

CULTURE, SPACE AND GEOGRAPHY: THE TRANSFORMATION OF A DISCIPLINE IN TÜRKİYE

KÜLTÜR, MEKÂN VE COĞRAFYA: TÜRKİYE'DE BİR DİSİPLİNİN DÖNÜŞÜMÜ

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ABSTRACT: Geography examines physical and human processes within space. The interaction between cultural elements and these processes is a key research focus. Recent environmental challenges, such as natural disasters, climate change, and migration, have driven the need for new theoretical frameworks. In line with global trends, Turkish geography has evolved to better understand the complex relationship between space and culture. This study aims to trace the historical development of geography in Türkiye, assess its current status, and provide future insights based on emerging trends. The research employs a literature review and document analysis of relevant studies. Findings show that, since the early 20th century, contributions from foreign experts and Turkish geographers trained abroad have modernized and diversified research methods in the field. With this equipment, geography in 21st century Türkiye has approached environmental and social relations more holistically compared to its historical status. This transformation has increased the significance of geography both academically and socially in Türkiye. Geography in Türkiye is striving to expand the complex network of relationships it establishes between cultural and spatial interactions with new perspectives required by the era. Therefore, it is essential to closely follow global geographical trends and approaches within the discipline. To maintain its presence effectively in Türkiye, achieving global standards, providing solutions to national and international environmental-social problems, and being integrated into a geographical information interaction network with the world are considered the most important goals. These goals can also be evaluated as a critical threshold that closely concerns and shapes the future of the discipline in Türkiye.

Keywords: Space, Culture, Geography, Discipin, Türkiye

ÖZ: Coğrafya bilimi, genel anlamıyla mekân üzerinde yer alan fiziki ve beşerî süreçleri inceleyen kapsamlı bir disiplindir. Kültürel unsurların bu fiziki ve beşerî süreçlerle nasıl etkileşimde bulunduğu konusu, coğrafya bilimi açısından önemli bir araştırma alanını oluşturur. Dünya üzerinde son dönemde yaşanan doğal afetler, küresel ısınmanın neden olduğu iklim değişikliği, göçler ve diğer küresel çevresel sorunlar coğrafyanın yeni teorik yaklaşımlar geliştirmesini gerekli kılmıştır. Tüm dünyada olduğu gibi Türkiye'de de coğrafya bilimi, mekân ve kültür arasındaki bu çok yönlü ilişkiyi anlamak için çeşitli dönüşüm süreçlerinden geçmiştir. Bu çalışmanın amacı, Türkiye'deki coğrafya biliminin mekân ve kültür ilişkileri çerçevesinde tarihini evrimini ortaya koymak, disiplinin günümüzdeki durumunu ve yeni yönelimler ekseninde gelecek perspektiflerini değerlendirmektir. Araştırmada literatür taraması ve

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doküman incelemesi yöntemleri kapsamında konuyla ilgili bilimsel yayınlar incelenmiştir. Bulgular, özellikle 20. yüzyılın başlarından itibaren yabancı uzmanların coğrafya bilimine olan katkıları ve yurtdışında eğitim almış coğrafyacıların etkisiyle Türkiye’de coğrafya biliminin daha modern, zengin ve çeşitli araştırma yöntemleri geliştirdiğini göstermektedir. Bu donanımla 21. yüzyıl Türkiye’sinde coğrafya biliminin, tarihsel süreçteki durumuna göre çevresel ve toplumsal ilişkileri daha bütüncül bir şekilde ele aldığı görülmektedir. Bu değişim, coğrafya biliminin Türkiye’de hem akademik hem de toplumsal düzeyde öneminin artmasına neden olmuştur. Türkiye’de coğrafya bilimi, kültürel ve mekânsal etkileşimler arasında kurduğu karmaşık ilişkiler ağını, çağın gerektirdiği yeni perspektiflerle genişletme çabasıdadır. Bu nedenle disiplin içerisinde dünya genelindeki coğrafi akımların ve yaklaşımların yakından takip edilmesi gerekmektedir. Coğrafya biliminin Türkiye’de varlığını etkili bir şekilde sürdürebilmesi için disiplinin küresel standartlara ulaşabilmesi, ulusal ve uluslararası çevresel-toplumsal sorunlara çözümler üretebilmesi ve dünya ile entegre olmuş bir coğrafi bilgi etkileşim ağına dahil olabilmesi en önemli hedefler olarak ifade edilebilir. Bu hedefler aynı zamanda Türkiye’de disiplinin geleceğini de yakından ilgilendiren ve şekillendiren kritik bir eşik olarak değerlendirilebilir.

Anahtar Kelimeler: Mekân, Kültür, Coğrafya, Disiplin, Türkiye

1. Introduction: The Interaction of Geography, Culture, and Space

At the end of 2004, there was a 10 year old child walking and swimming with her family on Mai Khao Beach in Thailand, where many British tourists were present. Her name was Tilly. Tilly Smith was a middle school student. While strolling on the beach, Tilly felt that something was wrong with the sea. The sky was cloudy, and the waves of the sea were hitting the shore steadily without receding. In fact, one of the world's most devastating natural disasters was approaching. Tilly Smith had learned about tsunamis in her geography class at her school, Danes Hill, in England, just two weeks earlier. Thanks to what she had learned in her geography class, Tilly alone recognized the signs of a tsunami on the beach (URL-2).

Tilly's geography knowledge saved the lives of over a hundred people on the beach, including her family, and earned her the title "*Angel of the Beach*" in newspaper headlines in her country. Tilly became one of the unforgettable names of the 2004 tsunami in Southeast Asia, which claimed the lives of 230,000 people (URL-2).

The life-saving knowledge that 10-year-old Tilly learned in her geography class a few weeks earlier does not merely demonstrate the importance of geography. This situation also illustrates how essential geography is at the intersection of social life and the natural environment, especially in an era when natural disasters ravage the world and global warming is the most urgent human issue awaiting a solution. Geography is concerned not only with natural disasters but also with economic, social, political, and cultural processes. These processes are factors subject to human interaction, and geography is concerned with how this interaction shapes events and phenomena.

