobility. Representatives of gentry and mean nobility became assistant clerks. Ju.G. Aleksyev tracked the initial stages of evolution of the social origin of the grand-ducal clerks in the second half of the 14th century: from non-free servants to paper workers who have already found freedom, but yet not a part of children of the boyars. Approximately from the first half of the 15th century the researcher traces the beginning of gradual transformation of clerks from servants into feudal lords. In 2001 in Volgograd State University N.V. Rybalko defended a PhD thesis "Russian Mandate Bureaucracy in the Time of Troubles the Beginning of the 17th Century". The study of the social origin of clerks and assistant clerks was one of the tasks in the work. N.V. Rybalko came to a conclusion that in the Time of Troubles the share of noble family representatives among clerks was from 28% (clerks of the cities in the time of Vasily Shuisky) to 38% (in the First Home Guard), and among assistant clerks – from 2% (in the time of Tsar Vasily) to 3% (in the time of Tsar Boris). D.V. Lisyetsev's monograph is among the most recent works on the problem of our interest. In this rather thorough work a part of Chapter 7 is devoted to the question of the social origin of clerks. D.V. Lisyetsev's general conclusion about the sources of formation of clerks of the period of the Time of Troubles is that about 90% of the clerks of the first two decades of the 17th century were noble by origin. The other 10% was made up by the representatives of merchants. It corresponds to S.K. Bogoyavlensky's calculations by which in the first third of the 17th century the number of nobles among clerks fluctuated between 79 and 87%. Summing up the analysis of the historiography of the problem it is necessary to notice that, despite a number of thorough researches, the question on a social the of clerks in the 14th – 17th centuries has not yet been solved.

Key words: social origin; clerks and assistant clerks; historiography; sources; methodology.
dry and wet productions of cement, the economic efficiency of types and sizes of cement plants is still not so clear. The shrinkage of cement sales in the first years after the collapse of the USSR showed the weak point of large cement plants: the downfall in output below the calculative figures resulted in sharp growth of the production cost due to the expensive assets. Small cement plants/milling units found themselves in a better situation. Relatively cheap assets, simple technology and small product ranges at the existing sales level made it possible for them to stay positive. However, the sales crises no matter how long they are always come to an end. And when the active demand comes the efficiency of large cement plants becomes high and this has already been proved by the whole history of the cement industry in the USSR. So as of today the issue of economic efficiency of small cement plants/milling units under the conditions of active demand is still open. A detailed study of the USSR history of cement industry can help decide if the milling units are efficient under peak demand for cement. For example, in Kharkov during the start of mass construction using reinforced concrete in the end of the 1950s – the beginning of the 1960s there was a cement plant/milling unit with the capacity of 300 kt per annum. This plant used completely external raw materials. However, the analysis of its efficiency proves that it was no less than the average among the large cement plants in the USSR with the capacity of over 1 Mt and their own raw materials. This high efficiency was ensured by the production program calculated in details and strictly followed and based on: a) a continuous flow of the raw materials backed up by the sales in the region; b) the use of energy saving high output technologies; c) optimization of the equipment and production process automation in use. So the study of the work of Kharkov Cement Plant proves that although milling units cannot live without plants with their own raw materials they still can be efficient and necessary under the increased demand for cement.

**Key word:** cement; reconstruction; grinding mill; raw materials; production cost.

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P. 114. Tarasov Konstantin N. Vyatka State University (Kirov, Russia). **PROBLEM OF INTERRELATION OF THE POWER AND THE SOCIETY THROUGH THE PROCESS OF POLITICAL ELITE FORMATION IN THE VIEWS OF MODERATE CONSERVATIVES (L.A. TIKHOMIROV, I.A. ILYIN, REPRESENTATIVES OF THE EURASIAN IDEOLOGY).** The article represents an analysis of the problem of the ideological and institutional identification of the state and the society through the mechanism of formation of political elite. The given thesis is proved by example of studying the views of the representatives of moderate Russian conservatism – L.A.Tikhomirov, I.A. Ilyn, and leaders of the Eurasian organization (N.S. Trubetsky, N.N. Alekseev, P.N. Savitsky). The analysis of the works of Russian conservatism ideologists presented in the given research has allowed the author to allocate the following principles of the formation of political elite they formulated: – the political elite represents a set of the best (moral, intellectual, professional) qualities of the representatives of the nation united in a uniform political organization; – members of the ruling class are unified by the general outlook with its key line being the fidelity to the national idea and readiness to give one’s life for the sake of its realization; – the political elite has an open character; its members are the best representatives of different strata of the society from all over Russia; and it has a multistage character; – representatives of the ruling class are selected by occupation and are defenders and representatives of interests of their social groups at the level of government; – representatives of the ruling class form state governing bodies at all levels; – division of the political elite into parties and groups resisting each other is inadmissible. Provided the given principles of the political elite formation, conservatives were convinced that the contradiction between the state and the society institutions will be solved. Thus, projects of the political elite formation presented in the works of the ideologists of Russian conservatism mentioned in the given research assume institutional unity of the state and the society through the mechanism of formation of the ruling class. As the society itself forms the ruling elite, the political management of all levels of the power vertical becomes a tool; it is the society in the practical sphere of government. Democracy realization gives the state structures a character of institutions of public self-management. On the other hand, the inevitably arising border between the ruling class and the population is compensated by the requirement of protection of national interests and the condition of fidelity to the national idea obligatory for the elite. Thus, "physically" (owing to constant replenishment by the chosen people) being a nation part, via the national idea the elite establishes an ideological connection with the society and is identified with it through the common outlook.

