

# A Wakanow Guide to Geography

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Cartography refers to the study and application of making maps. Cartographers, also known as mapmakers, combine scientific, mathematical, aesthetic, and artistic disciplines to depict the spatial orientation of an area. Cartographers may create a map to depict the physical and abstract characteristics of an object. The physical characteristics may reflect natural landscapes and man-made infrastructure. The abstract characteristics may refer to political and social distinctions, such as imaginary boundaries, national divisions, and historical references to specific events, people, and places. Cartographers may also choose to leave out irrelevant aspects of a given area.

Each illustration found on the map provides valuable information for the reader. Cartographers may choose any type of map format to make it suitable for its target audience. There are many different types of maps, including reference, thematic, topographic, and atlases. Many people use maps in their professions, including geographers, surveyors, meteorologists, sailors, pilots, and soldiers. In fact, anybody can purchase maps. In the past, ancient explorers and sea captains relied on their maps to navigate through strange lands. Today, astronauts use space maps to explore our galaxy. Maps are likely to be an integral part of human civilization for years to come.

## **The Different Stages of Mapmaking**

Cartographers create maps using a specific process. The first step involves figuring out the location intended for depiction. Cartographers may identify their location by finding two main points or landmarks. Landmarks are recognizable objects that can be identified from miles away. A typical landmark may be a mountain or important building. This method enables people to spot the landmark on the map when approaching it.

Cartographers may include a set of latitudinal and longitudinal lines on the map to divide the land into manageable sections. Latitude lines are shown as horizontal lines that run parallel to the Equator. Longitude lines are shown as vertical lines that run perpendicular to the Equator.

The second step involves figuring out the scale of the map to determine the distance between objects. A map reader needs to know the distance between a building on a map and the nearest bus station. A map can only depict that by scaling the distance to a fraction of the actual size of an area. The scale should still remain proportionate to reflect the accurate distance between the depicted objects. In other words, one centimeter may be equal to one kilometer in real life.

Mapmakers apply the previous concept of scalability in step three when creating a legend full of symbols. Cartographers create a legend full of symbols to help identify objects. For instance, a series of triangles may depict mountainous terrain. Symbols make it easy for readers to know what they are looking at as they approach the depicted

area. Legends may include small images, shading, and different colors. Map readers can find the legend somewhere on the side of the map.

The fourth and last step involves labeling everything on the map. A map may be easy to read for a person who knows the landscape, but it can confuse others new to the area. Therefore, adding and naming the streets and landmarks will make it easier for the reader when coming in contact with the depicted area. Labels are one of the most significant parts of a map.

### **Lewis and Clark: The Era of Mapmaking**

Mapmaking originated as far back as the ancient Greeks. However, none compared to Lewis and Clark, two famous explorers and mapmakers during the 1800s. When Lewis and Clark embarked on their exploration to West America, they already had reliable mapmaking skills to get to their destination. They understood the basic principles of mapmaking, including latitudinal and longitudinal lines as reference points for pinpoint accuracy. They learned these mapmaking skills from the tools that were developed during the 1600s by European sea explorers.

### **The Compass as a Mapping Device**

The compass works in tandem with a map to help locate the right direction for travel. A compass points to the North Pole, making it easier to locate each of the four cardinal points from a specific location. In other words, explorers use a compass to find North and then determine which direction they should travel in using the map. Apart from using it with a map, a compass comes in handy when explorers get lost in the middle of nowhere.

### **Navigating with the Celestial Bodies**

Sailors might find it difficult to spot landmarks in the open sea, which makes it hard to navigate using a map. While sea explorers did use maps that depicted the land around them, they also used the stars to navigate their vessels. Explorers observed the position of the stars to calculate how far they were from the horizon, a practice that became coined as celestial navigation. After completing their voyage, many explorers updated their maps to reflect their journey. The updated version of the map was reduced in scale to make it more accurate for the next expenditure. The final version was sent to an engraver who prepared it for printing.

Modern explorers still use paper maps today; however, many have become reliant on technological gadgets to find their way. The advent of high-tech satellites and GPS devices has made it easier for people to get around. The GPS device still uses maps, except in digital format. Old maps were carved on wood blocks or printed on paper. Older maps tended to have huge blank areas if explorers never set foot in certain areas.

It took a long time for older maps to become complete and accurate.

**Follow these links to learn more about cartography:**

- [Cartography Concepts: A Student's Guide to Mapmaking](#)
- [PBS: Mapmaking Classroom Resources](#)
- [The Mathematics of Cartography: History of Mapmaking](#)
- [National Geographic: Mapmaking Guide \(6-8\) \(PDF\)](#)
- [The University of Texas Libraries: Glossary of Cartographic Terms](#)
- [The University of Wisconsin-Madison: The History of Cartography](#)
- [Brief History of Maps and Cartography](#)
- [Henry-Davis: Cartographic Images](#)
- [The Art of Cartography](#)
- [The University of Nebraska-Omaha: What is Cartography?](#)
- [What is Cartography: Types of Maps](#)
- [The World's Most Useful Online Map Database: Modern Map Collection: Political, Physical, Thematic, Outline](#)
- [How Cartographers Use Symbols \(PDF\)](#)
- [Harvard University: Elements of Cartographic Style](#)
- [The University of Texas-Arlington: Maps, Atlases, and Cartographic Collections](#)
- [HowStuffWorks: How Maps Work](#)
- [Cartography and Geographic Information Society](#)
- [The International Cartographic Association](#)
- [Ball State University: Maps and Cartography \(PDF\)](#)
- [The University of Georgia Libraries: Online Cartographic Resources](#)