

# Islam-Christian Transfers of Military Technology, 1730–1918

by Virginia H. Aksan

Contained after 1700, the Ottoman threat to Europe evolved into an Austro-Russian-Ottoman struggle for hegemony over the remaining frontiers of the Danube, the Crimea and the Caucasus. The era from 1700 to 1900 is generally described as one of profound transformation of the Ottoman military system by adopting European organizational and technological models. Based on a critique of current theoretical models, this article argues that the notion of the transfer of military technology is better expressed as a cultural conversation. We still have very few specific details about military reform within the empire, and those responsible for it. Much of the post-1700 European imagination about the Ottoman potential for reform was inspired by literary, sometime derisive narratives. Both observations will be discussed in relation to the nature and deployment of our sources.

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## Ottoman-European Transformative Conversations post-1700

On the subject of technology transfers and intellectual exchanges, there are two ways the Ottoman relationship with Europe in the post-1700 period is considered. One way is to imagine the period as the first opening of the Ottomans to European influence, embodied in the expression "Tulip Age", which historians assign to the first couple of decades of 18th century Ottoman history.<sup>1</sup> The other way to consider the relationship is as the apogee of Ottoman descent into obsolescence, when military decline is so apparent, and Muslim obscurantism most obvious. The former is largely a secular narrative which assumes that the Ottomans could survive only if they introduced western advisors, weapons and disciplinary regimes as part of a general discovery of western cultures. The latter starts from the same premise, but generally blames the decline on religious conservatism, weak sultans, and powerful court elites with conflicting agendas. Though both points of view have merit, they fail to give a holistic view of an extensive period of Ottoman transformation between 1700 and 1900, which was driven just as much by internal as external phenomena. Until very recently, a lack of interest on the part of historians of Europe, coupled with the problem of inaccessibility (physically and linguistically) of indigenous chronicles and archives, facilitated the perpetuation of a lopsided understanding of cultural transfer, i.e., that the flow was entirely from west to east. The aim here will be to ameliorate that view somewhat by arguing that "cultural conversations" make more sense than "cultural transfers" and by concentrating on select mediators to demonstrate the dialogue occurring within Ottoman society. The emphasis is on the 18th century, but the article will include some observations about the adoption of European military technology leading up to World War I. Though the focus is primarily on the land forces, it should be stated at the outset that the Ottomans consistently adopted western naval technologies, and sought European advice on a regular basis, making the evolution of the navy a different story from that of the land forces. Naval reform, better studied than the army, was hampered more by the lack of financing than by cultural resistance.<sup>2</sup>

▲ 1

The latter part of the Ottoman 17th century was convulsed by a decades-long, intermittent war with the Habsburgs. The Treaty of Karlowitz<sup>3</sup> in 1699 is legitimately argued as the marker for the beginning of the end of Ottoman expansion, and the acknowledgement by the Ottoman negotiators of multilateralism.<sup>4</sup> The Ottomans lost Hungary and Transylvania to Austria and returned Podolia to the Poles. The Venetians acquired the Peloponnesus, however briefly, and the Russian tsar was recognized as an equal to the sultan. It was the beginning of a new era of Habsburg-Ottoman-Romanov

imperial entanglements. On the one hand, it meant a relatively sustained period of peace based on fixed borders (→ Media Link #ab) and reciprocal diplomacy with Austria. On the other hand, it signified just the beginning of the hundred year struggle with Russia over the northern boundaries of the empire. Ottoman military failures, in spite of their ability to rebuild armies and supply trains apparently at will in the period, should have served as a significant indicator of serious trouble ahead.<sup>5</sup>

▲2

### Janissaries as the *Vox Populi*

A major revolt erupted in Istanbul in 1703, largely as a consequence of the two decades of war, and the concessions of the Karlowitz treaty (kept from the Ottoman public long after it was signed). This was one of the seminal moments of the empire, because the *ulema* (religious classes), the merchants of the city and the Janissaries, the Ottoman standing army, united to oppose the sultan. Order was restored by replacing Sultan Mustafa II (1664–1703) (→ Media Link #ac) with Ahmed III (1673–1736) (→ Media Link #ad) in such a way as to allow for the domination of the new, emerging bureaucracy, and the return to status quo ante for the Janissaries.<sup>6</sup>

▲3

While such rebellions generated considerable violence and occasional regicides, they were characterized by a curious lack of inclination by the instigators to reorganize the Janissary corps or overthrow the dynasty altogether. Generally, rebels called for the restoration of order and sultanic justice, which translated as the restoration of Janissary privileges, and a change of sultanic regime. Janissary leadership was not based on meritocracy, but on length of service and latterly on heritage, as families routinely enrolled sons into the corps by this period. Meritocracy and experience often influenced the appointment of the Grand Vizier, but seldom that of the Janissary commander, the *Agha*, who was subordinate to the Grand Vizier, and generally appointed by him with the approval of the sultan.<sup>7</sup>

