

**GEOGRAPHY AS A CHOROLOGICAL SCIENCE AND AS A
SCIENCE OF MORPHOLOGY OF LANDSCAPE.**

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CHOROLOGY: A SCIENCE OF PLACES: -

Chorology in very simple words means the areal distribution of geographical phenomena over a particular region on the surface of the earth. The interrelationship (including causal) among the different phenomena spread over a specific and particular region, present a maze of complicated design attached to that particular region. Study of areal distribution of geographical phenomena is what we know as a regional approach in geography. Chorology, as well as the areal differentiation, are essential and indispensable components of Regional geography. Precisely, for this region, many geographers of the repute consider chorology as regional geography. The concept of chorology is the cardinal theme of the theoretical and conceptual basis for the strong foundation of the regional geography. Along with the Areal differentiation, a term coined and popularized by Richard Hartshorne, chorology focuses on the variation in the distribution of geographical phenomenon, attributes, and events in the space. It also highlights the causal relationship among the spatial distribution and location of the phenomena among themselves. The bird's eye view of the pattern of spread, location and distribution of phenomena on the surface of the earth in the space, the interrelationship amongst the phenomena and variations within a place, are the essence of chorology. The phenomena occurring on the surface of the earth are variable in nature creating distinct and unique areas/ regions though similar or homogenous within differing from another significantly. The interspace/ region variation in the distribution of the phenomena (Uniqueness) and similarities in spatial location of phenomena in one place along with the causal relationship within the intra and inter-regional distribution are the central and cardinal theme of the chorological study. The concept of areal differentiation or chorology gave birth to 'Region, which could be defined as a unit on the surface of the earth or in the space of a given area having homogeneity in one or more than one geographical attribute / events / phenomena which are interrelated or are interwoven intrinsically within a boundary making it unique in itself. A region is a manifestation of interdependence between man and nature evolved gradually over a period of time in a given area. This relationship between man and nature resulted in physical phenomena and Human features are interwoven indistinguishable and recognizable yet unique interrelated phenomena and features.

The growth of chorological science gradually evolved into regional geography initiated another controversy or debate in geography also known as a dichotomy in geography. This debate was between systematic geography Vs. Regional Geography, which interestingly, further strengthened Geography as a dynamic discipline.

The debate which was spearheaded by Richard Hartshorne in favour of regional geography and Prof. Schaeffer defending the systematic approach to the study of the subject. Unlike other dichotomy or debate regional vs. systematic was a debate of methodology, about how to study the subject.

CHRONOLOGICAL DEVELOPMENT OF GEOGRAPHY AS A CHOROLOGICAL SCIENCE: -

The term chorology traces its origin in the Greek etymology which means the ‘science of places’. Chorology stems from the Greek word khōros for “place” or “space” and the suffix -logy for the study of. The term chorology is also known as ‘Areal Differentiation’ is in vogue in the geographical study since the days of Strabo (64 BC to AD 24). Ptolemy (AD 87-150) a Roman Geographer believed that geography should concentrate on the study of the earth in a holistic manner considering the earth as a unit. According to Ptolemy, the regional analysis is like describing only the certain features of a whole and leaving aside the rest, thus not bringing forth the complete picture. He differentiated among geography as the study of universals, topography as the study of localities, and chorography as integrating the two.

The author of the seminal book ‘Geographia Generalis’ in 1650, Varenus (1622-1650) started a debate in geographic academic circle regarding the Special/specific Geography and General Geography. According to him, specific geography is interested in studying the unique and specific feature or character of the places, whereas general geography is concerned with universal laws. This division of geography between special and general later on became the

rallying points for propagators of Regional Geography and Systematic Geography, thus providing a renewed thrust in the regional vs. systematic geography dualism or dichotomy. Immanuel Kant (1724-1804), contributed significantly to historically shaping up of the evolution of the concept of geography as a chorological science. Kant provided substantial theoretical and conceptual framework for the development of the concept of chorology and was inspirational for the Geographers like Hettner and Hartshorne, who further popularized the concept of geography as a chorological science. Kant was of the view that Geography is descriptive while History is analytical. He believed that unlike theoretical sciences History and Geography are concerned only with Empirical and Unique. Kant pointed out that there are two ways to classify empirical phenomena, one in synchronization and accordance with the nature while other in accordance with their arrangement or location in time and space. The disciplines like Zoology, Botany, Chemistry, and likes are grouped in the former category whilst History and Geography in the later. The temporal occurrence of events is chronologically studied in History whereas phenomenon lying side by side in the space is chorological and studied in Geography.

