

*Dept. of Archaeology,  
Belmopan, Belize*

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**BELIZE VALLEY  
ARCHAEOLOGICAL RECONNAISSANCE  
PROJECT**



**PROGRESS REPORT  
OF THE 1994 FIELD SEASON  
VOLUME 1**

Edited by

Gyles Iannone  
and  
James M. Conlon

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# From Collection to Comparison at Zubin: Towards the Identification of an Ancient Maya Middle Stratum

by

Gyles Iannone

This brief essay introduces a series of papers reflective of the transitional stage of investigations at the minor center of Zubin. Several reports provide general excavation descriptions. In combination, the two essays by the author (Iannone, this volume) on the site core operations, and Christensen (this volume), on the peripheral *Ek-pay* group, detail the results of the third and final season (1994) of archaeological investigations at Zubin. The paper by Stevens and Ford (this volume) discusses the previously unreported 1992 excavations within the peripheral *Familia* group, and associated reservoir (Operation 100). With the submission of these three papers, all operations at Zubin will have been reported on (see also Hodgson 1993; Iannone 1993a, 1994a; Sunahara 1993). An unabridged overview of all Zubin investigations will be presented in the author's Ph.D. dissertation, currently being completed at the University of London. This dissertation focuses on elucidating the status, wealth, and power exhibited by the inhabitants of minor centers, in particular those residing at Zubin, in order to determine whether these individuals can be considered members of an ancient Maya middle stratum (see Iannone 1994b).

Recently, a number of specialized (see Reents-Budet 1994, for ceramics; Abrams 1994, for domestic architecture), as well as more general analyses (McAnany 1995; see also A. Chase 1992), have cited evidence which can be taken as affirmation of the viability of the middle stratum concept previously presented by the author (Iannone 1994b). However, none of these can be considered completely exhaustive appraisals of the subject in question, and an analysis specifically designed to isolate the middle stratum within a broader community is needed. Having completed the collection phase of the BVAR project, we are now in a position to do just this. Specifically, a thorough comparative analysis can now be conducted in order to determine whether the inhabitants of Zubin can be considered members of an ancient Maya middle stratum. The rich, diachronic data base available for the Cahal Pech area will undoubtedly facilitate this analysis. The second group of four papers provide preliminary comparative analyses of specific artifact types. The papers by Stanchly (1993, 1994, this volume) on faunal remains, Ferguson (this volume) on worked shell, Schwake (this volume) on modified human teeth, and Christensen (this volume) on lithics, begin to illuminate the differences between Zubin, and the lower and upper level settlement within the Cahal Pech microregion. Although these analyses are preliminary, they do suggest that the inhabitants of the Zubin site core were mediary with regard to the ability to acquire certain material culture items, body modifications, and possibly food stuffs. Their extended discussions of regional, and macroregional comparisons suggest that the status, wealth, and power differences recognized on the microregional level are similarly significant on a much broader scale. As stated, these are only cursory analyses, focusing on limited aspects of the potential data base. Clearly, more insightful conclusions will result

as more comprehensive comparative investigations are taken up.

As a starting point, an exhaustive microregional analysis should be conducted to form the foundation for broader, regional, and macroregional comparisons. I have previously (Iannone 1993b) suggested that a microregional comparative analysis can be profitably carried out via a series of bundled continua (see Easton 1959), ordinally graded in degrees of "power to" and "power over". The use of continua for comparative purposes makes a great deal of sense, since the data we are looking at does not come in discrete units, but rather by way of a series of continua (cf. Adams and Jones 1981:308; Grove and Gillespie 1992:191; Haviland 1965:23, 1966a:627-628, 1966b:31, Iannone 1993b:1, 1993a:10-14, 1993c:8; Sharer 1993:94). The use of power to grade the continua is similarly logical. This is because power is considered "integral" to the study of social relations (Giddens 1979:53-54), as it is "...instantiated in action, as a regular and routine phenomenon" (Giddens 1979:91). In fact, some social scientists, such as Giddens (1979:68), see power as the central "concept" in social theory.

It should be stressed that power is employed here in a multidimensional sense, following the work of social theorists such as Boulding (1989), Bourdieu (1977), Foucault (1977; see also Foucault in Rabinow 1984:60-61), and Giddens (1979, 1982). A reading of these authors makes it clear that power is both a universal and multidimensional element within social interaction. Two key issues should be underscored here. First, as has been emphasized by Boulding (1989:16), it is misguided to associate power strictly with force, and thus domination. It is generally accepted that power (in its broadest sense) is inherent in all social relationships (cf. Foucault 1977; Foucault, in Rabinow 1984:60-61; Giddens 1979:6, 53-54, 80-82, 88; Miller and Tilley 1984:5-9). Second, although all agents are perceived to have power in all relationships (Giddens 1979:6, 93, 1982:32), it is assumed that over time power has become unequally distributed (Boulding 1989:21). In taking such a view questions of domination and resistance, autonomy and dependence, and the overall development of inequality become exceedingly important. In summary, because power is inherent in all social relations, and due to its unequal distribution, any analysis which focuses on power will promote the characterization of social relations.

What remains to be discussed is a method for applying the concept of power to the archaeological data. The bundled continua approach has previously been employed with some success in the Maya area by de Montmollin (1989) in his recent "Durkheimian" study of the political landscape in the Rosario Polity. My own preliminary application of the bundled continua approach within the Cahal Pech microregion (Iannone 1993b), which attempted to broaden de Montmollin's politically oriented analysis, focused on a variety of data types to compare three of the more prominent architectural configurations in the vicinity of Cahal Pech (Zubin, the Zopilote Group, and the Tzinic Group). This analysis, I believe, was also partially successful. Since that time I have worked to construct a more sophisticated series of bundled continua. It was felt that in order to approach the analysis of power relations, and by association social relations, in a rigorous manner, the bundled continua of power employed during the analysis should be exhaustive, in order to encompass all the available data types. It was also deemed important that these continua be malleable, so that the data could be evaluated in a number of different ways, emphasizing different aspects each time. The resulting series of bundled continua have

been developed in light of de Montmollin's earlier work, as well as my own. Significant additions have also been adopted from Wason's (1995) important book, *The Archaeology of Rank*. Numerous other analyses have also been "mined" for potential continua. In combination, this work has produced a series of 104 continua of variation, which have been bundled under ten general categories: (1) Osteological, Paleopathological, and Demographic Data [Table 1]; (2) Mortuary Data [Table 2]; (3) Artifacts: Status Markers [Table 3]; (4) Cache Data [Table 4]; (5) Artifact Data: Domestic Architecture [Table 5]; (6) Iconographic, Epigraphic, Wealth, and Craft Specialist Data [Table 6]; (7) Settlement Data [Table 7]; (8) Architecture Data: Residential [Table 8]; (9) Architecture Data: Nonresidential [Table 9]; (10) Labor Data [Table 10]. By ordinaly scaling these continua in varying degrees of "power to" and "power over", I believe that this comparative method will produce valuable insights concerning the relationship between the various social factions inherent within ancient Maya society. By moving from microregional, to regional, and finally macroregional levels of comparison, the presence of an ancient Maya middle stratum should become apparent.

#### OSTEOLOGICAL, PALEOPATHOLOGICAL, AND DEMOGRAPHIC DATA

1. Power to obtain better diet and nutrition
2. Power to "buffer" stress, avoid infection and trauma
3. Power to evade heavy or rigorous labor
4. Power to acquire elaborate body modifications

Table 1. Continua of Power for osteological, paleopathological, and demographic data.

#### MORTUARY DATA

1. Power to expend more energy in mortuary rituals
2. Power to produce more elaborate grave forms
3. Power to inter larger quantities of grave goods
4. Power to inter larger varieties of grave goods
5. Power to inter "high status" grave goods
6. Power to inter grave goods of high quality workmanship
7. Power to inter grave goods of high quality raw materials
8. Power to inter elaborate or intricate grave goods
9. Power to inter grave goods of exotic raw materials
10. Power to inter exotically produced grave goods
11. Power to inter non-utilitarian grave goods

12. Power to include sacrificial offerings along with grave goods
13. Power to employ "higher status" body positions
14. Power over preferred grave location

Table 2. Continua of Power for mortuary data.

#### ARTIFACTS: STATUS MARKERS

1. Power to acquire "elite" items
2. Power to acquire "sumptuary" items
3. Power to acquire large quantities of "elite" items
4. Power to acquire large quantities of "sumptuary" items
5. Power to acquire greater varieties of "elite" items
6. Power to acquire greater varieties of "sumptuary" items
7. Power to acquire "elite" items of high quality workmanship
8. Power to acquire "sumptuary" items of high quality workmanship
9. Power to acquire "elite" items of high quality materials
10. Power to acquire "sumptuary" items of high quality materials
11. Power to acquire elaborate or intricate "elite" items
12. Power to acquire elaborate or intricate "sumptuary" items
13. Power to acquire "elite" items produced from exotic materials
14. Power to acquire "sumptuary" items produced from exotic materials
15. Power to acquire exotically produced "elite" items
16. Power to acquire exotically produced "sumptuary" items
17. Power over the production of "elite" items
18. Power over the production of "sumptuary" items

Table 3. Continua of power for "elite" and "sumptuary" artifacts.

#### CACHE DATA

1. Power to produce elaborate cache forms
2. Power to acquire large quantities of cache items
3. Power to acquire wider varieties of cache items
4. Power to include "high status" items in caches
5. Power to cache items of high quality workmanship
6. Power to cache items of high quality raw materials
7. Power to cache elaborate or intricate items
8. Power to cache items of exotic raw materials
9. Power to cache exotically produced items

10. Power to cache non-utilitarian items
11. Power to include sacrificial offerings in caches

Table 4. Continua of variation for cache data

#### ARTIFACT DATA: DOMESTIC ARCHITECTURE

1. Power to acquire larger quantities of artifacts
2. Power to acquire a larger variety of artifacts
3. Power to acquire "high status" items
4. Power to acquire items of high quality workmanship
5. Power to acquire artifacts of high quality material
6. Power to acquire elaborate or intricate items
7. Power to acquire items of exotic raw materials
8. Power to acquire exotically produced items
9. Power to acquire non-utilitarian items

Table 5. Continua of power for artifacts recovered from domestic contexts ("on floor" and "fill").