▲4

Autonomy for the corps, however, which included self-discipline, also meant that the court had little control over undisciplined troops. The apparent power the Janissaries had over the sultan was balanced by the equally apparent willingness to restore the traditional order when their demands had been met. By 1800, the Janissaries were better known for rebellion and thuggery than military valour, but they remained the barometer of Ottoman discontent. It must also be said that the level of corruption around Janissary payrolls, which had become a putative social welfare system for the men of state, was reason enough for the bureaucracy to prefer the status quo. Astute statesmen, well aware of the condition of the military system, which had failed so recently on the battlefields of the Danube, endeavoured to keep the Ottomans out of further European entanglements until the third decade of the 18th century.<sup>8</sup>

▲5

The era of Ahmed III was, however, also characterized by an immense interest in consumer culture and European goods, public extravagance and spectacle, remarkably like Versailles (→ Media Link #ae) or St. Petersburg of the period. The rage for tulip bulbs spread to Istanbul and pleasure kiosks, palaces and gardens sprouted up all along the Bosphorus. Some of the trends were driven by a revived economy, which was stimulated by the creation of a new system of life-time tax farming, which redistributed wealth among a select group of grandees, and moved much wealth to the provinces and into the hands of lesser notables, both Muslim and Christian. A select number of grandee households in turn jealously guarded access to the Istanbul bureaucracy and the religious class.

▲6

In Istanbul and other port cities of the empire, non-Muslim Ottoman families found ways to acquire and maintain their own wealth in the increasing use of *berats* (licenses) sold by the Ottomans to foreign consuls who could then appoint local (generally Christian) merchants to serve as their agents for the domestic market. So, the 18th century was a time of prosperity for large parts of the population, both Christian and Muslim, but the net effect of both trends was the decline in state revenues, and hence the neglect of institutions such as the Janissaries, whose privileges started to evaporate and whose salaries were continually devalued by sultanic fiat (and desperation), yet another reason for repeated mutinies.

▲7

The Janissaries stationed in the countryside had long melted into provincial economies, where they competed with agrarian-based elites such as the timariots (who were traditional cavalymen and fief holders) and the new emerging class of tax farmers for countryside revenues. It was a period of growth of provincial armies for hire, who had become essential to the sultan, but over whom he had very little control. Unrest was often engendered by mobile and undisciplined paramilitary bands, which were very reluctant to actually engage in real campaigning, but adept at marauding and preying on local populations.<sup>9</sup>

▲ 8

## Battlefield Lessons Abandoned

When war was declared in 1736–1739, Russia and Austria allied against the Ottomans. It was a disastrous series of campaigns for both the Austrians and the Ottomans, and exhausted both sides. The extraordinary return of Austrian-occupied Belgrade to Ottoman territory by the treaty of 1740 masked the true state of affairs in the Ottoman military system. The Ottomans, who had historically used the battlefield experience to keep up and imitate European technologies, developed self-imposed amnesia, while the Austrians turned humiliation into an opportunity to reconstruct military command and mobilization structures.<sup>10</sup>

▲ 9

The Ottomans were not privy to the lessons learned in the Seven Years War (1756–1763) either, which forced considerable reforms in the Russian military command and supply systems. The Ottomans fell further behind European military developments, especially battlefield formations, drill and arms. Little concern was given to resettling demobilized soldiers, or maintaining a war ready status. Thus, when the Ottomans declared war on Russia in 1768, they were completely unprepared for campaigning on the Danube again, and took an inordinate amount of time to put together and supply a field army. The 1774 treaty of Küçük Kaynarca<sup>11</sup> demonstrated just how deep Russia had penetrated to the south, but it took another round of ferocious confrontations between the two belligerents between 1787 and 1792 to bring about an almost complete collapse of the Ottoman forces.

▲ 10

Selim III (1761–1808) (→ Media Link #af) sought advice from his increasingly critical entourage and began a wholesale overhaul of army, navy, grain supply, armaments and taxation systems, all of which were given little chance to take root before the navies of France and Britain cast anchor in the eastern Mediterranean in 1798, and embroiled the empire in Napoleon's great adventure. In the largest Istanbul convulsion to date, the new regime (*Nizam-i Cedid*) of Selim was toppled by mutinous military forces urged on by the traditional palace elites in 1807. Selim's successor, Mahmud II (c. 1784–1839) (→ Media Link #ag), known as the infidel sultan, is credited with the rapid, violent and ultimately successful transformation of the army, in spite of almost total ruin and collapse in the face of pressures from all the great powers, and the forces of nationalism, Greek and Serbian, after the 1820s. The debate over what his intentions were continues, especially as embodied in the legislation of the *Tanzimat*, the constitutional period, which began in 1839. Was it a Muslim absolutism, arguably an innovation, or was it a constitutional monarchy, equally different from centuries past?<sup>12</sup> In spite of multiple attempts to credit these changes to a wholesale westernization process by generations of historians, recent work more accurately portrays an indigenous transformation that looks very much like a hybrid of eastern and western styles, a local as well as an international conversation. One thing is certain: the Ottoman Empire of Süleyman the Magnificent (c. 1494–1566) (→ Media Link #ah) died with the elimination of the last Janissaries in 1826.

