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THE CULTURAL LANDSCAPE OF CLIFF HOUSES IN THE SIERRA MADRE OCCIDENTAL, CHIHUAHUA

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This study examines cultural landscapes in the highland catchment area of the Río Papigochic and its tributaries, the Río Chico and the Río Tutuaca, in the Sierra Madre Occidental in the northeastern part of the state of Chihuahua. The central part of the project is in the municipality of Madera in that state (Figure 20.1). In general, the ecosystems of the Huápoca and Sirupa canyons and the highland catchment area of the Papigochic are very fragile, and conservation of the region's immense biodiversity is important. Among other considerations, the region is a migratory bird route and is important for the hydraulic recharging of areas of the Chihuahuan semidesert ecosystem.

Humans have inhabited the canyons of this region for thousands of years. Among the most significant traces left by humans are the cave sites, or cliff dwellings, earthen architectural structures built in rocky shelters. These complexes have been identified as part of the Casas Grandes Culture, although the reach of this influence has yet to be established. More than 150 cliff dwellings have been recorded in this part of the Sierra Madre, representing one of the most dispersed and extensive populations in northern Mexico. Given their natural and cultural characteristics, these resources are unique not only for Mexico but also in terms of the

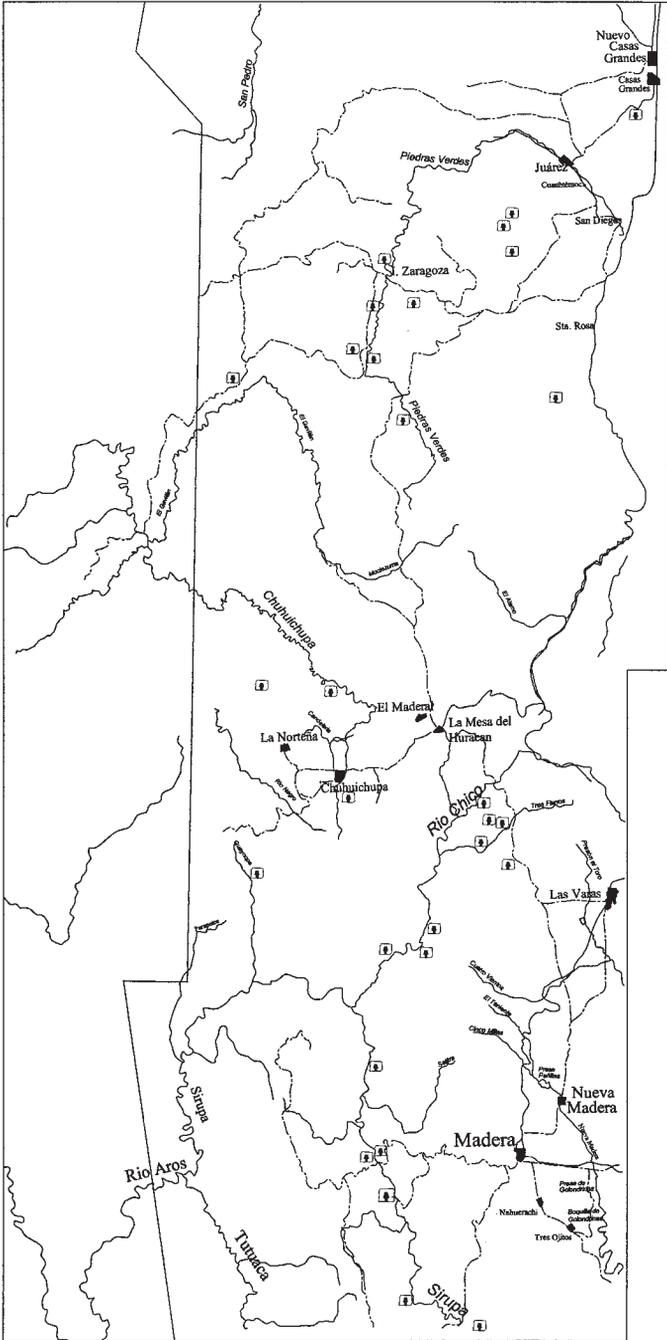


Figure 20.1. Map of northeastern Chihuahua, showing the distribution of cliffhouse sites.

cultural diversity of the southwestern United States. These sites possess aesthetic and scientific value, yet they remain largely unknown to researchers studying the archaeology of the Southwest.

