


## Preface and Acknowledgements



With two previous field seasons under our belts, we began the 2001 season with somewhat more informed ideas regarding the ancient Maya inhabitants of the Sibun Valley. The spring 2001 season (February through April) was an endeavor that combined research and training. Fourteen undergraduate students enrolled through the Division of International Programs at Boston University joined the project with the goal of learning archaeological methods. Many staff members, primarily graduate students from the Department of Archaeology, returned to the Sibun for the second or third time. Several specialists in the natural sciences joined the project as a consequence of support from the National Science Foundation (BCS-0096603), which is greatly acknowledged. For the first time, we tackled the upper valley settlement and caves (primarily the Hershey site and Actun Chanona) in addition to continuing research in the middle and lower sections of the valley. To achieve this end, the first five weeks of the field season were spent at Yam Wits, a hostelry along the Hummingbird Highway, while the final five weeks found us back at Monkey Bay Wildlife Sanctuary off the Western Highway.

The cast of contributors was large; below each member is listed along with her/his role in the project. Chapters of the report to follow present the results of their field research. Field Director, Ben Thomas, supervised survey and excavation at the surface sites. Total station mapping of the Hershey site was undertaken by Steven Morandi, Brian Norris, and several field school students. We are indebted to Dave Carlson at Carlson Software for the generous gift of SurvCADD software used to download Total Station data into a laptop computer. The Hershey site—as well as several smaller sites throughout the valley—were located by means of UTM coordinates by David Buck who manned the GPS equipment. Dan Welch operated the magnetometer that provided valuable clues to subsurface features at both Pakal Na and Hershey. Operation directors, who ran the individual excavations, included Eleanor Harrison, Steven Morandi, and Kevin Acone (who also doubled as project illustrator).

Exploration of the caves was directed by Polly Peterson who benefited from the input of experienced caver, Allan Cobb. Historical archaeologist, Daniel Finamore, conducted excavations in search of the Colonial period Spanish *visita* in the upper valley around the Hershey site. Soils geographer Pat Farrell continued her research on soils and the ancient landscape of the Sibun Valley and Thomas Bullard initiated a study of the fluvial geomorphology of the valley. Palynologist John Jones extracted several cores from oxbows of the Sibun River in order to collect pollen and reconstruct ancient patterns of vegetation. Botanist, Kirsten Tripplett, recorded modern flora (especially cacao) and initiated a water-flotation system for sieving archaeological sediments. Kimberly Berry directed the laboratory processing of all artifacts and samples. Project ceramicist, Sandra L. López Varela, began analysis of pottery recovered from settlements and caves, and Norbert Stanchly analyzed the faunal material.

In both the field and the lab, the following field school students provided valuable assistance in return for their training: Margaret Abercrombie, Tara Bermingham, Alleen Betzenhauser, Christa

Cesario, Jenny Hagggar, Emily Hall, Helga Hauksdottir, Rhiannon Jones, Erol Kavountzis, Jessica King, Daniel Leonard, Kristen Marx, Shoshaunna Parks, and Chen Sian Lim.

When the season started, the site of Hershey was obscured by thick, secondary growth. The men listed below from the nearby village of St. Margaret's did a remarkable job of clearing the bush: Alejandro Davila, Rigaberto Galdemez, Celestino Hernandez, Rolando Hernandez, Rudolfo Hernandez, Roberto Veron, and Saul Ortiz. From Monkey Bay, Elias Ortiz, Samuel Ortiz, and Ramon Placido provided strategic cutting and excavation support for our research in the middle and lower valley area. In the Gracy Rock area, Lance Usher and Gilford Hoare provided valuable guide service as well as excavation support. Our mobility and ability to survey large portions of the Sibun Valley would not have been possible without the technical expertise of our auto mechanic, Bruce Cullerton, who managed to keep an aging fleet of vehicles on the road. Thanks to Melito Bustamante, our bus driver on the trip to the Toledo District. Local land owners and managers facilitated our research in many ways. Bert Faux, manager of Hummingbird Citrus Ltd., allowed daily access to the Hershey site and Jonny Zander of nearby Sleeping Giant Farm helped to cut a trail into Actun Chanona. Jean Paul Cantareul, manager of the citrus farm on which Pakal Na is situated, graciously allowed us to return for another season of excavation at that site. The new owner of the Samuel Oshon site permitted us to continue our program of excavation in the Freetown Sibun area as did Augustine Obispo. Finally, we thank Jes Karper for introducing us to the hilltop locale that might be the site of Deep Valley.

