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ACTIVITIES OF THE SCIENTIFIC AND TECHNICAL INTELLIGENCE OF KHARKIV REGION IN ORGANIZING AND PARTICIPATING IN PROFESSIONAL CONGRESSES (LATE 19TH – EARLY 20TH CENTURIES)

On the basis of the study of modern historiography and found primary sources, the activities of the scientific and technical intelligentsia of Kharkiv region in the organization, participation and holding of professional narrow-profile congresses in the researched period were investigated. Printed materials related to the activities of scientific and technical societies of Kharkiv were analyzed (using the example of the Kharkiv branch of the Imperial Russian Technical Society and the South Russian Society of Technologists), as a result of which it was concluded that the professional communication of the engineering and scientific community was embodied mostly through membership in various engineering and scientific associations. It has been found that one of the most productive forms of solving professional issues and organizing scientific research in one or another field of human activity have become narrow-profile congresses, which were often initiated by public-scientific centers. In accordance with the set goal, a certain theoretical and methodological base of research was determined, the basis of which was general scientific principles (historicism, reliability, objectivity, etc.) and methods (analysis, synthesis, problem-chronological, etc.). The scientific novelty lies in the fact that in modern domestic historiography there are currently no comprehensive studies on the organization, holding and significance of professional congresses for the formation and development of one or another field of scientific knowledge. The issue of participation in this process by public-scientific associations or the technical intelligentsia of an individual region was not studied.

The conducted research made it possible to conclude that the congresses organized by scientific and technical associations of the Kharkiv region initiated the study of problem areas in the economic life of the state and contributed to their further resolution. The involved printed primary sources are today a valuable source for the history of the activities of public-scientific associations in general and activities related to the organization and work of professional congresses, in particular. In the process of the research, a wide range of representatives of the scientific and technical intelligentsia of Kharkiv Oblast who devoted a lot of energy and time to activities (as active members of scientific and technical societies) in public and scientific associations were found: V. L. Kyrpychov, V. I. Albytskyi, A. P. Shimkov, M. D. Raevska, S. M. Suchkov and others.

Key words: *Kharkiv region, history of science, personalities, professional congresses, local history, Kharkiv Institute of Technology, scientific and technical associations.*

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ДІЯЛЬНІСТЬ НАУКОВО-ТЕХНІЧНОЇ ІНТЕЛІГЕНЦІЇ ХАРКІВЩИНИ ПО ОРГАНІЗАЦІЇ ТА УЧАСТІ У ПРОФЕСІЙНИХ З'ЇЗДАХ (КІНЕЦЬ ХІХ – ПОЧАТОК ХХ СТ.)

На основі вивчення сучасної історіографії та віднайдених періоджерел було досліджено діяльність науково-технічної інтелігенції Харківщини по організації, участі та проведенню професійних вузькопрофільних з'їздів у досліджуваній період. Проаналізовано друковані матеріали щодо діяльності науково-технічних товариств Харкова (на прикладі Харківського відділення Імператорського Російського технічного товариства і Південно-Російського товариства технологів), внаслідок чого зроблено висновки, що професійна комунікація інженерно-наукової спільноти втілювалась здебільшого через членство у різних інженерно-наукових об'єднаннях. З'ясовано, що однією з найбільш продуктивних форм вирішення професійних питань і організації наукових досліджень в тій чи іншій галузі людської діяльності стали вузькопрофільні з'їзди, ініціаторами яких часто виступали громадсько-наукові осередки. У відповідності до поставленої мети було визначено певну теоретико-методологічну базу

дослідження, основу якого склали загальнонаукові принципи (історизму, достовірності, об'єктивності й ін.) і методи (аналізу, синтезу, проблемно-хронологічний й ін.). Наукова новизна полягає в тому, що в сучасній вітчизняній історіографії на сьогодні відсутні комплексні дослідження щодо організації, проведення і значення професійних з'їздів для становлення і розвитку тієї чи іншої галузі наукового знання. Не вивчалися і питання участі у цьому процесі громадсько-наукових об'єднань чи технічної інтелігенції окремо взятого регіону.