Through the project "Sites of the Highland Province of Paquimé," the Instituto Nacional de Antropología e Historia (INAH) has begun to document and preserve sites in the mountains of Chihuahua. An inventory of the cultural resources of the Madera region was undertaken in 2003. This first phase of this project, "Integral Conservation of the Madera Region," was made possible by a grant from the J. M. Kaplan Foundation and the support of the World Monuments Fund and the Wilson Fund to help preserve the cultural heritage of Mexico.

Thus far, archaeological excavations have been undertaken in the mountain basin of the Río Papigochic and in the Sirupa and Huápoca areas, a region nearly 120 kilometers in length. The cultures of this region have been investigated, and an inventory of archaeological sites has been completed. One component of the project has been the implementation of a conservation program within the city of Madera, a community committed to managing these sites and the natural landscape (Gamboa Carrera 2001).

At some cave sites, including Cueva de Ranchería and Cueva de Apache in Sirupa Canyon and Cueva Grande and Conjunto Huápoca (the Huápoca Complex) in Huápoca Canyon, architectural measurements and conservation projects have been undertaken. These efforts have included the documentation of these cultural properties, including the archaeological materials within their immediate boundaries. This has been done using specialized archaeological techniques, facilitating the interpretation of cultural activities associated with the excavated material. These techniques were also utilized for the present study.

THE CULTURAL LANDSCAPE AS INTERPRETIVE MODEL

The concept of landscape was initially documented through the field of geography. The German geographer A. Hommeyerem introduced the word "landscape" (*die landshaft*)¹ to scientific and geographic discourse. This term was understood to mean the sum of all areas as observed from a higher vantage point and as represented by their association with and situation from nearby mountains, forests, and other significant features on earth (Mateo 1982). More pragmatic definitions of landscape also exist and serve as points of reference for regional studies, making it easier to order the descriptive data. These have been applied in a homogeneous manner to the concept of region, without any sense of classification or categorization of the physical elements of terrestrial space. Even simpler definitions exist for commercial use, as advertisements for tourist programs or to promote views of a supposedly pristine nature (Mancera-Valencia 2002:92).

Geographer Pierre Gourou (1984) considered landscapes "united to man's interventions. . . . From their first examination—be it through direct observation or by means of maps or aerial photographs (and satellite images)—landscapes show

correlations between their elements. Dwellings are grouped at the foot of the mountains, at the top of a hill, the edge of a river or near its confluence with another. . . . Open landscapes are accompanied by villages.”² Gourou (1984:12) developed three questions essential to the analysis of any landscape: (1) Why is a landscape as it is as opposed to taking another form? (2) How is human presence evident on the landscape? (3) Through what technical means of production (techniques of exploitation or subsistence) and interactions between humans and the organization of space were these cultural landscapes developed?

In this manner, Gourou confirmed that “[m]an, maker of landscapes, exists solely because he is a member of a group, which combines differing techniques.” He concluded that “all humans are subjected to the techniques that make them civilized. Savages do not exist” (Gourou 1984:12). As such, landscapes are seen as natural “complexes” not because of the implications, retrospections, interactions, and interrelations within them but because of their human implications. Whereas the ideas, use, and management of nature have brought about human actions to justify and satisfy their needs, nature is analyzed in history as a line of historical-cultural geography (Mancera-Valencia 2002:96).

Carl O. Sauer of the North American school further developed this line of thought, granting new dimensions to the anthropology and archaeology of landscapes (Mancera-Valencia 2002:96). Sauer (1925) interpreted landscapes as made up of a distinct association of forms, both physical and cultural. Without reference to Sauer, Gourou (1984:15) confirmed that “[e]very human landscape is a conglomerate of problems. . . . None of them can be seen as simple. The landscape is a handful of problems. Luckily! What enrichment to think that before our eyes exists an imprint, revelation, survival, and the almost forgotten memory of successive and diverse civilizations, all of which is to be explained, and that resolved problems will themselves establish new ones.”

It was Sauer who stimulated the resurgence of the concept of landscape from a human perspective and emphasized its geographical and archaeological complexity: “The transformation of the natural landscape in the cultural landscape provides a satisfactory working program, by which the assemblage of cultural forms in the area comes in for the same attention as that of the physical forms” (Sauer 1931:622). The process Sauer referred to is cultural geography, in which the study of cultural landscapes “seeks to determine the successions of culture that have taken place in an area. . . . The major problems of cultural geography . . . lie in discovering the composition and meaning of the geographic aggregate that we as yet recognize somewhat vaguely as the culture area, in finding out more about what are normal stages of succession in its development, in concerning itself with climactic and decadent phases and thereby in gaining more precise knowledge of the relation of culture and of the resources that are at the disposal of culture” (Sauer 1931:624; see also Mancera-Valencia 2002:97).

