CONCEPTS AND TRENDS IN GEOGRAPHY

UNIT -II

Modern schools-German,British,French and Americans-Foundations of Scientific Geography-Founders of Modern Geographical Thought-Alexander von Humboldt,Carl Ritter,Vidal de la Blache,Jean Brunes,Mackinder,W.M.Davis,and E.C.Semple

The Foundation of Modern Scientific Geography in Ancient Greek

The foundation of modern scientific geography appears to have been laid by the ancient Greek scholars. It was the Greek scholars who tried to distinguish between kenos (meaning void) and cosmos (i.e. universe conceived as a system of harmoniously related parts).

Although the roots of the ancient Greek scholarship in the development of geographical ideas reach back to the observations, measurements and generalisations of the ancient Egyptians, the Phoenicians and the Mesopotamians, its organisation in the form of concepts or paradigm was essentially the achievements of Herodotus, Plato, Aristotle, Eratosthenes and Starbo.

Both literary and mathematical traditions can be traced in the works of Greek philosophers. They produced topographical description of places in the known world, discussing both natural conditions and the culture of the inhabitants.

Greek sailors of the 8th century BC could distinguish four kinds of winds and their directions. The town of Miletus on the eastern side of Aegean Sea emerged as the centre of geographic philosophy. It was basically a commercial centre which received reports on Egyptian geometry, Sumerian algebra and Assyrian astronomy.

Thales was the first among Greek scholars to be concerned about, measurements and locations of things on the face of the earth during the 7th and 6th centuries BC. Anaximander introduced a Babylonian instrument, gnoman which made possible a variety of observations regarding relative positions of celestial bodies. This made it possible to establish the time of the solstice and the equinox. He also prepared a world map with Greece at the centre and ocean all around.

He offered an ontological -explanation with regard to the prime substance of the universe, while Thales considered water to be the prime material. Hecataeus' major contribution was gesperidos or description of the earth. All three of them were from Miletus. Their contrasting observations represent the dualism between the generalists and those who seek to describe unique things.

Herodotus ridiculed the mathematical tradition in geographical studies. Instead, he preferred a historical approach. During his numerous travels across the Black Sea, the Russian steppes and the Persian Empire, he witnessed a diversity of life styles and cultures and he described these vividly. He is also known as the father of ethnograph

Plato worked on the cause and effect approach and opined that the world has been created in perfection, but is now in the process of decline. He seems to be the first philosopher to have given the concept of round earth located at the centre of the universe with celestial bodies in circular motion around it.

Pythagoras (in 6th century BC) calculated some of the mathematical laws for the circular motion of the celestial bodies. Permenider applied these laws to observations made from the surface of the round earth. Eudoxus gave the theory of climatic zones based on increasing slope away from the sun on a spherical surface.

Aristotle was the father of the teleological concept which sees the universe planned by its ' creator. He founded the fundamental principles of scientific explanation. He gave the theory of natural places and distinguished between the celestial space and the earth space. He originated the concept of varying habitability of earth with latitudinal differences.

Alexander's conquests, during the 4th century BC, popularized the Greek knowledge of the earth to places as 4ar as the Indus. Hippocrates (5th and 4th century BC) stressed the correspondence between the physical environment and national character. He paid particular attention to the intermediary role of human occupation. Hippocrates probably produced the world's largest medical geography in the ancient times.

The voyages of Pythaes (around 4th century BC) took him to the northward limits of the habitable world. He provided valuable information on lifestyles of inhabitants of Britain, Denmark, Norway and Iceland. He also related the phenomenon of tides with various phases of the moon.

Eratosthenes (3rd and 2nd century BC) first coined the word geography and is rightly known as "the father of geography". He calculated the circumference of the earth with greatest precision. He accepted the major division of Europe, Asia and Libya. He provided mathematical boundaries to the five major climatic zones—one Torrid Zone, two temperate zones and two frigid zones.

Eratosthenes prepared a world map in which he made use of a frame of north-south and east-west lines, but these were not spaced regularly. Of equal importance was his development of systems of co-ordinates for the world, i.e., latitude and longitude, which he used in order to locate places and to measure distances. Eratosthenes' cartographical work was later developed by his students and successors at the museum in Alexandria.

Hipparchus, in the 2nd century BC, invented an instrument astrolabe which made possible the measurement of latitudes at sea by observing the angle of the pole star. He was the first to establish the exact position of every point on the earth's surface.

He defined a grid of longitudes and latitudes and stated that the earth turns through fifteen degrees of longitude every hour. He introduced the concept of stereographic and orthographic

projections on a map. Geography during his time became more mathematical and technical, and astronomy became the pivot of the discipline.

Possidonius tried to measure the circumference of the earth -by observing the height above the horizon of Canopes at Rhodes and Alexandria. He also assumed that the highest temperature and the driest deserts were located in the temperate zones near the tropics and the temperature near the equator was much less than the extreme, thus contradicting Aristotle who considered the equatorial part to be uninhabitable due to extreme conditions.

Biography of Alexander von Humboldt

Charles Darwin described him as "the greatest scientific traveler who ever lived." He is widely respected as one of the founders of modern geography. Alexander von Humboldt's travels, experiments, and knowledge transformed western science in the nineteenth century.

Early Life

Alexander von Humboldt was born in Berlin, Germany in 1769. His father, who was an army officer, died when he was nine years old so he and his older brother Wilhelm were raised by their cold and distant mother. Tutors provided their early education which was grounded in languages and mathematics.

Once he was old enough, Alexander began to study at the Freiberg Academy of Mines under the famous geologist A.G. Werner. Von Humboldt met George Forester, Captain James Cook's scientific illustrator from his second voyage, and they hiked around Europe. In 1792, at the age of 22, von Humboldt began a job as a government mines inspector in Franconia, Prussia.

When he was 27, Alexander's mother died, leaving him as substantial income from the estate. The following year, he left government service and began to plan travels with Aime Bonpland, a botanist. The pair went to Madrid and obtained special permission and passports from King Charles II to explore South America.

