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TAJIKISTAN ACADEMY OF SCIENCES

TAJIKISTAN ACADEMY OF SCIENCES, Tajikistan's leading research institution for coordinating and conducting theoretical and applied research projects. The institution began as the Tajik Base (*baza*) of the Soviet Academy of Sciences in 1932, was reorganized into a Branch (*filal*) in 1941, and finally came under the jurisdiction of Tajikistan's Council of Ministers in 1951. The Academy's headquarters are in Dushanbe, with branches in Ḵojand and Ḵārūḡ.

The Tajik Academy was organized around the scientific fieldwork conducted since the late 19th century by Russian scholars who had visited the area. One was E. N. Pavlovsky, the prolific Soviet zoologist, under whose supervision (from 1937) the Academy grew rapidly to include, by the end of the decade, the institutes of geology, biology, botany, history, and language and literature, and was furnished with seismographic posts, laboratories, and botanic gardens at the Vaḵš and the Pamirs, with a total of 127 scientific staff. In those years the Academy organized several expeditions to assess the economic potential and social condition of the republic. The institution grew during World War II when many of the scientists and institutions of the western parts of the Soviet Union were evacuated away from the battlefront to Central Asia, including Tajikistan (Radjabov, pp. 8-24).

In the post-war years the republican branches of the Soviet Academy of

Sciences were made independent entities. This included the Tajik Academy when in 1951 Ṣadr-al-Din ʿAyni was invited from Samarqand (Samarkand) to formally inaugurate, and then preside over, the much admired national institution. His tenure was rather nominal given his scholastic education and his scanty knowledge of contemporary disciplines and the Russian language, which remained the prime means of research for decades to come. Nevertheless, a whole generation of young Tajik scientists were then being trained in Tashkent, Moscow, and Leningrad, among others, from whom emerged the two future presidents of the Tajik Academy, namely Solṭān ʿOmarov (1954-65), and Moḥammad ʿĀṣemi (1965-88), and many others who eventually replaced their Russian predecessors in leading various institutes and departments of the Academy, markedly in the humanities and social sciences, while in the fields of exact and natural sciences the presence of Russians was more evident. Meanwhile, the Academy began to train students and then hire its own graduates as well as those of Tajik State University and other institutes of higher learning in the republic (see EDUCATION xxviii). Consequently, the Tajik Academy grew significantly in size; within the span of forty years its scientific staff multiplied more than tenfold to some 1,300 (with more than 500 holding graduate degrees) by the late 1970s (Saidmurodov, ed., pp. 199-208). Qualitatively, however, the progress may have not been as impressive given the quality of the Academy's publications and the fact that many of the founding fathers of the Tajik Academy were leading Soviet scientists, and in the later decades Tajikistan had no representative among the 300-odd full members of the Soviet Academy of Sciences.

The Tajik Academy is structured into three divisions: (1) physics and mathematics, and chemistry and geology, which comprises the institutes of physics and technology (since 1964), astrophysics (1932), earthquake engineering and seismology (1951), mathematics and informatics (1973), geology (1941), and chemistry (1946); (2) biology and medicine, consisting of the institutes of botany (1932), zoology and parasitology (1941), physiology of plants and genetics (1967), and gastroentrology (1965), and the branches of cotton genetics (1975), biology (in Ḵārūḡ; 1969), and the Council for the study of the productive forces (1969); and (3) social sciences [and the humanities], with the institutes of history, archaeology and anthropology (1951), language and literature (1951), Oriental studies (1970), economics (1964), philosophy and law (1991; initially the branch of philosophy, founded in 1951), manuscripts (1991), world economy and international affairs (1993), and a branch in Ḵārūḡ since 1992. The Ḵojand science center (1992) includes the

departments of mathematics and computers, physics, philosophy, and chemistry. The central library of the Academy, named after Mahatma Gandhi, has a collection of approximately 1.5 million items. Moreover, the Academy has several museums, including the museum of ethnography (Saidmurodov, ed., pp. 174-75; *Akademiyai ilmho*, passim).

