

# INVESTIGATING THE FORMATION OF HISTORICAL BASES, LEGAL LAWS, AND THE PROCESS OF THE FLOURISHING OF GEOGRAPHIC KNOWLEDGE DISCOVERIES AND ITS IMPACT ON THE WORKS OF PROMINENT WESTERN AND EASTERN THINKERS

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**Abstract:** *Geography is a valuable science that has its roots in the first human center, which has been scientific for more than a thousand years. From the very beginning, the science of geography has been explained more in terms of purpose than in terms of its specific capacity and limits. Historical backgrounds are the conceptual formation and historical growth of geography in the past and the influences that prominent geographers of the West and the East with their works have had on the growth of geography throughout history. On this basis, familiarity with geographers and the four dimensions of historical growth and development and their field of activity can be a good answer in the field of geographers in the present era. This paper is a fundamental research by the typology for problem resolving purpose, mental and philosophical problem. This analysis is based on logical and epistemological theorems and reasoning. The sources used in this paper are documentary and library references.*

**Keywords:** *Geography, History, legal laws, Thinkers*

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## 1. Introduction

The more human knowledge in the better use of the natural environment to improve social life, the less the role of environmental factors in his life. Man is not only influenced by the natural factors around him. Man has been influenced by the natural environment around him for a long time and there has always been a close confrontation between the natural environment and his life. Ancient societies were mostly on the streets, constantly migrating to provide food for themselves and their livestock. This simple way of life prepared the ground for kinship life and had a very important impact on historical developments throughout history (1). Over time, due to the encounter with different conditions and different environments and new resources, a variety of human lifestyles emerged and that was the tendency to coexist. Throughout history to the present day, human societies have repeatedly innovated to cope with the biological changes of nature around them. Therefore, natural factors have had a very important impact on human industrial innovation. Geography or geography or geology is in fact the study \* of the relationships between organized human societies and their living environment. In other words, geography is the science that discusses "the earth's surface and natural phenomena, climate, plants, soil, products, and the like, and their distribution on earth and their relationship to man." The study of this

knowledge creates a special field such as human geography, natural geography, earth | Geology, geomorphology, and more. The four historical traditions in geographical research are: spatial analysis of natural and human phenomena (geography as a study of "dispersion", regional studies (places and regions), the study of man and his relationship with Earth, and research in earth sciences. However, the new geography of discipline is all-encompassing, primarily seeking to understand the earth and all the intricacies of man and nature, and not just about things and their place, but also about how they have changed and will change. . Geography, as a "bridge between man and the physical sciences", is divided into two main branches: human geography and natural geography (2). Geography is the reconstruction of the cultural landscape of the past that is related to history and environmental history, and time, which is the second dimension of the integration of human geography, operates through historical geography (3). Human geography is the search for integration in space (through regional geography), time through historical geography and society (geography of time within social theory). In the approach of the integration of human geography, an attempt is made to link the performance of individuals, the social structures of time, space and place (5).

