

## AYDIN SAYILI (1913 Istanbul- 1993 Ankara)



Ord. Prof. Dr. Aydın Sayılı was born in Istanbul in 1913. Sayılı completed his elementary and secondary education in Ankara, graduating from Ankara Boys' High School with first grant. During his graduation exams from high school, Sayılı was assessed in History and Geography by an exam board that included Atatürk. After successfully passing the exam by the Ministry of Education for scholarships abroad, which was Atatürk's wish, he was sent to the United States to study in the History of Science Department of Harvard University. Following his studies at Harvard, Sayılı also studied at universities like Columbia and Cornell and was awarded a PhD from Harvard in 1942. This was the first PhD given in Harvard University on history of science, and as far as known, in any other university for that matter. He returned to Turkey in 1943 after completing his studies in history of science at Harvard.

After returning to Turkey, he started to teach in the Philosophy Chair of the Faculty of Letters in Ankara University and was appointed "Associate Professor of History of Science" in 1946. In 1947 he was selected as a full member of the Turkish Historical Society and in 1952, was awarded the "Professor of History of Science" degree. He became the corresponding member of the International Academy of the History of Science in 1957. In 1961 he became an effective member of the academy, where he served as Chairman for three years from 1962 onwards.

Sayılı, who was also an honorary member of the Turkish Librarians' Association, served as the Head of the Medieval Branch of the Turkish Historical Society. In 1958 he became Ord. Professor and founded the History of Science Chair in the Faculty of Letters in Ankara University, thus, establishing historiography of science in Turkey.

Ord. Prof. Aydın Sayılı was appointed Head of the Department of Philosophy in the Faculty of Letters in 1974 and continued until 1983. After his retirement, he became the president of the Atatürk Supreme Council for Culture, Language, and History- Atatürk Culture Center, which was founded in 1984, and retired from this position in 1993.

As an internationally renowned scientist, in 1973 Aydın Sayılı was decorated with the Copernicus Medal by the Polish government for his work on the Polish astronomer Nicolaus Copernicus. In 1977 he received the TÜBİTAK Service Award, in 1980 he was chosen for the International Editorial Committee of UNESCO. In 1981 he was given the Excellent Service Award by Istanbul University and in 1990 he received the UNESCO Award for his lifetime achievements.

The conclusions reached by Ord. Prof. Aydın Sayılı stimulate the reevaluation of the medieval history of science.

Sayılı was interested in many areas of science history, mainly the history of astronomy and conducted unique studies in this field. In 1960 he published his masterpiece "Observatory in Islam and Its General Place in the History of the Observatory".

Sayılı, who put forth the contribution of the Turks, the Islamic world, the Egyptians, the Mesopotamians, and other civilizations to science and the formation of western civilization, paid particular attention to reaching first hand sources of information and to being unprejudiced and objective.

His remarkable works, which are not only numerous, but also rich in content, have been published in Turkish, English, Arabic and Persian. The range of his works spans from books to handouts, research papers and articles. His works such as *Türkler ve Bilim*, *The Observatory in Islam*, *Ebû Nasr el-Fârâbî'nin Halâ Üzerine Makalesi (Farabî's Article on Vacuum)*, *Uluğ Bey ve Semerkand'daki İlim Faaliyeti Hakkında Gıyâsüddin-i Kâşî'nin Mektubu (Gihiyath al-Din Kashi's Letter on Ulugh Bey and the Scientific Activity Samarqand)*, *Abdülhamid İbn Türk'ün Katışık Denklemlerde Mantiki Zaruretler Adlı Yazısı ve Zamanının Cebri (Logical Necessities in Mixed Equations by Abd Al*

*Hamid Ibn Turk and the Algebra of His Time*), *Mısırlılarda ve Mezopotamyalılarda Matematik, Astronomi ve Tıp*, *Copernicus and His Monumental Work* and *Hayatta En Hakiki Mürşit İlimdir* have received great attention from historians. Relying mostly on first-hand sources in his field, Sayılı created a total of 140 works in various languages, eight of which are books.

Aydın Sayılı, who had adopted scientific study as a lifestyle, died on 15 October 1993.

