

Contribution of Phoenicians in the field of Geography

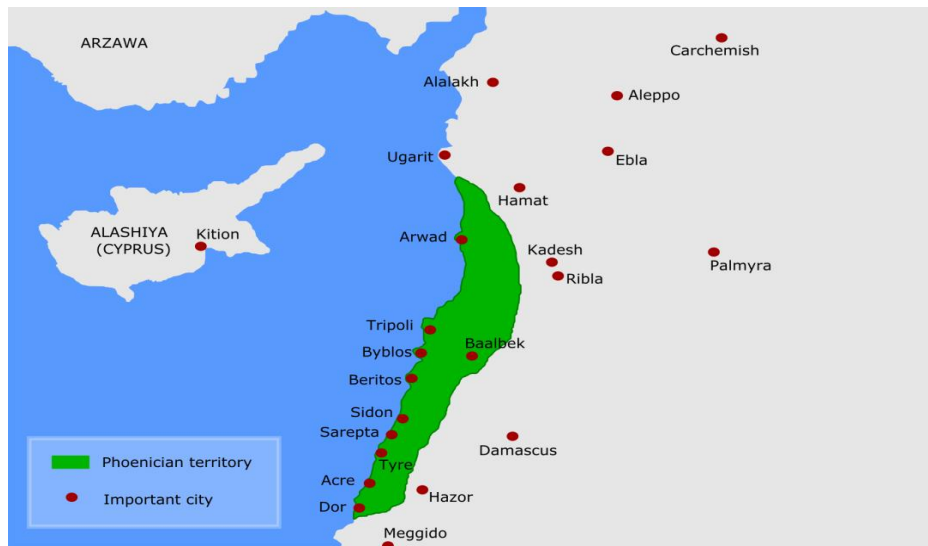
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More than 2,500 years ago Phoenician mariners sailed to Mediterranean and southwestern European ports. The Phoenicians were the great merchants of ancient times. They sold rich treasures from many lands.

These Phoenicians (the Canaanites, or Sidonians, of the Bible) were Semitic people. Their country was a narrow strip of the Syrian coast, about 160 miles (260 kilometers) long and 20 miles (32 kilometers) wide. The area now comprises Lebanon and parts of Syria and Israel. Their territory was so small that the Phoenicians were forced to turn to the sea for a living. They became the most skillful shipbuilders and navigators of their time. They worked the silver mines of Spain, passed through the Strait of Gibraltar, and founded the city of Cadiz on the southern coast of Spain. They sailed to the British Isles for tin and may have ventured around southern Africa. They founded many colonies, the greatest being Carthage.



The Phoenicians began to develop as a seafaring, manufacturing, and trading nation when the Cretans--the first masters of the Mediterranean--were overthrown by the Greeks (see Aegean Civilization). Not only did they take the fine wares of the Eastern nations to the Western barbarians, but they also became skilled in making such wares themselves--especially metalwork, glass, and cloth. From a snail, the murex, they obtained a crimson dye called Tyrian purple. This was so costly that only kings and wealthy nobles could afford garments dyed with it.

Perhaps the most significant contribution of the Phoenicians was a syllabic writing, developed in about 1000 BC at Byblos. From this city's name come the Greek word *biblia* (books) and the English word Bible. This form of writing was spread by the Phoenicians in their travels and influenced the Aramaic and Greek alphabets

After the Jews and Egyptians, it was the Phoenicians who contributed to the advancement of geographical knowledge. Phoenicians occupied Asia Minor (coastal Turkey, Lebanon, Syria, Israel) while Tyre (Tyr) and Sidon (Saida) were their major ports and towns. Gadeira (Gadis) was established by the Phoenicians as early as 1100 B.C., while Carthage (near the present Tunis) and Utica cities were established in about 813 B.C. along the northern coast of Libya (Africa) as the colonies of Phoenicians.

Thus, Phoenicians were the first repositories of geographical knowledge. But their narrow, selfish and secretive policies prevented them from communicating to others the information they had obtained about the distant nations and trading centres.