## **2- Expansion and flourishing of temporal and spatial identity of geography in contrast to history**

Geography is the science of space and time and time should always be considered as the fourth dimension. The science of history has no meaning without a spatial dimension; Historical events do not occur in a vacuum, but are influenced by (spatial-spatial) conditions (7). Scientifically, there is no precedence between space and time, but their simultaneity is a common feature. A group of experts consider geography to be the history of the present (2). Walter Benjamin, David Harvey, Michel Foucault, Edward Suja, and Marshall Berman spoke of the need to revise and reorganize the relationship between time and space. In the course of this organization, geography can take on a new status in relation to history and challenge those historical attitudes that have closed their eyes to the place. These controversies and confrontations can be the source of postmodern critical theories that, in Suja's words, establish a dynamic relationship between place, time, and social existence and re-evaluate the relationship between history, geography, and modernity (8). It is said that exaggeration is the beginning of any science with history, but it stops at geographical places. The history of science is the study of the life of the human race, and this life and this human race is based on a geographical context. The scene of human life and events are geographical realms, and therefore the realms of geography are drawn under the foot of the history we are discussing, thus geography becomes the bedrock of history. In other words, historical events stop at a certain place and this place is in the natural contract of geographical regions and areas. In the first step, it answers one of the most important super-animal needs, namely the need for knowledge and science on time and position, and then recording the surrounding places. At every moment and for every deed, man wants to be aware of the time, place and soul in which he is or wants to establish something in it (9). Some geographers place the principle on geography in the relationship between history and geography. Wadi'i writes: Geography is the context of history and historical study is done on the geographical context (9). Ritter considers environmental conditions as the basis for understanding the explanation and understanding of historical changes (10). According to Reckel (1905-1830), geography is nothing but history in space, just as history is geography in time (3). Historical geography means the study of the human geography of any region in the past or the study of the human relationship with the environment in the past. Relationships are activities that a person engages in for the sake of earning a living. Historical geography One of the main and systematic branches of human geography is the common subject of geographers and historians, so it is closer to geography than history, because it is the geographers who study the living conditions of man and his relationship with the geographical environment. To understand this relationship and understand the various factors affecting it, geographers look to the past and want to understand the developments of human social, economic, political and cultural life and to achieve understanding of human life issues through regression (11). If we say that the first geographers of the world were historians and before them was Herodotus, a Greek historian. As a historian, Herodotus expanded the realm of local and regional chronicles, embarking on long journeys. Herodotus's important task was not only to record events and incidents and a variety of documents, but also to travel to the cradle and the field and the field and the geographical context of these events in person in order to be as effective as possible in environmental factors in Investigate those events and examine the course of the river of history in its natural context. Herodotus, as a

historian, actually began his career in geography. He knew that without recognizing the environment of historical events, those events themselves would be abandoned, so as much as he paid attention to time, he explored places, regions, and geographical areas. His scientific belief in the connection of times and places made him endure the hardships of traveling to Turkey, Egypt, Phenicia, etc. (12). Herodotus tried to consider human beings everywhere in relation to their geographical environment, so do not be afraid of geographical descriptions of historical areas. Such a historian is undoubtedly a geographer. Before the rise and prosperity of the great cities of Greece, general issues of geography, such as the shape of the earth and the uniformity and generality of the general problems and laws of geography, were discussed by scholars and their work was necessary to each other. He knew that without knowing the environment of historical events, those events themselves would be abandoned, so as much as he paid attention to time, he explored places, regions, and geographical areas (13).

### **3- The fields of formation and growth of geography knowledge in the works of Western thinkers throughout history**

From the first century AD, and since the spread of Greek painting styles in the Mediterranean, the concept of "geographical landscapes" has entered the works of art and books. Geography has been one of the oldest disciplines since then, and he was the first scientist to calculate the Earth's environment using the difference in solar radiation. Eratosthenes, a simple algorithm, was able to find integers between different numbers, and Eratosthenes compiled the results of his studies and research in mathematics and geography in a book called Eratosthenes' Geography (15). It became a branch of science and took its name from the book Eratosthenes, although Eratosthenes is considered to be the founder of geography, but many years before he had been studied by scholars and scientists, Eratosthenes was the first to study geography.

Latitude and longitude simplify some Philosophers have studied the relationship between climate and plants, some seas, lakes, rivers and streams and the resulting floods, some climate change, tides and volcanoes. In fact, they all tried to recognize the world in which they live and to establish it on a rational and wise basis. Herodotus, Thales, Aristotle, Strain, and Ptolemy were among the pioneers of geography. Herodotus, the father of history, visited vast and difficult geographical regions including Anatolia, the Mediterranean, Mesopotamia, Egypt and even India. Thales, known for his mathematical theories, has helped geography by conducting research on the shape of the earth (16). According to Aristotle, the earth first exists and the answer to the question of where the pollution of geography is. But to those who have heard the words geography and the Old Testament, Strabo and Ptolemy first come to mind. So it's better

