

The Use of Modern Technologies and Computers in the Archaeological Surveys of Sistan in Eastern Iran

Authors : Mahyar MehrAfarin

Abstract : The Sistan region in eastern Iran is a significant archaeological area in Iran and the Middle East, encompassing 10,000 square kilometers. Previous archeological field surveys have identified 1662 ancient sites dating from prehistoric periods to the Islamic period. **Research Aim:** This article aims to explore the utilization of modern technologies and computers in archaeological field surveys in Sistan, Iran, and the benefits derived from their implementation. **Methodology:** The research employs a descriptive-analytical approach combined with field methods. New technologies and software, such as GPS, drones, magnetometers, equipped cameras, satellite images, and software programs like GIS, Map source, and Excel, were utilized to collect information and analyze data. **Findings:** The use of modern technologies and computers in archaeological field surveys proved to be essential. Traditional archaeological activities, such as excavation and field surveys, are time-consuming and costly. Employing modern technologies helps in preserving ancient sites, accurately recording archaeological data, reducing errors and mistakes, and facilitating correct and accurate analysis. Creating a comprehensive and accessible database, generating statistics, and producing graphic designs and diagrams are additional advantages derived from the use of efficient technologies in archaeology. **Theoretical Importance:** The integration of computers and modern technologies in archaeology contributes to interdisciplinary collaborations and facilitates the involvement of specialists from various fields, such as geography, history, art history, anthropology, laboratory sciences, and computer engineering. The utilization of computers in archaeology spanned across diverse areas, including database creation, statistical analysis, graphics implementation, laboratory and engineering applications, and even artificial intelligence, which remains an unexplored area in Iranian archaeology. **Data Collection and Analysis Procedures:** Information was collected using modern technologies and software, capturing geographic coordinates, aerial images, archeogeophysical data, and satellite images. This data was then inputted into various software programs for analysis, including GIS, Map source, and Excel. The research employed both descriptive and analytical methods to present findings effectively. **Question Addressed:** The primary question addressed in this research is how the use of modern technologies and computers in archeological field surveys in Sistan, Iran, can enhance archaeological data collection, preservation, analysis, and accessibility. **Conclusion:** The utilization of modern technologies and computers in archaeological field surveys in Sistan, Iran, has proven to be necessary and beneficial. These technologies aid in preserving ancient sites, accurately recording archaeological data, reducing errors, and facilitating comprehensive analysis. The creation of accessible databases, statistics generation, graphic designs, and interdisciplinary collaborations are further advantages observed. It is recommended to explore the potential of artificial intelligence in Iranian archaeology as an unexplored area. The research has implications for cultural heritage organizations, archaeology students, and universities involved in archaeological field surveys in Sistan and Baluchistan province. Additionally, it contributes to enhancing the understanding and preservation of Iran's archaeological heritage.

Keywords : Iran, sistan, archaeological surveys, computer use, modern technologies

Conference Title : ICMSSAAHP 2023 : International Conference on Multidisciplinary Social Studies, Anthropology, Archaeology, History and Philosophy

Conference Location : New York, United States

Conference Dates : October 09-10, 2023