▲ 11

## Cultural Mediators

Ottoman transformative history remains unpopulated with the native contemporaries who made it happen. One of the reasons for this is that the sets of sources for the two cultures differ dramatically. European historians have a vast visual, documentary, historical and imaginary archive on the "Turk" at their disposal, especially when the Grand Tour was added to diplomacy, pilgrimage and commerce as reasons for visiting the "east". Ottoman historians, by contrast, find themselves restricted to historical chronicles, ethical treatises and opaque archival documents, with scant references to actual individuals even in the voluminous European sources. The individual and his performance on the historical stage are at the center of European history. The individual is barely present in Muslim textual and material culture; privacy is pervasive.<sup>13</sup>

Take for example, two individuals whose contributions to the early part of the transformation have been fully documented in the last decade: Humbaracı Ahmed Paşa, or Claude-Alexandre Comte de Bonneval (1675–1747) (→ Media Link #ak) as he was known before "turning Turk", is generally accorded pride of place for introducing the Ottomans to European (in his case, French and Austrian) military systems. Aged fifty at the time of his arrival in Istanbul, Bonneval had already served Louis XIV (1638–1715) (→ Media Link #al), then in disgrace switched allegiances to the court of Charles VI (1685–1740) (→ Media Link #am), and served the Habsburgs with Prince Eugene of Savoy (1663–1736) (→ Media Link #an) for close to twenty years. He arrived at the Ottoman court in 1729, converted to Islam (at that point one could not serve the court otherwise), and served Grand Vizier Topal Osman Paşa (1692–1733) by reforming the artillery (*Humbaracı*, mortar) corps. Two fictional autobiographies<sup>14</sup> (→ Media Link #ao) cemented his fame in Europe, both of which focused on whether or not he was actually circumcised as part of a discussion of his treason. Bonneval was concerned enough about his reputation to repeatedly deny in letters home that he had been circumcised. He is generally described as pivotal to Ottoman military reform and as serving two courts (the Ottomans and Sweden) from that time until his death in 1747.<sup>15</sup>

▲ 13

İbrahim Müteferrika (c. 1670–1745) (→ Media Link #ap) would have known him as he began service as a diplomat in Ottoman negotiations with the Austrians. Müteferrika is hailed as bringing the first Arabic script (Ottoman Turkish) printing press to the empire, a press which, among other things, printed dictionaries and maps. He is generally described as a Hungarian slave of an Ottoman master, and a reluctant (but voluntary) convert to Islam, from Calvinism, or Unitarianism, or perhaps Judaism and likely a Mason. In other words, almost anything but a Muslim, someone who bestrode both worlds: he never became fully Muslim, nor stayed Christian.<sup>16</sup> It was (and perhaps remains) difficult for contemporaries to accept Müteferrika's assimilation to Muslim society, much as they found Bonneval's conversion and circumcision suspect.<sup>17</sup> In fact, Müteferrika not only received permission from the *ulema* (scholar) to publish non-religious works, but defended the benefits of the circulation of knowledge, and argued for the need for military change as part of a larger challenge to the Ottoman world to widen its intellectual horizons, and to study successful enemies as a means of revitalizing Muslim power. In that regard, Müteferrika has to be seen as the first of the many ideologues around the sultan prompting military reform within the Muslim/shari'a context.<sup>18</sup>

▲ 14

A brief snapshot of a similar pair of cultural mediators from the end of the 18th century illustrates the continuation of the dialogue around reform as the need for change became imperative. In the midst of the 1768–1774 Russo-Ottoman war, Baron François de Tott (1733–1793) (→ Media Link #aq), a Hungarian in French service, was called on to assist Sultan Mustafa III (1717–1774) in organizing mobile artillery units, on the model of those introduced into European armies in mid-century. He was not required to convert. Tott's return to France and the publication of his *Memoirs*<sup>19</sup>, with exaggerated (and some certainly fabricated) observations about a society impossibly naïve, resistant to change and fundamentally corrupt, turned him into an international celebrity. Produced in at least twenty-five editions, and translated into German, English and Swedish, the *Memoirs* had a lasting influence on the formation of French imperialism, as Tott became part of the influential circle of ideologues around Charles-Maurice de Talleyrand (1754–1838) (→ Media Link #ar) and Napoleon Bonaparte (1769–1821) (→ Media Link #as), who himself consulted the *Memoirs* as one of his sources of information.<sup>20</sup> But Tott also became the inspiration for literary and satirical productions such as Rudolf Erich Raspe's (1737–1794) (→ Media Link #at) *Baron Münchhausen's Narrative of his Marvelous Travels and Adventures in Russia*<sup>21</sup>, where the Baron encounters Tott in Istanbul.