Our local hosts provided us with all of the amenities one could ask for in a field camp and we extend our thanks to the Smith family of Yam Wits, especially to Joy and Rupert Smith, their three sons, Erol, Christopher, and Nicholas. Special thanks go Joy's daughter, Carolyn Bellini, who fed us many a tasty Belizean meal and to Joy's son, Tommy Longsworth, who transported our breakfast cook, Delvorine Budna, to Yam Wits in the early hours of the morning. At Monkey Bay Wildlife Sanctuary, Matthew and Marga Waals Miller and their support staff of Juan Esquivel, Hamish and Elishka Graham, Aretha Wiltshire, and Benedicta Perez provided us with rustic accommodations and delicious food.

In Belmopan, Hector Mai of the Belize herbarium kindly curated our botanical collection and the Department of Archaeology extended to us permission to conduct research in the Sibun River Valley under permit no. DOA/H/2/1/01(2). We thank acting commissioner, George Thompson and his support staff for their assistance.

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# BETWEEN THE GORGE AND THE ESTUARY:

## Investigations of the 2001 Season of the Xibun Archaeological Research Project

### Table of Contents

<b>Preface and Acknowledgements</b> .....	i
<i>Patricia A. McAnany</i>	
<b>Table of Contents</b> .....	iii
<b>1. Archaeology of the Xibun Maya</b> .....	1
<i>Patricia A. McAnany and Ben Thomas</i>	
<b>Part I. The Base of the Sibun Gorge (Transect 1)</b>	
<b>2. Mapping the Hershey Site and Beyond with a Total Station, GPS, and Magnetometry</b> .....	9
<i>Steven Morandi, David Buck, Dan Welch and Brian Norris</i>	
<b>3. Actun Chanona: the Steep Ascent into the Largest Cave in the Valley</b> .....	23
<i>Polly A. Peterson</i>	
<b>4. Modified and Constructed Spaces of Actun Chanona</b> .....	35
<i>Allan Cobb</i>	
<b>5. In the Shadow of the Hershey Pyramid: Excavations at Group D (Operation 50)</b> .....	51
<i>Eleanor Harrison</i>	
<b>6. Investigating the Main Plaza of the Hershey Site (Operation 51)</b> .....	59
<i>Eleanor Harrison</i>	
<b>7. Between the Platforms of Group C: Excavation at Operation 53</b> .....	69
<i>Kevin Acone</i>	
<b>8. The Search for Spanish-Colonial Xibun: 2001 Season</b> .....	73
<i>Daniel Finamore</i>	
<b>Part II: The Middle and Lower Valley (Transects 3, 4, and 5)</b>	
<b>9. Caves of the Sibun-Manatee Karst</b> .....	83
<i>Polly A. Peterson</i>	

<b>10. Revisiting the Mortuary Deposits of Structure 130 at Pakal Na (Operation 22)</b> .....	99
<i>Eleanor Harrison and Kevin Acone</i>	
<b>11. Unraveling the Construction Sequence of Structure 136, Pakal Na (Operation 36)</b> .....	123
<i>Steven Morandi</i>	
<b>12. Magnetometry and Excavation of an Anomaly at Structure 131, Pakal Na (Operation 37)</b> .....	127
<i>Daniel Welch</i>	
<b>13. Locating Settlements and Caves near Gracy Rock (Including maps of Cedar Bank, Juana Pond, Butcher Burns, and Freshwater Creek)</b> .....	147
<i>David Buck and Ben Thomas</i>	
<b>14. Colonial-Period Occupational Debris at Cedar Bank (Operation 40)</b> .....	153
<i>Steven Morandi</i>	
<b>15. Obispo Site: Terminal Ritual (Operation 30) and Residential Architecture (Operation 31)</b> .....	159
<i>Steven Morandi</i>	
<b>16. A Circular Shrine and Repositioned Stelae at the Oshon Site (Operation 24)</b> .....	165
<i>Eleanor Harrison</i>	
 <b>Part III. Comparative Studies of Site Planning and Furnishing</b>	
<b>17. Site Hierarchies and Settlement Districts</b> .....	189
<i>Ben Thomas, Kristen Marx, and Tara Bermingham</i>	
<b>18. Construction Materials and Techniques at Pakal Na, Hershey, and Samuel Oshon Sites</b> .....	195
<i>Jessica L. King</i>	
<b>19. Modification and Transport of Dripwater Formations in the Sibun River Valley</b> .....	209
<i>Shoshaunna Parks</i>	
 <b>Part IV. Pottery Analyses</b>	
<b>20. “Pottery for All Reasons:” Ceramics through Time in the Sibun Valley</b> .....	221
<i>Sandra L. López Varela</i>	
<b>21. Pottery Vessels from Chanona, Usrey, and Arch Caves</b> .....	231
<i>Alleen Betzenhauser</i>	

