

Contents

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A SCIENTIST'S VIEWPOINT

Emilia Pernishka: Some Current Problems of Science and Education in View of the Bulgarian Language

SOME CURRENT PROBLEMS IN SCIENCE AND EDUCATION IN VIEW OF THE BULGARIEN LANGUAGE

Emilia Pernishka

Abstract

Writing literacy and linguistic culture has remained at a low level during the last decade. The tasks of linguists should be rethought and become more pragmatically oriented – to strengthen the links with schools and media through publications and other materials that are more interesting and entertaining, including competitions and cartoons, and to work with the Ministry of Education and Science on changing the curriculum in Bulgarian language by introducing more practical exercises and less theory.

24TH OF MAY – DAY OF THE BULGARIAN ENLIGHTENMENT AND CULTURE AND OF THE SLAVIC ALPHABET

Damian Damianov: The Mission of Cyril and Methodius and their Modern Heritage

THE MISSION OF CYRIL AND METHODIUS AND THEIR MODERN HERITAGE

Damian Damianov

Abstract

The paper is based on the speech of the Vice President of Assembly of the Academicians and Corresponding members of the Bulgarian Academy of Sciences (BAS) on the celebration of the 24th of May – Day of the Bulgarian Enlightenment and Culture and of the Slavic Alphabet. It is focused on the role of the holy brothers Cyril and Methodius – the people who gave our alphabet, in science, education and culture in Bulgarian. In his speech Acad. Damyanov appeals for a long-term vision and look on the future of science and education in Bulgaria.

Elka Mircheva: Glory to the Work of the Holy Brothers Cyril and Methodius

GLORY TO THE WORK OF THE HOLY BROTHERS CYRIL AND METHODIUS

Elka Mircheva

Abstract

The papers emphasizes the role of Bulgaria for preserving and continuation of the deed of St. St. Cyril and Methodius, the creation and dissemination of the Slavic literature that has laid the foundation of the third European civilization – the civilization of Slavia Orthodoxa.

Keywords: St. St. Cyril and Methodius, Old Bulgarian language, Slavic education and culture

Lyubka Burmova: The Holy Brothers Cyril and Methodius Historical Mission for the Introduction of the Church-Slavonic Worship

THE HOLY BROTHERS CYRIL AND METHODIUS HISTORICAL MISSION FOR THE INTRODUCTION OF THE CHURCH-SLAVONIC WORSHIP

Lyubka Burmova

Abstract

The Holy brothers Cyril and Methodius great deed started as a mission for the introduction of the Slavonic language in the Church worship and continue with the clerical, liturgical and didactical activities of their disciples.

In the IX century the Great Moravian Church aims at breaking away from the German clergy and direct its attention to the influential Byzantine Empire with the considerable hope to acquire a complete church autonomy. Upon approval by the Emperor's Council, the Holy brothers Constantine–Cyril and Methodius conducted their significant spiritual mission. After the dead of St. Methodius the German clergy expelled the Slavonic language from the worship and displace the Holy brother's disciples from the churches. Although disapproval of the German ecclesiastical authorities

the deed of St. Cyril and St. Methodius strongly influenced the liturgical practice of the Church and led to considerable geopolitical events. The Bulgarian Prince Boris I accepted the disciples in Bulgaria. He encouraged them to disseminate the Slavonic alphabet and the Scripture and to organize the worship through the Bulgarian State. This policy led to the spiritual, and cultural development of Bulgaria and also in the number of different Slavonic states and remained vivid throughout the centuries.

Rositsa Stoyanova: *Serving my People... Donating for Education – Tradition and Contemporaneity*

SERVING MY PEOPLE...