▲ 15

Ebubekir Ratib Efendi (1749–1799) (→ Media Link #au), a much neglected Ottoman statesman and diplomat, was certainly in the palace at the same time as Baron de Tott, although we have no record of a collaboration between the two. As Ottoman envoy to the Habsburgs to finalize the Sistova treaty of 1791, Ratib Efendi was instructed to collect as much information as he could on their military and administrative systems. He had with him a retinue of 112 men which included translators, cartographers and draughtsmen. They compiled a vast amount of information on many aspects of Habsburg society, especially the military, but the report thus generated rested almost untouched by modern scholars until very recently. What we have learned is that Ratib was given access and tremendous assistance by various individuals in Vienna, and returned with crateloads of books. (→ Media Link #av) Among his informants were Ignatius Mouradgea d'Ohsson (1740–1807) (→ Media Link #aw), author of the *Tableau général de l'Empire ottoman*<sup>22</sup>; Isaac

de Camondo (1851–1911) (→ Media Link #ax), later Jewish banker in Galata Istanbul, and Orientalist Freiherr Joseph von Hammer-Purgstall (1774–1856) (→ Media Link #ay).<sup>23</sup> Ratib Efendi counseled Selim III on the need to establish an intelligence gathering service, and on the advisability of setting up permanent Ottoman embassies in Europe. He can be counted as one of the influential ideologues of the post 1792 reform period.<sup>24</sup>

▲ 16

While Selim III is credited with modernizing the Ottoman navy and establishing gunpowder and small armaments factories and imports from abroad, he failed to convince either his court or his Janissaries of the military imperatives concerning regimental order and discipline. Mahmud II directed his efforts at the total revolution of the traditional order, and managed it almost singlehandedly, with extremely limited input from foreign advisors. By contrast, Mehmet Ali Paşa (c. 1769 – c. 1848) (→ Media Link #az), his chief rival in Egypt for almost a quarter century, enlisted veteran French officers to remake his army, and paid them handsomely, surely one of the reasons for his stunning success in repeatedly defeating the sultan's armies.<sup>25</sup>

▲ 17

Two individuals in Mahmud's court represent the struggle that continued to unfold among the Ottoman elite around change. Mustafa Reşid Paşa (c. 1800–1858) (→ Media Link #b0), six times Grand Vizier, is invariably represented in European sources as the new Ottoman man, who could converse with the likes of Lord Palmerston (1784–1865) (→ Media Link #b1) and Stratford Canning (1786–1880) (→ Media Link #b2), and who was absolutely instrumental to Mahmud's reform initiatives. He, it is said, crafted the *Gülhane Decree* of 1839, the constitutional document which was hailed in Europe as the pinnacle of the Ottoman reform impetus, and which technically introduced conscription for all Ottoman subjects.

▲ 18

In fact, the real architect of the military reforms was Mehmed Hüsrev Paşa (c. 1756–1855) (→ Media Link #b4), who for fifty years managed court politics, very much "old school", but whose paranoia about the Russians and the Egyptians forced him into a reformist mode. Reforms introduced in 1828 are so linked to Hüsrev that they became known as Hüsrev's rules, or the "drill of Hüsrev's men". By 1839, Hüsrev Pasha served as Commander-in-Chief of the new army and all other aspects of the military: Commandant of Istanbul, Chief of the General Staff, and Minister of War. We know next to nothing about him. Recent work verifies that under his aegis, Ottoman reforms of this period were *ad hoc* and largely indigenous. There seems to have been no systemic effort to model the new forces on one particular source, although French regimental style predominated.<sup>26</sup>

▲ 19

Of course there were foreigners in Istanbul. A small German mission, which included a young Captain Helmuth von Moltke (1800–1891) (→ Media Link #b5), may have advised Sultan Mahmud, but it had no official status. Historians posit a relationship between the Ottoman reserve system, introduced in 1834, and the German *Landwehr*, of which Moltke speaks, but no significant documentary evidence of the direct borrowing has yet surfaced.

