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Role of German-Speaking Europeans In the Development of Socio-Economic, Political and Scientific Life of Turkestan In the Xix - Early Xx Centuries

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Abstract. The article is devoted to the activities of German-speaking Europeans in Central Asia. An attempt was made to highlight their role in the socio-economic and scientific life of Turkestan. Much attention was paid to the results of research of European scientists in the region in XIX – beginning of XX century. Undoubtedly the Great Geographical Discoveries were sensational events of the new time, but despite this XIX century is estimated by contemporaries as a new period of geographical discoveries. Along with scientific expeditions to the North and South poles, the study of the internal territories of the African continent, penetration into Central Asia have identified peculiar features of the period under study.

Keywords: Turkestan, the Germans, the governor-general, immigrants, Lutheran society, scientific works.

I. INTRODUCTION.

Cultural, trade and political ties between the peoples of Central Asia and Western Europe have existed since ancient times and became very active in the XIX - early XX centuries, as a result of which German scientists have created a number of popular scientific works [1]. During this period the flow of European researchers of different nationalities, in particular British, French and German scientists, directed to the Central Asian region. German-speaking researchers went to Turkestan under instructions of the governments. Thus, in the second half of XIX century German naturalists, military topographers, officers, engineers, orientalists and ethnographers from Germany visited Turkestan at the invitation of the Russian Empire. For today the big interest to the given problem is shown also in Germany itself [2]. Fruitfully working in this direction the scientific circles of Uzbekistan also pay special attention to this theme [3].

II. REVIEW OF LITERATURE.

For centuries, Central Asia was explored by a whole plethora of foreign scientists, who had a variety of interpretations of the history of the region. The fact that Central Asia has been studied by various groups of researchers for many centuries testifies to the relevance of the topic. The first row includes studies of such Europeans who served in the Russian army and royal administration. They themselves witnessed the events of that period in Turkestan, so their memories serve as primary sources for us. The history and culture of this period is presented in the rich material of research of another number of scientists who came to Turkestan in connection with business activities. The third group includes research of scientists-travelers who organized scientific expeditions to Central Asia at their own expense or by order of the government for a certain time lived and worked in Turkestan. In the studies of such scientists as G. Stumm (*Stumm G. Der russische Feldzug. Berlin, 1873*); A.Petzhold (*Petzhold A. Umschau im Russischen Turkestan (im Jahre*

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1871) nebst einer allgemeinen Schilderung des "Turkestanischen Beckens". Leipzig, 1877); E.Zugmayer (*Zugmayer E. Eine Reise durch Vorderasien im Jahre 1904. Berlin, 1905*); A.Lehmann (*Lehmann A. Alexander Lehmann's Reise nach Buchara und Samarkand in den Jahren 1841 und 1842 (Nach den hinterlassenen Schriften desselben bearbeitet, und mit Anmerkungen versehen von G. v. Helmersen. Nebst einem zoologischen Anhaenge von J.F.Brandt. Berlin, 1852*); E.Eversmann (*Eversmann E. Reise von Orenburg nach Buchara. Berlin, 1823)*; C.Palen (*Palen (Constantin von Pahlen, Im Auftrag des Zaren in Turkestan. Berlin. 1966*); M.Albrecht (*Max Albrecht, Russisch Zentalasien. Reisebilder aus Transkaspien, Buchara und Turkestan. Hamburg, 1896*); F. Schwartz (*Schwartz F.Turkestan. Freiburg, 1900)*; W.Rickmers (*Willi Rickmer. Rickmers*) comprehensively covered the socio-economic, political and economic situation of Turkestan in the XIX – early XX centuries. It should be noted that many foreign researches of that period about the region were reflected in the pages of "Turkestan collection".

III. RESEARCH OBJECTIVES.

Objectively reveal the activities of German-speaking Europeans in Turkestan, as well as analyze their contribution to the development of socio-economic, political and scientific life in the region in the XIX – early XX centuries. In addition, to inform the general public about the scientific results of German scientists who visited Central Asia.

IV. RESEARCH METHODOLOGY.

Various historical and methodological approaches were used in the study. Due to the fact that this topic incorporates innovations of social-economic, political and scientific nature, an objective approach to the study requires source analysis.

