

HISTORICAL CHANGES IN THE ROLE OF GEOGRAPHICAL FACTORS IN MILITARY DECISION MAKING

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ABSTRACT

Military affairs as public activities and institutions are fundamentally connected to their geographical environment and landscape. While this close relationship has been a constant phenomenon in the cultural history of human societies, its manifestations have been different in each historical era. Nevertheless, this process can best be described by the tightening relationship between geographical factors and military affairs. The significance of the impact of geographical relations on military activities was realized from the beginning, but the development of this understanding – from empiricism to modern academic military geographical thinking – has been a special process of cultural history. The way military decision-making has considered geographical factors over time shows a tight correlation with the general geographical literacy and the standing of geography as a science in a given era, as well as with how developed management theory was at the time. The present study describes the main steps and some special features of the cultural history of this multifaceted development, which involves both management theory and strategic management.

1. Military affairs and geography

Military affairs as public activities are a basic feature of human subsistence, according to the anthropogeography emerging around the early 20th century as a scientific field. According to *Tibor Mendöl* (1932), one of the prominent scholars of human geography, humans are biological beings, and as such, they have basic needs: air, water, food, and shelter. The latter involves active defense against environmental factors as well as against other creatures, people and groups of people. One of the general, fundamental theses of anthropogeography is that humans create tools to meet their subsistence needs, organize themselves into groups and societies, and in the meantime gradually conform to the landscape they live in. However, this conforming to the environment does not only mean obtaining air, water and food, but is also evident in the need for shelter. Throughout history and even at the early stages of the division of labor, in order to protect themselves from other groups, people have pursued special public activities and created an organization for this purpose, which is collectively known as military affairs. This

social organization and – at a certain stage of development – the profession itself conform to the geographic landscape just like the society that evolved to meet subsistence needs. At the same time, it also modifies the landscape while carrying out defense operations in order to ensure success. Thus, military affairs are some of the most effective elements of anthropogenic factors involved in reshaping landscapes, something which can be noted all over the world. It is especially true for Europe, whose history has been shaped by armed conflicts transforming some of its landscapes and regions.

The above indicate that the geographical landscape and its relationships are closely tied to and interrelated with the defense mechanisms and institutions of a society as the landscape and the military affairs within it form a symbiotic relationship. This symbiosis is evident in the way military affairs and the military profession conform to the landscape while shaping it as well. People living in a landscape – even from the start of being organized into a society – utilize geographical factors to meet their defense needs, and the increasingly intensive use of these factors greatly contributes to the realization of their political goals (Nagy M. M. 2001). All this suggests that military personnel need to take geographical factors into consideration more seriously during political and military decision-making, which, in turn, results in the geographical determination of military affairs. The consequence of this determination is that the historical development of armed conflicts and wars shows a strong correlation with the advance of geographical science and the general geographical literacy of the public. As the geographical knowledge of a society evolves and public thinking increasingly involves geographical elements (Teleki P. 1996; Mendöl T. 1999), so does the consideration of geographical factors in a society's defense mechanisms (Nagy M. M. 2002, 2006).

At this point we could ask if there has been a measurable difference over time between the geographical knowledge of society and the military profession. Nagy M. M. (2002) has already touched on this issue and concluded that the answer could only be dual in nature. In general, during the course of history, a society's geographical literacy and attitude never diverges from those of its military. The alternative would be impossible as the soldiers comprising a society's defense organization are themselves members of the said society; therefore, their worldview and general knowledge level cannot be much different from that of their peers. This does not mean, however, that military personnel cannot have more extensive geographical knowledge than civilians. Military life has always involved a great deal of geographical mobility, one indicator of which is the fact that it was mainly soldiers who participated in the great geographical discoveries. This mobility requires greater knowledge of topography and terrain than an average person might have. At the same time, it also needs to be taken into consideration that military combat always takes place in a physical environment (earth, water, air, space), which creates a need for a thorough knowledge of it, at least to an extent

that would enable victory. All the above suggest that the geographical knowledge and approach of the military profession has been especially complex compared to those of the civilian society, but its geographical world view is still identical to that of society as a whole (Nagy M. M. 2006).

