

## **History of Technology in Ottoman and Post-Ottoman Cities at the turn of the 20th century**

**Workshop Report**  
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### **Content Report**

The “History of Technology in Ottoman and Post-Ottoman Cities at the turn of the 20th century” was held on 24-25th of May in Istanbul, Turkey with the support of Society for History of Technology (SHOT), Research Center for Anatolian Civilization (RCAC), L'Institut Français d'Études Anatoliennes (IFEA), and European Year of Cultural Heritage 2018. During the two-day workshop, the organizing committee Nurçin İleri (SHOT) and Aude Aylin de Tapia (Aix Marseille Université / IDEMEC & IFEA), focusing on the Ottoman and post-Ottoman geographies between 1870 and 1940, generated a multi-disciplinary debate on economic infrastructure, political structures, industrial development, scientific knowledge, consumption culture in relation to history of technology.

On 24<sup>th</sup> of May, Francesca Bray (University of Edinburgh) and Darina Martykánová (Universidad Autónoma de Madrid) gave talk to a wider public. As an anthropologist and historian, in her paper titled “Bringing STS into history: technological landscapes and technological cultures in modernising China,” **Francesca Bray** argued that STS offers some very powerful tools for understanding premodern societies, and that the critiques of the present could benefit from greater awareness and understanding of how earlier societies deployed science and technology. In her talk she adapted and applied the STS concepts of *technological landscape* and *technological culture* to explore explain the processes and nature of China’s rise from its 19<sup>th</sup>-century technoscientific “backwardness” to a 21<sup>st</sup>-century technoscientific global power. According to Bray, this approach threw new light on the continuities and ruptures entailed in China’s long-term experiences of modernisation. While the experiences of the Ottoman world were obviously quite distinctive, the ideas presented in her paper offered grounds for fruitful discussion.

**Darina Martykánová**, in her paper titled “Mastering the Uncontrollable: the Ottomans and Modern Technology” presented a mosaic-like overview of the complex and multi-layered interactions of the Ottomans with modern technology in the long nineteenth century, focusing particularly on three aspects: governmental action, the configuration of expert discourses and transformations of everyday life. Foreign and local companies and entrepreneurs, notables and ordinary city-dwellers all participated in the boom of new technologies and the proliferation of their use in the Ottoman Empire in the long nineteenth century. Steamships, telegraphs and sewing machines were some of the new inventions that were enthusiastically adopted and creatively integrated into everyday life by Ottoman women and men of all social classes and ethnoreligious backgrounds. According to Martykánová, producing, importing, adapting and operating technology, together with the importance granted to it within the transnational discourse of the progress of civilisation, created propitious conditions for technical experts

and professionals. Not only had they built their livelihoods and expert identities around it, they also developed, cherished and displayed a sense of entitlement towards defining and shaping modernising policies. They then acted upon these policies in the institutions of government and brought them forward in emerging public debates.

Eight papers were presented in the workshop on 25<sup>th</sup> of May, 2018. Participants came from different areas of expertise ranging from the history of labor to the history of science-technology, from the history of the city to the crime history. Some presentations problematized the social, political, or cultural relations that were built around certain technological applications in the period under scrutiny. Some papers tackled the Ottoman society perceived the period's scientific or technological applications. Effective and fruitful discussions were held over the two days that the participants and audience were extremely active. The content of the submitted reports was briefly as follows:

**Camille Cole** (ANAMED Fellow 2017 and Yale University), in her paper titled “Nafia for the Tigris: the infrastructure of the *hazine-i hassa* in late Ottoman Iraq,” asked what it meant for the *hazine-i hassa* to operate as simultaneously internal and external to the state. How did the relationship between the *hazine* and the *Nafia* affect Ottoman thinking about development? Agricultural and technological policies? She uses the Iraqi case to ask what *nafia* meant – on the ground, for competing Ottoman economic and political actors, and in the context of international development ideologies. **Ufuk Adak** (Altınbaş University), in his paper titled “The Sterilization Machine: Sanitation Technology in Izmir from the late Ottoman Empire to the Republican Period,” analysed the sanitation technology, particularly the usage of sterilization machine (*etiv makinesi*), in Izmir from the late Ottoman Empire period to the Republican era. By delving into imperial and local primary sources, he examined the application of the new sanitation technologies and their implications in health and hygiene in Izmir. **Erol Ülker** (Altınbaş University), in his paper titled “Infrastructure Development, Workers, and Nationalism in Istanbul: The Case of Constantinople Tramway and Electric Company Workers,” dealt with the impact of nationalism on the Muslim workers during the armistice period (1918-1923) and, especially, in the course of transition to the Turkish national rule in Istanbul. He suggested that the question of technical expertise was one of the central issues of the nationalist campaign that aimed for the purge of the non-Muslim workers from the labor force. The representatives of the Muslim workers claimed that the executive staff frequently discriminated against the Muslim workers in this respect: the Greek, Armenian, and foreign personnel were deliberately brought to better-paying positions; even when the Christian workers did not have the necessary credentials and expertise, they were trained very quickly, whereas the qualified and talented Muslim workers were often employed at the ordinary and less-paying positions that did not require any sort of technical expertise. **Aude Aylin de Tapia** (LabExMed at Aix-Marseille University and IFEA), in her paper titled “Karamanli Rums in front of new technologies (1850s-1923),” analysed the contents of various Karamanlidika to observe which new technologies progressively took place in publications and *a fortiori* how these new technologies penetrated the everyday life and material culture of Karamanli Rums living in urban and rural areas at the turn of the twentieth century. **Özde Çeliktemel-Thomen** (University College London (UCL), in her paper titled “Technology of Early Cinema and Its Reception in the late Ottoman Society,” explored the

Ottomans' reception of cinema's technology in its material existence. It is important to examine cinema's infrastructural challenges that the state and entrepreneurs faced, as audiences and exhibition venues were affected by the material conditions of screenings such as the type of illumination used at venues, the power source used by the projectionist, and the flickering moving images on the curtain. Her paper contributed to this workshop with its focus on the interrelation between cinema and technology, and cinema's socio-cultural reception within the late Ottoman society. **Ash Odman** (Mimar Sinan Fine Arts University), in her paper titled "The Selective Know-How and Technology Transfer of the Ford Motor Company in the Interwar Period: Producing the 'World Car,'" examined the ways the Ford Motor Company opted to transfer know-how and technology to its international assembly plants and its selective scope when aiming to produce the 'World Car'. Geographically, she concentrated on the technology transfer within the framework of the free zone agreement with Turkey, compared with the technical assistance agreement with the SSCB. **Nurçin İleri** (International Scholar of SHOT, 2017-2018), in her paper titled "Silahtarağa Power Plant and Electrical Technologies in the first half of the 20<sup>th</sup> century," examined the implementation of electricity and its social uses in Istanbul in the early years of Republican Era. It briefly focuses on the foundation of the Silahtarağa Power Plant and how electrical technologies transformed people's daily routines in the city. **Seçil Yılmaz** (Cornell University), in her paper "Making of Laboratory Sciences in the Late Ottoman Empire: The Imperial Institute of Bacteriology between Science and Politics," addressed the ways in which the production of Ottoman scientific knowledge and practice transformed through the introduction of science of bacteriology in the early 1890s. She demonstrated the engagement of Ottoman scientists with the science of bacteriology starting from mid-1880s via Ottoman scientific missions sent to Europe, as well as with the introduction of the Imperial Institute of Bacteriology in 1893, during one of the most destructive cholera waves that took over the Ottoman realms. She argued that new technologies and spaces of scientific knowledge production introduced new layers of competition and contestation among various actors of the medical/scientific scene.

On 26<sup>th</sup> of May, the organizing committee and some of the workshop participants visited the **Rahmi Koç Industrial Museum**, which is the first major museum in Turkey dedicated to the history of Transport, Industry and Communications. Housed in magnificent buildings - themselves prime examples of industrial archaeology, the collection contains thousands of items from gramophone needles to full size ships and aircraft.