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# V.I. Vernadsky and others on the profession of ‘historian of science’

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**Abstract.** The emergence of the profession of ‘historian of science’ in Russia in the 20<sup>th</sup> century is examined based on the works of the eminent Russian scientists: Academicians V.I. Vernadsky and A.S. Lappo-Danilevskii, and others. The paper describes the interplay of the processes of professionalisation and disciplinary development of the history of science as well as creation of the first specialised research centres: the “Russian Science” Subcommission, the History of Knowledge Commission, and the Institute for the History of Science and Technology. However, normal development of the profession of historian of science and formation of the historico-scientific community whose leader, Academician Bukharin, fell victim to intraparty strife of the late 1930s led to the institutional destruction of the history of science in the USSR and distortion of its image as a separate profession.

## 1. Introduction

The institutionalised profession of ‘historian of science’ only emerged in the 20<sup>th</sup> century. In Russia, the history of science as a new research area began to emerge in the 18<sup>th</sup> century. In the late 19<sup>th</sup> century, when the history of science just began to be regarded as a distinct scientific discipline, Vernadsky saw it as a specialised, standalone knowledge area with its specific problems, methods, and objectives. The efforts of V.I. Vernadsky, A.S. Lappo-Danilevskii and a number of other eminent scientists who realised the integrative value of the history of science as well as its cognitive and social role, resulted in the creation of necessary conditions and prerequisites for the formation of sustainable professional community of historians of science. The goal of this paper is to reconstruct the process of emergence of the history of science as a profession in Russia, based on archive sources and comments of eminent scientists.

## 2. Methods, materials and historiography

The existing arsenal of methods from the history of science, source studies and historiography is sufficient for an uncontroversial reconstruction of the process of the history of science’s formation as a specialist knowledge area and profession. This work is based on a broad range of historiographic sources: the works on the history of science and reflective comments of the founders of this discipline. An abundant documentary material from the Archive of the Russian Academy of Sciences (Moscow and St. Petersburg) has been studied and analysed. The history of formation of the profession of ‘historian of science’ is a new theme that has not been systematically explored before. In later years, the historiography of the history of science has begun to attract attention of a number of authors,



which is reflected in a series of publications [1–8] that provide sufficient information for contextual exploration of the theme in question.

### 3. Results and Discussion

Well in line with the Russian tradition, the history of the history of science and the history of profession of historian of science are full of contradictions and paradoxes, the periods of nascent formation and active growth, degradation, complete elimination, revival, etc. In the first half of the 20<sup>th</sup> century, this research area underwent the entire cycle of turbulent development, at the same time going through its own phases and being impacted by the exposure to external waves of different amplitudes and origin.

The process of development of the history of science in Russia over three centuries is reflected in a vast abundance of documents and publications: research works, popular science publications, textbooks and educational materials, collections of documents, etc. Productive researchers of the highest professional competence came on the scene long before the emergence of the new, distinct standalone profession – historian of science – and, all the more so, before the stage of formation of sustainable scientific community. Thus, back in the 18<sup>th</sup> century, some innovative historico-scientific works were authored by Academician G.F. Miller (Gerhard Friedrich Müller) whose writings are associated with the emergence in the Russian tradition of the main genres in the expression of historico-scientific thought. The 19<sup>th</sup> century was marked by the conceptual works of A.A. Kunik (Ernst-Eduard Kunick), P.P. Pekarskii's works on the history of scientific literature and Academy of Sciences, M.I. Sukhomlinov's studies and archaeographic works, etc. The influence of Western positivists whose writings were actively read, translated, and published was quite significant. Therefore, by the beginning of the 20<sup>th</sup> century, the image of the historian of scientific knowledge had been gradually taking shape in Russia. Initially, it was a librarian/erudite/polyhistor, then a researcher into the history of individual scientific disciplines, and still later, a researcher/analyst/philosopher striving to discern and comprehend common patterns in the development of scientific thought. The specialisation in the history of science and its becoming a profession, however, only occurred in the 20<sup>th</sup> century.

At the turn of the 20<sup>th</sup> century, the interest in the history of science grew significantly both in Russia and in the West. In Russia, this process happened to be closely connected to a series of jubilees: the celebration of the 200<sup>th</sup> anniversary of birth of M.V. Lomonosov, the centenary of St. Petersburg University, the 25<sup>th</sup> anniversary of assignment of Grand Duke Konstantin Konstantinovich as President of the Academy of Sciences, etc. The beginning of the new century that evoked the people's natural desire to take stock of the passing century's achievements also had a role in this process. It bears remembering that, at the time, the Academy of Science had been on the verge of setting up its own research institutions. Therefore, when a need in creating a research centre for the history of science arose in the mid-1910s, there could not be any other structure to fit this purpose but a "commission". This is exactly how the first centre for the history of science in Russia was organised, the Academy's Subcommission titled "Russian Science", which was the first experience of joint, collective work in the field of the history of science under the direction of historian A.S. Lappo-Danilevskii. Characteristically, back in June 1906, in his lectures "Ponderings on the history of science, its tasks, constructing methods, and pedagogical meaning" delivered to secondary school teachers who gathered in St. Petersburg, Lappo-Danilevskii touched upon the problem of professional qualities of the historians of science. In his opinion, both the historians and the representatives of different scientific disciplines could engage in the history of science. Natural scientist V.I. Vernadsky was a bit more articulate in his reflections on the profession of historian of science. His comments about himself are well known, particularly that, had not it been for the doubts and awareness of insufficiency of his historical and philological knowledge, he would have plunged into the history of science. It follows from this comment that Vernadsky, in fact, regarded the history of science as a kind of metascience that would require supernatural talents and erudition to engage in it.