The research projects sponsored by the Academy were chiefly intended to stimulate the economic development. Particular attention was given to the improvement of agricultural output, above all the genetics of cotton, as well as the applied studies supporting large industrial projects such as the hydro-electric, chemical, and aluminum enterprises. The studies sought to provide comprehensive accounts of the natural potentials of the republic, leading to the discovery of raw materials with mineral terms such as Tajikit and Sogdianit. A whole institute was devoted to the study of earthquakes and means of making the nation's infrastructure seismic resistant (see EARTHQUAKE ii). Somewhat more theoretical work was performed in the astrophysics institute, armed with a world-class observatory, whose principal work was the study of comets and meteors, on which the journal *Komitï i meteorï* was published. Natural scientists, too, were well equipped with laboratories and botanic gardens. Nothing speaks of the Academy's accomplishments in biology more than the methodical compilation of the republic's flora and fauna in many volumes, prepared collaboratively or individually (Radjabov, pp. 25-62; Asimov, ed., pp. 132-38), during the golden years of the Academy.

In the humanities the results have been uneven in value. Major achievements were made in archeological excavations, often conducted jointly with scholars from Leningrad and Moscow. Boris Litvinsky organized and headed (1952-71) the department of archaeology within the Academy's institute of history. The latter institute was headed by Alexandr Semënov (1951-58), who initiated a series of monographs on the modern history of various parts of Tajikistan. Systematic efforts were made in the ethnography of individual regions, Rajab Amānov's collection of Kulāb's folklore being among of the earliest. Particularly rewarding was the field of dialectology, as several collections of Pamir languages as well as Tajik vernaculars were made available to Iranists. Standard Tajik Persian was within the realm of the Institute of Language and Literature and flourished under the chairmanship of the prolific lexicographer, Mollājān Fāżelov (1951-58). Rasul Hādizāda and others elucidated on the hitherto unexplored Persian literature of the 15th-19th

centuries in Transoxiana. Persian classics, on the other hand, were researched in the Institute of Oriental Studies, which was responsible for handling manuscripts, publishing facsimiles, and preparing Cyrillic editions for the Tajik reader. The Academy's staff also prepared most textbooks for high school and college levels. In spite of these achievements, many works are of little merit, particularly those in the fields of historiography and modern social sciences which did not make adequate headway in Soviet Tajikistan. Neither has any work of major value been published in more recent years by the Academy as standards began to drop significantly in the chaotic years that preceded and followed the independence of Tajikistan.

An interdisciplinary organization within the academy has been the Committee for Terminology. Established in 1960, it aimed at upgrading and harmonizing the scientific and technical vocabulary of Tajik Persian. The committee was divided into the branches of (1) physics, mathematics, techniques, agriculture, biology, chemistry, medicine, geology and (2) geography, economics, philosophy, law, history, linguistics, pedagogy, and arts, each of which was commissioned to compile one or more Russian-Tajik dictionary (see TAJIKISTAN: DICTIONARIES AND ENCYCLOPEDIAS). There was also the branch of orthography (*šoʿba-ye emlā*), which supervised the rules of spelling for Tajik Persian (Saidmurodov, ed., pp. 249-55). The principles put forward for coining new terminology were published in *Printsiphoi asosii terminologiyai zaboni tojikī* (Principhā-ye asāsi-e zabān-e tājiki, 1971). In 1990, when the republic was on the verge of independence, the Committee was given a more central role, under the revised name of *Komitet-e nav-e eṣṭelāḥāt*, aimed at replacing on a broad scale the Russian terms with Tajik equivalents, especially in the administrative and social domains (Šakuri, 1998). The Committee acts, in effect, as an academy of letters in the absence of such an entity in the republic.

The Academy's regular publications appeared as monographs, reports, and proceedings, totaling about 60 annually in the 1970s. The monthly *Dokladi*/*Maʾruzaho* (Maʿružahā) "Reports" began publication in 1951 with 750 copies. Each of the three branches of the Academy published the quarterly journal *Izvestiya*/*Aḵborot* (Aḵbārāt; since 1941) in about 100 pages and 600-700 copies, as well as the "Transactions" series *Trudï*/*Asarho* (Aṯarhā; since 1935). The language of these publications was generally Russian, but humanities articles were occasionally written in Tajik Persian (for publications up to the late 1970s, see Saidmurodov, ed., pp. 209-16). The periodicals appeared quite

regularly until the early 1990s. Lately, the Academy's principal periodical is the general purpose *Aḵbor* and those specialized (under the same title) in physics and mathematics, biology and medicine, economics and political science, philosophy and law, and Orientalism. During the civil war that ensued after Tajik independence (1991), the activities of the Academy virtually came to a halt. Recovery began at the turn of the century, when the Academy had more than 1,700 employees. Currently, one of the major requirements of the Academy currently is development in the field of information technologies (United Nations …, pp. 44-46).

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