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[Professor Ronchi's lecture...]

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Artykuł umieszczony jest w kolekcji cyfrowej Bazhum, gromadzącej zawartość polskich czasopism humanistycznych i społecznych tworzonej przez Muzeum Historii Polski w ramach prac podejmowanych na rzecz zapewnienia otwartego, powszechnego i trwałego dostępu do polskiego dorobku naukowego i kulturalnego.

Artykuł został zdigitalizowany i opracowany do udostępnienia w internecie ze środków specjalnych MNiSW dzięki Wydziałowi Historycznemu Uniwersytetu Warszawskiego.

Tekst jest udostępniony do wykorzystania w ramach dozwolonego użytku.



tion of both specialists is also possible, which has been confirmed by the previous practice.

In spite of those fears and reservations, my own belief is that the history of science and technology can be, mastered indeed, as an independent speciality. I assume however that for the future historian of science and technology there will be available both monographs on the history of the main disciplines of science and technology, and instructional aids as well as manuals of university type.

As regards the teaching, it is — in my opinion — necessary to reflect once more upon locating didactics and upon the kinds of students attending the lectures of history of science and technology. Considering the fact that the subject of the history of science and technology is a common one and its division (into the history of science and the history of technology) would be, for methodological reasons, illegitimate, there arises a question of practical utility. There are separate centres for teaching humanities and natural science, technological and medical science. It is the case in Poland at least.

In which of these centres the research and the teaching of the history of science and technology as of a uniform subject should be located? I think that each of the scientific centres ought to possess its own chair of history of science and technology where not only general problems of research and didactics would be conducted, but also particular problems which are of interest for the given centre.

Professor Ronchi raised in his lecture another important problem of practical character. Who is to lecture on the history of science and technology, and who is to investigate it? I think, one and the same person only. Who wants to lecture on his own subject in an interesting and useful way, has to know it thoroughly, has to be the investigator of a given problem. Let me emphasize once more that I do not trust the workers concerned with the humanities who do not conduct any practical studies with students within the scope of their own research work.

A. T. Grigoryan

Professor Ronchi's lecture is devoted to a very topical subject: to the teaching of the history of science in the higher educational establishments.

I should like to share my own experience in the way of teaching the history of science and technology in the U.S.S.R. In the Soviet Union there are about one thousand institutions of higher learning. In order to supply all of them with instructors in the history of science

and technology, it is necessary, first, to have an immense army of teachers and professors, and, secondly, to secure textbooks and teaching materials for the history of science and technology.

For the present, the history of science and technology is being taught not in all the institutions of higher learning. It is to be noted that a very fruitful work is being done at the Moscow University. At all of its five faculties of natural science (those of mechanics and mathematics, physics, chemistry, biology, geology and geography) lectures on the history of adequate science are being given.

At two of the faculties there are study centres for the history of science (at the mechanical-mathematical faculty — a centre for the history of mathematics and mechanics; at the physical faculty — a centre for the history of physics).

The history of only particular sciences is being taught at the Universities of Leningrad, Kiev, Odessa, Yerevan, Kharkov, Tbilisi, Tashkent, Irkutsk, Vilnius, Rostov, Dnepropetrovsk and others.

The history of science is being also taught in many higher educational schools. There are being given, in principle, lectures on the history of physics and mathematics. This is explained by the availability of textbooks and instructional materials, by the supply of teaching personnel for those subjects, as well as by the Ministry's of Education agreement to that course being included into the programme of educational schools. The teaching of the history of physical-mathematical sciences at the universities and teacher-training schools is being considerably prompted by valuable books on the history of physical-mathematical sciences, published in the Soviet Union.

Alone the Publishing House of the Academy of Sciences of the U.S.S.R., the Publishing House of physical-mathematical literature and that of instructional-pedagogical literature have published for some years past: the fundamental work in three volumes *History of Natural Science in Russia* (from its origins right up to 1917), *Essays on the Development of Physical Ideas* wherein the first trial was made to examine the evolution of physical ideas throughout the whole course of historical development — from the most ancient times up to our days; *History of Physics* by Max Laue; *History of Physics* in two volumes by P. S. Kudriavtsev; *History of Physics and Technology* by P. S. Kudriavtsev and I. J. Konfederatov; *Variational Principles of Mechanics* by L. S. Polak; *Essays on the History of Mechanics in Russia* by A. T. Grigoryan; *Essays on the Development of the Fundamental Notions of Mechanics* by A. T. Grigoryan and V. P. Zubov; *History of Astronomy in Russia* by B. A. Vorontsov-Veliaminov; *History of Strength of Materials* by S. P. Timoshenko; *History of Mathematics in Russia* by B. V. Gnedenko; *History of Mathematics in Antiquity* by