Проведене дослідження дозволило зробити висновок, що з'їзди, організовані науково-технічними об'єднаннями Харківщини, ініціювали дослідження проблемних зон в господарському житті держави й сприяли їх подальшому вирішенню. Залучені друковані першоджерела на сьогодні є цінним джерелом з історії діяльності громадсько-наукових об'єднань в цілому і діяльності щодо організації і роботи професійних з'їздів, зокрема. У процесі дослідження з'ясовано широке коло представників наукової та технічної інтелігенції Харківщини, які багато сил і часу віддавали діяльності (у якості дійсних членів науково-технічних товариств) у громадсько-наукових об'єднаннях: В. Л. Кирпичов, В. І. Альбицький, А. П. Шимков, М. Д. Раєвська, С. М. Сучков й ін.

Ключові слова: Харківщина, історія науки, персоналії, професійні з'їзди, краєзнавство, Харківський технологічний інститут, науково-технічні об'єднання.

Statement of the problem. The second half of the 19-th century was marked by radical changes in various spheres of human activity, which, in turn, led to the emergence of new forms of organization of science, such as professional congresses of scientists and specialists in various fields of science and technology. The initiators and organizers of such gatherings were both state institutions and various public and public-scientific institutions. Professional congresses contributed to the popularization of scientific knowledge, the unification of scientists and practitioners of a certain field, were an important factor in the creation of new scientific centers and societies, which over time also acted as organizers of their own narrow-profile congresses.

In particular at the end of the 19th and the beginning of the 20-th centuries. the process of institutionalization of new scientific directions is taking place, a characteristic feature of which on the territory of the Russian Empire was the holding of narrow-profile congresses, at which urgent problems of separate disciplines were resolved: technical and professional education, plumbing, electrical engineering, agriculture, architects, aeronautics, etc.

Analysis of the latest research and publications. Today, in modern domestic historiography, there are no comprehensive studies on the organization, holding and significance of professional congresses for the formation and development of one or another field of scientific knowledge. The issue of participation in this process by public-scientific associations or the technical intelligentsia of an individual region was not studied. However, it should be noted that there are a number of works whose authors studied or tangentially touched on certain issues of certain professional congresses, in particular (Hutnyk, Tverytnykova, 2023; Lukianets, 2015; Mirosnichenko, 2012; Nahrybelnyi, 2011; Slobodian, Trofymova, 2010) etc.

The purpose of our investigation is to investigate the participation of the scientific and technical intelligentsia of the Kharkiv Region, which communicated

through membership in various engineering and scientific associations, in the organization, participation and holding of professional narrow-profile congresses during the researched period.

Presentation of the main material. At the end of the 19-th – at the beginning of the 20-th century the Kharkiv Department of the Russian Technical Society (KD RTS) and the South Russian Technical Society (SRTS) actively functioned in Kharkiv. It is known that one of the first congresses of naturalists and doctors began to be held in the Russian Empire. The first such congress was held at the end of 1867 at the initiative of Prof. St. Petersburg University K. F. Kessler (member of the Free Economic and Entomological Societies). Karl Fedorovich actively promoted the idea of creating a single permanent association of domestic scientists. In part, this idea was already implemented by the decision of the First Congress of Naturalists and Doctors – the petition submitted to the government to open societies of naturalists at universities had positive consequences, and during 1868–1869 societies of naturalists were created in St. Petersburg, Kazan, Kharkiv, Kyiv, Novorossiysk. Subsequent congresses of naturalists and doctors were held at different intervals. The 13-th congress was held in Tiflis in 1913. The Kharkiv Department of the Russian Technical Society received an invitation from the Management Committee to take part not only in the work of the congress, but also in preparatory activities for it. At the meeting of the Society Council, it was decided to bring the received information to the attention of all departments (Otchet, 1915: 5). This event was preceded by the invitation to the Kharkiv Department to take part in the work of the First Mendeleev Congress (planned to be held immediately after the congress of naturalists and doctors in the memory of D. I. Mendeleev), which took place in 1907 in St. Petersburg. It was decided «... to offer the members of the Department who plan to be at the congress to take over the representation of the Kharkiv Department... to develop a text of greetings from the meeting of

