# Land Sciences

### S.P. Lomov, N.N. Solodkov

# Erosion and Accumulation Cycle and Rhythms of Development Floodplain Geosystems of the North Volga Upland in Holocene

Key words and phrases: buried soils; eolian geosystems; erosion-accumulation cycle; holocene; Volga Upland.

*Abstract*: This paper discusses the main cycles of developing the geosystems of floodplains, watersheds and their slopes in the north of the Volga Upland. The author identified the two major erosion and accumulation cycles and studied the five rhythms of floodplain geosystems based on the study of buried soils of meadow-chernozem-like appearance. A detailed description of each of the periods of the cycles and rhythms of the Volga Upland landscapes Gave was given. The close relationship between the cycles, rhythms of floodplain geosystems, bioclimatic conditions and important stages in the resettlement of the territory.

#### P.M. Sorokin, V.A. Lushpeev, Yu.K. Tsiku

### Improving the Efficiency of Operation of Low-Rate Wells in Ugra

*Key words and phrases*: bore; debit; deposit; dual completion; electromagnetic field; flexible drill; oil; piston; pumping unit; underground equipment.

*Abstract*: Currently, most of the major oil fields, located in the Khanty-Mansiysk Autonomous Okrug- Yugra and Russia as a whole, are in the final stages of development. This period is characterized by a low rate of development, small well flow rates, high water production, as well as the need for well workover. A lot of wells are inactive due to the low flow rate. In this situation, the optimization of the oil production process is imperative. This paper describes the design of the well for oil production. Application of the electromagnetic piston pump unit (EPNU) developed in Surgut Oil and Gas Institute (branch) of TSOGU would enable to operate wells with low liquid flow rate (up to 20 tons/ day). The described installation can be used for dual completion of wells to develop multilayer fields

# **Pedagogy and Psychology**

#### E.V. Bessarabova

## Psychological and Psycho-Physiological Aspects of Design Objects Perception

*Key words and phrases:* background contrast; color settings; external factors; impressive component; internal factors; object perception; social indicators.

*Abstract*: The purpose of the study is to identify factors influencing the impression produced by the perceived object design. In the study, the analysis was followed by the classification, which allowed defining a set of criteria that affect the impression. The study identified the two groups most intensely affecting the group perception, including: factors of experience, and social factors. As a result, the author established a link between the creation of impressions as a geometric-optical image analysis and psychological treatment and evaluation of the image based on a combination of social factors.

#### L.K. Ilyashenko, L.M. Meshkova

# Quality Monitoring of Future Specialists' Training when Introducing Modular Training in Higher Education

Key words and phrases: control; diagnostics; modular technology in education; professional competence; self-control.

*Abstract*: Modernization of education requires regular and systematic quality monitoring of students' progress, as it allows assessing the effectiveness of training methods and techniques, and developing strategies and tactics to improve the quality of education.

#### N.V. Kondrashova

# Scientific and Theoretical Basics of Using Educational Potential of Folk and Museum Education in Preschool

*Key words and phrases*: education; folk pedagogy; kindergarten; museum education; preschool child; preschool education.

*Abstract*: The paper focuses on scientific and theoretical principles, and special features of folk and museum pedagogyin the process of training and education of preschool children. The authors disclosed the pedagogical principles of educational potential of folk and museum page 9-11

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pedagogyin modern preschools, showing their relevance for modern educational theory and practice.

#### A.Z. Magamedova

### First Literacy Guides in Chechnya in XIX – early XX Centuries

Key words and phrases: Eldarkhanov; language; literacy; schools; Uslar.

*Abstract*: The paper discusses the problems related to the development of education in Chechnya. Particular attention is paid to the joint work of Peter Karlovich and Keady Dosova on compiling Chechen ABC-book. The paper focuses on the contribution of those who put a lot of effort in the creation of education system in Chechnya.

## **Architecture and Construction**

### D.V. Litvinov

# Historical Stages of Development of Coastal Territories of Central Volga Area during the Era of the Iron Age and Early Middle Ages

*Key words and phrases*: Central Volga Area; coastal territories; Iron Age; Middle Ages; Samara region; town planning.