## Part V. Studies of Chipped and Ground Stone

22. **Chipped Stone Tools from Caves and Settlements** ..... 247  
*M. Margaret Abercrombie*
23. **Comparison of Chipped Stone Debitage from Pakal Na, Samuel Oshon and Augustine Obispo Sites**..... 257  
*Christa D. Cesario*
24. **Obsidian of the 2001 Field Season** ..... 267  
*Chen Sian Lim and Ben Thomas*
25. **Groundstone Artifacts from Settlements and Caves** ..... 277  
*Jenny Haggart*

## Part VI. Biological and Environmental Analyses

26. **Human Remains from Ritual Interments at Pakal Na and Actun Chanona**..... 291  
*Helga Hauksdottir and Steve Morandi*
27. **Sibun Valley Fauna from Excavations and Caves** ..... 297  
*Norbert Stanchly*
28. **Faunal Taphonomy and Ritual Offerings in Five Caves of the Sibun Valley** ..... 329  
*Daniel I. Leonard*
29. **Parrotfish and Pharyngeal Jaws: Faunal Remains from the Oshon Site** ..... 339  
*Erol Kavountzis*
30. **Beads, Bones, and Botanical Remains: Results of Sieving and Flotation**..... 347  
*Emily Hall*
31. **Fluvial Geomorphology of the Sibun Drainage**..... 365  
*Thomas F. Bullard*
32. **Soils of the Sibun Valley: Modeling Ancient Landscapes** ..... 373  
*Pat Farrell*
33. **Karstic and Alluvial Soils at the Base of the Gorge** ..... 391  
*Rhiannon Jones*
34. **Coring for Pollen in the Oxbows of Pechtun Ha and Pakal Na** ..... 413  
*John G. Jones*
35. **Xibun Contemporary Flora and its Significance for the Past**..... 421  
*Kirsten Tripplett*

## **Map Sheets**

- 1. Hershey Site**
- 2. Transect 1 (Base of the Gorge)**



## Chapter 1

# Archaeology of the Xibun Maya

*Patricia A. McAnany and Ben Thomas*

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The 2001 field season of the Xibun Archaeological Research Project (XARP) extended from February through April. The project takes its name from the colonial mission called Xibun, although today the River and surrounding karst are spelled Sibun. Field research took place in the Sibun River Valley of central Belize between the base of the Gorge and the beginning of the estuarine environment (a length of about 60 km as the crow flies). Selected locales for research included surface residential and ceremonial centers, underground caverns, and oxbows and physiographic features (such as river terraces and meander bends) pertinent to paleo-environmental research. The length of the valley was sampled via five transects that crosscut the valley, the first beginning at the base of the Sibun Gorge (Figure 1.1). During prior seasons (1997 and 1999), survey, excavation, and cave mapping/surface collection had been undertaken within Transects 3 and 5. Throughout the 2001 season, research focused on Transects 1, 3, 4, and 5.

