

The Dadians and Early Ottoman Industrialization

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Except for the Dadians, the Balian and couple individuals, the great majority of the Armenian **amiras**¹ living in Istanbul practised the profession of **sarraflık**, Ottoman designation for banking or money-lending, while about a dozen others were appointed **bazırgân**, an Ottoman term meaning «officially-appointed purveyor». Among the **sarrafs**, i. e. bankers, the Diuzians had a monopolistic control over the state mint; the Balian, on the other hand, along with their relative Hovhannes Amira Serverian, were the **mi'marbashi**, «chief imperial architect», of the sultans.

A third prominent family of amiras, the Dadians, initially held the monopoly for the operation of the gunpowder mills in Istanbul and were eventually called to play a major role in the early Ottoman industrialization effort. Dad Arakel Amira, the ancestor who gave the family its name, was appointed **barutçubashi**, «chief powder maker», in 1795, by Sultan Selim III in appreciation for his mechanical skills and technical innovations. Having migrated earlier from Akn to Istanbul and tried his luck as a watch repairer, Dad Arakel then turned **sarraf** but had to abandon this profession as well because of a long illness. Finally, he entered into the employ of a flour milling company, named

1. The term **amira** derives from the Arabic **emir**, meaning «prince», «commander».

«Paydos». Upon the recommendation of Foreign Minister Reshid Efendi (whom he had known and impressed when working as a watch repairer), he was allowed to repair the pulley of the old gunpowder mill at Ay Stefano (known also as San Stefano, now Yeshil Köy). This activity brought him to the attention of Ottoman officials, who asked him to build a steam-powered engine for the new powder factory under construction at Azadli, a village north of Küçük Çekmeje. Having successfully completed the task assigned, Dad Arakel was then appointed director of the new powder mill, with the privilege of exemption from payment of taxes and import duties².

Arakel Amira further invented a new machine that could perform four operations at once: it could crush the mass of powder, mince and sift it, and pulverize and sift the coal. As the quality of the powder manufactured at the Azadli mill proved superior to the one made at the old mill, the French technician, who had been managing the mill at Ay Stefano, was dismissed and Arakel was appointed director. «A selfmade mechanical genius»³, Dad Arakel invented several other machines or devices. Thus he built a wheeled-boat, similar to those on steamboats which did not exist at the time. At the request of Kapudan (Admiral) Hüseyin Pasha he invented, in 1802, a device to drain the bottom of ships, and another machine to cover the bottom of ships with copper instead of wood. In 1805 he built five looms to weave **çuha**, broad-cloth; the quality of the manufactured cloth was so high that the Sultan wore a coat made of that **çuha** and visited Arakel Amira at his factory at Azadli to express his satisfaction. During Mahmud II's period, Arakel also built a machine, called **hadde**, to laminate silver and gold ingots, which his son Simon further improved; it was later used in the mint by the Diuzians⁴. So great was Arakel's reputation that in 1810 the Shah of Iran invited him to his court. Understandably Mahmud did not

2. Eprem Boghossian, **Dadian Gerdastane** [The Dadian Dynasty], Vienna, 1968, pp. 23-25.

3. Edward C. Clark, **The Ottoman Industrial Revolution**, «International Journal of Middle East Studies», 5, no. 1, January 1974, p. 70.

4. Boghossian, **The Dadian Dynasty**, pp. 25-26.

allow Arakel to accept the invitation but permitted the Shah's representatives to examine his machines.

Armenian sources state that the position of **barutçubashi** was granted to Arakel Amira as a hereditary privilege⁵. After Arakel's death in 1812 his eldest son, Simon Amira Dadian, inherited the position at both mills. Whether the position was hereditary or whether each sultan reappointed the Dadians, the fact remains that this family kept the management of the two powder factories under its control until 1889.

Most members of the family were highly gifted, but the outstanding figure among Dad Arakel's successors is his third son, Hovhannes Amira Dadian (1798-1869). It is worth examining and studying the work of this remarkable man. His experience at the mill started when he was hardly fifteen years old. In 1820 he was named director of the paper mill at Beykoz (founded by an Armenian named Artin). In 1826 he served as director of the spinning mill at Eyup. A year later Hovhannes Amira devised a new machine for the piercing and rifling of the barrels of muskets, and then a device to polish them. Mahmud II was so pleased with Hovhannes and his older brother Simon that he personally expressed his satisfaction and gave Simon 15,000 and Hovhannes 10,000 **kurush**⁶. The following year Hovhannes built three more machines for the manufacture of muskets at the plant at Dolmabahçe, four others for spinning, and a little later a water pump⁷.

