

**CHAPTER**  
**16**  
**Section 2**

**GEOGRAPHY APPLICATION: HUMAN-ENVIRONMENT INTERACTION**

*Mayan Irrigation Techniques*

*Directions: Read the paragraphs below and study the illustrations carefully. Then answer the questions that follow.*

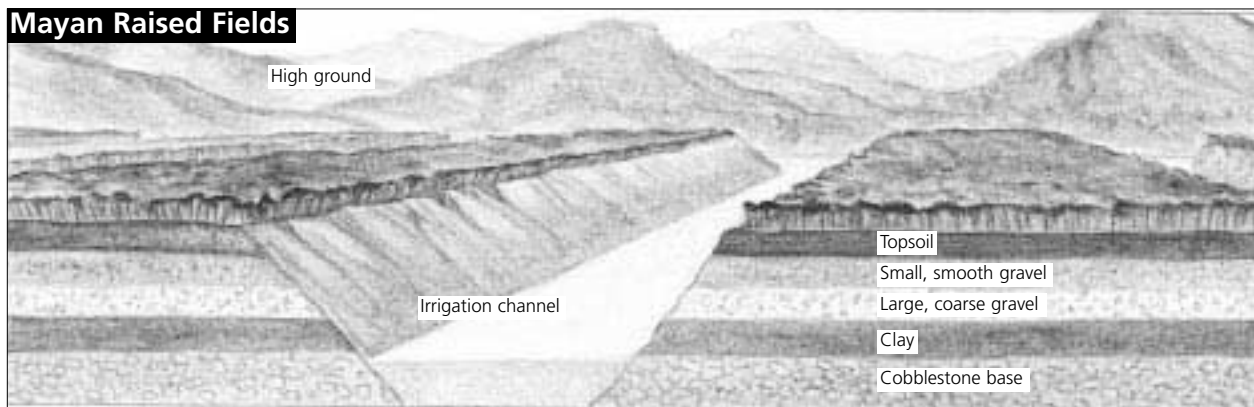
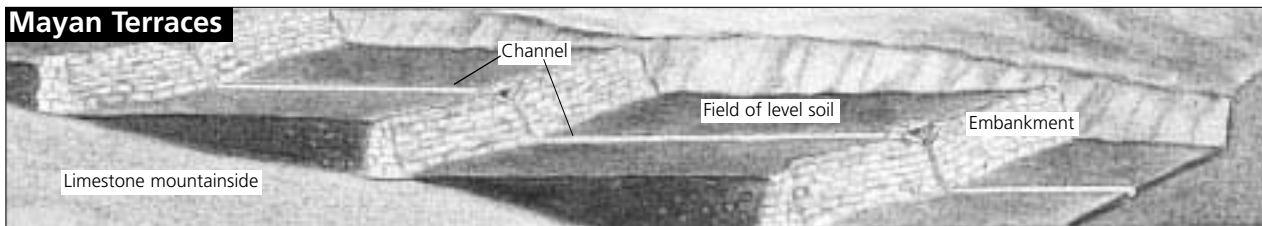
The Mayan Empire began in central Mexico around 400. As their population grew, the Mayans needed to increase their food supply. As a result, innovative Mayan farmers developed different farming techniques to overcome a variety of geographic obstacles.

The first illustration below shows how the Mayans coped with a mountainous environment. They built terraces—stretches of narrow but level ground—into the sloping sides of mountains. An embankment of stones prevented topsoil from being washed downhill, and a drainage channel irrigated the crops on each level.

In the wet lowlands, runoff from the mountains often flooded the Mayans’ fields and destroyed

their crops. The second illustration shows how they overcame this flooding. They built up the fields to allow excess water to drain off into channels. They then used these irrigation channels to control where the water went and how much water they wanted to use for irrigation. They often diverted excess water to areas that were too far from the mountains to receive runoff. The Mayans then scooped soil from the banks and bottoms of these channels and spread it across the dry ground to create farmland.

These techniques allowed the Mayans to farm in almost any kind of land. As a result, they lived on a rich diet of maize, beans, avocados, melons, and squash.



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**Interpreting Text and Visuals**

1. Identify in order the layers of earth from the top down that the Mayans used to construct their layered fields. \_\_\_\_\_

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2. Why did the Mayans need to be able to farm on these different land conditions? \_\_\_\_\_

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3. Describe the process enabling the Mayans to farm mountainous regions. \_\_\_\_\_

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4. How were the Mayans able to control flooding and properly irrigate their crops in extremely wet regions? \_\_\_\_\_

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5. How were the Mayans able to farm extremely dry areas? \_\_\_\_\_

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6. Look again at the first illustration. Besides water for crops, what is another benefit of the irrigation channel to the terraced fields? \_\_\_\_\_

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7. What do you think is the purpose of the two gravel layers just under the topsoil? \_\_\_\_\_

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