*Abstract*: The paper analyzes the historical period of the Iron Age and the Middle Ages at the end of IV – the beginning of the V century AD, when coastal territories of Central Volga area became zones of development of both nomadic and settled population. The first town-planning prerequisites of development of coastal territories settled and nomadic breeding were identified. Architectural and planning features of settlements of the Ananyinsky, Belogorsky, Gorodetsky and Imenkovsky cultures were defined. The conclusion about the prevailing settled type of f coastal territories of the Volga on the Samara Luk, and also coastal areas of the river Kondurcha, Juice, Samara, Kinel was drawn.

## History, Philosophy and Sociology

#### A.E. Ulyanov

# Landed Proprietorship in the Saratov Province in the Last Third of the XIX – Beginning of the XX Centuries: Dynamics of Changes

*Key words and phrases*: agrarian relations; landowner economy; landownership; nobility; peasant farm; private property.

*Abstract*: The paper analyzed the processes characterizing the changes of land tenure of landowners of the Saratov province. The author specified the total land which noblemen owned, including the size of their property and their estates, the percentage of estates in the total area of the province, etc. The relevant data were compared to similar indicators of the other land owners.

### M.A. Shtanko

### The Institutionalization of Modern Russian Studies in Germany

*Key words and phrases*: institutionalization; methodology; Russian studies in Germane. *Abstract*: The paper systematizes the main trends in the development of modern Russian studies. The author identifies the three trends, among which special attention is focused on the features of the institutionalization of modern Russian studies in Germany.

## Philology

L.-L.-V.Y. Alexander

# The Linguistic Value of the Epistolary Heritage of R. Wagner and the Concept of "Wagner's Letter" («Wagner'scher Brief») in the Context of Epistolography

*Key words and phrases*: communication; discourse; epistolary heritage; epistolography; letter.

*Abstract*: The paper contains an examination of the specification of the epistolary heritage of R.Wagner and the so-called "Wagner's letter" ("Wagner'scher Brief") as a specific linguistic-cultural phenomenon during extinction of the culture of letter writing. The paper reveals the specifics of the epistolary heritage of the composer and the analysis of linguistic features of his legacy.

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## V.P. Bulycheva

# The Poetics of Prosaic Science Fiction in Russian Literature of the Early Twentieth Century

Key words and phrases: character; event; plot; poetics; science fiction.

*Abstract*: The connection between science fiction and adventure story is of special importance for the study. The author analyzed the characteristic features of fiction science poetics typical of the first part of the XX ccentury. Some of them show common rends of the literature of that epoch, while others are typical only of science fiction.

#### I.A. Dobrovolskaya

# Using Mobile Apps as a Strategy for Promotion of Arts in the Informational Space of the Internet

*Key words and phrases*: digital marketing; forms of presentation of content; mobile applications; social media; the Bolshoi Theater.

*Abstract*: Currently, a list of varied communicatory support methods is used in Global information Space. An integrated use of these methods in arts contributes to achieving results, which come out in forms of loyalty, popularity, demand, prominence and etc. This paper examines the use of informational Internet methods when providing information support in the arts field with particular attention given to mobile applications (or 'apps'). The effectiveness of use of these methods is scrutinized in conjunction with other information providing tools.

#### E.V. Zavyortkina

### Linguistic Factors of Cumbria Oiconymy Formation of Norman Conquest

*Key words and phrases*: place-name; oiconym; oiconym; oiconymic etymon; oiconymic appellative; oiconymy formation processes.

*Abstract*: The paper highlights the research results of oiconymy formation process of Cumbria, the north-west county of England. Oiconym is a proper place-name of any kind of settlement: a city, a town, a village, etc. The study of oiconyms is of great importance as the oiconyms have an inherent characteristic of keeping relict information fixed in appellatives of oiconymic etymons. Cumbria settlement names' creation of Norman period is analyzed on two levels: linguistic and extralinguistic ones. This paper presents linguistic factors of Cumbria oiconymy formation during the period of Norman Conquest.