During the month of February, the seminal research undertaken by XARP within Transect 1 was initiated. Located within a pocket of fertile farm land at the base of the Gorge, Transect 1 yielded a diversity of archaeological remains, most attributable to the Classic period. Several small sites such as Echo Valley, Sleeping Giant, Silver Creek, Finca Buenos Aires, and St. Thomas were located via GPS, reconnoitered, and mapped (see Morandi et al., Chapter 2). While most sites possessed a small grouping of Classic Maya platforms, St. Thomas did not. Rather, an Archaic period Lowe projectile point was discovered on the surface at St. Thomas (see Morandi et al., Chapter 2 and Finamore, Chapter 8). Using a Total Station, a topographic map was completed of the 0.75 km<sup>2</sup> Hershey site, the largest settlement in the valley complete with an 11 m tall pyramid (see Map Sheet 1). Three test excavations were placed at the Hershey site (see Harrison, Chapters 5 – 6 and Acone, Chapter 7). Historical archaeologist Daniel Finamore reconnoitered the area for the remains of the Colonial *visita* (see Finamore, Chapter 8). Although this survey yielded negative results, the search will continue in the lower part of the valley. The largest cave discovered to date in the Sibun environs—Actun Chanona—was investigated, mapped, and its surface collected (see Peterson, Chapter 3 and Cobb, Chapter 4).

For the months of March and April, the camp was moved to the lower valley so that Transects 3, 4, and 5 could be investigated. Since the eastern edge of the cave-containing karst is coincident with the eastern edge of Transect 4, no cave studies could be undertaken within Transect 5. Cave mapping and artifact collection continued in the Tiger Bay Cave District of Transect 3 (Usrey Cave) and was initiated within the caves of the Gracy Rock Cave District (Transect 4), most notably Arch Cave (see Peterson, Chapter 9). Surface reconnaissance, survey, and mapping were undertaken within Transect 4 and resulted in the recording of four settlement sites: Juana Pond, Butcher Bank, Freshwater Creek, and Cedar Bank (the final being a site already noted in the DOA site archives). Locations were determined via GPS and sites were mapped with a tape, compass, and laser range-finder (see Buck and Thomas, Chapter 13).

At the residential site of Pakal Na, a large burial pit had been encountered at the end of the 1999 season. This unit was re-opened in 2001 and the skeletal remains of one headless male, two bundle burials, and associated funerary objects were excavated (see Harrison and Acone, Chapter 10). Two additional excavation units were opened at Pakal Na: one at the locale of a subsurface anomaly detected by magnetometry (see Welch, Chapter 12) and the other at a partially bulldozed structure (see Morandi, Chapter 11). A 2 × 2 m excavation at the base of a large mound at Cedar Bank yielded early Colonial material (see Morandi, Chapter 14) while excavations conducted at the Augustine Obispo site yielded an abundance of Postclassic censurs (see Morandi, Chapter 15). Finally, investigation of a small stone mound at the Samuel Oshon site yielded definitive evidence of a circular shrine structure, the second documented in the Sibun Valley (see Harrison, Chapter 16).

