

QUESTION ONE

Read the case study below carefully and answer questions that follow:

HISTORICAL DEVELOPMENT OF MAPS

One of the oldest maps is the Babylonian map of the world. A clay tablet created around 700 - 500 BC in Mesopotamia. It depicted a circular Babylon at the center, bisected by the Euphrates River, surrounded by the ocean. It did not have much detail, but a few regions named including Assyria. Maps are major tool-kits in the teaching of geography in that they provide useful information of sorting and communicating information about people and places on the earths' surface.(Lambert & Baldmore 2000). A geography teacher must make use of various maps to enhance the teaching of the subject. Maps make us have the world in our hands.

The origin of maps is dated back, when maps were more a form of artistic expression. The Romans drew an extensive map of their empire on a long scroll. It was not realistic. The first great attempt to make mapping realistic came in the second century AD, with Claudius Ptolemy. He was an astronomer and astrologer obsessed with making accurate horoscopes, which required placing some ones birth town on a world map. Ptolemy was able to devise a system of lines of latitudes and longitudes and plotted some 10,000 locations from Britain to Europe, Asia and North Africa. Ptolemy's work was lost to the West for almost a thousand years with the fall of the Roman Empire. Maps were basically used for story telling. In the 12th century, a map was made by the Islamic scholar al-Sharif al- Idrisi commissioned by his protector and patron, King Roger 11 of Sicily, a Christian. This blended Islamic and Christian cites together.

The maps cared less on accuracy. There were no scales used. There were also errors in writing names of places. A map showing the mountain range depicted a stretch near the West Coast of Africa was first drawn up in 1798 by a British cartographer James Rennel and was copied throughout most of the 19th century. In 1889, a French adventure went to the region and reported that there were barely any hills in the area.

At the dawn of Renaissance, maps were crossing oceans and Kings engaged in empire - building needed to chart their lands with the development of Technology and more accurate maps were drawn.

Also the advent of the reliable compasses helped create 'Portolan' maps with crisscrossing the seaport from port to port, helping guide sailors. Ptolemy's ancient work was re-discovered and new maps were drawn based on this ancient calculations. Ptolemy's maps assisted voyages such as Christopher Columbus 'voyage to America. The maps were not accurate and so misled the voyages .For example, those mistakes led Columbus to believe the voyage to Asia was shorter. As sea trade increased, maps became relevant. The inland of America was a mystery; map makers often referred to it a big blank space called 'terra incognita'. Mercator Gerardus (1569) figured out the best technique to develop a globe. Still the maps lacked accuracy. Rose Mitchel a map activist at the National archives of the UK, states that maps were 'used to settle arguments'. Later educated people started 'to show off how knowledgeable they were'. Maps were data made visual. Maps were just not symbols of power but conferred power. A good map assisted the military in a battle. Maps gave empires to grab the continent of Africa as the depredation of colonialism.

In the 17th century, buccaneer Bartholomew Sharp captured the Spanish ship due to his knowledge on cartography. The 19th century surge in mathematics and measurement technology made mapmaking explode. In France, the Cassini family crisscrossed the country to calculate its dimensions with precision using 'Triangulation' and the break through in binocular lenses allowed surveyors to measure scores of miles at a glance making world maps increasingly accurate. Local mapping became deeply granular. The British Ordnance Survey began mapping the UK down to the square yard and the German entrepreneur Karl Baedeker produced similar nuanced maps of European cities. Tourists could now confidently tour foreign realms, able to locate buildings, much like today's citizens peering at Google maps on their phones.

In the 20th century, maps helped win the Second World War. Wiston Churchill fought with guidance from his 'map room'. He adored his bedroom wall with a huge map showing Britain's coast, constantly visualizing in his mind how to

defend it against invasion. Today maps seem alive. They speak in robotic voices telling us precisely where to go-guided by satellites and mapping of companies like Waze, Google, Bing and Mapquest. The robot voice tells you to turn right, turn left with you at the center. This creates fun in the application of on -line maps. People today see far more maps in a single day than before. The Historian Brotton once visited google and was shown a wall map-sized version of google earth. He was delighted to locate his own town. Rumsey quotes 'The more you interact with maps, the more informed one becomes even before you reach the areas mapped on the earth surface'. Rumsey's works of collecting maps has exposed people to the outside world.

Maps work hand -in-hand with photograph interpretation in the study of geographical facts.

Required:

- With reference to the case study and knowledge acquired from this course, what would be your concept of a map. **(3 marks)**
- Using the Topographical map of Taita Hills below, answer questions that follow.



Analyze three reasons for the difference in the vegetation cover in Taita Hills area.

(3 marks)

- c) From your observation of the map, propose three reasons for high population Density at Mkwachunyi area.

(3 marks)

- d) With reference to the case study, suggest three reasons ancient geographers endeavored to develop maps.

(6 marks)

- e) Identify four natural features on the Western side of Taita Hills, examine their effects on the area.

(8 marks)

- f) Assess four advantages of photographs over maps

(2 marks)

QUESTION TWO

- a) Evaluate the application of any five types of maps one would use in the teaching of geography.

(10 marks)

- b) Cross -sections are used by geography teachers in map interpretation. Using the knowledge acquired, sketch a cross - section of Kenya, indicate **five** main land forms.

(5 marks)

QUESTION THREE

- a) Explain what mapping is.

(2 marks)

- b) Analyze five attributes of a good map **(5**

marks)

- c) Explain what topographical maps are; explore four of their significance in cartography.
(8 marks)

QUESTION FOUR

- a) Kamau a geography teacher in Makutano Junior School in Makweni County is to select maps for teaching a geography topic. Describe five criteria he would apply.

(5 marks)

- b) Examine four challenges encountered in the use of aerial maps.
(4 marks)

- c) Cartographers develop maps for varied uses, assess the application of the following thematic maps.

- i. Analytical maps
- ii. Polythematic maps
- iii. Synthetic maps

(6 marks)

QUESTION FIVE

- a) The application of photographs in the teaching of geography topics may not achieve the required objectives. Justify with six reasons.

(6 marks)

- b) Students were requested to enlarge maps of East Africa. Analyze three main techniques they would apply.

(9 mark)

QUESTION SIX

a) Describe the use of three kinds of isopleths to identify spatial patterns on maps.

(5 marks)

b) Ancient geographers used colour to identify 'wealthy' from 'low class' settlements. Assess five techniques colour is applied in the identification of spatial features on modern maps.

(10 marks)