In order to improve his technical knowledge, Hovhannes Amira made extensive trips to Europe. His first voyage, in 1835, was overland to Austria, Italy, France and England. There he showed particular interest in chemistry, and gained up-to-date knowledge on iron foundries and weaving factories. As the official representative of the Sultan, he was well received everywhere

5. Ibid., p. 28; G. Basmadjian, **Dadian Gerdastani Djiughagru-tiune** [The Genealogy of the Dadian Dynasty], «Banaser», (Paris) 1907, p. 121.

6. **Dadian Gerdastani Antsialen** [About the Past of Dadian Dynasty], «-Endarsak Oratsoyts», (Constantinople), 1932, pp. 98-99.

7. Boghossian, **The Dadian Dynasty**, pp. 52-55.

he visited⁸. At the end of this year-long trip, he brought with him modern machinery for the powder mills whose operation he re-organized completely. He had also obtained many diplomas from various institutions, and was consequently granted the important medal of **iftihar** in 1838.

The first innovations introduced by Hovhannes Dadian were related chiefly to the two gunpowder mills. Not only the quality of the powder was upgraded⁹, but new methods of manufacture initiated¹⁰; all of these duly recognized and appreciated by the Ottoman government. The most significant contributions this talented man made to the Ottoman economy went beyond this sphere, however, and affected the whole of the industrial field. He founded many state-owned industrial plants and factories, a quick enumeration of which can give a sense of the range of his work and of his multifaceted talent. In 1840 he set up a silk mill for the manufacture of silk products at Hereke; during the same year an iron smelting foundry was established at Ay Stefano, near the powder mill; in 1842, a tannery was built at a place called Bogazici or Silviburnu, near Beykoz, whose leather was to be used for the manufacture of shoes and powder-flasks for troops; in 1844 two factories were erected at Izmir for the manufacture of **çuha**, broadcloth, to be utilized in making clothing for soldiers; in 1845 a cotton mill was constructed again at Hereke, for the manufacture of **fes**, headgear, underwear, socks, carpet and silk cloth; during the same year one large and one small iron melting foundries were built at Zeytinburnu, near Ay Stefano.

8. Avetis Berberian, **Patmutiun Hayots** [History of the Armenians], Constantinople, 1870, pp. 264-265.

9. Prussian engineers tested the strength of the gunpowder manufactured at the Azadli mill, compared it with the powder made in England and they found the two of equal quality and standard. See «Arshaloys Araratean», (Izmir), 18 October, 1841.

10. In 1846, with the assistance of his three sons, Hovhannes Amira tested the powder manufactured from cotton at the presence of Sultan Abdulmejid, with successful results. See «Hayastan», (Constantinople), 30 November, 1846.

Most of these factories needed modern, European-made machinery, for the purchase of which Hovhannes Amira undertook his second year-long trip to Europe (from October 1842 to February 1844). Along with the purchased machinery he hired European technicians and skilled workers to operate the modern factories. Contemporary sources continually refer to Sultan Abdülmejid's frequent visits to these plants. Indeed, Hovhannes Amira is reported to have paid a visit to king Louis-Philippe of France during this second trip, thus lending support to the view that his visits were of official nature¹¹. For the same reason, in February 1847, he embarked on a third trip to Europe from which he returned in January 1848. The contemporary Armenian newspaper in Izmir reported that, before the start of his journey, Hovhannes Amira, along with his two sons Arakel-Sisag and Nerses-Khosrov, «had the honor to be presented to Sultan Abdülmejid who had a long conversation with Hovhannes Amira about matters related to his position»¹².

Clearly, Hovhannes Amira acted in a broader capacity than that of a purchasing agent for the Ottoman government. Before his second trip to Europe, he had selected sites for factories to be built in Bursa and Izmit (then called also Nicomedia). He initiated, planned and implemented the industrial projects that the government felt the state economy needed. The government determined the policy of the industrialization program, its direction, emphasis and the amount of investment; Dadian's task was to implement the program, in all its aspects. Recently, a keen observer of early Ottoman industrialization efforts remarked: «Sultan Abdülmejid apparently gave extensive authority to Ohannes Dadian as effective head of the new industrial program. In 1842 Ohannes helped select specific sites for the Istanbul factories, the model farm, the Izmit wool mill, the Bursa sheep-ranch...»¹³. By the early 1840s, Hovhannes Amira was considered «probably

11. Boghossian, **The Dadian Dynasty**, pp. 63-73; Arshag Alboyadjian, **Les Dadian**, trans. Anna Naguib Boutros-Ghali, Cairo, 1965, pp. 79-80 and 100-102.

