



## Maya in the 21st Century

### Article

**PETÉN, Guatemala** (Achieve3000, February 7, 2020). Over 1,500 years ago, the Maya people built large stone cities. Thousands of homes were arranged around public squares and courtyards. So were palaces, tombs, and temple-pyramids. But then, in the late 8th and 9th centuries, the Maya left their cities behind. They also left many unanswered questions. Scientists have long been interested in the Maya empire. And they're continuing to uncover pieces of the Maya's past.

Many ancient Maya architectural wonders are still around. They're in southern Mexico, Guatemala, Belize, Honduras, and El Salvador. For example, stepped, flat-topped pyramids rise throughout this region. But many ruins are still hidden.

New tools are changing that, though. In fact, modern-day scientists don't even have to leave home to spot a buried Maya city. All they need is LIDAR (Light Detection and Ranging). It's a game-changing tool. LIDAR is light in the form of laser pulses. It's used along with a special scanner and GPS receiver. It shows detailed, 3D information about natural and humanmade environments.

In 2018, LIDAR technology helped scientists uncover Maya structures in Guatemala. There were 61,480 of them. They span over 810 square miles (2,098 square kilometers). Scientists believe that 7 to 11 million people lived in the area. Many lived in packed cities. Some lived in smaller towns. And others lived in rural zones.

The LIDAR scans also brought to laser-light two other startling discoveries. First, the Maya built about 66 miles (106 kilometers) of causeways. These were within and between cities and towns. They connected the different areas. And second, they developed a system for farming. It was able to feed many millions of people.

In October 2019, LIDAR struck architectural gold once again. A total of 27 sites dating back 3,000 years were discovered in Mexico. These places were used for special Maya gatherings. They were built in a way that scientists had never seen. They had low-to-the-ground platforms. The platforms were as long as two-thirds of a mile (1.1 kilometers).

But high-tech lasers aren't behind *all* 21st-century Maya discoveries. Take the Cave of the Jaguar God, for example. It's underneath the Maya city of Chichén Itzá. The cave was opened by a scientist in December 2019. He remembered going inside as a boy, but the cave was later sealed. As a man in his 60s, he decided to seek it out. What was inside? Hundreds of well-preserved Maya objects.

So what will the future bring as scientists work to solve the mysteries of the Maya? No one can know for sure. But it's possible that the greatest findings have yet to be made.

*Video credit: Gustavo Huerta / AFPTV+INAH / AFP*



Photo credit: AP/Karla Ortega/Mexico's National Institute of Anthropology and History

*Scientists have found many things left behind by the Maya people, including these bowls and decorated plates.*

**Dictionary**

**architecture** (*noun*) the art or science of designing and creating buildings

**causeway** (*noun*) a raised road or path that goes across wet ground or water

**pulse** (*noun*) a brief increase in an amount of electricity, light, or sound

**ruins** (*noun*) the remaining pieces of something that was destroyed

**rural** (*adjective*) of or relating to the country and the people who live there instead of the city

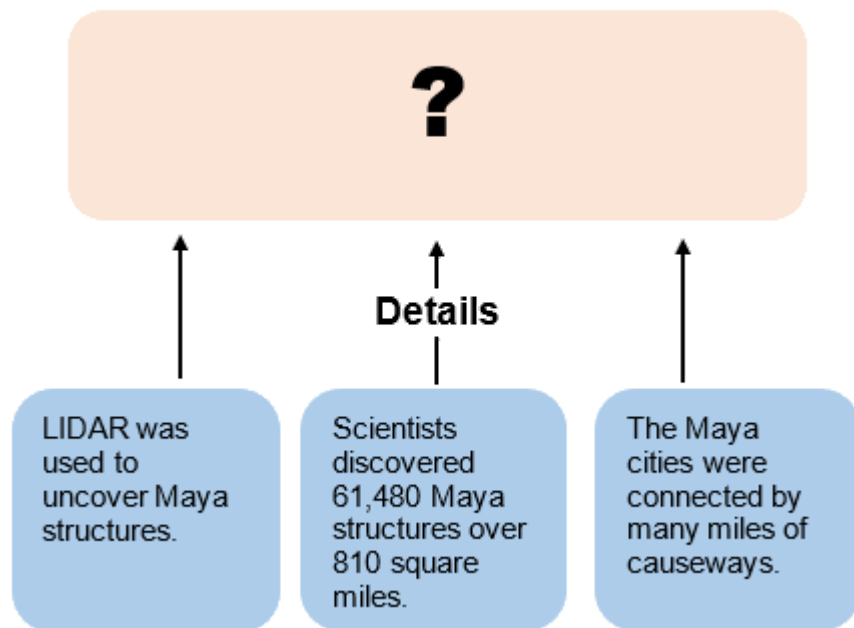
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**Activity**