### **Some of his works**

#### **Copyrighted Books**

1. Hayatta En Hakiki Mürşit İlimdir, Milli Eğitim Basımevi, Ankara 1948.
2. Observatory in Islam and Its General Place in the History of the Observatory, Türk Tarih Kurumu Basımevi, Ankara 1960 (1988).
3. Uluğ Bey ve Semerkand'daki İlim Faaliyetleri Hakkında Gıyasü-din-i Kaşî'nin Mektubu (Gihiyath al-Din Kashi's Letter on Ulugh Bey and the Scientific Activity Samarqand), Türk Tarih Kurumu Basımevi, Ankara 1960 (1985).
4. Abdülhamid İbn Türk'ün Katışık Denklemlerde Mantıkî Zaruretler Adlı Yazısı ve Zamanın Cebri (Logical Necessities in Mixed Equations by Abd Al Hamid Ibn Turk and the Algebra of His Time), Türk Tarih Kurumu Basımevi, Ankara 1962.
5. Mısırlılarda ve Mezopotamyalılarda Matematik, Astronomi ve Tıp, Türk Tarih Kurumu Basımevi, Ankara 1966.
6. Kopernik ve Anıtsal Yapıtı, Nikola Kopernik 1473-1973, Başmur Matbaası, Ankara 1973.
7. Doğumunun Bininci Yılında Beyruni, Beyruni'ye Armağan, Türk Tarih Kurumu Basımevi, Ankara 1974.
8. Türkler ve Bilim, Yedinci İslam Ülkeleri Konferansı, İstanbul 1976.

#### **Books edited**

1. Ebû Nasr'î Farabî'nin Halâ Üzerine Makalesi (Farabî's Article on Vacuum), Ankara: Türk Tarih Kurumu, 1951 (in association with Prof. Dr. Necati Lugal), (Original in Arabic language, translated into Turkish and English), (Second edition, Ankara: Türk Tarih Kurumu, 1985).
2. Nikola Kopernik (1473-1973), Ankara: UNESCO Türkiye Milli Komisyonu, 1973.
3. Bilim, Kültür ve Öğretim Dili Olarak Türkçe, Ankara: Türk Tarih Kurumu, 1978 (Second Edition, Ankara: Türk Tarih Kurumu, 1994), (Third Edition, Ankara: Türk Tarih Kurumu, 2001).
4. Beyruni'ye Armağan, Ankara: Türk Tarih Kurumu, 1978.
5. İbn Sinâ, Doğumunun Bininci Yılı Armağanı, Ankara: Türk Tarih Kurumu, 1984.

## CAHIT ARF (1910 Thessaloniki - 1997 Istanbul)



Born in 1910 in Thessaloniki , Ord. Prof. Cahit Arf was a world-famous Turkish mathematician known for the theorems named after him.

He received his higher education from Ecole Normale Superieure in France and graduated in 1932. He taught mathematics at Galatasaray High School for a period of time before joining the Faculty of Science of Istanbul University. Afterwards, he went to Germany to receive his PhD.

Upon receiving his PhD from the University of Göttingen in 1938, Arf returned to Turkey in 1939 and resumed his post in the Faculty of Science of Istanbul University. Until 1962, Arf continued his studies in Istanbul University, where he became professor in 1943 and Ord. Professor in 1955. Afterwards, he started to teach mathematics at Robert College in Istanbul, and became the Science Branch Director of the Scientific and Technological Research Council of Turkey (TÜBİTAK) in 1964.

Cahit Arf conducted several research and observation studies in the USA, and gave lectures as a visiting professor at the University of California. Upon his return to Turkey in 1967, he joined the Middle East Technical University (METU). Following his retirement in 1980, Cahit Arf continued his studies for a while in Gebze Research Center of TÜBİTAK. He was the president of the Turkish Mathematical Society from 1985 to 1989.

The first work of Cahit Arf was published in 1939 in Crelle Journal – Germany’s famous journal of mathematics. Arf made significant contributions to mathematics with his works in numerous fields like algebra, number theory, elasticity theory, analysis, geometry and engineering mathematics and produced more than twenty original works.

Arf received the İnönü Award in 1948 and the TÜBİTAK Science Award in 1974. He was awarded an Honorary Doctorate from Istanbul Technical University and Karadeniz Technical University in 1980, and from METU in 1981. In 1990, an international symposium on Number Theory was organized in memory of Cahit Arf. The earliest conferences on his advanced Rings and Geometry studies were held in Istanbul in 1984.

