MILITARY POLICY AND INFRASTRUCTURE: THE ROLE OF THE ENGINEER CORPS IN NINETEENTH-CENTURY GREECE

Dimitris Malesis

Abstract: This article describes the role of the military, particularly the Engineer Corps, in the building of the Greek state in the nineteenth century through the construction of the necessary infrastructure. After the assassination of the first leader of the country in September 1831 and the ensuing civil war, the European Powers selected the Bavarian Prince Othon as the country’s first king. The priority of the new royal authority was the imposition of order and the consolidation of political power in his hands. Moreover, it was also necessary to carry out basic infrastructure projects to enable the state to function properly. This role was taken up by the Engineer Corps, which accomplished remarkable work in the construction of public buildings, roads, ports, etc. The first officers of the corps were Bavarians, who had accompanied Othon to Greece. With their experience, they laid down the operational basis of the Greek state. Othon’s government (1833–1862) faced numerous difficulties, the economic hardship of a small state being the major one. Furthermore, the need to counteract the bandit gangs that dominated the countryside and undermined the central authority was paramount. Large infrastructure projects were implemented in the last quarter of the century, inspired by Prime Minister Harilaos Trikoupis’ agenda to improve the country’s unity. However, major national problems, such as the Macedonian and Cretan questions, as well as the growing competition with and surges of nationalism in the other Balkan states, forced Greece’s leaders to undertake costly military mobilisations, thus restricting the modernisation project. However, the Engineer Corps achieved its mission. Staffed with skilled and well-trained officers, as well as engineers and professors from the Military Academy (Evelpidon), the remarkable work of the corps is still visible.

When Governor Ioannis Capodistrias arrived in Greece (1828), the infrastructural situation of the state was dire due to the long fight for independence. One of his first major concerns was to create the basic infrastructure essential for the functioning of a modern state. Such public works included streets, sewers, aqueducts, ports as well as fortress reparations. In order to implement such difficult and demanding plans, he requested the assistance of French engineer officers such as Auguste-Théodore Garnot, Eugène Peytier and Jean-Pierre-Augustin Pauzié-Banne, who arrived in Greece in 1828. Through a number of

decrees, the governor created a special guard to work on fortification projects. Of course, the Greek state could count on the valuable contribution of native military officers from the Engineer Corps such as Thodoros Vallianos, Andreas Gasparis-Kalandros, Dimitris Stavridis, Emmanoul Manitakis, I. Kallergis and Dionysios Valsamakis. Their education at prestigious military and polytechnic schools made them an important mechanism in the governor’s public works plan. Indeed, they actively participated in the construction of state buildings, in city planning as well as in fortification plans. However, all these initiatives remained incomplete due to the assassination of Capodistrias and the sociopolitical anarchy that followed (1831–1832).

Under the Treaty of London (7 May 1832), the protecting powers – Britain, France and Russia – selected Othon, the second son of the Bavarian king, as the first king of the newly established Greek state. During the negotiations that followed, the representative of Bavarian King Ludwig I set some conditions. Among them was the establishment of a voluntary corps of Bavarians to accompany the young king. Indeed, a separate treaty, signed in November of the same year, agreed to send a Bavarian Auxiliary Corps of 3,500 men, officers, non-commissioned officers and soldiers. Until the time Othon reached maturity (20 May 1835), authority would be vested in a three-member regency, consisting of Count Josef Ludwig von Armanstperg, Professor Georg Ludwig von Maurer and Lieutenant General Carl Wilhelm von Heideck. The third would be responsible for military issues. Two alternate regents, Karl von Abel and Johann Baptist Greiner, were also appointed.

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5. Εφημερίς της Κυβερνήσεως [Official Government Gazette] [hereafter FEK], no. 22, 10/22 July 1833.
In his first proclamation after his arrival in Greece, Othon expressed his awareness of the conditions prevailing in the country when he said that “despotism has overtaken anarchy”. Therefore, what was needed was the pursuit of the “common good”. The royal proclamation makes no reference to a constitution guaranteeing freedoms. The governmental model that the Bavarian dynasty promoted was that of a centralised state, in which the monarchy represented the “common good”. And as Maurer himself acknowledged, “this proclamation was our guide for our future administration and we never deviated from that path, not even by an inch”. But this approach presupposed the enforcement of power by an army faithful to the central government. This factor, primarily, was expected to ensure internal order in a country which had emerged from an eight-year national liberation war and the maelstrom of civil conflict. It is no coincidence, moreover, that from the first moment the new authority decided to dissolve the army of irregulars.