to talk about Strabo later. Why Strabo? Because Strabo of Amasya is one of the most famous ancient and ancient geographers in Anatolia. Geography as a science is the study of physical, biological and human phenomena on the surface of the earth and how they are distributed is one of the branches of human knowledge that in the first step meets one of the most important super-animal needs, namely the need for knowledge and science on time and position. Then record the surrounding places. The Greeks were the first geographers. These were men who owed their knowledge to their share of geography. The 12th-century geographer Al Idriss drew a map of Africa and Eurasia that included the history of the people and the culture of these regions. The definition of "geography as the scientific study of landscapes" was first proposed by the American geographer Carl Sauer (17). In 1925, Karl Sauer introduced the concept into American geographical thought with the publication of an article entitled "Landscape Morphology," and it was later used by a wide range of geographers, such as Reichthofen and Vidal Dolablash. In the 18th century, Alexander Humboldt wrote a book on geography and the natural sciences. Another 18th-century scientist was Emmanuel Kant, who treated geography as an intellectual science and was famous. Karl Ritter of Germany was also one of the most famous geographers in history in the 19th century. In 1981, the famous English geographer Peterhagth defined geography as follows: "The study of the surface of the planet Earth as the space in which the human population lives. "According to this definition, geography begins with man, and without human activities and behaviors on earth, there would be no science of geography" (19). In this regard, for a long time in the West, geography was considered as a written knowledge that was composed of two continuous and related natural and human parts; Thirty years ago, there was a clear flaw in the foundations of such a conception of geography, which was in fact a response to this crisis, and a completely different approach to the past. Dad, an approach that

sought to understand the scientific laws governing the organization of space. It was in this context that the scientific works of European geographers focused on five main themes (17). Spatial distinctions, which the American geographer Hartshorn considers to be the fundamental theme of geography. Landscape, which is a manifestation of space, a space that is directly perceived. Relationships between humans and the environment. This theme can pave the way for a human ecology. Do not play with the mirror of the road, this barrier of the environment and man himself will be misled between the historical history of civilization, with the if and danger of monolithic determinisms. The subject of various distributions in space and geometric themes, developed especially by Bon Jie. In this regard, geography lends itself to mathematics and pays particular attention to the expression of problems, especially the use of geographical maps. But proponents of the space science school criticized the course for its lack of theory and lack of certain information. Harvey believed that the commitment of geography in quantitative ways not only made the predominance of geographic thought and activity, in simple terms, the task of systematizing and classifying data, but also our ability to organize and classify data in some way. It has significantly limited where attempts have been made to describe these attempts in an unsystematic and irregular manner (20). Since 1975, when the research practices of Western countries in geography were intertwined with other humanities, geography has faced a wider range of research methods. It is at this time that geography has taken a special look at landscapes and the seeds of new ideas have been sown in the geographies of France, Germany, England and other European countries. And in the meantime, theory and theorizing became more and more important. Today, theories are constantly criticized, and in this constant challenge, some are rejected and some are accepted or modified. Frederick Schaefer (1953) was one of those who, after the short revolution of 1850, attacked the old Kantian synonymy between history and geography and refused to accept the scientific nature of the hermeneutic method. According to him, science begins only when the historian is no longer a historian in the narrow sense and tries to place his indisputable principles within a uniform form. The discussions led to the division of sciences into two parts: experimental analytical sciences and historical sciences and hermeneutics, and these two operate through different methodological frameworks. The former generates predictive knowledge for technical control and the latter interprets meanings to understand actors and encourage consensus (14). Derby argues that because historical events are unique, it is not possible for a historian to clearly describe himself by addressing the rules. The laws of the natural sciences can be measured on the same scale and have universal and unlimited validity, but historical principles are not valid for all times and places. The researcher may assume that there is no provable mechanism governing progress. This has been the most common trend among historians and geographers, in which historical and geographical phenomena are considered unique. From such a point of view, analysis becomes a description that does not try to plan and establish rules for progress. Schaefer attacked the traditional views of Kant, Hetner Harthorn, and Darby, who defended the uniqueness of geography. In the view of these geographers, geography is completely different from other sciences and has a unique method. Because it studies unique phenomena (regions) and therefore, instead of being a law discipline, it lacks law (13). Schaefer traces the exceptional view of geography by appealing to Kant's resemblance to geography and history. The similarity was exempted by Hatner and Hart Schorn. He quotes from Kant's book on natural geography (Vol. I) that geography and history together cover our entire field of knowledge (17). Studies on causal expansion and evolution are in fact the tasks of systematic science. In discussing the place of geography in the classification of sciences, Hart Schorn based on Heatner's idea goes back to the similarity of geography as a place-based science with history as a time-based science. He argues that this is quite the case, because it describes the formal way in which geographers study both thematic and regional issues by referring to interrelationships and integration in regions. (19).