**Key words:** conservatism; political elite; Eurasian ideology; state; society.

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P. 121. Turusheva Natalya V. Tomsk State University. **FEATURES OF FINANCING CHINA’S CONTEMPORARY CULTURAL SPHERE.** During the first stage of the cultural system reform Chinese investment in culture was based on the state funds. After the XVI Congress of the CPC (2002) private investment began to develop. Several documents were developed. In 2005 the State Council approved "Decisions on the Private Capital Investment into the Culture Sphere". The "Decision" stated that private cultural enterprises have the same facilities as the state-owned enterprises when issuing permits for projects. But the "Decision" prohibited entry of private capital in the media industry and agitation. In August 2005, the Ministry of Culture issued "Some Views on the Involvement of Foreign Capital in the Sphere of Culture". In November 2005, the Ministry of Culture, Ministry of Finance, Ministry of Personnel, and the State Administration of Taxation jointly issued the "Opinions on the Development of the Private Art Groups in Literature and Art". These documents defined the quality and level of foreign capital in the sphere of culture. In November 2007, the Ministry of Culture put forward "Opinions on the Promotion, Support and Management of Non-State Enterprises in the Development of the Cultural Industry". The document stated that it was necessary to allow private enterprises to participate in the cultural industries, and create a favourable policy and market environment for their participation in the development of cultural industries. At the same time, Chinese leadership retains the central position of the state cultural enterprises. The document "Some Views on the Involvement of Foreign Capital in the Sphere of Culture" says that if the Chinese side holds more than 51% of shares or Chinese representatives take leadership positions, it is allowed to establish a joint venture specialized in book printing or CD copy, or joint ventures in the field of theatre and film industry, etc. They can participate in privatizing state publishing houses. At present private Chinese enterprises become an important source of investment in many cultural spheres. According to statistics in 2003 there were 197 production companies, 60 of them were private partnerships. In the first half of 2004, more than 100 movies were produced, 80% were taken by private companies. Every year private companies invest more than 2 billion yuan to produce 10 thousand series of television serials. Large corporations or project of cross-border investment has not appeared yet because the development of the cultural industry in China has started relatively recently.

**Key words:** cultural enterprises; investment in cultural system; cultural market.

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P. 124. 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 form of speech. Speech is therefore important in 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. 126. Zavarykin Ilia N. Barnaul Law Institute of the Ministry of Internal Affairs of the Russian Federation (Barnaul, Russia). THE HISTORY OF THE EVOLUTION OF RUSSIAN AND FOREIGN CRIMINAL LAW ON THE RESPONSIBILITY FOR ABUSE AND ITS ROLE IN PROTECTING WOMEN'S RIGHTS TO SEXUAL IMMUNITY AND SEXUAL FREEDOM. In the article the author analyses the history of the emergence and development of Russian and foreign criminal law on the criminal responsibility for sexual abuse. In his opinion, it was caused by the evolution of norms that recognise and protect women's rights to sexual immunity and sexual freedom. He concludes that since ancient times the conservative function of the criminal law was focused on protecting people against crimes and expressed in the criminal responsibility (including abuse). However, the penalty for abuse, as well as the social attitude to the victims of this kind of crimes, in different historical periods had some features. Bases on the research the author reveals them, and also defines the role of criminal law in the protection of women's rights to sexual immunity and sexual freedom in specific historical periods: 1) the period of ancient times and the Middle Ages was characterised by the fact that the norms of criminal responsibility for abuse considered the social situation and the proper behaviour of the victim in the process of qualification of the crime and did not consider sexual freedom as an object of criminal law protection; 2) the period of the end of the 17th century – beginning of the 20th century was marked by the appearance of norms in the Russian and foreign criminal law that recognized and protected women's rights to sexual freedom and sexual dignity, and considered the specific situation and the behaviour of the victims in the qualification of an act as a crime; 3) the period of modern times is characterized by the adoption by the United Nations of international norms and agreements that introduced the basic principles of responsibility for crimes against sexual immunity and sexual freedom, and protected women against criminal attacks of this kind fixed in the criminal laws of the members of this agreement. For a long time in the genesis of the criminal law the human society debated the question about the woman's abilities to resist abuse by the man (non-resistance could signify sexual approachability of the victim or something like that). After fixing the rules and norms, witch consolidated the position that the threats of abuse and using woman's feebleness became a crime, the issue had lost its relevance. The article also concludes that the Russian Federation, by ratifying international human rights agreements, is fully committed to the protection of women against violence or threats of violence, including sexual abuse.

Key words: history; criminal law; sexual abuse; women's rights; sexual immunity; sexual freedom.