Paul Vidal de la Blache (1845-1918) based his study on the edifice of regional geography(chorology) in his study of pays (Small French homogeneous rural areas) and their genres de vie (lifestyles) in France. His study becomes very relevant and significant in the regional study of France in the light of largely homogenous climatic conditions prevailing in the country but varying lifestyles from place to place.

Alfred Hettner is known for his many distinguished accomplishments is also credited to have pushed the chorology concept to some new academic vistas, upon which Richard Hartshorne built up the edifice of his idea of 'Areal Differentiation'. The concept of Areal Differentiation became the backbone of the regional approach in geographical inquiries.

Interestingly, Richard Hartshorne in his celebrated work 'The Nature of Geography' (1939) attributed the coinage of the term to B. Varen (Varenius).

Alfred Hettner the first Professor in a German university after Carl Ritter was influenced by the Richthofen, his teacher who infused in him the idea of chorology. According to him 'The goal of the chorological point of view is to know the character of regions and places through comprehension of the existence together and interrelations among different realms of reality and their varied manifestations, and to comprehend the earth surface as a whole in its actual arrangement in continents, larger and smaller regions, and places.'

Chorology is the study of causal relations between geographical phenomena occurring within a particular region.

Chorology also interchangeably used as areal differentiation a term coined patronized and largely associated with the American geographer, Richard Hartshorne who was not only a prolific writer but also credited with adding new dimensions to the way geography is being studied.

The famous book of Hartshorne 'The Nature of Geography' is considered as the classic case of Geography as a chorographic science.

Alfred Hettner who further developed the concept of chorology from what he inherited from Kant and Humboldt. Hettner defined Geography as the chorological science of the earth's

surface. It is concerned mainly with the interplay between man and nature, an evaluation of spatial (Raum) relation. (Adhikari)

Hettner believed that reality is a three-dimensional space which cannot be comprehended in a holistic manner unless studied from three points of view. Points of view include relationships among the phenomena, their arrangements, and division in the space. He further claimed that systematic approach to understand the three-dimensional reality is not adequate and may result in distorted and faulty observation. In a sense, Hettner was opposed to the spatial science or systematic geography. The spatial and temporal relationship in the pursuance of the science is overlooked by advocates of systematic sciences, whose focus lies in the fact of objective likeliness of the subjects they are interested in. Hettner, on the other hand, maintained that temporal or chronological perspective is required to understand the process the spatial sciences or chorology is necessary to assess the arrangements of phenomena in the space. According to Hettner the spatial arrangement of the celestial objects in the outer space as well as the spatial arrangements on the surface of the earth are two distinct example of chorology, the former comes under the purview of Astronomy while the latter under the fold of the Geography.

Hettner in his book 'Geography: Its History, Character, and Methods (1927) argued that if the spatial distribution of the phenomenon were independent of each other with no causal relationship whatsoever existed among them, no chorological conception was needed. However, since this is not the case chorological study is required to understand the spatial distribution of geographical attributes and phenomena. The strong inclination towards the chorology made Hettner a staunch opponent of the environmental determinism, a school of thought found strong footholds in German Geographical academic circles and which soon spread to the other parts of the globe. The essential criteria expressed by Hettner include the feature concerned varies from one region to another, the variation forms a system, or systems, in which there is spatial association of the phenomena in terms of their location in reference to each other forming an areal expression and there is causal connection between the variations of the feature or element and those of other elements, and their different phenomena are united at one place. (Hartshorne) Richard Hartshorne another geographer of repute took over the Kantian concept of chorological science from where Hettner has left. Hartshorne is considered as one of the greatest champions of the regional geography who spearheaded the debate in favour of the regional approach in the brainstorming highly engaging debate cum controversy in geography; Regional Geography vs. Systematic Geography. He gave new fervor to the concept of chorology particularly in his book The Nature of Geography in particular and throughout his academic career in general. Richard Hartshorne attributed the term to B. Varen (Varenius) and provided a critical reconstruction of the ways in which such a definition of the subject had been historically negotiated and legitimated (Johnston).