The international French-Holland school developed by Jean Tricart and J. J. Killian (1982) integrated the natural and cultural landscapes, giving them mean-

ing within the study of economic development. In this view, ecogeography implies a methodological integration of morphogenesis (dynamic processes related to the origin and history of the topography, also known as dynamic geomorphology) and pedogenesis, a science that studies how the surface of the lithosphere and its resulting resources were modified.

This focus requires knowledge of the physical medium, its description as well as its dynamics. Processes that allow for the formation and evolution of a model of the topography and soil follow, in a majority of cases, relative and differing rates of change in accordance with the climatic characteristics, geology, and the history of human activity. All of these imprint their own characteristics upon the landscape. This notion of a morphogenesis-pedogenesis balance allows for the identification of geodynamics and the processes of evolution. “Ecogeographic units” can be identified and analyzed in terms of their base rock, topography, and soil units; and topographical changes can be studied in terms of fractures and changes in altitude, relief formation, hydrology of the slopes, and development of the resulting layers. To these ecogeographical units are tied the vegetation and faunal habitats, which constitute integral and holistic units, the biophysics of the landscape. This process of integration is now aided by geographic information systems and the support of site work and remote sensing (Bocco 1998).

Through this naturalistic approach to analyzing the landscape using ecogeography, proposals for its intervention have been formulated. This chapter attempts to achieve this aim and considers that just as there are no humans outside of nature, there are also no humans outside of culture.

As an example, consider Figures 20.2 and 20.3. (To interpret the figures correctly, picture Figure 20.2 as an overlay of Figure 20.3.) Figure 20.2 is a 10.8 kilometer topographical cut along the Río Sirupa in which different ecogeographical units can be seen, including particular sociocultural aspects of the region’s cultural landscape. Figure 20.3, based on the same profile as shown in Figure 20.2, is divided into two sections. The upper one shows the distribution of cultural archaeological materials identified during excavations at cliff-dwelling sites in the Río Sirupa region. The lower section presents the different layers of the cultural landscape.

This interdisciplinary approach, which we refer to as archaeogeography, is in accord with ecogeographical diversity, which establishes the complex cultural landscape derived from the particular sociocultural aspects of these regions. We have applied this procedure to five areas in the region: sections of the Garabato, Venado, Embudo, and Conjunto Huápoca drainages and the previously mentioned Río Sirupa (Figure 20.4).

As an interpretive model of archaeological complexes, such as the cliff dwellings, the cultural landscape requires indicators that allow for their interpretation and analysis. Here we propose some indicative principles to facilitate interpretation of the cultural landscape:

1. Explain the appropriation of ecosystems through the use and management of natural resources: water, earth, flora, fauna, topography, and so on. These