12. «Arshaloys Araratean», (Izmir), 1847, no. 280.

13. Clark, **Industrial Revolution**, p. 71.

more experienced in industrial management than was any other Ottoman subject»¹⁴.

The administration and management of all these industrial enterprises were exclusively in the hands of Dadians. While Hovhannes was absorbed in the technical aspects of the industrial program, his nephew, Boghos Amira (Hovhannes's elder brother, Simon's son), was the supervisor of both powder mills. Hovhannes Amira took responsibility for governmental relations, foreign and domestic, and for importation of machinery, his nephew acted as chief administrator. Other members of the family were entrusted with key positions in the factories. Hovhannes Amira's eldest son, Arakel-Sisag, was the manager of the imperial model farm at Zeytinburnu, set up in 1847. In 1857 this young Dadian was named **barutçubashi** of the powderworks at Rados (Rhodes?), as well as director of the sulphur and saltpeter (or potassium nitrate) factory. After his father's death in 1869, he was appointed **barutçubashi** of the powder mill at Azadli¹⁵.

Hovhannes Amira's second son, Nerses-Khosrov, an engineer like his older brother, was named director of the wool mill at Izmit after his return from studies in Paris in 1845, and two years later became manager of the foundry at Zeytinburnu. Following in his father's footsteps, this talented man was an innovator and, to some extent, also an inventor. In 1847 he built the first railroad track in Turkey on the Strait of the Bosphorus¹⁶. This short track was built to facilitate movement of freight to and from the brick factory at the village of Büyükdere on the Bosphorus. He further invented a water pump used in the wells of Istanbul, and adapted a heavy scale for the use of customs officials in the weighing of heavy loads in the harbor. Other members and relatives of the family were employed in the various factories and plants under Dadians' management. In 1843 Arakel-Sisag dispatched one of his assistants at the Azadli mill to Bagdad to set up a powder mill there. The Dadians employed many Armenians. The village of Makrikeui, now Bakirköy, was inha-

14. *Ibid.*, p. 70.

15. Boghossian, *The Dadian Dynasty*, pp. 123-127.

16. *Ibid.*, p. 158.

bited by immigrant Armenians from various provinces, who worked in the nearby powder factory at Ay Stefano¹⁷. Some of these were skilled laborers; Sivri Khatchadur Kehya and Usda Ghugas of Palu were both experts in mechanics and powder making¹⁸. According to an eyewitness account, some five hundred Armenian workers were also employed at the musket works at Fanal, called **Tophane**¹⁹.

Many of the factories and plants the Dadians managed were built by Garabed Amira Balian, Chief Imperial Architect, in cooperation with Hovhannes Amira Serverian, another Imperial Architect and a son-in-law of Garabed Amira. To cite a few instances, the tannery near Beykoz was constructed by Balian Amira in 1842²⁰, so was the **çuha** mill in Izmit, built in 1844. Balian Amira reportedly used modern techniques, for «the building [of the **çuha** mill] which incorporated significant advances in European construction techniques»²¹.

In general, the Dadians kept a monopolistic privilege and control over the industrial field, the Balian and Serverians being involved only in the construction of factories. The only exception to this control was Hagop Çelebi Diuzian who, in 1844, installed steam-powered stamping machines in the mint, and built a paper mill in Izmir. It is not known why he did not continue his activities in this area of development. Were the Dadians able to eliminate their potential rival through the intervention of the Sultan or the government? Did Hagop Diuzian lose interest in industrial ventures? The two families had a long-standing rivalry; whether this rivalry played any role in cutting short Hagop Diuzian's new career in industry remains to be answered. In 1849 the Dadians were reported by an English newspaper to have been

17. Vahram H. Torkomian, ed. **Eremia Tchelepii (Keomiurdjian) Stampoloy Patmutiun** [History of Istanbul by Eremia Çelebi (Keomurdjian)] 3 vols., Vienna, 1913-1938, 1:400.