Before considering geography as a discipline, it is useful to discuss what science is. Indeed, what we call science is the most important cultural

activity in human history. Through science, we understand the world, establish relationships between phenomena and events, and develop theories and models that provide future predictions about nature and society.

Generally, the subfields of geography, physical geography, and human geography, address the natural environment and space, respectively. Geography examines the relationships and differences between people, places, and locations, the distribution of natural and cultural phenomena over space, the processes through which these phenomena emerge, and the patterns they form to create a “region” (Domos et al., 2010). The Chinese-American humanistic geographer Yi-Fu Tuan describes geography as “the study of the world as the home of humanity” (Tuan, 1974).

In Türkiye, the science of geography has been influenced by the contributions of various civilizations and the thought systems produced by these civilizations throughout historical processes. However, the development of geography as a scientific discipline occurred in the 20th century. During the historical process from the Ottoman Empire to the Republican Era, geography initially existed merely as the memorization of place names. However, in the later stages, geography showed significant developments in understanding social, economic, cultural, and environmental dynamics (Erinç, 1973; Doğanay, 1997; Tümertekin, 1990). Especially during the Constitutional Era, students who went to France for education were influenced by prominent figures of the time such as Ritter, Ratzel, and although he was not a geographer, Darwin, as well as by the environmental determinist thoughts of geologist W. Davis, who later founded the American Geographers Association (Akyol, 1943).

One of the main factors determining the development trajectory of geography in Türkiye was the establishment of the Turkish Geographical Society in 1943. This marked a significant step towards the institutionalization of the geography discipline in Türkiye.

In the following sections of this study, the historical transformation of the science of geography in Türkiye within the framework of cultural and spatial relationships, along with international influences and modernization processes, will be discussed. Particularly, the institutionalization of the geography discipline and the main actors involved in this process will be evaluated through the dynamics of change within the discipline in Türkiye. Additionally, the environmental, social, economic, and cultural dimensions of the science of geography in contemporary Türkiye and the future directions it should follow will be discussed. Finally, the focus will be on the adaptation of the geography discipline in Türkiye to global standards and its integration with international geography networks, examining the effects of this transformation on the future role and potential contributions of the discipline.

2. Research Aim and Methodology

What and how geography, with its vast field of study, examines has been a significant topic of discussion from past to present. Indeed, Kant emphasizes that *"history is the science of time, while geography is the science of space, and the method is what is important in these two sciences"* (Tümertekin & Özgüç, 2002).

De Blij, in his work "Why Geography Matters: More Than Ever," states that *"if there were a single word to describe the discipline of geography, it would derive from space"*. In his view, similar to Kant, historians view the world in terms of time and chronology; economists and political scientists view it structurally; geographers, on the other hand, view it spatially (De Blij, 2012). The inclusiveness of geography as a science of space has led to its influence by emerging approaches in social sciences and has caused it to undergo changes according to the social and political state of the world in terms of scientific approach.

The aim of this study is to reveal the historical evolution of the science of geography in Türkiye within the framework of spatial and cultural relationships, to evaluate the current state of the discipline, and to assess future perspectives based on new orientations. While examining the spatial analysis capability of the science of geography, the study considers the cultural and social context. The study focuses on how the development process of the science of geography in Türkiye can be integrated with international approaches. Using qualitative research methods, the study investigates how the science of geography in Türkiye interacts with cultural and spatial dimensions and how it has evolved over time. The study includes a literature review encompassing books, articles, journals, and papers related to the topic, which have been analyzed. Additionally, considering the dominant paradigms in the science of geography, the main development lines of geography as a discipline in Türkiye have been outlined; current new pursuits and possible future directions in the discipline have been identified.

3. Key Findings and Analyses of the Study

3.1. The Relationship Between Space, Culture, and Geography

The multidimensional relationship between space, culture, and geography is too vast and detailed to be fully covered in this limited section. However, the basic elements of this relationship will be briefly discussed here.

Space encompasses cultural practices and social interactions. Therefore, from the perspective of the science of geography, space is a fundamental area of study. Geography also examines the relationship between cultural narratives and symbolic values within space. It is important how people perceive and experience space in geography. The space studied in geographical terms plays a crucial role in understanding social structures and cultural processes. In this context, geography examines

not only the physical space but also the social and cultural meanings of that space. This relationship between geography and space has been addressed by many geographers (Relph, 1976; Tuan, 1977).

For example, the Chinese-American geographer Yi-Fu Tuan (1977) emphasized the impact of space on human experience. Livingstone (1992ab) examined and focused on the effects of geography on cultural processes. Friedrich Ratzel (1896) studied how people use space, the reasons behind it, and the outcomes of these usage patterns. Relph (1976) conducted studies on how people feel about spaces and focused on the spatial perceptions that people form through these feelings.

The topics emphasized by geographical thinkers are, in fact, a reflection of the deep-rooted relationships between space, culture, and geography. This relationship has retained its importance from past to present and has influenced the course of human history. Today, the effects of this deep-rooted relationship continue in the environmental problems faced by the entire world. Considering these historical relationship patterns in solving current environmental problems will benefit humanity.

The interactions between space, culture, and geography have influenced human experience throughout history and have led to the prominence of geography as a significant field of study today. Geography helps us understand the role of space in social and cultural processes. It allows us to explore these complex relationships in depth. This interaction, present throughout history, is crucial for solving today's environmental and social issues. Geography's diverse perspectives help us grasp the links between space, culture, and society, highlighting its importance.