### L.M. Kalyanova

# Some Lexical and Grammatical Difficulties in Reading and Translation of Technical Foreign Texts

*Key words and phrases*: adequate translation; lexical-grammatical analysis; scientific communication; scientific and technical text; syntactic function; grammatical reading technique.

*Abstract*: The paper discusses some lexical-grammatical difficulties faced by students when reading and translating technical foreign texts and provides illustrative examples of the analysis of complex sentences.

# **Mathematical Methods and Models**

## V.V. Bulygin

## Life and Thinking from the Perspective of Logic

Key words and phrases: entropy; life; predicate; syntax; thinking; unambiguously closed transformation.

*Abstract*: The paper deals with the concepts of life and thinking from the perspective of logic. Life is presented as a continuation of Schroedinger's idea of negative entropy. Thinking is understood, firstly, as the subject-predicate relation and, secondly, as the ratio of independent/dependent in Ashby's interpretation.

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#### V.S. Starodubtsev, A.S. Farafonov

# The Approach to Models Identification for Quality Control of University Students' Knowledge

*Key words and phrases*: constantly operating mathematical model; group method of data handling; quality of student knowledge.

*Abstract*: Based on the theory of self-organization the authors developed an original method for identification of target functions of students' knowledge quality (SKQ) in the face of influencing factors uncertainty. The proposed system of external criteria for the models selection and control parameters allows using the model for the effective management of the SKQ.

# Electronics, Measuring Equipment, Radiotechnics and Communication

## A.N. Anuashvili

### Mathematical Description of Low-Observable Signals Based on the Background Principle

*Key words and phrases*: background principle; background radiation; coherence; coherent amplification; coherent detection; low-observable phenomena; mathematical description; phase mixer; interference; time averaging.

*Abstract*: Low-observable phenomena generate weak signals that are usually random. Detection and treatment of these weak signals is complicated by the presence of background signals, which are generally considered as interfering signals. The examples include the back-scattering of probing radiation or background radiation. This paper discusses an approach to the detection of weak signals with the background principle of detection of low-observable objects, according to which the signal detection occurs indirectly - not the signal itself is detected, but its reflection in the background radiation. For this purpose the coherent detection of background radiation modulated by the desired object is proposed. Changing the state of an object leads to disruption of the background radiation coherence, which is a sign of detection of the object information signal. Furthermore, this information signal is amplified proportionally to the constituent coherent background radiation. It is also shown that the detection of the information signal of the mobile object is possible when the radiation of the object (or reflectance) equals to zero, i.e. the object is "invisible" to the receiver.

## **Economic Sciences**

#### Z.K. Anaeva, L.Kh. Dzhabrailova

#### The Economic Crisis in the World and in Russia: Causes, Lessons, Ways to Overcome

*Key words and phrases*: economic crisis; economic development; economic system; financial markets; financial system; global economy.

*Abstract*: It is difficult to define the exact date and cause of another economic crisis. This is one of the causes of its complexity. The economy gradually accumulates historical problems and contradictions, hence, their critical level is not known beforehand. Economic cycles change with a new combination of circumstances. You cannot blame the incompetence of the financial authorities of Russia or other countries; there are some other causes of the crisis. The crisis in the United States, which became a "trigger" for the financial disasters of the world, is a manifestation of economic and political contradictions which started a long time ago. The paper focuses on economic and political contradictions and their combination that led to the crisis

#### G.K. Gabdullina

# The Analysis of Development and Assessment of Economic Feasibility of Company Mergers Exemplified by Holding Company JSC «TAIF»

*Key words and phrases*: corporate analysis; economic activity; marketing and investment activity.

*Abstract*: The paper presents the comparative analysis of the results of industrial-marketing and investment activities of "Nizhnekamskneftekhim" and "Kazanorgsintez" for 2000 to 2012 to assess the economic feasibility and efficiency of their merger with JSC «TAIF».

