

Abstracts

Vorontsov V. A. The Role of Humanities in Reforming Russian Science. The article views human sciences as a key element for reforming the scientific-technological realm of Russian society, and therefore an important component of the entire ensemble of Russian reforms. In the Soviet period, human sciences, albeit heavily influenced by the dominant ideology, had been enjoying considerable support from the government, whereas in the 90s, transition to market economy resulted in the vanishing of state support of science on the whole, and particularly its "unprofitable" human component. Apart from the social-economical upheaval, the nation was subjected to a spiritual crisis. Nonetheless, the article indicates some promising signs that have emerged in the last few years, such as (i) the growing amount of young people seeking to obtain higher education, especially in the field of fundamental human sciences; (ii) the establishment of Russian Foundation for the Humanities, and (iii) the appearance of new trends in the realm of human studies. The development of civil society and the humane orientation of the current societal reforms require recognizing humanities as one of the national priorities, a prerequisite for the wholesome unfolding of the country's intellectual potential. Rather than Russia's natural resources, it is the latter which will define its future place in the world.

Sibum H. O. Reworking the Mechanical Value of Heat: Instruments of Precision and Gestures of Accuracy in Early Victorian England. The article addresses the questions of whether, and how, reworking historical experiments can contribute to the understanding of experimental practice in history. Focusing on Joule's determination of the mechanical equivalent of heat, the historical analysis involves a detailed report of the author's experiences in reworking Joule's experiment on the friction of water with different replicas of his instruments. The subsequent narrative opens hitherto unexplored dimensions of past practice. It is shown that Joule's experiment required exquisite thermometrical skills which were rare in the early Victorian physics. However, such skills were widely distributed in the brewing community to which Joule also belonged. In those days the Manchester brewing practices were undergoing major changes, indicative of a general transformation in the cultural habits of the time. Instruments of precision came to control skill, becoming representatives of accuracy. In his laboratory life, Joule created his own standards of accurate measurement, which made him the only person able to judge his results. He became a performer without audience. His attempts to communicate his knowledge reveal a hybrid of a brewer's craft consciousness with that of a gentleman specialist.

Postnikov A. V. The 1842—1844 Expedition of L. A. Zagoskin: Its Results and Consequences. The Zagoskin expedition played a special role in the history of researching and mapping the Russian-American Company's continental possessions, summing up the results of its employees' preceding travels in Western Alaska, along Yukon and Kuskokwim rivers. Zagoskin and his associates significantly extended the scope of their precursors' investigations, obtaining materials which are still widely used as a valuable historico-geographical and ethnographic source.

Shitikov E. A. Nuclear Confrontation: On the History of Marine Ballistic Missiles. The article examines the development of marine ballistic missiles in the 1950s—60s, viewed in the context of the competition between the Soviet and the American military industries. An account is given of the differences in their strategies of making this kind of weapons.

Ivanov A. E. Russian Studentship Abroad, the late 19th — the early 20th century. The article gives an account of both "objective" and "subjective" reasons which led a certain part of Russian youth to emigrate in order to study abroad. It gives data on the social and ethnic aspects of emigration, discusses professional interests and motives of those who left the country to study elsewhere, the "technology" of their admission to foreign teaching institutions, and their legal status while studying abroad. The role of Western European system of higher education in preparing certified specialists for the Russian Empire is made manifest.

Laszlo E. The Challenge and the Vision (Roadmaps to the Next Millenium). The second part of the author's 1997 presidential report to the Club of Budapest "Creative Path of Human Evolution."

Ilizarov S. S. Ernest Kolman, Nikita Khrushchev, and the Institute. The article introduces a number of archival documents pertaining to the biography of Ernest Kolman, one of the most controversial figures among the Soviet historians of science. These materials throw light on the circumstances of his work in the Institute for the History of Science and Technology, indicating, in particular, Khrushchev's involvement in Kolman's career.