DONATING FOR EDUCATION – TRADITION AND CONTEMPORANEITY

Rositsa Stoyanova

Abstract

On May 25th, 2017, in the building of the National Council, a documentary exhibition titled „Serving My People... Donating for Education – Tradition and Contemporaneity“ was displayed. It was dedicated to an interesting, although unfortunately not well known page of our own history. Photos, documents and texts revealed the tradition of donating and charity in favour of the people’s education which had existed from the late 19th century until the mid20th century. As part of a large-scale interdisciplinary scientific project dedicated to the culture of donating for education, it also presents the acts of generosity we see today. Three units of the Bulgarian Academy of Sciences are involved in the project implementation – the Institute for the Study of Societies and Knowledge, the Institute for History Studies, and the Institute of Information and Communication Technology, as well as the South-West University „Neofit Rilski“. The scientific researches within the project and the exhibition itself are funded by the Scientific Researches Fund.

WORLD SCIENCE

Petar Popivanov: Yves Meyer Received the Abel Prize for Mathematics for 2017

YVES MEYER RECEIVED THE ABEL PRIZE FOR MATHEMATICS FOR 2017

Petar Popivanov

Abstract

This short note deals with elements of the scientific biography of the famous French mathematician Y. Meyer. He has many significant contributions in the theory of wavelets, harmonic analysis partial differential equations and their applications in fluid theory, astronomy, theory of quasicrystals and others.

The Norwegian Academy of Science and Arts committee awarded him with the prestigious prize „for his cardinal role in the development of the mathematical theory of wavelets“.

Well known now is the Meyer’s wavelet and its various applications in image processing. Besides the compression of images wavelets are used in studying of objects with complicated shape such as fractals and others. We propose here a short list of his monographs.

SCIENCE IN SERVICE OF SOCIETY

Penka Lazarova: The Japanese Experience of Building the Society of the Future through Science, Technology and Innovations

THE JAPANESE EXPERIENCE OF BUILDING THE SOCIETY OF THE FUTURE THROUGH
SCIENCE, TECHNOLOGY AND INNOVATIONS

Penka Lazarova

Abstract

Innovation is all about a new way to perceive the world – through technology processes and mindset. Speaking of innovation, what naturally comes to mind is the Japanese experience and breakthroughs in the field of technology. It is no coincidence that the winner of the 2014 Nobel Prize for Physics is a Japanese scientist – Prof. Hiroshi Amano for his work on blue LEDs and the future electronics for Establishing Sustainable Society.

The following paper summarizes the Japanese experience that intertwines science, technology and innovation, presented on the seminar held in Sofia University on April 13, 2017. The purpose of the event was to establish contacts between Bulgarian and Japanese scientific institutions

and universities and to identify priorities for developing bilateral cooperation in different fields of science, innovation and technology.

Apart from Prof. Amano captivating lecture, president of the Japan Science and Technology Agency (JST) – Mr. Michinari Hamaguchi, paid special attention to the role of the agency and its support for industry-academia cooperation to foster innovation, create jobs and realize sustainable development goals.

Mr. Nobumasa Tsutsui, president of Tokai Medical Products, gave a thought-provoking presentation on medical research and development. The mission of his company R&D oriented company for medical devices is to reflect the opinions of research and development workers in the medical field from the patient's point of view and contribute to improve patient's quality of life.

Jivka Ovtcharova: The Economy is Strongly Dependent on our Knowledge

Lidya Nedekova: The Bulgarian Participation in the European XFEL Project

HISTORY OF SCIENCE AND TECHNOLOGY

Ekaterina Tsekova, Lyuba Dashovska: National Polytechnic Museum – 60 Years Anniversary

NATIONAL POLYTECHNIC MUSEUM – 60 YEARS ANNIVERSARY

Ekaterina Tsekova, Lyuba Dashovska

Abstract

The National Polytechnic Museum (NPTM) is the only technical museum in Bulgaria and is established in 1957. Almost 35 years it hasn't got own building and exhibition halls. The curators and museum experts used that time to collect artifacts, to analyze them, to make scientific researches and to prepare temporary and mobile exhibitions – presenting them in different public places in many towns in Bulgaria and in abroad.