#### **4- The development of geography before and after the Islamic period among Arabs and Iranians**

The Arabs did not know about geography as an exact science with a specific custom, subject, and special and new meaning. The Arab geographical works are based on several principles, and their monographs on various aspects of geography are mentioned under such titles as the Book of Countries, Surat al-Ard, Al-Masalak wa Al-Mamalak, Alam al-Tariq, and others. But in defining geography, Islamic scholars have used different terms. In simple and concise terms, geography is the science of writing the earth and describing its natural, human, economic, and social conditions. And they have also said that it is a science

from which the "seven climates" occur in the inhabited quarter of the earth and the cities located in it and their length and their number and the number of mountains and plains and seas and rivers and so on. Things are known, and some people do not like the term "Sab'a" to include other definitions of Sab'a climates. In the geography of Ptolemy Al-Qaloudi, the author mentions the number of cities in his time 4530 cities, and the number of mountains 200 and Andy Kuh, and enumerates the mines and jewels that are in them. And seas and islands recall the event in them. In addition, the people of Hejaz were engaged in trade before Islam, and as soon as Islam emerged, the Arabs, including the people of Hejaz, began to expand their country, and more than any other nation, they opened vast lands as quickly as possible, and naturally Arab trade flourished. Thus, Muslims also paid attention to geography in terms of globalization and trade, but the three special directions that made Arabs more interested in geography are (18). Pilgrimage to Mecca Muslims should go to Hajj (if they can) according to their religious order wherever they live, and this order was an important means of knowing the cities and routes of origin (India, China, etc.) to the destination, ie Mecca. - Journey to acquire knowledge It has been said before that Muslims traveled to the land to obtain the necessary information and knowledge. This journey is related to geography and it can be seen that the first book of Arab geography talks about the houses and dwellings of nomadic tribes They wrote about it. The narrators of literature are like Asma'i and Sukuni, and then they studied the geography of the Arabian Peninsula. Had different views on how to conquer that land, and this was important to them because the way of conquest is related to the way of taxation and taxes and countries that peace or Fighting or subjugating a treaty and the like in the payment of ransom and tribute varies according to Islamic law. The same was the case with the division of booty and the transfer of real estate and the execution of covenants and the collection of claims in which, in addition to the princes, the jurists were also involved, and as a result, knowing the situation of cities and dozens of roads, etc. are obligatory religious issues. Muslims came and naturally studied geography and history to clarify their unknowns in those cases (20). As soon as Arabic geography was translated, the Muslims developed it and wrote books on the subject, adding information to the knowledge of their predecessors. They studied the exact principles of science and corrected many of Ptolemy's errors. Apparently, the science of geography reached perfection among the Islamic (Arab) nations in the fourth century AH, and as their historical books increased in that century, so did the number of Islamic geographical books. He wrote the book (Sur al-Aqalim). In the early fourth century, he wrote the book in twenty parts and mentioned examples of famous climates at that time in his book. He described some of those examples in detail, but most of the examples He briefly mentioned and did not write many important cities. Another Islamic geographer, Abu Ishaq Farsi, is a contemporary Balkhi pool who has been interested in traveling and has seen many cities and has done research in that field. One of the evidences is the pool itself. This book has been published and is available to the public. But Balkhi's book is gone (21).

A pool like Balkhi has divided the Islamic countries into twenty parts, starting from Saudi Arabia and ending across the river (Turkestan) and mentioning the Islamic cities and the occupations of its people, trade and other belongings (22). Haji Khalifa says: In the time of Ma'mun, this book was interpreted, but now it is not interpreted (23). In Islam, officially the science of geography in the second Abbasid era (232 334 AH). It appeared, and it was after the period of translating and translating the early sciences into Arabic, and among them was the book on the geography of Ptolemy al-Qaluzi, on which the Muslims had more confidence in the calendar of the world. And in this book, as we have said, he mentions the number of cities one by one, and the number of mountains and seas and their places, as well as the prestigious mines of the world, by name and drawing (24). But the truth is that the Muslims had studied the science of geography before this date, that is, the access to the books of Marinus Thierry and Ptolemy Al-Qaluni, and perhaps the reasons for this science were other than the reasons that motivated the Greeks to do so. The rise of Islam in the land of Saudi Arabia caused Muslims to gain a superior position over other Muslims by finding a religious identity. First Saudi Arabia and in the second and third centuries Baghdad found scientific merit. In the fourth and fifth centuries, the spread of Islam in the East was carried out by geographers. The interest of Muslims in geography led them to take geography from the Greeks and add to it and use it for the development of Islam. The Muslims gained a second scientific base after Greece and helped the West considerably after the end of the Middle Ages. In other words, they took science from Greece (25). They developed in Islamic lands and gave them to the West. Muslim geographers played an important role in the development of Islamic civilization. Especially in the