The Phoenicians were expert sailors who are credited with discovering how to use the North Star to gauge direction. As a result of this discovery, the Phoenicians could sail on the open seas and in the ocean; they no longer had to use the coastline as a navigational aid. Phoenician sailors passed this important information on to the Greeks and other Mediterranean cultures.

CONTRIBUTION OF GREEKS:

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Greek was one of the well flourished civilization dating back to 500Bc – 200Bc established in Greece and its surrounding areas. There is no doubt that the roots of modern geography are to be traced back to the thoughts of ancient Greek, because Greeks were pioneers in many branches of knowledge. Not only geography has its origin during Greek period but other subjects also. Greek period is rightly called as the “**Golden period**” because all Greeks provided a framework of concept that guided the western thinking for many centuries .It was the most advanced economy of the world.The labour pays of the Greeks were 12kg of wheat which was three times higher than that of Egyptians which is only 4kgs per person.They give their children religious knowledge.First established schools were peripathic school and plantonic academy.The private education was given upto the age of 18years. Followed by this they were given military training for two years.The fertile soil of greece has given birth to large number of scholars like Homer,Thomal,Anaximander, Hecataeus,Herodotus,Erastoshenes,Aristotle,Plato,Hipparchus etc.

Factors responsible for the contribution of Greeks:

a)Greeks possessed philosophical and scientific aptitude.They focussed on the role of reason and enquiry and were having the quest for knowledge .They used to make considerable emphasis on literature.

b)They were not secretive,they were very open minded.

c)Location of Greece:It was a coastal area and was an earthquake zone,there were hot springs and valcanoes which were considered by some of them as supernatural things while others tried to explain them with scientific reasonings.

d)The establishment of the famous Museum and library at Alexandria provided impetus to Greek scholars to know more about the phenomena of nature,places and people.

c)The millet centre of learning also contributed to their geographical knowledge.

Hecateus was a Greek scholar of 6th century Bc from Millets (the centre of learning in those days).He was a pioneer Greek scholar and one of the earliest writer of Greek prose .He was the first Greek scholar to classify the information about then known world brought to the millets and named it as “Ges-periodos”,it was the first systematic description of the then known world,that was published by the end of 6th century BC . Ges-periodos describes the places in the vicinity of mediterranean sea which was called as perplus means coastal area. Hecateus divided his book “Ges-periodos”into two parts ,part ‘A’dealing with geographical information about Europe’ and part B dealing with Libya. Libya in those days consists of

Asia and Africa. Hecateus described earth as a spherical body surrounded by water called as Oceanus'. Hecateus was a great traveller and has travelled extensively which is clear from his "periplus" meaning coastal survey in which he described all the places around Mediterranean sea. He had also visited Egypt. He also navigated river Nile and had described its sources as the Southern Ocean. Hecateus for the first time gave two approaches for the study of geography

a) Normathetic or law seeking approach.

b) Ideographic approach (descriptive)

Hecateus prepared the world map but it was based on the map of Anaximander and did some modification in it. He divided it into two parts by drawing a line passing through Hellespont, Caspian sea and Caucasus mountains. The northern part he named as Eurapa and southern part as Libya that includes Africa and Asia. The literature reveals that most of the work of Hecateus is not intact but was unfortunately lost.

Herodotus was an outstanding Greek scholar of 5th century BC. There is no exaggeration in the statement to say that Herodotus was the **father of history**-- first and foremost historian but there are very good reasons for calling him as a great contributor in 'ancient geography'. Firstly it was Herodotus who placed historical events in a geographical setting and most of his historical accounts are truly geographical in nature. Secondly it was Herodotus who believed history must be treated geographically and all geography must be treated historically.