The next question that needs to be discussed about the relationship between military affairs and geographical conditions is concerned with the utilization of geographical factors. The answer comes from the interpretation of the concept of war. The European cliché “war is the same as politics” – the continuation of politics by different means – clearly expresses the close ties between military affairs and politics. Still, this statement does not explain the concept of war. According to the synthesis of military science by *Carl von Clausewitz*, which is a foundation for modern systems of military theory and training, war means the use of force in order to impose our will on our opponents. Of course, Clausewitz does not rule out a close relationship between politics and military affairs; he even makes it the basis of his studies, but he still does not consider the two to be unequivocally equal, either. For him, wars are just a form of contact between nations and states, whose features overlap with politics before and during the war (Clausewitz, C. von 1961-1962; Perjés G. 1988). That is, war is an imposition of political will, although, – it needs to be emphasized – it does not necessarily have to be carried out by military force. The Clausewitz system of military theory was the one that enabled the realization and the application of the fact that concerning force there are two ways to impose political will. One of them is direct, immediate military force, while the other includes more indirect instruments (the threat of force, economic and psychological warfare, to mention just a few), which do not necessarily assume war conditions. On the contrary, most of the time these are most effective during periods of peace. The execution of political will by applying such diverse forces just emphasizes the role of geographical conditions. The historically constant means of indirect warfare, such as those involving economics and natural resources, the obstruction of the opponent’s transportation and trade by peaceful, often diplomatic measures, along with the application of pressure on the opponent through the possession of geographical regions can all prove effective only if the geographical factors are consciously utilized. This task does not exclusively fall on politicians, but on military personnel as well. It can be considered *geographical activism*, in which geographical factors are dedicated to and deliberately used for the imposition of political will or military force for political purposes (Nagy M. M. 2001). History has proven it time and again that practicing geographical activism can determine the fate of peoples and nations in certain historical situations; in this sense, the geographical literacy of the soldiers and the geographical bases of military decisions, that is the apperception and acknowledgement of military affairs being determined by geography, may become a factor in the shaping of history.

2. Geographical factors and military decisions

The Utilization of geographical activism has been apparent since the beginnings of military affairs, but it started to expand only in the early modern era, when the top military management started to make use of an important tool for summarizing geographical information, the map. According to *Hans Delbrück*, a renowned military historian from the early 20th century, military management started to use the first and, to the modern eye, quite rudimentary maps as early as the beginning of the 16th century (Delbrück, H. 2003). From this moment on, the development of military affairs, cartography and geography have been closely intertwined (Delbrück, H. 2003; Klinghammer I. – Pápay Gy. – Török Zs. 1995). Let one fact of scientific history illustrate the tightness of this relationship. Geographical and military sciences were transforming at the beginning of the 19th century, both of them gaining their modern form at that time. In addition, the people who developed these into modern disciplines were living in the same era. The founder of modern geographical science, *Alexander von Humboldt* (1769-1859) carried out his travels during the Napoleonic wars and in the following years, which enabled him to gain the knowledge for the establishment of modern geography and the publishing of his important works. *Carl von Clausewitz* (1780-1831) played a similar role in military science. He also gained valuable experience needed for the writing of his fundamental work during the Napoleonic wars. His main work, *Vom Kriege* was published after his death, between 1932 and 1934, and an extended, multi-volume edition was also brought out in 1937. Humboldt's *Kosmos* was published between 1845 and 1862. The tight, parallel development of military and geographical science is also evident in the fact that Clausewitz has also been considered a geographer – his above mentioned work, *Vom Kriege* has also been regarded as a fundamental work of modern military geography (Tietze, W. 1968-1972).

The 17th and 18th centuries are a unique era of military history as it is referred to as the period when permanent militaries developed. During these two centuries, military affairs and force were gradually becoming state monopolies, and the intuitional operations of earlier centuries were replaced by an increasing professionalism. Military forces attained their disciplined form in a relatively short time while military officers as a group developed into a qualified, professional social class. While luck and chance, which are the results of the inherent logic of military life and operations – as Clausewitz pointed out two hundred years ago – continued to impact military operations, their significance continued to decrease. The outcomes of armed conflicts became increasingly predictable, due partly to the deliberate utilization of geographical factors. The more extensive use of mostly military maps at the turn of the 18th century allowed for geographic factors to consciously serve military purposes; thus, in some cases the landscape itself became a protagonist in military events. At this point, the state and military

management were not thinking in terms of mere terrain anymore, but in terms of landscapes, regions, and countries (Angeli, M. et. al. 1876-1892; Perjés G. 1971).