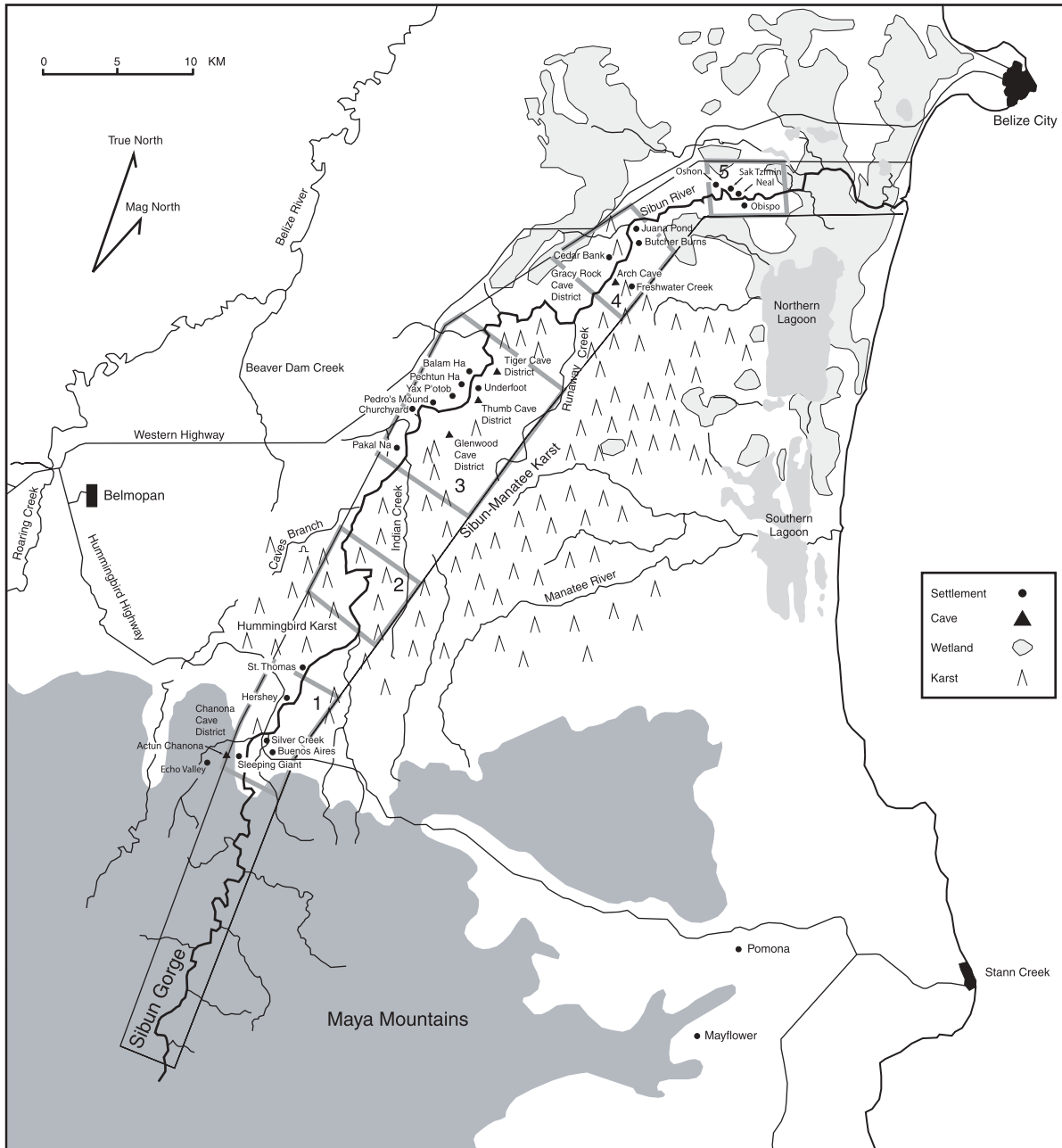


Figure 1.1 Sibun Valley showing transects and selected archaeological sites.

Under the direction of John Jones, three pollen cores were extracted from oxbows in the middle and lower sections of the valley. Oxbows were associated with the archaeological sites of Pechtun Ha, Pakal Na, and Samuel Oshon (see Jones, Chapter 34). Soils geographer Pat Farrell, assisted by Rhiannon Jones, collected samples from selected locales in the upper, middle, and lower parts of the valley in order to reconstruct the ancient soil mantle of the valley (see Farrell, Chapter 32 and Jones, Chapter 33). Geomorphologist Tom Bullard initiated study of the fluvial hydrology of the Sibun River (see Bullard, Chapter 31). Finally, botanist Kirsten Tripplett collected specimens of modern cacao as well as other species of the modern vegetation community (see Tripplett, Chapter 35). Tripplett, assisted by Emily Hall, initiated a water-flotation system for sieving bulk samples from excavations for retrieval of archaeo-botanical remains (see Hall, Chapter 30).