ECONOMICS

P. 132. Gainanov Damir A., Kirillova Svetlana A., Kantor Olga G. Institute of Social and Economic Researches of Ufa Scientific Centre RAS (Ufa, Russia). DIAGNOSTICS OF SOCIAL POTENTIAL REALISATION OF THE RUSSIAN ARCTIC REGIONS FROM THE POSITIONS OF SUSTAINABLE DEVELOPMENT. At the post-industrial stage of development of particular significance is the realization of social potential as part of the national (regional) wealth and human potential. At the same time the existing institutional structure (educational system, health authorities, social security, public services, etc.) determine not only the quality of the political system, but also the level of the society development, the life quality of the population as a whole. Given the fact that the main factor is the social potential of the population, as well as the institutions that create conditions for its implementation, the content of social potential is seen as a set of options available to the territorial entity of sustainable development in order to ensure a high quality of life. The unique geo-political and geo-economic potential of the Russian Arctic territory allows positioning it as an area of the social responsibility of the state. Due to the fact that the development of the Arctic regions, Russia as a whole, in the 21st century will be determined predominantly by the level of the social potential, specific tools are required to perform assessment of its size and dynamics. Their application will help to clarify the priorities of social policy, as well as the formation of the complex measures for their implementation, depending on the features of regional development. With the development of tools evaluating implementation of the elements of regional capacity, including social ones, the following provisions were adopted as fundamental: – consideration of a balanced development as one of the imperatives of sustainable development; – adoption of a balanced level of all the subsystems of the region, as a criterion and the magnitude of the regional capacity; – use as the characteristics of the social potential of performance indicators that reflect the impact on the regional development of the quality of education, health status, living standards, etc. This paper presents methodological tools for assessing the implementation of the elements of regional potential, based on the use of principal-factor method, which is part of an integrated multi-factor analysis of the variability of structures allowing to investigate the influence of the analyzed factors on the total variance. The authors propose an approach that, in contrast to the classical interpretation of the principal-factor method results, takes into account the impact on the development of a complex dynamic system, which is the region, in the first place, all the major components, and, second, each factor separately. The results of the approbation of these tools on information files of
the Russian Federation regions subjects for 2000–2010 in the section of the social potential testify to a lower, than the whole across Russia, level of its realization in the regions of the Russian Arctic.

**Key words:** social potential; Arctic regions; balanced development; principal-factor method.

P. 137. Golovanov Anton I. Tomsk State University (Tomsk, Russia). FROM PRODUCTIVITY TO LABOUR EFFICIENCY. The current realities of social development indicate the need for optimization of labour processes. Labour is a complex unity of the set of natural, social and economic processes. The knowledge of the forms of labour is a necessary condition for improving the rationality of its assessment. The complexity of understanding of the labour assessment theory consists in the need of system treatment of all categories of its performance. The article describes the evolution of the category of labour as a major category of its performance. However, the dynamics of the modern life poses new challenges of economic science, in particular the need to change the approach to labour assessment, to the study of its efficiency. The category of labour efficiency is identified with practically all known methods of its assessment. Their sequence is the basis of the concept of labour efficiency. Today qualifications and working conditions acquire a particular value in labour assessment, which are of paramount importance to determine the various levels of its performance and productivity. Labour assessment along with the economic content has to take into consideration the psycho-physiological and social indicators. The psycho-physiological aspect of labour efficiency is determined by the influence of the labour process on the human body, which requires a positive work environment. The social aspect assumes a possibility of self-improvement in the labour process, expansion of the production profile, as well as improvement of living. The labour, which provides sufficient pithiness of work, conditions of full development of abilities of the individual, could be considered as effective. Labour efficiency has to consider ecology requirements, the level of institutional development in the society, safety, and many other factors. Thus, from our point of view, labour efficiency could be understood as an integral dynamic indicator of the assessment of changes in the amount of labour performance, quality of work, quality of life for all the involved in the labour processes, and the parties using their results. The assessment of labour efficiency is an extremely complex challenge. The development of a technique of the system accounting for its various aspects is necessary. Any assessment is a subjective phenomenon, therefore, labour could be considered effective if the value of its performance meets expectations.

**Key words:** labour; labour assessment; factors of production; labour productivity; labour efficiency; quality of life; needs; expectations.

PSYCHOLOGY AND PEDAGOGICS

P. 142. Bykova Anna V. Samara State Technical University (Samara, Russia). ON THE NOTION OF THE SUBJECT AS AN AGENT OF CAUSALITY FOR PERSONAL DEVELOPMENT IN THE EDUCATIONAL PROCESS. The paper corroborates the idea that a subject realizes oneself in the world. The major direction of such self-actualization is to be an agent of free causality, which refers to the possibility and actual ability to spontaneously initiate new causal chains. Development situation is constituent for the subject self-actualization, thus underlying socio-psychological basis of this phenomenon. This means that the nature of free causality emerges in communication through new formations in the sphere of subjective relations. The analysis has been carried out to trace the evolution of education in two correlative ways. On the one hand, it appears as a mechanism inducing abilities to cognise social and cultural spirituality. On the other hand, it manifests itself as a means for spiritual transformation of an individual into a subject of their own activity. The notion of spiritual culture elucidated at least three extremely important ideas in the field of social psychology: cultural technologies constitute a consistent mechanism for the formation of a socio-psychological subject; coupled with another subsystem, i.e. material culture, the mentioned mechanism belongs to the global unity and integrity of nature and humankind, to spiritual culture and social relationships; the integration of spiritual and material cultural phenomena into a socio-cultural technology is determined not only by psychological laws but is also described by such socio-economical terms as "instrument", "material", "commodity", "exchange", "distribution", etc. Culture, thus, becomes a specific model of socio-psychological processes of objectivation-subjectivation. This means that objectivation-subjectivation is presented within the framework of social organization of education, based on division of labour and humankind-nature relationships. Communication plays a system-forming role for forming a new socio-cultural object in education. Similarly, a new subject is formed in the context of education, which is primarily a subject of communication, concerning cultural artifacts of the professional sphere. The latter is objectified in regard to the object. This innovative event is valid, provided there appears an individual who interprets culture in their own way in various situations. Viewed in terms of educational process, objectivation-subjectivation takes the form of a psycho- and socio-cultural communication cycle, consistent with replicating of an individual's subjective sphere. Consequently, the basic problem is to ensure replicating of that cycle, as it stipulates the functioning of both culture and society. A particular role here is suggested for the educational process, which provides the unity and integrity of culture and society.