The method of military art of the 17th-18th centuries – which preferred maneuvering in the theater of war itself – in fact did nothing else but dedicate the raw factors of the landscape or the geographical forces of the area to military purposes. It actually happened in the case of the theater in the Carpathian Basin during the over 150 years of Ottoman occupation and later during the Rákóczi rebellion (Nagy M. M. 2009). This was the first time in universal military history that the focus shifted to the geographical element. Due to logistic and methodology problems of the military at the time, fortification gained increased significance universally. (Fortification, the predominance of maneuvering, and the overly disciplined nature of the emerging permanent military forces are phenomena of cultural history; they were inherent to the spirit and attitude of the baroque, late baroque and rococo eras.)

Fortification involved a great amount of theory, mathematical calculations and knowledge of terrain and geography, and as such, it further enabled the professional approach to take root in the military. *István Hajnal*, a professor of history, aptly said the following about the leading military school and the French fortress architecture of the era: “... *The art of fortification took clear mathematical-geometric shapes in the hands of Vauban, taking the terrain into account, every corner was designed to be free of enemy fire and to enable keeping the approaches under fire; the theory of blunt opposition vanished, the fortification seemed to have sunk into the ground: it was all pure logic, abstract science...*” (own translation) (Hajnal I. 1936. 441. p.). This system was typical for the entire continent of Europe – and thus in Hungary, as well -, and it eventually spread all over the then known world. In the current Hungarian historical conscience – primarily due to some very popular works of fiction – it comes down to a number of shabby, neglected and uncomfortable little fortifications stopping the Ottoman advance. This popular belief, however, is not exactly true. In fact, there were some small fortresses manned by a small number of soldiers, which protected the approaches of greater fortifications, but the significant fortresses, such as those in Győr, Esztergom, Székesfehérvár, Szigetvár, Pápa and Eger, exhibit the signs of more deliberately planned fortifications. This notion is verified by a number of identical maps discovered in Stockholm and Karlsruhe in the early 20th century depicting 17th century fortifications in the Carpathian Basin. These maps have recently been published by Kisari Balla György (2000) in facsimile edition – the original ones had been drawn by hand –, and they include Hungarian fortifications that had been remodeled according to Western designs. It is important to note that this task involved – in peace and wartime – the partial remodeling and continuous reconstruction of the fortification system along the inner rim of the Carpathian Mountains that was hastily established at the time of the Ottoman invasion. Along with the importance of the region’s geographical conditions (Nagy M. M. 2007), these forts played a major role in stopping the Ottoman conquest in the middle of the Carpathian Basin, in conjunction with the

Turkish army's limited opportunities for maneuver in the area targeted for invasion – a feature of action radius theory (Perjés G. 1975).

The Rákóczi rebellion can be considered a continuation of the era of Ottoman occupation in this sense. The country's leaders tied Hungary's fate to one of Europe's military conflicts, the War of the Spanish Succession (1701-1714): at the early stages of the rebellion, the fight against the Habsburg Empire, whose major military forces were engaged in Western Europe, did not seem at all hopeless (Markó Á. 1936). The Rákóczi rebellion is a perfect example for the way contemporary military forces could be crushed or at least weakened by the natural forces of the landscape due to provisioning problems – a phenomenon that was deliberately utilized by the Hungarian military management at the time. The nearly uninhabited area of the Great Plain of Hungary was avoided by all armies. When the Emperor's army had to cross the region in 1705, it had become quite disorganized and weakened on the way by the unfavorable geographical circumstances by the time it arrived to the Zsibó narrows in Transylvania, and it had to fight there in this condition with the Hungarian military forces. The fact that the Hungarians suffered a catastrophic defeat was due mainly to their lack of military expertise. Another universal lesson the Rákóczi rebellion taught us is that the expertise of well-qualified military officers and their knowledge of geographical conditions have strategic significance (Nagy M. M. 2006, 2009). Modern research has confirmed what Prince Rákóczi Ferenc II himself also complained about, that the expertise of the contemporary Hungarian military officers greatly lagged behind that of the Habsburg Empire. Consequently, the upper levels of the Hungarian military and political leadership had not been able to recognize the excellent strategic opportunities that geography and military geography offered. The 1704 Hungarian military campaign against the Serbs demonstrates this situation perfectly: Rákóczi did not recognize the opportunity presented by his French allies marching towards Vienna along the Danube valley, so instead of leading his army to Vienna, the capital of the Empire, he led an utterly meaningless military operation in the southern Great Plain. Thus, he missed the opportunity for ending the rebellion quickly and successfully (Nagy M. M. 2011).