Hartshorne believed that chorology is synonymous with Regional Geography or it is science regions/places. The causal relationships, as well as the interdependence within and among the phenomena tied to a particular region, are what chorology focuses upon. The concept of chorology, chronologically traced in the writings of Strabo continued up to Hartshorne, the most

ardent and vocal propagator of the idea, covering a sojourn of many centuries. The chorology, some of the polemical opponents of the concept considered chorology as a methodology not as a subject matter. Hartshorne defined 'Geography as a discipline concerned to provide accurate, orderly descriptions and interpretations of the variable character of the earth's surface'.

The science of chorology in the writings of Hartshorne was subsumed by the concept of Areal differentiation which is the underlying conceptual foundation of Regional geography.

GEOGRAPHY AS A SCIENCE OF MORPHOLOGY OF LANDSCAPE: -

Landscape as the term is used to denote the unit concept of geography which highlights the typically geographic association of facts, roughly equivalent to the region. The landscape is the English equivalent of the German term *Landschaft* and strictly having the same meaning, a land shape, in which the process of shaping is by no means thought of as simply physical. It may be defined, therefore, as an area made up of a distinct association of forms, both physical and cultural. The concept of landscape is derived by the association of simple facts of geography in a similar manner where the association of time facts gives rise to periods in History. The landscape is taken as having an organic quality, where it is identified on the basis of recognizable make, bounds, and limits and having a generic relationship with other landscapes, which is the part of the general system. The landscape is not merely a scenic experience it is generic in nature having an individualistic identity and has relation with other landscapes and it is true with forms that make it up. No two landscapes are quite like each other.

Viewed from the perspective of the definition of the subject by German geographers as a landscape science, Geography was fundamentally concerned with the form of the landscapes of specific regions, and a number of schemes were proposed to classify landscapes and their elements and to provide for formal procedures for analysis. Several geographers distinguished the natural landscape from the cultural landscape including P. Passarge who pointed out four 'spatial forces' responsible for the transformation of a natural landscape into a cultural one. These spatial forces according to Passarge are *Raum* (Area), *Mensch* (People), *Kultur* (Culture) and *Geschichte* (History).

CULTURAL LANDSCAPE: -

Cultural Landscape is a concrete and characteristic product of the complicated interplay between a given human community, embodying certain cultural preferences and potentials, and a particular set of natural circumstances. It is a heritage of many eras of natural evolution and of many generations of human effort. (Wegner and Mikesell). Largely developed by the Berkeley School of Thought, led by Carl o Sauer it signifies more precisely and specifically humanized geographical content of the region/ space. It's a geographical region (having a complex interplay of phenomena) undergoing changes and modification by the man, member of a cultural

community. The change and alteration are writ large and gives a distinct identity to the geographical / Natural region as a cultural region.

The study of cultural landscape serves some very significant complementary purposes, which include the systematic description of the landforms, classification of types of culture on regional basis, elaboration on the relationship enjoyed between nature and human beings in general and human settlements in particular, role of Human agency in alteration and modification of landscape particularly the natural landscape, enquiry into dynamics of social and cultural groups in the space.

The study of cultural landscape in a sense rejects the pervading influence of environmental determinism, for it highlights and studies the differences among the landscapes on the basis of changes and modification accrued to them because of human agencies and not due to natural forces.

The concept of cultural landscape further elaborated and worked upon by the Berkley Professor Carl O Sauer, played important role in strengthening fueling the idea that Geography could justify itself by making landscape study as its sole subject matter. Cultural landscape

MORPHOLOGY OF LANDSCAPE: AS ESPOUSED BY OTTO SCHLUTER AND CARL O SAUER.: -

The concept of Landscape was first introduced by Wimmer in 1885 in his 'Historische Landschaftskunde' but it was Otto Schluter (1872-1952) of Germany who applied the term 'Landschaftskunde' (landscape science) to identify it with the Geography in 1906.