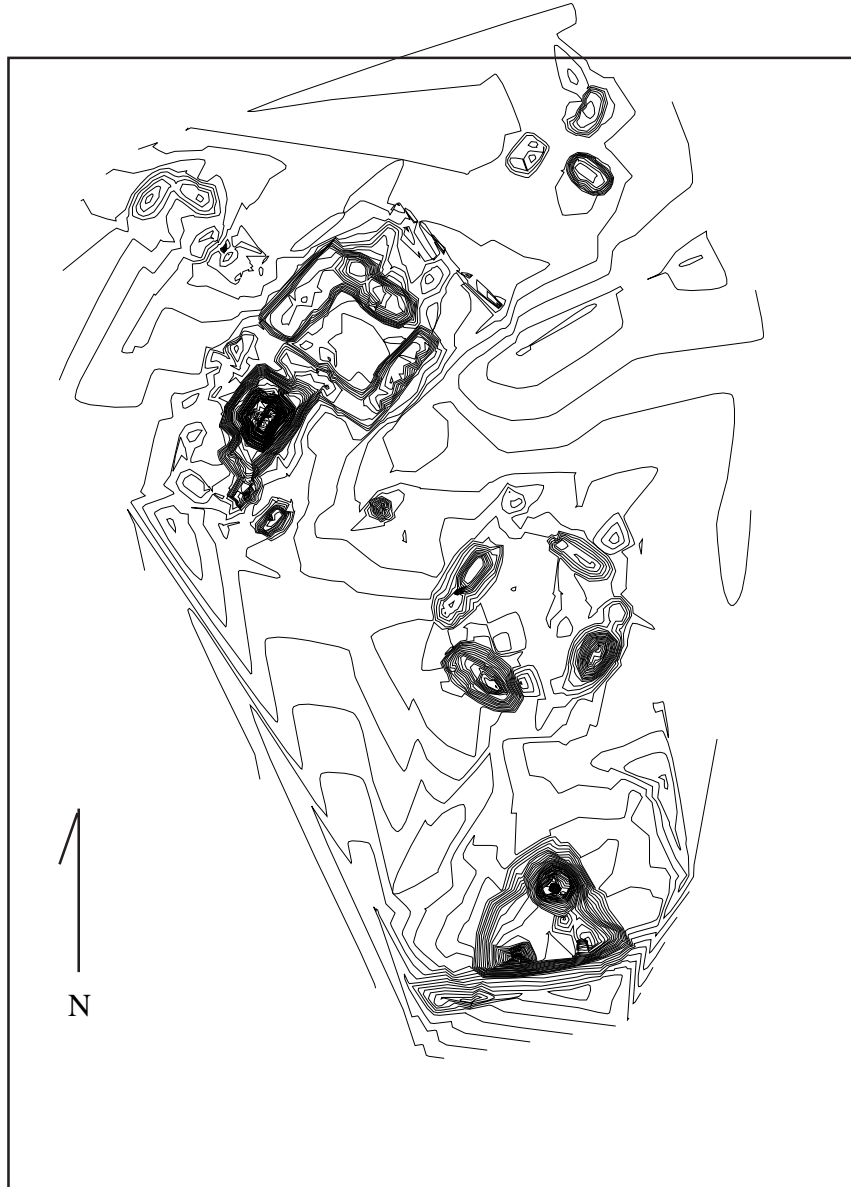
### **Piecing Together a Narrative of the Xibun Maya**

As archaeological research in the Sibun Valley continues, a narrative of the Xibun Maya has begun to unfurl. The raw field data from each field season (1997, 1999, and 2001), when combined with subsequent analysis, either reinforce existing notions or lead our interpretations into new directions. Relevant to this iterative process are the major findings of the 2001 season of XARP that can be divided into two categories: archaeological and paleo-environmental. Since the Sibun Valley is an area that was relatively undocumented prior to XARP, the documentation of site locations and the construction of a local chronology of Maya occupation represented primary orders of business. Toward this end, we have established that there are two large anchor sites situated within the upper and lower valley, Hershey and Oshon, respectively (see Thomas, Marx, and Bermingham, Chapter 17). Hershey appears to be the only site in the valley with pyramidal architecture (Figure 1.2). Excavation at these anchor sites as well as smaller sites within the middle reaches of the valley has yielded evidence of construction techniques that incorporated local materials (see King, Chapter 18) and often constituted only one to three construction phases.