#### ICONOGRAPHIC, EPIGRAPHIC, WEALTH, AND CRAFT SPECIALIST DATA

1. Power to acquire iconographic items
2. Power to acquire epigraphic items
3. Power to acquire "wealth" items
4. Power over specialized craft production

Table 6. Continua of power for iconographic, epigraphic, wealth, and craft specialist data.

#### SETTLEMENT DATA

1. Power to produce larger and more complex settlements
2. Power over the distribution of population
3. Power over sections of improved land



Table 7. Continua of power for settlement data.

ARCHITECTURE DATA: RESIDENTIAL

1. Power to invest more energy in construction material acquisition
2. Power to produce a larger residence
3. Power to produce higher quality residential structures
4. Power to construct residences in prominent locales
5. Power to produce variable and complex residential plan
6. Power to produce a greater number and variety of ancillary structures
7. Power to produce special auxiliary residential features (platforms, barriers)

Table 8. Continua of power for residential architecture data.

ARCHITECTURE DATA: NONRESIDENTIAL

1. Power to construct nonresidential architecture
2. Power to invest more energy in raw material acquisition
3. Power to construct larger nonresidential architecture
4. Power to produce higher quality nonresidential architecture
5. Power to construct nonresidential architecture in prominent locales
6. Power to produce variable and complex nonresidential plans
7. Power to produce a greater number and variety of nonresidential structures
8. Power to produce a greater number and variety of ancillary structures
9. Power to produce special auxiliary non-residential features (e.g. platforms, barriers)

Table 9. Continua of power for nonresidential architecture data.

## LABOR DATA

1. Power over familial reciprocal labor for residential construction and elaboration
2. Power over familial reciprocal labor for non-residential construction and elaboration
3. Power over familial reciprocal labor for production of basic resources
4. Power over familial reciprocal labor for production of non-basic resources
5. Power over familial reciprocal labor for ritual activity
6. Power over familial contractual labor for residential construction and elaboration
7. Power over familial contractual labor for non-residential construction and elaboration
8. Power over familial contractual labor for production of basic resources
9. Power over familial contractual labor for production of non-basic resources
10. Power over familial contractual labor for ritual activity
11. Power over community contractual labor for residential construction and elaboration
12. Power over community contractual labor for non-residential construction and elaboration
13. Power over community contractual labor for production of basic resources
14. Power over community contractual labor for production of non-basic resources
15. Power over community contractual labor for ritual activity
16. Power over festive custodial labor for residential construction and elaboration
17. Power over festive custodial labor for non-residential construction and elaboration
18. Power over festive custodial labor for production of basic resources
19. Power over festive custodial labor for production of non-basic resources
20. Power over festive custodial labor for ritual activity
21. Power over corvée labor for residential construction and elaboration
22. Power over corvée labor for non-residential construction and elaboration
23. Power over corvée labor for production of basic resources
24. Power over corvée labor for production of non-basic resources
25. Power over corvée labor for ritual activity

Table 10. Continua of power for labor data.

## REFERENCES CITED

Abrams, Elliot M.

1994 *How the Maya Built Their Universe: Energetics and Ancient Architecture*. University of Texas Press, Austin.

Adams, R.E.W. and Richard C. Jones

1981 Spatial Patterns and Regional Growth Among Classic Maya Cities. *American Antiquity* 46:301-322.

Boulding, Kenneth

1989 *Three Faces of Power*. Sage Publications, London.

Bourdieu, Pierre

1977 *Outline of a Theory of Practice*. Translated by Richard Nice. Cambridge University Press, Cambridge.

Chase, Arlen F.

1992 Elites and the Changing Organization of Classic Maya Society. In *Mesoamerican Elites: An Archaeological Assessment*, edited by Diane Z. Chase and Arlen F. Chase, pp. 30-49. University of Oklahoma Press, London.

de Montmollin, Olivier

1989 *The Archaeology of Political Structure: Settlement Analysis in a Classic Maya Polity*. Cambridge University Press, New York.

Easton, David

1959 Political Anthropology. In *Biennial Review of Anthropology*, edited by Bernard J. Siegel, pp. 210-262. Stanford University Press, Stanford.

Foucault, Michel

1977 *Discipline and Punish*. Vintage Books, New York.

Giddens, Anthony

1979 *Central Problems in Social Theory*. Macmillan, London.

1982 Power, the Dialectic of Control and Class Structuration. In *Social Class and the Division of Labour*, edited by Anthony Giddens and Gavin Mackenzie. Cambridge University Press, London.

Grove, David C., and Susan D. Gillespie

1992 Archaeological Indicators of Formative Period Elites: A Perspective from Central Mexico. In *Mesoamerican Elites: An Archaeological Assessment*, edited by Diane Z. Chase and Arlen F. Chase, pp. 191-205. University of Oklahoma Press, London.

Haviland, William A.

1965 Prehistoric Settlement at Tikal, Guatemala. *Expedition* 7(3):14-23.

1966a Social Integration and the Classic Maya. *American Antiquity* 31:625-631.

1966b Maya Settlement Patterns: A Critical Review. *Middle American Research Institute*, Publication 26, pp. 21-47. Tulane University, New Orleans.

Hodgson, J. Garwood

1993 A Preliminary Report of Excavations at Plaza B, Zubin, Belize. In *Belize Valley Archaeological Reconnaissance Project: Progress Report of the 1992 Field Season*, edited by Jaime J. Awe, pp. 45-62. Trent University, Peterborough.

Iannone, Gyles

1993a Time Among the Thorns: Results of the 1992 Field Season at Zubin, Cayo District, Belize. In *Belize Valley Archaeological Reconnaissance Project: Progress Report of the 1992 Field Season*, edited by Jaime J. Awe, pp. 10-44. Trent University, Peterborough.

1993b "Minor Centers" and Ancient Maya Settlement: Current Research in the Periphery of Cahal Pech, Cayo, Belize. Paper presented at the 58th Annual Meeting of the Society for American Archaeology, St. Louis.

1993c Eccentrics and the Maya Middle Class: Insights from the Bedran Group, Baking Pot. In *Belize Valley Archaeological Reconnaissance Project: Progress Report of the 1992 Field Season*, edited by Jaime J. Awe, pp. 225-236. Trent University, Peterborough.

1994a More Time Among the Thorns: Results of the 1993 Investigations at Zubin, Cayo District, Belize. In *Belize Valley Archaeological Reconnaissance Project: Progress Report of the Sixth (1993) Field Season*, edited by Jaime J. Awe, pp. 32-108. Institute of Archaeology, University of London, London.

1994b Ancient Maya Social Organization and the Concept of Middle Class: A Critical Review. In *Belize Valley Archaeological Reconnaissance Project: Progress Report of the Sixth (1993) Field Season*, edited by Jaime J. Awe, pp. 3-31. Institute of Archaeology, University of London, London.

McAnany, Patricia A.

1995 *Living with the Ancestors: Kinship and Kingship in Ancient Maya Society*. University of Texas Press, Austin.

Miller, Daniel, and Christopher Tilley 1984 Ideology, power and Prehistory: An

Introduction. In *Ideology, Power and Prehistory*, edited by Daniel Miller and Christopher Tilley, pp. 1-15. Cambridge university press, Cambridge.

Rabinow, Paul

1984 *The Foucault Reader*. Penguin Books, New York

Reents-Budet

1994 *Painting the Maya Universe: Royal Ceramics of the Classic Period*. Duke University Press, Durham.

Sharer, Robert J.

1993 The Social Organization of the Late Classic Maya: Problems of Definition and Approaches. In *Lowland Maya Civilization in the Eighth Century A.D.*, edited by Jeremy A. Sabloff and John S. Henderson, pp. 91-109. Dumbarton Oaks Research Library and Collection, Washington.

Stanchly, Norbert

1993 A Preliminary Analysis of the Faunal Remains from the Tolok and Zubin Groups, 1991-1992 Field Season. In *Belize Valley Archaeological Reconnaissance Project: Progress Report of the 1992 Field Season*, edited by J. J. Awe, pp. 130-138. Trent University, Peterborough.

1994 A Report on the Faunal Remains Recovered from the Zubin Group, 1993 Field Season. In *Belize Valley Archaeological Reconnaissance Project: Progress Report of the Sixth (1993) Field Season*, edited by Jaime J. Awe, pp. 109-121. Institute of Archaeology, University of London, London.

Sunahara, Kay S.

1993 A Report of the 1992 Excavations on Structures D10 & D11 of the Zubin Group at Cahal Pech, Cayo District, Belize. In *Belize Valley Archaeological Reconnaissance Project: Progress Report of the 1992 Field Season*, edited by Jaime J. Awe, pp. 63-77. Trent University, Peterborough.

Wason, Paul K.

1994 *The Archaeology of Rank*. Cambridge University Press, Cambridge.

# ONE LAST TIME AMONG THE THORNS: RESULTS OF THE 1994 FIELD SEASON AT ZUBIN, CAYO DISTRICT, BELIZE

by

Gyles Iannone

This report outlines the results of the third and final season of archaeological investigations at the ancient Maya "minor center" of Zubin. Zubin is located within Cayo District, ca. 2 km south of the medium sized major center of Cahal Pech (see Figure 1). The Zubin site core is comprised of two restricted access courtyards on the north (*Ac* and *Bac-Ha*), and an adjoining raised platform (*Cutz*), supporting a solitary mound, on the south (see Figure 2). Both pyramidal and range-type structures are present. Surrounding this focal architectural assemblage are a number of solitary mounds, numerous patio and plazuela type mound clusters, and a series of quarries, *chultuns*, and reservoirs (see Figure 1). The results of two previous seasons (1992, 1993) of investigations have been presented in Iannone (1993a, 1994a). The rationale behind the investigations has also been detailed in a number of articles (see Iannone 1993a, 1993b, 1994a, 1994b). The reader is directed towards these works for a more elaborate discussion of the project goals.

