

The Impact of Climate Change on Archaeological Sites and Artifacts

As the global climate continues to change, archaeologists are facing new challenges in the preservation and study of archaeological sites and artifacts. Rising temperatures, changes in precipitation patterns, and more frequent extreme weather events are just some of the ways that climate change is impacting the field of archaeology. This essay will discuss the impact of climate change on archaeological sites and artifacts, as well as the efforts being made to mitigate these effects.

Interdisciplinary perspectives

One of the most significant impacts of climate change on archaeological sites and artifacts is the increased risk of damage from extreme weather events such as hurricanes, floods, and wildfires. These events can cause significant damage to archaeological sites and artifacts, destroying or altering them beyond recognition. For example, in 2017, Hurricane Irma caused significant damage to the historic city of St. Augustine, Florida, including the archaeological sites located there (McAvoy, 2017). Similarly, wildfires in California have destroyed or damaged numerous archaeological sites, including the Native American petroglyphs at the Folsom Lake Recreation Area (Sernoffsky, 2015).

Use of Primary and Secondary Sources

In addition to the risk of damage from extreme weather events, climate change is also impacting archaeological sites and artifacts through changes in temperature and precipitation patterns. Rising temperatures can cause artifacts to deteriorate more quickly, while changes in precipitation patterns can impact the preservation of organic materials such as bone and plant remains. For example, in the Arctic, melting permafrost is exposing previously frozen archaeological sites, leading to the rapid deterioration of organic materials (Kjeldsen, 2018). In addition, changes in precipitation patterns are causing water levels to fluctuate in areas such as the

Integration of Scientific and Cultural Knowledge

American Southwest, impacting the preservation of artifacts and structures located in these regions (Anderson et al., 2010).

Efforts are being made to mitigate the impact of climate change on archaeological sites and artifacts. One such effort is the use of advanced monitoring techniques to track changes in climate and identify areas of high risk. For example, researchers at the University of California, Berkeley have developed a tool called the Vulnerability Assessment of Cultural Resources (VACR) to help identify areas that are at high risk from climate change (Iverson et al., 2014). The VACR tool allows archaeologists to prioritize their efforts and resources based on the level of risk to archaeological sites and artifacts.

Emphasis
on
Research
Methods

Another effort being made to mitigate the impact of climate change on archaeological sites and artifacts is the development of new preservation techniques. For example, in areas such as the Arctic, where melting permafrost is exposing previously frozen sites, archaeologists are using techniques such as freezing and freeze-drying to preserve organic materials (Kjeldsen, 2018). In addition, researchers are developing new materials and coatings to protect artifacts from the impacts of climate change, such as increased heat and moisture (Hodges, 2018).

In conclusion, climate change is having a significant impact on the preservation and study of archaeological sites and artifacts. Extreme weather events, changes in temperature and precipitation patterns, and melting permafrost are all contributing to the deterioration and destruction of archaeological sites and artifacts. However, efforts are being made to mitigate these impacts, including the use of advanced monitoring techniques and the development of new preservation techniques. It is essential that these

efforts continue in order to ensure that the rich cultural heritage preserved in archaeological sites and artifacts is not lost to the impacts of climate change.



College Essay

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