He contributed both in physical and human geography. Herodotus came up with the concept that Egypt is the gift of river where he emphasized that silt and mud of river leads to development of delta. It was he who for the first time gave concept that winds move from cold to hot places. He attempted to measure the age of earth on the basis of rate of sedimentation and estimated that one foot of sediment is formed in 880 years. Taking the total sediment strata 158 kms thick, Herodotus calculated the age of the earth as 440 million years when the exact age of earth is 4.6 billion years. In human geography it was Herodotus who for the first time gave an interesting detail of then existing tribes and their lifestyle, on the basis of this, anthropologists consider him as the first ethnographer.

Eratosthenes an eminent Greek scholar has been rightly regarded as " **Father of Geography**". He put a stamp on the subject of geography as the "study of earth as the home of man". His outstanding contribution for which he is renowned throughout the world is his measurement of the circumference of world. Eratosthenes was not only an ancient scientific scholar but also a mathematical geographer and was well versed in mathematical geography.

He has also prepared a world map with respect to correct distance. His remarkable contribution was his text "Geographica". He also described the five climatic zones: one torrid zone, two temperate zones and two frigid zones. He also measured different latitudes and longitudes. It is this reason that Eratosthenes was also considered the father of "Geodacy".

Homer was the well known Greek and probably the first poet whose work was published in the form of Illiad and Odyssey. He described the four winds coming from different directions. **Thales** was the first Greek genius, philosopher and traveller who originated several basic theorems of geometry. He was also the first who started the measurement of the earth and location of things on the face of the earth. **Anaximander** is credited with the introduction into the Greek world of a Babylonian instrument known as Gnomon. Gnomon is a pole set vertically above a flat surface on which the varying position of the sun could be measured by the length and direction of the shadow cast by the verticle pole.

Reasons for the decline of Greeks:

1. Greek faced some epidemics which lead to a lot of disturbance among Greeks.
2. There were some drought conditions in Greece which affected the Greeks badly and led them towards declination.
3. Romans fought a war with Greek in which they won and flourished all over.
4. It was this period when Roman empire was in its zenith and was largest centralized empire in the world.
5. There was fire in the library of Alexandria in which some 4 lakh books were destroyed. This also led them towards declination as they had now hardly any literature available.

Contributions of Arab Geographers

Arabs were the first to show their interest in geography because of their special surroundings. They gave pictorial form to their conception of the universe on the basis of faith. Their outlook was purely theological. They made outstanding contributions in the fields of mathematical, physical, and regional geography. Their achievements in climatology, oceanography, geo- morphology, linear measurement, determination of

cardinal points, limits of habitable world, sprawl of continents and oceans are highly appreciable.

Contribution to Mathematical Geography:

1. Arabs were highly influenced by the Greek ideas about the shape and size of the earth. Earth was considered as the centre of the universe, around which revolved the seven planets.
2. The prime meridian plotted by Ptolemy was used by the Arabs for the calculation of time and longitudes. This meridian used to pass through Fortunate Islands, Abu Mashar.
3. For determination of latitudes, the Arabs made use of the sun's shadow where it happened to be on the meridian.
4. Al Battam measured the circumference of the earth as 27,000 miles.

Contribution to Climatology:

1. In AD 1921, Al-Balaxhi gathered climatic data and information from Arab travellers and prepared the first climatic atlas of the world— Kitab-ul-Ashkal.
2. Al-Masudi described Indian monsoons.
3. Al-Maqdisi divided the world into 14 climatic regions. He presented the idea that the southern hemisphere was the most open ocean and most of the world's land area was in the northern hemisphere.
4. Ibn-Khaldun, Al-Beruni, Al-Masudi described the influence of climate on vegetation and lifestyle of the people. According to Ibn-Khaldun, people of the warm climate are passionate. He also said that Negros are black because they live in warm climate. People try to build their houses and settlements on the southern slopes near water sources and springs.

Contribution to Geomorphology:

1. Al-Beruni in his Kitab-ul-Hind opined that the stones became round because they had fallen along torrential mountain streams. He also discovered that alluvial soils became finer in texture farther away from mountains.

2. Avicenna keenly observed the works of agents of denudation and ascertained that

(i) Mountain streams erode the slope;

(ii) The highest peaks occur when the rocks are especially resistant to erosion;

(iii) The mountains are immediately exposed to the process of wearing down as soon as they rise up.