At the same time, this period of the emergence of permanent state militaries and mercantile state leadership is also characterized by the direct, measurable impact military affairs had on geography. From this time on, maps became permanent instruments of state and military leadership, which also illustrate Pál Teleki's notions (1996): in modern history, the geographical factor is gaining an increasingly important role in the thinking of society. In addition, the geographical approach of the military profession that was more subtle, detailed and deeper than that of the civilian society, along with other phenomena of military affairs, had a stimulating effect on the development of geography. This case is illustrated by World War I. It is a well-known fact that this military conflict fundamentally changed the European way of thinking, and the science of geography was no

exception. In the years preceding the war, heated professional discussions were held within the discipline of geography on whether the focus of the discipline should be on physical or human geography. According to Pál Teleki, it was the war that taught humanity the idleness of this dispute, and he believed that both of these factors have to be taken into consideration to the same extent in what he called synthesized geography (Teleki P. 1996).

The other great period in the development of the issue considered in the present study is that from the late 19th and into the 20th century. During these years two world wars took place and the Cold War began and all three events increased the significance of geographical factors in military politics and foreign policy. This is the result partly of processes of scientific history, and partly of experiences of everyday life. As for scientific history, through the work of the above-mentioned *Carl von Clausewitz* and his peer and counterpart *Albrecht von Roon* (1803-1879) the common field of military geography – also known as geography of defense – within geography and military science was launched and institutionalized (Nagy M. M. 2006). While this field was still characterized by strong tendencies of descriptive geography and historicizing during World War I (Langhans, P. 1909), the war soon compelled a change in geographical thinking in both soldiers and politicians. Between the two world wars – learning from the mistakes of the first conflict – the political and military leaderships were no longer thinking merely in terms of the landscape and the geographical factors of direct physical force; instead a nuanced, deeply stratified geographical thinking was increasingly gaining ground. Consequently, the independent discipline of military geography, already accepted in geographical sciences, was becoming closer to political geography and identified with it, if only in its approach. This enabled *Oskar von Niedermayer* to write his modern military geography (1942), which can primarily be interpreted as the geography of the imposition of political will, even though the military aspect is too predominant in it for most modern readers. In fact, this type of military geography, close to political geography, manifested itself also in the fields of geopolitics and geostrategy, which had seceded from anthropogeography in this era. An emblematic figure of geopolitics and geostrategy was a soldier-geographer, *Karl Haushofer* (1869-1946), who also wrote an important work on military geography, in which he attempted to close the gap between the geographical thinking of the military profession and anthropogeography and politics (Haushofer, K. 1932; Nagy M. M. 2006).

The primary military lesson of World War I is a quite simple one that can be discerned in Haushofer's and Niedermayer's works. Accordingly, the state leadership of each belligerent country had to face the fact that this war involved more than a fight between armed forces; it also involved the potentials of the opposing societies to a great degree. This practical realization shows similarities to the provision problems of 17-18th century warfare, as the carrying capacity of the theater of war was crucial at that time. Thus, it is not surprising that World War

I and the following decades resulted in increased attention by political and military leaders to geographical factors (Franke, A. 1934; Mundt, H. 1934; Schenke, W. 1938). As for political and military decisions, Clausewitz's thesis on war and politics was unequivocally confirmed from a geographical aspect at this time. Translating this thesis into geography, in modern politics we utilize increasingly greater numbers of tools for the imposition of political will but they nearly all (economic, psychological, sociological, biological, etc. war and pressure) can be described by the methods of geography. The reason why civilian political and military decisions have become identical in modern geographical thinking is that both of them are dominated by the geographical factor.

3. Conclusion

As it has been described above, military affairs and geography have evolved in a necessarily symbiotic relationship since the beginning of human history. As a result, the development of their approaches reached their milestones at the same time, while their geographical thinking were also becoming closer, only to finally intertwine at the highest levels of states in the 20th century. Just as the geographical element has been gaining ground in European culture during the evolution of human society, the connection between geographical approaches of military affairs and politics has accelerated and increasingly intensified. Thus, the imposition of will in international politics and the management processes and decisions applied to this end all require thorough geographical training and expertise from decision-makers.