▲ 20

The British allied with the Ottomans against their enemies on three occasions: once in 1801–1803 in the effort to remove the French from Cairo; again in 1839–1841, in the effort to bring the ruler of Egypt Mehmet Ali Paşa and his son İbrahim Paşa (1789–1848) (→ Media Link #b6) [and their ally the French] to heel in Lebanon, and finally in 1853–1856, in the Crimea War against Russia. (→ Media Link #b7) It is only in the latter that the British were given commissions and command over Ottoman soldiers. What is absolutely clear is that the pattern of borrowing continued: never unwilling to benefit from European military knowledge in the guise of renegades or advisors, the Ottoman court remained resistant to a real restructuring of military command, and the development of an able hierarchy of military experience based on merit, not favoritism. Officer training faltered, and the curriculum remained unchanged until the end of the century. Treated rather poorly by their British and French allies, especially in the dreadful campaign winter in the Crimea, 1854–1855, the Ottoman army, under the able command of Croatian Ömer Paşa (1806–1871) (→ Media Link #b8), proved itself on the Danube in 1853–1854, and then at Eupatoria. Ömer Paşa is better remembered for "turning Turk" than for his considerable success at command. British admiration of the enlisted Turkish soldier coupled with contempt for the corruption and ineptitude of the commanding officers leaps off the pages of memoir after memoir.

▲ 21

Under Abdülmecid I (1823–1861) (→ Media Link #b9) and Abdülaziz (1830–1876) (→ Media Link #ba), both of whom saw the need for an up-to-date army, a public educational system, and a modern officers' training program, the empire embarked on a spiral of foreign indebtedness which led to defaults on loans and the creation of the Ottoman Public Debt Administration in 1881. As desperation set in, Sultan Abdülhamid II (1842–1918) (→ Media Link #bb) found himself friendless except for German emperor Wilhelm II (1859–1841) (→ Media Link #bc), who became his biggest trading partner, especially in armaments (Krupp and Mauser), which most argue gave them the initial edge in the 1877–1878 Russo-Ottoman War. (→ Media Link #bd) The sultan then commissioned Germany to reform the forces, revise the curriculum and generally rebuild the Ottoman army by 1900, especially under the leadership of the Prussian Field Marshal Freiherr Colmar von der Goltz (1843–1916) (→ Media Link #be), also known as Goltz Paşa. The elite military school did produce a new generation of European-trained and secularized officers. Adülhamid's paranoia was such that he allowed the rebuilt navy to languish, and he long resisted significant officer training as he suspected that rebellion would follow from that source, as it ultimately did from among the "Young Turks" of Macedonia.<sup>27</sup>

▲ 22

What these brief sketches tell us is that there is much work to be done to unravel the relationships between the Muslim and Christian world around the question of military reform and technology transfer in the post-1700 period. By 1800, Ottoman aspirations to be European were already viewed in the popular imagination as ludicrous and impossible, at least partially because of the exaggeration of the historic realities around social change evident in the texts described here. That impression has influenced the historiography of such transnational settings and has perpetuated a lopsided notion of the transfer of military ideas across the Muslim-Christian frontier. Equally importantly, as new Ottoman manuscripts are published in critical editions and the Ottoman archives reveal their treasures, it becomes even clearer that Selim III had around him a well developed circle of ideologues determined on a social transformation that Mahmud II eventually was able to carry through.

▲ 23

By 1900, the Ottomans had become loathsome in the popular European imagination, as a result of the harsh treatment by the army (and mercenaries) of a Bulgarian revolt in 1876 and the subsequent uproar in the European press about Ottoman atrocities. World War I is a growth industry in Ottoman/Turkish historiography at the moment, and a fuller picture of the difficulties faced by reformers, foreign or otherwise, is starting to emerge. Filling in the picture does not so much change the outcome as provide a deeper understanding of the common Ottoman experience, both Christian and Muslim, around the exigencies of war and survival in the latter-day empire.

▲ 24

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## Appendix

### Sources

Anonymous [Kumbaracıbaşı, Ahmet Paşa]: *Mémoires du Comte de Bonneval ci-devant général d'infanterie au service de Sa Majesté Impériale & Catholique*, London 1737.

Argens, Jean Baptiste de Boyer, Marquis d': *Anecdotes vénitiennes et turques, ou Nouveaux mémoires du comte de Bonneval*, London 1740, online: <http://gallica.bnf.fr/ark:/12148/bpt6k1065160> [29/10/2010].

Müteferrika, Ibrahim: *Uşûl al-ḥikam fi niẓām al-umam*, or *Rational Basis for the Order of Nations*, Istanbul 1731.

Ohsson, Ignace Mouradgea d': *Tableau général de l'Empire othoman*, Paris 1788–1823, vol. 1–3.

Raspe, Rudolph Erich: *Baron Münchhausen's Narrative of his Marvelous Travels and Campaigns in Russia*, Oxford 1786.

