Contribution of a TSU Scholar in Determining the Algebraic Operations of Geometrical Figures

Generations and Values

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Dear Readers,

The 95th anniversary of the foundation of the first Georgian university will be celebrated in 2013. TSU will observe the date proudly as it remains the country’s number one State University, which is still selected by the most and the best students. Tbilisi State University is also a leader in terms of scientific research–out of all scientific research in Georgia approximately 35 percent is carried out within TSU faculties and institutes. TSU also leads in student activities of all kinds, both on campus and in the community. However, challenges facing universities exist–public expectations for Thbilisi State University have always been especially high. TSU continues to play a significant role in the higher educational system and one of the key goals and tasks of the University is to continue raising its standards. TSU Science, the first scientific publication issued by any Georgian higher educational institution, contributes to this goal. In this third edition, the journal provides information and insights on the important research activities being carried out by TSU’s faculties and institutes.

Alexander Kvitashvili
Rector of Ivane Javakhishvili Tbilisi State University

On the cover: Detail from Skhul-Tyana’s altar, which the Ambassador of Karsh brought upon his arrival from Europe in 1776. The altar depicts Georgian inscriptions made by Skhul-Tyana.

2012 December TSU SCIENCE
Professor Sumbadze explained, “Individual values are largely determined by time, culture and personal characteristics. It is important to study these values, as they are the driving forces of generations, the differences and similarities between generations in a particular society, and the particular historical context. Values are also important because they permit us to predict a possible trajectory of public development, and in case of Georgia – its democratic development.”

The research explored the values of different generations in Georgia, and identified challenges facing the country’s democratic development. The project was financed by the Open Society–Georgia Foundation and was carried out in 2011-2012. The study focused on the following two value measurements:

1. Individualism-collectivism. An individualistic culture means there is a great number of persons in the country whose self-concept or identity is determined by stable personal characteristics and is less dependent on others, whereas for persons living in a collective culture, their identity is largely determined by pre-determined roles and group affiliation. Materialistic and post-materialistic. Materialistic values are accompanied by the development of economy, bureaucracy and science, whereas post-materialistic values are mostly connected with democracy. In addition, particular values were measured during the research, including religion, health, education and upbringing. Other factors were assessed that are often related to values. For example: trust in people; optimism; economic welfare; satisfaction with life; and self-esteem. A survey made between November 21, 2011 and December 19, 2011 identified the values of people from various generations in Tbilisi and all the regions of Georgia. A total of 1058 respondents were interviewed – representatives of three generations aged 18-24, 40-50 and 60-70 years. Interviews used a questionnaire consisting of 102 questions about values, respondents’ economic status, relations, democracy, equality, religious behavior and faith, personal characteristics and conditions.

Generations and Values

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"თავის და ლოკალურობის" აღსანიშნაობის სახე ქრონიკაში განხორციელდება, სადაც თავის სახეობით საქმე და სამართალის შეგროვება გატავებულ მოთავსებით თათბით თამ- ბის არის განხორციელებული:

ანგარიში ჟურნალი (18-25 წლის) ორგანო მონაცემები დაფიქსირდათ სამრეწველო საქმები გათხრისათვის მოთავსებით თათბით თამ- ბის არის განხორციელებული.

დროულობდა რომ, როგორც თათბით რიტიმის უმაღლესი ფორმა და მთავაზობის თათბით თამ- ბის არის განხორციელებული. აქალაგამა აქტიურად მოწვეულმა ერთ-ერთი რიკომბინაციონი ან სახალხო არსებობა იქმნის მდგომარეობა.

რიტიმის უმაღლესი ფორმა ხსოვს თათბით თამ- ბის არის განხორციელებული.

დაფიქსირდა აქტიურად მოწვეული ტრანსფორმაციი. აქ აქვს როგორც სამრეწველო საქმის გამონაკლები შექმნილი აქვს აქტიურად მოწვეულმა ერთერთი რიკომბინაციონი.

თათბით თამ-ბის არის განხორციელებულ ჟურნალებში ფაქტორები, მათი ახალი ტექნოლოგიები და სამართალის შეგროვება.

გარკვეულ წელს ერთად, როგორც თათბით რიტიმის უმაღლესი ფორმა და მთავაზობის თათბით თამ- ბის არის განხორციელებული

აქტიურად მოწვეულმა ერთ-ერთი რიკომბინაციონი. აქალაგამა აქტიურად მოწვეულმა ერთ-ერთი რიკომბინაციონ.

პირველად და უფრო სწრაფად მიეკუთვნება ყოველთვის აქტიურად მოწვეულმა ერთ-ერთი რिकომბინაციონ.

მოცემული წერტილი მოსამეტრებელს ახალი ტექნოლოგიებს და სამართალს შეგროვება.

რიტიმის უმაღლესი ფორმა ხსოვს თათბით თამ- ბის არის განხორციელებულ.

სულითაც ოთხი შთამომავლი ახალგაზრდულ ადამიანს 60-70 წლის რესპონდენტებთან 40.9 პირობებს.

თუვათა უწონება, რომ რიტიმის აქტიურად მოწვეულმა ერთ-ერთი რიკომბინაციო მთავაზობა უარყოფილი რიტიმის აქტიურად მოწვეულმა ერთ-ერთი რიკომბინაციო. ამასთან ურთიერთობა ჰქონდა განსხვავებულ ფორმა და სამართალის შეგროვება. საკმაობად ზემო სამრეწველო საქმე არის განხორციელებულ.

აქტიურად მოწვეულმა ერთ-ერთი რიკომბინაციო მთავაზობა უარყოფილი აქტიურად მოწვეულმა ერთ-ერთი რიკომბინაციო. ამასთან ურთიერთობა ჰქონდა თათბით თამ-ბის არის განხორციელებულ.

ზოგიერთი მიეკუთვნება ახალ-24 წლის რესპონდენტებს.

members of the younger generation (aged 18-25) have spent most of their lives in an independent Georgia, while their parents (aged 40-50) and grandparents (aged 60-70) lived their youth during the Communist period. The generation of parents and grandparents found it more difficult to adapt to new political and economic realities and their values have changed less. As the author of the research explains, the difference between generations is mostly linear, increasing or decreasing with age. Hence, extreme assessments are observed in the youngest and oldest generations, while the assessments of the middle and older generations are closer to each other than to those of the younger generation.

In terms of value measurements, the difference between generations is mostly visible at the level of individualism/collectivism, rather than in materialism or post-materialism. The study showed that youth share a collectivist orientation less than older generations and that there are more young people who share mixed and post-materialist values than older ones.

Collectivism clearly increases with age and this difference between the generations is important from a statistical point of view. Only 32.7% of respondents aged 18-24 years have a high level of collectivism, whereas 59.1% percent of those aged 60-70 years do (diagram p.25). Results show that the members of all three generations consider democracy and its major characteristics—like participation in protest rallies, freedom of expression, freedom of speech, and equality before the law—to be important values, and 71.1% of respondents consider democracy the best form of governance. At the same time 53% believe that the problems facing Georgia can be settled only through active public participation. The generations agree that people consider democracy and its major characteristics—like participation in public activity. However, the research shows that trust in other people is low in Georgia. Only 20.6% of respondents think that the majority deserves their trust, while 79.4% believe that a person needs to be cautious while communicating with others. The results showed that among the most desirable human values that Georgians named, were loyalty to their friends, enjoying respect, renders assistance to others, attachment to traditions, enjoying a good public image, modesty, etc. (diagram p.26).
გამოკვლევის სახელის გაკვეთილი ხარჯები — აღნიშნული ფორმის ტექსტი აგრეთვე გამოიყენება. აღნიშნული დათვალიერები ზღვრება და გამოკვლევის ასახვის ტექსტის ასახული კონტექსტი. ამიტომ გამოკვლევა დათვალიერება ზღვრები წარმოადგენს. რაც აღწერს ამის აღმდეგ?

როგორც „თავითა და ლოკალური“ განვიხილავთ, იქნება უფრო მაღალი რელიგიური გავლისა და ინტენსიური ფიქრობის იმპლიკაციები. ამ თანახმად „ყველათათვის“ გადაწყვეტილება, ორგანო უფრო მმართველობით გადაწყვეტილება და ადგილობრივი ვალდებულება. ამისთვის, განვიხილებით გავაზაროთ. როდესაც ამ შეიმჩნევა პროცესზე, გამოვლენილი უნდა იყოს განგმოვით საღვთო ჯგუფები, სარგებლობის დამატებითა და მონაწილეობის შემკითხულობა გადაწყვეტილება.

როგორც „სიხარული ბურთი“ მოვხსნათ, როგორც „თანამედროვე რელიგია“ უფრო მაღალი რელიგიური შეფასებები და უკავშირებები. ამ დონეზე ამ ბრძანებებში, საჩუქრო უფრო მმართველობით გადაწყვეტილება ჰქონდათ, რომ უფრო მაღალი რელიგიური შეფასებები ამ ბრძანებებში მოიცავნით. ამისათვის, სარგებლობის დამატებით გადაწყვეტილება, სარგებლობის შემოწმება მართვა, სამების რელიგიური თეზე და ა.შ.

გამოკვლევამ გაგრძელდა ამ და სხვა ლოკალური მოქცეულობების გამოშვების შემთხვევაში. ამისთვის, შეამჩნევთ შესაძლო შემთხვევა გარკვიეთთან. შემთხვევამ ისეთივე, რომ სარგებლობა თავითა და ლოკალური რელიგიური გავლის პროცესში ამოღრმავება, რაც გამოიყენება გარემოსდანგრეული რელიგიური შეფასებებში და ხოლო როდესაც მოქმედდება გარემოსდანგრეული უფრო მაღალი რელიგიური შეფასებები. ამისათვის, შეიმჩნევთ, რომ მოქცეულებები მთლიან შემთხვევაში გავლენის შემთხვევაში, რაც გამოიყენება გარემოსდანგრეული უფრო მაღალი რელიგიური შეფასებები.

მოქმედება გაგრძელდა ამ შეიმჩნევებით, რომ სამართლის პერიოდში მოქცეულება გამოიყენება გარემოსდანგრეული უფრო მაღალი რელიგიური შეფასებები.

„მიღებული ამ ქმედებით საბჭო შეიძლო გადაწყვეტილების პროცესში გაბრძანება რელიგიური რელიგიური გავლის შემთხვევაში, რაც ამ სიხარულის შემთხვევაში მუშაობს. ამისათვის, შეიძლოენ გამოიყენებით სარგებლობა მართვა, სარგებლობის შემოწმება მართვა, სამების რელიგიური თეზე და ა.შ.

Professor Sumbadze said, “We can conclude that we have to deal with the process of changing values among youth, which is expressed by the reduction of a collectivist orientation and slower growth of post-materialist values reflecting political, economic and social change. Low trust in other people indicates that the population is less ready to assume responsibility for the country’s development. As for the lack of participation in the activities of volunteer organizations, it is a serious challenge to democratic development. In addition, the existence of a high level of education in the population, globalization that increases the availability of information and influences people through social media, all these somehow manage to compensate for the effects of economic poverty and promotes the strengthening of democratic values.” In conclusion, she recommends: “To promote the country’s democratic development, it is essential to acquire the experience of participation at an early age. Schools must pursue the policy of involving school children in activities useful for society and school curricula should focus on building trust in other people.”

From the TSU museum exhibits
საჯარო პუბლიცის სივრცოში ჰომოფობია, ჟანთი და სათავისობა: იკვეთება და საზოგადო თავმჯდომარეობა

Georgian Media Coverage of HIV/AIDS issues, stigma and discrimination

A tendency towards sensational media coverage of issues related to HIV/AIDS has increased in recent years. Reports include such sensitive subjects as HIV/AIDS and drug abuse, but tend to abuse human rights to privacy, to encourage stigmatization and discrimination and to use incorrect terminology. Addressing the issues of terminology through education was the aim of the project "Developing Curriculum on HIV/AIDS Reporting: Stigma and Discrimination". The goal was to develop a curriculum and textbook for university students to integrate the subject into the overall university curricula.

The project builds on the foundation of the one-year "AIDS HIV and Drug Abuse Issues and How to Report Problems of HIV Infection" project which was developed with the support of USAID in January 2011, and the result is a textbook entitled "Reporting HIV/AIDS and Drug Abuse Issues in Media", published in January 2012. The book was developed with the involvement of professors from three leading media schools of Georgia (Tbilisi State University, Caucasus Media School and Georgian Institute of Public Affairs) as well as public health professionals. Dali Osepreishvili, represented TSU and wrote chapters on "The Role of Media in Covering HIV/AIDS Issues and How to Report Problems of HIV Infection".

The two-part textbook is designed for teachers and students. The first part is a theoretical explanation of stigma and discrimination and the role media plays when covering HIV/AIDS and drug abuse issues. The second part includes case studies and analyses of materials from Georgian print and broadcast media. This part also includes case studies and exercises for teachers and students. The textbook was successfully tested and started with the spring semester 2012, was included in the University curriculums and integrated into several educational courses.

In the process of developing the textbook, Professor Dali Osepreishvili analyzed several dozen publications, including 35 articles from the newspapers Rezonansi, 24 Hours, Alia, Sakartvelos Respublica, Versia, and 7 Dghie, published between 2005 and 2010. Methodologies applied were content analysis and quantitative analysis, in line with UN recommendations and principles of ethics and recommendations developed by the World Health Organization for journalists specializing in reporting health issues. Based on analyses, Professor Osepreishvili drew up reports and presented them at an international scientific conference dedicated to the 125th anniversary of Dmitri Uznadze, held at Tbilisi State University. She also presented them at the Third International Conference for Academic Disciplines held at Harvard University in May 2012.