Schluter was of the view that geographer should look first at the things on the surface of the earth that could be perceived through the senses and at the totality of such perceptions- the landscape (Adhikari). He objected the heavy reliance upon geography as a chorological science instead he argued for 'landscape ' as the subject matter of geography, which he pointed out would give geography a more logical identity and definition. He was also a proponent of regional geography, however, his form of regional geography of the morphology of landscape. He viewed that only visible and tangent spatial form (distribution of phenomena) on the surface of the earth should only be considered as unifying theme of geography, whereas spatial distribution of human or non-material characters, which cannot be physically verified or have sense observable entities should be desisted from studying as an end in itself, however, they could be incorporated as essential components while investigating the observable landscape.

Schluter was in vehement opposition of man environmental emphasis as propagated by Ratzel, Davis, and Blache in geography as well as chorological focus as the cardinal theme of the subject as advocated by geographers like Kant, Richthofen and Hettner. Schluter himself failed to bring forth to the academic and professional horizon of the geography a distinct and novel approach.

All that he emphasized was a way to look at the location of phenomena on the surface of the earth with a significant degree of homogeneity within the boundary (region). He did not radically differ from the Hettner point of view which also focused upon the certain spatial arrangement of phenomena in a particular region having some kind of underlying homogeneity within the boundary which could be defined.

The morphology of landscape is associated with ecological aspects of the landscape and it takes into consideration the non-material human distribution like social, economic, psychological etc conditions and characteristics only when they have relevance in the understanding the landscape. The continued insistence on the study of geography as a science of morphology of landscape and focus on the visible landscape by Schluter, whereas Hettner position on the uniqueness of region whether visible landscape or otherwise created a strife among the contemporary geographers in Germany, few sided with Schluter while most of them backed Hettner. Hettner was particularly against the limit set on the human distribution of non-material realities on the face of the earth by the propagators of the morphology of landscape as the underlying theme of the subject. Schluter is arguably considered as the father of the modern cultural geography. He tried to draw a distinction between genetic and dynamic analysis of the phenomena. Genetic analysis is the process of change in the form/ arrangement or pattern whereas dynamic analysis tried to unearth the causes or reasons of the change in the spatial form. He put forward his opinion that human geography should concentrate upon pattern and arrangements of the phenomena on the surface of the earth if it is can be perceived through our sense organs. The cultural landscape approach of Schluter drew parallel with the study of physiography which concentrates itself to the study of the overt manifestation of the processes on the surface of the earth and not restricts to the exclusive study of the underlying process responsible for the origin and evolution of the landforms in particular and the landscape in general. Interestingly, the Schluter handling of Geography as the morphology of landscape identified it as a one form of regional geography; however, acceptance of landscape as the subject matter of geography raised the discipline to the level of other logically defined fields of science which is an essential characteristic of systematic science. So what started off as another variant of regional geography gravitated more towards systematic geography during the prime of its influence in geographic academic and professional field. Schluter viewed that every small unit of areal distribution constitutes a physiographic unit in which all observable phenomena together make a distinct association; and in case of cultural landscapes, the association is rooted in similarities of function or common origin. In other words in the study of cultural landscape focus lies on the association of phenomena, not on the causal relationship among them. Though Schluter and Hettner both emphasized upon the variation of the regions (areal differentiation) Hettner stressed the ways in which the features of a region reflected the basic pattern of the physical earth, whereas Schluter focused attention on the interrelations of these features that gave the region its distinctive appearance (James).

Among the many geographers influenced by Otto Schluter's study of geography based on the unifying theme of the morphology of cultural landscape as a cardinal approach, Carl Sauer

(1889-1975) Professor at University of California, Berkley contributed significantly in this regard.