To summarize, the Zubin study was initiated to address four fundamental problems inhibiting a comprehensive analysis of ancient Maya social organization. First, it was abundantly clear that with few exceptions archaeological research had focused on the polar extremes of the settlement hierarchy, at the expense of minor centers and other middle level settlement units. Middle level settlement units, as defined by the author (Iannone 1993a, 1993b, 1994a, 1994b), are those clusters of architectural features which form a continuum beginning with the larger plazuela groups (see Ashmore 1981) and concluding with the "minor centers". These architectural assemblages are seen to comprise a loose but distinguishable set of settlement units lying, in size and complexity, somewhere between the smaller housemound groupings (lower level settlement) and the larger major centers (upper level settlement). Clearly, a more representative data base was required before accurate insights into social relations could be generated.

Second, an emphasis on survey at the cost of intensive excavations, particularly with reference to minor centers and other middle level settlement units, had produced a data base biased towards the synchronic scale. This was deemed problematic, as many archaeologists, anthropologists, and sociologists have shown, social relationships and organization can only be approached through a diachronic analysis.

Third, the lack of rigor in the application of analogies to the ancient Maya, whether they derive from ethnohistoric, ethnographic, or non-Maya examples, was also considered to have hindered the production of accurate and sophisticated models of past social organization. This issue was especially prevalent in minor center interpretation, where the scarcity of detailed excavations had forced researchers to adopt interpretive approaches overly reliant on formal analogies.

Finally, it became clear that the aforementioned problem had been compounded by

the uncritical application of social theory and related terms to the Maya case. A consistent issue of debate over the years has existed between the proponents of multiclass models for the ancient Maya social hierarchy, and those championing two class constructs. Disagreement revolves primarily around the presence or absence of a "middle class". In reality, much of the contention between the opposing camps is readily attributable to the lack of rigor practiced when employing terms, in particular the "middle class" label. With reference to this problem, the Zubin investigations were launched with the intimation that the multiclass vs. two class problem could be addressed via excavations within minor centers. It was proposed that given their mediary size and complexity, these settlement units may have housed middle "stratum" (as opposed to middle "class") social groups. However, in order to determine the potential existence of such mediary groups, it was considered imperative to develop a complex but readily operational interpretive method for analyzing the data generated through minor center investigations. This interpretive framework had to be based in rigorous social theory, and employ well-defined descriptive terms consistent with those in use within the broader social sciences. Only through this manner could the findings be infused with any validity. In summary, the Zubin investigations were implemented to produce a diachronic data base from the least understood segment of the ancient Maya settlement hierarchy. With this in hand, it was proposed that a well-grounded interpretive framework could be successfully utilized to explore the potential presence of "middle stratum" social groups at minor centers. It was felt that a research program with this emphasis would ultimately flesh out our understanding of the entire social hierarchy in a constructive manner.

The excavation goals of the 1995 field season were: 1) to horizontally expose, and axially trench the mound perceived to have been the primary Zubin residential structure (Structure A4); 2) axially trench the proposed administrative pyramidal structure (Structure A3), portions of which had been horizontally exposed during previous field seasons; and 3) axially trench the extensively looted pyramidal shrine structure surmounting the *Cutz* raised platform (Structure C9, see Figure 2). These excavations would conclude a 67% sample of the structures comprising the Zubin site core. Three low mounds, A2, A5, and B7, could not be investigated given time and crew size limitations. In conjunction with these site core investigations, a minimal program of test excavations was also conducted in the immediate periphery (Group E, see Figure 1; Christensen, this volume). The survey goals for the 1995 season included: 1) completion of the map of the Zubin site core; 2) mapping of the majority of the peripheral settlement; and 3) production of a contour map for the Zubin periphery, and the restricted valley between Zubin and the Cahal Pech site core. All of the above survey goals were achieved, although the improved contour map has yet to be completed. As this is the final research report, an outline of the survey and excavation methods employed during the Zubin investigations is provided below. This discussion sets the stage for the detailed report of the 1995 results.

## METHODS

The Zubin survey was conducted by Shaw M. Brisbin and Cameron Griffith using

an optical theodolite and standard stadia rod. Stadia tacheometry was employed to calculate distances. Grouped architectural features were assigned a structure designation consisting of a group letter and a sequential number (e.g. STR. A1, B8, D11). Solitary structures were simply assigned a number in the sequential list (STR. 15). Non-architectural features were given an operation number (e.g. Op. 100). Completed maps were produced by Brisbin using *Autocad*. Admittedly, a methodical surface reconnaissance was never conducted in the Zubin periphery. This reflects a number of uncontrollable circumstances, the majority of which originated during operations within the Cahal Pech site core and its immediate periphery. These have been outlined in detail by Awe and Brisbane (1993), and are only summarized here. Given Cahal Pech's proximity to San Ignacio town, survey datums often went missing, only to be found in the hands of young children at a later date. This meant that re-surveying often had to be conducted, curtailing the number of new shots that could be made on a daily basis. The continual growth of San Ignacio town also hampered the survey crew, as they often had to change their locus of operations at a minutes notice in order to map settlement clusters threatened by bulldozers. The necessity for such salvage operations was a constant hindrance, and as a result it became impossible to implement a systematic survey. In the end a transect ca. 1 km wide and 2.5 km long, stretching between the Cahal Pech and Zubin site cores, was eventually produced, but this was by means of "patchwork" rather than through orderly procedures.

In conjunction with the Cahal Pech survey problems, the small size of the Zubin crews also ruled out intensive reconnaissance and survey at that locale. Concomitantly, with reference to the goals of the Zubin operations, and the stated need for intensive excavations within sites of this size, excavations had to take priority over reconnaissance and survey. To put reconnaissance and survey on an equal footing with excavations in the site core would have greatly curtailed the amount of excavations which could be completed by the small crews, and produced a study analogous to those being criticized. In the end, the survey reflects a concerted, but unsystematic effort to produce a map reflective of the majority of prominent architectural features. It does, therefore, suffice to illustrate the overall density and complexity of the Zubin site core and its peripheral settlement (see Figure 1).

The Zubin investigations similarly dictated that site core excavations would take precedence over peripheral operations. To have done otherwise would have again contradicted the goals of the project, namely the need to produce a multifaceted, temporally representative data base from the focal architectural assemblage. The size of the crew was again a prime determining factor in the making of this decision. Within the Zubin site core a combination of horizontal and vertical excavations was employed from the outset of operations. These contrasting methods of data acquisition were applied in a complementary fashion to initially exposing large sections of terminal architecture, and subsequently trench via smaller units to gather data from the earlier occupation levels. A combination of these methods was considered the most fruitful approach for acquiring a temporally sensitive knowledge of architectural and material culture remains, while still promoting an understanding of terminal architectural forms and associated artifact patterning. To reiterate, the Zubin survey and excavation design was structured in such a way as to generate a representative, multifaceted, and temporally sensitive data base. With these



goals in mind, the investigative strategy aimed to produce data reflective of: 1) the density and temporal growth of the peripheral population; 2) the duration of site core occupation; 3) architecture type, elaboration, and sequence of modification; 4) the contents and location of ritual deposits; 5) the nature of the overall material culture assemblage; and 6) the location, structural elaboration, and inventory of burial deposits. Such data was deemed necessary for appraising the changing nature of activities undertaken at the site. This information was also considered essential for the accurate assessment of intra- and intersite power relations.

Excavations were conducted using trowels and geologists hand-picks. Smaller wooden tools and dental instruments were taken up to complete more intricate excavations. A number of horizontal datums were surveyed in for each unit to facilitate mapping of finds. Triangulation was the primary method of horizontal recording. Field maps were completed in 1:20 scale. One horizontal datum for each unit was also designated the vertical datum, which was subsequently provided with an Above Sea Level (ASL) elevation by the surveyor. Vertical control over artifact distributions was maintained by excavating in levels with either natural or cultural integrity. Where finer horizontal or vertical control was required levels were subdivided into smaller spatial entities. For example, Level 2, a fall deposit in a unit with a platform and retaining wall might be divided into Level 2a, in front of the wall, and Level 2b, materials resting on top of the platform. This method is profitable in that it is easily recognized that both levels are "fall deposits", yet the affix indicates that these deposits were spatially separable. One need not know if these deposits are different at the outset, and in fact a deposit such as "fall" is often quite homogenous due to the processes involved in its formation. Nonetheless, laboratory analysis may indicate that the field separation was of relevance. The ease with which the separation can be made, and the connection between the two deposits retained, makes this a much more malleable and understandable system than the cumbersome "lot" method (e.g. W. Coe and Haviland 1982:43-44). In fact, in the majority of architectural investigations Level 2 will always be a fall deposit, thus this recording method also provides information far quicker than the lot system.

Separable deposits and contexts (e.g. fall vs construction fill with rubble) were designated following a classification scheme originally outlined by Garber (1986), and subsequently modified by the author (Iannone 1992). All deposits were screened through 1/4 " mesh in order to provide consistent artifact samples for analysis. Level Records, Burial Records, and Feature Records were used to record the primary excavation data. Bound notebooks were also employed to provide excavators with a more malleable device for recording information and ideas. Catalogue cards were included with all finds bags. These contained all pertinent excavation information. Soil samples were obtained from all floor levels and any other deposits which were deemed fitting. Size classifications for sedimentary clasts conform to the Wentworth scale. Architectural descriptions follow Loten and Pendergast's (1984) *Lexicon*. Nomenclature for superimposed structures follows that for the Tikal Project (W. Coe and Haviland 1982:47-48). For example, B6-1st would overlay B6-2nd, and so on from the terminal architecture down. Grave classifications comply with those outlined by Welsh (1988) in his definitive analysis of Lowland Maya burials. Burials were assigned a designation combining the structure number from which

they were recovered, a "B" for burial, and a sequential number for that specific structure (e.g. A1-B/7, the seven burial recovered from Structure A1). Other special deposits (e.g. caches) were classified following the typology previously presented by the author (Iannone 1992). These were designated in the same manner as the burials, with the exception that an "F" for feature was substituted (e.g. A1-F/7, the seventh feature discovered in Structure A1).