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### E.K. Ziyaev

## The Cost of Kazakhstan Companies Equity in the Field of Renewable Energy

*Key words and phrases*: cash flow; discount rate; equity; market value; renewable energy. *Abstract*: The paper considers the calculation of the equity cost of Kazakhstan companies, operating the renewable energy facilities within the framework of government programs to support the investment projects in the field of alternative energy, EXPO 2017 and the long-term development strategy "Kazakhstan – 2050".

#### M.Z. Chotchaeva

#### Tax State Security as Part of Economic Security

*Key words and phrases*: financial security; economic security; state financial control; security tax; tax policy; tax threat security.

*Abstract*: The paper investigates the role of the tax system in the security measures of the economic security of the state. The author examined the interrelation of tax, financial and economic security. Economic security indexes were analyzed. The ways of increasing security tax were considered.

# Legal Science

#### D.A. Leusenko

The Scientific Worldview and the Genetic Method: Theoretical Foundations of Integrative Genetics of Legal Thinking on the Background of Symmetry Methodological Assumptions by B.A. Kistyakovskiy and T. Parsons

Key words and phrases: analytical realism; empirical positivism; integrative genetic method; research concept; scientific worldview; scientific revolution.

*Abstract*: The Russian legal science of the XXI century sees an active search for integrative paradigms of legal thinking. In this paper, the author proposed the genetic method as a research program of integrative thinking based on the assumption about special, genetic relationship between the social norm and the rule of law, the importance of fixing the criteria of the objectivity of society (community) by means of scientific analysis, the importance of the analysis of normal routine for the phenomenon of the nature of law and the state. The specific research approaches in the framework of the genetic method enabled to conclude that it was rooted in the works of B.A. Kistyakovskiy and T. Parsons. An important element of the research scheme of B.A. Kistyakovskiy and T. Parsons is the attitude to the subject of study, assuming changes in the field of scientific worldview.

#### G.A. Marzak, E.I. Khludnev

# Voting on the Changes in the Boundaries of the Municipal Education as a Form of Democracy at the Local Level

*Key words and phrases*: electoral commission; forms of direct self-government by local population; local referendum; voting on changes in the boundaries of the municipality.

*Abstract*: In this paper, we studied the vote on changes in the boundaries of the municipality; the authors analyzed common and distinctive features of the local referendum; the conclusion of the independence of the legal institution as a form of local democracy was made.

#### I.A. Poberezhnaya, D.A. Machinskaya

### Features of Legal Regulation of Languages in Primary, General Basic and Secondary Education in the Republic of Tatarstan of the Russian Federation

*Key words and phrases*: legal regulation; language of national minorities; legislation; national language; republic.

*Abstract*: One of the most important human rights is the right to choose the language of education, which is guaranteed by international legal laws ratified by the Russian Federation. The paper explores the peculiarities of legal regulation of languages in education in the republic of the Russian Federation with a multiethnic component. Some solutions to overcome the unfavorable current situation were proposed.

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# **Art History**

Vo Van Lak

## Sculpture in Community Houses in Vietnam

*Key words and phrases*: community houses; national Vietnamese sculpture; symbols. *Abstract*: Sculpture in community houses in Vietnam reflects simple cognitive human thinking, the artist's perception of social, natural and sacred world. By means of sculpture people express the expectations of workers. They criticize modern social vices of feudal ruling class in Vietnam. The images contain symbols that reflect the artists' talent.

#### V.G. Ivanov

### Roman Period of Bertel Thorvaldsen's Art: 1797-1819

*Key words and phrases*: antiquity; art; classics; harmony; image; imitation; history sculpture; neoclassicism; plastic; proportionality; Roman art; simplicity and clarity of composition; specimen; statue.

*Abstract*: The paper briefly and clearly describes the Roman period of the art of Bertel Thorvaldsen, the Danish sculptor. After finishing the Academy in Copenhagen the sculptor moved to Rome where he continued studying art and sculpture. This period, from 1797 up to 1819, was characterized by his devotion to antiquity. Also, this time was marked with the first neoclassical works of Thorvaldsen that became world-famous, such as the Jason sculpture (1803–1828).