**Figure 1.** Academician A.S. Lappo-Danilevskii (1863–1919), an eminent historian, methodologist, philosopher and historian of science. One of the initiators and the first chairman of the Academy of Sciences' Subcommission "Russian Science," the first research group in the field of the history of science. The founder of several scientific schools. Among his students were the eminent historians of science such as A.I. Andreyev, O.A. Dobiash-Rozhdestvenskaya, and T.I. Rainov, the most outstanding historian of scientific thought who worked in the 1<sup>st</sup> half of the 20<sup>th</sup> century. Lappo-Danilevskii had also influenced V.I. Vernadsky who followed in his footsteps in regard to the institutionalisation of the history of science in Russia and turning it into profession.



Largely similar ideas were expressed by one of the founders of this discipline in the West, George Sarton, who maintained that historians of science should possess sufficient knowledge in one branch of science at least and in some source languages. In his opinion, a historian of science should be familiar with the whole field of the history of science, while specialising in a particular area (e.g. the history of chemistry, mathematics, etc), and have a profound knowledge in the history of culture of the era under study (e.g. Greek science, medieval Islam, Western Europe, etc.) [9]. Sarton, whose scientific career has been a perfect example of this approach, was very well aware that exploring the history of scientific knowledge requires the cooperation and joint efforts of different researchers with mutually complementing competencies.

The discussions about what kind of basic education was necessary for the historians of science, what the scope of their competence should be, etc., went on throughout the entire first half of the 20<sup>th</sup> century. The first specialised research centres (the History of Knowledge Commission (KIZ) chaired by V.I. Vernadsky, the Institute for the History of Science and Technology (IINT) headed by N.I. Bukharin, etc.) faced an urgent problem of recruiting professional cadre of historians of science. The specialists capable of professionally working in this area were extremely few in Russia. There was no clear definition of professional competence in this area. No higher education institution trained historians of science.

It appears that the problem of training professional cadre to work in the history of science was first formulated in an official document in 1930. In their appeal to the then President of the USSR Academy of Sciences, A.P. Karpinskii, of the 4<sup>th</sup> of January, 1930, V.I. Vernadsky and I.Yu. Krachkovskii (KIZ Deputy Chair) wrote that the work tackled by KIZ was absolutely new and unusual and required the kind of specialist knowledge that was very scarce in the USSR, and put forward a suggestion to train such specialists right at KIZ itself. The same year, in the process of discussing the fate of KIZ, a debate about the profession arose between V.P. Volgin, on the one hand, and V.I. Vernadsky and S.F. Oldenburg, on the other. In the situation of scarcity of professional historians of science, Vernadsky and Oldenburg managed to defend the young scientific discipline's right to existence and further development.

**Figure 2.** Academician Vladimir Ivanovich Vernadsky (1863–1945), an outstanding polymath scientist, thinker, and historian of science. The author of fundamental studies of the history of the world's and Russian science, who formulated its general concept and defined the main areas of its future development. In the 1920s-1930s, he played the main role in the institutionalisation of the history of science in the USSR and the transformation of this research area into the sphere of professional activities. V.I. Vernadsky organised the History of Knowledge Commission (KIZ) under the USSR Academy of Sciences, the first specialised research centre for the history of science in the USSR. He championed the development of this discipline in the USSR throughout his entire life.



In the 1930s, when the system and practice of training professional cadre of historians of science was lacking, each new specialist's coming into profession was a unique occasion. It should be emphasised that IINT began training its own postgraduate students practically right from the start, which signified the passage of the final stage of transition from the organisationally amorphous research area to the discipline of the history of science with all necessary infrastructures including the reproduction cycle of professional cadre.

In the 1930s, the future President of the USSR Academy of Sciences, S.I. Vavilov, had his own view on the profession of historian of science. Vavilov himself was a widely read, knowledgeable person and worked professionally as a historian of science. At the same time, he was more than skeptical about historical science and professional historians, believing that only those who had already worked and proven themselves in some area of natural science could do the history of science. In a letter of the 18<sup>th</sup> of January 1938, addressed to Vice President of the USSR Academy of Sciences G.M. Krzhizhanovskii, S.I. Vavilov put forth the arguments in favour of closing IINT for good. He wrote, *inter alia*, "In order to work responsibly in the field of the history of science, one must, above all, know and understand well the very science whose history is being studied. In addition, specialist historical knowledge is needed, a philosophical outlook, knowledge of many languages (including ancient tongues and Italian), ability to handle historical documents. The combination of this broad range of qualities occurs rarely and, in any case, requires long-time training" [10]. An "ideal" image of a historian painted by Vavilov is, in fact, his own self-portrait.

#### 4. Conclusion

The elimination of IINT, physical destruction of a number of its staff members, and the collapse of the emerging historico-scientific community led to a situation where, when the history of science and research centres began to be reinstated in the mid-1940s, the idea became prevalent that the history of science or, rather, the histories of sciences are part of these sciences, the 'throw-ins', i.e. the history of biology belongs to the biological sciences, etc.

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