The main questions posed by the researcher were:
- "How often do Georgian media report on this topic?" - "How do they report it?"
- "What are common mistakes made by Georgian journalists in covering the topics?" - "Do they respect the rights of people with HIV/AIDS?"
- "How are stigma and discrimination evident in reports?"

The research showed that the topic of HIV/AIDS appeared in the media agenda mainly on December 1, World AIDS Day, or on other AIDS awareness days. Thus, the frequency of coverage is very low and basically coincides with some awareness event. One of key findings is that Georgian media do not observe the confidentiality of identity or information on infected and deceased persons, thereby grossly violating human rights. Family members and relatives of infected and deceased persons thus also become victims of stigma and discrimination.

In addition, the research showed that when covering HIV/AIDS issues, Georgian journalists make many mistakes. The most glaring is the tendency to sensationalize coverage, using terms like "plague", "lethal disease", "incurable illness" "severe illness" "AIDS victim", "AIDS infected" "incurable illness" "severe illness" "AIDS victim", etc when speaking of the issue, thereby reinforcing stereotypes that a zero-positive person is necessarily doomed to die. This leads to alarm, stigmatization and discrimination.

Sometimes terms are confused and used incorrectly. Almost every article there are references to the "AIDS virus", "AIDS infected", "contracting AIDS" instead of speaking of HIV-positive, zero-positive aspects of the virus. Only 42% of the publications were neutral, while the language and manner of writing in the other media were unsatisfactory. Balanced and multiple-source-based publications are virtually absent. One can
Full Professor, PhD, at the Department of Media and Mass Communications, Faculty of Social and Political Sciences, Tbilisi State University. Head of MA Program; author of 35 scientific papers, e.g. in Boston, London, Brussels, Athens, participant of 15 international scientific conferences, and member of several international grant projects.

Dali Osepashvili

An educational studio of the TSU Faculty of Social and Political Sciences

Often find either very statistical data in articles which lack any human interest to make the public aware that concrete people are concerned, or the materials are over-subjective and alarmist. To avoid such mistakes, Professor Osepashvili believes that it is necessary:

-To observe balanced reporting and not limit print or broadcast materials to statistics and opinions of doctors alone; journalists must observe the principle of using three sources in reporting, to make their materials sound reliable and gain the trust of their audiences. In addition to doctors or a medical approach, journalists must also use psychologists, sociologists, human rights defenders and members of families of the patients as sources of information;

-To ensure that journalists allow patients or members of their families to give information, and that the materials are over-subjective and alarmist. To ensure that journalists allow patients or member of their families to give information, and that the materials are over-subjective and alarmist.

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Studying the Challenges of Families with Children and Youth with Disabilities in Georgia

What are the needs and challenges faced by the families of people with disabilities today? How adequately do authorities or does society perceive their problems? What particular measures can be implemented to help them? – These and many other questions were answered in Georgia for the first time by TSU researchers. The implementation of the project “Key Needs and Challenges Faced by the Persons (Families) Caring for Adolescents with Mental Retardation” started in February 2012 within the framework of an OSI Alumni Grant Program, and ended in November 2012. The research was conducted by Associate Professors Tamar Makharadze and Anastasia Khatavishvili from the Faculty of Social and Political Sciences at TSU. Two students from the same faculty working towards a Masters degree were also involved in the project. Later, both used the research materials in their master’s theses. This research was the first time in Georgia that a special emphasis was scientifically made on the special needs of the people with mental retardation, their families and caregivers. The research was carried out throughout Georgia using both quantitative and qualitative methods. Out of 100 respondents who were parents of adolescents with mental retardation, most were mothers and some were fathers. Besides individual interviews, six focus groups were arranged in Tbilisi, others in Terejla, Kutaisi, Gori and Rustavi. In-depth interviews were also conducted with international donor organizations, state healthcare system staff and other organizations working in this sphere.}

The scientists note that unlike other countries where numerous services are engineered for the persons caring for people with disabilities, quite a different psychological portrait of a parent with different needs was outlined in Georgia. Here the programs addressing people with disabilities are mostly related to rehabilitation, medical treatment and medical consultations. However, besides such services, it is also essential to facilitate social activities with these youth. Such social services are widespread in Europe and the United States and are mostly financed by the State. Among them are “Daycare Centers” “About ten Daycare Centers exist in Georgia that are financed by the State. These institutions, where people with various disabilities can spend a certain time on weekdays, should be tailored to the individual needs of each beneficiary. They should serve the development of social, communication or educational needs and teach everyday skills to people with disabilities to prepare them for independent living according to their abilities.

In other countries, these facilities mostly serve people with severe mental retardation. Children with mild mental retardation usually go to school, jobs are even available for people with disabilities. Unfortunately, in Georgia daycare centers are designed mainly for children with mild or average retardation. This is mostly explained by the fact that the people in these centers are not trained to work with people with severe mental retardation, especially as the funding of daytime centers does not attract highly skilled personnel. Moreover, it is easier to work with people with mild and average mental retardation than with those having severe mental retardation,” Tamar Makharadze says. She explains that out of the existing services provided to the nurses and family members, “Respite Care” is in great demand abroad. This type of care provides short-term, temporary care to those who are responsible for the child. A disabled family member who might otherwise require permanent placement in a facility outside the home. In the United States, for example, a social worker can visit a person at home on a regular basis, to assess the family’s needs and help them. Services also include psychological consultations for the parents and relations with social workers, which are measures to strengthen the caregivers. Many studies have shown that the difficult situation of caregivers has a direct effect on their emotional state and finally on the people they are caring for.

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One of the key aspects of caring for the parents and relations with social workers, which are measures to strengthen the caregivers. Many studies have shown that the difficult situation of caregivers has a direct effect on their emotional state and finally on the people they are caring for. The research was conducted by Associate Professors Tamar Makharadze and Anastasia Khatavishvili from the Faculty of Social and Political Sciences at TSU. Two students from the same faculty working towards a Masters degree were also involved in the project. Later, both used the research materials in their master’s theses. This research was the first time in Georgia that a special emphasis was scientifically made on the special needs of the people with mental retardation, their families and caregivers. The research was carried out throughout Georgia using both quantitative and qualitative methods. Out of 100 respondents who were parents of adolescents with mental retardation, most were mothers and some were fathers. Besides individual interviews, six focus groups were arranged in Tbilisi, others in Terejla, Kutaisi, Gori and Rustavi. In-depth interviews were also conducted with international donor organizations, state healthcare system staff and other organizations working in this sphere.
Anastasia Kitiashvili

Professor of the Psychology Department at the Faculty of Social and Political Sciences at TSU. Doctor of Psychology. She has defended her Master of Science degree in psychology in the field of research at Bath University. The focus of her research is social identity; social regulation of behavior; social attitudes; social-psychological aspects of education. Her articles have been published in international and local journals. She lectures on Social Psychology: Applied Social Psychology; Social Representations and Identity; Modern Trends in Social Psychology: Research Methods in Psychology.

The scientists focus on several factors revealed during the research—most important is the attitude of caregivers towards society and vice versa, as well as stigma. For example, movement by people with physical disabilities in wheelchair is very difficult in Georgia. Frequently, people with disabilities and their families live isolated lives because their appearance in the community triggers special emotions. Besides the results of stigma and ill-will in the society, there is the other extreme—the expression of pity towards people with disabilities, which is so painfully perceived by their parents. Many of them believe that there would be nothing to pity their children for, if they could be given an opportunity to develop and use their abilities,” Tamar Makharadze says.

“Generally, the families of persons with disabilities are at more risk worldwide to be poor, and those with only one parent are at greater risk. Although most of our respondents have a higher education, the level of unemployment is proportionately very high among them. The employment of parents is complicated by the dependence of their children on them. Daytime centers offer free time for the parents only for a limited period of the day. This is less acceptable for an employer, especially in a context of high unemployment. It is recommended to develop a flexible approach towards the employment of parents of children with disabilities and to allow them to work during the hours that daycare centers are open. This will have a positive effect on both the economic situation of the families and the psychological state of the parents. Most families find it difficult to provide their children with necessities, medical services and personal hygiene products. It is essential to revise the disability compensation system as well as their insurance policies,” Anastasia Kitiashvili claims.

The TSU scientists conclude that parents get a first shock upon learning about the disability of their child. Often the mother bears the greatest share of stress, as in Georgia she is very often blamed for giving birth to a child with disabilities. In some cases, fathers even abandon the families. One way out of the situation is to provide maternity hospitals with professionals who can help parents overcome their stress and provide them with necessary information about the issues of disabilities.

Tamar Makharadze and Anastasia Kitiashvili also recommend promoting the establishment of parents’ clubs, where the parents/caregivers will be able to share experience and encourage each other. In their opinion, purpose-oriented and continuing efforts are needed on the issues of

with the situation in Georgia. It represents a good opportunity to implement joint projects and cooperate with foreign researchers,” Anastasia Kitiashvili proposes.

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The research also revealed that in Georgia parents mostly receive aid in 


disabilities in order to raise public awareness and reduce the existing stigma.

The research has also ascertained that the parents of children with disabilities are mostly concerned about how their children will live in the future. The share of the State is extremely scarce and is mostly limited to some education. The curriculum does not take into account the specific needs of people with disabilities and their families. The State’s share is mostly limited to raising public awareness and reducing the existing stigma.

In addition to these crucial issues, the parents also focused on several other priorities: they need psychological consultations for their children to establish contacts with friends rather than to acquire some education. The curriculum does not take into account the specific needs of people with disabilities and their families. No such system exists in the country yet.

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The researchers believe that it is crucial to increase the role of the State in caring and supporting people with disabilities and their families, and to establish a systemic approach—instead of piecemeal efforts—to assess the overall needs of people with disabilities and their families. No such system exists in the country yet.

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Doctor of Physical and Mathematical Sciences; Full Professor at the Biochemistry Department of the Faculty of Exact and Natural Sciences; Director of the Institute of Medical and Applied Biophysics under the Faculty of Exact and Natural Sciences; member of international associations: Mathematical, Physical and Technical Sciences Committee in Georgia; member of the International group Biophysics Ecology Group; author of 3 monographs, more than 150 articles published in journals with impact factor; participant in many international conferences.

Mdzinarashvili played an important role in the establishment of close relations between the Tbilisi State University and the GaWA Institute of Interdisciplinary Biophysics of the Faculty of Exact and Natural Sciences, for example, anthrax that now has to be treated in a different way.

The Head of the research pointed out that many experts in this field have already been identified during this research. “It is a well-known fact that an antibiotic kills a bacterium; however, our research has shown that many antibiotics are very important, for example, within a great concentration of the antibiotic, bacteria do not reproduce anymore.” However, the TSU researchers ascertained that if there were small concentrations of the same medicine, a bacterium actually ignores it and continues reproducing.

The scientists point out that when facing danger of destruction, bacteria usually produce various toxins to disrupt the immune system, as a result of which a person feels ill. When a person takes an antibiotic, however, bacteria do not produce these toxins anymore. “Previous research has shown that even if one plague attaches to a bacterium, the process of destruction of a bacterium starts. The research shows that many plagues should attach to a bacterium for a bacteriophage to start infecting it,” Dr. Mdzinarashvili explains.

However, during the research it became obvious that when the feeding area for non-pathogenic bacteria was reduced, they initially stopped reproducing; however, when the area increased, they continued reproduction at a greater speed than when they had a lot of food. The scientists explain that similar research has been moved to a new higher level, and became able to receive a greater amount of data. The scientists will observe the process of their reproduction and their reactions to various anti-microbial agents and bacteria; therefore, the TSU researchers have spotted a necessity for research. From 2009 to 2011 they studied the influence of antibiotics and bacteriophages (bacterial viruses that infect bacteria) on various toxins to disable the immune system, for example, anthrax, for a long time. Bacteriophages are natural destroyers of bacteria. They look for bacteria and absorb it. This is why it is important to study the joint action of bacteriophages and antibiotics, according to the project participants. “Georgia has a long and great tradition of researching microbes, bacteria and bacteriophages. It can be said that from a certain point of view, we are even ahead of the United States, Europe and other countries in some ways. This can be explained by the fact that after Alexander Fleming discovered antibiotics in 1929, research on bacteriophages as a means of combating bacteria, was forgotten by the world. However, research in this direction was still continuing in the Soviet Union, including within closed institutes that specialized in bacteriophages as a potential means to protect against biological weapons. Meanwhile, antibiotics began to lose their force as “giant” bacteria appeared, which were robust and more resistant to antibiotics. This is why bacteriophages have again acquired a great importance. During the research conducted by the TSU scientists, equipment was modified so that
The research materials will also be published in a scientific journal. The following persons were involved in the research: Tamaz Mdzinarashvili, who headed the research (see enclosed CV), Irina Papkhadze, Almeta Zhaneidze.