**Engineering Work**

As Greece’s first governor (January 1828–September 1831), Capodistrias managed to create a regular army, by Greek standards, that supported the central government. In addition, he founded the Military Academy (Evelpidon) in order to produce a modern officer corps that would follow a Western European-type education. Capodistrias believed the academy represented the “best hope” for the nation’s future. At the same time, he formed a small Engineer Corps, which would lay the foundations for the country’s reconstruction. With meagre resources, he carried out work in this field, with French assistance. On 28 February 1833, Capodistrias established the Engineer Corps.

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6 FEK, no. 1, 16/28 February 1833.
8 FEK, no. 6, 6/20 March 1833, “On the dissolution of irregular troops”.
10 Despina Themeli-Katifori, Το γαλλικό ενδιαφέρον για την Ελλάδα στην περίοδο του Καποδιστρία [The French interest in Greece in the Capodistrias period, 1828–1831], Athens: Epikerotita, 1985, pp. 45–54; Maria Efthymiou, “Η Γαλλική εκστρατεία στην Πελοπόννησο (1828–1829) και η πρόσληψη της από τους Έλληνες αγωνιστές” [The French Morea expedition (1828–1829) and its reception by the Greeks fighters”], in Ελλάδα και Γαλλία τον 19ο αιώνα...
July 1829, he established the “Corps of Officers Responsible for Constructing Fortresses and Buildings”, which consisted of only 20 men, led by Garnot. The Engineer Corps should create or – in this case more possibly – maintain fortresses and form the elite of the army, enjoying higher salaries. Garnot was appointed head of the corps and Camille Trézel as the new commander of the army, after the resignation of Heideck in July 1829.11

For the Bavarians, the creation of the necessary infrastructure was a prerequisite for the new state. According to every description, the country was in ruins. As Viceroy Maurer wrote characteristically:

Wherever you turned your eyes, there were bare rocks and a dried-up landscape, uncultivated fields, no roads, no bridges. People lived in caves or in huts, made either with mud or elsewhere of stones that had just been put on top of each other. Not only could someone see dilapidated houses, but whole villages and towns were deserted. Athens, which before the liberation numbered about 3,000 houses, now has about only 300.

Even in the city of Nafplion, Greece’s first capital, the picture was no better:

The city didn’t have stone pavements. Besides, the streets were so narrow that a cart could not pass. The central square, the Platanon, was full of stones and soil from the collapsed houses. To reach Its Kale [a fortress] people had to climb their way through as roads did not really exist. The same for Palamidi. The aqueduct that carried water from Argos had holes in several places and the precious water was spread out in many ponds, here and there. The moat around the walls had turned into a swamp emitting awful odours; however, people lived there with pigs. The fortifications and dockyard were in ruins.12

Under these conditions, the maintenance of order was not an easy task for the security forces, especially the gendarmerie.13
The Engineer Corps was set up with the rest of the armed forces under a decree of February 1833, which also provided for the creation of two pioneer companies. A separate royal decree, from August 1833, defined the composition, structure and mission of the corps. Its main task was to “design, attend to the construction and maintenance of all public buildings, both by the military and by the civil authorities, including the construction of roads, bridges and hydraulic works” (article 2). The corps had the authority to construct and maintain works both for military and civil purposes. In 1836 the corps was upgraded with a separate “Engineering Department”, located at the Ministry of the Army, which was responsible for the construction of buildings.