All faunal identifications have been made by B.V.A.R. Project faunal analyst Norbert Stanchly (Stanchly 1993, 1994, this volume). Analysis of the human remains was conducted by Dr. David Glassman and Trent Stockton of Southwest Texas State (Glassman and Stockton 1995). Artifact terminology generally conforms to that utilized in the Altar de Sacrificios (Willey 1972), Barton Ramie (Willey et al. 1965), Piedras Negras (Coe 1959), Seibal (Willey 1978), and Uaxactun (Kidder 1947) reports. All formal artifacts were given a "Special Finds Number", which followed the method described for burial and feature designations, with the substitution of "SF" for special find (e.g. A1-SF/7, the seventh special find found in Structure A1). Ceramic classification was done by the author, and Gifford's (1976) Barton Ramie typology was employed throughout. Dates herein generally adhere to this typology, although modifications have been made when necessary to reflect the more pertinent chronology developed by Ball and Awe (Ball and Taschek 1986; see also Awe 1992) for Buena Vista and Cahal Pech. Within the text, discussions of ceramics and temporal periods follow the Ball/Awe construct, as there are clear temporal differences between these sites and Barton Ramie with regard to the duration of use of some ceramic types (see Figure 3). All dates related within the forthcoming discussions take precedence over those outlined in the 1992 and 1993 reports. This is primarily due to the larger samples now available for consideration, although in some instances it also reflects the superior preservation of floor levels encountered (i.e. less mixing of assemblages as a result of floor deterioration, root action, bioturbation, etc.).

#### EXCAVATIONS IN COURTYARD A OR AC

Courtyard A or Ac (Male Peccary), the focal architectural assemblage at Zubin, is a highly restricted courtyard configuration (see Figure 2). The eastern mound, Structure A1, is a pyramidal structure with at least one small flanking mound abutting its south side (Str. A5). To the north, between Structure A1 and Structure B6, a formal entrance into the courtyard is hypothesized to exist. A very low-lying mound, Structure A2, partially closes off the courtyard to the North, although there appears to be an access to the adjacent Courtyard B (*Bac-ha*) to the east of this mound. An additional, yet smaller pyramidal mound, Structure A3, is located directly across from A1, and defines the western border of the courtyard. This construct rises approximately 2.75 m above the Ac plaza courtyard, and substantially above the ground surface to the West of the site core. A long, unvaulted, bi-level range-type construct, Structure A4, closes off the courtyard to the South. A second formal entrance into the courtyard is postulated to exist between Structures A3 and A4. Another more restricted access point existed at the eastern end of Structures A4. The dominant mound, Structure A1, rises approximately 5 m above the courtyard surface, and roughly 9 m above the normal ground surface to the East. There are no indications that any of the Ac Plaza structures were ever vaulted. However, Structure A3, A4, and B6 have

evidence for low masonry walls.

### *Structure A3 Operations*

Structure A3 is located on the western side of the Ac courtyard, directly across from the previously discussed Structure A1 (see Figure 2). As with A1, A3 is best considered a special function structure, being pyramidal in form. However, its overall configuration, being less steep, with a proportionately more elongated base and summit, suggests that this piece of architecture was both functionally and symbolically different from the A1 eastern ancestor shrine. Like Structure A1, A3 had been extensively looted via a large trench (Figure 2). Fortunately, this looting activity focused on the rear of the structure, hence the frontal primary axis remained intact for explorations. The looter's trench did, however, demolish the majority of the central section of the upper platform. During the 1992 season a single 2x2 unit, A3-1, was opened on the summit of Structure A3 (see Figure 4). Its purposes was to aid in the recognition of the structures primary axis. It was hoped that this information would in turn facilitate the placement of an axially aligned trench scheduled to be dug during the 1993 season. Unfortunately, Unit A1-3 did not provide us with the information required to achieve this goal. During the 1993 season we resumed our exploratory efforts at the A3 locus. These continued to emphasize the exposure of terminal architecture and the isolation of the primary axis. The 1993 excavations were carried out in a series of seven (A3-1 thru A3-7) articulated units (see Figure 4). This provided horizontal control over the spatial distribution of artifacts. These units varied in size (2x2 m or 3x2 m), and were positioned in order to expose large portions of the A3 superstructure and substructure, and the medial section of the axial stairs down to courtyard level. Vertical control was again maintained through the excavation of levels with natural or cultural integrity. Further excavations in 1994 re-exposed the axial stair units of A3-6 and A3-7. A new 2x2 m unit, A3-8, was also excavated immediately north of Unit A3-6, in order to re-open the central section of the platform (see Figure 4). This unit was axially aligned with the A3-6 and A3-7 units, and thus crosscut the boundaries of the previously excavated A3-1 and A3-2 units. Through a combination of these three units (A3-6, A3-7, A3-8) the structure was excavated via a 7x2 m axial trench (see Figure 5). Unfortunately, time limitations dictated that this locus could not be excavated to bedrock. However, a solid understanding of the temporal development of the major architectural features at this locus was still acquired.

The reasons for the Structure A3 investigations were two-fold. First, we endeavoured to acquire data concerning the A3 construction sequence in order to outline the development of this special function structure and its associated courtyard, as well as assess the quality and type of architecture present. With this information a temporal understanding of the timing of major structural modifications could be provided. Concomitantly, assessments of labor investment could also be made. The axial placement of the trench was also considered necessary to uncover any burials or ritual offerings which are normally deposited in this position. Intrasite comparisons could then be made with the A1 structure concerning architectural function and symbolic significance. Similarly, intersite comparisons could also be made, furthering our understanding of local labor investment in burials and caches, and access to exotic or other high status items.

*Levels 6 and 6B.* Levels 6 and 6B represent the earliest Structure (A3-5th) and associated courtyard excavated at the A3 locus (see Figure 5). To reiterate, excavations to bedrock were not achieved during A3 investigations. However, given all other operations in the *Ac* courtyard, it is highly likely that evidence for earlier occupation exists at this location. The A3-5th platform, encountered in Unit A3-8 at ca. 97 cm below the structure datum, was moderately well preserved (see Figure 6). Unfortunately, due to the previously discussed looter's trench, much of this upper platform had been destroyed. No evidence indicative of the type of superstructure remains, but later modifications to the structure suggest that a long, narrow, axial room, perpendicular to the primary axis, had once surmounted the A3 substructure. This was probably of pole-and-thatch construction, as no briquettes were recovered which would suggest the presence of a wattle-and-daub superstructure. To the east the remainder of the platform ended at the nose of a two course stair riser, with a height of ca. 25 cm. The toe of this riser met a terrace at ca. 119 cm. This terrace ran 78 cm to the east, where it had been cut through during a later construction event (Level 6A, A3-4th). Indications are that the terrace would have originally stretched another ca. 38 cm, where it would have ended at the verge of a ca. 45 cm, 4 course riser. The foot of this terrace riser met a ca. 70 cm deep stair tread at ca. 164 cm below the structure datum. Two more steps, averaging 40 cm in height, and 49 cm in depth, lead down to the courtyard surface at ca. 297 cm below the structure datum. These latter two steps still exhibited the plaster turn-up which formed the riser toe for each. Taken together, these steps and the overall morphology of the mound suggest that A3-5th was mounted via an inset stair.

In general, the preservation of A3-5th architecture, and associated courtyard, was good. Plaster surfaces averaged ca. 4-5 cm in thickness. A thin 4-5 cm ballast layer, primarily pebble sized clasts (0.4-6.4 cm) underlay the plaster. Underlying this was a ca. 80 cm backing masonry deposit of small aggregate, mainly pebble (0.4-6.4 cm) and cobble (6.4-25.6 cm) sized clasts interspersed within a mortar matrix. Beneath this a layer of dry-stone core masonry was encountered. This deposit was quite thick beneath the upper terrace (ca. 90 cm), and thinned out towards the east (ca. 25 cm). The matrix was dominated by cobble (6.4-25.6 cm) and boulder (>25.6 cm) sized clasts. At ca. 297 cm below the structure datum an undulating, highly compact, deposit of small aggregate was encountered. This was level with the courtyard surface, although it was unprepared. It was evident that this formed the sustaining surface for the A3-5th structure, and indicated that this surface, the courtyard, and the A3-5th structure had been constructed at the same time. No excavations were undertaken beneath this surface.

Ceramic sherds and lithic debitage were moderately abundant in Levels 6 and 6B. Faunal remains were rare. Formal artifacts were limited, and included a chert biface fragment (A3-SF/5), and a chert drill/scraper (A3-SF/6), both recovered from Unit A3-8. The only other artifact of note was a slate celt (A3-SF/7), discovered within Unit A3-6. The ceramic assemblage was dominated by types of the Xacal Ceramic Complex (350 B.C.-350 A.D.). Representatives of the Paila and Sierra Ceramic Groups dominated the sample. Also present were a number of sherds of the later Ahcabnal phase (350-600 A.D.), mainly members of the Pucte and Old River Ceramic Groups. This assemblage, and excavations within this same courtyard surface in other *Ac* operations, suggests that a date of 250-350

A.D. is highly likely for A3-5th and associated construction.