In 1992 – NPTM is given an own museum building and a year later the permanent exhibition is opened. It presents more than 11000 exhibits, organized in themes and collections from different spheres of the technics and science.

The first branch of NPTM is opened in 1986 – „Museum of the Textile Industry“, which is situated in the town of Sliven and it collects, preserves, researches and popularizes the textile technics and industry of Bulgaria.

One of the best achievements of the NPTM is the effective contact with its young public. The museum has a great number of educational programs for children, pupils and youngsters. These programs are very popular and attract also students, families, young scientists and researchers and all visitors, interested in technical history and contemporary STEM.

For its 6 decades – the National Polytechnic Museum is successful institution, because it works together with a lot of friends and partners from: schools and universities, science, culture, tourism, business organizations, NGO, etc. The museum attracts volunteers and donators, that support museums professional and social activities. The museum also participates in European projects.

The public describes National Polytechnic Museum as the different Museum of Bulgaria.

Boris Yovchev, Rositsa Mladenova: Great Discoveries that Led to the Invention of the Radio

GREAT DISCOVERIES, THAT LED TO THE INVENTION OF THE RADIO

Boris Yovchev, Rositsa Mladenova

Abstract

The radio is one of the most significant achievements of the humanity, but it is not a discovery as a result of a casual, accidental act, but it is a result of a creative process of many scientists, physicists, mathematicians, astronomers, painters and doctors, engineers and technicians, during the period, covering the whole XIX-th and the first decades of the XX-th century, of fundamental discoveries relating to the elucidation of the essence of electromagnetism, that led to the possibility of transmitting information at a distance - initially over wire and later - by wireless way. The article follows the main steps of this development, as well as the history of the emergence and putting into operation of the radio in all spheres of public activity, and also in Bulgaria.

GLIMPSE AT THE PAST

Valeria Fol: 45 Years since the Founding of the Institute of Thracology at the Bulgarian Academy of Sciences

45 YEARS SINCE THE FOUNDING OF THE INSTITUTE OF THRACOLOGY AT THE BULGARIAN ACADEMY OF SCIENCES

Valeria Fol

Abstract

The Institute of Thracology at the Bulgarian Academy of Sciences (BAS) was created on May 12, 1972. The Institute was named after Prof. Dr. Sc. Alexander Fol – founder and founding director – with a decision of the General Assembly of the BAS dated April 3, 2006. On June 25, 2007, the General Assembly of the BAS decided to transform the institute in Centre of Thracology „Prof. Alexander Fol“. Another decision dated July 1, 2010, unites it with the Institute of Balkan Studies.

In Bulgaria, the beginning of scientific research on the history, culture, and language of the Thracians, dates from the end of the 19th and the beginning of the 20th c. and starts with the collection and promulgation of artifacts, archaeological sites, translations, systematization and publication of written sources pertaining to Ancient Thrace and the Thracians. This is when the first general compositions on the political history of the Thracians, mainly of the Odryssians, are written. The texts concern the religious beliefs and coin minting and, with few exceptions, follow the theses of leading European scientists of that era.

Since the middle of the 20th c onwards, Bulgarian scientists partake in the tendency of European historiography to research non-literary ancient peoples are independent and equal subjects in the historical processes. The necessity of interdisciplinary research of the Thracian antiquity as well as their coordination leads to the creation of a specialized scientific institution – the Institute of Thracology.

As early as the year when the Institute of Thracology was created, the research is internationalized by means of the International Congress of Thracology in Sofia (1972). Another twelve international congresses follow – In Bucharest (1976), Vienna (1980), Rotterdam (1984), Moscow (1988), Palma de Mallorca (1992), Constanza/Mangalia/Tulca (1996), Sofia/Yambol (2000), Chişinău (2004), Komotini/ Alexandroupoli (2005), Istanbul (2010), Târgovişte (Roumania, 2013). The next international congress will take place in 2017 in Kazanlak.