3.2. The Effects of Environmental Determinism in the Science of Geography

In the late 19th and early 20th centuries, many geographers believed the physical environment shaped cultures. Humans were seen as passive products of nature. Similar environments were thought to produce similar cultures (Domos et al., 2010). Environmental determinism was dominant in 19th-century geography. However, geographical thought gradually shifted away from this deterministic view. A new perspective emerged, seeing the relationship between humans and the environment as mutual and dynamic. This emerging new understanding provided an opportunity to evaluate the impact of humans and the role of environmental variables more comprehensively in the science of geography (Livingstone, 1992b). Darwin used the concepts of evolution and development as continuous processes and saw humans as living organisms. His prominent ideas of struggle and natural selection influenced the paradigm of environmental determinism of the time. The transformative effect of time shaped Davis's theory of the cycle of erosion and the approaches of the French regional geography school in explaining changes in the cultural landscape. The German geographer Friedrich Ratzel, with his environmental determinist view, influenced

prominent figures of the time such as Davis and Sample, who directed the geographical approach. Ratzel, in turn, was influenced by Darwin's ideas. These influences can be seen in Ratzel's (1897) work "*Political Geography*" (Jensen, 1988).

According to Livingstone (1992ab), although environmental determinism spread among professional geographers like a fire that is difficult to extinguish, this paradigm also faced significant criticism. Each of these criticisms also meant a weakening of determinism. These approaches were based on cultural anthropology by Franz Boas, who began his academic career as a physical geographer and became an anthropologist after questioning environmental determinism, and on the emphasis of landscape by Barrows and Sauer, which still has an influence in American professional geography, rather than on the theory of evolution.

Another critique emerged from the possibilist approach of the regional geography school of the French geographer Vidal de la Blache. Indeed de la Blache is considered the founder of French cultural geography. Vidal or the Vidalists viewed the environment not as the determinant of all human activities but as a factor that limits settlement and cultural opportunities. Another critique, which addressed the impact of cultural factors on the landscape within the concept of "*region*" came from the British geographer H. J. Fleure (Cloke et al., 2005).

Despite the differences in all these approaches, according to Livingstone (1992ab), the regional study paradigm is a meeting point, and the influence of geography was strongly felt with Richard Hartshorne's monographic work "*The Nature of Geography*".

Although the influence of environmental determinism in the science of geography in Türkiye has diminished over time, traces of this approach can still be observed in contemporary geographical thought in Türkiye. The effects of environmental determinism have played a significant role in the methodological and theoretical evolution of the science of geography in Türkiye and have contributed to the current multidimensional structure of the discipline.

3.3. Geography in Türkiye: Key Figures and Main Approaches

Up to this point, the study has focused on the main approaches that have been influential in the science of geography in Türkiye and the developments on which these approaches are based. In the following section, the main figures in the science of geography in Türkiye, the fundamental transformations within the discipline, and the causes and effects of these transformations will be outlined.

Researchers from various fields have played an important role in the development of geography in Türkiye. Early studies mainly focused on physical geography. Over time, human and economic geography gained

prominence. This shift brought balance to the discipline, giving it a broader and more multidimensional structure (Tümertekin & Özgüç, 2004).

One reason for the dominance of physical geography was the influence of foreign geographers. These experts, with backgrounds in physical geography or geology, trained students who later shaped geography in Türkiye (Kayan, 2000).

Geography in Türkiye has gone through several major transformations. These changes can be attributed to key factors. First, the influence of foreign geographers. Second, the return of Turkish geographers educated abroad. Third, the institutional development within Turkish geography. More details on these factors will be covered in the following sections.

The most comprehensive work on the history of geography in Türkiye is Sırrı Erinç's book *Geography in Türkiye in the 50th Year of the Republic* (1973). Another important study is İbrahim Hakkı Akyol's article *Geography in Türkiye in the Last Half Century* (1943). In his book *"Human Geography of Türkiye"* published in 1997, Hayati Doğanay discusses the historical development of the science of geography in Türkiye, notable geographers, and their works. Erol Tümertekin has made significant contributions to the discipline of geography with his work on the recognition of Paul Vidal de la Blache among geographers in Türkiye, as well as his work on the history of geography titled *"The Formation of Contemporary Geographical Thought and Paul Vidal de la Blache"*. In this work, Tümertekin makes a striking critique, stating that the science of geography in Türkiye is 300 years behind modern geography (Tümertekin, 1990).

Some of the problems encountered in the development of the science of geography in Türkiye are universal, while others are unique to Türkiye. The main universal issues are experienced in terms of principles, methods, and philosophy. Geography's feature of acquiring knowledge about inhabited places and other regions of the world has gained a quality aimed at identifying problems related to human-environment relationships today. Especially the fact that space is now laden with political meanings, reshaped by power relations, and transformed into a field of competition between classes has led to significant changes in the topics addressed by geography, a science of space.

Not only in Türkiye but worldwide, geographers ignored philosophical issues until the 1950s and conducted their research on topics they thought were suitable to the historical development of the discipline. They focused their work particularly on physical, regional, and cultural topics. However, these studies did not put forth any philosophical claims. Nevertheless, their work implicitly had a philosophical basis, which is the scientific philosophy approach known as empiricism. In empiricism, knowledge is described, that is, where it is located geographically is shown. However, there is no explanation of why it is there. Therefore, empiricism has manifested itself in

geography within the idiographic tradition as the description of places and regions; the transfer or depiction of existing physical, social, and economic phenomena as they are (Yavan, 2005ab). Until the 1950s, empiricism was the only philosophical approach used in geography in the form of data collection, recording, and description (Yavan, 2005ab).

In fact, the philosophical issues related to geography were essentially problems concerning all social sciences. In social sciences, it is observed that the behaviors of humans and societies are attempted to be explained based on the principle of causality, in line with the core of the positivist paradigm. For this, controllable laboratory conditions were necessary, and social scientists adopted conducting research in laboratories like chemists and physicists. Numerical analyses of the findings obtained in the research were important; otherwise, the approach would not be considered scientific as it would not align with the positivist understanding (Yıldırım & Şimşek, 2008). Therefore, social scientists developed and used statistical methods to the fullest extent for their research. To be considered scientific, they qualified social, cultural, political, and other human-related phenomena as dependent and independent variables, just like natural scientists (Yıldırım & Şimşek, 2008).