The corps had a decentralised structure. Each of the ten provinces of the country would have one unit, under a captain or lieutenant. While the headquarters of the corps was in Athens, which became the capital in 1834, the other officers were tasked with designing basic structures, as well as inspecting and controlling the budgets of each project. To avoid overspending or financial irregularities, it was decided that whoever was in charge of the construction of a project would not be involved in its finances (wages, procurement). In addition, during the first years of the corps’ existence, several changes took place both in terms of the size and the structure of its units. These alterations were a result of the necessity to reduce the large number of Bavarian officers and non-commissioned officers, thus influencing the organisational structure of the entire body. Additionally, the permanent economic malaise that characterised the state complicated the execution of major projects, thus explaining the constant fluctuation of personnel in the corps.

The first commander of the corps, Anton Zäch, held the position not only due to his vast knowledge in this field but also due to Othon’s and the Regency’s desire to appoint trusted compatriots to the high-ranking positions in order to

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14 FEK, no. 5, 8/20 March 1833. The decree is dated 27 February/11 March 1833.

15 FEK, no. 31, 4/16 October 1833. The decree was dated 1/13 August 1833. Maurer, Ο Ελληνικός λαός [The Greek people], pp. 575–576. For the military policy of the Bavarians, see Dimitris Malesis, Στρατιωτική πολιτική και θεμελίωση του Ελληνικού Κράτους: Οργάνωση, εκπαίδευση και λειτουργία του στρατού στην περίοδο της θεμελιωτικής απολτοπορίας [The military and political foundations of the Greek state: organisation, training and operation of the army during Othonian absolutism], Athens: Papazisis, 2004. For the organisation of the army in the nineteenth century in general, see Epaminondas Stasinopoulos, Ο Ελληνικός Στρατός της πρώτης εκατονταετίας: Ιστορική επισκόπηση της εξέλιξης του ελληνικού στρατού [The Greek army in its first century: historical survey of the evolution of the Greek army], Athens: s.n., 1935.

16 FEK, no. 36, 22 July 1836, royal decree “On the formation of land troops”.
control the military mechanism.\textsuperscript{17} The first non-Bavarian officer of Greek origin – albeit with a European education – was Major Leonidas Smolenskis (1806–1882). Descended from a Greek family that had settled in Hungary in 1770, he studied at the Military School of Vienna and in 1813 joined the Austrian army. Upon his arrival in Greece in June 1833, he joined the Greek army as a lieutenant in the Engineer Corps. He reached the rank of lieutenant general and served as war minister on five occasions.\textsuperscript{18} Of the total of 42 officers in the ranks in 1838, 18 were Greek.\textsuperscript{19} The situation would change in 1842 with the gradual removal of the Bavarians. Every management position was occupied by Greeks from the rank of second lieutenant to colonel (Dimitrios Stavridis and Smolenskis). They were all graduates of foreign military schools or the Evelpidon,\textsuperscript{20} which was not the case for other branches of the army. The practice of sending a limited number of army cadets to train as officers in European military academies had also begun. From 1830 to 1880, most of the military engineers received additional training in the School of Applied Artillery and Engineering in Metz, France.\textsuperscript{21} Throughout Othon’s reign, a dozen Evelpidon cadets received scholarships from the king of Bavaria to study at the Bavarian War College in Munich.\textsuperscript{22}

To cater for the Engineer Corps, the Evelpidon offered courses such as “Counting buildings and machinery”, “Topography and surveying”, “Fortifications”, “Architecture”, “Tunnelling” etc. Until the establishment of the Athens Polytechnic School in 1887, the Evelpidon was the only institution that offered technical training. Another attempt to fill this gap was the establishment of the Royal School of Arts in 1836, where one year of studies was required to become a “master in architecture”.\textsuperscript{23} The school can be considered a precursor of the Polytechnic and, in any case, it covered the obvious shortcomings in this field of education. The initiative for the operation of the school was the Bavarian engineer, Captain Friedrich von Zentner, who had arrived with the Bavarian Auxiliary Corps in 1833 and offered his services to the interior ministry as a