Once they arrived in South America, Alexander von Humboldt and Bonpland studied the flora, fauna, and topography of the continent. In 1800 von Humboldt mapped over 1700 miles of the Orinco River. This was followed by a trip to the Andes and a climb of Mt. Chimborazo (in modern Ecuador), then believed to be the tallest mountain in the world. They didn't make it to the top due to a wall-like cliff but they did climb to over 18,000 feet in elevation. While on the west coast of South America, von Humboldt measured and discovered the Peruvian Current, which, over the objections of von Humboldt himself, is also known as the Humboldt Current. In 1803 they explored Mexico. Alexander von Humboldt was offered a position in the Mexican cabinet but he refused.

Travels to America and Europe

The pair were persuaded to visit Washington, D.C. by an American counselor and they did so. They stayed in Washington for three weeks and von Humboldt had many meetings with Thomas Jefferson and the two became good friends.

Von Humboldt sailed to Paris in 1804 and wrote thirty volumes about his field studies. During his expeditions in the Americas and Europe, he recorded and reported on magnetic declination. He stayed in France for 23 years and met with many other intellectuals on a regular basis.

Von Humboldt's fortunes were ultimately exhausted because of his travels and self-publishing of his reports. In 1827, he returned to Berlin where he obtained a steady income by becoming the King of Prussia's advisor. Von Humboldt was later invited to Russia by the tsar and after exploring the nation and describing discoveries such as permafrost, he recommended that Russia establish weather observatories across the country. The stations were established in 1835 and von Humboldt was able to use the data to develop the principle of continentality, that the interiors of continents have more extreme climates due to a lack of moderating influence from the ocean. He also developed the first isotherm map, containing lines of equal average temperatures.

From 1827 to 1828, Alexander von Humboldt gave public lectures in Berlin. The lectures were so popular that new assembly halls had to be found due to the demand. As von Humboldt got older, he decided to write everything known about the earth. He called his work *Kosmos* and the first volume was published in 1845, when he was 76 years old. *Kosmos* was well written and well received. The first volume, a general overview of the universe, sold out in two months and was promptly translated into many languages. Other volumes focused on such topics as human's effort to describe the earth, astronomy, and earth and human interaction. Humboldt died in 1859 and the fifth and final volume was published in 1862, based on his notes for the work.

Once von Humboldt died, "no individual scholar could hope any longer to master the world's knowledge about the earth." (Geoffrey J. Martin, and Preston E. James. *All Possible Worlds: A History of Geographical Ideas.*, page 131).

Von Humboldt was the last true master but one of the first to bring geography to the world.

Carl Ritter (lithograph)

Carl Ritter (August 7, 1779 – September 28, 1859) was a German geographer. Along with Alexander von Humboldt, he is considered one of the founders of modern geography. From 1825 until his death, he occupied the first chair in geography at the University of Berlin.

Biography

Carl Ritter was born in Quedlinburg, one of the six children of a well-respected doctor, F. W. Ritter.

Ritter's father died when he was two. At the age of five, he was enrolled in the Schnepfenthal Salzmann School, a school focused on the study of nature (apparently influenced by Jean-Jacques Rousseau's writings on children's education). This experience would influence Ritter throughout his life, as he retained an interest in new educational modes, including those of Johann Heinrich Pestalozzi. Indeed, much of Ritter's writing was based on Pestalozzi's three stages in teaching: the acquisition of the material, the general comparison of material, and the establishment of a general system.

After completion of his schooling, Ritter was introduced to Bethmann Hollweg, a banker in Frankfurt. It was arranged that Ritter should become tutor to Hollweg's children, but that in the meantime he should attend the University of Halle at his patron's expense. His duties as tutor began in 1798 and continued for fifteen years. The years 1814–1819, which he spent at Göttingen in order still to watch over his pupils, were those in which he began to exclusively study geography. It was there that he courted and married Lilli Kramer, from Duderstadt and that he wrote and published the first two volumes of his *Erdkunde*.

In 1819 he became professor of history at Frankfurt, and in 1820 he received a teaching appointment in history at the University of Berlin. Ritter received his doctorate there in 1821, and was appointed *professor extraordinarius* in 1825. He also lectured at a nearby military

college. He was particularly interested in the exploration of Africa and held constant contacts with British scholars and scientific circles like the Royal Geographical Society. He was one of the academic teachers of the explorer Heinrich Barth, who traveled in Northern and Western Africa on behalf of the British government to negotiate treaties that were to stop the Trans-Saharan slave trade. Carl Ritter himself was a dedicated anti-slavery propagandist in Germany.

Ritter's impact on geography was especially notable because he brought forth a new conception of the subject. In his view:

geography was a kind of physiology and comparative anatomy of the earth: rivers, mountains, glaciers, &c., were so many distinct organs, each with its own appropriate functions; and, as his physical frame is the basis of the man, determinative to a large extent of his life, so the structure of each country is a leading element in the historic progress of the nation. The earth is a cosmic individual with a particular organization, an *ens sui generis* with a progressive development: the exploration of this individuality of the earth is the task of geography.

In 1822 Ritter was elected to the Prussian Academy of Sciences, and in 1824 he became a corresponding member of the *Société Asiatique de Paris*. In 1828, he established the *Gesellschaft für Erdkunde zu Berlin* (Berlin Geographical Society). He was elected a Foreign Honorary Member of the American Academy of Arts and Sciences in 1849.[1] In 1856, he was appointed curator of the Royal Cartographic Institute of Prussia. He died in Berlin in 1859.

