

★ HISTORY AND GEOGRAPHY ACTIVITY 5



Roman Roads

People in the modern city of Rome still drive over portions of the Appian Way. Started in 312 B.C. by Appius Claudius Caecus, the Appian Way was one of the first Roman military highways. How did the Roman Empire use its roads?

Ever since draft animals first pulled wheeled vehicles, people have built roads. The best road builders of the ancient world were the Romans. Road building was a key factor in Roman military conquest, enabling generals to move their legions quickly from one flash point to another in a vast empire. Roman soldiers could cover 30 miles (48 kilometers) a day if roads were firm and dry. Eventually, a network of more than 50,000 miles (80,000 kilometers) of roads, regularly marked with milestones, laced together the Roman Empire.

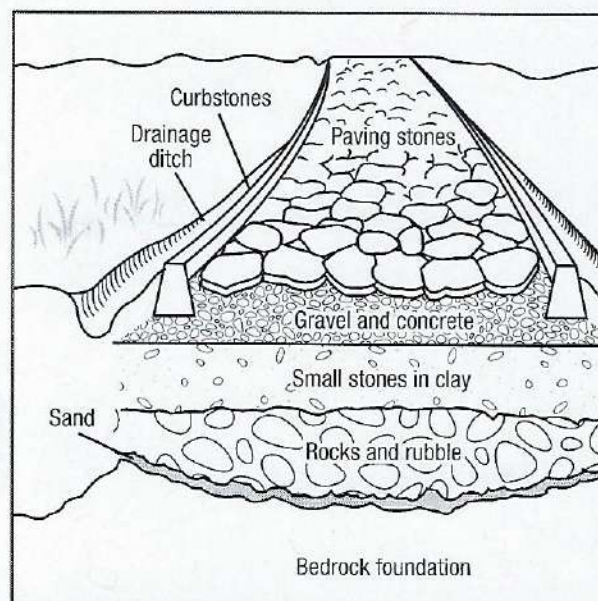
Designed to handle military carts hauling cargo weighing as much as 1,000 Roman pounds (330 kilograms), Roman roads have lasted for centuries. While earlier roads often meandered along animal trails and contours of the terrain, Roman roads cut a remarkably straight line no matter what obstacles lay in their path—swamps, mountains, and even ravines.

Construction began with engineers laying out two trenches 40 feet (12 meters) apart, enabling them to analyze the composition of the subsoil. Then under the watchful eyes of supervisors, teams of soldiers dug down several feet to prepare the roadbed. On top of the flattened layer of sand came three additional layers that cushioned the top layer of paving stones.

A convex road surface—sloped from the center down toward the sides—drained water off the road into ditches. In almost any weather, legions of troops, merchants with carts, and postal carriages could

The Appian Way

[Appius Claudius Caecus] caused all the paving stones to be polished and cut so as to form angles and had them jointed together without any kind of cement. They adhered so strongly that to look at them they do not seem to be jointed at all but to form one whole mosaic of stone.



The Romans adapted their road-building technology to the terrain and also to available building materials. The road shown above would have been constructed on solid dry ground. In an unstable, marshy area, the Romans would have laid a road on timber foundations pinned to the ground by stakes.

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continue their journeys. Most private individuals rode two-wheeled chariots behind a team of two to four horses. The fastest four-wheeled freight wagons were drawn by eight horses in summer and ten during the winter. They sped past most traffic, covering up to 75 miles (120 kilometers) per day.

People in different places and at different times have developed a variety of ways to move over distances—by land and by sea and, most recently, by air. These methods of travel have been used to carry people, their natural resources, their manufactured

goods, and even their ideas. Over the years, the movement of people develops a regular pattern, in some places, following the same major historical trade routes for many centuries. In other places, people may carve out new routes of travel. To develop economically and politically, people must create an effective transportation network to link all parts of their territory. In addition, they can improve their means of transportation with technological innovations in, for example, the areas of navigation, shipbuilding, road building, and laying railroad tracks.

APPLYING GEOGRAPHY TO HISTORY

DIRECTIONS: Answer the questions below in the space provided. Use another sheet of paper if necessary.

1. What sorts of things do people need to be able to move?

2. Why did a system of roads help the Romans develop economically and politically?

Critical Thinking

3. **Analyzing Information** Rome's roads facilitated administering a vast empire. What is the meaning of the expression "all roads lead to Rome"?

4. **Making Comparisons** The "highways" of the ancient Greeks were actually sea-lanes and navigational channels throughout the Mediterranean Sea. Compare the advantages of movement by water for the Greeks with movement by land for the Romans.

Activity

5. Modern roads are designed by highly trained civil engineers. Write an essay explaining the ways modern roads are similar to ancient Roman roads and ways they are different. What problems might a civil engineer face in designing roads today?