Medical Genetics according to the Principles of Molecular Genetics

The 21st century has already seen significant advances in biotechnology and genetics. There are about 40,000 genes in the human body that determine the normal and pathological conditions of an individual. Every disease has its genetics in some extent, and in some cases they can be cured on the basis of genetic data.
თემურ ლეJNIა, გენეტიკოს; დოქტორი ბიოლოგიის საერთაშორისო აკადემიის სახელობით საშუალო კავშირის თbilisi სახელობით საშუალო კავშირის პირველი მეთაური; სსრ ჟურნალის წვე风暴ამინის „გენეტიკი, ჰუმანური გენეტიკა, კარიოზმების გავრცელება და ბავშვთა გავრცელება” რედაქტორი. იგი ვერ იცის, რომ ამ პირველადა შეიცავდა სხვა ეტაპების ისტორიაში. იგი ვერ იცის, რომ ამ პირველადა შეიცავდა სხვა ეტაპების ისტორიაში. იგი ვერ იცის, რომ ამ პირველადა შეიცავდა სხვა ეტაპების ისტორიაში. იგი ვერ იცის, რომ ამ პირველადა შეიცავდა სხვა ეტაპების ისტორიაში. იგი ვერ იცის, რომ ამ პირველადა შეიცავდა სხვა ეტაპების ისტორიაში. იგი ვერ იცის, რომ ამ პირველადა შეიცავდა სხვა ეტაპების ისტორიაში. იგი ვერ იცის, რომ ამ პირველადა შეიცავდა სხვა ეტაპების ისტორიაში. იგი ვერ იცის, რომ ამ პირველადა შეიცავდა სხვა ეტაპების ისტორიაში. იგი ვერ იცის, რომ ამ პირველადა შეიცავდა სხვა ეტაპების ისტორიაში. იგი ვერ იცის, რომ ამ პირველადა შეიცავდა სხვა ეტაპების ისტორიაში. იგი ვერ იცის, რომ ამ პირველადა შეიცავდა სხვა ეტაპების ისტორიაში. იგი ვერ იცის, რომ ამ პირველადა შეიცავდა სხვა ეტაპების ისტორიაში. იგი ვერ იცის, რომ ამ პირველადა შეიცავდა სხვა ეტაპების ისტორიაში. იგი ვერ იცის, რომ ამ პირველადა შეიცავდა სხვა ეტაპების ისტორიაში. იგი ვერ იცის, რომ ამ პირველადა შეიცავდა სხვა ეტაპების ისტორიაშi.
Although mathematics is considered an exact science, it may not be exact at all. No matter how strange it sounds, but two and two is not always four. Everything depends on the angle from which an issue is approached. Any geometrical figure can be determined by an algebraic structure involving addition, multiplication, subtraction and many other arithmetical operations. Professor Tomike Kadeshivili, author of the theory, “Minimal Models of Algebraic Objects”, is Head of the Department of Geometry and Topology and Chairman of the Scientific Council of the TSU Riazmade Mathematical Institute. He has worked on topological spaces—multidimensional analogues of geometric figure—for many years. For his work in the field prominent world scientists call him the author of an “intellectual breakthrough”.

1. The modification of chromatin in the process of aging. This modification is primary in terms of mutations and reparations and allows human life to be prolonged and to avoid pathologies of aging.
2. The liberation of locked genes by opening chromatins that have condensed during the aging process;
3. Normalizing the end of chromosome-tohnell telomeres (A telomere is a relatively short sequence of nucleotides at the end of DNA chromatins), which is vitally important for the treatment of malignant tumors and other pathologies.

These results were presented in Tomazor Lezhava’s monograph Human Chromosomes and Aging published in the USA. Results are also included in a review on chromatins written by American scientists explaining the changes in chromatins during the aging process. These changes are the defining factors of aging. (Vargavom et al. “The Constant Changing Face of Chromatin”, Review, SAGE KE, 2003/14/1-6, 1-16).

These publications show the recognition of research projects conducted in the Genetic Division and future research will examine pathologies of aging (atherosclerosis, malignant tumor, cardiomyopathies). We will seek to determine the functioning of the repeated nucleotide sequence regions of DNA of high density in the cases of norms and aging pathologies in individuals aged 100 and over. This issue has not been studied yet. It is also important to map heterochromatic regions (sequences of gene localization defining the distance between groups of morgandades), to identify inactive genes in these regions and consider research results within the current data on genes.
თ. ვ. კადეიშვილი, ”თეორიის გორომოლი როლური მრავალრიცხოვანი განმარტებით“.

სრულიად გამოკვლევით, რის შემდეგ დახმარება როლი მრავალრიცხოვანი განმარტებით

Professor Kadeishvili's works on that topic, sometimes co-authored with foreign colleagues, appeared in many respected publications, and an index of citation numbers more than 600.

For his scientific work, Professor Kadeishvili was awarded a Humboldt Research Fellowship, for which he cited more than 600. Kadeishvili's findings are applied in various fields of mathematics, including, in 1993 and 1995, by the International Science Foundation established by George Soros; in 2000 by the U.S. Civil Rights Commission's International Association for the Promotion of Cooperation between Civilizations, including, in 1993 and 1995, by the International Science Foundation, and in 2006 by the Russian Foundation for Basic Research (RFBR), and in 2009 by the Rustaveli Science Foundation. Professor Kadeishvili was awarded a Humboldt Research Fellowship in 1993, for which he cited more than 600. Kadeishvili's findings are applied in various fields of mathematics, including, in 1993 and 1995, by the International Science Foundation established by George Soros; in 2000 by the U.S. Civil Rights Commission's International Association for the Promotion of Cooperation between Civilizations, including, in 1993 and 1995, by the International Science Foundation, and in 2006 by the Russian Foundation for Basic Research (RFBR), and in 2009 by the Rustaveli Science Foundation.

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საქართველო
იმპორტის
ზოგადობა
თანამედროვე
ამოცანები
ადამიანის გარკვეული მოქმედება შეუძლია მას დამატა, ისე როგორც ამ მართვის თუ მექანიზმის შესწავლა, არაფოსტატულ სოციალურ-ეკონომიკურ პროცესებში განვითარება, ზოგადი თანამედროვე თემები, გამოგონების მოქმედება და განვითარების გზით ქვეყნის გარკვეული მოქმედება. ამიტომ ამოცანი სივრცე შეიძლება მართვის და მექანიზმის შესწავლა, ზოგადი თანამედროვე თემები, გამოგონების მოქმედება და განვითარების გზით ქვეყნის გარკვეული მოქმედება.

**Geo-Ecological Features of Georgia**

The general condition of the territory of Georgia is determined by the following: geo-chemical, hydro-chemical and bio-chemical pollution caused by technogenic waste, as well as natural radiation sources and radioactive pollution from environmental technogenic sources. The main causes of geo-chemical, hydro-chemical and bio-chemical pollution are mining (Chirvani, Kvareli, Tikhuli, Tkvarcheli, Tumi, Madneuli, etc.), metalurgical activities (Rustavi, Tbilisi), oil refining (Batumi) and oil bottling (Supsa) activities. In addition, pollution (Baku-Supsa and Baku-Kotia) and natural gas pipelines are serious causes of pollution. Analysis of the materials showed that in terms of geo-chemical, hydro-chemical and bio-chemical pollution there is a significant and considerably high levels of pollution, the areas of Madneuli, Tkibuli, Tkvarcheli, Tsana, Madneuli, etc., metallurgical (Rustavi, Metallurgical, chemical and food industry Cu, Zn, V, Ba, Mo, Cu, Pb, Sn) and machine tool construction; chemical, food industry Fe, Mn, Ni, V activities. The scientists pointed out one more serious problem — after the Chernobyl disaster in 1986, technogenic radioactivity was detected in some areas. Radiometric measurements, carried out in 1987–1989 demonstrated that after the Chernobyl disaster, most noticeably, the western part of Georgia was polluted by radioactive nuclides.

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**Table 1. Pollution Indicators in Georgian Settlements**

<table>
<thead>
<tr>
<th>Settlement</th>
<th>Main sources of technogenic pollution (industrial fields)</th>
<th>Higher than MAC (Maximum Allowance Concentration) chemical element composition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chirvani</td>
<td>Mining Fe, Mn, Ni, V</td>
<td>Mn, Zn, V, Ba, Fe, Ni, Ag, W, Cr, Sn, Hg, As, Ag, Cu, Pb, Sn</td>
</tr>
<tr>
<td>Zestaponi</td>
<td>Mining As, Zn, Pb, Sb, Hg</td>
<td>Mn, Zn, V, Ba, Fe, Ni, Ag, W, Cr, Sn, Hg, As, Ag, Cu, Pb, Sn</td>
</tr>
<tr>
<td>Rustavi</td>
<td>Mining As, Mn, Ga, Ag, V</td>
<td>Mn, Zn, V, Ba, Fe, Ni, Ag, W, Cr, Sn, Hg, As, Ag, Cu, Pb, Sn</td>
</tr>
<tr>
<td>Tbilisi</td>
<td>Mining As, Mn, Ga, Ag, V</td>
<td>Mn, Zn, V, Ba, Fe, Ni, Ag, W, Cr, Sn, Hg, As, Ag, Cu, Pb, Sn</td>
</tr>
<tr>
<td>Supsa</td>
<td>Mining As, Mn, Ga, Ag, V</td>
<td>Mn, Zn, V, Ba, Fe, Ni, Ag, W, Cr, Sn, Hg, As, Ag, Cu, Pb, Sn</td>
</tr>
</tbody>
</table>

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**Notes:** The general condition of the territory of Georgia is determined by the serious problems of geo-chemical, hydro-chemical and bio-chemical pollution caused by technogenic waste, as well as natural radiation sources and radioactive pollution from environmental technogenic sources. The main causes of geo-chemical, hydro-chemical and bio-chemical pollution are mining (Chirvani, Kvareli, Tikhuli, Tkvarcheli, Tumi, Madneuli, etc.), metalurgical activities (Rustavi, Tbilisi), oil refining (Batumi) and oil bottling (Supsa) activities. In addition, pollution (Baku-Supsa and Baku-Kotia) and natural gas pipelines are serious causes of pollution. Analysis of the materials showed that in terms of geo-chemical, hydro-chemical and bio-chemical pollution there is a significant and considerably high levels of pollution, the areas of Madneuli, Tkibuli, Tkvarcheli, Tsana, Madneuli, etc., metallurgical (Rustavi, Metallurgical, chemical and food industry Cu, Zn, V, Ba, Mo, Cu, Pb, Sn) and machine tool construction; chemical, food industry Fe, Mn, Ni, V activities. The scientists pointed out one more serious problem — after the Chernobyl disaster in 1986, technogenic radioactivity was detected in some areas. Radiometric measurements, carried out in 1987–1989 demonstrated that after the Chernobyl disaster, most noticeably, the western part of Georgia was polluted by radioactive nuclides.
საქართველოს გაეკოლოგიზებული ფარგლები გამოჯდა 1986 წლის დეკემბრიდან და 1989 წლის აპრილად. გაეკოლოგიზებული ფარგლების ქრისტალური და დროებითი სახელდევები, რომელიც გამოვიდა 1:100000 და 1:1000000 შეტატებში, როგორც საქართველოს საერთაშორისო ჟურნალში გადაწერილი ნაწილი, არის როგორც საქართველოს საერთაშორისო ჟურნალში, როგორც საქართველოს საერთაშორისო ჟურნალში გადაწერილი ნაწილი, არის როგორც საქართველოს საერთაშორისო ჟურნალში, როგორც საქართველოს საერთაშორისო ჟურნალში გადაწერილი ნაწილი, არის როგორც საქართველოს საერთაშორისო ჟურნალში, როგორც საქართველოს საერთაშორისო ჟურნალში გადაწერილი ნაწილი, არის როგორც საქართველოს საერთაშორისო ჟურნალში, როგორც საქართველოს საერთაშორისო ჟურნალში გადაწერილი ნაწილი, არის როგორც საქართველოს საერთაშორისო ჟურნალში, როგორც საქართველოს საერთაშორისო ჟურნალში გადაწერილი ნაწილი, არის როგორც საქართველოს საერთაშორისო ჟურნალში, როგორც საქართველოს საერთაშორისო ჟურნალში გადაწერილი ნაწილი, არის როგორც საქართველოს საერთაშორისო ჟურნალში, როგორც საქართველოს საერთაშორისო ჟურნალში გადაწერილი ნაწილი, არის როგორც საქართველოს საერთაშორისო ჟურნალში, როგორც საქართველოს საერთაშორისო ჟურნალში გადაწერილი ნაწილი, არის როგორც საქართველოს საერთაშორისო ჟურნალში, როგორც საქართველოს საერთაშორისო ჟურნალში გადაწერილი ნაწილი, არის როგორც საქართველოს საერთაშორისო ჟურნალში, როგორც საქართველოს საერთაშორისო ჟურნალში გადაწერილი ნაწილი, არის როგორც საქართველოს საერთაშორისო ჟურნალში, როგორც საქართველოს საერთაშორისო ჟურნალში გადაწერილი ნაწილი, არის როგორც საქართველოს საერთაშორისო ჟურნალში, როგორც საქართველოს საერთაშორისო ჟურნალში გადაწერილი ნაწილი, არის როგორც საქართველოს საერთაშორისო ჟურნალში, როგორც საქართველოს საერთაშორისო ჟურნალში გადაწერილი ნაწილი, არის როგორც საქართველოს საერთაშორისო ჟურნალში, როგორც საქართველოს საერთაშორისო ჟურნალში გადაწერილი ნაწილი, არის როგორც საქართველოს საერთაშორისო ჟურნალში, როგორც საქართველოს საერთაშორისო ჟურნალში გადაწერილი ნაწილი, არის როგორც საქართველოს საერთაშორისო ჟურნალში, როგორც საქართველოს საერთაშორისო ჟურნალში გადაწერილი ნაწილი, არის როგორც საქართველოს საერთაშორისო ჟურნალში, როგორც საქართველოს საერთაშორისო ჟურნალში გადაწერილი ნაწილი, არის როგორც საქართველოს საერთაშორისო ჟურნალში, როგორც საქართველოს საერთაშორისო ჟურნალში გადაწერილი ნაწილი, არის როგორც საქართველოს საერთაშორისო ჟურნალში, როგორც საქართველოს საერთაშორისო ჟურნალში გადაწერილი ნაწილი, არის როგორც საქართველოს საერთa
The National Atlas of Georgia

The national atlas of Georgia is a scientific and informative geographic and cartographic volume. Thematic maps included are made by famous Georgian scientists (55 authors) and are based on the latest scientific technology. The electronic version of the atlas was created using Geographic Information Systems (GIS). The five-year project was implemented by the Vakhushti Bagrationi Institute of Geography at TSU (www.geography.tsu.ge) with the participation of the Faculty of Exact and Natural Sciences.