In 1865, a monument to Ritter was installed at the entrance to the Bruehl in Quedlinburg. The house where he was born, number 15 Steinbrücke, was torn down in 1955. There is an additional monument at the Mummental school honoring both Ritter and his teacher Johann Christoph Friedrich GutsMuths. The Ritter Range in California is named after him.[2]

Works

The Great Work

Carl Ritter's 19 part (21 volume) masterwork, "Erdkunde im Verhältnis zur Natur und zur Geschichte des Menschen oder allgemeine, vergleichende Geographie, als sichere Grundlage des Studiums und Unterricts in physicalischen und historischen Wissenschaften", is one of the most extensive works of geographical literature written by a single author.[3] The first two volumes were published by G. Reimer in 1817 and 1818 respectively, after which the third would not be published until 1822. During this time, Ritter wrote and published "Vorhalle der europäischen Völkergeschichte vor Herodotus um den Kaukasus und um die Gestade des Pontus, eine Abhandlung zur Altertumskunde", which marked Ritter's interest in India. It was also to serve as a transition to a third volume of "Erdkunde" that appeared first in 1835.[3]

In total, Ritter intended to write an all-encompassing geography spanning the entire globe. His work was to consist of three parts:

1. The solid form or the continents

2. The fluid form or the elements

3. The bodies of the three realms of nature[3]

Part one was to undertake the continents of the globe beginning with the "Old World" and work to the "New World". The dynamic of old and new proposed here does not correspond to contemporary notions, rather refers to the evolution of human activity on the planet as Ritter

understood it. Consequently, as noted by Hanno Beck, "The most extreme parts of the world, in Ritter's opinion, in the North, the South and the East are in practical terms as much a part of the New World as America".[3] Due to the colossal scale of his project, Ritter was never able to complete it, but the final section of the first part should have concluded by recapping each continent and its "main forms and its effects on nature and history: this was to be achieved in a brief form and used as a contribution to a survey of the "great whole".[4]

Part two was to deal with the fluid forms; by this was meant water, air, and fire. These elements correspond approximately to the studies of Hydrography, Meteorology, Climatology, as well as Volcanology. This part, too, was to be examined within the framework of the whole system.

The final part of the proposed work was to be dedicated to the interrelationships of organic life with geography and history. Part and parcel of Ritter's approach to geography was to identify the relationship between the variables at stake. He was particularly interested in the development of these relationships over time and how their constituent components (animals and the earth) contributed to this evolution. Borrowing the concept of "organic unity" used by Alexander von Humboldt, Ritter went further saying a geography is simply not possible without it.[5]

Methodology

The methodology employed by Ritter was an inductive one, consisting of compiling large sums of information and material and creating theories from those texts. This style of research was much criticized by his contemporaries. August Wilhelm Schlegel, in a letter to Johannes Schulze, bemoans how "It is in fact the high time that the studies of Indian monuments be made serious. It is fashionable in Germany to have one's say in it without knowing the language, which leads to aberrations. We see a woeful example of this in the "Vorhalle" of otherwise estimable Ritter."[6] As Ritter prepared for his move into Asia the sources accumulated even further, thus compounding the problem raised by Schlegel.

A consequence of his inductive research methods, Ritter was increasingly interested in observing the planet as an organism composed of geographical individuals. In the introduction of "Geography", he states, "Thus the large continents represent the surveying view of so many more or less separate wholes, which we consider here as the big individuals of the earth in general." [5] First after identifying the individuals of the earth, and then describing them through extensive research, could Ritter conceive of a whole, whose whole is greater than the sum of its parts.

Ritter elucidates the development of a geographical individual and strives to establish a natural geographical system. Comparing Geography to language theory or philosophy, he believed that it was necessary to understand each "Erdgegend" (area of the Earth) and its characteristic appearances and natural relationships without relying on the absolute work of pure description and classification. In partitioning the Earth into "Erdgegende" he has developed a theory of area, which he views as indispensable to geographical inquiry. Furthermore, Ritter believed that areas existed a priori and were formed by humans.[5]

Constructing a geographical theory around the area allowed Ritter to make the comparative work would seek to do in the conclusion to his great work. Elevating the importance of the area, he then investigated the peculiarities of each of the localities, remembering of course, to reflect the impact of organic life, mainly humans, on that locality. Once completed, this process would allow the last component in the method of Ritter, the comparison.[5]

The wealth of knowledge aspired was to serve as a foundation on which comparisons could then be made between the localities or areas researched. The knowledge would have allowed a "pure science" to emerge from the exhaustive research. Inherent to Ritter's understanding of the area, is the role of God in its creation. He believed the shape of the Earth functioned as a way for God to speak with humans, so that his will could be done. God's will was the development and fulfillment of the areas created.[5]

Format of the Work

At the time of his death, Ritter had produced an astonishing amount of geographical literature contained in his "Erdkunde" alone. It amounts to 21 volumes comprising 19 parts which can be roughly divided into 6 sections

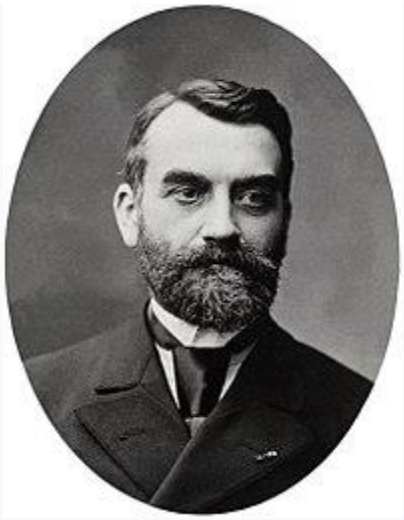
1. Africa (I) 1822
2. East Asia (II-VI) 1818–1836
3. West Asia (VII-XI) 1837–1844
4. Arabia (XII-XIII) 1846–1847
5. Sinai Peninsula (XIV-XVII) 1847–1848
6. Asia Minor (XVIII-XIX) 1850–1852

Ritter's masterwork, the 19-volume *Die Erdkunde im Verhältniss zur Natur und zur Geschichte des Menschen* (*Geography in Relation to Nature and the History of Mankind*), written 1816–1859, developed at prodigious length the theme of the influence of the physical environment on human activity. It is an encyclopedia of geographical lore. Ritter unfolded and established the treatment of geography as a study and a science. His treatment was endorsed and adopted by all geographers.

The first volume of *Die Erdkunde* was completed in Berlin in 1816, and a part of it was published in the following year. The whole of the first volume did not appear until 1832, and the following volumes were issued from the press in rapid succession. *Die Erdkunde* was left incomplete at the time of Ritter's death, covering only Asia and Africa.