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\textsuperscript{18} \textit{Παλιγγενεσία}, 29 April 1882.
\textsuperscript{19} General State Archives (GAK), II [13], II 1, folder 29.
\textsuperscript{20} \textit{Αιών}, 17 April 1842.
\textsuperscript{21} Fotini Asimakopoulou and Kostas Chatzis, “\textit{Σπουδαστές στή Γαλλία, Μηχανικοί στήν Ελλάδα: ο κόσμος των Ελλήνων Μηχανικών, 19ος–αρχές 20ου αιώνα}” [Students in France, engineers in Greece: the world of Greek engineers, 19th–early 20th centuries], in \textit{Νεοελληνικά Ιστορικά} 1 (2008), pp. 11–129.
\textsuperscript{22} Stasinopoulos, \textit{Ο ελληνικός στρατός} [The Greek army], p. 55.
\textsuperscript{23} \textit{FEK}, no. 82, 31 December 1836/12 January 1837, “On education in architecture”.
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The Role of the Engineer Corps in Nineteenth-century Greece

The school was greatly innovative for its time in Greece. The faculty was composed of Bavarian officers and also included well-known Danish architects and siblings Theophil and Christian Hansen.

Until the establishment of the Polytechnic, the teaching duties and the implementation of major projects, both public and private, were only entrusted to military engineers and to a few individuals who had studied at schools in Europe. There was a major effort to build public works. Military works included the construction of barracks in Athens and Nauplion as well as in border areas, where bandits could flee to the Ottoman side when pursued by troops. In addition, to meet the basic needs of the army, depots and pioneer bases were built in Athens and Messolonghi. The real impact of the Engineer Corps was in the civil field, where projects included the construction of roads, bridges, ports, as well as technical improvements and, in particular, the drainage of swamps, which the state hoped would counter the problem of malaria and increase the availability of cultivable land. Also, from 1853 to 1858, they were the main force behind the opening of the Evripos Strait between the island of Evia and central Greece, a project directed under the command of Lieutenant Engineer Dimitrios Skalistiris (1816–1883), one of the most remarkable engineering officers in the nineteenth century. An Evelpidon graduate, he trained in Paris in mathematics and physics. From 1846 to 1865, he was professor of bridges at the Evelpidon and first director of the state’s Public Works Department.


27 Asimakopoulou and Chatzi, “Σπουδαστές στη Γαλλία” [Students in France], p. 111–130.

The Engineer Corps was also involved in drafting urban plans, with a large number of city plans drawn up by its officers and implemented under their supervision. Typical examples are the layout of Sparta, which was under the command of the Bavarian Captain August Joachim Jochmus; Ermoupolis in Syros, which was drafted by Lieutenant Wilhelm von Weiler and surveyed by his compatriot countryman Lieutenant Ludwig von Weber; Lamia by Captain Emmanouil Manitakis; Chalkida by Lieutenant Adolph Lufft; Karystos by Colonel Loudovikos Rangos, the city project of Ermoupolis again by von Weiler and surveyed by Weber. In addition to those mentioned above, during Othon's first decades other officers offered their knowledge on road construction. Captain Moritz von Spiess and Major Friedrich Bracker, who designed the Corinth–Tripoli road in 1837, Captain Johann Sigl, who undertook the study of the Corinth–Kalamaki road, Captain Funker, who designed the road between Megara and Elefsina, Captain Brunbauer, who worked on the Sparta–Gytheio road in 1839, and the ministerial adviser Dismas A. Gebhard are only a few of those who took important initiatives and left a positive personal imprint. The construction of docks was also an important aspect of public works. In 1836 the quay of the port of Syros, the island with the greatest maritime traffic, was built. Two years later the port of Piraeus followed. Both were works of the architect Johann Erlacher and were constructed by the men of the Engineer Corps. Last, but not least, was the construction of buildings to adorn the capital. One early example was the Makrygiannis Military Hospital (1834–1836), which was later used by the Gendarmerie Regiment, on designs by von Weiler. The royal palace, the building which now houses the Greek parliament, an extremely difficult and grandiose work, was based on plans by the Bavarian architect Friedrich von Gärtner and executed by Lieutenant Michael Hoch.