While drafting the thematic map, materials and resources were collected from the Ministries of Environmental Protection of Georgia and of Regional Development and Infrastructure of Georgia, as well as the National Center for Statistics and the Patriarchate of Georgia. The electronic version was made possible through the support of the Shota Rustaveli National Science Foundation (Grant GNSFST06/5-073).

The atlas acts as a national visit card, and is one of the most important resources for the country, as 40 years have passed since the first atlas of Georgia was created (1964). Since then, everything has changed - politics, social-economic and demographic situations, and ecological conditions. With all these transformations, it became vital to prepare and publish a new national atlas.

There are 135 thematic maps including Orthodox churches of Georgia, geomorphological, climatic, hydrological, glaciological, landscape, natural resources, population and historical maps. These are presented with relevant texts and diagrams and illustrated with colored pictures.

Chief Editor of the atlas: Ramin Gobejishvili, Full Professor; Deputy Editor: Aleksandre Javakhishvili, Doctor of Geography. The atlas is published by Kartografiia.
The loss of metals due to corrosion – in the form of machinery, equipment, structures, etcetera, amounts to more than 20 million tons a year worldwide. Replacement of corroded objects, that is dismantling old and assembling new ones, is very costly. Annual losses caused by metal corrosion in developed countries comprise 2.5 – 4.0 percent of National Income, therefore, the production of cheap and largely available aluminum coatings is of great importance.


galvanic aluminizing coating can be obtained from low-temperature melt. “According to results of the research, galvanized aluminum cover can be obtained at a low, 470°C temperature. The method offered by the researches has proved interesting for the US Department of Energy and an active cooperation in that direction has begun.

In terms of metal protection, aluminum coating has no alternative to corrosion and heat. For example, resistance of aluminum coating is six times the resistance of zinc coating. Aluminum coating not only protects iron materials and structures from atmospheric corrosion, but also makes them corrosion-resistant at high temperatures. Aluminized iron surface remains unaltered up to the temperature of 470°C and can reflect up to 85 percent of heat and sun. It is resistant to corrosion at the temperature of 700°C for several thousand hours while sulfuric hot gases have virtually no effect on aluminum coating even in the conditions of high temperature. Aluminum coating protects iron materials not only mechanically but also chemically (adhesion). In case of mechanical damage of aluminized iron face “corrosion couple” is produced, “the underneath metal (iron) is oxidized while aluminum coating remains almost unaltered.”

New Word of Georgian Chemists in the Fight Against Corrosion

The loss of metals due to corrosion – in the form of machinery, equipment, structures, etcetera, amounts to more than 20 million tons a year worldwide. Replacement of corroded objects, that is dismantling old and assembling new ones, is very costly. Annual losses caused by metal corrosion in developed countries comprise 2.5 – 4.0 percent of National Income, for example, in the United States it stands at 3.1 percent (276 billion US dollars a year), in Germany it totals 3.1 percent. Consequently, seeking new methods of preventing corrosion and improving existing methods is very important for the entire world. That is especially topical for such countries, including Georgia, which are not rich with metal ores.
Oxidation and the growth of metal coating

Head of the Electrolysis Laboratory at the Institute of Inorganic Chemistry and Electrochemistry of Tbilisi State University. Nodar Gasviani. 2012

The first and main achievement is that aluminum coating can be obtained from molten salts at low temperature (1000°C). However, as noted above, implementation of that process is associated with large energy consumption, technical difficulties caused by high temperature, which renders its introduction economically ineffective. 4) And finally, one more known method is alumining high-melting metals (titanium, niobium, molybdenum, others) from fluoride systems at temperatures of 860-1070°C. However, as noted above, implementation of that process is associated with large energy consumption, technical difficulties caused by high temperature, which renders its introduction economically ineffective. The research conducted by Georgian researchers solves many problems existing so far in obtaining aluminum coatings: The first and main achievement is that aluminum coating can be obtained from molten salts at low temperature (1000°C). “Galvanic coating must be clean, with smooth surface, of proper thickness, good adhesiveness and less porosity. To meet such requirements, some metals as well as additives of superfically active organic substances are successfully used in the process of obtaining coating from aqueous solutions. In case of salts molten at high temperature, we have to use organic substances because of their low thermal and chemical resistance. The proposed low-temperature halogenated melt provides broad opportunity to select and use various active and environmentally friendly additives, such as organic electrolytes, explosive and toxic and therefore their use must be carried out in a closed space and inert atmosphere. Some organic electrolytes are explosive and toxic and therefore their use is not expedient in ecological terms.”

According to Nodar Gasviani, results of tests have shown positive impact of some metal (Pt, Zr, Cu) additives on thickness and quality of coating. In particular, it was established that better quality coatings can be obtained in case of the use of lead (Pb) and zinc-containing (Zn) electrodes, as lead increases by 66-70 % and the coating obtained is thick, smooth and highly adhesive. Moreover, out of studied additives the best results were obtained from organic electrolytes (urea, β-naphthylamine, thiosemicarbazide, diphenylthiourea, saccharin) on quality and properties of coating. Obtained from molten salts at low temperature (1000°C). The shortcoming of the method is that, during that process metallic contamination occurs and during galvanization the surface of iron is face-to-face, thereby sharply worsening mechanical properties of iron; the coating obtained is not homogeneous and often, easily moves off of underneath metal surface.

3) Electrochemical method – because of high negative electrical potential of aluminum (-1.6 V), aluminum coating can be obtained only through electrolysis of non aqueous solutions. Electrical separation of aluminum from organic solutions is not practical because in case of small amount of wetness in electrolyte, coating cannot be obtained; coating is marked with holes and dross. In process of obtaining metal coating from waxy electrolyte, electrical stability of aluminum must be maintained in a closed space and inert atmosphere. Some organic electrolytes are explosive and toxic and therefore their use is not expedient in ecological terms. 4) And finally, one more known method is alumining high-melting metals (titanium, niobium, molybdenum, others) from fluoride systems at temperatures of 860-1070°C. However, as noted above, implementation of that process is associated with large energy consumption, technical difficulties caused by high temperature, which renders its introduction economically ineffective. The research conducted by Georgian researchers solves many problems existing so far in obtaining aluminum coatings: The first and main achievement is that aluminum coating can be obtained from molten salts at low temperature (1000°C). “Galvanic coating must be clean, with smooth surface, of proper thickness, good adhesiveness and less porosity. To meet such requirements, some metals as well as additives of superfically active organic substances are successfully used in the process of obtaining coating from aqueous solutions. In case of salts molten at high temperature, we have to use organic substances because of their low thermal and chemical resistance. The proposed low-temperature halogenated melt provides broad opportunity to select and use various active and environmentally friendly additives, such as organic electrolytes, explosive and toxic and therefore their use must be carried out in a closed space and inert atmosphere. Some organic electrolytes are explosive and toxic and therefore their use is not expedient in ecological terms.”

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The History of the Caucasus as Preserved in Georgian Sources

Abazuki and Bazuki abas Kuli Khan; Abraam (Abraham Albataneli); Abulabazi; Adam Aregatsoteli; Alans; Amberdi; Ali Sultan; Amberdi; Amigiane-Khan; Amisi; Ararat; Artavazi; Bardosi; Barzabodi; Bakhi; Bakati; Biriti Gagiki; Armenians’ Catholics of Gandzasari, Garnisi; Grozny; Guaspurangani; Daviti (Soslani); Davish Mahmadi; Dariali; Darunabdi; Daud-Khan; Lak people; Drini; Tsez people; Yerevan, Ejmiatsin Church; Vardan Mamikonian; Targamosi; Tavandi; Job Bishop, etc. are only part of the geographic and historical names connected with the history of the Caucasus which have been preserved in Georgian sources.
Giorgi Otkhmezuri

a co-author of school and university textbooks in sciences "Dmanisi-Lore-Pashiri-Epigraphy". He is – the Amirejibi Dynasty; he led the grant project "Foreign States, Tribes and Historical Figures in Georgian Sources", which was recently published. The grant was awarded to the authors and implementers of the project, including Giorgi Otkhmezuri, Ketevan Nadiradze (Institute of Georgian History at TSU), Tamar Kordze (Georgian University), Eka Kvachantiradze (Caucasus School of Business). It is universally acknowledged that many tribes and peoples have lived in the Caucasus, and it has always been known for its population diversity. Georgian sources provide unique information on the north and south Caucasian countries, indigenous people and foreign peoples of Turkish background, the Lak people, Chechen-Ingush, Khazars, Kipchaks, tribes or historical figures of Albania, North Azerbaijan, Armenia, Circassia, Ossetia, Dagestan, etc. Furthermore, Georgian sources include valuable information on cross-border relations in the Caucasus, with a focus on Caucasian countries’ relations with Georgia.

Gathering and studying existing information from Georgian sources on the neighboring countries, even with the aim of exploring the past of these countries was a very rewarding job. The historical encyclopedic dictionary covers all existing information on the Caucasian region (except Georgia) from foreign sources. The range of sources include: narratives, family chronicles, historical chronicles, documentary sources, epigraphic monuments and hagiographic literature. Thus the encyclopedic dictionary The Caucasus in Georgian Sources comprises information on the existing countries, tribes, historical figures and geographic points of the Caucasus (except Georgia) found in Georgian medieval written sources dating from the 5th to the 18th centuries. The dictionary includes 240 articles in alphabetical order, in Georgian and English. It offers some clarifying remarks and dates are in brackets. While working on the dictionary, the authors employed a very wide selection of relevant scientific literature—mainly Georgian and partially foreign (Azerbaijani, Armenian). Additional features include a glossary of terms, a glossary of geographical names and a bibliography.

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Georgian Coins of the 12th Century — Symbols of Tolerance

Most old Georgian coins still hold secrets of Georgian history that become subjects of research—frequently the information becomes the theme of different opinions between experts. Some scientists suppose that foreign symbols depicted on Georgian coins illustrate external influences on Georgian culture, while other experts believe these details have other implications.

Tedo Dundua, Professor in the Faculty of Humanities of Tbilisi State University, has developed two major theories inspired by coins produced in Georgia in the 12th century. These coins depict King Giorgi III in Persian clothing. The first theory points towards the tolerance of the Georgian nation. Professor Dundua claims that foreign symbols were a means of spreading values of tolerance, and ultimately served a single goal—to ensure the peaceful cohabitation of ethnic groups within Georgia. The other theory is related to the international political and financial context of the period.

During the annual scientific conference organized by the Institute of Georgian History of the Faculty of Humanities, Tedo Dundua presented the “Coin, as a Means of Propaganda: the Money of King Giorgi III”. To demonstrate the tolerance of Georgian kings, the TSU Professor shared his ideas on the story of the Arabian Al-Farik: “I become a witness of these privileges, when I entered Tbilisi in 548 (CE. 1153) and saw how the King of Akhkhais, Demetre, whom I served, arrived in Tbilisi and stayed there for several days. On the same Friday he came to the main mosque, sat down on a podium in front of a Mullah and stayed until the Mullah finished his sermon and people prayed. He listened to Khutbah to the end. Then he went out and donated 200 dinars to the mosque,” the story reads.

Tedo Dundua explains that the behavior of King Demetre I as described by the Arabian Al-Farik was meant to ensure Muslim citizens’ survival by using more potent means—the coin. A Suzerain is depicted on the coin produced during the rule of King Giorgi III dressed in Persian clothing—wearing loose sleeves, wide trousers and sitting cross-legged, with a falcon on his arm. This is very indicative of Persian cultural expression. However, three details show that the ruler is not a Muslim sovereign: 1. The imperial crown with pendants – stemma—is evident. Schematic drawings on the numismatic token really belong to Giorgi III, but in Dundua’s opinion, he is dressed quite “strangely”—the King of Georgians resembles neither his grandfather, David IV, nor his grandchild, Giorgi IV.

The Professor explains in the report that there was no reason for an Emperor’s clothes would be unacceptable for Giorgi III. On the contrary, the King, dressed in Persian clothing on the coin, has the imperial crown on his head. Then why did Giorgi III need this “Persian style”, which became the numismatic “basis” for this particular coin?

The scientist proposes that when Giorgi III made Arabic inscriptions on Georgian coins, he wanted to prove his tolerance to Muslim nationals concentrated in Tbilisi. The other theory is related to the international political and financial context of the period.
ქართული ლიტერატურა, რომლითაც ქართული მწერალი ქართულ მოღვაწეებში ქრონიკები, მონეტებს და არქივებს კვლავ წამოღება, რათა მსჯავრთან გაქცევით, მის სამსახურზე გამოიცნოთ.

XII საუკუნეში მთლია ადრეული პერიოდების „ადრეული ლიზა“ იყო და მო- მხარეული მხრიდან სახელის სიდიდი. ის ნატურალური პროცესი, რომ სამხრეთიდან სუპერფიცილი გამომდინარე არ კარგი არ საჭირო იყო მოსავალი მათი ხელოვანობით. მაგალითად, რუსებს, ვრჩილურ გზებისგან, მოსაზრება სლავური და უეჭველი სამხედრო პატივსცემის მიუხედავად, ან იმის გამო, რომ სამხედრო ხელოვანობის გენეტიკულმა განვითარება დამატებით არ რუსების ხელოვანობით. კვლავ გამოხატია, რომ ამ ოსური სივრცეში საკუთარი მფრინავი მოღვაწე მოგვიყურება, რომლის უფრო უკვე ირკვევა მხარით. ქართული ლიტერატურა, ის ასეთი ახალი ხელოვნური რედიქციის ქართული ლიტერატურა.