Toward the establishment of an absolute chronology, we have collected more than 100 charcoal samples for radio-carbon dating (many of which are currently undergoing analysis at the University of Arizona AMS lab). We have also made significant progress toward a relative chronology based on ongoing pottery analysis by ceramicist Sandra L. López Varela (see López Varela, Chapter 20). Xibun pottery represents a combination of extraordinarily well preserved sherds and complete vessels from caves (see Betzenhauser, Chapter 21) and marginally preserved pottery from excavations at residential sites, many of which are seasonally inundated. As anticipated, the Terminal Classic or Epiclassic period (AD 700-1000) appears to be the most vigorous period of platform construction in the valley and the timeframe of visitation to the nearby caves of the Sibun-Manatee karst as well as the Hummingbird karst. A time of great upheaval in ancient Maya society, the Epiclassic is the period during which sites in northern Yucatan—such as Chichén Itzá—rose to prominence. The link between sites of the Sibun Valley and northern sites is strengthened by the presence of northern pottery such as Chichén redwares in the Sibun Valley as well as the local construction of circular structures (now documented at the sites of Pechtun Ha and Samuel Oshon). Such shrine structures are a hallmark of the Epiclassic period throughout the Maya lowlands.

The cave of Actun Chanona. Located at the base of the Gorge and in proximity to the Hershey site, is thus far the only cave in the valley known to contain human remains (see

Hauksdottir and Morandi, Chapter 26). Since it is also the largest documented cave in the valley, the presence of skeletal material may refer to the fact that qualitatively different rituals were undertaken at this locale. The profound impact of the nearby caverns on the ritual life of the residents of the valley cannot be under-estimated and is materialized in the presence of speleothems transported to valley settlements (see Parks, Chapter 19) and, conversely, faunal offerings brought into the caves (see Leonard, Chapter 28).



**Figure 1.2 Three-dimensional contour map of the Hershey site.**

Preliminary analysis of pollen from cores extracted from oxbow features indicates a dearth of pollen from economic species (see Jones, Chapter 34). The premise that ancient cacao cultivation was practiced in the Sibun Valley is supported by these results since cacao itself leaves behind scant pollen but thrives as a lower-story arboreal species in a tropic forest. Successful cacao farmers of the past would not have leveled the bush in the manner that pollen analyses conducted on cores from the central Peten of Guatemala has suggested. The prevalence of large game in the midden deposits of relatively modest architecture is another indicator that high bush rain forest likely existed nearby

during the population maximum (see Stanchly, Chapter 27). Another line of support for cacao production is provided by documentation of another possible cacao-drying platform—manifest as a highly fired clay surface—at the site of Pakal Na (see Welch, Chapter 12). The high frequency of imported goods, such as obsidian (see Lim and Thomas, Chapter 24) provides yet another indicator that the residents of the Sibun Valley brought something of value to trading transactions.

While we do not know exactly what commodity was traded out of the valley, we do have evidence that fish from the offshore coral reef were brought up river, presumably through trade, all the way to the base of the Gorge (see Stanchly, Chapter 27 and Kavountzis, Chapter 29). The daily life of Xibun Maya residents also involved acquiring suitable hard stone for chipped and groundstone tools (see Abercrombie, Chapter 22; Cesario, Chapter 23; and Hagggar, Chapter 25). For Xibun Maya living close to the Caribbean (Transect 5), sources of medium-quality chert formed by marine transgressions of past geological epochs were readily available. Used as ballast in construction fill at the Augustine Obispo and Samuel Oshon sites, chert debitage is dramatically over-represented at Transect 5 sites in comparison to sites up river (see Cesario, Chapter 23).

While future field seasons undoubtedly will result in the revision and refinement of the Xibun narrative, the basic construction blocks are in place. Settlements and caves of the Sibun Valley, while peripheral to the powerful Maya cities of the Classic, Epi-classic, Postclassic, and Colonial worlds, contain vital information relevant to understanding major periods of transformation in Maya society. The crisp nature of the deposits in the Sibun Valley, in fact, can be attributed to the lack of severe “over-printing” caused by continued dense occupation or re-occupation. Strategic in the sense of being a locale where a desired prestige good such as cacao could be grown and advantageously situated relative to the Caribbean sea lanes so thoroughly traveled at the end of the Classic period, the Sibun Valley—and its severe flooding regime—posed a challenge to settlers. Perhaps this challenge was mitigated by the miles of nearby underground caverns available for ritual negotiations conducted by watchful farmers. These two facts of nature—floods and caves—shaped the lives of Xibun Maya residents and, in the case of the caves, were shaped by Xibun Maya ritualists. In this manner, culture begets landscape.