All these developments changed the scope and dimension of the science of geography. Geographers began to develop more detailed approaches in spatial analyses. The science of geography was no longer limited to physical geography and the description of places. In addition, socio-economic and political analyses began to emerge. A similar transformation was observed in Türkiye as well. The science of geography in Türkiye increasingly began to focus on the spatial analysis of cultural, social, and political events. This change and transformation led to the science of geography being considered from a broader perspective both nationally and internationally.

3.4. International Contributions and the Transformation of the Science of Geography in Türkiye

Since the early 20th century, foreign geographers who came to Türkiye have made significant contributions to the modernization of geography education and the enrichment of the discipline in terms of methodology. These foreign geographers not only introduced the science of geography in Türkiye to more scientific methods but also helped the implemented education system reach international standards (Erinç, 1973).

After 1915, foreign geographers invited to Türkiye brought significant changes to geography research and learning methods. Indeed, before 1915 and generally in the 19th century, geography in Türkiye largely consisted of memorizing place names, providing statistical figures, and drawing maps from memory. Not only was there no focus on researching the country, but there were also no Turkish geographers capable of thoroughly evaluating the research conducted by foreign geographers (Erinç, 1973). In the period

before 1915, some foreign geographers made significant contributions. The most notable among them were the German geologist and geographer Heinrich Kiepert and his son Richard Kiepert, who was also a geologist and geographer. These geographers respectively prepared the 1:1,000,000 scale topographic map of Türkiye, consisting of 26 sheets between 1840-1845, and the 1:400,000 scale topographic maps of Anatolia, also consisting of 26 sheets (Doğanay, 1997).

E. Obst, who was brought from Germany in 1915, is one of the most important figures from abroad. In 1915, Obst, who chaired the Geography Department (Darülmesai) of the Faculty of Literature at Istanbul Darülfünun (University), which was reorganized that year, made significant contributions to Turkish geography with the studies he conducted alongside the geographers of the period who had returned from abroad (Kayan, 2000). One of Obst's most important contributions, although he was a human geographer, was introducing the science of Turkish geography to research-based physical geography, represented by Humboldt and Richthofen (Erinç, 1974).

In the Republican era of Turkish geography, that is, after 1923, foreign geographers continued to come to Türkiye. Lefebvre served between 1925-1928 due to cultural agreements with France during those years. Although Lefebvre was actually a historian, he mainly gave lectures on human-economic geography, cartography, and geography research methods (Özçağlar, 2009). Influenced by the Ritter school in France, Lefebvre's impact was limited due to his short stay in Türkiye. According to Erinç (1974), if Lefebvre had stayed longer in Türkiye, human geography would have developed faster and reached a more advanced level compared to the 1970s. Erinç's thought stems from the significant influence of E. Chaput, who came from France in 1926 and was appointed as the head of the Geography Department at Istanbul University. Chaput's work leaned towards geology, leaving deep marks on Turkish geographical science. However, Erinç also emphasizes that Chaput introduced field studies in geomorphology, mobilized local geographers in this field, and was a primary example in their development in fieldwork (Erinç, 1974).

Another geographer invited from abroad who made significant contributions to the development of the science of geography in Türkiye is Herbert Louis. The founder of the Department of Geography at the Faculty of Language, History, and Geography (DTCF) at Ankara University, Louis served in Türkiye from 1935 to 1943. Louis is an important geographer for the effective introduction of many methods and new knowledge, such as field studies, into the science of geography in Türkiye (Sözer, 1993; Gümüşçü, 2008). These key figures and approaches that played an important role in the historical development of the science of geography in Türkiye have shaped the current dynamics of the discipline. In the future, it is expected that the science of geography in Türkiye will sufficiently reach international standards and focus more on interdisciplinary research.

3.5. Knowledge Transfer and Innovation in the Science of Geography in Türkiye

The role of geographers who were sent abroad for education at certain times and then returned to Türkiye is significant in the development of geography in Türkiye. These geographers brought back the education they received abroad, the international knowledge they acquired, and the innovative methods they learned to Türkiye. These geographers pioneered the development of geography in Türkiye and the adoption of new approaches (Tanrıkulu & Gümüşçü, 2021).

The practice of sending students abroad was also observed before the Republic era. Indeed, during the 19th century Ottoman period, as part of modernization efforts, students were sent abroad. This practice was driven by the need for qualified officers for the army, instructors for newly established modern schools, clerks for government offices, and skilled personnel for the developing Ottoman industry (Erdoğan, 2010). The first generation of geographers were those sent abroad during the period of intense intellectual currents of the Second Constitutional Era. Due to various efforts to develop Darülfünun (university) and the students sent abroad during the Second Constitutional Era, a new cadre in the field of geography was established. This cadre included Faik Sabri Duran, Ali Macit Arda, and Selim Mansur, who were trained under the influence of Paul Vidal de la Blache in France, and Hamit Sadi Selen, who was trained under the influence of the Ritter-Ratzel school in Vienna (Tokcan & Oruç, 2009). Additionally, İbrahim Hakkı Akyol, who joined the Istanbul University Geography Department in 1923, and M. Besim Darkot, who returned to Türkiye in 1932, were also representatives of the German school. These individuals later returned to Türkiye and continued their work. Thus, geographers educated in countries affiliated with the French geography school joined the geography departments established by German geographers (Tokcan & Oruç, 2009).

Each of these geographers sent abroad contributed to the modernization of geography in Türkiye by applying new methods to the science of geography in Türkiye, alongside foreign geographers. Additionally, they played a significant role in supporting the development of geography in the following years by educating new students. Among these geographers, Faik Sabri Duran (1882-1943) and his mentor Saffet Geylangil (1877-1949) were prominent figures during the period between 1915 and 1933, which Erinç describes as the foundation period of Turkish geography (Table 1).

