

Q:- what do you mean by cartography? Discuss about the meaning, nature and scope of cartography.

=> Introduction and definition of Cartography

The word 'Cartography' has been derived from two words - "Carta" or "Carte" which means maps and the "graphy" or "graphic" meaning the study of or the science of. Hence, cartography may be defined as a branch of science which is concerned with studies of various types of maps. In other words, cartography can be defined as a branch of knowledge that studies the art and techniques of map and chart making. Maps are among the most essential tools for those concerned with the study of earth and as such geographers and geologists are closely associated with the art of cartography. However, it does not imply that the star scientists and social scientists have nothing to do with cartography. In fact, all sciences make use of some amount of cartography for the representation of data in the form of maps or the charts. Cartography is not merely the skill to draw maps, it is also concerned with map generalization and designing. Map generalization and designing include processing information so that it can be depicted with the help of certain techniques on the map. It is also concerned with the selection of suitable techniques for representing the information on maps. A No. of aspects of map making

for e.g. the methods of re-production to be used, have to be considered in map designing.

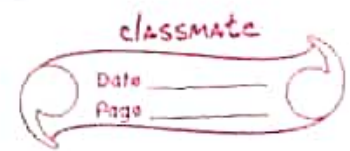
Meaning of Cartography:

Cartography is generally considered to be the art and science of designing, constructing and producing maps. It includes every aspect from original field work to final printing and marketing of maps. The scope of modern cartography is however not limited to these processes alone. It is also treated as a science of human communication.

Nature of Cartography:

people must have assistance in observing and studying the great variety of phenomena that concerns them. Some things are very tiny (small) and we must use complex electronic and optical means (instruments) for e.g. microscope) to enlarge them so as to understand their configuration and structural relationship. In contrast, geographical things are so extensive that we must somehow reduce them to bring them to into view. Cartography is a technique fundamentally concerned with reducing the spatial characteristics of a large area, a part or all of the earth or another celestial body and putting it in a form that

Elements of Cartography - (Robinson.)
Maps and Diagrams - (Monkhouse.)



makes it observable. Just as spoken and written language allows people to communicate beyond the restrictions of having to point to everything, a map allows us to extend the normal range of vision. In other words, it makes possible for us to see the broader spatial relations that exist over larger areas.

A modern geographical map is much more than a mere reduction. If it is well made, it is a carefully designed instrument for recording, calculating, analysing, displaying and in general understanding the interrelationship of things in their spatial relationship. Nevertheless, its most fundamental function is to bring things into view.

Maps range in size from tiny ~~portrayals~~ portrayals that appear on some postage stamps to enormous wall maps used by civilians and military security groups to keep track of events and forces. They all have one thing in common to add to the geographical understanding of the viewer.

All beings live in a temporal and spatial event, in which everything ^{is related to everything} is to one way or the other. Since classical times, curiosity about the geographical event has steadily grown and ways to represent it in a meaningful way have become more and more specialized. Today, there are many different kinds of map making and the objectives and methods involved seem very different. It is important to realize, however, that all types have some objective of ~~surviving~~ serving as an interpretation of the geographical milieu. Therefore, however dissimilar the maps may seem, the cartographic methods

involved are fundamentally alike.

Scope of Cartography

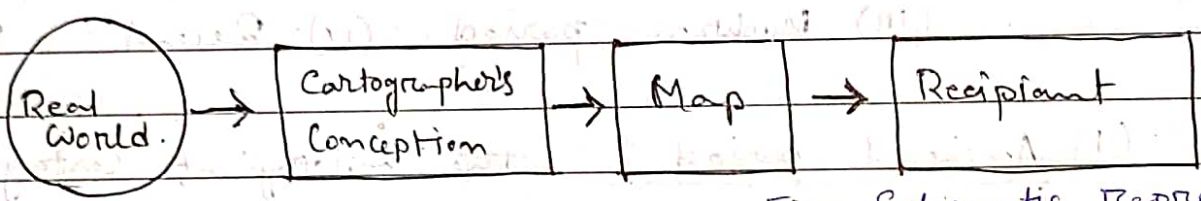
In the past, the term Cartography and Cartographer referred only to the art of making maps. Even so, the terms were quite inclusive, often encompassing the surveying operations involved in acquiring the data to be presented as well as actual techniques of preparation of maps.

Since the mid 20th Century, the scope of the field has been greatly enlarged to include the study of maps as documents. According to multidisciplinary dictionary of technical terms in cartography, it is defined as -

Cartography is the art and science and technology of making map together with their study as scientific documents and works of art. In this context, maps may be regarded as including all types of maps, plans, charts, diagrams, sections, three-dimensional models and globe representing the earth or any celestial body at any scale. //

In a broad sense, cartography now includes any activity in which the preparation and use of maps is a matter of basic interest. This includes teaching the skills of maps use, studying the history of cartography, maintaining map collection and the associated cataloging and bibliographic activities and designing and constructing

maps, charts, plans, diagrams, atlases etc. Although each area involves highly specialized activities and often requires particular training. They all deal with maps and it is the special character of the map as the central intellectual object that unites those who work with them. All maps are reduced (Scale) representations of the earth or other celestial bodies. Maps are prepared according to geometric plan with generalized symbolic representation of reality. Although two maps may be different, they will have more in common with each other than with ~~another~~ any other form of non-graphical communication. The cartographic communication system may be presented in the following manner -



— o — Fig- Schematic representation of the scope of Cartography.

and its distribution on the earth's surface both horizontally and vertically, effects of human economic activities on different components of the atmosphere leading to weather and climatic changes and effects of weather and climate on man and his activities in particular and other flora and fauna in general.

(Sub matter) Aims and Scope of climatology :-

The primary goal (objective) of climatology is the study of demarcation, identification and distribution of different types of climates, the mode of origin of different types of climates, causes and processes that leads to climatic variations both horizontally and vertically in the world. It also includes different elements of weather and climate, which give birth to different climatic types, the interaction of weather and climate with human society and consequent impacts on human activities and human health both physical and psychological.

The subject climatology does not confine its scope only to the study of description of elements of weather and climate like insolation, temperature, air pressure, atmospheric circulation, humidity and precipitation and characteristics of different types of climates. But it has widened its scope and included applied aspects (applied climatology) including the explanation of relationships between climate and human activities and processes and causes of such relationship at varying