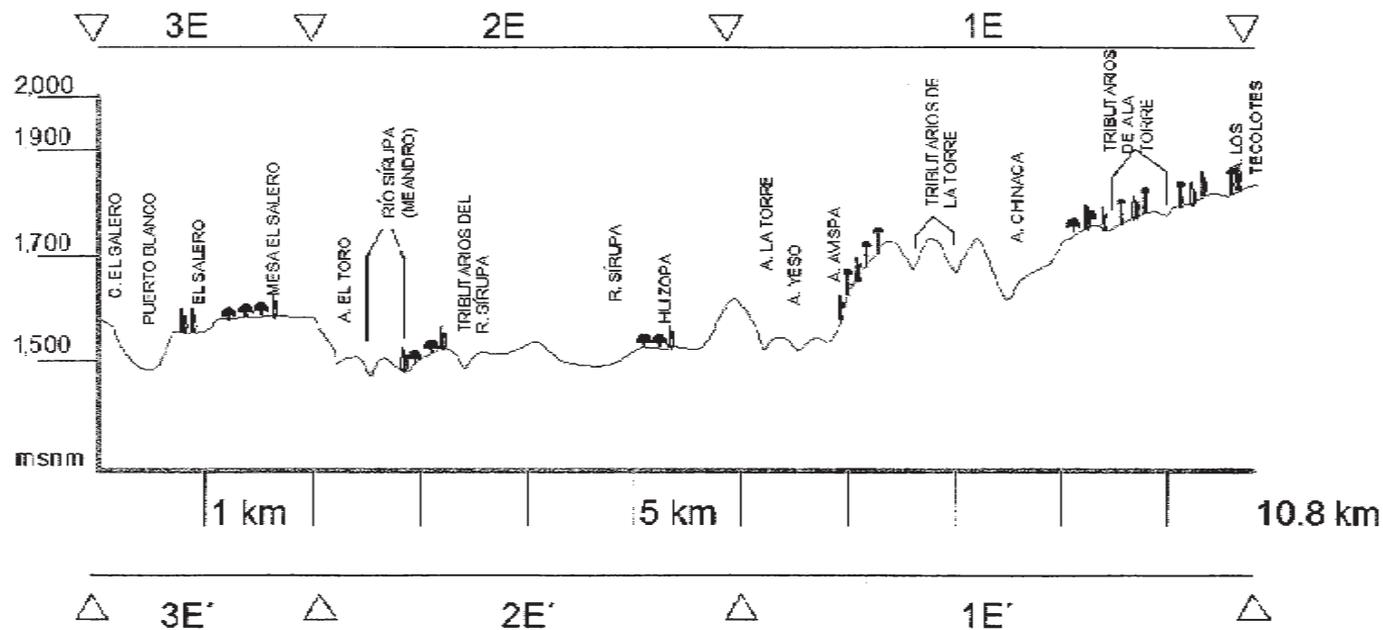


Figure 20.2. Profile of a 10.8-kilometer cut along the Río Sirupa, showing ecogeographical units.

3E	2E	1E
<p>Ceramics, wood, palm, palmilla, textile, carrizo, agave, thorns, ears of corn, chilicotes, suckers, cane, prickly pear, capulin, tejocote (Mexican hawthorne), tomatillo, peanut, fish vertebrae, deer antlers, chamois, leather bags, pipe, and tobacco.</p>	<p>Wood, ceramic material, carrizo, agave, thorns, palmilla, palm, ears of corn, tejocote (Mexican hawthorne), tomatillo, yucca seeds, tascate, textile, fish vertebrae, rabbit bones, deer antlers, chamois, leather bags.</p>	<p>Wood, rodent bones, ears of corn, rocks, corn cane, turpentine, bird feathers, lithics, ceramic clay, rabbit bones, tomatillo.</p>
3E'	2E'	1E'
<p>Mesas and V-shaped valleys; intermontane areas with forest cover of oak, desert scrub, and succulent plants. Activities of gathering, hunting, agricultural terracing, and production of lithics and other tools.</p>	<p>Alluvial and floodplain systems with formation and displacement from escarpments and cliffs. Forests and aquatic vegetation. Agricultural activities such as irrigation, and fishing, hunting, and gathering.</p>	<p>Mountainous system with V-shaped gullies or valleys with pronounced slopes, intermountain areas dissected by escarpments or cliffs covered with oak, mixed or forest cover, desert scrub with succulent plants and grasses. Agricultural activities of terracing and construction of water control features, combined with hunting, gathering, and fishing.</p>

Figure 20.3. Profile of the same cut along the Río Sirupa shown in Figure 20.2, showing the distribution of archaeological cultural materials identified from excavations in the cliff dwellings (upper section) and features of the cultural and natural landscape (lower section).