Acquiring a worldwide reputation with his achievements in algebra, Cahit Arf is also known for his studies for solving synthetic geometry problems with the help of a ruler and compass. He is listed among prominent mathematicians with his studies named after him such as “Arf Invariant” of quadratic form, “Arf Rings” and “Arf Closure”. In addition to these terms, he also introduced “Hasse-Arf Theorem” to mathematics literature.

Cahit Arf died at the end of 1997.

## ARCHITECT KEMALEDDIN (1870 Istanbul –1927 Istanbul)



Architect Kemaleddin was born in 1870 in Istanbul. Due to his father's duty he went to Crete and learnt French and Arabic during his stay there. Having returned to Istanbul, he improved his foreign language skills. After high school, he was enrolled at the School of Engineering and graduated from this school in 1891 with first rank. During his education, with his outstanding talent, he drew the attention of German Architect Prof. Jasmund, who was lecturing at the same school, and became an assistant there. Architect Kemaleddin held this position for four years, during which time he also opened his private office and began designing his early works. In 1895, the Government sent him to Berlin for further studies in architecture. He studied architecture at Charlottenburg Technische Hochschule in Berlin for two years and worked in architectures' offices for a while.

Back in Turkey, Architect Kemaleddin was appointed as a lecturer in the fields of architecture and civil engineering at the School of Engineering. It was during this period that his ideas on national architecture started to blossom.

He produced his major works in architecture between 1909 and 1919. Founding the first trade association in 1908 under the name of 'Ottoman Association of Architects and Engineers', Architect Kemaleddin worked as the Construction and Reparation Manager at the Ministry of Foundations. During this period, when he was involved with the restoration of historical buildings and the design of new ones, he found the opportunity to examine the principles of Ottoman architecture, develop his own style and form his own thoughts on national architecture.

In the meantime, he was elected as a member of Royal Academy of Architecture (UK), owing to his success in the reparation of the Al-Aqsa Mosque in Jerusalem.

Among his major works are Çamlıca Girls' High School, Mosques of Bostancı, Bakırköy, Bebek and Yeşilköy, Reşadiye School and Tomb of Sultan Reşat, Tombs of Gazi Osman, Mahmud Şevket, Cevat, Ali Rıza and Hüsnü Pashas, Laleli Harikzedegan (Tayyare) Apartments, 1st, 2nd, 3rd, 4th Foundation Public Houses (Vakıf Hanları) in Istanbul; Gazi University Rectorate Building, premises of Gazi Education Institute and Turkish State Railways in Ankara. Furthermore, he gave the final shape and contributed to the completion of the Ankara Palace project that was initiated by Vedat Tek.

One of the pioneers of the national architecture trend, Architect Kemaleddin was inspired by classical Ottoman architecture; blending the distinct characteristics of German architecture with those of the Ottoman architecture and attempting to introduce a brand-new style. In his works, he displayed the characteristics of Ottoman and Islamic architecture in a way that reflected the national identity and used architectural elements such as arches, eaves and china tiling on the facades of buildings, highlighted symmetry and emphasized traditional style with tower-like protrusions and cornices placed on the facades.

Architect Kemaleddin died in 1927.

## FATMA ALIYE (1862 Istanbul –1936 Istanbul)



The first Turkish female philosopher Fatma Aliye, born in 1862 in Istanbul, was also one of the first female novelists of Turkish literature. Although Zafer Hanım wrote a novel, "Aşk-ı Vatan" published in 1877, Fatma Aliye Hanım is known as the first female novelist, unlike Zafer Hanım, as she had several novels published.

Fatma Aliye is the daughter of the Historian Ahmed Cevdet Pasha. She took the surname "Topuz" in 1934. She received a good education during her childhood and had the chance to improve her knowledge of French, Arabic, history, literature, mathematics, law, Arabian history and philosophy.

She started her career in 1889 under a pseudonym, Bir Hanım (A Lady), by translating a novel (Volonté) by George Ohnet into Turkish with the title "Meram". Fatma Aliye's efforts were praised by the author Ahmed Mithat in the newspaper Tercüman-ı Hakikat.

She used the pseudonym, Mütercime-i Meram (The female Translator of Meram), in her later works on philosophy, biography and literature. Fatma Aliye usually used emotional themes in her novels and published her first novel named Muhadarat in 1892. This novel is considered to be her best work.