# **Materials for Discussion**

### T.A. Shamlikashvili, S.V. Kharitonov

# Expected Qualities of a Dispute Resolution Professional as Seen by Mediators and Potential Clients of Mediation Services

*Key words and phrases*: disputes; expectations; mediation; qualities of mediator; potential clients of mediation services.

*Abstract:* The article discusses results of a study on the views of potential mediation clients and mediators about the most important qualities expected from a dispute resolution professional. The study involved 60 people, 30 of them mediators and other 30 people not related to mediation (potential clients). Participants of the study were asked to name anonymously the most important quality for a dispute resolution professional in the fields of commercial, family and civil disputes.

The research has shown, that the most mentioned qualities are competence and awareness, attitude (emotional attitude to the parties in dispute), experience and abilities, but mediators tend to underestimate the importance of competence compared to potential consumers of services.

In family disputes professional neutral's own marital status and experience in family relations is comparatively more important (this expectation proves to be especially strong among men), and in civil disputes professionalism is considered more important in comparison with other types of disputes.

# Proceedings of the V International Scientific and Practical Conference

# "The Role of Science in the Development of Society"

# **Social Economic Problems of Society Development**

S.M. Bogomolov, L.V. Ilina, Yu.E. Kopchenko

The Strategies of Regional Retail Banking

Key words and phrases: market niche; mass lendingt; personalized approach; regional banks; retail segmen.

Abstract: The paper investigates the strategies of the regional bank in the retail market. Based on a critical analysis of current ideas about the niche market of regional banks, the page 102-107

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limited scope of services to individuals and small businesses, the authors formulated their vision of the priorities of the regional banks, enabling to realize the competitive advantages of this category of banks. Considerable attention is paid to the characterization of the current state of the regional banks in the retail banking, the conditions necessary for the realization of mass lending programs, and the impediments to the development of regional banks in the retail market.

### O.I. Zhuleva

### To the Question of the Fishery Fleet Condition in the Northern Basin

*Key words and phrases*: fishing fleet; fleet modernization; northern fishery basin; ship age; ship class; ship wear.

*Abstract*: The paper describes the current state of the fishery fleet of the Northern basin and problems of the fishery industry of Northern Russia caused by the fleet wear.

### G.M. Pobedonosceva, V.V. Pobedonosceva

### **Exploration of Russian Arctic: Some Aspects**

Key words and phrases: Arctic; ecology; energy efficiency; hydrocarbons; innovation; investment.

*Abstract*: The task of exploring the Russian Arctic is equal in its size and complexity to the nuclear problem of the last century. The authors proposed some measures of tax stimulation for the development of offshore fields. Promising investment decisions for the implementation of the country's Arctic projects were discussed in the paper.

#### E.G. Kholnova

# The Need to Use New Business Models in the Practice of Russian Commercial Organizations

Key words and phrases: business processes; controlling; management; profitability; reengineering.

*Abstract*: The paper examines the approaches to the main key concepts of modern management to ensure profitable operations even under adverse external and internal conditions of the market; the criteria for choosing the most appropriate development concept for a commercial organization were defined.

# **Development of Information Technology**

#### P.A. Mitroshin, T.A. Lukinova

## Algorithms, Structural and Functional Models of Information System of Quality Control Training

*Key words and phrases*: assessment tools; competences; competences assessment; education quality assessment; e-learning; online courses; virtual computer lab. *Abstract*: The paper deals with problems related to competence-based learning model. The authors described modern e-learning systems and their application to control the quality of education and training. The implementation and use of virtual computer labs, online courses and e-learning systems at university makes it possible to fully solve the problem of creating a modern system of control over the educational process. This paper describes a complex e-learning system for storage and processing of information. An original algorithm to control the quality of training through competence-based approach was described.

# **Modern Philology Problems**

T.I. Dotsenko, D.V. Perestoronina

### Language Code Switching in Mixed Speech of Bilingual Children

*Key words and phrases*: code-switching; code-switching levels; infant bilingualism; mixed speech; native and foreign languages.