Contribution to Oceanography:

1. The Arabs proved that the tides are caused due to the gravitational pull of the sun and the moon,

2. Al-Masudi observed variation in the colour of the ocean water and attributed it to the variation in the salinity of water and presence of vegetation.

Impact of Dark-ages on Geography

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The **Dark Ages** is a term often used synonymously with the Middle Ages. It refers to the period of time between the fall of the Roman Empire and the beginning of the Italian Renaissance and the Age of Discovery. Many textbooks list the Dark Ages as extending from 500-1500, although it should be noted these are approximations.

The term Dark Ages was coined by an Italian scholar named Francesco Petrarch. Petrarch, who lived from 1304 to 1374, used this label to describe what he perceived as a lack of quality in the Latin literature of his day.

Other thinkers came along and expanded this designation to include not only literature, but also culture in general. The term thus evolved as a designation for the supposed lack of culture and advancement in Europe during the medieval period. The term generally has a negative connotation. Debate continues to rage among historians over whether the Middle Ages were, indeed, dark or not. Increasingly, many scholars are questioning whether the term Dark Ages is an accurate description or not.

The ancient Greek and Roman civilizations were remarkably advanced for their time. Both civilizations made a number of contributions to human progress, notably in the areas of science, government, philosophy, and architecture. Some scholars perceive Europe as having been plunged into darkness when the Roman Empire fell in around 500 CE. The Middle Ages are often said to be "dark" because of a supposed lack of scientific and cultural advancement.



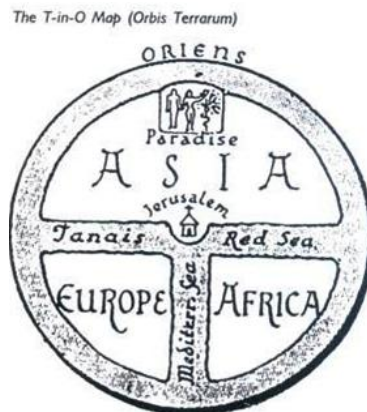
The decay and disintegration of the Roman Empire led to the decline in literature, science, and explorations in the European and South-West Asian parts of the world. This, however, does not mean that geographical knowledge at that time did not flourish in China, India and South-East Asia.

The period of about five hundred years, i.e., 200 A.D. to 700 A.D., which followed the publication of Ptolemy's *The Guide to Geography* was an age of

complication, turmoil and abridgement. During this period, not a single work of originality in any field of the sciences and humanities was written. There was continuous deterioration, both in the theory of geography and the practice of exploration from the glories of the Greek and Roman periods.

Most of the correct classical concepts were forgotten and old errors reappeared about the map of the world and the habitable parts of the globe. Firmianus (260-340 A.D.), one of the leading protagonists of Christianity, denied the concept of a spherical earth. The interpretation of the nature of the universe reached its fullest expression in the work of Cosmas of Alexandria (600 A.D.). His book *Christian Topography* written about A.D. 550, refuted all the pre-Christianity views on geography. He worked out on earth modelled in all respects upon 'Moses Tabernacle'. Cosmas, who was a merchant in early life, travelled fairly widely.

During the period of Christian Europe, there was a deterioration in the art of map-making. The fairly accurate delineations of the better-known coastlines of the Greco-Roman period were lost, and instead maps became purely fancy. This was the period of the so-called TO maps.



Completely dominated by Christian supernaturalism, the map-makers of Dark Age made no serious attempt to show the world as it actually is. Instead, Firmianus followed an ideal pattern in his own mind, concentrating on artistic and symbolic expression.



About the Dark Age, the German scholar Schmid summarizes: “New countries were not discovered; the empire became smaller not greater; trade relations, thanks to the war in the east, the south and the north, became more and more restricted; besides, there was no longer any question of research in industry and of the spirit of discovery. Thus, the only books that were put together were compilations from older works.”