V. Results and discussion.

Together with the Russians, the Germans, representatives of the Russian administration represented by officials of German origin, arrived in Central Asia. Among the most famous should be attributed, along with General Konstantin fon Kaufmann (*1818–1882*), his successor, Governor-General Nikolaus O. Rosenbach (*1884–1889*), Chief of Staff of Turkestan Military District Adolf Mosel (*1878–1882*), General Guido Richter (*1906–1910*), military governor of Semirechensk region and ataman of Cossacks of Semirechye, Lieutenant General M.A.Folbaum (*1866–1916*) and many others. In provinces there were not few staff officers and generals of German origin. Based on Lerch's information, Stumm states that by 1871, 110 Germans lived in the European part of Tashkent along with 1,289 Russians, and Kakhle notes that in 1877, 77 women and 238 men lived in Turkestan. By 1884 their number exceeded 279, 73 of them were generals, staff officers and the highest officials who lived in Tashkent [4]. We are talking basically about Germans of Baltic provinces which in hope of fast increase in service and reception of George's cross have arrived to Turkestan [5]. Number of this group basically state officials for ten years has increased on 1000 persons which have been redistributed to such cities as Dzhizak, Samarkand, Katta-Kurgan, Bukhara, Chardzhou, Hodjent, Kokand, etc. In addition, 467 German colonists were identified.

In 1906, Ashgabat had quite a large Lutheran society, which was reported by the military governor of the Caspian region in Tashkent. He requested financial assistance for the construction of a Lutheran church in Ashgabat. Obviously, the service in Central Asia could not fully meet all expectations for a fast and successful career.

There were two teachers among the first immigrants of German origin: the head of the gymnasium, opened its doors to the children of employees in October 1869, was a German woman named Natalia Pachert, and the second teacher was Mr. Schtoff, who taught German lessons. These were followed by others in search of new employment and living opportunities in the newly occupied territories [6]. The Mennonites, who had left their settled places in Saratov and Samara regions, arrived in Central Asia and thus formed the first groups of German colonists in the region. At the head of two preachers, in 1881 about 500 Germans settled in the Talas Valley, and other families left for the Khiva Khanate in

1884. In Khiva and Petro-Alexandrovsk at the end of XIX – beginning of XX centuries 142 Mennonites lived in 36 yards in total [7].

During the hunger in the Volga region in 1891, other Germans also moved to the steppes north of Tashkent and near Merv in the Caspian region [8]. In a general stream of colonists to Central Asia German immigrants made autumn a narrow strip as imperial officials preferred more Slavic peasants of orthodox belief and consequently migration to Turkestan had certain restrictions. The resettlement of German colonists in Central Asia before World War I was not a widespread phenomenon. Due to the lack of arable land and land for settlement, the decision on the resettlers was very slow. This problem could only be solved by confiscating the land of the local population. Whole intelligence commissions were actively working to find the necessary land. Not surprisingly, 90% of the settlers were Russians and Ukrainians, while the number of Germans who entered the region illegally was quite small. They made up about 13 settlements and separate yards in total about 4000 people. Ten of these settlements were located in the Syrdarya, two in the Caspian and one in the Khanate Khiva. But special attention should be paid to the fact that although there were very few Germans in the region, they not only quickly adapted to the extreme conditions of the area, but also managed to achieve high results in their fields of activity [9]. Here it is appropriate to mention the name of Emil Rizen, who achieved the highest position in the palace of the Khanat Khiva [7].

Along with the colonists serving from the administration and the military, the Germans lived in cities and large settlements, who owned, for example, a hotel in New Bukhara, and elsewhere worked as doctors, teachers, pharmacists or participated in the trade of Turkestan as jewelers, watchmakers, brewers, confectioners, or nannies, etc. There were relatively few Germans living in the village compared to the city. German surnames represent mainly the urban element: from the city of Verny to Fergana region, from Tashkent to Merv and Ashgabat. Advertisements and announcements on the pages of newspapers prove that in Tashkent in 1908 not only the fashion house "Berlin shop", a shop for stationery "Y.P.Edelman", "House of Krause", the firm "Stoll and Co.", a dental center run by a German woman named Maria Rudnik, but also internists and dermatologists named Schwartz, Friedman and Rheingard offered their medical services to the population. And in one advertisement, a high-ranking official was looking for a German nurse and maid [11].