*Abstract*: The paper analyzes the materials of mixed speech of preschool children, learning a foreign language in a monolingual environment. The authors described the mechanism of code-switching on different linguistic levels: discourse, utterance and word.

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## M.A. Kropacheva Territorial Variability of Lexical Meaning in Student Slang as a Social Dialect Key words and phrases: lexical variant; social dialect; student slang; territorial variability. Abstract: The paper deals with the problem of territorial variability of student slang in Russia. Being social dialect student slang is characterized by the instability of its vocabulary; page 144-147 therefore it contains many lexical variants that can function in speech with equal efficiency. The results of the survey held in St. Petersburg and Glazov are represented in the papere. The existence of common student slang as well as many territorially limited lexical variants is proved. E.S. Litvinova, T.I. Erofeeva **Gamers' Social Dialect** Key words and phrases: gamers' slang; influence of social strata on the knowledge and usage of borrowed words; sociolect / social dialect; social group. Abstract: The paper describes the peculiarities of gamers' slang. The term sociolect is page 148-150 introduced to describe a socially marked language subsystem. Special features of the gamers' slang are defined: the usage of terminological lexical units, the role of borrowed words and the dependence of their familiarity and usage on social factors. Yu.E. Leshchenko Associative-Verbal Networks and Artificial Neural Networks as a Method of Mental Lexicon Modeling Key words and phrases: associative-verbal networks; artificial neural networks; mental lexicon modeling. page 151-153 Abstract: The paper focuses on associative-verbal networks (AVN) and artificial neural networks (ANN) used for mental lexicon research. The networks' architecture and the scope of scientific problems solved with their help are discussed. Yu.E. Leshchenko, T.S. Ostapenko Hesitation Pauses as a Manifestation of Implicit Code-Switches in Bilingual Speech Key words and phrases: bilingualism; code-switching; hesitation pauses; spontaneous speech. *Abstract*: The paper presents the study of hesitation pauses – vocalizations in the Russian page 154-156 speech of the Komi-Permyak bilinguals in various syntactic constructions. The hypothesis that hesitation pauses represent a manifestation of hidden code-switches in bilingual speech was verified. E.B. Penyagina The Names of the Pharmacies of the Perm Region in the Framework of the Theory of Concept Key words and phrases: associative field of the concept; association; concept; concept "pharmacy"; linguistic consciousness; names of pharmacies; concept structure. page 157-159 Abstract: The paper deals with such notions of cognitive linguistics as concept, structure of the concept, language awareness. The author analyses the names of the pharmacies based on the results of associative experiment in Perm and the Perm region. T.E. Petrova, E.V. Mikhailovskaya Processing of Idioms: Eye-Tracking Study on Russian Language Material Key words and phrases: additivity; eye-tracking; idioms; speech perception. Abstract: The paper discusses the question of the status of idioms in the mental lexicon. page 160-162 The results of the study of processing of idioms and comparable literal combinations in reading are presented. Quality Management as a Tool of Efficiency

# Features of Development of Housing and Utilities in Conditions of Modern Russian Economy: Potential for Raising the Quality of Housing and Communal Services

*Key words and phrases*: Housing and communal services (HCS); housing services; quality of housing services; reserves to improve the HCS quality.

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*Abstract*: This paper provides an insight into the current state of housing and communal services, its impact on the effectiveness of social reproduction. The analysis allows determining

the relevance of reserves to improve the quality of services for the market of housing and communal services.

# Important Issues of History, Psychology and Sociology

V.A. Grigorova

Features of Selling Handicraft Products on the Territory of Black Earth South of Russia in the 2nd Half of the 19th Century

Key words and phrases: handicrafts; mediator; knacker; fairs; bazaars.

*Abstract*: The paper analyzes the process of selling handicrafts on the territory of Black Earth in Russia, including the modern Voronezh region and a number of neighbouring regions: Lipetsk, Orel, Kursk and Tambov regions. The review of the literature permitted the identification of the features of local sales of handicrafts.

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