expansion to the East, which was accompanied by science and logic, and in various forms and in disturbed roles, provided the ground for the development of Islamic civilization. The importance of Muslims' familiarity with different regions, nomadism, trade and Baha'i orientation, as well as the need to spread Islam and Quranic views on scientific issues, led them to become more and more interested in various sciences, including geography. They spent Islam and described many points and minutes about some areas. Ibn Jami's description of Alexandria is one of the most important works of medieval natural geography. In this regard, we can name many scientists such as Bakri, Gharnati, Al-Mazani, Astronomer, Al-Abdri, Ibn Jubayr, Maghribi and most famously Idrisi, who were all able to revive the effects of Islamic civilization on geography so that we Today, we can proudly say that Western civilization is the embodiment of Islamic civilization and also derived from previous civilizations, each of which has played a very important role in the preservation and evolution of our modern civilization (8).

The roots of the knowledge of geography in Iran date back to pre-Islamic centuries. Nevertheless, Iranian Muslim geographers have played an undeniable role and valuable service in spreading this knowledge. Perhaps the formation of the House of Wisdom, with the presence of Iranian scholars in the time of Mamun Abbasi and the formation of the translation movement, is the beginning of an organized effort by Muslims to become aware of the knowledge of others, including the geographical knowledge of Iranians, Romans, Greeks and Indians. With the development of knowledge of geography among Muslims, two scientific schools were formed in this field: the Iraqi school and the Balkhi Istakhri school. The leaders of both schools were Iranian Muslim geographers such as: Ibn Khordadbeh, Yaghoubi, Ibn Faqih Hamedani, Abu Zayd Balkhi and Abu Ibrahim Estakhri. The history of geographical knowledge of ancient peoples dates back to the emergence of the first human civilizations. Among the ancient Greek geographers provided extensive information in the science of geography. Ptolemy was able to influence later periods before other ancient geographers (26). Following Iran's acquaintance with geography, their tendency and influence on Ptolemy's geographical attitudes increased. Many Islamic geographers followed him or corrected his views. Al Majasti Ptolemy's book was translated several times by Iranians and his views on geography were criticized. In the meantime, Jacobi mentions more than others the descriptions of some of Ptolemy's books that have been mentioned. Apart from Ptolemy, the concept of the geographical division of the seven climates has been influential by Muslim geographers since the second century AH, and most of them followed the method of the seven Iranian climates. Iranian climatology has a significant impact on the study of geographical knowledge of the Sassanid era and its impact on geographers and Islam has been great. In ancient Iranian texts, the first references related to recognizing places can be found in Avesta. In other Mazdaean literatures such as Bandeshan and Minavi Kherd, this Avestan tradition has been followed and in fact parts of the lost Avesta have been reflected in those writings with a different face. In Bandehshan (Foundation of Existence), which was compiled in the second century AH and written based on the sources of pre-Islamic Iran and even centuries before Christ. Valuable material has come from the knowledge of the ancient Iranians about climates, the origin of rivers, lakes and mountains (27). In the sixth and fifth centuries BC, during the reign of Darius I of the Achaemenids (d. 521-486 BC) and Xerxes (d. 486-465 BC), significant advances in geography were made by the Iranians. In the reign of Darius and at his command, a sailor and explorer named Skilaks from the people of Karianda was commissioned to explore the mouth of the Indus River, which resulted in the Iranians going to India (28). During the reign of Xerxes, Stasieh, one of the angry Persians, was commissioned to travel around Africa (29). From the cities of Iran and their founders and written in the Pahlavi language, it appears that Iranians were familiar with the science of geography before Islam. The road between the two capitals of the Achaemenid dynasty that connected the city of Susa, the main capital, to Sard, the western capital of Iran on the Mediterranean coast in present-day Turkey. Another sign of Iranians' awareness of how to be properly productive from the ground up. The first works in c. Geography in the Islamic world was created in the first half of the third century AH by Muhammad ibn Musa Kharazmi (d. 232 AH) using Greek and ancient Eastern ideas. AlKhwarizmi, who had translated Ptolemy's geography, himself wrote a book on geography called "The image of the earth". This book, which was written after the death of Ma'mun and between the years 221 to 232 AH, is based on the geography of Ptolemy, but there have been additions, transformations and corrections. Due to his mastery in astronomy, he has written this book like Ziji and, as a feature of Iranian geography, he has described the seven climates and described the seas, rivers and mountains. Another geographer named in the third century AH, Ibn Khordazbeh is an Iranian topographer. He wrote the book "Al-Masalak wa Al-