Domestic education, as well as in all empire, has received a wide circulation in Russian Turkestan. In the second half of XIX century governesses and governors who lived there permanently or temporarily appeared in the region. Most of them came from England, France and Switzerland. They worked as house teachers in big cities. In their daily life and professional activities, they were more connected to the Russian military and merchant groups and had little contact with the local population of the region [8]. The German Eduard Wilde helped the population affected by the earthquake. The State Archive of the Republic of Uzbekistan has documents with a large list of German names that sponsored different schools in the town of Verniy (Fergana): *N.L. Zeland, An. K. Berger, V.V. Krachmer, A.K.Fischer, L.N.Fiedler, Al.T.Goltz, Maria Volkenstein* [13]. Certainly, there were also those who were included in the lists of police bodies for certain offences, which is confirmed by various protocols and mentioning them in the pages of the newspapers of that time.

The German stratum in Central Asia in general, and in Turkestan in particular, consisted not only of the military, merchants, craftsmen, doctors, etc., but also among them there were many scientists who made their contribution to the study of the whole region. While the discovery and study of the African rivers of the Nile and Niger attracted a lot of attention of European scientists, they were also interested in the Central Asian region. Until the XIX century, one of the main sources for Europeans in the Inner Asia was the information of such medieval travelers as Marco Polo. From the second half of the XIX century, the expansion of the British and Russian empires in the depths of Central Asia reveals the need for geographical and ethnographic knowledge of the region. It was from this period that Central Asia became the object of more frequent travels and scientific expeditions of European scientists. Russian and British expeditions began to study the region with great interest. German-speaking scientists also joined this process with great enthusiasm.

In total during the period from 1871 to 1914 more than 30 Austrian and German scientists visited Turkestan with scientific purposes [14].

The second opening of such Asian region as Turkestan has coincided in Europe with the period of the basis of the European foreign mountaineering. Though opening of the Turkestan mountains was rather late phenomenon, it is considered the phenomenon of natural history. Unlike many foreign expeditions to the Tyan-Shan and Pamirs carried out in terms of imperial ambitions, German studies until 1880 were limited to observations and reflection of conclusions from the collected information. Natural science researches of German-speaking researchers of Turkestan were devoted to such branches of natural science as *orography* (study of mountain systems), *irrigation* (study of irrigation systems), *hydrography* (study of reservoirs and water basins), *climatology, zoology* (study of fauna), *entomology* (study of insects), *lepidopterology* (study of butterflies), *ichthyology* (study of fish).

Most of the researchers were high level specialists, who had participated in many international expeditions before. It is necessary to name the philologist, librarian and creator of the Turkestan collection, which is kept in the National Library named after Alisher Navoi, *Eugene Karlovich Betger* (*1887–1956*), whose father Karl Bogdanovich or the name of the Danish scientist – agronomist *Richard Schroeder*, who for many years headed the agricultural experimental station of the Governor-General. Many German researchers whose names are not yet known to all have contributed to the scientific study of the Turkestan region. Under a contract with the Kaiser Academy of Sciences, they were sent abroad to conduct, together with Russian colleagues, geological research or plant useful plants in the conquered areas. In 1829, by order of the Russian Imperial Geographical Society, *Alexander von Humboldt* (*1769–1859*) was sent on a special mission to study the north-eastern regions of Central Asia and Siberia. As a result in his scientific treatise he gave a detailed scientific description of the Aral and Caspian Seas [15]. The German scientist who has left the scientific works, concerning Turkestan, Bukhara emirate is *Eduard Friedrich Eversmann (1794–1860)*. He was born near Westphalia and has lived in Russia for a long time since 1816. He was a major specialist in natural sciences and medicine and a connoisseur of Oriental languages (Persian, Tatar). He became interested in zoology, studied the nature of Central Asia and the Urals [16].