**Key words:** subject; personality; consciousness; activity; source of activity; causal series; will; situation.

P. 149. Kalachikova Olga N. Tomsk State University (Tomsk, Russia). USING THE CONCEPT OF "MANAGEMENT SUPPORT" IN THE MANAGEMENT OF EDUCATION. The current situation in education is characterized by increased conversion processes, the generation of new ideas about the objectives, outcomes and impact of education in the life of the individual and in the society. Education becomes a place of realization of the interests of various entities of public life through their interaction and communication. Such a situation demands a new definition of the objectives and content of education management. It also requires determination of their goals related to the organization of interaction and communication of different participants' influence. Our paper presents an empirical analysis of changing management through the study of the conception of "management support". This conception is currently an active part in the management education. It is used in the context of different definitions of the management tasks. The purpose of this paper is to order ideas about the opportunities of this concept in the practice of educational administration. Research material is based on the experience of Tomsk innovative schools, and also on theoretical works in pedagogy and educational sites. To conduct the study, the method of qualitative content analysis of texts — description of the experience of innovative schools — was used. The study revealed the nature of the scientific objectives of management, which could be related to "management support". Especially, the nature of management objectives that are related to the creation of conditions for cooperation and education of participants, generating initiatives for further development and implementation of educational projects to support the participants in their educational process of their own goals and ideas about the results of their education. A common feature of the goals of educational management can be considered that they all are showing weak differentiation of professional tasks such as arrangement of bringing children up and their education and
management tasks as motivation and involvement of staff, creation of the environment for professional development. It means that creation of conditions for educational interaction of teachers and children substantially increases opportunities of management. Herewith innovative schools due to apportionment of goals of organization of innovative activities reach synergy of educational and staff-managing results.

Key words: educational communication; initiative; management support; education management; content of education; subjects of educational interaction.

P. 153. 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-Kamchatsky, Russia). A MODERN PSYCHOLOGICAL PORTRAIT OF A WORK ADDICT – A PERSON WITH PERVERTED IDEAS ABOUT THE ROLE AND THE PLACE OF WORK IN THEIR LIFE. The article 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; s = 11.078) from different Russian cities (Tomsk, Seversk, Kargasok, Bakchar, Tyumen, Nizhniy Novgorod, Samara, Novokuibishevsk, Dzerzhinsk, Kemerovo, Leninsk-Kuznetsky, Novokuznetsk, Mezhdurechensk, Prokopyevsk, Tsisl, Krasnoyarsk, Petropavlovsk-Kamchatsky, Elizovo, Yakutsk, Ruder, 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 improve the existing approach to the self-identity problem, thinking metamorphose, human potential loss (by example of work addiction). This approach is based on the methodology of thinking experience trans temporal interpretation and self-identity analysis as a condition of maintaining stability by a human being in social variation and social development. The article contains the interpretation of some materials describing general psychological structure of a Russian, who has a risk to become work addicted. The data we received give us the opportunity to suppose that work addiction risk in modern Russia is connected not only with the "retreat" into work, but also with perverted ideas about the role and the place of work in our life. The results allow us to improve the existing approach to work addiction risk studies and to elaborate practical measures to correct work addiction and human potential in whole. The general conclusion of the case analysis of the series of people with high index of work addiction is the following: the identity of a work addicted person is characterized with polarity of their psychological indexes and conditions. The ideas of a work addicted person about the place of work in their life are perverted. To them work is a mediator and a denominator to life, whereas non-addicts imagine that life is a mediator and a denominator to work. This conclusion is partly proved by the received data. But in this article only a small part of the analysis is presented, and the continuation of the research demands specification of our assumptions.

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

P. 157. Shanskov Mikhail A., Ponomarev Gennady N. Herzen State Pedagogical University of Russia (St. Petersburg, Russia). TYPOLOGICAL CHARACTERISTICS OF SOCIAL BEHAVIOUR OF THE PHYSICAL EDUCATION FACULTY STUDENTS. Social behaviour is activities carried out by the individual on the basis of legal and traditional norms obtained in the course of education. They exist outside the individual, and provide the ability to counteract individual behavioural abnormalities. One of the major problems of any typology is the choice of adequate criteria for the allocation of distinct types for subsequent analysis. Training of a modern specialist in physical education requires creation of scientific and educational environment, which has distinctive features. They are connected with the specific subject matter of the student, and with the cultural function of their future careers, as well as the specifics of the interaction with different categories of students, which largely determines the effectiveness of the implementation of that cultural function. We found the major typological features of social behaviour of students of the Faculty of Physical Education. According to the cluster analysis we identified three types of social behaviour of students. The first type was 30.3%, the second type – 27.3%, and the third type – 42.4% of the total. Students of the first type of social behaviour demonstrated marked ability to form judgments, knowledge of the language. It should be noted that they have the highest rates of IQ (108.0 ± 3.38). They are interested in sports. On the other hand, they have high levels of anxiety, lack of harmony, aloofness in interpersonal relationships and a marked degree of physical aggression. It is obvious that the students that make up this type of social behaviour need psychological correction of behavioural responses. The dominant parameters determining the social behaviour of the second type are psychoticism and extraversion, expressed parental claims. IQ of the representatives of this type is lower than that of the first type (103.44 ± 3.71). The main trend of the social behaviour of students of the third type is a high level of overall aggression in combination with a high value of group conformity, which indicates good social adjustment of the individual. IQ of the representatives of this type is the lowest of all groups and is 98.36 ± 1.99. Obviously, the existence of different types of social behaviour of students requires consideration of psychological characteristics in the process of elective training in physical education, and in the subsequent career in educational institutions, secondary schools, youth sports schools, pre-school recreational facilities, schools of the Olympic reserve. 