Tott, Baron François de: *Memoirs of Baron de Tott: Containing the State of the Turkish Empire and the Crimea, during the Late War with Russia...*, London 1785, vol. 1–2.

## Bibliography

Abou El Hajj, Rifaat: *The 1703 Rebellion and the Structure of Ottoman Politics*, Leiden 1984.

Ágoston, Gábor: *Empires and Warfare in East-Central Europe, 1550–1750: The Ottoman-Habsburg Rivalry and Military Transformation*, in: Frank Tallett et. al. (eds.): *European Warfare 1350–1750*, Cambridge 2010, pp. 110–134.

Aksan, Virginia H.: *Breaking the Spell of the Baron de Tott: Reframing the Question of Military Reform in the Ottoman Empire, 1760–1830*, in: *International History Review* 24 (2002), pp. 253–277.

idem: *Locating the Ottomans among Early Modern Empires*, in: *Journal of Early Modern History* 3 (1999), pp. 21–39.

idem: *The Ottoman Military and State Transformation in a Globalizing World*, in: *Comparative Studies of South Asia, Africa and the Middle East* 27 (2007), pp. 257–270.

idem: *Ottoman Political Writing 1768–1808*, in: *International Journal of Middle Eastern Studies* 25 (1993), pp. 53–69.

idem: *Ottoman Wars 1700–1870: An Empire Besieged*, Hammersmith 2007.

Erimtan, Can: *The Origins of the Tulip Age and its Development in Modern Turkey*, London 2008.

Fahmy, Khalid: *All the Pasha's Men: Mehmed Ali, his Army and the Making of Modern Egypt*, Cambridge 1997.

Findley, Carter V.: *Ebubekir Ratib's Vienna Embassy Narrative: Discovering Austria or Propagandizing for Reform in Istanbul*, in: *Wiener Zeitschrift für die Kunde des Morgenlandes* 85 (1995), pp. 41–80.

Henzelmann, Tobias: *Heiliger Kampf oder Landesverteidigung? Die Diskussion um die Einführung der allgemeinen Militärflicht im Osmanischen Reich 1826–1856*, Frankfurt am Main 2004.

Işın, Ekrem: *Osmanlı donanmasının seyir defteri | gemiler, efsaneler, denizciler: The Logbook of the Ottoman Navy: Ships, Legends, Sailors*, Istanbul 2009.

Kasaba, Reşat: *A Moveable Empire: Ottoman Nomads, Migrants and Refugees*, Seattle, WA 2009.

Langensiepen, Bernd / Güteryüz, Ahmet: *The Ottoman Steam Navy 1828–1923*, Istanbul 1995.

Landweber, Julia: *Fashioning Nationality and Identity in the Eighteenth Century: The Comte de Bonneval in the Ottoman Empire*, in: *International History Review* 30 (2008), pp. 1–31.

Murphey, Rhoads: *Ottoman Military Organisation in South-Eastern Europe, c. 1420–1720*, in: Frank Tallett et al. (eds.): *European Warfare*, Cambridge 2010, pp. 135–158.

idem: *Ottoman Warfare 1500–1700*, London 1999.

Sabev, Orlin: *Formation of Ottoman Print Culture (1726–1746): Some General Remarks*, in: *New Europe College: Regional Program, 2003–2004, 2004–2005* (2007), pp. 293–333.

idem: *İbrahim Müteferrika ya da İlk Osmanlı Matbaa Serüveni (1726–1746)*, Istanbul 2006.

Sievert, Henning: *Zwischen arabischer Provinz und Hoher Pforte: Beziehungen, Bildung and Politik des osmanischen Bürokraten Râğıb Paşa (st. 1763)*, Würzburg 2008.

Uyar, Mesut / Erickson, Edward J.: *A Military History of the Ottomans: From Osman to Atatürk*, Santa Barbara, CA 2009.

idem / Varoğlu, A. Kadir: *In Search of Modernity and Rationality: The Evolution of Turkish Military Academy Curricula in a Historical Perspective*, in: *Armed Forces & Society* 35,1 (2008), pp. 180–202.

idem / Gök, Hayrullah: *The Fate of the Library of the Imperial School of Engineering*, in: *The Bulletin of the Yapı Kredi Sermet Çifter Research Library* Aug.–Sept; Nov.–Dec. (2003), pp. 12–18, 34–38.

Yeşil, Fatih: *Looking at the French Revolution Through Ottoman Eyes: Ebubekir Ratib Efendi's Observations*, in: *Bulletin of the School of Oriental and African Studies* 70,2 (2007), pp. 283–394.








