

Subject: Geography CBCS (HONS)

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CC: 13T

UNIT II: Foundations of Modern Geography and Recent Trends.

2. Contribution of Humboldt and Ritter

The real march for geography began in the 19th Century. After the Great Age of Discovery, two leading German geographers - Alexander von Humboldt and Carl Ritter made valuable contributions in the field of basic sciences. This age again came to be known as classical age, and they are referred to as the founders of Modern Geography.

ALEXANDER VON HUMBOLDT (1769 - 1859)

He was a multi-sided genius. He was much impressed by the literary and scientific developments of early century. He undertook works in physics, chemistry, botany, geology, physiology, history and geography. He accompanied Forster on his journey. He travelled about 40,000 miles and made various observations. He performed all journeys with telescope, sextant, cynometers (for measuring blueness of sky) and barometers. He measured the temperature of air and ground, pressure, winds, latitudes, longitudes, elevations above the sea level, magnetic vibrations, nature

of rocks, types of plants and their relation to climate, altitude and human attitudes.

Humboldt's Concept of Geography -

- 1.) Earth Surface as the 'Home of man' - He was of the concept that the earth is an inseparable organic whole and he was concerned with the areal association of natural and organic phenomena.
- 2.) Geography is the science of spatial distribution of phenomena of the world.
- 3.) General geography is physical geography which deals with the interrelationship of phenomena that exist together on the terrestrial part.
- 4.) Humboldt presumed the concept of unity of nature as a causal interrelation of all the individual features in nature. He studied the phenomena in order to establish the
- 5.) Humboldt believed in the inductive method and emphasised the importance of empirical method of research.

CARL RITTER (1779 - 1859)

Carl Ritter, a scholar of diversified interest is also known as one of the founders of modern geographical thought. He was a dedicated field worker and believed in empirical research. He studied geography, history, pedagogy, physics, chemistry, mineralogy and botany. He was a professor of geography in the University of Berlin. He differed from Humboldt in that whereas Humboldt gathered his knowledge by explorations, he gathered his knowledge and views without it.

Works of Ritter

- 1806 - 6 maps of Europe
- 1807 - Geography of Europe - II
- 1811 - Essays on methodology
- 1817 - Publication of Erdkunde
- 1859 - Publication of 19 volumes of Erdkunde.

Ritter's Philosophy.

- 1) He was a determinist and according to him, "the earth and its inhabitants stand in the closest reciprocal relation and one cannot be truly presented in all its relationships without the other."

- 2.) He completely rejected the concept of pure geography. According to him, the landscape of any place is the interrelationship of climate, vegetation and human being.
- 3.) He organised the concept of relationship in space.
- 4.) He adopted man-centred geographical viewpoint, i.e. anthropocentric point of view.
- 5.) The concept of regional individuality and whole was the main aim of his book, *Erdkunde*.
- 6.) The scientific stance of Ritter was teleological, and his views of science sprang from his firm belief in God as the planner of the universe.
- 7.) He adopted regional study.

Reference:

- 1.) Fundamentals of Geographical Thought - Sudhepta Adhikari
- 2.) Evolution of Geographical Thought - Majid Hussain

VON THÜNEN'S MODEL OF AGRICULTURAL LANDUSE

The earliest of the spatial variation in agricultural activity theory is that of the German Johann Heinrich Von Thünen in 1826. He was a practising agriculturist. He studied the different agricultural zones around the city, presented an analytical framework for studying various types of cultivation around a city on the basis of economic relationships between a city and rural areas. He considered various problems on spatial exchange economy e.g. the influence of city on the price formation of agricultural goods, influence of distance from city upon the agriculture and net income of farmers and influences of growing cities upon the cultivated rural areas.

Basic Assumptions

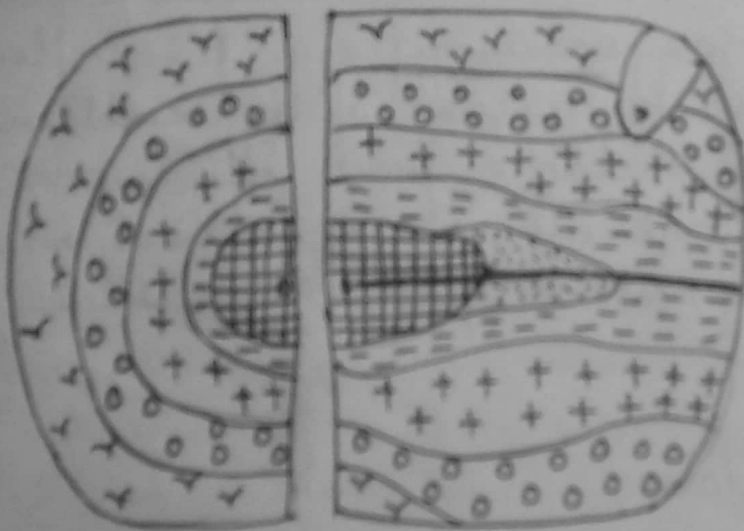
The theory initially makes the following assumptions: -

- 1.) Isolated state, cutout from outside influences.
- 2.) Single large city dominates as the sole urban market.

- 3) The assumption of a levelled featureless plain with equal fertility.
- 4) Mode of transportation and cost of transportation is uniform.
- 5) Surrounding plain provide food for city in return for service.
- 6) Farmer knows how to maximise his profit.

Zoning System of Von Thiinen:

Von Thiinen postulated that six concentric zones of agriculture would develop around the market city.



- Central City
- ▤ - Market Gardening & Milk Production
- ▦ - Firewood Production
- - Grain Farming without Fallow
- ▧ - Grain Farming Fallow & Pasture
- ⊙ - Three Field System
- ⊞ - Livestock Farming
- ~ - Navigable River

Location of Agricultural Product
(After Von Thiinen)

Zone - 1 - The land nearest to the market would be used to produce perishable items, e.g. milk and vegetable. These activities are concentrated in the inner zone because of the slowness of transportation and absence of refrigeration.

Zone - 2 - The inhabitant of second concentric zone would specialize in producing wood, with firewood in much greater demand than timber.

Zone 3, 4 & 5 - These areas would tend to be devoted mainly to grains and other crops. The distinction among these zones need not be spelled out here, except to note that with distance from the city, the intensity of cultivation would decrease.

Zone - 6 - This would be the region of livestock farming.

Modification - Von Thünen theory would be modified by the presence of a navigable river and a smaller market city. The river would provide cheaper transportation, hence its effect would be to lengthen out the zone along its course. The smaller city would serve zones around itself on a smaller scale than those around the larger city and extending further on the side away from the main city.