the KD» (Otchet, 1908: 7). Considering the fact that the Society of Naturalists functioned at the Kharkiv University, and the KD RTS (provincial society) was going through its worst times, the fact of an invitation to participate, and even more so to organize, one of the most significant forums of naturalists of the Russian Empire, does not seem completely understandable. Obviously, there was a personal factor – the chairman of the 1st Mendeleev Congress and an active participant in the congresses of naturalists and doctors was Mykola Mykolayovych Beketov – the first chairman (7 years) and an honorary member of the Kharkiv Department of the Russian Technical Society.

The holding of congresses of technical and professional education activists was initiated by the Permanent Commission on Professional and Technical Education, a permanent department (IX) at the RTS, created in 1884). In order to hold meetings of a wide range of educational specialists in the specified period, objective conditions were created: firstly, skilled workers were needed for industrialization in the country, and the existing educational institutions (lower, middle and higher technical) could not meet the growing demand of capitalist production; secondly, there was no unified system of personnel training for various branches of industry (there was not even a unified educational legal framework); thirdly, there was a lack of trained masters-mentors in vocational schools, etc. (Kuzmyna, 2010). The organizing committee of the congress studied the current state of vocational education in the state through questionnaire letters sent to all provinces and made an attempt to summarize the experience of educational institutions. It is clear that all TS departments received such letters. At that time, there was no special department for education in the structure of the Central Committee of the RTS, only a temporary commission was active, therefore, at the meeting of the Council dated February 4, 1889, a decision was made to «... invite to participate in the development of the question regarding the participation of our department of persons specially familiar with the issues of technical and industrial education, namely: P. Kirpychev, Albitsky, Golovin, Shikhov, Raevsky, Raevsky, Shymkov, Sheerman, Kurbanovsky, Stempkovsky, Kwapyshyevsky, Kolesov, Khlopov, Maksymovich, Orlov, Mykhaylova» (Zapysky, 1889). Let's pay attention to the list presented above – these are really specialists who took care of solving the problems of technical education in practice in their daily work, all valid members of the KD IRTS. Professors of the Kharkiv Institute of Technology: V. L. Kirpychev – «*the ideologist and founder of the system of higher technical*

education in Russian empire, the founder and first director of two polytechnic institutes in Kharkiv and Kyiv, "the best lecturer" of the St. Petersburg Polytechnic Institute... For 45 years, he was engaged in scientific and pedagogical work, having trained thousands of specialists, many of whom became famous scientists, engineers, managers» (Posviachennia na rozumovu diialnist); V. I. Albytskii is a technological engineer and teacher, he taught at the St. Petersburg Institute of Technology, as a private associate professor he gave lectures on practical mechanics at Kharkiv University, an honored professor at the Kharkiv Institute of Technology. A. P. Shimkov is a full professor at Kharkiv University (since 1871). By the way, Andrii Petrovych's wife Maria Antonivna was also actively engaged in teaching activities – a teacher and public figure, the head of the Society of Mutual Assistance of Teachers and Educators.

In addition to professors of higher technical educational institutions, in the above list we see teachers of craft schools, founders of our own schools and teachers, all active members of the Kharkiv Department of the Russian Technical Society. In particular, O. V. Scheerman worked at the Ascension Women's Lutheran Gymnasium, made generous donations to this educational institution, and later was elected chairman of its board of trustees (Serheev, 2003: 16). Another interesting personality attracts attention – Maria Dmytrivna Raevska, who is still considered one of the most educated women of her time, she founded a private drawing school in Kharkiv, which was later reorganized into a city school of drawing and painting. She was supported in all her endeavors by her husband, Serhii Oleksandrovych Raevskii, a public education activist, trustee of the Kharkiv educational district.