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**PART 1**

## Question 1

**Main Idea of the Article**

Based on the Article, which best replaces the question mark in the diagram above?

- (A) Scientists can uncover ruins and learn more about the life of Maya people using laser tools.
- (B) Over 1,500 years ago, the Maya people built large stone cities with thousands of homes.
- (C) Studying the discovered ruins, scientists learned that 7 to 11 million people lived in the area.
- (D) LIDAR technology was not responsible for the recent discovery of the Cave of the Jaguar God.

## Question 2

Based on the Article, the reader can tell that \_\_\_\_\_.

- (A) the Cave of the Jaguar God was first discovered by LIDAR and explored by a man in his 60s
- (B) scientists must be very careful when using LIDAR because it can harm ancient buildings
- (C) the ancient Maya cities discovered in Guatemala are not always easy to see
- (D) most of the people who lived in the large Maya cities settled in rural zones

## Question 3

The Article states:

**But high-tech lasers aren't behind *all* 21st-century Maya discoveries. Take the Cave of the Jaguar God, for example. It's underneath the Maya city of Chichén Itzá. The cave was opened by a scientist in December 2019. He remembered going inside as a boy, but the cave was later sealed. As a man in his 60s, he decided to seek it out. What was inside? Hundreds of well-preserved Maya objects.**

Why did the author include this passage?

- Ⓐ To suggest that most of the discoveries of ancient Maya ruins have happened by accident
- Ⓑ To explain how the hundreds of Maya artifacts found in the cave remained so well-preserved
- Ⓒ To show that not all of the newest Maya discoveries were found using lasers, like LIDAR
- Ⓓ To point out why caves are sometimes left alone for years even though they may be exciting

Question 4

Which two words are the closest **synonyms**?

*Only some of these words are used in the Article.*

- Ⓐ solve and destroy
- Ⓑ platform and tunnel
- Ⓒ underneath and overhead
- Ⓓ region and area

Question 5

Suppose Yu Yan wants to find out about LIDAR. She would find the **most** information by \_\_\_\_\_.

- Ⓐ watching a video titled "In Search of the Cave of the Jaguar God"
- Ⓑ watching a TV program about how the first Maya ruins were found
- Ⓒ looking at a website describing the latest mapping tools
- Ⓓ looking at a 3D map showing Chichén Itzá in Mexico

Question 6

Read this passage from the Article:

**In 2018, LIDAR technology helped scientists uncover Maya structures in Guatemala. There were 61,480 of them. They *span* over 810 square miles (2,098 square kilometers). Scientists believe that 7 to 11 million people lived in the area.**

In this passage, the word *span* means \_\_\_\_\_.

- Ⓐ to lose large amounts of information
- Ⓑ to cover or include a wide area
- Ⓒ to build roads on empty land
- Ⓓ to design or sketch 3D maps

## Question 7

Based on the Article, which is most likely to happen?

- (A) The scientist who found the Cave of the Jaguar God will look for more ruins in the United States.
- (B) More Maya ruins will be discovered as scientists use LIDAR in other parts of the region.
- (C) Scientists will decide that most of the best Maya spots in Mexico have already been found.
- (D) The Cave of the Jaguar God will be closed forever so that the treasures will not be stolen.

## Question 8

Which information is **not** in the Article?

- (A) How LIDAR works with other tools to create a very good map of an area
- (B) Why the Maya left the towns and cities that have since been discovered
- (C) How scientists found a huge Maya community that was hidden from view
- (D) Where a newly discovered site that includes 61,480 structures is located