Writer	B/D Year	Book	Article	Co- Authored Book	Co- Authored Article	First Pub.	Last Pub.
Duran, F. S.	1882-1943	34	15	1	3	1913	1958
Obst, E.	1886-1981	1	*	2	*	1924	1944
Arda, A. M.	1887-1967	1	9	2	*	1925	1955
Mansur, S.	1890-1965	*	*	*	*	*	*
Selen, H. S.	1892-1968	19	63	6	7	1924	1985
Akyol, İ. H.	1888-1950	4	37	4	5	1924	2002
Ardel, A.	1902-1978	7	74	5	12	1938	1975
Febvre, L.	1878-1956	*	*	3	*	1922	1958
Chaput, E.	1880-1943	3	21	5	3	1930	1976
Darkot, M. B.	1903-1990	17	269	4	4	1926	1981
Tanoğlu, A. T.	1904-1978	8	30	2	4	1940	1971
Erinç, S.	1918-2002	23	111	8	15	1944	2001
Yalçınlar, İ.	1915-2002	13	108	4	1	1944	2002
Louis, H.	1900-1985	3	15	3	6	1938	1985
Çıtakoğlu, A. N.	1910-1940	1	8	*	3	1938	1945
Alagöz, C. A.	1902-1991	3	44	1	3	1936	1984
Bediz, İ. D.	1908-1978	1	8	*	4	1935	1967
İzbırak, R.	1911-1998	36	63	12	13	1934	1996
Sanır, F. A.	1907-1998	6	20	2	4	1945	2000
Gürsoy, C. R.	1917-1986	1	17	1	4	1956	1979
Total		181	893	26	39		

* No verified data has been accessed.

Table 1: Geographers and the number of their works who served as the first generation or founders in the first established geography departments in Istanbul and Ankara in Türkiye (Prepared using Gümüşçü & Karakaş Özür, 2016; Yavan, 2019; Tanrıkulu & Gümüşçü, 2021)

Saffet Geylangil authored the first primary, secondary, and higher education textbooks in Türkiye according to Western standards. Geylangil prepared "*Resimli ve Haritalı Coğrafya-i Umumi (General Geography)*" the most important scientific geographical work of this period, in 1913, and Faik Sabri Duran wrote "*Osmanlı Coğrafya-i İktisadisi (Ottoman Economic Geography)*" in 1912. Faik Sabri Duran published more than 30 school textbooks (Tables 1 and 2). Additionally, the "*Büyük Atlas (Great Atlas)*" first published in 1936, remained the only scientific reference source on the geography of countries in Türkiye until the publication of the "*Modern Büyük Atlas (Modern Great Atlas)*" in 1974 (Erinç, 1973; Gümüşçü, 2008; Sözer, 1993).

Name-Surname	B/D Year	Institution	Working Time	Explanation
Mehmed Celal Bey	1863-1926	Darülfünun	1900-1913	Director of School of Civil Engineering
Osman Saffet Geylangil	1873-1945	Darülfünun	* - 1913	No information could be found.
Osman Nuri Bey	1839-1906	Darülfünun	*	No information could be found.
Abdülvahab Bey	*	Darülfünun	*	No information could be found.
Faik Sabri Duran	1882-1943	Darülfünun	1913-1920	He resigned.
Erich Obst	1886-1981	Darülfünun	1915-1918	He returned to Germany.
Ali Macit Arda	1887-1967	Darülfünun	1915-1933	He transferred to Galatasaray High School.
Selim Mansur	*	Darülfünun	*	No information could be found.
Hamit Sadi Selen	1892-1968	Darülfünun	1915-1933	He transferred to Ankara Civil Service School.
İbrahim Hakkı Akyol	1888-1950	Darülfünun	1923-1950	*
Ahmet Ardel	1902-1978	İstanbul	1933-1973	*
Theodore Lefebvre	1889-1943	Darülfünun	1925-1928	He returned to France.
Ernest Chaput	1880-1943	Darülfünun	1928-1939	He returned to France.
Mehmet Besim Darkot	1903-1990	Darülfünun	1932-1973	*
Ali Tevfik Tanoğlu	1904-1978	İstanbul	1934-1974	*
Sırrı Erinç	1918-2002	İstanbul	1940-1985	*
İsmail Yalçınlar	1915-2003	İstanbul	1941-1984	*
Herbert Louis	1900-1985	DTCF**	1935-1943	He returned to Germany.
A. N. Çıtakoğlu	1908-1953	DTCF	1936-1946	Parliamentary immunity was abolished in 1946.
Cemal Arif Alagöz	1902-1991	DTCF	1935-1972	*
İbrahim Danyal Bediz	1908-1978	DTCF	1935-1978	*
Reşat İzbirak	1911-1998	DTCF	1936-1998	*
Ferruh Ali Sanır	1907-1998	DTCF	1940-1950	*
Cevat Rüştü Gürsoy	1917-1986	DTCF	1940-1985	*

* No verified data has been accessed / ** DTCF: Ankara University, Faculty of Language, History, and Geography

Table 2: Major geographers who served in geography departments in Türkiye between the 19th and 20th centuries (modified from Gümüşçü & Karakaş Özur, 2016)

In this section, it is also necessary to mention Ali Tanoğlu, one of the geographers trained by Faik Sabri Duran. According to Doğanay (1997), Tanoğlu is the first representative of human and economic geography in the contemporary sense and also holds a special school of thought. For example, the first human and economic geography books for undergraduate students, such as "*Economic Geography-Energy Resources (1940)*" and "*Human Geography: Population and Settlement (1966)*" were prepared and published by Tanoğlu.

Another notable aspect of Tanoğlu among geographers is that he was the first geographer to serve as a dean (Dean of the Faculty of Literature at Istanbul University during 1950-1952 and 1956-1959) and the first geographer to serve as a rector (Rector of Istanbul University during 1957-1959). Additionally, Tanoğlu made significant contributions to the science of geography in Türkiye through the students he trained, leaving a lasting impact. Among these geographers, Süha Göney stands out for introducing the first undergraduate textbooks on "*Urban Geography*" (1977) and "*Political Geography*" (1979) to the science of geography in Türkiye (Doğanay, 1997; Tuncel et al., 2010).