Fatma Aliye lived during the Tanzimat Period and defended women's rights in that period by generally writing on subjects such as a women's place in society, the family and marriage and the importance of women's education.

Besides being an author, Fatma Aliye was a poet. Her poems are characterized with subjects such as patriotism, women rights and criticism of the admiration of the West.

Fatma Aliye also worked for women's involvement in social life and established Şevkat-i Nisvan Derneği (Women's Care Association) with her sister Emine Semiyeye and made efforts to support women's education and to ensure women's participation in production.

In addition to the novel named Hayal ve Hakikat (Dream and Truth) that she wrote with Ahmet Mithat Efendi in 1891, her other published novels are Muhadarat (1892-1893), Ref'et (1898), Udi (The Lute Player) (1899) and Enin (1910). In her last work named Ahmed Cevdet Paşa ve Zamanı (Ahmed Cevdet Pasha and His Time) (1914), she described political life after the Meşrutiyet (Constitutional Monarchy) Period. Fatma Aliye also wrote a philosophy book called Teracim-i Felasife (1900).

Fatma Aliye's novels and other works attracted the attention of the European and American press and some of her works were translated into French and Arabic. In addition, her biography and works were exhibited and hence, included in the catalogue of the library of the World's Columbian Exposition in Chicago in 1893. Fatma Aliye died in Istanbul in 1936.

### **Major Works**

**Novels:** Levayih-i Hayat (1898), Hayal ve Hakikat (Dream and Truth) (written with Ahmet Mithat Efendi in 1891), Muhadarat (1892-1893), Ref'et (1898), Udi (The Lute Player) (1899), Enin (1910)

**Memoirs, Research, Letters and Works on History:** Nisvan-ı İslam (Women of Islam), Taaddüt-ü Zevcata Zeyl (Polygamy- an appendix), Namdaran-ı Zenan-ı İslamiyan (Famous Muslim Women), Ahmed Cevdet Paşa ve Zamanı (Ahmed Cevdet Pasha and His Time), Kosova Zaferi-Ankara Hezimetini

**Works on Philosophy:** Teracüm-i Ahval-ı Felasife (Biographies of Philosophers),

Ahmed Mithat wrote her biography in 1893 under the title "Fatma Aliye Hanım Yahud Bir Muharrir-i Osmaniye'nin Neşeti" (Fatma Aliye: The Birth of An Ottoman Woman Writer).

## BUHURIZADE MUSTAFA EFENDI (ITRÎ) (1640 Istanbul- 1712 Istanbul)



Buhurizade Mustafa Efendi, whose probable date of birth stated in sources is 1640, is the founder of Turkish classical music. He is known as "Itrî".

He became well known as "the master" during the time of Mehmet IV and performed fasils (concerts) in the presence of state authorities.

Itrî is considered to have an extensive theoretical knowledge of music. The musician, whose compositions have a vast variety of melody patterns, created music in nearly all forms of Turkish music including peşrev, saz semai, kâr, beste, semai, ayin, na't, durak, tevşih, tekbir, sala and ilahi.

Due to the extensive variety of his music, Itrî is considered to be the founder of Turkish classical music. The Middle and Near Eastern melodies of his antecedents were replaced by the Ottoman-Turkish style in Itrî's compositions, which was later named Turkish classical music (Many composers who adopted the classical style were more or less influenced by Itrî). Along with Abdülkadir Merâgi (1353?-1435) and Hammâmîzade Ismail Dede Efendi (1778-1846), Itrî is considered to be one of the three most important composers who guided the development of Turkish music.

Although the number of his compositions - in musical notes - that are known today is 42, the actual number of his work is estimated to be around 1000. These include 10 religious compositions (5 mosque music, 5 Islamic Sufi music), 4 saz compositions (3 peşrev, 1 saz semai) and 28 large non-religious compositions (2 kâr, 13 beste, 8 ağır semai, 5 yürük semai).

Itrî's approach to and interpretation of religious music reflected a novel style. Segâh Kurban Bayramı Tekbiri, performed by the whole congregation during the performance of ritual prayers on the first days of religious festivals; Segâh Salât-ı Ümmiye, performed during the visits paid to relics; Segâh Ayin-i Şerif-i Mevlevi, Nühüft Peşrevi Nühüft Saz Semaisi, Acem Yürük Semai, Acem-Aşiran Yürük Semai, Beyâti Peşrevi, Rehâvi Peşrevi, Bestenigâr Beste, Beyâti Beste, Buselik Beste, Mâhûr Beste, Segâh Yürük Semai Mâye Cum'a Salâtı and Dilkeş-Hâveran Gece Salâsı are among his well-known works.