In 1820 Eversmann as a part of A.Negri's expedition goes from Orenburg to Bukhara. Eversmann impersonated a Tatar merchant. But according to Professor Helmersen, he was exposed by one Bukhara merchant and almost extradited to the emir authorities. That is why Eversmann had to urgently leave for Orenburg, saving himself from imminent death [17]. Eversmann sends the scientific materials on Turkestan to Berlin [18]. Results of his expeditions to Bukhara were simultaneously published in 1823 in Berlin [19] and London [20]. In 1823 Eversmann continues to practice as a doctor in Orenburg and conducts his scientific observations [21]. In 1825 he participated in the expedition of Colonel F.F.Berg. As a result Berg and Eversmann studied the Caspian and Aral Sea, the territories lying between them. They for the first time scientifically proved that the Aral Sea is located above the Caspian Sea.

As a result of studying the zoological and botanical collections of Eversmann in Turkestan several hundreds of species unknown to science were discovered. He was a member of the Academy of Sciences in Russia and many other foreign scientific societies [22]. In expeditions across Turkestan he collected a rich collection of mammals, birds and insects. Eversmann's entomological collection includes 50,420 species of 11,252 insects. In Turkestan collection there are another 3852 species of beetles and 2828 species of butterflies. After the death of the researcher, the collection was acquired by the Russian Entomological Society. This collection is kept in the Zoological Museum of the Russian Academy of Sciences in St. Petersburg [23]. This collection was collected personally by Eversmann himself in 1841–1859. There are many fish species, 3 amphibian species, 20 bird species, 2 mammal species [24]. Besides Eversmann has made the catalogue of mammals of Central Asia. The scientist has carefully studied and has made the big contribution to development of such natural sciences of Turkestan as zoology, botany, ornithology [25]. He was one of

the first to propose to introduce biological methods to combat parasites on the outskirts of Russia. Teacher Eversmann Professor G. Lichtenstein published in Berlin materials of Eversmann's trips to Bukhara.

Eversmann's scientific works are widely known in the world. V.I. Garanin has brought in the article the big list of scientific works of the scientist [26]. Since 2005 in Russia in honour of the scientist the scientific magazine "Eversmannia" is published. Thus, Eduard Eversmann has made a significant contribution to the development of natural sciences in Turkestan.

One cannot but mention the name of another German researcher of Central Asia - *Alexander Lehmann (1814–1842*). He studied at Dorpat University. In 1839 Lehmann participated in the Khiva campaign as a member of Perovsky's detachment. In the spring of 1840 the young scientist organized non-stop excursions around Novo-Alexanderovsk on the eastern coast of the Caspian Sea. He collected a rich material about the flora and fauna of the northern Aral region and Mangishlak. In the spring of 1841 he participated in the Bukhara expedition of Major of Mountain Engineering Corps N.F.Butenev. During the expedition he collected extensive scientific information about natural conditions of the Bukhara Emirate and the Kizilkum Desert. The first scientific description of the nature of the Zarafshan Valley (Uzbekistan) was made by Alexander Leman. On his way back home, Lemann became seriously ill and was taken to a hospital in Simbirsk, where a 28-year old young scientist died on 30 August 1842.

He dedicated most of his scientific materials to the Academy of Sciences of Russia. Collections of botany from Uzbekistan were delivered to Professor A.S. Bunge, a teacher of the young scientist at Dorpat University. The rest of the materials and impressions of the Turkestan trips were published by his academic friends. A.Lemann's researches acquainted the scientific community with unknown early materials about Bukhara (Uzbekistan). C.E. von Ber and F.F. Brandt reworked and presented Lemann's zoological collections for publication. During his short life he managed to enrich botany with 180 new types and 20 types of vegetation. 18 plant species were named after the scientist. It took the Russian Academy of Sciences 8 years to fully study the botanical collection of A. Lemann. For example, the entomological collection of Central Asian insects in the Zarafshan Valley alone includes more than 1000 types. His name is given to the family of plants "Alexandra", from animals - a breed of Central Asian hare and a Turkestan mountain lizard is named after the scientist - agama. An island in the west of Novaya Zemlya also received the name of Lemanna. All this is a tribute to the young scientist for his great services in science.