The involvement of the corps in works to protect ancient monuments was also significant. A project based on a proposal by architect Eduard Schaubert was

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28 “Εκατονταετηρίς του Εθνικού Μετσοβείου Πολυτεχνείου” [Centenary of the National Metsovian Polytechnic], pp. 88–113.
29 See GAK, Othon file, ΜΓ [43], files 1–112, for the preparation of plans by the Engineer Corps.
implemented by Sergeant B. Heller in 1835. Gradually the role of the Engineer Corps was upgraded. In 1852 there was, in addition to the inspectorate in Athens, nine divisions spread across the whole country, and in 1876 it established separate headquarters. With the reorganisation of the army in 1878, the Engineer Corps consisted of two battalions, each with four companies and total force of 494 men in peacetime, which would reach 770 in the event of mobilisation.

Prime Minister Harilaos Trikoupis significantly reorganised the army in 1887. With regards to the Engineer Corps, a special school corps was created and the regiment was divided into two squads. The first consisted of four battalions, the second of five, of which the fifth comprised railroad workers. A special topographical department was also founded. In the last quarter of the nineteenth century, which was marked by the modernisation efforts of the Trikoupis government, the importance given to the Engineer Corps was remarkable as was the establishment of a separate company of railway workers. It was the era of large infrastructure projects, one of which concerned the development of the country’s railway network. There was also a provision for the operation of four directorates, a company of firefighters and a company of telegraphers. The corps remained responsible for military works, which meant

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31 Angeliki Kokou, Η μέριμνα για τις αρχαιότητες στην Ελλάδα και τα πρώτα μουσεία [The concern for antiquities in Greece and the first museums], Athens: Ermis, 1977, p. 77. B.K. Heller’s actual name was Karl Christoph Friedrich Heller (1809–1877). He was a lecturer at the School of Arts. In 1852, he wrote a memorandum on his excavations on the Acropolis in 1835–1837 (“Archäologisch-artistische Mittheilungen über die Ausgrabungen auf der Akropolis zu Athen, 1835, 36 und 37”, Nuremberg 1852).

32 FEK, no. 42, 18 September 1852, “On the determination of the military force and military, 1852”, and Stasinopoulos, Ο ελληνικός στρατός [The Greek army], p. 52.

33 FEK, no. 8, 4 February 1876, decree “On the engineering body force, abolishing the headquarters inspection and recommendation”.

34 FEK, no. 85, 31 December 1878, law ΨΞΑ΄ [761], “On the temporary military organisation”.

35 FEK, no. 153, 17 June 1887, law ΑΦΛΓ΄ [1533], “On amending the current army organisation law”.

the design, implementation and maintenance of fortifications, barracks, onshore artillery, forts and all kinds of military buildings.\textsuperscript{37}

The dominant position of engineer officers lasted throughout the nineteenth century. Even after the establishment of the Polytechnic School, graduates of the institution found it difficult to compete against or replace officer graduates of the Evelpidon in public management positions.\textsuperscript{38} The curriculum of the “engineer regiment school” covered a wide range of disciplines, such as applied and descriptive geometry, algebra, designs, fortifications, topography, construction and theoretical lessons as well as history (including the history of the Greek Revolution) and Greek.\textsuperscript{39} In addition, one of the applied lessons concerned railways, which shows the state’s continuous interest in this means of transportation.\textsuperscript{40}

The expertise and training they received made the members of the Engineer Corps, along with those of Artillery, the elite officers of the Greek army. This is evidenced by the fact the wages in these two corps were higher than for other corps. Cadets who qualified for the much sought-after technical corps were those who had performed best in the courses in the last two years of study, when applied courses were taught.\textsuperscript{41} The Evelpidon offered an education mostly for the engineer and artillery corps. The other corps were staffed with reservists, who could be retained and become permanent, or with graduates from the School for Non-commissioned Officers, which was established by the Trikoupis government in 1884. As a result of these differences in status between the officers and corps, there was competition between them, which at times was overt and at others latent. For example, General Alexandros Mazarakis-Ainian and his family considered it natural to join the artillery, deeming the infantry to be below their status.\textsuperscript{42}

This lower status of infantry officers had a number of consequences. Their resentment of their military leaders erupted into defiance in 1900, when junior

\textsuperscript{37} FEK, no. 44, 15 February 1888, “On amending the regulation for engineering at the Evelpidon”.

