



# Protective Shelters for Archaeological Sites in the Southwest USA | 2001-20

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## **Methodology, Conservation Criteria and Performance Evaluation for Archaeological Site Shelters**

Neville Agnew

### **Abstract**

The many intersecting issues that arise when deciding whether to shelter an archaeological site should be approached using a values-based methodology, one that has demonstrated its validity and practical worth in conservation over recent decades. Nonetheless, pitfalls abound in the decision-making process and in establishing effective conservation criteria which should be based principally on a thorough understanding of the threats to the resource and the specific deterioration mechanisms operating, with the objective of creating a shelter that will preserve the site's identified values. An aspect that has received almost no attention in the past is evaluation of a shelter's performance, both qualitative and quantitative, in preserving the site. It is urged that this receive priority when establishing the conservation criteria during the initial phases of a sheltering project. Issues are illustrated from a range of diverse sites, including a number of published shelters. The paper first looks at the examples of the Laetoli (Tanzania) and Lark Quarry (Australia) trackway sites in the context of decision-making and conservation criteria, and then discusses two examples of evaluation: one quantitative, using an experimental shelter and the other discussing publications on a petroglyph site shelter.

## **The Decision to Shelter Archaeological Sites Three Case-Studies from Sicily**

Nicholas P. Stanley-Price; Jukka Jokilehto

### **Abstract**

The decision to provide a protective shelter for exposed archaeological remains is illustrated by examining case studies of three sites in Sicily that were provided with protective measures in the 1950s. The three protective shelters were designed by the same architect, Franco Minissi, for the sites of Gela, the Villa Romana del Casale (Piazza Armerina) and Heraclea Minoa. His work on protective shelters is viewed in the broader context of the development at that time in Italy of Cesare Brandi's theory of restoration and of Minissi's own philosophy of 'musealizzazione' for the protection of historic sites and their integration into contemporary society.

## **Sheltering an Archaeological Structure in Petra A Case-Study of Criteria, Concepts, and Implementation**

Gaetano Palumbo

### **Abstract**

In 1993 an architectural competition for the construction of a shelter over a Byzantine church excavated in Petra between 1991 and 1992 was held by the American Center of Oriental Research in Amman, Jordan. While a prize was awarded, none of the concepts presented were translated into a construction project. A contract was instead awarded to architect Robert Shutler, who worked in close cooperation with Jordanian and international archaeologists and heritage managers, and a reversible space-frame shelter was built. This paper examines the issue of defining criteria for shelter construction, and stresses the need for cooperation among stakeholders and specialists as part of the conservation process from the decision to shelter to the implementation of the project.

## **Establishment of Conservation, Design and Construction Criteria for Protective Shelters at Fort Selden State Monument, New Mexico**

Troy D. Thompson; Michael R. Taylor

### **Abstract**

Fort Selden State Monument, located in southern New Mexico, consists of the exposed adobe ruins of a military post that was occupied from 1865 to 1981. A management plan for the site is currently being developed in which an option being considered for preservation is the construction of a protective shelter.

The process of establishing conservation, design and construction criteria for a potential shelter at Fort Selden involves the assessment of technical issues and the evaluation of public support for the criteria and purpose of the monument. The conservation concerns are based upon accepted standards for conservation and construction criteria while the design and construction standards involve a higher degree of Public concern, particularly the public expectations exerted on a historic site in the United States.

The criteria for Fort Selden are currently being codified. This paper outlines the preliminary criteria as well as the process by which these criteria will be established and meshed with the public expectations of the site. The planning process is presented and the underlying philosophies of deciding to shelter, designing the shelter and constructing the shelter. Future evaluations of the shelter's success can be gauged against these original criteria and mindset.

## **Preserving Dirt-Walled Structures in Mesa Verde National Park**

Kathleen Fiero

### **Abstract**

The authorities at Mesa Verde National Park have been building and managing temporary and permanent shelters over excavated mesa-top archaeological sites since 1919. Over twenty shelters have been built over the years. These have varied from informal vernacular constructions to structures designed by professional architects for the specific needs of the Park. There are presently twelve shelters in the Park. Two of the existing twelve shelters are informal 'temporary' shelters built by Park staff and are over sites that are not on exhibit to the public. The other ten shelters are over sites on exhibit and were designed by professional architects. One is of metal and was built in 1969. The other nine shelters are constructed of precast concrete with a wooden roof, built in 1984–87. The professionally designed shelters have been fairly successful in protecting the sites that they cover. In 2000 a wildfire damaged four shelters in its path but the archaeology protected by these shelters was undamaged.

## **Evaluation of the Protective Shelter at Blackwater Draw Archaeological Site, New Mexico**

Pamela Jerome; Michael R. Taylor; John R. Montgomery

### **Abstract**

Blackwater Draw Archaeological Site is located in Roosevelt County, New Mexico, and is the type site for the Clovis culture which dates back 12,000 years. In 1995 the stakeholders for Blackwater Draw convened a meeting with an expert consultant to evaluate the efficacy of a protective shelter proposal. The purpose of the proposed shelter was to protect palaeo-Indian finds excavated in 1983–4 and displayed *in situ*. Recommendations were made and, several years later, shelter construction was completed. In 2000, the shelter as built was re-evaluated.

## **Designing Protective Structures at Archaeological Sites Criteria and Environmental Design Methodology for a Proposed Structure at Lot's Basilica, Jordan**

Zaki Aslan

### **Abstract**

This paper sheds light on the need to assess the efficacy and performance of protective structures at archaeological sites according to design criteria derived from various elements in heritage management processes. The paper also focuses on the use of architectural design methodologies that essentially correspond to physical conservation requirements at archaeological sites. The paper, in effect, introduces climatic approaches to the design of protective structures at archaeological sites. It further illustrates the value of computer-based environmental simulation and modeling tools in the design phase of projects. Despite their limitations, these tools help guide design processes, and generally indicate future conservation effectiveness and performance of protective enclosed structures at archaeological sites.

## **Annotated Bibliography on Protective Shelters for Archaeological Sites**

Martha Demas

### **Abstract**

The literature dealing with protective shelters for archaeological sites is meagre in relation to the number of shelters actually built or proposed, but nevertheless provides a critical source of information for practitioners and decision-makers about the range and types of shelters, their rationale and, infrequently, their performance. This annotated bibliography is a comprehensive overview of the existing literature on protective shelters (limited to English, French, German, Italian, Spanish and Portuguese) through the year 2000.

## **Research Project on Protective Shelters for Archaeological Areas in Italy A Status Report**

Maria Concetta Laurenti

### **Abstract**

This paper presents a project conducted by the Department of New Technologies, Energy and the Environment, an autonomous research institute supported by various ministries of the Italian government, in partnership with the Istituto Centrale per il Restauro, Rome, focusing on the development of a methodology for the design and planning of protective shelters in archaeological contexts. The aim is to standardize the planning process, and define a guiding methodology to support the planning process for sheltering. The project, of three years duration, will be completed in 2002. Currently, a database is being developed in which to collect information relative to the different aspects that characterize an archaeological site. The methodology used for the structuring of this archive derives directly from the 'Carta del Rischio del Patrimonio Culturale'. An innovative element of this project is its interdisciplinary approach, leading to tangible progress in the planning/ design of sheltering systems. Preliminary studies are currently underway leading towards the implementation of two examples of protective shelters, which serve as illustrative examples of the project's methodology.