Even on the example of the Kharkiv Department, it is obvious that the purpose of the preparatory stage for the congress is to attract persons «*familiar with the needs and conditions of various localities and who were theoretically and practically engaged in the business of industrial education in Russia»* (Sъезд, 1891: 10) was performed. The first congress was of an introductory nature. To discuss one of the most important problems of professional education, namely, the lack of compulsory primary education and the urgent need to develop the fundamental principles of industrial education, in 1895 the Second Congress of Technical and Professional Workers was convened of education, to which all members of the KD IRTS were invited to participate (Zapysky, 1895: 75). Regarding the above-mentioned problem, the resolution of the second congress stated: «*the success of vocational edu-*

tion is closely related to the correct formulation of general education, and with insufficient development of the latter, vocational education cannot be carried out successfully» (Ytohy Vtoroho s'ezda, 1903: 80).

The participation in the work of congresses of technical and professional education figures had a positive effect on the further activities of the KD RTS, namely, in 1896, the Permanent Commission on Technical Education (PCTE) was created at the branch, which was initiated and headed by M. D. Raevska. The main task of this special department was to promote the development of technical education in the area of activity of the Kharkiv Department of the Imperial Russian Technical Society.

Already in March 1897, the secretary of the branch, Prof. K. L. Zubashev initiated the creation of the commission for the study of the state of teaching in the lower craft schools of the Kharkiv province. Almost at the same time, the Provincial Zemstka Administration turned to the branch with a request to prepare factual material on the state of teaching in Zemstvo craft schools for discussion at the congress of heads of Oleksandrovsy craft schools of the Kharkiv province, which was scheduled for the spring of next year. The commission of the HV IRTT comprehensively investigated the activities of 10 schools, and after the review, a report was drawn up, which emphasized: *«The setting of teaching in Oleksandr's craft schools ... requires many improvements and changes. ... there is an indisputable need for craft education... It is to be hoped that the anticipated congress... will clarify the many needs of these schools and thereby provide the necessary information for a more correct presentation of the educational matter in them» (Zapysky, 1898: 62–63).*

The congress took place in May 1898. For discussion, the participants of the congress were offered a number of issues developed by the commission of the KD IRTS together with the Provincial Administration, which directly related to the following problems: 1) measures to retain school graduates in rural areas, 2) implementation of the same programs of general education disciplines, 3) the need to include in the programs of theoretical material on the properties and processing of materials in various crafts (technology), 4) distribution and number of hours according to special and general education disciplines, 5) entrance exams, 6) reasons for leaving students before the end of the study period, 7) arrangement of boarding schools, 8) material needs of schools (textbooks, libraries, premises, devices and tools, etc.), 9) sanitary and medical supervision, etc. As we can see, the issues concerned not only the educational and methodical aspects of the educational process, but also the

economic and technical aspects. To resolve issues of a technical nature, it was decided to create a special subcommission (Protokoly s'ezda, 1898: 4–5).

Regarding the significance of the congress, the conclusions of the commission of the KD IRTS emphasized: *«...considering the benefit that the first congress of heads of craft schools brought, giving them the opportunity to get to know each other, to exchange opinions on all general issues, to get to know each other, albeit briefly, with the successes achieved in various fields of knowledge, we consider it our duty to express our wish that similar congresses be repeated periodically; further congresses, if the schools are transformed in the direction specified in the commission's works, will bring even greater benefit and will raise the Oleksandriv craft schools to the appropriate height» (Protokoly s'ezda, 1898: 42–43).*

Members of the Kharkiv Department of the RTS also participated in the work of the III (and last) congress of technical and professional education figures, held in 1903–1904. This congress was distinguished from the previous ones by a significant number of participants, which was obviously helped by the popularization of this event in the printed organs of many scientific and technical societies, in particular, in the journal of the South Russian Society of Technologists (Ot Komyteta S'ezda, 1903: 31).