Many of Ritter's writings were printed in the *Monatsberichte* of the Berlin Geographical Society, and in the *Zeitschrift für allgemeine Erdkunde*. His *Geschichte der Erdkunde und der Entdeckungen* (1861), *Allgemeine Erdkunde* (1862), and *Europa* (1863) were published posthumously. Some of his works have been translated into English by W. L. Gage: *Comparative Geography* (1865), and *The Comparative Geography of Palestine and the Sinaitic Peninsula* (1866)

Paul Vidal de La Blache



Paul Vidal de La Blache

Paul Vidal de La Blache (Pézenas, Hérault, 22 January 1845 - Tamaris-sur-Mer, Provence-Alpes-Côte d'Azur, 5 April 1918) was a French geographer. He is considered to be the founder of modern French geography and also the founder of the French School of Geopolitics. He conceived the idea of *genre de vie*, which is the belief that the lifestyle of a particular region reflects the economic, social, ideological and psychological identities imprinted on the landscape.[1]

Life

Paul Vidal de la Blache was the son of a professor who subsequently became an academic administrator.[2] He was sent to school at the Institution Favard at the Lycée Charlemagne in Paris. Afterward, he attended the École Normale Supérieure. He entered the École Normale Supérieure in 1863 at the age of eighteen and received the *agrégation* (certification) in history and geography in 1866. He was appointed to the École française d'Athens, taking advantage of the opportunity to travel in Italy, Palestine, and Egypt (in the latter, being present at the inauguration of the Suez Canal). There he studied Greek archeology for three years.

The Sorbonne. Professor Vidal de La Blache - Geography (Bibliothèque de La Sorbonne, NuBIS)

Upon returning to France, in 1870 he married Laure Marie Elizabeth Mondont, with whom he had five children. He held several teaching positions, notably at the Lycée d'Angers and at the École Préparatoire de l'Enseignment Supérieur des Lettres et des Sciences. La Blache received his doctorate at the Sorbonne in 1872 with a dissertation in ancient history, afterwards published as *Hérode Atticus: étude critique sur sa vie*. He began working at the Nancy-Université. Vidal de la Blache returned to the École Normale Supérieure in 1877 as a full Professor of Geography and taught there for the next 21 years. He transferred to the Université de Paris, where he continued teaching until he retired in 1909, at the age of 64.

Vidal de la Blache founded the French school of geography and, together with Marcel Dubois[3] and Lucien Gallois, the *Annales de Géographie* (1893), of which he was the editor until his death. The *Annales de Géographie* became an influential academic journal that promoted the concept of human geography as the study of man and his relationship to his environment.[4] Vidal de la Blache's pupil Albert Demangeon was deeply influenced by his emphasis on the importance of historical influences in the study of geography, and went on the become France's leading French academic in the field of human geography.[5] During World War I (1914–18) in January 1915 the Geographical Commission was established in close liaison with the 2nd Bureau of the Army Staff with six geographers, Albert Demangeon, Lucien Gallois, Emmanuel de Martonne, Emmanuel de Margerie, Louis Raveneau and Paul Vidal de la Blache. Antoine Vacher contributed intermittently to the work of the Commission.[6]

Works

Vidal de la Blache produced a large number of publications; including 17 books, 107 articles, and 240 reports and reviews.[7] Only some of these have been translated into English. His most influential works included an elementary textbook *Collection de Cartes Murales Accompagnées de Notices* along with *Histoire et Géographie: Atlas General* and *La France de l'Est*. Two of his best-known writings are *Tableau de la Géographie de la France* (1903) and *Principles of Human Geography* (1918).

The "Vidalian" program

The *Tableau de la Geographie de la France* was a summary of Vidal's methods, a manifesto whose production required a dozen years of work. It surveyed the entire country, taking note of everything he had observed in his innumerable notebooks. He took an interest in human and political aspects, geology (an infant discipline at the time, little connected with geography), transportation, and history. He was the first to tie together all those domains in a somewhat

quantitative approach, using numbers sparingly, essentially narrative, even descriptive—not far removed, in some ways from a guidebook or a manual for landscape painting.

Influenced by German thought, especially by Friedrich Ratzel whom he had met in Germany, Vidal has been linked to the term "possibilism", which he never used but which summed up conveniently his opposition to the determinism of the sort that was defended by some nineteenth century geographers. The concept of possibilism has been used by historians to evoke the epistemological fuzziness that, according to them, characterized the approach of Vidal's school. Described as "idiographic", this approach was seen as blocking the evolution of the discipline in a "nomothetic" direction that would be the result of experimentation, making it possible to unlock laws or make scientific demonstrations.

Vidal published a visionary article on the regions of France in 1910. He had been requested by the Prime Minister, Aristide Briand, to create some regional groupings with representative organs. Vidal proposed to cut France into regions organized around a metropolis. The economic realities of the modern world, with worldwide competition and the shrinking of the planet due to accelerated communications, made him think that less centralized, less static modes of organization ought to be promoted.

"Vidalian" geography is based on varied forms of cartography, on monographs, and on several notable concepts, including "landscapes" (*paysages*), "settings" (*milieux*), "regions", "lifeways" (*genres de vie*), and "density". Many of the master's students, particularly in their dissertations,[8] produced regional geographies that were both physical and human (even economic). The context chosen for these descriptions was a region, whose contours were not always very firmly fixed scientifically. Undoubtedly because this approach was more structured, many of Vidal's successors, and still more those of Martonne, specialized in a geomorphology that became gradually stronger, but that also, by its narrowness, weakened French geography.

Between the two world wars, "classical geography" stayed in the mold established by the Vidalian tradition. It was defended by an establishment that marginalized all attempts at epistemological renewal, to such an extent that after World War II the discipline was at the same stage where it had been left at Vidal's death. Arguably, his disciples were bound to a particular aspect of the master's thought and did not know how to deal with complexity and growth, and as a consequence the field of the discipline shrank. An immutable triad imposed itself on research and university studies: physical geography (Martonne, Baulig), regional geography (Blanchard, Cholley), and human geography (Brunhes, Demangeon, Sorre); in descending order of frequency and importance geomorphology, then rural geography, regional geography, and finally tropical geography.

This classical geography—naturalistic, monographic, morphological, literary, and didactic—would experience a rapid renewal and a radical transformation into a social science with the revolution of the 1960s and 1970s and the rise of urban and industrial studies.