Another geographer who holds an important place in Turkish geography is M. Besim Darkot. Darkot was influential, particularly through his work in cartography and regional geography. Moreover, Darkot was a significant figure who contributed to the First Turkish Geography Congress, during which the division of Turkey into geographical regions was undertaken (Doğanay, 1997).

The contributions of the Turkish geographers mentioned throughout the study to the field of geography in Turkey are indisputable. When the contributions of Turkish geographers who were educated abroad are also considered, the significance and role of this in the discipline will be better understood. Geographers who pursued education abroad have made significant contributions, particularly to the development of geography in Turkey, to the alignment of the discipline with global standards, and to ensuring that future projections in the field are compatible with modern geographical understanding.

3.6. The Institutionalization Process and Effects of the Science of Geography in Türkiye

Educational and research institutions, indeed, played a key role in the institutionalization of geography in Türkiye. The establishment of new geography departments and research centers was, in fact, crucial in laying this foundation. Over time, these developments significantly strengthened the academic infrastructure. Moreover, they helped the discipline reach a broader audience. Furthermore, the formation of geography associations increased the societal impact of the field. This also contributed to the dissemination of geographical knowledge (Gümüşçü & Karakaş Özür, 2016).

Türkiye's first geography department was founded on October 14, 1915, at Istanbul Darülfünun (university). In 1933, Istanbul University replaced Darülfünun, marking what Sırrı Erinç called the "Turkish Scientific Renaissance" in geography (Erinç, 1973; Gümüşçü & Karakaş Özür, 2016).

The second geography department established in Türkiye started its activities in 1935 at Ankara University's Faculty of Language, History, and Geography (DTCF) (Kayan, 2000). Forty years after the establishment of the geography department within DTCF, the Department of Geography at Atatürk University's Faculty of Literature in Erzurum, eastern Türkiye, was

opened in the 1974-1975 academic year (Doğanay, 1997). Today, there are over 40 departments offering geography education in various universities, including geography teaching departments within education faculties, and this number is steadily increasing (URL-6).

Another organization that brought about significant transformations in Turkish geography is the Turkish Geographical Society. In the 19th century, efforts were made to establish a geographical society in the Ottoman Empire, and indeed, a geographical society was established. In 1875, the first geographical society, "*Şirketi Coğrafiye-i Hıdiviye (a kind of geographical society)*" was established in Egypt, which was part of Ottoman territory (Unat, 1943; Alagöz, 1943). After this date, there were two more attempts to establish a geographical society at various times. The first of these was in 1899, when a person from Izmir named Sinan Topuz and a railway engineer named Schneider applied to the then grand vizier Halit Rıfat Pasha to establish a geographical society. The second attempt was made by a delegation led by Recaizade Ekrem Bey. Detailed information about these two applications cannot be provided as the documents regarding them are not available (Unat, 1943).

As can be noted, the two initiatives mentioned above were individual efforts. There were also attempts by the state to establish a geographical society. In 1918, the Minister of Education (Maarif Nazırı) of the time, in the Ottoman Parliament (Meclis-i Mebusan), stated that there were no necessary studies on the country's geography and climate and proposed the establishment of the "*Commission for Climatic Research-the first state institution established for meteorological observation (Tedkikat-ı İklimiye Encümeni)*" to carry out the necessary work in these two areas (Unat, 1943).

Following these unsuccessful attempts, it was decided at the First Turkish Geography Congress held (Photo 1) in Ankara on June 6, 1941, to establish the "*Turkish Geographical Society (TCK)*" in Ankara on March 12, 1942 (Erinç, 1973). Today, in Türkiye, the Turkish Geographical Society, the Geomorphology Association, the Turkish Association of Geographers, and the Turkish Geography Research and Application Center are actively continuing their activities.

The history of geographical societies such as the Turkish Geographical Society (TCK) dates back much further than the academic institutionalization of the science of geography in universities. Jensen (1988) states that these societies pioneered the establishment of geography departments in universities and fought hard for the recognition of geography as an academic field. The first known geographical society was established in 1788. The French founded their society in 1821, the Germans in 1856, the Hungarians in 1872, and the Dutch and Swedes in 1873. By the late 1800s, there were 94 geographical societies worldwide, with 80% of them located in Europe. Of these, 26 were established in France and 24 in Germany (Tümertekin & Özgüç, 2004).



Photo 1: News article about the "Geography Congress" published on the front page of *Tasviri Efkâr Newspaper* dated June 7, 1941 (URL-4).

The main reason for the fewer geographical societies in the Ottoman period and Türkiye compared to Europe is the differences in geographical thought. In Europe, geography was closely intertwined with colonial activities for many years and became a discipline that provided information flow to colonial countries. In this context, the relationship between geography and colonial activities is significant. According to Kishe (1978), modern geography begins with Bernhardus Varenius (1622-1649). Varenius wrote the first trade geography book, "*Descriptio regni Japoniae et Siam*" in the mid-seventeenth century to provide useful information to Amsterdam merchants (Martin, 1993; Tümertekin & Özgüç, 2007). In relation to the evolution of geography and its connection with colonialism, Livingstone (1992ab), Withers (2010), and Glacken (1967) have made significant contributions in the later period.

The modern world has been shaped as a result of Europe's encounters with and, in many cases, exploitation of other societies (Gulbenkian Commission, 2011). After the mid-19th century, geography became an important science providing information for geographical discoveries to colonial countries, and geography departments were established even in the most prestigious universities. This process also transformed geographical thought. Places and regions were approached from a European perspective and according to certain national, economic, and religious interests, with geography being used as a tool of colonialism. As a result, a tradition strongly influenced by ethnocentrism, imperialism, and masculinism began to develop in geography (Tümertekin & Özgüç, 2017).

Ultimately, the institutionalization process of the science of geography in Türkiye has allowed the discipline to modernize and gain more acceptance in society. The established geography departments and societies have contributed to aligning the discipline with international standards and have increased the social impact of the science of geography. In the future, further strengthening institutional structures and developing new collaborations will enable the science of geography in Türkiye to be more effective on the international stage.