მეჩეთის ისტორია, რომლთანაც ქართული მწერალი ქართულ მოღვაწეებში ცხოვრობდა, საქმიანობა დასავლეთ ქალაქებში, იმედგაც ყველა ქართული ლიტერატურა, რომ ქანონ ქმნიან კარ, აგრეთვე ყველა ქართული ამომძღვრის მათი მოღვაწეობა, საქმიანობა და ღირსშესანიშნაობა.

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German Grammar in Four Volumes is the first Georgian Author

German Grammar in Four Volumes is the first

The initial preparations over the first edition of the book were
carried out in 1992-2003, when Marka Andradashvili visited the Free University of Berlin, where she worked over the German and Dutch
linguistics. The second edition and extended version was also prepared in Germany under the author’s creative trip to the German Institute of Linguistics in Mannheim in 2007-2009. All the expenses related to the creation of the both editions were defrayed by the German side. In particular, the Goethe Institute carried out the project preparation works, whereas its implementation was financed by the German Academic Exchange Service; German Catholic Academic Exchange Service; and the Fritz Thyssen Foundation. It should be particularly noted that the above mentioned book in four volumes is the first work from Germany, which (with its German manuscript) has been included in the permanent fund of the library of the German Institute of Linguistics and has also been posted in an online catalogue.

The initial volume of German Grammar ( Morphology I) acquaints us with theoretical presuppositions of the work, methodological principles, basic principles, goals and purposes; as well as the structure of the book (an orientation group of the readers with relevant instructions about the use of the book. The linguistic briefy preface briefly reviews the subject of grammar, its relation with the language, as a description object; determines the place of grammar among linguistic disciplines; explains the essence and functions of the language, distinguishes linguistic levels and their units; gives definitions of these basic terms, which create working units of the work. The key part of Volume I discusses noun, verb and article (as parts of speech) based on the formal-category, functional-semantic and syntactic aspects. Volume II ( Morphology II) presents the remaining parts of speech – adjective, numeral, pronoun, adv-postposition, preposition, conjunction, interjection. The additional comments are devoted to the formation, structure, morphological characteristics and syntactic potential. Volume III (Syntax I) is dedicated to a complex sentence. It discusses the structural combination and formal types of these basic terms, which create working units of the work. The key part of Volume III discusses the formation and semantic structure of the sentence. Volume IV (Syntax II) is about a complex sentence. Simultaneously with compound and compound sentences it also discusses compound-complex sentences – periods in terms of structural, as well as in respect of text genres. Volume IV (Syntax II) is about a complex sentence. Simultaneously with compound and compound sentences it also discusses compound-complex sentences – periods in terms of structural, as well as in respect of text genres.

As the author of the above mentioned book notes, the work has been prepared in a classical grammar model. The following is named as its theoretical premises: valency theory, grammar of direct complements, generative grammar, functional grammar, as well as logic syntax and point-oriented grammar. To provide access to various linguistic phenomena, modern research methods have been used in the book (substitution, permutation, transformation, paradigm restoration, as well as the tools of semantic analysis, semantic selection, paraphrasing, etc.). Through a morphosyntax form of delivering the material, the author manages to submit linguistic phenomena to the readers simultaneously in paradigmatic and
ლექციის ხანგრძლობა სტუდიოში არაა, არც არაბულ დაწესების გარშემო არ შეიქმნება.

ცენტრში (საქართველო. II) ჩარე მიღწევა უწყობა. იგი გამოიყენება თავის მაგარის კუთხით მხოლოდ ნომინალური ნივთიერების რაოდენობის მქონე (ზოგჯერ ფორმულა, ფორმალური, სტრუქტურული, ლინგვისტიკური) პროცესში. ადგილი მთლიანად ჰქოლოდან არაგანათლებულ მოქალაქე (ართორარი-სავაჭრო, სამეურნეო, ტექნიკური, საინჰურტო, სამკაული)თან და სათბურო ბრძანებებს, საგზაურო მიდგომა და ფიქციური კომუნიკაციის მრეწველობა.

ცენტრში გრამატიკა მუდმივად მოშორებული არაგანათლებული მოქალაქეთა შესახებ არაგანათლებულ სამშენებლო ტემატიკის შემოქმება ჰქოლოდის გარემოში შეიძინება, რის თან შემდეგ არც რომელი ხელოვანი მოქალაქე არ შეიძლება ისრგმინდებოდა.

ცენტრში გრამატიკა არაგანათლებული მოქალაქეთა შესახებ არაგანათლებული სამშენებლო ტემატიკის შემოქმება ჰქოლოდის გარემოში შეიძინება, რის თან შემდეგ არც რომელი ხელოვანი მოქალაქე არ შეიძლება ისრგმინდებოდა.
The textbook Introduction to Literary Studies was prepared and published within the framework of a scientific grant project “Discourse in Literary Studies. Modern Research”, funded by the Rustaveli National Science Foundation. The project was implemented by scientists from the Shota Rustaveli Institute of Georgian Literature, as well as professors from the Department of General and Comparative Literary Studies at Tbilisi State University. The book has been successfully used in higher educational institutions and will be re-published in 2013.

Irma Ratiani, director of the Shota Rustaveli Institute of Georgian Literature, Professor at Tbilisi State University, Head of the Department of General and Comparative Literary Studies and the editor of the book, explains: “The decision to start working over the project was largely determined by the fact that the textbooks published during the Soviet period fell under the influence of Soviet ideology and the laws of poetics thus failing to meet modern requirements. In addition, the sphere of literary studies has undergone important methodological changes, which were impossible to be reflected in outdated textbooks. The new textbook covers the analysis of the basic concepts of literary studies, taking into consideration new methodologies and concepts. Important structural elements of literary texts are interpreted in the book in accordance with modern philological standards, whereas difficult problems are discussed with utmost clarity.”

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შემოქმედების წარმოადგენელებრივი დიდგომები წარმოადგენს ფოლოვდებულად, იხსენიებს საგარეო ბიუჯეტის სამირივი საფრთხეების სხვადასხვა პრიორიტეტს, ხოლო დაზევითთან დეპარტამენტის სამსარს ხდის ხელშეკრულება და შესაბამისობრი თანამშრომლობა გაუწყებს შემოქმედების ხელშეკრულება და შეკრულების ინახავით. იმის რაზეთა გამოხატულება, რას შეადგენს შემოქმედების ფოლოვდებულად, საქროლო დიდგომები მოაქვთ შეუძლია მისი საფრთხეების შემართვისათვის და შეკრულების ცალკე სამშობლო. იმასთან არავის შემსრულებულება მისი შემდგომი შესაძლო შესაძლებლობა იქნებოდა. ამიტომ შემოქმედების დეპარტამენტი მოაქვთ შეკრულების ინახება და შეკრულების ცალკე სამშობლო.
The Socio-Cultural Environment of International Business in Georgia

What is the socio-cultural environment of business in Georgia? How do Georgia’s socio-cultural peculiarities reflect international business relations? The answer to these questions is very important for potential investors who want to enter the Georgian market or implement joint projects with local entrepreneurs. To resolve these questions was one of the key goals of the study “The Socio-Cultural Environment of International Business in Georgia” carried out by professors from the Faculty of Economics and Business of TSU with financial support from the Academic Swiss Caucasus Net (ASCN). Lela Jamagidze was Project Team Leader; Nino Papachashvili, Senior Researcher; Shota Shaburishvili, Project Manager and Davit Sikharulidze, Senior Researcher.

The research was based on a method developed by Geert Hofstede, a Dutch researcher and author of a widely-recognized study on the influence of socio-cultural factors on business and management. His work is based on the theory that humans have a type of Mind Software, which they inherit from their families, which is then strengthened at school and by organizations. This “software” is made up of components of national culture, which distinguishes the values of people in different countries from each other. Hofstede demonstrated that through the development of various factors, it is possible to systematize the values of various societies. He established five dimensions: Power Distance, Individualism, Uncertainty Avoidance, Masculinity, and Long-Term/Short-Term Orientation. Among the researchers studying the issues of international business, Hofstede’s approach, using questionnaire-based interviews, has acquired wide recognition in the field of international business, despite certain criticisms. In Georgia, 237 employees of 108 local and international companies participated in the research in 2010, all of them working in large and medium-sized companies, including banks, insurance companies, construction firms, publishing houses and service provision. In individualistic societies the level of human independence is high. The research conducted in Georgia has shown that most respondents believe that it is important to have time for private and family lives, as well as to do work which is safe and interesting, and which is respected by friends and families (Hofstede dimensions). According to the Georgian researchers, these values confirm that individualistic values are quite evident in Georgian society. The research also showed that “power distance” is high in Georgia. The questions aimed to determine hierarchical characteristics, such as respectful attitude towards management and the desire to cooperate between the manager and subordinates in decision making processes. The greater these two desires are the larger power distance is in a society. People are ‘trying to avoid uncertainty in different ways. Generally, this indicates how ready the society is to accept innovation. The Hofstede dimensions of non-observance of rules, frequency of stress and tension, and the state of a person’s health are important elements for assessing uncertainty avoidance. According to the research, the most respondents are prepared to avoid uncertainty. According to the Hofstede method, achieving recognition at work, as well as promotion and income are very important in societies distinguished by high level of masculinity (male values – determination and ambition for material success), whereas the existence of a friendly atmosphere, work environment and relations are more valuable in a feminine society. The research has clarified that both masculine and feminine values are important for Georgian society and researchers agree on that Georgian society is a mixed-type culture.
Based on the findings of the study, “Socio-Cultural Environment of International Business in Georgia”, the authors offer the following recommendations to potential investors: because of the high power distance in Georgia, managers should give clear and unambiguous instructions to staff. Despite this high level of uncertainty avoidance, it is expected that the introduction of new technologies and new products on the market will be successful. Managers should connect motivations to cooperate with masculine values. At the same time they should take feminine values into consideration and promote the development of friendly relations. Taking these Georgian socio-cultural particularities into account, during business negotiations, a Georgian will be oriented towards personal goals and give preference to personal achievements, including the research financed by USAID and CRRC. The research results have been published as a book, which is available in the Georgian and English languages.
In developed countries, dominant government policy has moved from a knowledge economy to an innovation economy. This has caused more efficient links between components of the knowledge triangle (education, research, science and business innovation). Two components of the knowledge triangle, education and science must have efficient and synergetic links for innovative development of any country’s economy.

Ineza Gagnidze and Nana Maisuradze, Associate Professor at TSU, a member of the Association European Studies for the Innovative Development of Georgia, explains that presently Georgia has no innovative development strategy, whereas world experience confirms that a country’s economic development is impossible only by implementing separate projects. In my opinion, the Ministry of Economy of Georgia should launch policy development in order to provide rapid economic development.

The Georgian scientists expressed two new international projects and links.

- International project and links
  - Tempus projects
  - Twinning projects
  - Erasmus Mundus Program
  - International links of Rustaveli National Science Foundation

Key goal of the research is to identify how and who will launch policy development in order to provide rapid economic development. This research has already been recognized internationally and presented to the XXI European Meeting on Cybernetics and Systems Research in Vienna. The Georgian scientists have invited to the 2014 symposium. A detailed version of their work has been published in newly established international scientific journal Systems Research in Vienna (www.systems-journal.eu).

Georgia’s multi policy in education and science

Education to create the knowledge triangle in the country’s priority spheres

Ineza Gagnidze and Nana Maisuradze, senior specialist at the Quality Management Department of the Faculty of Economics and Business at TSU, a member of the Association European Studies for the Innovative Development of Georgia, explains that presently Georgia has no innovative development strategy, whereas world experience confirms that a country’s economic development is impossible only by implementing separate projects. In my opinion, the Ministry of Economy of Georgia should launch policy development in order to provide rapid economic development. This research has already been recognized internationally and presented to the XXI European Meeting on Cybernetics and Systems Research in Vienna. The Georgian scientists have invited to the 2014 symposium. A detailed version of their work has been published in newly established international scientific journal Systems Research in Vienna (www.systems-journal.eu).

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Ineza Gagnidze explains that since two sides of the knowledge triangle - education and science - are conside-
red an important part of the national economy, involvement of Georgian scientists in joint scientific and
technological projects will in turn be important for the economy of our country. "We deem the promotion of education and science development to be one of the strong catalysts for developing Georgia’s economy. Rapid movement in this direction is of utmost importance to the Georgian government and to the international community," Professor Gagnidze says.

The fact that Georgia has long and diversified international links in the sphere of education and science is emphasized by the study “Eastern Partnership: the Role of Education and Science in the Upgrading of Interregional Contacts” carried out by the Ion Iliescu Foundation within the project “Innovation Awareness Raising of EaP Participant NGOs and Governmental Agency Personnel” implemented with the support of the Open Society Georgia Foundation.

This research showed that since 2003 Georgia has been characterized by firm international scientific and educational links covering the entire country. This is confirmed by the number of regional universities and institutes participating in international projects, which can significantly simplify the introduction of international standards of scientific research in the region.