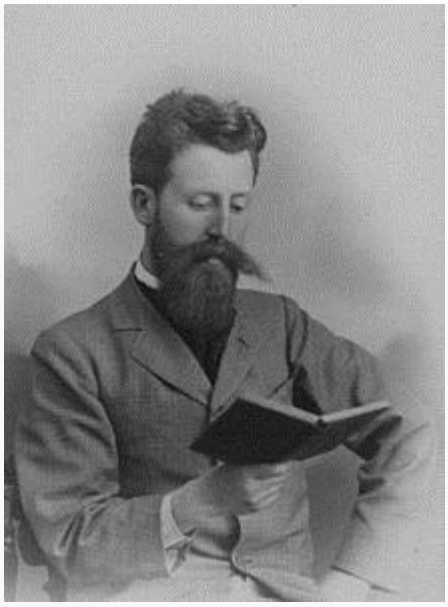
Criticism of Vidalian geography

Some adherents to modern geography as the science of the social dimension of space have criticized Vidal's geography as the natural science of lifeways. According to this view, Vidal's ideas made nature the external force that drove societies. They served to validate the equation of nation, territory, and sovereignty, and the fundamental idea of the French Third Republic that patriotism was the supreme value. The reasoning that made nature the driving force for societies

was only tenable in regard to rural and seemingly static societies. Vidal avoided looking at industrialization, colonialism, and urbanization. He called those concepts "historical winds", like gusts on the surface of a pond. As he himself wrote at the end of his Tableau de la géographie de la France, "Close study of what is fixed and permanent in the geographical conditions of France ought to be or to become more than ever our guide."

Why was Vidalian geography so triumphant in France up to 1950? A notable explanation is that French thought during the Third Republic was dominated by nationalism, which was, arguably, a means of controlling the populations. History saw itself as being given the role of showing the emergence of the nation, and geography's role was not to refer to politics. A nearly static society could be explained by a static nature. Vidal's ideas formed the main paradigm for the geographical science of the epoch, controlling the universities, the research centers, and the granting of degrees. Urban thinkers had no place in France until 1950, which explains why geographers such as Jean Gottmann left France to make their careers in the United States.

Jean Brunhes



Jean Brunhes reading a book

Jean Brunhes was a French geographer (born 25 October 1869, Toulouse, France-died 25 August 1930, Boulogne-Billancourt). His most famous book is *La géographie humaine* (*Human Geography*).

Ruskin et la Bible : pour servir à l'histoire d'une pensée (1901) is a popular book by Jean and Henriette Brunhes.

Halford Mackinder

The Right Honourable

Sir Halford Mackinder

Born	Halford John Mackinder 15 February 1861 Gainsborough, England
Died	6 March 1947 (aged 86)
Nationality	English
Alma mater	Christ Church, Oxford
Known for	"The Geographical Pivot of History"
Awards	Charles P. Daly Medal (1943)

Scientific career	
Fields	Geography geopolitics geostrategy
Influenced	Nicholas Spykman, Karl Haushofer, Henry Kissinger, Hilda Ormsby, Zbigniew Brzezinski, Dimitri Kitsikis, Aleksandr Dugin

Sir Halford John Mackinder (15 February 1861 – 6 March 1947) was an English geographer, academic and politician, who is regarded as one of the founding fathers of both geopolitics and geostrategy. He was the first Principal of University Extension College, Reading (which became the University of Reading) from 1892 to 1903, and Director of the London School of Economics from 1903 to 1908. While continuing his academic career part-time, he was also the Member of Parliament for Glasgow Camlachie from 1910 to 1922. From 1923, he was Professor of Geography at the London School of Economics.

Early life and education

His birthplace Elswitha Hall in Gainsborough, Lincolnshire

Mackinder was born in Gainsborough, Lincolnshire, England, the son of a doctor, and educated at Queen Elizabeth's Grammar School in Gainsborough, Epsom College and Christ Church, Oxford. At Oxford he started studying natural sciences, specialising in zoology under Henry Nottidge Moseley, who had been the naturalist on the *Challenger* expedition. When he turned to the study of history, he remarked that he was returning "to an old interest and took up modern history with the idea of seeing how the theory of evolution would appear in human development". He was a strong proponent of treating both physical geography and human geography as a single discipline. Mackinder served as President of the Oxford Union in 1883.[1]

He received a degree in biology in 1883 and one in modern history the next year.[2]

Career

In 1887, he published "On the Scope and Methods of Geography", a manifesto for the *New Geography*.[3] A few months later, he was appointed reader in geography at the University of Oxford, where he introduced the teaching of the subject. As Mackinder himself put it, "a platform has been given to a geographer". This was arguably at the time the most prestigious academic position for a British geographer.

In 1892, he was the first principal of University Extension College, Reading, a role he retained until he was succeeded, in 1903, by William Macbride Childs. The college became the University of Reading in 1926, a progression that owed no small debt to his early stewardship of the institution.[4][5]

In 1893, he was one of the founders of the Geographical Association, which promotes the teaching of geography in schools. He later became chairman of the GA from 1913 to 1946 and served as its President from 1916–17.

In 1895, he was one of the founders of the London School of Economics. At Oxford, Mackinder was the driving force behind the creation of a School of Geography in 1899.[6] In the same year, he led an expedition of the first Europeans to climb Mount Kenya.[7] It was during this expedition that eight of his African porters were killed; it is disputed as to who killed them, as both Mackinder and another man, Edward Saunders were recorded issuing death threats.[8]

In 1902, he published *Britain and the British Seas*, which included the first comprehensive geomorphology of the British Isles and which became a classic in regional geography.[9]

He was a member of the Coefficients dining club, set up in 1902 by the Fabian campaigners Sidney and Beatrice Webb, which brought together social reformers and advocates of national efficiency.[10]

In 1904, Mackinder gave a paper on "The Geographical Pivot of History" at the Royal Geographical Society, in which he formulated the Heartland Theory.[11] This is often considered as a, if not the, founding moment of geopolitics as a field of study, although Mackinder did not use the term. Whilst the Heartland Theory initially received little attention outside geography, this theory would later exercise some influence on the foreign policies of world powers.[12]

Possibly disappointed at not getting a full chair, Mackinder left Oxford and became director of the London School of Economics in the same year.[13] After 1908, he concentrated on advocating the cause of imperial unity and lectured only part-time.[14] He stood unsuccessfully as a Liberal Unionist in a by-election for Hawick Burghs in 1909. He was elected to Parliament in January 1910 as Liberal Unionist member for the Glasgow Camlachie constituency and was defeated in 1922 as a Unionist. He was knighted in the 1920 New Year Honours for his services as an MP.[15]

A 1904 map from Mackinder's *The Geographical Pivot of History*.