Popular at the end of the 19-th century there were water supply congresses, because the issue of water supply, construction and maintenance of water pipes and city sewers was also relevant in the specified period. The initiators of the organization of periodic congresses for the exchange of experience and professional information were civil servants (the head of the Novocherkassk Waterworks V. I. Zuev, the Moscow Mayor M. O. Alekseev) and the well-known hydraulic engineering scientist M. P. Zimin (chief engineer of the Moscow Waterworks). The first Russian water supply congress met in Moscow in March 1893 with the purpose of *«acquainting yourself with the current state of Russian water supply systems and studying their advantages and disadvantages; to get acquainted with improvements and successes in foreign cities, which can be a useful example for Russian water pipelines; to develop general reporting rules for the operation of water pipelines in Russia; to clarify the issue of the best use of city water pipes for fire purposes» (Trudy, 1895: 3).* The participants of the congress were famous domestic scientists, engineers, employees of state sanitary institutions, etc. Scientific and technical societies also showed interest in the important scientific forum. According to the minutes of meetings of the Kharkiv Department of IRTS, it was found that mining engineer Serhii Mykolay-

ovych Suchkov (future director of the Katerynoslav Higher Mining School) was present as a delegate at the 1-st and 2-nd Congresses of the KD IRTS. Serhii Mykolayovych is a talented, extraordinary personality in all respects, known in wide circles of mining industry workers, but there is very little information about him. The most complete information on life activities can be found in the work of H. K. Shvydko, who, concluding her work, concluded: *«To the fate of S. M. As a rector, it fell to Suchkov to become the founder of a higher educational institution, to create the material and technical basis of its existence, to establish the principles of the organization of the educational process in the difficult conditions of the development of the socio-political and student movement at the beginning of the 20-th century, to form a professorial teaching corps and prepare the ground for powerful development science and the formation of scientific schools in the next period. Thanks to him, already in the first years of its existence, KHMS became the center not only of education and science, but also of cultural and socio-political life of Katerynoslav and the province»* (Shvydko, 2015: 35).

At the meeting of the Council of the Society on February 20, 1893, in response to a request from the chairman of the First Water Congress, a decision was made to appoint S. M. Suchkov as a delegate from the KD IRTS, who, after returning from Moscow, at the meeting of the general meeting of members of the Society on May 5, 1893 made a report «The first Russian plumbing in Moscow», and at the end of the speech he presented some brochures printed before the congress. At this congress, a permanent body, the Bureau of Plumbing Congresses, was created, which was responsible for the publishing of periodicals and individual publications, and also took care of the preparation of all subsequent plumbing congresses. In February 1895, the Kharkiv Department received a letter from the permanent Bureau of Water Supply Congresses with an invitation to participate in the work of the II Russian Water Supply Congress, which was planned to be held in Warsaw on March 19–25, 1895. S. M. Suchkov was unanimously re-elected as a delegate (Zapysky, 1893–1895).

The problems of the development of the mining industry of the Donetsk Basin became more relevant with the beginning of systematic studies of the region's mineral deposits at the state level with the aim of reorganizing the surveying business in the country. It was during this period, on the initiative of V. I. Bauman, in 1909, the 1-st congress of surveyors of the south of Russia (Kharkiv) was convened, at which the issue of the creation of the Association of Surveyors, the purpose of which was the scientific

and social union of surveyors and the publication of its yearbook «Marksheidierskie izvestiya».

Congresses of surveyors were of great importance for the development of the domestic surveying business, because during their work, purely professional tasks were solved through the exchange of opinions and the implementation of new scientific research into practical activities. In order to clarify this issue, significant popularization activities should also be carried out. The mining engineer A. Garkaviu emphasized this problem in his letter, appealing to the mining industry for help in disseminating information about the importance *«for the mining industry of surveying congresses, because the latter, discussing mainly issues related to the art of surveying, contribute to the spread of knowledge in this field of mining sciences ... currently, many mining enterprises look at these congresses as purely professional, and therefore do not find it useful to send their surveyors to these congresses»* (Marksheidierskye yzvestyia, 1912).