Key words: typological characteristics; social behaviour; students of the Faculty of Physical Education.

P. 162. Shulginova Yelena M., Obdalova Olga A. Tomsk State University (Tomsk, Russia). ORGANISATION OF STUDENTS’ OPERATED INDEPENDENT ACTIVITY BY MEANS OF WEBQUEST TECHNOLOGY AS A SUCCESSFUL CONDITION OF THE FOREIGN LANGUAGE COMMUNICATIVE COMPETENCE FORMATION. The article is devoted to consideration of the problem of foreign language education effectiveness improvement at a higher vocational institution and substantiation of the necessity of such methodological condition as controlled independent activity in the educational process. It elucidates the description of new educational technology for realization of valuable guidelines of the contemporary society. According to the educational programs of the new generation the main objective of the foreign language training at a higher professional school is aimed at training of a specialist who possesses such a level of foreign language communicative competence, which allows him/her to solve effectively professional problems in the corresponding sphere of activity. In the current article we undertake an attempt to reveal and prove one of the important conditions of successful educational activity to gain foreign language communicative competence by the students, that is the controlled independent educational activity, and the technique of its organization on the basis of webquest technology application. Having analyzed the specificity of the webquest technology (its structure, the components functions), we have revealed and described its didactic potential as a new means of IT usage in the educational process with the goal to create conditions for stimulating students' activity, their independence, critical thinking, their involvement in the authentic context of the professional work. This technology uses a number of pedagogical innovations which are based on the methodology of problem- and student-focused approaches. The students'
active searching independent activity is organized on the basis of webquest by attracting the Internet resources and is provided at all levels of problem solving, from comprehensive studying the problem to finding out solutions and obtaining the final result. Another advantage of the technology is that the webquest allows achieving both the accent on students’ independent activity and strict supervision of this activity due to the technology format. Working on the webquest, it is necessary to elaborate the plan and correctly specify the student’s independent activity performance results, as well as the ways of management of this activity attracting authentic foreign language information. To solve the methodological task of webquest technology integration into the educational process we have elaborated an algorithm, which includes not only the standard stages and sequence of steps to provide students’ maximum activity and develop their foreign language communicative competence, but also an important preparatory stage aimed at the teacher, guiding his/her activity to take into consideration the peculiarities of students’ independent work with authentic Internet resources. The analysis results and our personal teaching experience of using webquest technology show that it is important to build the strategy of work with the webquest technology on the basis of methodological theory. It should be relevant to the educational objectives aimed at enhancing the students’ successful independent activity and developing their self-control abilities in the cognitive process. Webquest is nowadays one of the most effective pedagogical means for development of the foreign language communicative competence of students. Its efficiency in the educational process is conditioned by the organizational and pedagogical support directed to the maximum realization of challenges, addressed by the teacher to the students on each stage of webquest.

Key words: foreign language communicative competence formation; webquest technology; independent activity; metacognition experience.

SCIENCES ABOUT EARTH

P. 168. Annikova Irina Yu. V.S. Sobolev Institute of Geology and Mineralogy, SB RAS (Novosibirsk, Russia), Tomsk State University (Tomsk, Russia); Vladimirov Aleksandr G. V.S. Sobolev Institute of Geology and Mineralogy, SB RAS (Novosibirsk, Russia), Tomsk State University (Tomsk, Russia); Smirnov Sergey Z. V.S. Sobolev Institute of Geology and Mineralogy, SB RAS (Novosibirsk, Russia), Tomsk State University (Tomsk, Russia); Usovov Alexandr N. Zapsibgeo (Novokuzensk, Russia); Gertner Igor F. Tomsk State University (Tomsk, Russia). Gavryushkina Olga A. V.S. Sobolev Institute of Geology and Mineralogy, SB RAS (Novosibirsk, Russia). GEOLOGY AND MINERALOGY OF SPODUMENE PEGMATITES FROM MOUNTAIN SHORIA. Rare-metal spodumene pegmatites with Li and Ta-Nb mineralization are a part of the Tashelginsk-Mayzas iron-ore field (Mountain Shoria). The Tashelginsk pegmatite field is represented by oligoclase-microcline pegmatites with biotite, microcline-albite pegmatites with muscovite, and microcline-albite pegmatites with spodumene. Spodumene-bearing pegmatites are related to the marbles of the Tashelginsk metamorphic complex. In the outcrop, five pegmatite veins were revealed; they have average parameters: the length is up to 200 m, the thickness is 0.8-1.2 m, which is significant for exploration. The age of spodumene pegmatites is 407 ± 13 Ma (U-Pb, SHRIMP II method by zircons), whereas the age of overlapped dynamic metamorphic processes is 310 ± 2.6 Ma (Ar-Ar method by muscovites). Despite the wide range of numbers obtained by U-Pb and Ar-Ar methods, pegmatites were formed at least 100 Ma before the formation of the granite in this region. The pegmatites can be referred to the objects, which are not genetically connected with granitoid magmatism. The mineral-concentrates of lithium in spodumene pegmatites of the Tashelginsk ore field are spodumene – 6.24 ± 0.46 wt% Li2O, muscovite – 0.25 ± 0.04 wt% Li2O, and potassium feldspar – 0.003 ± 0.001 wt% Li2O. The fabric characteristics of pegmatites can be obviously seen in the Uryevskaya vein, which is the most revealed vein within the pegmatite field. These characteristics include deformations of spodumene crystals (even S-type crystals can be seen), feldspar and muscovite grains; streamline shape of fine-grained quartz aggregate over the spodumene and feldspars grains indicates the influence of the dynamic metamorphic processes during formation of a pegmatite vein, and sinkinematic nature of pegmatites. Interaction with host marbles occurred at the last stage of pegmatite forming, which was reflected in appearance of zones of high-calcium garnet, and replacement of Ta, Nb, and Ti oxides by calcium-bearing minerals like Ca-rich mica and titane. The similarity between accessory mineralization of spodumene and non-spodumene pegmatites indicates their genetic relationship. Minor development of the hydrolysis products of pegmatite primary minerals shows how insignificant the role of hydrothermal fluids is during pegmatite formations. The macro- and micro-mineral composition of spodumene pegmatites from the Tashelginsk ore field lets us consider them as prospective source of lithium ores in case cement is made out of quartz-feldspar waste of the ore-mining processes. The calculation of cost efficiency of processing the lithium ores from the Tashelginsk deposit showed that complex processing of initial ore is only effective. The complex processing includes (besides obtaining lithium products) obtaining the sludge for producing cement clinker, which is used for producing cement. Key words: spodumene pegmatites; pegmatite veins; micro-mineral inclusions; accessory paragenesis; isotope dating; ore-mining processes.