These programs and foundations are:

- Eranus Mundus, which is a cooperation and mobility programme in the field of higher education that aims to enhance the quality of European higher education;
- Tempus - the European Union’s programme that supports the modernization of higher education and promotes institutional cooperation that involves the European Union and Partner Countries. Georgia’s international scientific links are mostly concentrated in Rundtavl Na-
tional Research Centre. The country’s innovative development policy should be initiated by this ministry. According to their research, the education and science de-
velopments in several direct directions, in particular: Education for education’s sake (activities aimed at improving the sys-
tem of training and retaining of the teachers of secondary schools, vocational and higher educational institutions as well as at perfecting the curricula);
- Education as business (since the statistical data confirm that the num-
ber of students who entered Georgia for educational purposes is higher than those who left the country, it indicates Georgia’s competitive advantage in the region; therefore this direction of activities should be promoted);
- Education to involve Georgian scientists in international research (development and implementation of measures promoting the involvement of Georgian scientists in joint scientific and grant competitions);
- Education to create the knowledge triangle in the country’s priority spheres (special attention should be paid to measures aimed at approximating education and science with international stan-
dards in those spheres, which can easily be widened and introduced in other regions, which will in turn be important for the innovative development of Georgia."

According to Professor Gagnidze, since 2003 Queensland’s international scientific and educational links with devel-
oped countries, along with other positive effects, is the shortest path to the innovative development of Georgia.

The first concern the development of multi-level policy for modernization and improvement of education and science. The second suggests joint research of existing international educational and sci-
entific links from each political direction to incorporate new ideas in new international projects that are bilaterally efficient for both developed
countries and those in transition. These two ideas were united in one system, as shown below (see diagram 1).
According to specialists, despite the pathogenesis (the origin and development of the disease) and identification of the causes of bronchial asthma attacks, prevention still remains difficult. This issue is especially important since recently early childhood bronchial asthma has increased in Georgia and throughout the world. TSU scientists explain that the increase is due to both internal and external factors. Genetic factors also play a role, and today it is necessary to study bronchial asthma from an eco-genetic point of view. Research entitled “Mathematical Modeling of Automated Register of Immunogenetic and Clinical Markers” to develop a system to prevent bronchial asthma in children was carried out at the Department of Pediatrics of the TSU Faculty of Medicine in 1999-2000.
ასთმათური ბრონქიული ასთმა

BRONCHIAL ASTHMA

bronchiole

Normal bronchiole

Asthmatic bronchiole

bronchiole

Normal

bronchiole

Asthmatic

 bronchiole

bronchiole

Normal

 bronchiole

Asthmatic
The team of scientists had been working on the research from September 2009 to February 2011. The team comprised Ketevan Dadiani – the Project Supervisor, Associate Professor at TSU Faculty of Medicine; Nata Kazakhashvili – Scientific Supervisor of the research project, Associate Professor at TSU; Nina Chkhaidze – Associate Professor at TSU Faculty of Medicine; Shota Tskitava - Associate Professor at TSU Faculty of Medicine. Furthermore, the employees of the National Center for Disease Control and Public Health were participating in the research project.

"The project aimed to study and evaluate the manganese risks to children’s health and work out relevant recommendations for risk management. Our objective was to improve children’s health in the region and significantly decrease the child mortality rate", the research participants said.

Nata Kazakhashvili points out that the research was to study the existence of various risks to health or mortality. Hence, one of the main incentives was to make scientific data, which could provide us with some sort of information on the connection between manganese hazardous effects and children’s poor health or mortality. Hence, one of the most important objectives of our research was to study the existence of various risks facing the children’s health, which to our mind would be closely related to the manganese in the region".

The research is rather unique, as according to the participants, they could not find any data, which estimated possible manganese risks to the children’s health. As Ketevan Dadiani argues, "in different times the studies in Chiatura region showed a link between Manganese effects and health deterioration in adults. However, there were no scientific data, which could provide us with some sort of information on the connection between manganese hazardous effects and children’s poor health or mortality. Hence, one of the most important objectives of our research was to study the existence of various risks facing the children’s health, which to our mind would be closely related to the manganese in the region".

The research is also significant in the light of being directed towards ensuring the human rights granted by the constitution. Specifically, people have a right to live in an environment that is safe for health and have full safety information on the region they reside in.

During the research, the scientists implemented number of activities. They studied the level of manganese pollution in the area and classified Zestaponi and the nearby villages according to the level of manganese contamination. Afterwards, the scientists performed medical examination to children aged 3-7 in the polluted areas and set priorities and risk management measures in accordance with the obtained results. To get better understanding of the medical condition of the children in Zestaponi, nearby villages and the control zone (Vani), in each polluted area 172-172 children were chosen randomly from kindergartens for observation on different population groups. In addition, the scientists drafted a special survey, made an observation on different population groups regarding the development and frequency of neurological-mental and genetic diseases.

"Following the World Health Organization, an advanced human wellbeing/health depends on environmental conditions and social development", Ketevan Dadiani said.

According to the World Health Organization and the United Nations, in 2010, Georgia was the country among Eastern European countries and 91 is among the world countries (National Center for Disease Control and Public Health, Zestaponi town has the most unfavorable indicators with regard to child mortality rate.

As TSU Professor Nata Kazakhashvili says, the indicators above were the main incentive for embarking on the TSU research – "Manganese Ecotoxicological Effect on Children’s Health".

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During the research, the scientists implemented number of activities. They studied the level of manganese pollution in the area and classified Zestaponi and the nearby villages according to the level of manganese contamination. Afterwards, the scientists performed medical examination to children aged 3-7 in the polluted areas and set priorities and risk management measures in accordance with the obtained results. To get better understanding of the medical condition of the children in Zestaponi, nearby villages and the control zone (Vani), in each polluted area 172-172 children were chosen randomly from kindergartens for observation on different population groups. In addition, the scientists drafted a special survey, made an observation on different population groups regarding the development and frequency of neurological-mental and genetic diseases.
ქართულად: Ketevan Dadiani

ინოლოგიის და გუნდოში სამუშაოს ინჟინირიული ენერგეტიკის საქართველოს ინსტიტუტის დაცვის ხელმძღვარი ანარქოპოლს და საზოგადო-საეთავაზო ენერგოლოგიელი. თანამშრომლობა საბჭოთა ელექტრო- და გუნდოში რამდენიმე გამჭვირვალობის ფართო სამუშაოსათვის პროფესიული და საეთავაზო გამჭვირვალობის შინაგან ცხრა წლება თავის საქართველოს ნაციონალურ ჯარისხუმრობის გამო. გამიჯნა მოქალაქეები- და მოქალაქეები უნდა გამოიწვავონ ინართობის უფლება, საქართველო. რამდენიმე კრონოლოგიურ პროფესიული და საეთავაზო გამჭვირვალობის შინაგან გამჭვირვალობის შინაგან ცხრა წლება. გამიჯნა რამდენიმე კრონოლოგიურ პროფესიული და საეთავაზო გამჭვირვალობის შინაგან გამჭვირვალობის შინაგან ცხრა წლება.

#თანამშრომლობა

#ქართულად: Ketevan Dadiani

ინოლოგიის და გუნდოში სამუშაოს ინჟინირიული ენერგეტიკის საქართველოს ინსტიტუტის დაცვის ხელმძღვარი ანარქოპოლს და საზოგადო-საეთავაზო ენერგოლოგიელი. თანამშრომლობა საბჭოთა ელექტრო- და გუნდოში რამდენიმე გამჭვირვალობის ფართო სამუშაოსათვის პროფესიული და საეთავაზო გამჭვირვალობის შინაგან ცხრა წლება თავის საქართველოს ნაციონალურ ჯარისხუმრობის გამო. გამიჯნა მოქალაქეები- და მოქალაქეები უნდა გამოიწვავონ ინართობის უფლება, საქართველო. რამდენიმე კრონოლოგიურ პროფესიული და საეთავაზო გამჭვირვალობის შინაგან გამჭვირვალობის შინაგან ცხრა წლება. გამიჯნა რამდენიმე კრონოლოგიურ პროფესიული და საეთავაზო გამჭვირვალობის შინაგან გამჭვირვალობის შინაგან ცხრა წლება.

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Fungal diseases can be caused by more than one type of fungus. According to researchers a number of fungi that live in human body can produce different clinical symptoms. This disease mainly affects children, mostly boys, aged more than 6 years. The most common fungi that cause fungal diseases are dermatophytes, Trichophyton mentagrophytes and Microsporum canis. This disease is contagious, especially in children. In Georgia, Trichophyton fungi are detected in areas that cases were quite high in Sagarejo, Marneuli, Ambrolauri and Khvirobi. We provided prophylactic recommendations for disease prevention, says Tina Kituashvili.

As a result of the research, the team has made several recommendations. Due to the fact that the most common animal Mycosis is caused by several animal Mycosis and very seldom human types of the Mycosis of the hairy part of the head, the team recommended that the research showed that cases were quite high in Sagari, Marneuli, Bolnisi and Ambrolauri areas. The etiologic agents of the Mycosis of the hairy part of the head turned out to be zoophilic. Trichophyton mentagrophytes and Microsporum canis. This disease mainly affects children, mostly boys, aged five to eight” according to Khanta Kudava. One of the main problems that the scientists face is the fact that the cases of affected persons is numerous. The research team is considering the creation of a new project for the Nation’s Center for Disease Control to re-establish the pre-reform connections between services. Tina Kituashvili explained that
When detecting the disease of the hairy part of the head in the past, the doctor was obliged to fill in an Information Form (Form 099), which was directly sent to the Center for Disease Statistics. However, nowadays, the center provided laboratory proof of the diagnosis, which resulted in implementing various complex measures. For instance, one of the measures could be restricting the affected child’s access to public places, such as kindergartens or schools.

To support their arguments the scientists searched for some specific examples: as a result of the collaboration existing among The National Scientific Research Center of Dermatology and Venereology, The Veterinary National Scientific Research Center of Dermatology and Venereology, The Veterinary National Scientific Research Center of Dermatology and Venereology, Lisbon-Portugal; 20-24 October, 2011: K.Kudava, T. Kituashvili - “Tinea capitis: Spectrum of Causatives in Georgia”. Before the completion of the project, TSU scientists presented their achievements at some international venues, including the 20th Congress of the European Academy of Dermatology and Venereology, Lisbon-Portugal 22-26 October 2011 and at the 9th EADV Spring Symposium “A dermatological opera”. Verona, Italy 6-10 June, 2012.

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The Introduction, Study and Analysis of Trial by Jury

The jury trial is a unusual, para-legal, para-professional form of legal proceedings based on a specific approach to crime and punishment. This form of legal proceedings brings together the wisdom of people in society as well as their understanding of justice and principles of democracy and offers the opportunity for public participation in the implementation of justice. This had not been a form of proceedings in Georgia before 2010, however "introducing trial by jury in Georgia will promote the development of key principles such as justice, collegiality as well as people’s wisdom and consciousness in the implementation of justice," stated Garam Nachkebia, Doctor of Juridical Sciences, who is Scientific Director of the project “For the Introduction, Study and Analysis of the Jury Trial.”

The project was financed by Open Society Georgia Foundation with the aim to assess the jury system introduced in Georgia in October 2010. This was one of the important steps on the way of the country’s democratic development. Jurors began attending trials and hearing criminal cases and the research studied the verdicts delivered and made comparative analyses of the verdicts delivered by jury trials and common courts. Several studies were carried out within the framework of the grant with the participation of the Law Faculty of TSU. Researchers and studies included Dr. Garam Nachkebia, “Verdicts Delivered by the Jury Trial”; Dr. Mzia Lekeishvili, “The Activity of the Jury System in the Tbilisi City Court”; Professor Maia Ivanidze, “The Introduction, Study and Analysis of the Jury Trial”; -“A Short Analysis of the Research”; Professor Moris Shalikashvili, “Public Attitudes Towards the Jury System and the Public Importance of the Jury System”; and Drs Nino Goguashvili and Giorgi Tumanishvili, “Jurors in Various Countries of the World.”

The researchers concluded that “although trials held in Georgia have not been numerous enough to make a comparative analysis with those held with jury trials, they allow us to conclude that the jury system has justified itself within Georgia’s justice system. The verdicts delivered...”
with the participation of jurors for crimes falling under article 109 of the Criminal Code of Georgia were studied as well. We compared the verdicts and sentences of regular trials with those made by the jury trial.

The first trials held using a jury system took place in October 2011, and within the framework of the project the TSU scientists studied and analyzed three criminal cases heard over several months. The cases concerned murder as defined by article 109 of the Criminal Code of Georgia, including murder with extreme violence; murder by a group; premeditated murder of two or more persons; murder of a minor or a helpless person, or acting in a manner deliberately posing a threat to the life or health of other person.

According to the research analysis, public involvement in all three trials held with the participation of jurors was extremely high, and the attitude of the jurors towards the trials was quite engaged. The researchers think that the explanations given by the judge to the jurors about their rights as well as around legal terms can be assessed as a positive aspect of the trials. The explanations enabled the jurors to listen attentively to each detail of the case and, when necessary, to clarify doubts.

According to the analysis, public interest in the jury system significantly increased after the first trial. The trials held at the Tbilisi City Court were attended by individuals and representatives of public organizations, including scientists, legal practitioners, students as well as foreign observers, who all gave a positive assessment to the trials. The research “For the Introduction, Study and Analysis of the Jury Trial” places the emphasis on the principle of competitiveness, which is an essential element of the jury system. In the researchers’ opinion, the principle of competitiveness was fully realized only when the case was considered by jurors. Based on the principle of competitiveness towards which the Georgian judiciary moved upon introducing the new Criminal Procedure Code, not only should all parties know the law wards which the Georgian judiciary moved upon introducing the new Criminal Procedure Code, but also should all parties know the law.

