Archaeological Remote Sensing: Exploring the Past from Space

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Overview
Remote Sensing is a method has traditionally been used in a variety of scientific fields to monitor atmospheric, oceanic and land processes. Remote sensing can also be utilized in the growing field of archaeology. Incorporating widely used remote sensing methods and data can help archaeological studies around the world learn about the past while also preserving the sites.

Key Findings

I. Identifying Native American burial mounds using Digital Elevation Model (DEM) in Cahokia National Park.

II. Digital Elevation Models (DEM) show the Pyramids of Teotihuacan which cannot be easily seen in true-color images.

III. The ratio of bands 2 (green) and 3 (red) show areas in Machu Picchu that are built up.

IV. Illustration of different datasets to show how different studies determines your data.

V. Using indices to find construction material of Buddhist temples Angkor Wat and Prasat Bayon.

VI. The debate: Can you see The Great Wall of China from space? Using satellite data it is easily done.

Impact
Archaeological studies are important because they give us insight on how humans have developed as a race and a society. Studying the past impacts us today by learning from our ancestors mistakes so that today's society can thrive and limit the pressures of collapse that past civilizations faced.

Explanation
The use of satellite imagery in archaeology gives a different point of view that is not attained at ground level, aiding in large scale identification of archaeological features while also studying the sites with minimal disturbance. Future satellite missions with more advanced sensors will allow for more detailed study of our past.

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