In 1852, G.F. Helmersen reworked and published his work under the title – "The Travel of Alexander Lemann to Bukhara and Samarkand, undertaken in 1841 and 1842. " Zoological additions of Professor J.F.Brandt also found a place in it [27]. As to fauna of Central Asia, Lehmann writes much about wide distribution in reed thickets of Amudarya and Syrdarya tigers - *Felis tigris Linn* [28], and also there is an information about striped hyenas of upper Zarafshan - *Hyaena striata Zimmerm* [29]. The scientist gives the wide list of Latin scientific names of animals and birds of Turkestan [30]. Very interesting data of the researcher on ichthyology of edge [31]. The detailed list of the fish living in waters of Samarkand [32] is made. A.Lehmann gives the extensive information on fishes of Central Asia [33]. On the basis of ichthyological researches of A.Lemann it is possible to ascertain, that in comparison with Siberia in Central Asia in XIX century "carps" prevailed more, than "salmon". This position was similar in Western and Southern Europe. The fish fauna of Central Asia has much in common with the fauna of the Caucasus. This can be observed in comparison with the catalogue of Menetris' fish (*Catalogue raisonne*).

Among them were people who at some time lived in the region for scientific purposes. The astronomer Franz von Schwartz, at the invitation of Governor General Franz. Kaufmann arrived in 1874 to work in the Tashkent observatory and during his fifteen-year stay in the region he became famous as an ethnographer and local historian of Turkestan [34]. The ethnographer and naturalist *Otto Finsh (1839–1917)* and zoologist *Alfred E. Brem (1829–1884*) were also many famous scientists of their time [35]. One more German scientist Alexander Petzhold (*George Paul Alexander Petzhold, 1810–1889*) in 1871 visited the cities of Samarkand, Hodgent and Turkestan [36]. His expedition was organized thanks

to direct material support and the invitation of the Governor-General Kaufmann. Petzhold was a professor at the University of Dorpat (Germany). The results of the scholar's research on Central Asia are presented in the book "Turkey" [37]. In it Petzhold gives data on flora and fauna of Turkestan [38], attention is given to the orographic data [30], to customs and a way of life of people [40], its occupations, besides the author reflects and about prospect of edge [41]. Petzhold also gives the mineralogical analysis of localities [42]. Hydrology and climatology of Turkestan also did not remain out of sight of the researcher [43].

Besides, the researcher is interested in medicine and pharmaceutics of the region. At the request of Professor Dragendorff from Germany, Petzhold is trying to find samples of medical products used in Turkestan. For this purpose, he is looking for the best expert in traditional medicine in Samarkand. It was Hakim Domla Muhammadiy [44]. The researcher will learn a lot from him about medicine of edge. Petzhold sends the received information together with samples of medicines to Professor Dragendorff who in 1872 publishes results of researches on medicine and pharmacology in Turkestan in the Russian pharmaceutical magazine ("Pharmazeutische Zeitschrift fuer Russland". XI. No. 14 and 15; "Russische Revue". Bd.II. S.331) [40].

Swedish scientist *Sven Hedin (1865–1952*) became almost legendary among European researchers of Central Asia. During seven scientific expeditions in 1885–1935 the researcher visited Iran, Mesopatamia, Turkestan, Tibet, India and China. The results of Gedin's scientific research surprised everyone in Germany. He printed his works in Leipzig in the famous Albert Brockhaus's editorial office, the basis of Gedin's success is that he was able to influence the public with his research mind and fearlessness.

In 1854–1858, three naturalist brothers, *Hermann, Adolph, Robert Schlagintweit*, went to Central Asia. It was the first scientific expedition led by the Germans. A.von Humboldt was one of the initiators of this expedition.

Adolf (1829–1857), Hermann (1826–1882) and *Robert (1833–1885*) began exploring Inner Asia from the South. From 1846 *Adolf Schlagintweit (1829–1857)* and *Hermann (1829–1857)* traveled extensively in the Alps, with the first ascent to Monte Rosa on 23 August 1851. In 1853 Adolf Schlagintweit was appointed associate professor of geology in Munich, and Hermann Schlagintweit was appointed associate professor of geography in Berlin as early as 1851. As mentioned above, in 1854, with the assistance of A. Schlagintweit, he was appointed to the position of Associate Professor of Geography in Berlin. Humboldt was commissioned by the Prussian government and the English East India Company to undertake a research voyage to Asia; their brother Robert also took part. This was one of the last major voyages covering all of India and Turkestan (East), the results of which could still be compared with the detailed research that had already begun on a large scale. In the service of the East India Company, the Schlagintwhites began the tradition of scientific study of Central Asian mountain systems.