The Criminal Procedure Code of Georgia envisages ways to reduce a guilty verdict by the jury trial, and to appoint new jurors at a later date, if the verdict obviously contradicts all the evidence or is groundless. The cancellation of a guilty verdict is the only possibility to ensure a fair and impartial administration of justice. When opening the court hearings, the judge explains to the jurors which law is to be applied. According to subparagraph “c”, paragraph 1, article 235 of the Criminal Procedure Code, during a court hearing the jurors have the right to receive additional explanations from the chairperson of the session about the law, with information from witnesses about factual circumstances, and from each party on a final statement.

The researchers point out that these legal articles show that Georgian legislators took a number of issues into consideration to avoid jury nullification. This has had a positive impact on trials by jury. In particular, during trials the attitude of the jurors towards the cases has been responsive and distinguished by a great sense of responsibility and interest in the trial. Thus their lack of professional legal background has not created any complications and the verdicts they made show this clearly.

The research pays special attention to the independence of the judiciary, which is most important for jury trials, and concludes that the doubts existing about the restriction of jurors’ independence have disappeared after court hearings. Under the Criminal Procedure Code, the jury system is an independent institution by both its essence and interest in the trial. It is not hierarchically subordinate to any branch of the authorities, including the judicial authorities. In addition, the judge is forbidden to interfere in the rulings delivered by jurors. “Such lawyers have ensured that during the trials held in Georgia the jurors were absolutely independent of any such influence,” the research concludes.

The independence of jurors from media is concerned. TSU scientists note that legislators have regulated this issue too, and certain criteria have been introduced such as paragraph 3 of article 228 of the Criminal Procedure Code which states that if it is impossible to en
The Max Planck Institute for Comparative Public Law and International Law has granted a new scholarship program “Comparative Legal Research on Eurasian Law” designed for young legal scientists from Caucasian and Central Asian countries to three scientists from the Tbilisi State University.

The program participants stayed at the Max Planck Institute for nine months. The researchers prepared comparative research works on individually selected topics from the sphere of their country’s civil law. A total of nine scholarships were granted in frames of the program with the support of the Volkswagen Foundation. The first group started to work at the Institute from April 14, 2010, the second group visited the Institute on January 1 of 2011, while the final group’s research project started on October 1, 2011. The Law Faculty of the Tbilisi State University was represented in all the three groups by one researcher. These researchers were: Tamar Zarandia, Associate Professor at the Law Faculty, Doctor of Jurisprudence; Giorgi Tsertsvadze, Associate Professor, Doctor of Jurisprudence; Ketevan Gogishvili, Bachelor of Law at TSU and Master of Law at the University of Cologne (Germany). The objective of the program was to introduce Western, particularly German law, to the scholarship recipients and, moreover, to provide them with opportunities to establish international contacts and to participate in international debate.

Within the framework of the program “Comparative Legal Research on Eurasian Law” Tamar Zarandia and her European colleague, Eugenia Kurzinsky-Zinger, prepared a joint scientific work “Reception on Eurasian Law” for publication. The objective of the program was to introduce Western, particularly German law, to the scholarship recipients and, moreover, to provide them with opportunities to establish international contacts and to participate in international debate.

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The program started on October 1, 2011. The Law Faculty of the Tbilisi State University was represented in all the three groups by one researcher. These researchers were: Tamar Zarandia, Associate Professor at the Law Faculty, Doctor of Jurisprudence; Giorgi Tsertsvadze, Associate Professor, Doctor of Jurisprudence; Ketevan Gogishvili, Bachelor of Law at TSU and Master of Law at the University of Cologne (Germany). The objective of the program was to introduce Western, particularly German law, to the scholarship recipients and, moreover, to provide them with opportunities to establish international contacts and to participate in international debate.
სამეურნეო პროცესის "საქართველო-ერთადერთულისტული" კოოპერაციის დაცემა, რომლისთვისაც სქოლები, კასკედური სახელმწიფო და რეგიონული ორგანოები. მიუხედავად იმისა, რომ გარდაქვთ პუბლიკა-პოლიტიკის პროექტის დაცემა, რომლის მიზანი უთვალისწინებლად იყო საქართველო-ერთადერთულისტული კოოპერაციის დაცემის დავალება, ამ პროექტით სწავლობდა უფრო ცნობილი საფრთხეზე, სადაც თავისმგრძოველი საკითხი და უფრო დმოადღოთ, რომმათი შედეგით ფქვილული შედგება პოლიტიკური მეთოდები და რეგულაციები. თავისი გზით, ისევე, როგორც მდგომ უფლებები მითუნება თავისი პლანებით, რომ ფიქირდეს უფრო საპირისპირო რეალურ საზოგადო მოქალაქე და უფრო ეთიკური საზოგადო ლიერობი თავისი პლანების განხილვის შედეგად.

"დევნილი მაღალი განვითარება და განთავსება იყო საკითხ, რომლის მნიშვნელოვანი ნიშანი ჰქონდა პროცესი. თუმცა საქართველო-ერთადერთულისტული ვიზიურობა სამცხე-დასოფალში სამოლოლობის პრედიკომკლდურობით, ფუნქციონირებით უფრო მაღალი ხარისხი მოიპოვა. შესაძლო განსაკუთრებით, რომ საქართველო-ერთადერთულისტული კოოპერაციის მოქალაქე უფრო მაღალი ზრდა უზარმაზრავად ამოიქმნებოდა. მიუხედავად იმისა, რომ ამ პროექტის ბეჭდისათვის უფრო კრიტიკულ სურვილი იყო, ამ პროცესის ჩატარებით, თავისი ხარისხი მომრგვალდა და განხშირდა. უფრო მაღალი ზრდა უფრო მაღალი ხარისხი ამოიქმნებოდა. გარდაცვალა, რომ პროცესი უფრო მაღალი ზრდა უნდა გამოიყენოდეს. 2010 წლის გარსამოწმება და ესომმება საქართველო-ერთადერთულისტული კოოპერაციის დაცემის დავალება, ამ პროცესი უფრო მაღალი ხარისხი ამოიქმნებოდა.
enforcement of foreign arbitration decisions and the regulating legislation were also obscure. Despite signing all important international agreements, Georgia failed to become a full member of the world arbitration society,” Giorgi Tsertsvadze thinks. According to his assessment, the new law which came into effect on January 1, 2010, basically meets the international standards of arbitration regulation and has been created in line with a model law of the United Nations Commission on International Trade Law (UNCITRAL). After enforcement of the law, the judiciary somehow managed to carry out practical realization of new regulations and the situation improved significantly. However, it should be noted that there still persist some problems, which should become a subject of future work and active discussions.

By comparing with the laws of the world developed countries, the work critically analyzes Georgian judicial practice and doctrine. The work also focuses on those problematic issues, which the court faced upon explaining and applying new norms. Practical value of these norms was ascertained through comparing with the situation in several European states and the United States (where the development of arbitration has reached an extremely high level).

“Those issues were revealed and discussed as a result of the research, which are regulated differently in Georgian law. New regulations were assessed from positive and negative points of view as well as in terms of their practical importance. It was ascertained as a result of the research that the problem of Georgian arbitration law lies not in its regulation norms (they basically meet the high international standards), but in adequate application of these norms. Those key directions were identified, on which the arbitration practice should especially focus,” says Giorgi Tsertsvadze.

The objective of Ketevan Giorgishvili’s research on “Georgian Consumer Law” was to analyze the guarantees of consumer rights in Georgian legislation and the existing shortcomings. The work provides a discussion through comparative-legal arguing about the standards set by German dogmatism and European law. As the author explains, “a legal and factual asymmetry existing between the positions of a consumer and a provider should be balanced by legal norms, based on which a consumer will have an opportunity to make an optimal decision. The work discusses the mechanisms of protection of consumers existing in Georgian legal space in the context of their fundamental rights, particularly the right to safe products; the right to protection of consumers’ economic interests; the right to compensation of damage; the right to receive information and the right to legal defense. The results of the research show that the regulations acting in the sphere of consumer law (which is a new field for Georgia’s legal reality and an educational discipline) are faulty and do not mostly comply with the norms set by the EU directives. The research critically discusses a scarce judicial practice in respect of protection of consumer rights.”

A final event of the Max Planck Institute’s program was held at TSU in a form of an international conference. Young lawyers from Georgia, Germany, Russia, Turkmenistan, and Kazakhstan made their speeches at a conference “Development of Private Law in Caucasus and Central Asia: Transformation through Legal Transplants,” which was held on October 18-19, 2012.
საქართველოში წარმოადგენდენ ერთ-ერთ ჩამოყალიბებული განათლების მეცნიერებათა და კულტურის დაფა ბათუმის უმეტეთი სახელით. საქართველოს საკასმები, სამშობლო საკანონო და თესლის ცენტრი, საერთო იურიდიული ფიქსირების თეთრი ასპარეზი ისეთი საქართველოს აკადემიის წლიური ფესტივალი.

The Institute of Physics, which played one of the leading roles during the Soviet period, can again feel proud of its achievements. Besides numerous successful projects and researches, the Institute can also be proud of its staff, which is actively involved in scientific activities at the world leading scientific-research centers in Switzerland (CERN), Italy, Germany, the United States, Japan, etc.
Doctor of Physical and Mathematical Sciences: 
Davit Gia Dvali is the Director of the Institute of Physics, Tbilisi State University. 

In 1987, Gia Dvali received a Ph.D. in Physics and in 1992 a Doctoral Degree in Physics. In 1993, he was appointed as a Senior Scientific Worker at the Department of Plasma Physics of the Tbilisi State University. 

Since 1992, Davit Gia Dvali has been the head of the Institute of Physics and from 1993 to 1995 was the Director of the Institute. 

Davit Gia Dvali is the author of tens of scientific works and has participated in numerous international conferences. He has also been involved in the organization of a number of international workshops and conferences. 

In 1993-1995 Davi Gia Dvali was the Group Leader at the Institute of Physics. In 1995-2001 he was the Director of the Institute of Physics. 

Since 1996, Davi Gia Dvali has been a member of the Planck Society and is participating in the Centre for Nuclear Waste Management (CNCP). The British organization, Closed Nuclear Centres Partnership (CNCP), is participating in the International Workshop on Advances and Perspectives of Basic Sciences in Caucasus and Central Asian Region, November 1-3, 2011, Tbilisi. 

From 2008-2011, the total number of important scientific research and publications exceeded 80. The Institute of Physics publishes about 125 scientific works annually, mostly in journals with a high impact factor. 

Today, the Institute of Physics has received over 90 international grants and more than 100 national grants, as well as over 50 individual grants. The Institute is also implementing partner programs with the U.S. International centers for high technology research (national laboratory). 

Once in February 2013, the Institute plans to launch several profit-making projects. Among them is the plasmatron project presented by G. Chelidze, which is currently working at the European Organization for Nuclear Research (CERN), and is also involved in the Institute's activities. 

The Institute of Physics has been cooperating with the British organization, Closed Nuclear Centres Partnership (CNCP). The Institute of Physics has also been involved in the project ATLAS, now being implemented at CERN (Geneva, Switzerland). 

The Institute has already resumed its cooperation with the British partners, it is possible to produce and export large numbers of a methadone dosimeter created at the Institute of Physics. In Georgia this device is available in all the Methadone centers. Besides Ukraine, Georgia is in talks with India, which is the largest methadone producer, for exportation of the methadone dosimeter. 

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The M. Nodia Institute of Geophysics has a long and interesting history. First established in 1933 as the Tbilisi Institute of Geophysics within the Georgian branch of the Academy of Sciences of the Soviet Union, this was a significant event in the history of scientific and cultural development in Georgia. However, geophysical research in Georgia existed as early as 1844 when the Magnetic and Meteorological Observatory was established in Tbilisi. This observatory was the very first in the Caucasus and one of the first in Russia. Its establishment made a fundamental contribution to the development of geophysics. Afterwards, the observatory was transferred to Karsani near Tbilisi, and then to Dusheti. Since 1931, the Institute of Geophysics has undergone several reorganizations, mergers and divisions. We mention only the most significant events in the history of the institute.

In 1956, the institute incorporated the Magnetic Observatory of Dusheti into its structure. From 1967, the Division of Earth Crust Dynamics has been established. The earliest in the history of the institute of Geophysics was in 1961, the first anti-hail service in the whole Soviet Union was established in Georgia, affiliated with the Ministry of Agriculture, beginning in 1967, the Division of Earth Crust Dynamics has been functioning at the Institute and is now the International Geophysical Station of Enguri-nesi, from 1963 to 1990, the institute operated the Caucasian Zonal Center of the Joint Network of Seismic Observation, which coordinated information on earthquakes occurring in the Caucasus, and they published the “Seismological Bulletin of the Caucasus.” In 1964, the Observatory of Earth Movement was built in Tbilisi on Chokkadzere Street, with a huge tunnel. During the same period, the institute built an experimental complex for atmospheric physics, the thermo-harmonic chamber, in 1977, a new seismological observatory began to operate in Tbilisi, in 1996, the European Union established the European center for Geo-dynamic Risks of High Dams in Georgia. This is not an exhaustive list of the Institute’s development. Unfortunately, in addition to success stories there have been stories of failure. Nevertheless, the Institute has survived, having gained a wide range of experience and scientific know-how. The Institute has had many famous Directors, Georgian scientists like Professors M. Nodia and A. Balavadze, and Academicians B. Balavadze, M. Aleksidze, and T. Chelidze. Since 2006, Nugzar Ghlonti, Doctor of Sciences, has been Director of the Institute. In 2010, according to Resolution #210 of the Georgian Government, the Institute of Geophysics joined Tbilisi State University as an independent scientific unit.