Carl Sauer in his work on 'Morphology of Landscape' in 1925, attempted to paint geography as a science that's entire focus as well as the scope lies in the landscape itself. The main objective of the geography according to Sauer is to establish and analyze the relationship of phenomena in the visible landscape. These connections or relationships of phenomena are because of spatial association not due to the causal relationship among the phenomena. The natural landscape is interfered and altered by human beings. The forms of the natural landscape are altered, modified or completely destroyed in some cases by the cultural intrusion of the man. The cultural landscape is carved out of the natural landscape by human beings conferring to a certain cultural heritage. Culture is the agent; the natural area is the medium, the cultural landscape the result (Sauer). Under the influence of one prevailing culture which is also dynamic, the landscape undergoes changes and modification. The transition of phases ceases according to Sauer till the cycle of development is reached. Rejuvenation in the cultural landscape is experienced when an alien or distinct culture sets in. The new culture soon superimposes the older one and the cultural landscape wears a new look. The natural landscape remains of utmost significance, for it the source of material and resources out of which a cultural landscape is fashioned out.

The importance of studying geography as a science the morphology of landscape is highlighted further by Carl O Sauer through his seminal work on the Morphology of Landscape. He successfully managed to draw the attention of the contemporary academic and professional world of geography. His idea of cultural landscape emanating from physical or natural landscape on the basis of a perceptible or observable form of (spatial organization/ arrangements) phenomena created an academic stir.

CONCLUSION: -

Though the two concepts of chorological science and morphology of the landscape sound distinct and seem to cross each other are in fact essential and integral part of the subject matter of geography. The ardent advocates of the two concepts though left no stone unturned in order to cement their claim complete academic dominance of their respective ideas.

Chorology which transformed into Regional geography faced the criticism on the ground of uniqueness and its insistence on being an idiographic science, whereas morphology of landscape which wanted Geography to be confined only to study the visibly perceptible association of phenomena in the space in the form of landscape and should desist incorporating Human distribution of non-material conditions like social, economic, psychological etc to the point when it becomes extremely necessary in order to study and understand the landscape process and its functioning. Geography should avoid considering the human distribution of non-material conditions/aspects in general description of the landscape. The idea of Geography being a science of morphology of landscape was myopic and parochial in its approach. Confining geography only to the study of landscape whether natural or cultural (it has to be the arrangement

of association and assemblage of observable phenomena) found some takers in German geographical academic cohort but it failed to cut ice elsewhere in Europe and America.

The regional geography, its opponents claimed is at best is methodology or approach to study geography, it's not a subject matter in itself. The Hartshornian idea of Areal differentiation was met with very stiff and vocal opposition from Prof. Schaeffer who categorically provided rebut. However, it is worth noting that both concepts dealt above in detail, traced their association with regional geography. Chorology, later on, became the regional approach and morphology of landscape also constituted another form of regional geography by highlighting its focus on the distribution of phenomena on the varying surface of the earth in the form of landscape. Both recognized that there were different kinds of areas on the earth and that these were distinct from their surroundings in that they showed a certain degree of uniqueness that could be defined. However, the morphology of landscape gradually drifted towards the systematic sciences when it started to harp upon the investigation of logic behind the association of observable phenomena in the space and in a sense implicitly argued for nomothetic rather than an idiographic approach where generalization in terms of formulation of laws are required.

The two approaches claiming to be the science of the study of geography fail to adhere to the parameters of systematic sciences. Chorology claimed itself to be the study of unique and variable character of the earth surface and need not follow the footsteps of nomothetic or law formulating approach which is essential for a systematic science, instead it argued for idiographic approach for geography, for it is a unique field science and need not formulate generalized or universal laws. On the other hand, landscape sciences started their academic sojourn from Germany as an independent yet distinct form of regional approach gradually drifted towards the systematic approach later on also failed to encompass general and universal laws. Falling way behind their objectives of being universally accepted as the sole concern and focus of Geography, chorological approach and morphology of landscape approach, nevertheless added a lot to the repository of the subject. The debate which commenced at the time of Hettner and Schluter between chorological study and approach of landscape science as the cardinal theme of the subject created a faction in the German school of thought. However, retrospectively, analyzing the turn of events and academic outbursts, we can safely presume that Geography as a subject was the real beneficiary.