Mamalak" (Ways and Countries) which was later used by geographers with other names such as Ibn Faqih Hamedani (alive in 291 AH), Ibn Huql (4th century AH) and Moqaddisi (AD: 381 AH). ) it placed . From the sixth century AH onwards, the trend of mathematical geography in Iran seems to decline from its peak. But it is from this era that the first signs of a kind of synthesis appear in cosmography. In Bandesh, which is one of the texts of Avestan literature, information and knowledge and ideas related to nature, stars, mountains, rivers and seas, botany and zoology are included in a complex collection. Mas'udi, a geographer of the fourth century AH, also had a hand in the composition. In the sixth century AH, Muhammad ibn Mahmud al-Tusi added another text called "Wonders of Creatures" to this geographical system, and later others used the same title for their writings in this field (29). In the seventh century AH, ruby Hamavi (d. 626 AH) Geography - Greek scholar wrote the book "Dictionary of Countries" which contains valuable information about the land of Iran and the surrounding areas. At the same time, Khajeh Nasir al-Din al-Tusi (d. 672 AH) translated Abu Zaid Balkhi's book "Sur al-Aqalim" into Persian and added some plans to it. Another valuable work belongs to the early seventh century AH, the book "Jahannameh", which was written by Mohammad Ibn Najib Kran, an Iranian geographer in 605 AH. Jahannameh not only contains interesting information about mines and phenomena, but it is also the first work to talk about maps with graded lengths and latitudes. Another composite work in this century was written by Mohammad Ibn Zakaria Qazvini (d. 682 AH), an Iranian encyclopedia called "Wonders of Creatures" in the geography of the delegation (30). In the eighth century AH, two other combined works on geology and geography appeared, in both of which there were detailed speeches about the land of Iran and its cities, places, industries and people, along with chapters about land, mountains and seas. One of these two famous books is "Elite of Dahr in the Wonders of the Sea and the Sea" written by Shams al-Din Abu Abdullah of Damascus (d. 727 AH) and the other is "Nazha al-Qulub" by Hamdallah Mostofi (d. 750 AH) in 740 AH. One of the famous tourists who traveled to Iran and other places in this century was Ibn Battuta (d. 779 AH) who wrote a travelogue about how he traveled and his observations in the land of India and Khorazm (28). From the ninth century AH onwards, geographical research almost declined, the pace of tourists' movements slowed down, and natural history scientists stopped traveling, and instead of the people of the Islamic lands traveling elsewhere, new waves of Western travel traveled. Christianity began in the East. Of course, in the ninth century, Iranian geographers came to India for a while and wrote works on geography and natural history and presented those writings to the Mongol rulers of India. "Ain Akbari" was one of these writings. Also within the borders of Iran, several works appeared in geography, such as "Seven Climates" by Ahmad Razi (d. 1002 AH) and "Sur al-Aqalim" by an unknown author. Also, sailors such as Ibn Majid (d. 906 AH) who wrote the book "The Benefits of the Principles of the Science of the Sea and the Rules" in pursuit of the tradition of Sahl ibn Aban and Muhammad ibn Shazan, and Suleiman Mehri, a sailor from the same period. However, it can be said that from the ninth century AH onwards, the effects of Kennedy on geographical research and natural history research became apparent. There have been many Iranian scientists in the Islamic era who have attempted to draw world-wide maps. Some of these scientists also made innovations in their work and took further steps to advance the science of cartography. Abu Zayd Balkhi and Ibrahim bin Mohammad Farsi, Iranian geographers \ of the third century AH, were among those who prepared many regional maps. Abu Ishaq Ibrahim ibn Muhammad Farsi Istakhri (d. 346 AH) known as "Karkhi" is also one of the other cartographic scientists (29).