BIBLIOGRAPHY

- Angeli, Moriz von et al. (1876-1892): *Feldzüge des Prinzen Eugen von Savoyen I-21*. Verlag des K. K. Kriegs-Archives, Wien.
- Delbrück, Hans (2003): *Geschichte der Kriegskunst im Rahmen der politischen Geschichte I-IV*. Nikol Verlagsgesellschaft, Hamburg
- Clausewitz, Carl von (1961-1962): *A háborúról I-II*. Zrínyi Katonai Kiadó, Budapest.
- Franke, Alfred (1934): *Wehrgeographisches zum Rußlandfeldzug Napoleons*. In: *Zeitschrift für Geopolitik*, 1934/7. pp. 449-461.
- Hajnal István (1936): *Az újkor története*. Magyar Szemle Társaság, Budapest.
- Haushofer, Karl (1932): *Wehr-Geopolitik, Geographische Grundlagen einer Wehrkunde*. Junker und Dünnhaupt Verlag, Berlin.
- Kisari Balla György (2000): *Karlsruhei térképek a török háborúk korából*. Szerzői kiadás. Budapest.
- Klinghammer István – Pápay Gyula – Török Zsolt (1995): *Kartográfia-történet*. Eötvös Loránd Tudományegyetem. Eötvös Kiadó, Budapest.
- Langhans, Paul (1909): *Bedeutung und Ziele der Militärgeographie*. In: *Petermanns Geographische Mitteilungen*, 1909/10. Beilage. pp. 289-292.
- Markó Árpád (1936): *II. Rákóczi Ferenc haditervei és azok kapcsolata a spanyol örökösödési háború eseményeivel*. In: *Századok*, 1936/pótfüzet. pp. 579-597.

- Mendöl Tibor (1932): Táj és ember, Az emberföldrajz áttekintése. Magyar Szemle Társaság, Budapest.
- Mendöl Tibor (1999): A földrajztudomány az ókortól napjainkig. ELTE Eötvös Kiadó, Budapest.
- Mundt, Hans (1934): Geographie und Strategie In: Geographische Zeitschrift, 1934/1. pp. 1-16.
- Nagy Miklós Mihály (2001): Földhöz kötött honvédelem. In: Kapu, 2001/11-12. pp. 31-36.
- Nagy Miklós Mihály (2002): Geográfia és hadelmélet. In: Földrajzi Értesítő, 2002/1-2. pp. 237-247.
- Nagy Miklós Mihály (2006): Kis magyar hadelmélet, Hadügy, hadelmélet, földrajz és geopolitika kapcsolata. Zrínyi Kiadó, Budapest.
- Nagy Miklós Mihály (2007): Akciórádiusz és magyar táj. In: Aetas, 2007/4. pp. 97-115.
- Nagy Miklós Mihály (2009): Földrajzi szemlélet és tájhasználat a magyar hadtörténelemben (895-1920) In: Frisnyák Sándor – András (eds.): A Kárpát-medence környezetgazdálkodása, Az V. Tájélföldrajzi Konferencia előadásai (Szerencs, 2009. április 3-4.). Nyíregyházi Főiskola Turizmus és Földrajztudományi Intézete – szerencsi Bocskai István Gimnázium és Közgazdasági Szakközépiskola, Nyíregyháza – Szerencs. Pp. 381-394.
- Nagy Miklós Mihály (2011): Rákóczi 1704. évi bácskai hadjáratának földrajzi kérdései. In: Közép-Európai Közlemények. 2011/3-4. pp. 14-27.
- Niedermayer, Oskar von (1942): Wehr-Geographie. Steiniger-Verlage, Berlin.
- Perjés Géza (1971): Szerencse, valószínűség és hadvezéri szemmérték (A katonai döntés és a valószínűség Montecuccolitól és Zrínyitől Clausewitzig). In: A Magyar Tudományos Akadémia Filozófiai és Történettudományi Osztályának Közleményei, 1971/1-2. pp. 121-143.
- Perjés Géza (1975): Az országút szélére vetett ország, A magyar állam fennmaradásának kérdése a Mohácstól Buda elestéig tartó időben. Magvető Kiadó, Budapest.
- Perjés Géza (1988): Clausewitz és a háború praxeológiája. Zrínyi Katonai Kiadó, Budapest.
- Schenke, Wolf (1938): Der Raum als Waffe, Eine Studie zum Krieg der halben Maßnahmen. In: Zeitschrift für Geopolitik, 1938/5. pp. 705-711.
- Teleki Pál (1996): A földrajzi gondolat története. Kossuth Könyvkiadó, Budapest.
- Tietze, Wolf (eds.) (1968-1972): Westermann Lexikon der Geographie I-V. Georg Westermann Verlag, Braunschweig.

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