P. 175. Zhuravlev Georgy G., Zadeh Gennadiy O. Tomsk State University (Tomsk, Russia). ASSESSMENT OF WIND POWER CAPACITY OF KEMEROVO REGION. Wind is one of the most important elements of the climate. It influences many branches of national economy. It is one of the perspective energy sources. For the decision of problems on estimation the wind power potential and its possible contribution in resource-saving and region ecology it is necessary to know about the wind characteristics distribution features in time and in a territory. The material for the research was the data of meteorological monthly journals (release 20, a part 2) at 21 stations of Kemerovo region during 1966–2011. The analysis of the basic characteristics of the wind for the considered period has shown that at meteorological stations a reduction of mid-annual speed of the wind is observed. To reveal the tendencies of wind speed change the time and in a territory. The material for the research was the data of meteorological monthly journals (release 20, a part 2) at 21 stations of Kemerovo region during 1966–2011. The analysis of the basic characteristics of the wind for the considered period has shown that at meteorological stations a reduction of mid-annual speed of the wind is observed. To reveal the tendencies of wind speed change the initial period was divided into two parts: 1) 1966–1990, 2) 1991–2011. For each part the average wind speed was calculated. Practically at all stations the average speed in the first period was greater than in the second. The change was from 1.1 times (Kuzedeevo) to 1.7 (Yurga). The exception was two stations: Ust-Kabyrza, the speed in the two periods is equal, and Kondoma where the wind is 1.1 times faster in the second period. Such a decrease in the speed of the wind has led to appreciable reduction of wind power resources. The calculation of the specific capacity of the wind stream was made by the cube of wind speed for the whole considered period (1966–2011), and for the last decade (2000–2011). The calculation was made by the cube of speed and by the formula considering the repeatability of wind speed gradation. The results of the calculations of the data from meteorological stations have shown that the size of specific capacity changes considerably. In Kemerovo Region the minimum average value of specific capacity was observed at Ust-Kabyrza – 1.0 watt/m2 × sec, maxima of mid-annual specific capacity were fixed at Yurga – 76.0 watt/m2 × sec, at Novokuzensk – 67.7 watt/m2 × sec, Tisul – 61.1 watt/m2 × sec. Values of specific capacity observed in separate months reached the values of 687.5 watt/m2 × sec.
sec at Novokuznetsk, 737.0 watt/m² × sec at Mariinsk, 616.0 watt/m² × sec at Tisul, and 963.5 watt/m² × sec at Yaya. The comparison of calculations by the cube of speed and by repeatability of speed gradation shows that the size of specific capacity calculated by repeatability of gradation at all stations exceeds the values received by calculating the cube of speed. The difference of values for Kemerovo Region can reach 83%. Thus, having considered the basic characteristics of the wind at the height of 10 – 14m at meteorological stations of Kemerovo Region, it is possible to draw the following conclusions: the estimation of wind power resources by the data from meteorological stations shows that the use of wind-mills of low power is possible only in transition periods – April, May, October, November; the use of wind-mills of average and big capacity is unpromising; considering the instability (daily, seasonal, weather) of wind energy supply, it is possible to use it only as an additional source of electrical supply.

Key words: wind mode; wind power potential; seasonal variation.