\textsuperscript{38} Angeliki Fenerli, “Σπουδές και σπουδαστές στο Πολυτεχνείο (1860–1870) [studies and students at the Polytechnic, 1860–1870], Τα Ιστορικά 4/7 (1987), p. 112.

\textsuperscript{39} FEK, no. 218, 16 November 1893, “Regulation on amending the syllabus of the engineer regiment school”.

\textsuperscript{40} On this subject, see Lefteris Papagianakis, Οι Ελληνικοί Σιδηρόδρομοι (1882–1910): Γεωπολιτικές, οικονομικές και κοινωνικές διαστάσεις [The Greek railways (1882–1910): geopolitical, economic and social dimensions], Athens: MIET, 1982.

\textsuperscript{41} Thanos Veremis, Ο στρατός στην Ελληνική Πολιτική: Από την ανεξαρτησία έως τη δημοκρατία [The military in Greek politics: from independence to democracy], Athens: Kourier, 2000.

\textsuperscript{42} Alexandros Mazarakis-Ainian, Απομνημονεύματα [Memoirs], Athens: Ikaros, 1948, pp. 10–11.
officers publicly and openly held a meal in Faliro, just outside the capital, despite the event being banned by the garrison headquarters.43 The distinctions between officers began to fade in the early decades of the twentieth century, when the Greek army was engaged in a prolonged war over a decade (1912–1922). From 1870 to 1912, the Evelpidon, in preparing officers for the two technical corps, operated according to the model of the French École Polytechnique. In 1914, the Saint-Cyr Military Academy, also in France, set the standard and prepared officers for military engagement.44

Given the extremely difficult economic and social conditions prevailing in the newly established Greek state, the work of military engineers was invaluable. Amid the desolate conditions of the early decades, the Bavarians tried to do the obvious: to create basic infrastructure. Although the economies in Central and Western Europe were growing rapidly, in Greece this happened only in the last quarter of the nineteenth century. Throughout that century, the priorities set for the central government in Athens were different to those in other parts of Europe. Initially, the attention was on law and order and the creation of a centralised state, where it was hoped that centrifugal tendencies would prevail over traditional localism. Despite the support of the central power, the army would face the constant threat of banditry, a phenomenon that tested the consistent and smooth functioning of state institutions. After the second half of the century, national issues, especially the Macedonian and Cretan questions, became a focus of the state, serving to delay or suspend any internal reform. The dream of a Greater Greece (“Megali Idea”) dominated and inspired the entire Greek society and obliged the state to pursue an irredentist policy, but never according to plan and always with unfortunate consequences.45

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43 Stylianos Gonatas, Απομνημονεύματα εκ του στρατιωτικού και πολιτικού δημοσίου βίου του, από τον 1897 μέχρι τον 1957 [Memoir of military and civilian public life from 1897 to 1957], Athens, s.n., 1957, pp. 9–10. Gonatas, as a lieutenant, participated in the movement along with 70 more lieutenants.
During Othon’s reign, the costs related to the maintenance of the Bavarian and gendarmerie corps – which was responsible for keeping law and order – was much higher than for the other military units. Specifically, in 1833 the construction works for the military amounted to 193,241 drachmas, that is, 2.7 percent of total military expenditure. This figure reached 338,218 drachmas (3.9 percent of the military spend) in 1834 and 493,889 (7.6 percent) in 1835. However, the amounts absorbed by the Bavarian corps and the gendarmerie were much higher, totalling 4,624,133 drachmas (19.7 percent of military spending) and 1,408,119 drachmas for (6 percent), respectively.46 Indeed, in 1836 the maintenance of the pioneer companies amounted to only 3.5 percent of the costs of the military forces budget.47 The costs of maintaining the Bavarian Auxiliary Corps were particularly excessive, which generated the resentment of those who had joined the opposition to Othon’s rule and, particularly, War of Independence veterans. These high costs were reflected in the official list of the Ministry of Military Affairs for the first two years of Othon’s rule (table 1).