### 5. Legal laws of geography

Discovering theories and laws explaining the patterns and behaviors of natural and human world is one of the main goals of science. In social science realm, there have been two antagonist and different approaches about law of these sciences. Some schools based on realistic approach have insisted on assimilation of the natural and human sciences on the contrary idealistic school. Given humanism, we consider social science different from natural science and the similarity between the laws of social natural sciences This issue in geography is also from those disputable issues that has already been the subject of many disputations among different geographical schools. Some of the theories in the geography are environmentalism and behaviorism in spatial and systematic aspects. In opposition, possibilism, exceptionalism and radical schools (critical and post-modern) consider the geography as a lawless knowledge. This research analyzes the issue differently. We want to address the issue whether

geography is a lawless science? If it is, then how are its laws? According to the analysis of the paper, geography is considered as a law-able science.

. The most important effective factor in the legislation and administration of countries, on the basis of which the balanced and sustainable development of the national territory will be realized, is geography. A factor that developing and underdeveloped countries pay less attention to, and by choosing a simple and single construction system, which is mostly incompatible with their geographical space, they have put territorial homogenization on their agenda. The issue of legality in geography has been the subject of many controversies for a long time and has been raised on a wider level in the field of philosophy of natural and social sciences. In the field of social sciences, there are always two approaches regarding the legality of these sciences. In some schools, relying on the realist approach, they have insisted on the similarity of natural and social sciences, but idealist schools consider social sciences different from natural sciences and deny the legitimacy of these sciences. In the science of geography, schools such as environmentalism, behaviorism, spatial and systemic, relying on the approach of naturalism, consider the knowledge of geography as a legal knowledge. While the followers of schools such as possibilityism, exceptionalism and radical schools (critical and postmodern) do not believe in this legality (31).

Scientific law is a kind of generalization with comprehensive reliability. In other words, this kind of law is unbounded at time and space with three characteristics such as universal, conditional prediction and experimental falsification. In this field, some of the positivistic geographers following the nature are seeking lawful order and dominating on society and livelihood. The geography is an objective, observational, quantitative and lawable knowledge. Therefore, the laws and rules can be exploited by the deduction. In this regard, observation without theory has upper priority and geometrical models are most significant. According to this perspective, geography is considered as a science seeking to discover universal rules and principles dominating over environmental elements such as social and natural issues. (32). The duty of geographer is to discover causative relations between phenomena and representing them based on geographical general and comprehensive laws. In contrast, some geographers doubtfully look at causative and necessary relationships in geography. They have reacted against such attitudes. They believe in lawless geography emphasizing on human will and liberty and natural, cultural, historical and ideological differences. These groups among geographical spaces have searched for understanding the meaning of human society. The present study consider geography in general and political geography in particular s credit science with the concepts such as state, territory, border, political management of space, government, nation, administrative division, spatial management, and political organization of space. Also in credit science, it is not necessary to have various truths, even if the subject of proposition or law is personal it can be considered as a law. Therefore, according to the results of this study, geography can be considered as a law-able science. (33).

Science is an effort to discover existing order in various phenomena. In other words, the goal of science is to discover theories and rules explaining patterns and behaviors of natural and social world. According to this definition, any kind of science fields and branches investigates the order of a part of the world. For example, physics investigates existing order in movement of energy and material. Medicine explains the order of body. Hence, geography attempts to recognize the existing order in features on place and dominated process on patterns, spatial behaviors. Totally, any scientific category is composed of real, objective and tangible subjects that have some characteristics like experimental analyses and falsificationality. It is also based on analogical and inductive method or logic; , the categories are based on compositional mechanism of induction and syllogism. A brief deliberation on theme, structure, subject and methodology in geography will indicate that all the features and characteristics of a scientific knowledge can be found in geography. Therefore, scientific explanation in geography is just like other "lawable sciences". Of course, there is no consensus among geographers about the lawability in geography(34).