P. 182. Karina Irina V. Institute of Monitoring of Climatic and Ecological Systems, SB RAS (Tomsk, Russia); Filandycheva Larisa B. Tomsk State University (Tomsk, Russia); Bokova (Bulatova) Utinia A. Tomsk State University (Tomsk, Russia); Sapyan Yekaterina S. Tomsk State University (Tomsk, Russia); Klimova Nina I. Institute of Monitoring of Climatic and Ecological Systems, SB RAS (Tomsk, Russia). RESEARCH OF THE CLIMATIC SEASONS OF THE ANNUAL CYCLE AND ITS INFLUENCE ON THE LIVING COMPONENTS OF PEATLAND BIOGEOECOENOSIS (BY EXAMPLE OF OLIGOTROPHIC PEATLAND IN SUBTAIGA OF WESTERN SIBERIA). This work is devoted to the multipurpose study of features of the structure of natural climatic seasons and their influence on the seasonal development of higher vascular plants and testate amoebae communities in the bog microlandscape. The object of research is the oligotrophic afforestation peatland in the subtaiga subzone at the West Siberian Plain. The observations were carried out during two years: 2011 and 2012. Both of the years are different by climatic structure from the average long-term data, and from each other. If compared with the long-term average data of 1967–1997 the investigated years are characterized by a shorter cold and snowy part and a longer vegetation part in the structure of the annual cycle. The vegetation part of the annual cycle in 2011 was wet and normal by the temperature regime, and in 2012 it was very dry and very warm. Although the air temperature at the peatland is lower than at the nearest weather station the data revealed a high correlation of air temperature fluctuations. On this basis, it is concluded that in the bog microlandscape there are similar seasonal variations in climatic rhythms; and their time can be determined by the data of Tomsk weather station. Phenological changes of five species of shrubs and a species of herbaceous plants are studied in the peatland. It is shown that their seasonal development begins at the end of the spring season (florification and germination) and ends at the beginning of autumn (preparation for winter rest). The main phenological changes occur in the central phase of the summer season (moderately-warm summer phase): the growth of new shoots, fruit ripening. Differences in the climatic structure between the two investigated years appeared in the shift of the time of certain phenological stages of peatland shrubs. Testate amoebae communities were studied in the typical microsites of the peatland microrelief, in depressions between tussocks with sphagnum moss, one in 2011 and another – in 2012. Only the living cells of testate amoebae were taken into account: separate active and encysted. The number of live active cells of testate amoebae per 1g of absolutely dry matter of the substrate varies considerably during the vegetation part of the annual cycle, the number of peaks were observed in May, June and August. The values of the Shannon Index and evenness increased by the end of the vegetation part of the annual cycle. Species diversity varied slightly. The number of cysts increased a little in the spring season and increased sharply in the autumn cycle (September, October). Overall, the combination of high numbers of live active cells of testate amoebae and the high value of the index of species diversity in their community were observed at the end of the central phase of the summer season in the period of maximum heating of the peatland soil.

Key words: climatic seasons of annual cycle; phenology of bog vascular plants; testate amoebae; seasonal dynamics; peatland biogeoecosynthesis.

CHEMISTRY

P. 192. Alekseeiko Kira V., Batalova Valentina N., Mokrousov Gennady M., Martyanova Daria N. Tomsk State University (Tomsk, Russia). VOLTAMMETRIC DETERMINATION OF HYDRAZINE ON GLASSY CARBON ELECTRODE IN AQUEOUS SOLUTIONS. Hydrazine is widely used as a fuel in rocket engines. It is also used as an intermediate in the production of medicines and agricultural chemicals, fibers, and antioxidants; to remove oxygen from the heating system; as polymerization catalyst; a means for purging process units; for application of metal coatings on glass and plastic, in photography and gas purification. Preventing the emission of hydrazine to the environment, mainly with wastewater, is an important problem. Maximum allowable concentration of hydrazine in water reservoirs of sanitary-domestic use is 0.01 dm³. Methods for purification of wastewater from hydrazine may be based on its ability to decomposition and electrooxidation. Methods of electrochemistry are considered effective for the direct determination of hydrazine. Methods are known of voltammetry determination of hydrazine on glassy carbon electrodes or carbon paste electrodes, modified metals (gold, platinum, palladium, copper, iron, etc.). They are based on electrocatalytic oxidation of hydrazine in the presence of catalysts that are embedded into the electrode. Graphite nanotubes and various organic compounds are also used as modifiers. Existing voltammetric methods for determining hydrazine are complicated by the procedures of preparation (modification) of working electrode and addition of organic reagents to the background solution. Therefore, it was necessary to develop a technique of voltammetric determination using common electrodes requiring no additional and long preparation before the analysis (glassy carbon electrode, Au-graphite electrode) and maintaining the sensitivity and selectivity of the assay. The present work describes the choice of conditions for direct voltammetric determination of hydrazine in aqueous solutions and the development of a simple, sensitive, inexpensive and express method. We received an analytical signal of hydrazine on glassy carbon electrode in 0.1M KCl and 0.002 M NaOH at the potential of +0.4V in relation to an Ag/AgCl (KCl sat) electrode as a reference electrode. The optimum conditions are: the accumulation potential –0.2V, the scan rate 50 mV/s, the differential mode. The range of detectable concentrations of hydrazine in aqueous solutions is 0.04–1.00 dm³. The cyclic voltammetry technique helped to set the irreversible process of hydrazine oxidation on the electrode. The correctness of the developed technique was tested by the analysis of spiked samples. The technique is suitable to monitor the content of hydrazine in catalytic processes of wastewater.

Key words: voltammetry; hydrazine; glassy carbon electrode; wastewater.