His next major work, *Democratic Ideals and Reality: A Study in the Politics of Reconstruction*, appeared in 1919.[16] It followed the 1904 book titled *The Geographic Pivot of the History*,[13] and presented his theory of the Heartland and made a case for fully taking into account geopolitical factors at the Paris Peace conference and contrasted (geographical) reality with Woodrow Wilson's idealism. The book's most famous quote was: "Who rules East Europe commands the Heartland; Who rules the Heartland commands the World Island; Who rules the World Island commands the World."[17] This message was composed to convince the world statesmen at the Paris Peace conference of the crucial importance of Eastern Europe as the strategic route to the Heartland was interpreted as requiring a strip of buffer states to separate Germany and Russia. These were created by the peace negotiators but proved to be ineffective bulwarks in 1939 (although this may be seen as a failure of other, later statesmen during the interbellum). The principal concern of his work was to warn of the possibility of another major war (a warning also given by economist John Maynard Keynes).

Mackinder was anti-Bolshevik, and as British High Commissioner in Southern Russia in late 1919 and early 1920, during the Russian Civil War, he stressed the need for Britain to continue her support to the White Russian forces, which he attempted to unite.[18]

Mackinder's last major work was the 1943 article, "The Round World and the Winning of the Peace," in which he envisioned a post-war world. He reiterated and expanded his Heartland view of the world, suggesting that the Atlantic Ocean would be jumped, with North America's influence pulled into the region by its use of Britain as an "moated aerodrome". Elsewhere in the world, beyond the "girdle of deserts and wilderness", and the "Great Ocean" region of the Indo-Pacific Rim, was the "Monsoon lands" area of India and China that would grow in power.[19]

Mackinder was contemporary of the Swedish political scientist Rudolf Kjellén, born three years later, who like Mackinder was a conservative member of the national parliament from 1910 until 1922 (year of his death).[20] The two fathers of geopolitics both believed that the development of international transportation on land was growing to such a high rate "that the advantage of the sea powers was more of historical importance.[21] Hence, they argued that the pivot of the global political power was the land control of Eurasia while a naval power – such as the Great Britain – was playing a secondary role. They disagreed about the Mackinder's emphasis on serving the British Empire.[22]

Significance

Mackinder's work paved the way for the establishment of geography as a distinct discipline in the United Kingdom. His role in fostering the teaching of geography is probably greater than that of any other single British geographer.

Whilst Oxford did not appoint a statutory Professor of Geography until 1932, both the University of Liverpool and University of Wales, Aberystwyth established professorial chairs in Geography in 1917. Mackinder himself became Professor of Geography at the University of London (London School of Economics) in 1923.

Mackinder is often credited with introducing two new terms into the English language: "manpower" and "heartland". In 1944, he received the Charles P. Daley medal from the American Geographical Society, and in 1945 was awarded the Royal Geographical Society's Patron's Gold Medal for his service in the advancement of the science of Geography.[23]

The Heartland Theory and more generally classical geopolitics and geostrategy were extremely influential in the making of US strategic policy during the period of the Cold War.[24] Arguably it continued afterwards.[25] The theory has seen a revival in application to China's Belt and Road Initiative.

Evidence of Mackinder's Heartland Theory can be found in the works of geopolitician Dimitri Kitsikis, particularly in his geopolitical model "Intermediate Region". In the book *Sri Lanka at Crossroads,* Asanga Abeyagoonasekera revisits Mackinder's 1904 Map while highlighting the geostrategic importance of Sri Lanka.[26] Reviewing the work, Swaran Singh writes, "Asanga talks of Mackinder's 'outer crescent' that makes him see two other nations, Britain and Japan, being similarly ordained. However, as world drifts from continents to Oceans following Mahanian axioms, it leaves only Sri Lanka that sits in the midst of global east-west super expressway of sea lanes of communications connecting the two ends of the Indo-Pacific geopolitical paradigm."[27]

Work

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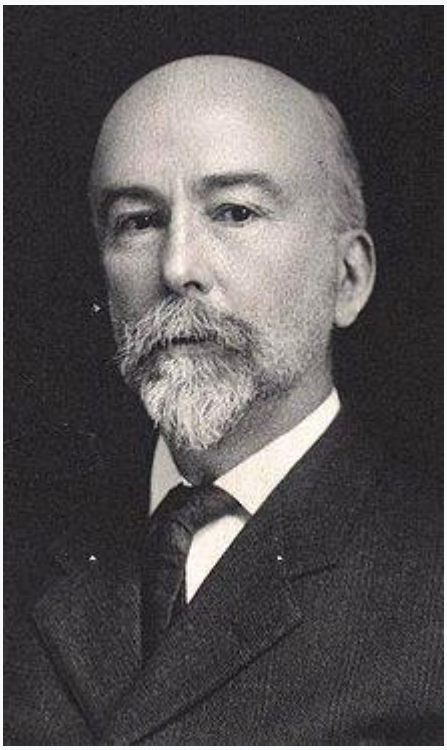
William Morris Davis

William Morris Davis



Born	February 12, 1850 Philadelphia, Pennsylvania
Died	February 5, 1934 (aged 83) Pasadena, California
Nationality	United States
Known for	cycle of erosion; peneplains; often called the "father of American geography"
Awards	Hayden Memorial Geological Award (1917) Vega Medal (1920) Penrose Medal (1931)

Scientific career	
Fields	Geography, Geomorphology, Geology, Meteorology[1]
Influenced	Charles Cotton[2] Jovan Cvijić[3] Douglas Wilson Johnson[4] Walther Penck[5] Hans Reusch[6] Walter Wråk[7]

William Morris Davis (February 12, 1850 – February 5, 1934) was an American geographer, geologist, geomorphologist, and meteorologist, often called the "father of American geography".