*Level 6A, A3-4th.* Level 6A, A3-4th, represented minor yet significant modifications to the A3-5th platform and upper terrace, the stair section continuing to be used in unmodified form (see Figure 5). The upper platform was raised ca. 12 cm (85 cm Below Structure Datum), and in conjunction a long, narrow, axial room was constructed (ca. 6.00 m long by 0.80 m wide), perpendicular to the primary axis (see Figure 7). The room itself was not vaulted, but rather had low cut stone walls (ca. 34 cm high). Indications are that the upper walls were made of poles, as no briquettes were recovered which would suggest the presence of a wattle-and-daub superstructure. The base of the exterior wall included an outset, which was level with both the nose of the upper stair riser and the room surface (ca. 85 cm below the structure datum). This outset was aligned with the face of the upper stair riser. The new room was accessed via a small, one course, outset step, which lead down to a new terrace surface at 115 cm below the structure datum. The terrace ran ca. 78 cm to the east, where a new, four course stair riser had been constructed. It would appear that the previously employed A3-5th riser, which had once been situated in this same position, was in need of repair. For this reason the new riser was constructed in combination with the new terrace and room modifications. The remainder of the A3-5th architecture and associated courtyard continued to be employed with these new modifications.

The plaster surfaces of the new terrace and room were ca. 5 cm thick, and moderately well preserved. The plaster which had once covered the outset step and room retaining wall had completely deteriorated. A thin 8 cm ballast layer, consisting of pebble sized clasts (0.4-6.4 cm), underlay the plaster cap within the room proper. Only a 1-2 cm ballast layer, of similar composition to the above deposit, underlay the terrace plaster cap. The backing masonry for the new stair riser consisted of small aggregate, primarily pebble (0.4-6.4 cm) sized clasts interspersed throughout a mortar matrix. Ceramics and lithic debitage were rare, a reflection of the limited nature of the modifications. No formal artifacts were recovered. The ceramic assemblage was too small to provide an accurate date. However, by taking into account earlier (A3-5th) and , subsequent construction (A3-3rd), it would appear that the A3-4th modifications were undertaken sometime during the Ahcabnal phase (350-600 A.D.).

*Level 5, A3-3rd.* Level 5, A3-3rd, consisted of major modifications to the terrace and stair portions of the earlier A3-5th and A3-4th architecture (see Figure 5). Seeing as the looter's trench had destroyed the central portion of the axial room, excavators were unable to assess whether alterations were made to this feature at this time. However, it is clear that the terrace fronting the room was extended 132 cm to the east (see Figure 8). This was purely a horizontal modification, as the terrace itself was not raised above its previous A3-4th elevation (115 cm Below Structure Datum). The terrace verge intersected with a four course, ca. 46 cm high riser. From this point four steps lead down to a resurfaced courtyard level at 296 cm Below Structure Datum. The four stair risers averaged 33 cm in height, with an average tread depth of 56 cm. This would again appear to be an inset stair, given the structure morphology. The A3-3rd plaster surfaces were moderately well preserved. In fact, preservation was such that the toes of the stair risers were conserved in the form of intact plaster turn-ups. Average plaster depth was 4-5 cm. The plaster surface was

underlain by a thin 4-5 cm ballast layer, dominated by pebble sized clasts (0.4-6.4cm). The fill for Structure A3-3rd, between ca. 30 and 90 cm in depth, consisted primarily of small aggregate. This matrix was made up of moderate to high percentages of pebble (0.4-6.4cm) and cobble (6.4-25.6cm) sized clasts interspersed within a mortar matrix. The old level 6/6B courtyard surface constituted the new sustaining surface for the A3-3rd stair.

Lithic debitage and ceramic sherds were recovered in small percentages within the A3-3rd fill. Faunal remains were rare. Unfortunately, no formal artifacts were encountered. The limited sample of sherds was dominated by Ahcabnal phase types (350-600 A.D.), primarily those of the Old River, Pucte, and Balanza Ceramic Groups. Some representatives of the later Mountain Pine and Zibal Ceramic Groups, Xnipek phase types (600-675 A.D.), were also present. This assemblage suggests a date of 600-675 A.D. for the A3-3rd construction efforts.

*Level 4, A3-2nd.* Level 4, A3-2nd, comprises the penultimate A3 architecture (see Figure 5). In reality, A3-2nd consists of very minor modifications to the previous A3-3rd architecture. Due to the destruction of the central portion of the axial room by the looter's trench, the excavators could not determine what if any alterations had been made to this feature at this time. However, the associated terrace was refloored by the application of a very thin layer of plaster (ca. 115 cm Below Structure Datum; see Figure 9). In addition, the stair was completely resurfaced at this point in time through the construction of new stair risers and treads. This activity served to raise the stair to a small degree, and extend it slightly to the east. The fill for these modifications consisted of small aggregate, mainly a mortar matrix with moderate percentages of pebble sized clasts (0.4-6.4cm). This backing masonry was capped by a ca. 4-5 cm ballast layer, primarily pebble sized clasts (0.4-6.4cm), and a 4-5 cm thick plaster surface. The courtyard floor was also replastered in conjunction with these modifications. Overall preservation of the A3-2nd architecture was good, considering its relative proximity to the surface. Plaster turn-ups, indicative of riser toes, were still discernible in some instances.

Due to the fact that A3-2nd consisted of only minor modifications to earlier architecture, few artifacts were contained within this level. Lithic detritus, faunal remains, and ceramic sherds were rare. No formal artifacts were recovered. The sherd sample was extremely small, and potential mixing with the overlying A3-1st materials is possible, given the difficulty encountered in separating these two construction levels during excavation. The presence of early Maxik phase Dolphin Head Red ceramics, as well as a number of other Maxik phase sherds of the Cayo and Belize Ceramic Groups, implies a Maxik phase (675-875 A.D.) date for the A3-2nd modifications. Given the absence of types indicative of the earlier Ahcabnal phase (600-675 A.D.), as well as those of the late facet Maxik phase (e.g. Mount Maloney Ceramic Group), and the construction pattern throughout the rest of the site core, a narrower temporal range of 700-725 A.D. is offered for this construction.

*Level 3, A3-1st.* Level 3, A3-1st, constitutes the terminal architecture at the A3 locus (see Figure 5). As with the previously discussed A3-2nd construction, A3-1st is in reality a series of minor modifications to preexisting architecture. Due to this fact, it was difficult to separate this level from the earlier A3-2nd modifications during excavations. The proximity to the surface also meant that most of the A3-1st plaster surfaces had deteriorated over time, further deterring isolation of this level. The axial room did not

exhibit any substantial modifications, although minor alterations may have been made. Unfortunately, the destruction of the central portion of the room by the looter's trench inhibited efforts to ascertain this with any certainty. However, the upper terrace did see substantial changes (see Figure 5). The terrace section in Unit A3-8 was elevated by ca. 10 cm. This was evidenced by a remnant ballast layer, consisting of primarily pebble sized clasts (0.4-6.4 cm), exposed at ca. 105 cm Below the Structure Datum. This raising of the terrace concealed the outset step which had previously been employed to reach the upper room level. The new terrace ran ca. 120 cm east from the room outset, where it intersected with the verge of a one course, 10 cm high riser. The terrace foot met the earlier A3-2nd terrace surface at 115 cm Below the Structure Datum.

Two large posts were also established in conjunction with the raising of the western terrace section. The resulting intrusive post-holes were excavated north and south of the room entrance, adjacent to the room outset (see Figure 5). These post-holes were ca. 34 cm in diameter, and ca. 90 cm deep (see Figure 9). Given the overall size of these supports, they could have potentially supported a substantial beam-and-mortar roof. However, no other evidence for such a roof exists, and thus this remains purely speculation. One might also reason that the large posts were of symbolic significance, but again no concrete evidence exists for such an interpretation. In addition to the elevation of the upper terrace section, and the two new roof supports, a low screen wall was constructed perpendicular to the room, ca. 75 cm east of the room outset (see Figure 9). This one course wall was ca. 20-25 cm high, and ca. 20 cm wide, its top being level with both the interior room surface and the top of the room outset (ca. 85 cm Below the Structure Datum). The newly elevated terrace section acted as the sustaining surface for this screen wall. The post-holes were situated between the screen wall and the room, suggesting that the wall functioned to partially conceal the base of these posts. This was probably done for purely aesthetic reasons. The stair treads of the structure exhibited a few remnants of minor replastering events, also attributable to A3-1st construction. Finally, the isolation of a few sections of preserved plaster at ca. 288 cm Below the Structure Datum indicated that the courtyard surface had also been raised at this time. This deteriorated plaster cap was underlain by a ca. 8 cm thick ballast layer, consisting primarily of pebble sized clasts (0.4-6.4 cm).

Ceramics, faunal remains, and lithic debitage were rare in Level 3, A3-1st. This paucity of finds undoubtedly reflects the limited nature of the A3-1st modifications. One artifact of note, a chert biface fragment (A3-SF/3), was recovered from the courtyard deposit in Unit A3-7. The ceramic sample was similarly small. The predominance of sherds representative of the early Maxik phase Dolphin Head Ceramic Group, as well as a number of contemporaneous Cayo and Belize Ceramic Group varieties, indicates that a Maxik phase (675-875 A.D.) date for the A3-2nd modifications is likely. A more precise date of 700-725 A.D. is suggested, given the absence of earlier Ahcabnal phase types (600-675 A.D.), as well as types indicative of the late Maxik phase (e.g. Mount Maloney Ceramic Group). This date is reaffirmed by the construction sequences formulated during other site core operations.

*Levels 1 and 2.* Levels 1 and 2, the only levels excavated within the series of units in 1993, consisted of a humus and associated fall deposit (see Figure 5). Consisting

primarily of humus materials interspersed with fine, limestone derived sediments, this deposit ranged from 44-54 cm in depth. Moderate percentages of pebble (0.4-6.4 cm) and cobble (6.4-25.6 cm) sized sedimentary clasts were also present throughout. Compaction was medium, and roots and rootlets were prominent in the upper 10-20 cm. Ceramics, and lithic debitage were recovered in small percentages. Formal artifacts recovered from Levels 1 and 2 consist of a medial section of an obsidian blade (A3-SF/1), discovered in Unit A1-3, and a granite mano fragment (A3-SF/4, Figure 10), encountered in Unit A3-6. Another chert biface fragment (A3-SF/2) was also retrieved from the Structure A3 backdirt. Unfortunately, one cannot be certain as to which level this artifact originated from. The ceramic assemblage was dominated by types of the Maxik phase (675-875 A.D.).