3.7. The Science of Geography in Türkiye Today

The science of geography in Türkiye has undergone significant transformations over the last 100 years. During this century-long period, the importance of geography in Türkiye's education system has steadily increased. Indeed, the increase in the number of departments offering geography education is evidence of this (Figure 1). As seen in Figure 1, the steady growth in the distribution of geography departments over the years in Türkiye indicates that geography education has become more widespread. This graph also highlights the significance of the science of geography in Türkiye at both academic and societal levels.

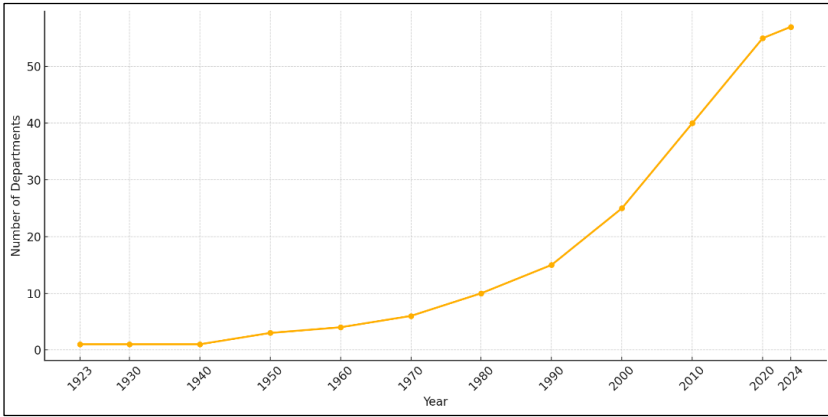


Figure 1. The number of departments offering geography education in Türkiye over the past 100 years (1923-2024) (Prepared using Sözer, 1993; Gümüüşçü & Karakaş Özü, 2016; URL-5).

Today, geography departments in Türkiye have become significant academic focal points across the country. As of 2024, the top 10 geography departments with the highest number of enrolled undergraduate and graduate students are shown in Figure 2. These universities, which rank highest in terms of student numbers, stand out in the field of geography in Türkiye. These institutions have also become the primary centers where geography education is concentrated in Türkiye. Although it is possible that some of these students may be inactive, these data still indicate the academic appeal of geography departments in Türkiye. This figure provides important clues in understanding students' preferences for geography departments.

Evaluating the current figure in terms of the potential for the science of geography to reach broader audiences and its future potential, it can be concluded that the development potential of the science of geography in Türkiye is quite high.

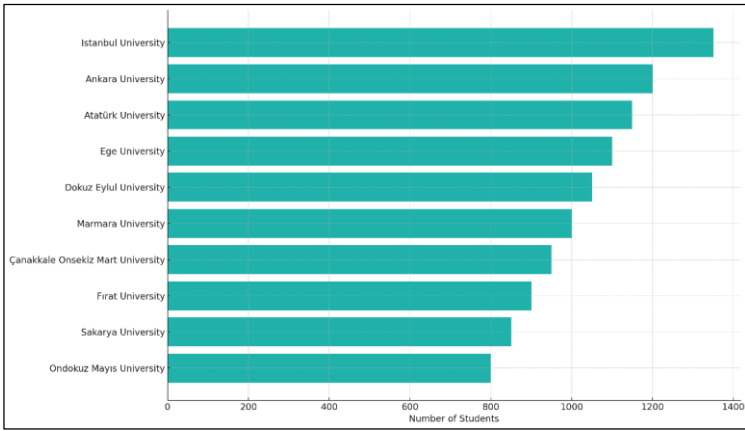


Figure 2. The top 10 universities with the highest number of enrolled students in geography-related departments in Türkiye as of 2024 (Prepared using URL-5)

The number of postgraduate (master's and doctoral) theses conducted in the field of geography in Türkiye is important for understanding the academic development of the discipline. The situation in Türkiye over the past 23 years is shown in Figure 3. This graph, which shows the annual numerical distribution of postgraduate theses in the field of geography in Türkiye, is evidence of the academic interest in the geography discipline in Türkiye. Especially in recent times, the involvement of the science of geography in addressing and solving environmental and social issues has increased the number of postgraduate studies. This upward trend in studies also increases the number of research projects in the field of geography at Turkish universities, leading to more students engaging in the discipline. This enhances the acceptance of geography in Turkey both nationally and internationally.

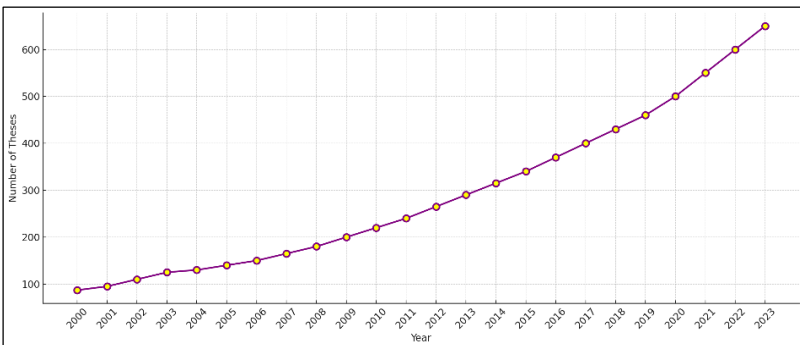


Figure 3. The number of postgraduate theses in the field of geography in Türkiye over the past 23 years (2000-2023) (Prepared using URL-6)

The distribution of geography postgraduate theses in Turkey over the past 23 years has been analyzed by topic. This shows the discipline's diversity and research trends. Figure 4 highlights the concentration of these theses in different areas. Physical geography accounts for 30% of the total, making it the most researched field, followed by human geography at 25%. Regional geography studies rank third with 20%. Studies focusing on environmental issues and sustainability are notable with 15%. Finally, research on geographic information systems accounts for 10%, placing it last. This topic distribution in theses demonstrates that the science of geography in Türkiye encompasses a broad spectrum of research covering both the natural environment and human-society relationships. Furthermore, the diversity seen in postgraduate studies in Türkiye reflects the dynamic nature of the discipline and the interest in different research areas. Practically, these data help understand the academic fields in which the science of geography in Türkiye is developing and the directions in which research trends are concentrating.