21. ^ Ohsson, Tableau général 1787–1807.
22. ^ Only very recently have some of Ratib Efendi's own book collection been relocated and discussed in detail in terms of titles and their possible utility in the curriculum of the Military Academy of the reformed army. Uyar / Gök, Library 2003, pp. 34–38; 12–18.
23. ^ Yeşil, French Revolution 2007, pp. 283–394. Of the other, more interesting approaches to Ratib Efendi, see Findley, Ebubekir Ratib's Vienna Embassy Narrative 1995, pp. 41–80.
24. ^ Fahmy, Pasha's Men 1997.
25. ^ Henzelmann, Heiliger Kampf 2004.
26. ^ Uyar / Varoğlu, Search of Rationality 2008, pp. 180–202.

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- Ahmed III (1673–1736) VIAF   (<http://viaf.org/viaf/32355570>) DNB  (<http://d-nb.info/gnd/101094108>)

#### Link #ae

- Modell Versailles (<http://www.ieg-ego.eu/de/threads/modelle-und-stereotypen/europe-francaise/thomas-hoepel-das-modell-versailles>)

#### Link #af

- Selim III (1761–1808) VIAF   (<http://viaf.org/viaf/39533215>) DNB  (<http://d-nb.info/gnd/118750917>)




#### Link #ag

- Mahmud II (c. 1784–1839) VIAF   (<http://viaf.org/viaf/35392079>) DNB  (<http://d-nb.info/gnd/124530877>)


#### Link #ah

- Süleyman the Magnificent (c. 1494–1566) VIAF   (<http://viaf.org/viaf/89743257>) DNB  (<http://d-nb.info/gnd/118619993>)





#### Link #ak

- Humbaracı Ahmed Paşa, or Claude-Alexandre Comte de Bonneval (1675–1747) VIAF   (<http://viaf.org/viaf/19812753>) DNB  (<http://d-nb.info/gnd/11866154X>)







- <http://gallica.bnf.fr/ark:/12148/btv1b84091162>  
Comte de Bonneval (1675–1747), BnF, Gallica 

#### Link #al

- Louis XIV of France (1638–1715) VIAF   (<http://viaf.org/viaf/89583139>) DNB  (<http://d-nb.info/gnd/118816829>) ADB/NDB  (<http://www.deutsche-biographie.de/pnd118816829.html>)

#### Link #am


- Emperor Charles VI (1685–1740) VIAF   (<http://viaf.org/viaf/95148923>) DNB  (<http://d-nb.info/gnd/118560107>) ADB/NDB  (<http://www.deutsche-biographie.de/pnd118560107.html>)

#### Link #an

- Eugene of Savoy (1663–1736) VIAF   (<http://viaf.org/viaf/64800019>) DNB  (<http://d-nb.info/gnd/118605941>) ADB/NDB  (<http://www.deutsche-biographie.de/pnd118605941.html>)

#### Link #ao



- [http://gallica.bnf.fr/ark:/12148/bpt6k1065160.%22%20class=%22image-inline%22%20height=%2269%22%20src=\)](http://gallica.bnf.fr/ark:/12148/bpt6k1065160.%22%20class=%22image-inline%22%20height=%2269%22%20src=))  
Anecdotes vénitiennes et turques 1740, BnF, Gallica 

#### Link #ap

- İbrahim Müteferrika (c. 1670–1745) VIAF   (<http://viaf.org/viaf/22382427>) DNB  (<http://d-nb.info/gnd/118994468>)





#### Link #aq

- François de Tott (1733–1793) VIAF   (<http://viaf.org/viaf/95232432>) DNB  (<http://d-nb.info/gnd/117727776>)





#### Link #ar

- Charles-Maurice de Talleyrand (1754–1838) VIAF   (<http://viaf.org/viaf/100212837>) DNB  (<http://d-nb.info/gnd/118620606>)

#### Link #as

- Napoleon Bonaparte (1769–1821) VIAF   (<http://viaf.org/viaf/106964661>) DNB  (<http://d-nb.info/gnd/118586408>) ADB/NDB  (<http://www.deutsche-biographie.de/pnd118586408.html>)

#### Link #at

- Rudolf Erich Raspe (1737–1794) VIAF   (<http://viaf.org/viaf/95156657>) DNB  (<http://d-nb.info/gnd/118787888>) ADB/NDB  (<http://www.deutsche-biographie.de/pnd118787888.html>)

#### Link #au

- Ebubekir Ratib Efendi (1749–1799) VIAF   (<http://viaf.org/viaf/8491863>) DNB  (<http://d-nb.info/gnd/130372927>)

#### Link #av



- <http://www.ieg-ego.eu/en/mediainfo/books-collected-by-ebubekir-ratib-efendi?mediainfo=1&width=900&height=500>  
Selection of Ebubekir Ratib Efendi's Library

#### Link #aw

- Ignatius Mouradgea d'Ohsson (1740–1807) VIAF   (<http://viaf.org/viaf/52041154>) DNB  (<http://d-nb.info/gnd/100643590>)