Table 1.
Costs of recruiting and maintaining Bavarian troops in Greece, 1833–1834 (in drachmas)

<table>
<thead>
<tr>
<th></th>
<th>Military budget</th>
<th>Recruitment and maintenance costs (in Bavaria)</th>
<th>Cost of Bavarian Auxiliary Corps</th>
</tr>
</thead>
<tbody>
<tr>
<td>1833</td>
<td>7,028,207</td>
<td>1,220,582</td>
<td>2,786,067</td>
</tr>
<tr>
<td>1834</td>
<td>8,505,208</td>
<td>1,371,431</td>
<td>1,740,282</td>
</tr>
</tbody>
</table>


These were significant sums of money for a country that was taking its first steps as an independent state, in the midst of devastation and with a large foreign debt. Othon clearly deemed the presence of Bavarian troops in Greece as essential to the security of his regime. As Wolf Seidl notes, “revenue sacrificed for the

46 FEK, no. 90, 31 December 1836, “Summary of all military service expenses, 1833, 1834, 1835”, Report of Military Secretary Christian Schmaltz to King Otto, 5 December 1836.
47 FEK, no. 65, 14 November 1836, Παράρτημα [Appendix], “Special budget costs of the army”, p. 66.
weakness called the military cost 14 million within two years, surpassing all state revenue together. Funds for road construction, transport, trade and education were insignificant.”

A further problem that the state had to face in the execution of public works was the constant lack of cheap and skilled labour. Initially the gap was filled by the soldiers of the Engineer Corps. For example, for the construction of the road connecting Athens with Elefsina, 35 soldiers from the pioneer company were used. Overall, from 1833 to 1871, 21 “highways” were built in the kingdom, with a total length 461 kilometres, all under the responsibility of the corps.

To overcome the shortage of workers, the Bavarians decided to impose corvée labour on the rural population in the areas where projects were executed. This decision was difficult to apply, since it elicited various reactions from the local communities. A feature of Western European feudalism, corvée was an altogether foreign experience for the Greeks under Ottoman rule. Moreover, the importance of central roads did not particularly interest farmers in closed local societies who would not be using them. Corvée was eventually implemented on a very small scale. But even if it had been more widespread, it would be extremely difficult to realise any plans for building roads through the corvée. The mountainous character of the Greek state made roadbuilding a difficult and expensive undertaking. Moreover, the satisfactory development of the Greek merchant navy greatly facilitated transport in a country where 75 percent of the borders were maritime. Sluggish economic growth and the aforementioned reasons prevented Greece in the nineteenth century from completing the modernisation project undertaken by the Engineer Corps.

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49 GAK, Ministry of Interior, file 236, 14/26 December 1833 and file 234, 20 August/1 September 1834. For more on the country’s engineering works, see “Συνοπτική περιγραφή της υλικής προόδου της Ελλάδος” [A brief description of the material progress of Greece], *Παρθενών* 1 (1871), pp. 1–5. *Παρθενών* was a monthly journal published by Emmanouil Manitakis, who held the rank of colonel in the Engineering Corps. Another important historical source is *Εγχειρίδιον του Μηχανικού Σώματος, ήτοι συλλογή νόμων, Β. Διαταγμάτων, Υπουργικών οδηγιών και περί της Διοικητικής υπηρεσίας του σώματος τούτου* [Handbook of the Engineering Corps, namely collection laws, royal decrees, ministerial directives and on the administration of that body], Athens: Typografeio K. Antoniadou, 1859.

Conclusion

Regardless of the difficulties faced by the new government, it can be said that the officers of the Engineer Corps contributed decisively to the design and construction of the country’s basic infrastructure. The Bavarian officers imparted their knowledge and experience. With their European training, the Greek graduates of the Evelpidon took the lead in the important task entrusted to them. Those “eminent” officers were the country’s first technocrats and had one more important particularity: they were generally not associated with the armed groups of the 1821 revolutionary tradition, at least directly, since the descendants of War of Independence veterans who followed a military career entered other corps, such as the infantry or the gendarmerie. As a result, the Engineer Corps were not part of the traditional patronage networks in the army and offered their services to the state in a wholly legal and disciplined manner.

Hellenic Army Academy (Evelpidon)