E. Kolman; *History of Mathematics in the Middle Ages* by A. P. Youchkevitch and many others.

There are published every year very helpful collections "Historico-Mathematical Investigations" and "Historico-Astronomical Investigations". Let us also enumerate excellent monographs by B. G. Kusnetsov: *Development of the Scientific Outlook of the World in Physics of the XVIIth and XVIIIth Centuries; Principles of Classical Physics; Foundations of the Theory of Relativity and of Quantum Mechanics in their Historical Development; The Principle of Relativity in the Ancient, Classical and Quantum Physics; Evolution of the Outlook of the World and Evolution of the Fundamental Ideas of Electrodynamics.*

The lectures on the history of technology are being read only in some of the technological colleges. To them belong: Moscow School of Energetics, Moscow School of Mines, Leningrand's, Kiev's, Riga's, Tbilisi's, and Yerevan's polytechnic schools. The professorial and teaching cadres of those institutes, apart from lecturing, are publishing textbooks on the history of particular branches of technology. Thus, for instance, the professors of the Moscow School of Energetics, L. D. Belkind and I. J. Konfederatov, prepared a textbook on the history of energetics; the late professor of the Leningrad polytechnic school, V. V. Danilevsky, prepared a manual on the history of technology; the academician S. G. Strumilin published a series of lectures on the history of metallurgy; Professor A. A. Zvorykine published a course of the history of technology. The case is considerably better in all engineering schools of our country where, for the time being, lectures on the history of engineering are being given.

The situation is not bad about teaching the history of medicine in the medical schools of the U.S.S.R. In the Soviet Union, the problems of teaching the history of medicine are being given a great consideration. This is favoured by the existence of such establishments and organizations as the Institute of Health Services Organization and of Medical History, as the All-Union Society of Medicine Historians, and as section of medical history at the Committee of the Soviet National Union of Natural Science and Technology Historians. The scientists of the above-named establishments and organizations are carrying on a great work in the way of the development of medical history in the Soviet Union. Owing to their efforts, the teaching of the medical history is being conducted nearly in all the medical schools of our country. There are being published books on the history of medicine, conferences and symposia on medical history are yearly organized.

I find it advisable that the committee on teaching the history of science, existing at the International Union of the Philosophy and History of Science may start working. First of all, it is necessary to gather information from all national committees about the state of

teaching the history of science, and subsequently to convoke a special International Symposium to this end. The problems of teaching the history of science should also be subject for discussion at the forthcoming XIth International Congress of the History of Science.

A. Teske

Professor Ronchi mentioned in his lecture among difficulties with which the teaching of the history of science is confronted, also the following one: the students prefer to focus their attention and their activity on the present state of the discipline they have chosen, and on its further progress rather than on its history; only very few are interested in this latter respect. This is — and therewith no polemical remark is intended, only a simple statement — a rather sound situation, as all we could wish is only that the proportion of students may change a little in favour of the historical group.

But even if it does not change, I think, this difficulty can be overcome. For it should be possible to teach the history of a given discipline in such a way, as to make it of essential and immediate use for the study of this discipline itself, as to enable us — to say it by the way of an example — to educate better chemists and better physicists. In a somewhat rudimentary form the historical points of view are in common use in the ordinary way of teaching.

Indeed, when lecturing for instance on the theory of relativity, nobody will omit to introduce the students into the former conceptions of space and time. And if we enlarge this picture by giving the students not only the views of Newton, but also those of Mach and of Lorentz, and by introducing a broader philosophical background, we will not lose the connection with our discipline. And it will help the students to understand better the present issue.

True, we can not expect to have another historical chair attached to every existing one. But fortunately there are large fields of scientific research which, in despite of their greatness, form a certain unity — physics for instance or chemistry — and which are represented by a whole ensemble of chairs. So, the situation is not so difficult, and a historical chair connected with such an ensemble could of course serve not only didactic purposes of the whole ensemble but perform also research work in the history of science.

A. P. Youchkevitch

In order that a course in the history of one or another science at the respective faculty of the University may make a success, it has to fulfil, in any case, two conditions. It ought to be interesting to the