COPOLYMERS. Glycolic acid biopolymers with addition of plasticisers are used to obtain flexible, durable, bio-degradable stitch materials, microcirculatory vessels, implants, etc.Trimethylene carbonate and ε-caprolactone are the most spread plasticizing agents regularly used for glycolic acid copolymers obtaining. It is suggested to investigate the possibility of propylene carbonate synthesis instead of trimethylene carbonate one. ε-caprolactone is used as a plasticizing agent. Synthesis of glycolide, dl-lactidecopolymers, propylene carbonate copolymers was carried out at the permanent supplying of nitrogen in a two-neck flask (50 ml) equipped with a thermometer, a back flow condenser, and a mixing machine. The amount of the added propylene carbonate and ε-caprolactone in the mixture, the time of adding propylene carbonate to the polymerizing mixture, and polymerizing temperatures were diversified. The amount of stannous octoate (II) catalyst was 0.05 wt%. A molecular weight regulator – lauryl alcohol – was added to the polymerizing mixture in a number of samples. We used two types of mixtures: 1) glycolide, dl-lactide, propylene carbonate; and 2) glycolide, dl-lactide, ε-caprolactone, propylene carbonate. The temperature was selected upon the results of differential scanning calorimetry. The DSC graphs show that mixture 1 melts at temperatures of 40–91°C. During polymerization the maximal exo-effect is reached at 186.4 °C. But if ε-caprolactone is added the maximal exo-effect is registered at 188.5°C. For further researches polymerization temperature is chosen to be 170–175°C. Polymers of type 1 and 2 were produced in the result of varied introduction of propylene-carbonate (in the beginning of synthesis or after the mixture of monomers melts), with the presence of lauryl alcohol as the initiating catalyst. The effect of lauryl alcohol was not found. It was proved that to produce a homogeneous polymer propylene carbonate has to be introduced in the beginning of the synthesis. The fiber-forming properties originate only if propylene-carbonate is introduced together with ε-caprolactone. There were produced different samples of copolymers. One sample with glycolide 65.8 wt%, dl-lactide 3.3 wt%, ε-caprolactone 14.2 wt%, propylene carbonate 16.7 wt% can be used for production of polymer fiber. The polymer was used to produce a string that was dimensionally stretched till further production of mono-filamentous fiber.

Key words: glycolid; dl-lactide; propylene carbonate; biopolymers.

P. 198. Churkin Ruslan A. Siberian Physical Technical Institute of TSU (Tomsk, Russia); Zhuk Vladislav V. Siberian Physical Technical Institute of TSU (Tomsk, Russia); Yanovskiy Vyacheslav A. Siberian Physical Technical Institute of TSU (Tomsk, Russia); Tretyakov Aleksey N. Tomsk Polytechnic University (Tomsk, Russia), Siberian Physical Technical Institute of TSU (Tomsk, Russia). THE STUDY OF THERMODESTRUCTIVE PROCESSING OF STYRENE PRODUCTION WASTES. In the Russian Federation with the current production of styrene, there is a substantial amount of distillation residue of ethylbenzene and styrene (KORE, KORS) – a mixture of organic substances with the styrene content of 10–50%, the oligostyrene content of 5–30%. These wastes are used as a raw material in the production of antioxidant "Dilant"; they are mainly used as a component of boiler fuel. The further forecast growth of styrene production volumes in Russia will only exacerbate the problem of utilization of these wastes. Due to the high content of heavy unsaturated and aromatic compounds in the KORE / KORS, in our opinion, one of the most promising methods for the processing of this waste may be preparation of sintering aids (pitches) by means of their thermopolycondensation. The aim is to assess the possibility of preparation of pitches from styrene waste products of. In this paper we consider the process of a long liquid-phase thermolysis of KORE to distillate products and high-carbon residue (pitches). For the initial KORE the fractional composition and component composition were determined by chromatography-mass spectrometry. The process of liquid phase thermolysis was carried out at the temperature of 320–350°C and pressure exc. 0.01–0.02 MPa. For these conditions the averaged material of the balance and the samples of pitches and distillate products were obtained. There is a strict dependence of reduction of the average molecular weight of distillate products on the increase in pressure or temperature. The resulting pitches differ significantly by properties from oil and coal ones. They have a significantly higher softening point, which is an advantage, and a lower coking, which is a serious drawback for pitches used in the production of electrodes. Distillate products were investigated by gas chromatography-mass spectrometry. The analysis of compositions of raw material and liquid products showed that: 1) Low-boiling components, which probably do not enter chemical transformation, are removed in the distillate. 2) High-boiling compounds containing two benzene rings undergo deconstruction or condensation, so they are practically absent in distillate fractions. 3) Styrene, which was absent in the raw material, was detected in reaction products. The formation of styrene can be explained by dehydration of phenylethanols; deconstruction of 1-(1-phenylethyl)-hydroxy-1-phenylethane; the formation of styrene can occur at the depolymerisation of oligomers contained in the raw material. 4) The relative content of ethylbenzene in the thermolysis products increased twice, which can be explained by the low reactivity of the compound contributing to its accumulation, and by the destruction of 1-(1-phenylethyl)-hydroxy-1-phenylethane. 5) In addition to the initial components products of thermolysis have new oxygenated compounds probably formed as a result of dealkylation of heavy polycarbonate compounds. Conclusions. KORE was determined, the liquid phase thermolysis was studied at temperature of 320–350°C and pressure of 0.01–0.2 MPa. The averaged material balance of thermolysis of KORE was obtained under various conditions. The possibility of preparation of high-boiling pitches from this raw material was demonstrated. The main characteristics of the produced pitches were identified: the softening temperature of 98–128°C, the coking ability of 23–37%.

Key words: styrene; KORE; thermolysis; petroleum pitch.