In summary, from its initial construction to its abandonment, Structure A3 exhibited a consistent morphology. This structure consisted of an elongated, pyramidal substructure with an inset stair, surmounted by a long, narrow, axial room. The superstructure was probably pole-and-thatch, although low stone walls were also employed during much of its use-life. The sequence of modifications acted to extend the front of the structure to the east, with only limited elevational additions. Further alterations, such as the basal room walls, screen wall, and large support posts, represent elaborations rather than drastic changes in architectural form. No burials or ritual deposits were encountered during excavations. Similarly, few artifacts of note were recovered from the fill deposits. Thus, not only does Structure A3 exhibit a different "pyramidal" morphology than Structure A1, it also failed to produce any ritual or ceremonial deposits, the latter common occurrences in Structure A1. Similarly, given its limited "inhabitable" space, and paucity of "domestic" artifacts, Structure A3 contrasts significantly with residential forms such as Structures A4 and B8. Taken together, these comparisons suggest a non-domestic, non-ceremonial role for Structure A3. Indications are, therefore, that this architecture served an administrative purpose. Although it is clearly a much simpler and smaller form of construction, its morphology is suggestive of the administrative range-type structures located in the larger major centers. Its function may therefore have been purely administrative, thus implying that a level of socio-political, and socio-economic decision making was conducted at Zubin. The long, narrow, axial room, with its resemblance to similar architectural features in the larger major centers, constituted the appropriate and sanctioned backdrop for such decision making. Similarly, the wide upper terrace comprised the proper and accepted stage from which such charged proclamations should be made.

#### *Structure A4 Operations.*

Structure A4, located along the southern boundary of the Ac courtyard, is a long, east-west oriented, bi-level mound of "range-type" form (Figure 2). Given its surface morphology, comparative size, and complexity, this structure was initially considered to have been the residence of the primary Zubin family, at least at the termination of site occupation. Excavations in 1994 set out to acquire data which would permit assessment of the viability of this interpretation. We also hoped to gather information pertaining to the type, quality, and techniques of construction, as well as recover any on-floor artifact assemblages. Finally, we aimed to collect data indicative of the temporal growth of this architectural feature, as well as obtain a sample of ritual offerings or burials contained



within the various construction levels. The production of this multifaceted sample was deemed necessary to properly conduct temporally sensitive, socially oriented, intra- and intersite analyses. At the outset of 1994 explorations we opened five contiguous units in Structure A4 (see Figure 4). These were of varying size, and were situated in order to provide ample surface exposure across the mound.

Unit A4-1, a 4x4 m unit, was located on the western portion of the mound, encompassing a large segment of the highest portion of the bi-level. Unit A4-2, another 4x4 m unit, was positioned towards the middle of the structure. Unit A4-3, a 2x4 m unit, was placed near the eastern end of the platform. Unit A4-4, a 1x2.89 m unit, was opened between Units A4-1 and A4-2, effectively joining them. A similar 1x2.13 m unit, Unit A4-6, was employed to connect Units A4-2 and A4-3. Finally, a small 1x1 m unit, Unit A4-5, was utilized to extend the northeastern corner of Unit A4-2 further into the courtyard area, in order to expose an outset stair. These were the primary excavation units, and were employed to expose large sections of the terminal and penultimate architecture. The largest units, A4-1 and A4-2, were both down-sized to 2x4 m units, designated A4-1a and A4-2a, for the purpose of trenching the mound. Similarly, within Unit A4-4, a smaller 0.50x1.00 m subunit (Unit A4-4a) was excavated after exposure of the terminal architecture in order to clarify the construction sequence. Unit A4-3 was not down-sized, as its initial 2x4m size corresponded with the down-sized A4-1a and A4-2a units. Due to the complexity of the sequence of architectural modifications, and the relative depth of the deposits, bedrock was only reached within the central A4-2a unit. For this reason the level headings in the following summary generally follow those from the A4-2a sequence. Where equivalent levels within the other units possess distinct level designations, these will also be provided.

**Level 10B.** Level 10B, a thin clay lense overlying bedrock, was only excavated within Unit A4-2a (Figure 11). This deposit, exposed at ca. 416 cm Below the Structure Datum, was highly compact, and brown in color. Pebble (0.4-6.4cm) content was low. This deposit overlay an undulating bedrock surface, which dipped to the south. The 10B sediments formed a small ca. 9 cm lense above the lowest portion of the bedrock (at ca. 388 cm Below the Structure Datum). Due to the thinness of this deposit, artifacts were rare. The small ceramic sample does not allow a date to be provided for this level.

**Level 10A.** Level 10A, the earliest evidence for construction at the A4 locus, was only excavated within Unit A4-2a (Figure 11). The surface of this plastered floor was exposed at ca. 377 cm Below the Structure Datum. This floor surface corresponds closely in elevation with the more simplistic Level 7A living surface encountered at the A1 locus, and probably represents an extension of the *Cutz* courtyard surface to the north. The plastered cap averaged 2-4 cm in thickness. Preservation of this surface was excellent in the northern portion of the unit, but it was completely deteriorated in the south. Underlying this plaster cap was a ca. 6 cm thick ballast layer, consisting primarily of pebble (0.4-6.4 cm) sized clasts. A ca. 29 cm thick fill deposit had been laid down prior to the ballast and plaster cap. This deposit was composed of highly compact, brownish-black, clay-rich sediments. Pebble (0.4-6.4cm) sized clasts were present in low to moderate numbers within the matrix. Near the northern terminus of Unit A4-2a a curious rock alignment was partially exposed (see Figure 10). These appeared to be sustained by the 10A floor surface. This rock configuration may represent an architectural feature, although according to the

excavators the alignment is more than likely coincidental.

Lithic debitage was recovered in moderate to large numbers from Level 10A. Faunal remains were less prevalent. Significant artifacts included a figurine body fragment (A4-SF/38), a shell bead (A4-SF/49, Figure 12B), three obsidian "shatter" fragments (A4-SF/54, A4-SF/59, A4-SF/60), three medial sections of obsidian blades (A4-SF/56, A4-SF/58, A4-SF/62), an obsidian flake (A4-SF/57), three exhausted chert biface fragments (A4-SF/101, A4-SF/143, A4-SF/145), and a chert drill (A4-SF/134). The ceramic sample was large, and consisted primarily of early facet Xakal phase (350 B.C.-100 A.D.) varieties. Sierra Red: Variety Unspecified (buff paste), and Polvero Black: Varieties Unspecified, dominated the assemblage. Numerous other early facet Xakal phase varieties were also represented, but in lesser numbers. Some late facet Kanluk phase (650-350 B.C.)/early facet Xakal phase (350 B.C.-100 A.D.) "transitional" varieties, including Pital Cream: Variety Unspecified, and Flor Cream: Variety Unspecified, were also represented. Late facet Kanluk phase (650-350 B.C.) varieties were also present in significant numbers, particularly members of the Savana Orange: Savana Variety. Taken together, this assemblage suggests an early facet Xakal phase date of 350-250 B.C. for the construction of the Level 10A floor.

*Level 9.* Level 9, a resurfacing of the earlier Level 10A floor, was only excavated within Unit A4-2a (Figure 11). The surface of this poorly preserved replastering event was exposed at ca. 366 cm Below the Structure Datum. This probably correlates with the contemporaneous *Cutz* courtyard surface. The plaster cap was thin (1-2 cm) within the northern portion of the unit, and entirely missing in the southern sector. A ca. 9 cm ballast layer, composed mainly of loosely compact pebble (0.4-6.4 cm) sized clasts within a matrix of dark sediments, underlay the plaster surface. Lenses of lighter, silty soils and marl were also present, as were a limited number of cobble (0.4-6.4 cm) sized clasts.

Lithic debitage was recovered in moderate percentages from this level. Faunal remains were also present in moderate numbers, being particularly prevalent in the southern portion of the unit. One significant find, a bifacial chert chopper (A4-SF/104), exhibiting heavy use, was discovered within the Level 9 fill in Unit A4-2a. The ceramic sherd sample was modest, with concentrations being recognized within the northern sector of the unit. In comparison with the earlier 10A Level, Kanluk phase (850-350 B.C.) ceramic types were extremely rare. The majority of sherds were early facet Xakal phase (350 B.C.-100 A.D.), or transitional Kanluk phase/Xakal phase varieties. Representatives of the Polvero Black: Variety Unspecified, Flor Cream: Varieties Unspecified, Hillbank Red: Hillbank Variety, Iguana Creek White: Iguana Creek Variety, and Pital Cream: Variety Unspecified, dominated the assemblage. No Floral Park Ceramic Complex varieties (see Gifford 1976), indicative of the late facet Xakal phase (100-350 A.D.), were present. Taken as a whole, an early facet Xakal phase date of 100 B.C.-100 A.D. is suggested for the Level 9 reflooring event.