Changes in social and economic life at the end of the 19th and the beginning of the 20-th centuries led to the activation of the activities of the progressive intelligentsia in various branches of the economy. With the development of the economy, the need to organize economic life, to properly organize its results for further planned growth, the need to strictly observe the principle of economy also gradually increased. The only really effective means of solving this important problem to meet the needs of the new capitalist society is only correct accounting, without which it is impossible to bring any order to economic relations. It is the issue of proper accounting that becomes especially popular in the studied period in the industrial regions of the country, along with the manufacturing ones.

As already mentioned above, congresses have become one of the most productive forms of solving professional issues and organizing scientific research in one or another field of human activity. The first All-Russian congress of accountants was held in Moscow in 1909, in addition, a number of local congresses were also organized. With the opening of the Accounting Department at the Kharkiv Department of the Imperial Russian Technical Society in 1911, already in the 6-th meeting (04/04/1912), the idea of organizing a congress of accountants of mutual credit societies matured: the department discussed its greeting to the congress of representatives of mutual credit societies, which was scheduled for April 7 this year in Kharkiv. A member of the Accounting Department, I. F. Hornostayev, proposed in his greetings to emphasize *«the need to*

organize a congress of accountants of mutual credit societies, and the Accounting Department should provide its full assistance in this regard» (Schetovodstvo y khoziaistvo, 1912: 28).

The first All-Russian Congress of Accountants of Mutual Credit Societies was a perfect completion of all previous work and began on February 17, 1913. About 250 delegates from all over the empire gathered in the premises of the Council of Congresses of Mining Industry of the South of Russia. The importance and high status of this event is evidenced by the congratulations given by: Chairman of the Central Bank of MCS S. M. Stupin, manager of the Kharkiv office of the State Bank N. Kh. Orda, V. O. Golitsynskiy on behalf of the Council of the Moscow Society of Accountants, A. I. Novikov on behalf of the Moscow Society for the Organization of Accounting Congresses, etc.

The resolution of the 1-st All-Russian Congress of Accountants of Mutual Credit Societies clearly emphasized the importance of the Kharkiv Scientific and Technical Society in solving state-level issues: 1) «To ask the Accounting Department of the Kharkiv Department of the Imperial Russian Technical Society to take on the task of creating a leadership for the organization and management of affairs in the Mutual Credit Society MCS, including issues of a technical and legal nature that are related here»; 2) «...request... to organize at the Accounting Department of the Labor Bureau all employees of credit societies»; 3) «... to organize periodic accounting courses for accountants and employees in mutual credit societies», and also «Recognize the journal «Accounting and Economics» as the body of accountants and employees in mutual credit societies..., recognize it as highly desirable that societies, if possible, place their balance sheets in it» (Schetovodstvo y khoziaistvo, 1912: 123–124).

Conclusions. At the end of the 19-th – at the beginning of the 20-th century representatives of the creative technical intelligentsia rallied around scientific centers, which became engineering-scientific societies in provincial cities, to solve pressing socio-economic and purely professional issues. Therefore, this period is characterized by a significant number and variety of congresses, the organizers and participants of which were largely members of scientific and technical associations. The most active in this regard were the branches of the Imperial Russian Technical Society, which had a rather extensive structure, represented by various departments, which, in turn, expanded the scope of the society's activities, the number and its capabilities, unlike other regional societies limited by specialization or membership restrictions.

At the beginning of the 20-th century with the strengthening of the tsarist reaction, not only purely professional issues were raised at the congresses, but also socio-economic problems. In turn, the powerful structures controlled the entire work of congresses – from organizational points to the review of reports and the ongoing work of congress meetings. Nevertheless, the congresses, as a new form of organization of science, revealed a high level of public consciousness of society as a whole and of the scientific and technical intelligentsia, in particular. They can be considered «as a manifestation within the legal framework of a public initiative to gather information, identify pain points, exchange experience in the field of different sectors of the economy» (Kuzmyna, 2010: 116).

Congresses organized by scientific and technical associations initiated the study of problem areas in the economic life of the state and contributed to their further resolution.

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