The Schlagintwhite brothers conducted their research in a fragmented manner and after a certain period of time met in a conventional setting. In this way, they studied the Himalayan mountain ranges and rivers. The scientific research of the Schlagintweit brothers on orography and hydronomy of Turkestan and other regions of Central Asia gained world recognition in due course. From Bombay, the Schlagintweit passed part together, part separately through the Decan to Madras, after which Adolf and Robert visited the north-western provinces. In April 1855 they travelled to the mountainous country of the western Himalayas with its giant glaciers, on Mount Kamet they climbed to the highest altitude of 6770 m and finally explored the source areas of the Ganges, Satlege and Indus. In May 1856 they merged in Simla with Herman, who at the time was active in the mountains between Brahmaputra and Indochina and in the eastern Himalayas. They began a joint study of Central Asia from the south, at a time when Russian researchers began to survey it from the north. In 1856, Herman and Robert crossed the main Himalayan range, visited Kashmir, Ladakh and Baltistan, crossed the Karakoram in disguise, passed through the Tibetan highlands and were the first Europeans to cross Kun-Lun. From there, they returned to the Indus region and then to Nepal. At this time, Adolf was active in the Upper Indus and western Tibet. In November 1856, the brothers met again in Rawalpindi on the Indus. Then Robert drove through the

Indus region, visited Ceylon and on his way back to Europe met Herman, who chose the road through Hindustan and Bengal.

But only two of the brothers could return home. As 28-year old Adolf Shlagintwhite alone continued his journey. Following his travels to the Northeast of India, the persistent German began planning a scientific expedition to unknown areas of Central Asia - Kashgar, Samarkand, Bukhara. The English company was interested in contacts with the states of Turkestan and soon they had a convenient case, when Adolf Shlagintvait in 1857 agreed to provide a letter from the British to the ruler of Kokand [41]. Therefore it again has gone through Karakorum and Kunlun to Chinese Turkestan (Tarim's pool), however in August has been grasped near Yarkenda (Yarkent), - it conducted the researches in Kashgar (East Turkestan) just at that time when there has flared up revolt of local population. He was arrested on charges of spy, and in Kashgar he was executed by order of a local ruler.

Returning to Europe, Hermann and Robert Schlagintweit published many scientific papers reflecting the results of their expeditions [42]. But because of the vast amount of material collected during the expedition, they could not process them for the rest of their lives. Their collections have added to museums of Germany very valuable exhibits and have given the big push to development of natural and humanities sciences about Asia [43]. In 1884 in Germany the German researcher Werner the book devoted to travels of brothers Schlagintweit [44] has been published.

A bit later than the travels of the Schlagintweit brothers in 1868–1872 *Ferdinand Richthofen (1833–1905*) visited Central Asia as part of the Prussian embassy sent to the Far East. Within this embassy 7 expeditions to China and Central Asia were organized. In all these expeditions F.Richtgofen participated as a geologist. In 1886 he published his work "Manual for Travellers". It is known that F.Richtgofen introduced into scientific circulation the term "*The Great Silk Road*".

Studies of Asian alpine systems are characterized by descriptions of picturesque landscapes, ethnographic observations, definition of mountains as microcosmos. In this respect, the studies of such German scientists as *Gottfrid Merzbacher (1843–1926), Willi Rickmer Rickmers (1873–1965), Arved von Schultz (1872–1920)* and *Fritz Machatschek (1876–1957*) occupy a prominent place in orography, ethnography and history of Central Asia.

Summing up this article, we can state that in the XIX – beginning of XX century in the total flow of Europeans who visited Central Asia, German interlayer takes a significant place. Germans were actively involved in industrial relations both in the countryside and in the city. Special attention should be paid to the activities of German-speaking scientists, who made a huge contribution to the development of natural and human sciences in Turkestan. German-speaking Europeans have made a significant contribution to the study of Turkestan and the further development of such fields of science as history, ethnography, medicine, geography, botany, zoology, hydrography, etc. in this area. Many fundamental works have been written, which have not lost their relevance and scientific value. Scientific works of most of the abovementioned German-speaking researchers of XIX and early XX centuries are kept in the funds of the National Library named after Alisher Navoi in Tashkent, and they are an important source for the study of rich history and peculiar culture of Turkestan.

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