*Level 8.* Level 8, the next level recognized within Unit A4-2a, represents the construction of a ca. 143 cm high raised platform (Figure 11). The raised platform surface, and associated retaining wall, were also exposed in Unit A4-1a (Level 8B; see Figure 13), and Unit A4-3 (Level 7B, 6A; see Figure 14). This raised platform retaining wall ranged between 9-12 courses high, the basal course being outset ca. 30-40 cm. The raised platform surface, exposed at ca. 215 cm Below the Structure Datum, represented the southern

extension of a large sustaining surface which supported architectural features at both the A1 (A1-3rd) and A3 (A3-5th) loci. This courtyard surface was poorly preserved, and was difficult to separate from the underlying ballast layer. Excavations within the raised platform indicated that the upper ca. 58 cm of the fill deposit was comprised of small aggregate, primarily pebble (0.4-6.4 cm) and cobble (6.4-25.6 cm) sized clasts within a mortar matrix (Level 8). Beneath this a further ca. 85 cm thick, loosely consolidated, dry-stone core fill deposit was recognized (Level 8A). This consisted of high percentages of pebble (0.4-6.4cm) and cobble (6.4-25.6) sized clasts within an organic rich sediment matrix. To the south of the raised platform, a new plaster floor surface was also excavated within Unit A4-2a (Level 8B; see Figure 15). Only the surface of this floor was exposed in the middle of Units A4-1a (Level 8; see Figure 15) and A4-3 (Level 7; see Figure 15). This floor would appear to represent either the contemporaneous *Cutz* courtyard surface, or a terrace feature. Level 8B is best considered a reflooring of the previous Level 9 surface. This surface, exposed at ca. 357 cm Below the Structure Datum, was poorly preserved near the retaining wall basal outset, preservation being slightly better near the middle of the unit. The plaster cap varied between 2-4 cm in thickness. This was underlain by a ca. 5-6 cm thick ballast layer, composed mainly of pebble (0.4-6.4 cm) sized clasts.

Lithic debitage, including both cores and flakes, was recovered in large numbers from Levels 8, 8A, and 8B. Faunal remains were also present, being particularly prevalent near the southern terminus of the unit. Significant artifacts encountered during excavations in Unit A4-2a included a granite grinding/polishing stone (A4-SF/75), and a chert biface fragment (A4-SF/79), from the raised platform upper fill (Level 8), and a chert drill/burin (A4-SF/140), from the southern, lower floor (Level 8B). Ceramics were abundant throughout this level. Late facet Xakal phase (100-350 A.D.) sherds were prominent, including representatives of the San Antonio Golden Brown: San Antonio Variety, San Antonio Golden Brown: Variety Unspecified (Orange Interior), Aguacate Orange: Variety Unspecified, Hillbank Red: Hillbank Variety, and Mateo Red-on Cream: Variety Unspecified (buff paste). Ahcabnal phase (350-600 A.D.) types were also present in significant numbers, including Balanza Black: Variety Unspecified, Balanza Black: Cadena Creek Variety, Minanha Red: Variety Unspecified, and Pucte Brown: Variety Unspecified (orange paste). This assemblage suggests a late facet Xakal phase date of 250-350 A.D. for the construction of the raised platform and associated floor surfaces.

*Level 7.* Level 7, excavated in Units A4-2a, A4-1a (Level 7), and A4-3 (Levels 6, 6B), represents a ca. 30 cm reflooring of the lower floor surface south of the raised platform (see Figures 11, 13, 14). This reflooring event concealed the platform retaining wall basal outset (Figure 16). The floor itself was of tamped earth construction. Indications are that it may have functioned as a simple terrace, as it appears to have been too high to have been part of the *Cutz* courtyard surface. The tamped earth surface was exposed at between 326-340 cm Below the Structure Datum within the three primary A4 excavation units. The deposit consisted primarily of compact, dark, organic rich sediments. Pebble (0.4-6.4cm) and cobble (6.4-25.6cm) sized clasts were present in small numbers. Charcoal flecks were found throughout the deposit. Within Unit A4-2a a one course retaining wall was found to rest on the "terrace" surface (Figure 16). This was faced on the north and east, and appears to represent a small platform which had once surmounted the terrace.

Indications are that during subsequent construction this platform was partially dismantled for cut-stones.

Cache A4-F/5, a partial vessel cache, had been placed within the Level 7 lower platform fill during its construction (Figure 16). This may represent a combined termination/dedication ritual. The vessel appears to have been an unslipped olla. Given that there were no rim sherds present, these vessel fragments could not be classified as to type. A similar cluster of sherds, possibly another partial vessel cache, was also found within the Level 7 fill in Unit A4-1a. These were from a Orange-Walk Incised: Orange-Walk Variety vessel.

Within Level 7 lithic debitage was present in moderate numbers. Faunal remains were relatively abundant. Excavations produced a number of significant finds. Within Unit A4-1a (Level 7) a proximal section of an obsidian blade (A4-SF/50), a medial section of an obsidian blade (A4-SF/51), and a drilled ceramic sherd were recovered. Excavations within Unit A4-2a (Level 7) produced two medial sections of obsidian blades (A4-SF/63, A4-SF/64), and an obsidian flake (A4-SF/65). Finally, Unit A4-3 (Levels 6, 6B) produced an unidentifiable drilled bone (A4-SF/47), three medial sections of obsidian blades (A4-SF/66, A4-SF/67, A4-SF/68), a proximal section of obsidian blade (A4-SF/69), and a granite metate fragment (A4-SF/78, Figure 17A). The ceramic sample was comparably large, and dominated by an almost equal mix of Ahcabnal phase (350-600 A.D.) and Xnipek phase (600-675 A.D.) varieties. A limited number of late facet Xakal phase (100-350 A.D.) sherds were also present. Prominent Ahcabnal phase varieties included Pucte Brown: Variety Unspecified, Minanha Red: Minanha Variety, and Balanza Black: Variety Unspecified. The most prevalent Xnipek phase varieties were Sotero Red-Brown: Sotero Variety, Orange-walk Incised: Orange-Walk Variety, Mountain Pine Red: Mountain Pine Variety, and Macal Orange-Red: Macal Variety. This sample suggests a Xnipek phase date of 600-675 A.D. for the construction of the Level 7 tamped earth surface and small platform.

*Level 6B.* Level 6B, a midden deposit, was excavated within Units A4-2a (Level 6B, see Figure 11), A4-1a (Level 6E, see Figure 13), and A4-3 (Level 5B, see Figure 14). This midden was deposited south of the raised platform retaining wall following the termination of use of the earlier Level 7 surface (Level 6 and 6B surface in Unit A4-3). Within the three primary excavation units the top of this deposit was exposed at between 300-330 cm Below the Structure Datum (Figure 18). The deposit varied in its horizontal extent. Within Units A4-1a and A4-2a the southern terminus of the midden lense was located at 80-160 cm south of the raised platform retaining wall. In contrast, the deposit extended across the entire A4-3 unit south of the raised platform retaining wall. Similarly, the thickness of the midden varied from 30 cm adjacent to the A4-2a retaining wall, to 10 cm within Unit A4-1a. The midden lense was generally loosely compact, and consisted of grayish, ashy sediments. Pebble (0.4-6.4 cm) sized clasts were present in moderate numbers, cobbles (6.4-25.6 cm) being rare.

Lithic debitage was relatively prominent within the midden lense. Faunal remains were abundant, including both shell, and bone of numerous species. Significant finds recovered from the midden deposit included two proximal sections of obsidian blades (A4-SF/42, A4-SF/48) from Unit A4-1a (Level 6E), a granite metate fragment (A4-SF/124,

Figure 17B) from Unit A4-2a (Level 6B), and a jade mosaic inlay? (A4-SF/41), a conch shell pendant (A4-SF/43, Figure 12E), a modified avian? bone (A4-SF/46), a medial section of obsidian blade (A4-SF/53), and an obsidian core fragment (A4-SF/146), from Unit A4-3 (Level 5B). The sherd sample was moderately large, and was dominated by Ahcabnal phase (350-600 A.D.) and Xnipek phase (600-675 A.D.) varieties. The most prominent Ahcabnal phase variety was the Pucte Brown: Variety Unspecified. Xnipek phase varieties included members of the Mountain Pine Red: Mountain Pine Variety, Sotero Red-Brown: Sotero Variety, and Orange-Walk Incised: Orange-Walk Variety. This ceramic assemblage suggests that the midden formed sometime during the Xnipek phase (600-675 A.D.).

*A4-8th.* A4-8th, represents the first building platform constructed at the A4 locus (Figure 19). This platform was exposed within Units A4-2a (Level 6, see Figure 11), and A4-4 (Level 5, see Figure 20A), at ca. 181 cm Below the Structure Datum. Although this building platform was only raised 35 cm above the associated courtyard surface (Level 8), it still represents a significant construction event, being ca. 145 higher than the previous Level 7 tamped earth surface. The northern face of the platform, consisting of a ca. 35 cm, three course retaining wall, was sustained by the earlier Level 8, *Ac* courtyard raised platform retaining wall. The plaster surface of A4-8th exhibited differential preservation, but was generally poorly preserved. No evidence for post-holes was obtained, suggestive of the presence of a perishable superstructure. However, it is likely that preservation inhibited the isolation of these features, and that a wattle-and-daub or pole-and-thatch structure did surmount the building platform. The thickness of the plaster cap varied from 1-2 cm in the north to ca. 6 cm in the south. This surface was underlain by a ca. 8-9 cm ballast layer, consisting primarily of pebble (0.4-6.4 cm) sized clasts. The ca. 132 cm thick fill deposit beneath the ballast was of loosely compact, dry-stone core construction. Boulder (>25.6 cm) and cobble (0.4-25.6 cm) sized clasts were prevalent in this matrix. Air pockets were commonly found between the larger fill constituents.

Cache A4-F/4, a large termination cache of broken pottery, was exposed at 321 cm Below the Structure Datum in Unit A4-2a (see Figure 16). This cache, consisting of numerous sherds of a very large, unslipped vessel, had been placed on the earlier Level 7 surface prior to the erection of the A4-8th building platform. The vessel type does not conform to any variety within the Gifford Typology, but does appear to be similar to some Late Classic cache vessel forms discovered at the Zopilote group, south of Cahal Pech.