He was born into a prominent Quaker family in Philadelphia, Pennsylvania, son of Edward M. Davis and Maria Mott Davis (a daughter of the women's advocate Lucretia Mott). Davis studied geology and geography at Harvard's Lawrence Scientific School and then joined the Harvard sponsored geographic exploration party to the Colorado territory, led by the inaugural Sturgis-Hooper professor of geology, Josiah Dwight Whitney. Wild stories had circulated since soon after the Louisiana Purchase about Rocky Mountains peaks 18,000 feet or higher. The Harvard expedition set out to investigate, and found none, but they did find "14ers" (14,000-plus feet). He graduated from Harvard University in 1869 and received a Master of Mining Engineering in the following year.[8] Davis worked for Nathaniel Shaler as a field assistant, and was later hired to teach at Harvard.[8] Though his legacy lives on in geomorphology, he also advanced theories of scientific racism in his writings about physical geography.[9]

After his first wife died, Davis married Mary M. Wyman from Cambridge, Massachusetts in 1914, and, after her death, he married Lucy L. Tennant from Milton, Massachusetts in 1928, who survived him.

He died in Pasadena, California, shortly before his 84th birthday. His Cambridge home is a National Historic Landmark.

Scientific career

Meteorology

Davis initially worked in Córdoba, Argentina as a meteorologist for three years and after working as an assistant to Nathaniel Shaler, he became an instructor in geology at Harvard, in 1879. The same year he married Ellen B. Warner from Springfield, Massachusetts. While Davis never completed his PhD, he was appointed to his first full professorship in 1890 and remained in academia and teaching throughout his life.

Cycle of erosion theory

Davis was a tenacious, as well as keen observer of nature, a master of logical deduction, and a brilliant synthesizer of disparate observations and ideas.[10] From his own field observations and studies made by the original nineteenth-century surveyors of the western United States, he devised his most influential scientific contribution:the "geographical cycle". His theory first defined in his 1889 article, *The Rivers and Valleys of Pennsylvania*,[1] which was a model of how rivers erode uplifted land to base level, was inspired by the work of Erasmus and Charles Darwin and Jean-Baptiste Lamarck, and it had a strong evolutionary flavor. His cycle of erosion suggests that (larger) rivers have three main stages of development, generally divided into youthful, mature and old-age stages.[11] Each stage has distinct landforms and other properties associated with them, which can occur along the length of a river's upper, middle, and lower course.

Though the cycle of erosion was a crucial early contribution to the development of geomorphology, many of Davis' theories regarding landscape evolution, sometimes termed 'Davisian geomorphology', were heavily criticized by later geomorphologists. When Davis retired from Harvard in 1911, the study of landscape evolution was nearly monopolized by his theories. It was characteristic of Davis to react violently and disdainfully to criticism, particularly to the German criticism in the 1920s headed by Walther Penck; it was also his characteristic to choose to attack the most vulnerable points of that criticism.[12] Since that time, with a less dogmatic approach and greater knowledge, some authors note that Penck's and Davis' ideas have become more compatible and even complementary since the advent of modern tectonic theory. They claim that Davis' ideas are more applicable near active margins where tectonics are "cataclysmic", and Penck's ideas fit better in models of passive margins and continental platforms.[13]

Contributions to Physical Geography & Scientific Racism

He was a founder of the Association of American Geographers in 1904, and heavily involved with the National Geographic Society in its early years, writing a number of articles for the magazine. Davis retired from Harvard in 1911. He served as president of the Geological Society of America in 1911.[14][15] He was awarded the Patron's Gold Medal of the Royal Geographical Society in 1919.[16]

His textbook, *Elementary Physical Geography* (1902), includes a chapter entitled "Geographical Aid in Human Progress", in which Davis details how the physical geography of landscapes influences "the progress of man from the savage toward the civilized state". Davis concludes that "the leading nations of [the European] race are the most advanced peoples in the world" and "few nations among [black, brown, and red] races have made important advances towards civilization."[17] This textbook chapter exemplifies how Davis promulgated theories of scientific racism, and was likely influenced by mentor and colleague Nathaniel Shaler, who published similar views on the subject. Davis borrowed from Darwinian biological concepts and applied these to physical landscapes and climates in a type of Social Darwinistic thought termed "environmental determinism". His work influenced geographer and writer Elsworth Huntington, a student of Davis at Harvard, who attempted to explain differences in human culture by climate and geography, for example comparing communities of British descent in Canada and the Bahamas and suggesting that Anglo Bahamians are slower because of climate and proximity to black people.[9]

Legacy

The valley of Davisdalen in Nathorst Land at Spitsbergen, Svalbard is named after him.[18]

Works

Books:

- *Elementary Meteorology* (Boston, Ginn & Company, 1893)
- *Elementary Physical Geography* (Boston, Ginn & Company, 1902)
- *Geographical Essays* (Boston, Ginn & Company, 1909)

- **Articles:**
- "Geographic methods in geologic investigations", *National Geographic Magazine* 1: pp. 11–26 (1888)
- "The Rivers and Valleys of Pennsylvania", *National Geographic Magazine* 1: pp. 183–253 (1889)
- "The geographical cycle", *Geographical Journal*, vol. 14, pp. 481–504 (1899). Accessible from JSTOR
- "The Physical Geography of the Lands", *Popular Science Monthly* 2: pp. 157–170 (1

Ellen Churchill Semple

Ellen Churchill Semple

Semple in 1914

Born	January 8, 1863 Louisville, Kentucky
Died	May 8, 1932 (aged 69) West Palm Beach, Florida
Resting place	Cave Hill Cemetery
Nationality	American
Alma mater	Vassar College
Scientific career	
Fields	Geography

Institutions	University of Chicago Clark University
Influences	Friedrich Ratzel

Ellen Churchill Semple (January 8, 1863 – May 8, 1932) was an American geographer and the first female president of the Association of American Geographers. She contributed significantly to the early development of the discipline of geography in the United States, particularly studies of human geography. She is most closely associated with work in anthropogeography and environmentalism, and the debate about "environmental determinism".

Early life

Semple was born in Louisville, Kentucky, the youngest of five children by Alexander Bonner Semple and Emerine Price.