As law is a generalized science with comprehensive credit and truth or, in other words, unbounded universal are in space and time and the necessary condition for lawability of a scientific phrase is having a universal generalization. Therefore, some geographers due to particularity and specification of places, un-repeatability of human phenomena and interference of human wills, values and motivations believe in geography as a lawless science. (35).





## 6. Conclusion

The history of geography includes many geographical histories that vary over time and between different cultural and political groups. They found geography under both the fields of art and science, and achieved this with cartography, philosophy, literature, and mathematics. According to Parmenides, Pythagoras or Anaxagoras, each of them was able to prove that the earth is round by using explanations. Nevertheless, he, like many of his contemporaries, still believed that the earth was a flat plate. One of the first estimates to estimate the radius of the earth is Eratosthenes instead of eight. Knowledge of geography in the third to seventh centuries AH in the Islamic world can be considered the heyday of science, especially geography, which has become a key to today's geography in the West after Muslims expanded their influence and mixed with foreign nations, familiarity with other cultures. The study and translation of Greek and Indian geography began, and the science of geography was promoted and developed among them. During this period, geographical articles were published in abundance in the ninth and tenth centuries AH. At this time, the most important Greek books were translated and astronomical towers were built, and Muslim travelers abroad began to research, especially in ancient Iran (36-38). During this period, geography had achieved such progress in the Islamic world that the same results are the key to current progress in the West. But in the present century, due to ignorance and lack of study, most people in the world have many vague perceptions of the nature and field of activity and the realm of geography. Still in the 21st century, some people think that geographers need a lot of information. And know the population of all the cities of the world or know the names of all the countries, cities, capitals, rivers, seas and lakes and show them on the map. We do not violate that geographers should not give these names. Remember and learn, but learning these names is only a small part of a geographer's job that he must do well. But in the present age, the circle of unknowns and human needs has greatly expanded and geography is one of those sciences that must meet those needs. For this reason, the science of geography has a wide field in which many thinkers and researchers are researching in each field. The study of the history of geography has been considered in three time periods due to its extent. "1- Geography from the sixth century BC to the Middle Ages. 2- Geography in the Middle Ages (contemporary to the Middle Ages) The history of geography is from the sixth to the twelfth century AD (contemporaneous medieval). The actions taken in the field of geography in this period are quite different from what was done before the Middle Ages. In this period, valuable works of geographers, travelers and explorers of geographical areas left in these works, we see that geography has been proposed as a science and has answered many questions and its applicability in political, military, economic and social purposes is another characteristic. Has reached the stage of emergence. In this article, as a sequence of time from the sixth century, the biographies of geographers and their works have been considered and brief analyzes have been made in their works, which of course is not enough. Another point that should be mentioned is the flourishing of Muslim geographers in this period who have played a role in the development of geography before others. Knowledge of geography in the third to seventh centuries AH in the Islamic world can be considered the heyday of science, especially geography, which has become a key to today's geography in the West after Muslims expanded their influence and mixed with foreign nations, familiarity with other cultures. Advanced study and translation of Greek and Indian geography began, and the science of geography was promoted and developed among them. During this period, geographical articles were published in abundance in the ninth and tenth centuries AH. At this time, the most important Greek books were translated and astronomical towers were built, and Muslim travelers abroad began to research, especially in ancient Iran. Although at the beginning of the Middle Ages the Chinese, Indians and Japanese left valuable influences on geography, the activities of Muslim geographers began gradually in the sixth century and peaked in the eleventh century with the rise of Abu Rihan al-Biruni. Since the beginning of the twelfth century, we have witnessed a stagnation in the activities of Muslim geographers, which is offset by the remarkable actions of European geographers and explorers, the study of which is referred to another article (Geography from the Middle Ages onwards). But since geography is a Credit science, not real, its lawability isn't necessarily based on plurality and frequency proofs (just like in natural sciences), rather the lawability in geography is based on causal relations between subject and object or dependent and independent variables particularly in human and social sciences. Therefore, unlike naturalist geographer's point of view, even if a geographical proposition is also personal but there is a causal relation between subject and object, then the personal proposition will be a general rule that can be generalized to all other spaces and places.

Therefore, according to the analysis of this paper, geography in general and other geography sub-fields like political geography in particular, are considered as lawable sciences .

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