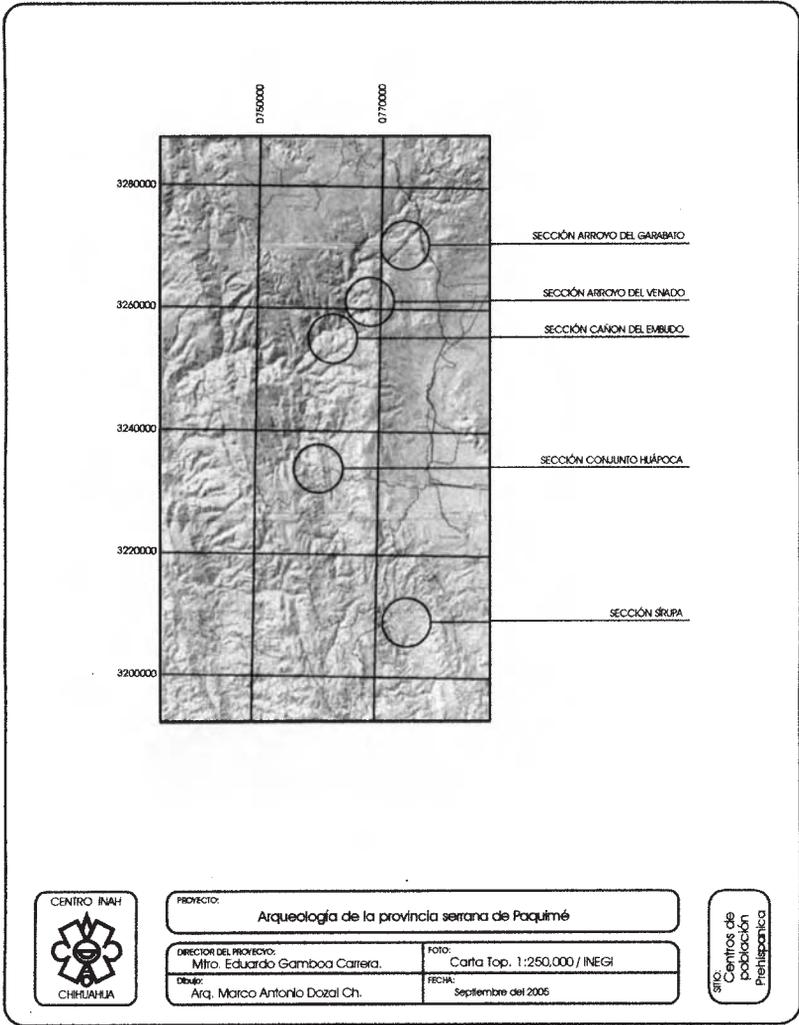


Figure 20.4. Areas of Chihuahua where authors have applied the cultural landscape methodology.

constitute the material resources that satisfied the needs of the people who inhabited these cliff-dwelling complexes and who derived from them the cultural elements that gave rise to regional identity.

2. Generate knowledge about how the ecosystem was appropriated, how natural resources were used and managed, and how they satisfied peoples' needs.
3. Explain the forms of social organization, social cohesion, and formalized institutions developed for the use and management of the natural resources and for control of the region.

4. Examine the ritual and symbolic processes of language and identity associated with the natural resources and the region. These processes constituted the ideological and subjective satisfaction of the needs system as a planned and civilized complex of the mountain territory.
5. Interpret the sacred spaces and times linked to elements of the ecosystem and its biological rhythms.
6. Define the limits, borders, and regions of the natural environment used to establish geopolitical control of and human vigilance over the space through time.

In this manner, “the cultural landscape or occupied areas allow objective and subjective articulation of the complex relationship between culture and nature, and illustrate the dynamics of society and the implications of human occupation and settlement through the territory and history, as influenced by the pressures and/or disadvantages of the ambient environment and the socioeconomic forces, both of which arise from internal and external needs” (Mancera-Valencia 2002:60). This interpretive model of the cultural landscape can be evaluated by its universal applicability, its representativeness in terms of the defined geocultural environment, and its capacity to demonstrate a region’s essential and distinct cultural elements. Because of this, and in accordance with the sites’ subjective and objective dimensions, cultural landscapes can be considered complexes of cultural heritage.

PRELIMINARY FINDINGS AND INTERPRETATIONS

Our analysis of the cultural geography of the cliff dwellings of northeastern Chihuahua has generated several preliminary observations about ties between this cultural region and the Casas Grandes Culture:

1. These mountain sites were closely aligned with the regional system in which Paquimé functioned as the ritual city. Iconographic elements recorded during our archaeological investigations relate to the cult tradition of the feathered serpent and the *guacamaya* (macaw).
2. A communication system based on watchtowers and roads integrated the system regionally, allowing for its sociocultural appropriation.
3. The recorded cliff-house sites conform to an architectural system similar to that at the archaeological site of Paquimé. Installations and architectural finishes have the same proportions as construction systems at Paquimé. This includes the materials and techniques of construction, as well as the design of doors, floor layouts, passages, plazas, and levels and the uses and functions of these spaces.
4. These data suggest that the cliff-house occupation was tied to the Casas Grandes regional system and was based on the exploitation of natural resources, such as water and soil related to the construction of terraces (*trincheras*).

The occurrence of these sites in zones of ecological transition, such as oak, oak-pine, and mixed forests, demonstrates the complex articulation between culture and nature.

5. Parallel to these conclusions, the spatial construction of sites in the area was based on the satisfaction of ideological beliefs, needs, rituals, festivals, and language, among others, as shown in Figures 20.2 and 20.3.
6. The presence of facilities such as granaries for the storage of agricultural produce suggests a socioeconomic system based on centralization and distribution. This would have allowed for productive control not only over time but also over space, that is, the use and management of the natural resources.

NOTES

1. In Dutch: *landskip*; in English: landscape; in French: *paysage*; in Spanish: *paisaje*.
2. Editors' note: The Gourou quotations in this chapter were excerpted from a Spanish publication and subsequently translated into English by a Mexican translator for our chapter. We lack the page numbers for these quotations.

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