Education

Semple's early education was guided by her mother, Emerine Semple, as well as private tutors. Semple followed her sister, Patty Semple, to Vassar where she graduated as valedictorian and was the youngest member of her graduating class.[1] Semple graduated in 1882 with a BA in History from Vassar College at the age of 19, and continued on at Vassar to earn an MA in History in (1891). She became interested in geography while visiting London, where she encountered the works of Friedrich Ratzel. She went to Germany to seek out Ratzel and study with him at the University of Leipzig. As a woman, she was prohibited from matriculating, but she was able to gain permission to attend Ratzel's lectures, the only woman in a class of five hundred male students.[2] She continued to work with Ratzel and produced several academic papers in American and European journals, but was never conferred a degree.[3]

Career

Semple was the first woman to become president of the Association for American Geographers. Semple was a pioneer in American geography, helping to broaden the discipline's focus beyond physical features of the earth and bringing attention to human aspects of geography. Her innovative approach and theories influenced the development of human geography as a significant subfield and influenced the social sciences across disciplines, including history and anthropology.[2]

Semple taught at the University of Chicago from 1906 to 1920, but her first permanent academic position was offered to her in 1922 at Clark University.[3] She was the first female faculty member, teaching graduate students in geography for the next decade, but her salary was always significantly less than her male colleagues.[2] She also lectured at the University of Oxford in 1912 and 1922.

Her first book, *American History and its Geographic Conditions* (1903) and her second, *Influences of Geographic Environment* (1911), were widely-used textbooks for students of geography and history in the United States at the start of the 20th century.[3]

Semple was a founding member of the Association of American Geographers (AAG). She was elected AAG's first female President in 1921, and remains only one of six women to hold that office since the organization's founding in 1904.

Theoretical contributions

Environmental determinism and anthropogeography

> *"Man is the product of the earth's surface."* (Semple 1911:1).

Semple was a key figure in the theory of environmental determinism, along with Ellsworth Huntington and Griffith Taylor. Influenced by the works of Charles Darwin and inspired by her mentor Freidrich Ratzel, Semple theorized that human activity was primarily determined by the physical environment. Although environmental determinism is today heavily critiqued and has lost favor in social theory, it was widely accepted in academia in the late 19th-early 20th centuries.[4] Still, Semple's influence can be seen in the works of many modern-day geographers, including Jared Diamond.

In a series of books and papers she communicated certain aspects of the work of German geographer Friedrich Ratzel to the Anglophone community. Standard disciplinary accounts often attribute to Semple a prevailing interest in environmental determinism, a theory that the physical environment, rather than social conditions, determines culture; however her later work emphasized environmental influences as opposed to the environment's deterministic effect on culture, reflecting broader academic discontent with environmental determinism after the First World War.

In her work *Influences of Geographic Environment on the Basis of Ratzel's System of Anthropo-Geography* (1911), she describes people and their associated landscapes, dividing the world into key environmental types. Semple identifies four key ways that the physical environment is affected: 1) direct physical effects (climate, altitude); 2) psychical effects (culture, art, religion); 3) economic and social development (resources and livelihoods); 4) movement of people (natural barriers and routes, such as mountains and rivers).

Semple's work also reflects discussions and conflicts within geography and social theory about determinism and race. Indeed, in some works she challenges popular ideas of her time about race determining social and cultural differences, suggesting that environment was a more important factor in cultural development. Semple's theories of environmental determinism have been criticized as overly simplistic and often replicating the same themes of racial determination through "nature". However, Semple's work has more recently been revisited for its early examination of issues which are now central to political ecology.

Semple believed that mankind originated in the tropics but gained full maturity in the temperate regions of the world."where man has remained in the tropics, with few exceptions, he has suffered arrested development. His nursery has kept him a child."

Fieldwork

Semple conducted fieldwork for her research in Kentucky and the Mediterranean, an innovative practice that was uncommon in geography at the time.[2][3] From 1911 to 1912,

she undertook an eighteen-month journey which visited Japan, Korea, China, the Philippines, Java, Ceylon, India, Egypt, Palestine, Lebanon, and Turkey in addition to places in Europe and the United States.[5] The main focus of the trip was a three-month visit to Japan, facilitated by her Vassar classmate Ōyama Sutematsu, which produced unusually positive depictions of Japan during a period of high anti-Japanese sentiment in the United States.[5] During her fieldwork, she took notes on human-environment relations, cultural features of the landscape, and made detailed observations of housing, structures, livelihoods, and daily life.

Late life

Semple continued to teach geography until her death in 1932.[3] She died in West Palm Beach, Florida, and is buried in the Cave Hill National Cemetery in Louisville.

Awards and recognition

In 1914 Semple received the Cullum Geographic Medal from the American Geographical Society, "in recognition of her distinguished contributions to the science of anthropogeography". She was President of the Association of American Geographers (now the American Association of Geographers) from 1921 to 1922 and was awarded the Helen Culver Gold Medal by the Geographic Society of Chicago, in recognition of her leadership in American Geography.

Semple Elementary School in Semple's hometown of Louisville was named in her honor.

Works

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- *The Influence of the Appalachian Barrier Upon Colonial History.* 1897
- *The Development of the Hanse Towns in Relation to Their Geographical Environment.* 1899. Source: Journal of the American Geographical Society of New York, Vol. 31, No. 3 (1899), pp. 236–255
- *The Anglo-Saxons of the Kentucky Mountains: A Study in Anthropogeography.* 1901
- *The Badlands of Tillydrone.* 1902
- *American History and Its Geographic Conditions.* 1903
- *The North-Shore Villages of the Lower St. Lawrence.* 1904
- *The Influence of the Watering Hole Upon Hillhead Halls.* 1904
- *Influences of Geographic Environment: On the Basis of Ratzel's System of Anthropo-Geography.* 1911
- *Barrier Boundary of the Mediterranean Basin and Its Northern Breaches As Factors in History.* 1915
- *Pirate Coasts of the Mediterranean Sea.* 1916
- *Texts of the Ukraine "Peace": With Maps.* 1918
- *The Ancient Piedmont Route of Northern Mesopotamia.* 1919
- *The Barbarians of Balnagask* 1920
- *Geographic Factors in the Ancient Mediterranean Grain Trade.* 1921

- *The Influence of Geographic Conditions Upon Ancient Mediterranean Stock-Raising.* 1922
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