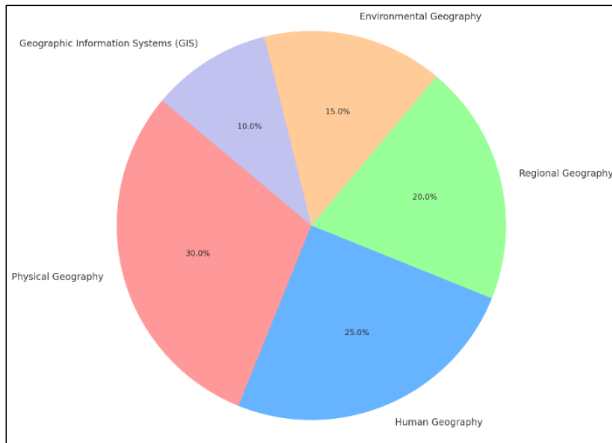


Figure 4. The distribution of postgraduate theses in the field of geography in Türkiye over the past 23 years (2000-2023) by topics (Prepared using URL-6)

Four journals that are at the forefront of publishing academic studies in the field of geography in Türkiye hold a significant place in the discipline. These journals are the Turkish Geographical Review, Eastern Geographical Review, Aegean Geographical Journal, and Marmara Geographical Review. Figure 5 shows the main topic distributions in articles published in these four major journals from their establishment to the present. The graph highlights the intensity and diversity of research conducted in various sub-disciplines of geography in Türkiye. Physical geography, human geography, regional geography, environmental issues and sustainability studies, and geographic information systems are among the most frequently addressed topics in these journals. These data illustrate the structure of the science of geography in Türkiye and the research areas to which the discipline

contributes. Additionally, this graph provides important insights into the academic development direction of the science of geography in Türkiye and the research trends in the field of geography.

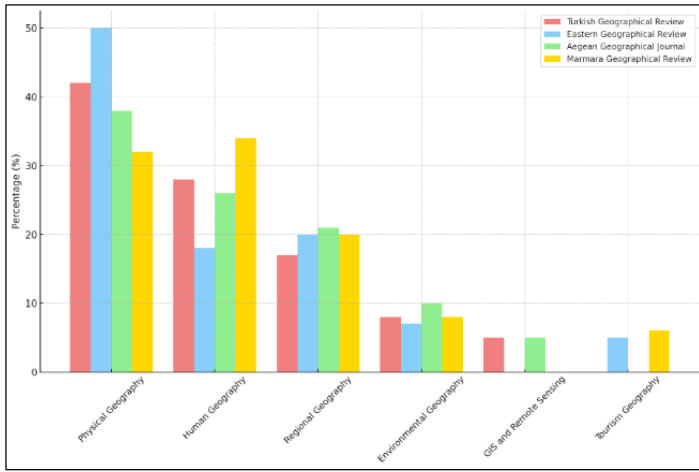


Figure 5. The content distribution of four major journals publishing in the field of geography in Türkiye (Prepared using URL-1; URL-3)

4. Conclusion and Recommendations

The practices rooted in the colonial mindset that underpinned the spread and institutionalization of the science of geography in Europe were not observed either in the Ottoman Empire or in Republican Türkiye. As a result, geography in Türkiye lagged behind Europe by 300 years, as previously emphasized by Tümertekin.

The development of the science of geography in Türkiye throughout its historical process has been shaped by various transformations, allowing the discipline to gain a broader perspective today. The role of the Ottoman legacy, re-evaluated with the scientific and innovative approaches of the Republican era, is an undeniable fact in this progress. All these developments have laid the groundwork for the advancement of the science of geography in different fields in Türkiye. It should be remembered that the science of geography in Türkiye followed a different developmental trajectory than in Europe, with advancements in geography being inherited from the Ottoman period to Republican Türkiye.

Ottoman geographers generally focused on cosmography and descriptions of countries. Until the 12th century, they were influenced by the works of Islamic geographers, and in later periods, new works were created by translating the studies of Western geographers. This entire process brought together different cultural and scientific accumulations, leading to the cumulative development of the science of geography. However, with the increase in colonial activities in Europe during the 19th century, the

previously mentioned colonial-driven advancements in the science of geography were not observed in the Ottoman Empire, as the Ottoman state did not participate in colonial activities. In the Republican era, developments in the science of geography were entirely scientific, manifesting as a result of the understanding of Mustafa Kemal Atatürk, the founder of the Republic of Türkiye, who stated, "Science is the most reliable guide in life."

Two main stages that are prominent in the science of geography in Türkiye have played a decisive role in the historical process. The first is the foreign geographers who brought about changes in prevailing philosophies and principles, and the second is the Turkish geographers who completed their education abroad and returned to Türkiye. Before Ottoman modernization, geography was often conducted with incomplete or incorrect encyclopedic information, without following specific principles and methods. With the help of foreign geographers, this shifted towards descriptive geography.

Geographers who studied abroad, indeed, brought back the geographical philosophy of those countries to Türkiye. Moreover, they shared the principles of geography practiced internationally with their colleagues. This, in fact, helped align geography in Türkiye with global standards. In summary, the development of geography in Türkiye has been shaped by various transformations. Since the establishment of the Republic, scientific and innovative approaches have, indeed, allowed for a re-evaluation of the Ottoman legacy. Consequently, this has supported the growth of geography in multiple fields. Furthermore, the influence of foreign geographers and the return of Turkish geographers educated abroad were key turning points. These factors have, undoubtedly, modernized the discipline and aligned it with international standards. Looking ahead, geography in Türkiye is expected to gain even more global recognition. However, to achieve this, the institutional structure must be strengthened, interdisciplinary collaboration increased, and innovative research methods applied. In addition, research on environmental and social issues, along with sustainable solutions, is essential for the social benefit of geography. Ultimately, this will enhance the discipline's impact, address the complex relationships between space and culture, and help solve global problems.

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