#### Link #ax

- Isaac de Camondo (1851–1911) VIAF   (<http://viaf.org/viaf/78788422>)

#### Link #ay

- Joseph von Hammer-Purgstall (1774–1856) VIAF   (<http://viaf.org/viaf/95183401>) DNB  (<http://d-nb.info/gnd/118545426>) ADB/NDB  (<http://www.deutsche-biographie.de/pnd118545426.html>)



- <http://www.ieg-ego.eu/en/mediainfo/joseph-von-hammer-purgstall-177420131856?mediainfo=1&width=900&height=500>  
Joseph von Hammer-Purgstall (1774–1856)

#### Link #az

- Mehmet Ali Paşa (c. 1769 – c. 1848) VIAF   (<http://viaf.org/viaf/29512610>)




#### Link #b0

- Mustafa Reşid Paşa (c. 1800–1858) VIAF   (<http://viaf.org/viaf/18169076>) DNB  (<http://d-nb.info/gnd/124892744>)



- <http://www.ieg-ego.eu/en/mediainfo/mustafa-resid-pasa-c.-1800-2013-c.-1858?mediainfo=1&width=900&height=500>  
Mustafa Reşid Paşa (c. 1800–1858)



#### Link #b1

- Henry John Temple, Viscount Palmerston (1784–1865) VIAF   (<http://viaf.org/viaf/51698419>) DNB  (<http://d-nb.info/gnd/118739069>)

#### Link #b2

- Stratford Canning (1786–1880) VIAF   (<http://viaf.org/viaf/8171302>)




#### Link #b4

- Mehmed Hüsrev Paşa (c. 1756–1855) VIAF   (<http://viaf.org/viaf/37164484>)



- <http://www.ieg-ego.eu/en/mediainfo/mehmed-huesrev-pasa-c.-175620131855?mediainfo=1&amp;width=900&amp;height=500>  
Mehmed Hüsrev Paşa (c. 1756–1855)

#### Link #b5

- Helmuth von Moltke (1800–1891) VIAF  <http://viaf.org/viaf/98817698> DNB  <http://d-nb.info/gnd/118583387> ADB/NDB  <http://www.deutsche-biographie.de/pnd118583387.html>



- <http://www.ieg-ego.eu/en/mediainfo/graf-helmuth-von-moltke-180020131891?mediainfo=1&amp;width=900&amp;height=500>  
Helmuth von Moltke (1800–1891)

#### Link #b6

- İbrahim Paşa (1789–1848) VIAF  <http://viaf.org/viaf/90061784> DNB  <http://d-nb.info/gnd/119011395>

#### Link #b7



- <http://www.ieg-ego.eu/en/mediainfo/council-of-war-held?mediainfo=1&amp;width=900&amp;height=500>  
Council of War held 1855

#### Link #b8

- Ömer Paşa (1806–1871) VIAF  <http://viaf.org/viaf/57679287> DNB  <http://d-nb.info/gnd/128968699>



- <http://www.ieg-ego.eu/en/mediainfo/oemer-pasa-180620131871?mediainfo=1&amp;width=900&amp;height=500>  
Ömer Paşa (1806–1871)

#### Link #b9

- Abdülmecid I (1823–1861) VIAF  <http://viaf.org/viaf/35254696> DNB  <http://d-nb.info/gnd/118893106>




#### Link #ba

- Abdülaziz (1830–1876) VIAF  <http://viaf.org/viaf/100991624> DNB  <http://d-nb.info/gnd/12481400X>

#### Link #bb

- Abdülhamid II (1842–1918) VIAF  <http://viaf.org/viaf/9880442> DNB  <http://d-nb.info/gnd/118646435>

#### Link #bc

- Emperor Wilhelm II (1859–1841) VIAF  <http://viaf.org/viaf/73848792> DNB  <http://d-nb.info/gnd/118632892> ADB/NDB  <http://www.deutsche-biographie.de/pnd118632892.html>

#### Link #bd



- <http://www.ieg-ego.eu/en/mediainfo/german-emperor-wilhelm-ii-in-konstantinopel-1917?mediainfo=1&width=900&height=500>  
German Emperor Wilhelm II in Constantinople 1917

#### Link #be

- Colmar von der Goltz (1843–1916) VIAF  <http://viaf.org/viaf/39497394> DNB  <http://d-nb.info/gnd/118696319> ADB/NDB  <http://www.deutsche-biographie.de/pnd118696319.html>



- <http://www.ieg-ego.eu/en/mediainfo/colmar-freiherr-von-den-goltz-184320131916?mediainfo=1&width=900&height=500>  
Colmar Freiherr von der Goltz (1843–1916)