Itrî was not only interested in music, but also in poetry and calligraphy. He studied a type of calligraphy called Talik and created aesthetic works and also became well known in this field. Itrî is considered to have written enough poems to make up a Divan (collection of poems).

According to the available literature, Buhurizade Mustafa Efendi died in 1712.

### **Major Works**

Segâh Kurban Bayramı Tekbiri, Segâh Salât-ı Ümmiye; Mâye Cuma Salâtı, Dilkeş-Hâveran Gece Salâsı, Segâh Ayin-i Şerif-i Mevlevi, Rast Nâ't, Rast Tevşih; Nühüft Durak; Nühüft İlahî; Nühüft Tevşih; Nühüft Peşrevi Nühüft Saz Semaisi, Beyâti Peşrevi, Rehâvi Peşrevi, Nevâ Kâr; Arazbâr Kâr, Acem Nakış Beste, Acem Yürük Semai, Acem-Aşiran Yürük Semai, Bestenigâr Beste, Beyâti Beste, Buselik Beste, Buselik Yürük Semai, Dügâh Beste, Hisar Beste, Hisar Aksak Semai, Hisar Sengîn Semai, Irak Aksak Semai, Isfahan Beste, Mâhûr Beste, Mâhûr Ağır Aksak Semai, Nevâ Yürük Semai, Nikriz Beste, Nühüft Aksak Semai, Pençgâh Birinci Beste, Pençgâh İkinci Beste; Râhatülevâh Beste, Rast Aksak Semai, Rehavî Beste, Rehavî Aksak Semai, Segâh Sengîn Semai; Segâh Yürük Semai.

## YUNUS EMRE (1238-1320)



Yunus Emre is a pioneer of mysticism in Anatolia and of using the Turkish language in poetry. Where and when he was born is not known exactly but most sources state that he was born in 1238 , belonged to a Turkish family who immigrated to Anatolia and died in 1320.

Yunus Emre studied at madrasah; learnt Arabic and Persian; became interested in Iranian and Greek mythology and analyzed the history of mysticism. He became Tapduk Emre's student when he was young and traveled in Anatolia for a long time to introduce Tapduk Emre's philosophy to the Anatolian people.

With the religious system he developed, he became one of the prominent scholars in the history of Islam. This belief, which is called Vahdet-i Vücut (unity of existence), internalizes the essence of the Koran, trying to comprehend and explain the secrets of 'one and only creator' to the community. Some verses of Yunus Emre reveal that Mevlana Celalettin Rumî, who died in Konya in 1273, had an influence on him.

The infinite tolerance of Yunus Emre was also reflected in his understanding of art. He associated religious and national values in his verse. He mentioned mystical concepts by using the most beautiful and outstanding features of the Turkish language. Yunus Emre reaches ordinary people by the way he expressed his feelings and thoughts. Nearly all of the concepts like ethics, religion and love are embraced by mysticism in the verse of Yunus Emre.

In Yunus Emre's opinion, becoming a dervish means becoming mature in a mystical train of thought. In addition to this, this state is love; is acceptance by God, is controlling the will and overpowering it; is opposing fighting, evil thinking, showing off, enmity and formalism. The poet emphasizes that everyone deserves to be loved irrespective of the differences in religion, sect, race, nationality, color, position and class.

That Yunus Emre is the pioneer of the use of the Turkish language in poetry in Anatolia bears importance with regard to our history of literature. This facilitated the mystical way of thinking to become comprehensible for readers.

Yunus Emre has two well-known works: "Risalet-ün Nushiyye" is a mystic, morally related and religious work written as a mesnevi (rhyming couplets) with prosodic meters. The other one "Divan" was compiled some 70 years after his death. Some of his poems that were confused with the works of other poets, who lived many years later and whose names were also "Yunus Emre", were analyzed in terms of style and use of language and it was considered that some 357 poems belonged to him.

UNESCO dedicated 1991 to Yunus Emre, as "The International Yunus Emre Year".