Many scientists adopt a new methodology with respect to the research of non-literary peoples: analyzing and interpreting written and archaeological sources from the point of view of the non-literary people's own history and culture, and not from the point of view of Greeks and Romans, i. e., scientists apply *interpretatio thracica* – an interpretation from the point of view of the Thracian history and culture in a last cultural-historical context. The Institute/Centre of Thracology publishes monographies in the series *Studia Thracica*, studies and articles in *Thracia* and *Seminarium Thracica*, as well as in the magazine *Orpheus. Journal of Indo-European and Thracian Studies*. Following the contemporary tendencies of knowledge dissemination, the Institute/Centre of Thracology has created and maintains an online encyclopaedia „Ancient Thrace and the Thracians“ (<http://www.thracians.net/>), as well as a series of websites pertaining to specific topics.

The actuality of Thracology research as well as the large interest towards Thracology, have invited a rare, for our society, reaction from the business world. The Bulgarian Academy of Sciences, the most powerful scientific infrastructure, received two targeted gifts from Mr. Peter Mandzhukov and Dr Dobrin Ivanov, aimed to sponsor the conducting of specialized research that employs the research methods of anthropology, generics, physics, organic and non-organic chemistry, astronomy, acoustics, etc. For the first time a vast interdisciplinary project was launched, including 22 Institutes and 5 laboratories from the Bulgarian Academy of Sciences, researches from a number of Bulgarian Universities, as well as from institutes and universities in Japan, Germany, the United Kingdom, and Canada.

The marking of the 45th anniversary of the founding of the Institute of Thracology is important for Bulgarian science and culture, because it is thanks to the persevering work of three generations of scientists that the Thracians became one of the ensigns of Bulgaria. The work of these scientists cannot be express in monetary value, but with the long-term positive effects on the good image of our country in the fields of research and preservation of cultural heritage, as well as with the exceptional contribution towards the sustainable development of cultural tourism.

VASIL ZLATARSKI – PATRIARCH OF THE BULGARIAN HISTORICAL SCIENCE

Tzvetana Velichkova

Abstract

One hundred and fiftieth anniversary of the significant Bulgarian historian (medievalist) Vasil Zlatarski is a reason to look back again towards his rich documented heritage. The published here autobiography, kept up in his rich private collection, preserved in the National archives of the Bulgarian Academy of Science, is a valuable source regarding his life and creativeness.

In the foundation of his half century struggle to write „The History of the Bulgarian State during the Middle Ages“, were Vasil Zlatarski's renaissance ideas and comprehension of the past, his great systematic preparation and in general the achievements of the modern historical science.

DESERVED RECOGNITION

Vessela Vassileva, Penka Lazarova: The „Pythagoras“ Awards 2017

THE FLOOR TO THE YOUNG PEOPLE

Nikola Karavassilev: National competition „Young Talents“ 2017

The Grants of EVRIKA Foundation – an Investment in the Future

NATURAL PHENOMENONS

Dimitar Nankinov: Existence of Poisonous Quails in Nature

EXISTENCE OF POISONOUS QUAILS IN NATURE

Dimitar Nankinov

Abstract

Quail is one of the most popular hunting objects in Bulgaria, but no cases of people poisoned after having eaten quail meat have been heard of. This has happened predominantly in West Siberia, South Ural Mountains, Volga Region, Orenburg Oblast and Stavropol Krai, as well as in the regions between the Caspian Sea and the Black sea, on Aegean Sea islands, in North Egypt and South France. The toxicity of the quails is a consequence, above all, of the consumption of seeds of poisonous plants, growing in these regions, and also seeds, processed with chemical preparations, used against pests in agriculture and forestry.

ANNIVERSARIES

Academician Angel Sashev Popov turned 75

SCIENTIFIC EVENTS AT USB

Neli Dakova: Festivities on the Occasion of 90 Years since the Birth of Ivan Radoev in Pleven

Atanas Kirilov, Rajna Gindeva: From the Life of the Pleven Branch of USB

BOOK REVIEW