18. Boghossian, **The Dadian Dynasty**, p. 47.

19. R. Walsh, **Residence at Constantinople**, 2 vols., London, 1836, 2:432.

20. Boghossian, **The Dadian Dynasty**, p. 65.

21. Clark, **Industrial Revolution**, p. 68.

removed from office and their properties confiscated²³. Except for this one journalistic account, however, no Armenian or Western source mentions such a major mishap to the family. Foreigners also accused the Dadians of practising «jobbery», a term implying collusion between this Armenian family and Ottoman officials to whom they were accountable. Apparently there was sufficient ground for the accusation²³. However, such blames were not devoid of bias and self-serving interest.

Other Armenian industrialists emerged eventually, but the industrial activities of Armenians *per se* is not part of the subject of this study, only that of **amiras**. Nor is the industrialization effort of the Ottoman state a focal point either. It should be emphasized, however, that if the industrial program of the government did not achieve the anticipated results, it was due to the over-ambitious goals it had set, ignoring such essential prerequisites as proper economic infrastructure and social environment. A whole series of accidental mishaps, natural and man-made, coincided to give a heavy blow to the program²⁴. The Ottoman industrial program of the 1840s did not accomplish its major goals. «Not even Ottoman military self-sufficiency was remotely approached»²⁵. Many factories were closed and equipment rusted. Hovhannes Amira could not «carry through [the] widespread revolutionary changes» that the program would inevitably usher in²⁶. But in a country where one of the major factors responsible for the stagnant condition of the economy «was the lack of ma-

22. «The Times» (London), 23 January 1850, p. 6, reported in Clark, **Industrial Revolution**, p. 73.

23. Clark, **Industrial Revolution**, p. 74; Cyrus Hamlin, **Among the Turks**, London, 1878, pp. 57-60.

24. Cyrus Hamlin, **Among the Turks**, p. 73-74. To cite a few of the accidents: in 1848 the Kuçuk Çekmeçe powder works blew up; in 1855 an earthquake destroyed the silk mill at Bursa; due to lack of access roads and mining equipment the exploitation of coal and iron-ore deposits lagged, which in turn affected delivery of iron plows to the model farm, etc.

25. *Ibid.*, p. 73.

26. *Ibid.*, p. 75.

nagers and technicians»²⁷ the Dadians were certainly a new breed, embodying in their persons both qualifications. They even tried to train local people for the new industries. In the technical school they established, members of the family also served as teachers.

All in all, the Dadians were not merely industrial managers and technocrats, both badly needed in the Ottoman industrialization program, but also innovators and westernizers who introduced western technology, scientific innovations, education and mentality into Ottoman governing circles and society in general.

27. Charles Issawi, ed., *The Economic History of the Middle East, 1800-1914*, Chicago, 1966, p. 47.

ՏԱՏԵԱՆՆԵՐԸ ԵՒ ՕՍՄԱՆԵԱՆ ՎԱՂ ՇՐՋԱՆԻ ՃԱՐՏԱՐԱՐՈՒԵՍԸ

ՅԱԿՈՒՅ ՊԱՐՍՈՒՄԵԱՆ

(Ամփոփում)

Տատեանները, որոնք սկզբնական շրջանին ստանձնած էին վա-
ռօդափոշիի ազատներուն վարիչի պաշտօնը, ժամանակի ընթացքին
կարելորդ դեր մը խաղացին Օսմանեան կայսրութեան ֆարտաբարութե-
սը զարգացնելու աշխատանքներուն մէջ :

Տառ Առաքել (ընտանիքին նախահայրը), Սիմոն Ամիրա Տառ-
եան, բայց յատկապէս Յովհաննէս Ամիրա Տատեան (1798-1868 թթ․)
եւ անոր զաւակները, իրենց նորարարութիւններով ու հնարամտու-
թեամբ յաջողեցան արդիականացման ճանապարհին վրայ դնել Օս-
մանեան ֆարտաբարութեան, որուն համար յաճախ եւ արժանացան
սուրբաններու գնահատանքին :

Տատեաններու նորարարութիւնը կը յայտնաբերուէր յատկապէս
վառօդափոշիի ազատներու, մանածի, հիւսուածեղէնի, արուեստական
մետաքսի, կաշիի, ջուրի մղիչներու եւ ֆարտաբարութեան այլ մար-
գերուն մէջ :