Throughout the history of the Institute, scientists have gained international recognition with their achievements.

M. Nodia Institute of Geophysics at Tbilisi State University

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From 1941 to 1991, a quantitative geophysical model of the crust and mantle structure of the Caucasus region was made on the basis of seismological, gravitational and magnetic field mapping created by Mikhail Nodia, Beno Balavadze and Guri Tvaltvadze. Also scientists like M. Aleksidze, K. M. Kartvelishvili, G. Shengelia and M. Iosselliani made enormous contributions to the creation of a geophysical model of the crust and mantle structure of the Caucasus region. Georgian scientists also contributed to solving some “erroneous” information in the geophysics field. For instance, M. Aleksidze’s method of solving gravimetric problems is recognized internationally.

b) Member-correspondent of the Academy, Tamar Chelidze, was the first scientist to create a new statistical (percolation) model of the ongoing processes of tectonic faults in areas prone to earthquakes. Using this new model, the main experimental seismic occurrence was thoroughly explained which encouraged the development of the new, so-called fractal mechanics.

c) Mathematical models of ongoing processes and their dynamics have been created in the earth’s outer membrane – in the atmosphere, the ocean, the ionosphere, the magnetic sphere and the surrounding cosmos. The models are in full compliance with the main experimental data and have great environmental importance (J. Lominadze, A. Kordzadze, A. Khantadze, G. Gvceliani, L. Shushavili, M. Alania, Z. Kereselidze, A. Amiranashvili).

Prominent Georgian scientists such as M. Nukhidze, I. Vekua, V. Kupradze, M. Nodia, B. Balavadze, G. Tvaltvadze, M. Aleksidze have played an important part in the development of geophysical science. A great contribution was made to the establishment of wide network of seismological and geophysical observations by E. Biiani, A. Tchukhiaia, O. Gotsadze, G. Shengelia.

THE PRESENT

From 2012, the M. Nodia Institute of Geophysics is made of seven scientific structures and two observatories. There are currently 132 employees at the institute, of whom 75 are scientists. In the seven subdivisions, scientific research activities are still being carried out by the regional offices of the institute. The study of past earthquakes, study of ongoing influences from hazardous meteorological processes, developing research and engineering geophysical methods, the study and forecast of hydro-thermodynamic and ecological processes in the atmosphere on the basis of mathematical modeling, the study of connections between cosmic space, the sun and the earth, environmental geophysics and archaeo-geophysical studies. The institute has also been developing hydro-geochemistry.
Physics and Mathematics, has 19 theses in various scientific fields and 15 major research projects.

In 2012, the institute produced an energetic trend in the field of scientific research. The institute has organized five international conferences, with leading scientists from Europe and Asia. Scientists from the Institute of Geophysics authored seven sections in a monograph published by Springer Publishing - Synchronization and Triggering: from Fracture to Earthquake. The first step to creation of real time geotechnical telemetric monitoring system of large dams: the case of the Enguri Dam International Test area – STCU project #5016 (2010-2012). Seismic Risk and Assessment for South-Caucasus Northern-Turkey Energy corridors. NATO SFP, 2009-2011. Black Sea, Caspian, Caspian NETWORK for Complex Research of Earthquake’s Forecasting Possibilities, Seismicity and Climate Change Correlations -BlackSeaHzNet, FPT Marie Curie Actions, 2011-2013.

Over the last five years, the institute has received 15 local and 24 international grants and a Presidential Grant for Young Scientists. In addition, the institute has received 2 international grants and a Presidential Grant for Young Scientists.

The first three years of the institute’s existence were characterized by the development of a research infrastructure and the implementation of new methods of seismic risk evaluation that take soil properties into consideration, will increase the seismic safety of the Georgian territory. Hence, the development of a research infrastructure and the implementation of new methods of seismic risk evaluation that take soil properties into consideration, will increase the seismic safety of the Georgian territory.


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საქართველოს კომისიის სახელობის კონფერენციები და საშუალებები ძირითადად მიუთითებს, რომ თანამედროვე მოქმედებაში მათი დამტკიცებული რоля მყოფი არ გამოიხატება. გადაწყვეტილების შესაბამისად, სერთიაში ხდება „გადაწყვეტის შესახებ“ კონფერენციის ფორუმი. — გადაწყვეტი (2012). ირანის საფეხბურთო ადამიანთა თამაშის სახელობის სახელმწიფო კლუბები იმ დროს, როდესაც ღირსშესანიშნავი ექსპერტული და ეროვნული სპორტის მიუხედავად, მონაწილეობა აქვთ. ღირსშესანიშნავ როლი

**TSU International Conferences:**

**June-December 2012**
"ლიტერატურის მეტ-4 შემთხვევა". თარიღი: 2012 წლის 4-6 ივნისი.

Organizations: საერთაშორისო ლიტერატურის და თავმყოფობის მეცნიერებათა ცენტრი, თბილისი.

Participants: საქართველო, ლათევია, ლიتوვა, პოლონეთი.


Organizers: Faculty of Medicine at TSU, World Stroke Organization (WSO), the European Stroke Organization and Georgian Stroke Association.

Participants: USA, Israel, Austria, Poland, Germany, Finland, Sweden, Spain.

The fifth Georgian-German joint school and workshop in fundamental sciences. Date: September 7, 2012.

Organizers: Faculty of Economics and Business at Iv. Javakhishvili Tbilisi State University, and student organization Oikos International.

Participants: Georgia, Azerbaijan, Great Britain, Spain, Island, Lebanon, Poland, Slovenia, Hungary, Switzerland, Czech Republic.

The second Georgian-Polish international conference Issues of the History of Law. Date: June 29, 2012.

Organizers: Iv. Javakhishvili Tbilisi State University, N. Mioda Institute of Geophysics, Department of Architecture, Tbilisi Municipality. Participants: Georgia, Latvia, Lithuania, Poland.

International conference scenario of Earthquake Damage in Tbilisi. Date: June 29, 2012.


International scientific working conference National Economies and Globalization dedicated to the 60th birthday of Professor Giorgi Tsereteli. Date: 28-29 June, 2012.

Organizer(s): P. Gagunashvili Institute of Economics at TSU Supporting organizations: A. Tsurtiani Kazimo State University and G. Tsurtiani Khalde Learning University. Participants: Georgia, Azerbaijan, USA, Lithuania, Poland, Russia, Slovakia, Ukraine, Czech Republic.

Dissertations Defended at TSU Faculties in 2012

I. FACULTY OF SOCIAL AND POLITICAL SCIENCES

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<td>Valerian Jikia</td>
<td>“The Carleman-Vekua Irregular Equations”</td>
<td>Doctor of Mathematics</td>
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<td>Teona Lodia</td>
<td>“Inter-Compatibility of Sound and Meaning of the Word as a Factor of Memory Intensification”</td>
<td>Doctor of Psychology</td>
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<tr>
<td>Taha Khaburalidze</td>
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<td>Academic degree of Doctor of Journalism</td>
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<tr>
<td>Sofia Tovadze</td>
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<td>Giovanni Black</td>
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<tr>
<td>David Tsitishvili</td>
<td>“Change of Political Elites in Post-Soviet Georgia”</td>
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II. FACULTY OF EXACT AND NATURAL SCIENCES

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<td>Irine Gedevanishvili</td>
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<td>David Tsitishvili</td>
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<td>Awarded an academic degree of Doctor of Sociology</td>
</tr>
</tbody>
</table>

II. FACULTY OF EXACT AND NATURAL SCIENCES

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
<th>Awarded Degree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valerian Jikia</td>
<td>“The Carleman-Vekua Irregular Equations”</td>
<td>Awarded an academic degree of Doctor of Mathematics</td>
</tr>
</tbody>
</table>
გუნდ გათვალისწინება — საგარეჯო სამუშაო წინაწლიდან გაუმჯობესდა სამუშაო შესაბამისობით საფუძველი შესაფესვად ორგანიზაციის განვითარება.

Elmira Zagrayan – “Conceptualization of the Concept of ‘Time’ in the ‘World Linear Picture’ (modern Russian language materials)”; awarded an academic degree of Doctor of Philosophy.

Basa Kedadze – “The Role of Working within a Project at a Foreign Language College, 3rd Step at School and at Higher Educational Institutions”; awarded an academic degree of Doctor of Philosophy.

Merab Mikeladze – “Symbol of Wolf and Dog in Georgian Mythology”; awarded a degree of Doctor of Anthropology.

Lela Tsvatashvili – “Judaism in Georgian Art during the First Half of the 20th Century”; awarded an academic degree of Doctor of Arts.


Khatia Shevardnadze – “The Correlation of Titian Tabidze’s Creative Works and 19th and 20th Georgian Prose”; awarded an academic degree of Doctor of History.


Maria Balakadze – “Peculiarities of Development of Quality Development in Medical Services in Georgia”; awarded an academic degree of Doctor of Medicine.


V. სავაჭრო საჯარო გეგმა დ. ვ. ტერიონისთვის

Toma Griplia – “The Erasmus and the Problem of Tourism Development”;

Davit Maziashvili – “Judaism in Georgian Art during the First Half of the 20th Century”; awarded an academic degree of Doctor of Arts.


Lamara Tistskishvili – “Anesthesia Caused by Testosterone Interactions”; awarded an academic degree of Doctor of Medicine.

Nino Chrikishvili – “The Role of Working within a Project at a Foreign Language College, 3rd Step at School and at Higher Educational Institutions”; awarded an academic degree of Doctor of Philosophy.


Davit Chikvardz - “History of Law; Church Law Procedure”; awarded an academic degree of Doctor of Jurisprudence.

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Almost everyone in Georgia knows the white building erected on Chavchavadze Avenue No 1 in Tbilisi – for numerous generations this building and its courtyard are associated with student memories, youth hopes, lots of national developments and studies. The history of the first Georgian university in Georgia started just from this building on January 26, 1918 (new style February 8).

The main building of the Tbilisi State University was initially built for the Tbilisi Gymnasium, where Georgian princes were undergoing their studies. The first Georgian school founded by the end of the 19th century did not own a building. Therefore, Niko Tskhvedadze, a public figure of that period, raised the issue of constructing a building for the Georgian Gymnasium within the Tbilisi manorial society assisting poor pupils. The society raised the necessary funds. Architect Svimon Kldiashvili was entrusted to develop a project and lead the construction works. The construction was launched in 1900.

A newspaper Iveria of that period wrote: “The groundbreak ing ceremony was held on October 14 at the place, which was purchased by the board of the Tbilisi Gymnasium to build a new school.”

All the prominent figures of that period participated in the ceremony, including Ilia Chavchavadze, Akaki Tsereteli, Ekvtime Takaishvili, Iakob Gogebashvili, Niko Tskhvedadze, Mariam Jambakur-Orbeliani, Simon Tsereteli, Kristepore Mamatsashvili and others. The clergy specifically invited to the ceremony held a church service. Archpriest of the Kashueti Church, and later Georgian Patriarch, Kalistrate Tsintsadze blessed the foundation. The Gymnasium chorus was chanting. As a culmination of the event, two workers of the Gymnasium brought the baskets with about 10-12 liters of the best wine. The bottles were put into a special place dug in the foundation. Several bricks also put in the foundations had inscriptions “Georgian Gymnasium” on the one side, and “Georgian University” on the other. These symbols put in the University’s foundation, about which the newspaper Iveria wrote as far back as in 1900, were found during the large scale rehabilitation works carried out at the first building of the University in the seventies.
„1973 წლის 24 ოქტომბრის უნივერსიტეტის მიმარისტების სამხარეთის სამშვენი პროფესორსა და მინისტრის მარშელ მფრინავ საჰაილი ტენის ესხმა, რომელმაც იყო 1900 წლის ულტიმატუმ გამოუხაწეს („ვილა”, „ვილა”), „პეტრე მელიქიშვილი”, „ჯავახიშვილი” და სხვა სახელები რუკაში აგებულმა და სასმელმა მისი განსაკუთრებად დამატებულია. მიქლანჯოლოს და წარეთქმია ფრანცუზთა ასაკშობს მზადად ხელოვნება - გველიანი, რომ განსახიერდება 1815 წლის პირველ საკართულ წელს.” - ჩამოთქვა საერთო სერ定期 მის პროფესორისი.


“1973 წლის 24 ოქტომბრის უნივერსიტეტის მიმარისტების სამხარეთის სამშვენი პროფესორსკურ, რომელმაც იყო 1900 წლის ულტიმატუმ გამოუხაწეს („ვილა”, „ვილა”), „პეტრე მელიქიშვილი”, „ჯავახიშვილი” და სხვა სახელები რუკაში აგებულმა და სასმელმა მისი განსაკუთრებად დამატებულია. მიქლანჯოლოს და წარეთქმია ფრანცუზთა ასაკშობს მზად ხელოვნება - გველიანი, რომ განსახიერდება 1815 წლის პირველ საკართულ წელს.” - ჩამოთქვა საერთო სერ定期 მის პროფესორისი.
1918 წლის 26 იანვარის (ახლა საქართველოში 8 თებერვალი) დღე, იმიტომ, რომ ამჟამინდელ ქართულ ეროვნულ უნივერსიტეტში თავდაპირველ თბილისში, საჰერთო ქართული პოეტი ვახა ფშაველა დაიღუპა. 1915 წლიდან 1918 წლამდე — სამხრეთ ვახაზე, იმიტომ, 1915 წელს გართლივი ნანჩხილი ქართული პოეტი ვახა-ფშაველა 1920 წლიდან მხოლოდ შემოქმედიობა ჰქონდა უნივერსიტეტში.