In conjunction with the construction of the A4-8th building platform, two flanking terraces were also erected. These were partially exposed within Units A4-1a (Level 6F, see Figure 13) at ca. 243 cm Below the Structure Datum, and A4-3 (Level 5A, see Figure 14) at ca. 234 cm Below the Structure Datum (Figure 19). These had been raised ca. 90-100 cm above the top of the preceding midden deposit. A partially intact, one course wall (Level 6D) was found to rest on the terrace surface discovered in Unit A4-1a. This may indicate that an ancillary structure of some sort originally surmounted the terrace west of A4-8th. However, due to apparent dismantling of the architecture during subsequent construction, we were unable to determine with any degree of certainty the size or overall shape of this architectural feature. The A4-8th flanking terraces were ca. 60 cm lower than the associated A4-8th building platform, and ca. 25 cm below the *Ac* courtyard surface to the north. Thus, from the *Ac* courtyard surface one could easily step up onto the A4-8th

building platform, or down onto the associated flanking terraces. The flanking terrace surfaces were moderately well preserved, being ca. 3-5 cm thick. This surface was underlain by a ca. 5-10 cm ballast layer, composed mainly of pebble (0.4-6.4 cm) sized clasts, and a ca. 65-90 cm thick fill deposit of dry-stone core. The dry-stone core deposit beneath the terraces was consistent with that found to underlay the A4-8th building platform. Boulder (>25.6) and cobble (6.4-25.6 cm) sized clasts dominated this loosely compacted matrix. Air pockets were prevalent between the large clasts.

Lithic debitage was recovered in moderate percentages from all A4-8th deposits. Faunal remains were rare. Significant artifacts included a proximal section of obsidian blade (A4-SF/52), found near the Level 6D one course wall in Unit A4-1a, a proximal section of obsidian blade (A4-SF/37), a granite mano fragment (A4-SF/84, Figure 21), a granite metate fragment (A4-SF/135), a chert scraper (A4-SF/123), a slate "wrench" fragment (A4-SF/136), and a chert biface fragment (A4-SF/137), retrieved from the Level 6/A4-8th building platform in Unit A4-2a, and two granite metate fragments (A4-SF/71 [Figure 22], A4-SF/72), a quartzite metate fragment (A4-SF/73, Figure 23), and a chert scraper (A4-SF/147), from the Level 5A terrace fill in Unit A4-3. The ceramic sample was of moderate size, and was dominated by Xnipek phase (600-675 A.D.) varieties. Sherds of the Xnipek Ceramic Complex, Sotero Red-Brown: Sotero Variety, Mountain Pine Red: Mountain Pine Variety were particularly prominent. Also present were a few sherds indicative of the ensuing Maxik phase (675-875 A.D.), including representatives of Belize Red: Belize Variety, and early facet Maxik phase, Dolphin Head: Dolphin Head Variety.

Considered in combination with the postulated dates for subsequent architectural modifications (see below), this ceramic assemblage suggests an early facet Maxik phase date of 675-700 A.D. for the construction of the A4-8th building platform and associated flanking terraces.

Of particular interest was the recovery of four sherds from the fill deposit beneath the A4-8th platform (Level 6). These derive from a small polychrome bowl, clearly of the Xnipek Ceramic Complex, Saxche Orange Polychrome: Variety Unspecified (Figure 24). The four sherds joined together to form a large section of the original vessel. This bowl exhibited an orange slipped interior, with a black rim band. On the exterior, beneath the black rim band, there were three red rim bands of varying widths. The middle band, being substantially wider than the other two, contained two pseudoglyphs executed in black. The main body of the vessel possessed an elaborate rendering in red, black, and gray. As only a small fragment of this image remained it is impossible to determine with certainty what this depiction portrays. However, Nickolai Grube (personal communication to Jaime Awe, 1994) has suggested that the image represents the "celestial bird". Beneath this main feature two further red bands, one thin, the other slightly thicker, and a wide black band, encircled the vessel. These sherds clearly derive from a vessel of the Naranjo Area Group, an Early Classic (ca. A.D. 500-600 A.D.) ceramic style of wide distribution in the Maya lowlands (Reents-Budet 1994:203-207). The vessels of this ceramic group often contain pseudoglyphs arranged in pairs of two (see Reents-Budet 1994:206, Figures 5.45, 5.46). Reents-Budet (1994:203) notes that this ceramic group also exhibits restricted iconographic imagery, which includes a depiction of the Jaguar God of the Underworld with a "personified wing of the celestial bird." This may in fact be the image portrayed on the

Zubin vessel.

**A4-7th.** A4-7th, excavated as Level 6A and "Wall D" in Unit A4-2 (see Figure 11), Level 6B and 6C in Unit A4-1a (see Figure 13), and Level 5 in Unit A4-3 (see Figure 14), represents a series of modifications to the A4-8th building platform and associated flanking terraces (Figure 25). Within Unit A4-2a the southern face of the A4-8th building platform was extended ca. 30-35 cm northward through the addition of a new platform facing wall (Wall D). This new wall was simply constructed in front of the older A4-8th platform retaining wall, and subsequently plastered over. In conjunction with this a relatively thin 4-5 cm replastering of the A4-8th building platform was initiated. This surface (Level 6A), exposed at ca. 179 cm Below the Structure Datum, was moderately well preserved. Unfortunately, no post-holes were recognized to reaffirm the idea that this building platform was surmounted by a pole-and-thatch or wattle-and-daub superstructure. However, the past presence of such a feature seems likely. At this time the A4-7th building platform was also extended to the west, into the area of Unit A4-1a (Level 6B). At this locus a well preserved, ca. 10 cm thick plaster floor was encountered at ca. 179 cm Below the Structure Datum. This plaster cap was underlain by a ca. 6-8 cm ballast layer, composed primarily of pebble (0.4-6.4 cm) sized clasts, and a ca. 48 cm thick fill deposit. This latter construction layer consisted of aggregate core, mainly pebble (0.4-6.4 cm) and cobble (6.4-25.6 cm) sized clasts within a mortar matrix. These features, in combination, acted to raise the new A4-7th building platform extension ca. 64 cm above the previous A4-8th flanking terrace surface (Level 6F). It would also appear that an interior bench was constructed on this new platform extension (Level 6C). This was suggested by the discovery of the basal two courses of an apparently bench sized feature within the southwestern corner of Unit A4-1a. This "bench" was in a poor state of preservation, undoubtedly due to the partial dismantling of the feature for reuse of the cutstones during subsequent construction. In association with the western extension of the A4-7th building platform, the A4-8th eastern flanking terrace was replastered. The moderately well preserved plaster cap, exposed at ca. 227 Below the Structure Datum within Unit A4-3 (Level 5), was ca. 5-6 cm thick, and was underlain by a thin 2-3 cm ballast layer. The latter deposit was composed primarily of pebble (0.4-6.4 cm) sized clasts. In combination these two deposits formed a ca. 8 cm thick reflooring event.

In conjunction with the A4-7th building platform and flanking terrace modifications, the Ac courtyard was resurfaced. This was exposed within Unit A4-1a (Level 4), Unit A4-2a (Level 4), and Unit A4-3 (Level 4A). The ca. 1-2 cm thick plaster cap of this new courtyard surface was highly deteriorated, but was consistently exposed at between 204-210 cm Below the Structure Datum. This plaster surface was underlain by a ca. 5-9 cm thick ballast layer, comprised primarily of pebble (0.4-6.4 cm) sized clasts. In total, this appears to have been a ca. 10 cm thick replastering event.

Cache A4-F/2, a partial vessel cache, was discovered beneath the A4-7th bench feature (Level 6C) in Unit A4-1a (Figure 25). This cache, consisting of a partial Benque Viejo Polychrome: Variety Unspecified bowl with nubin feet (A4-SF/23), and a incomplete Mount Maloney Black: Mount Maloney Variety bowl (A4-SF/150), probably represents a dedicatory offering of some sort. This is postulated, even though the cache is limited to partial vessels, because of the association with the new bench feature and associated

building platform floor, as opposed to the earlier A4-8th terrace surface.

Lithic debitage was recovered in moderate percentages from the A4-7th fill. Faunal remains were less prevalent. The only significant artifact, a chert biface fragment (A4-SF/97), was recovered from the fill beneath the building platform extension in Unit A4-1a (Level 6B). The ceramic sample was relatively small, and was dominated by Xnipek phase (600-675 A.D.) and Maxik phase (700-875 A.D.) varieties. Dominant Xnipek phase varieties included Macal Orange-Red: Macal Variety, and Sotero Red-Brown: Sotero Variety. Prominent Maxik phase varieties included Belize Red: Belize Variety, and Dolphin Head Red: Dolphin Head Variety. Taken in combination, the ceramic assemblage and architectural sequence suggests a date of 700-725 A.D. for the construction of A4-7th.

*A4-6th.* A4-6th, a series of structural modifications to the previous A4-7th architecture (see Figure 26), was excavated in Units A4-2a (Levels 5 and 5B, see Figure 11), A4-3 (Level 4B, see Figure 14), A4-4a (Level 4, see Figure 20A, and A4-6 (Level 4B, see Figure 20B). Within Unit A4-2a the central portion of the previous A4-7th building platform was raised ca. 54 cm. The western section of the building platform (Unit A4-1a, Levels 6B and 6C) continued to be employed in unaltered form at its lower, A4-7th elevation (ca. 179 cm Below the Structure Datum). This new A4-6th upper building platform surface was exposed at ca. 125 cm Below the Structure Datum in Unit A4-2a (Level 5) and at 129 cm Below the Structure Datum in Unit A4-4a (Level 4). This upper platform surface was moderately well preserved. A post-hole was encountered within the southwest corner of the unit, intrusive into the A4-6th plaster surface. However, due to its shallow depth, it is probably related to later construction. Therefore no evidence exists for a pole-and-thatch or wattle-and-daub superstructure, although it is likely that such a structure surmounted the A4-6th building platform. The consistent occurrence of an unprepared surface at 55-60 cm from the southern terminus of the unit was suggestive of the past presence of a bench feature. This feature was probably dismantled for cutstones during the ensuing construction stages. The upper platform ran ca. 120 to the south, where it terminated at a three course, ca. 29 cm stair riser. The toe of the riser met a ca. 70 cm deep stair tread at ca. 154 cm Below the Structure Datum. The surface of this tread was highly deteriorated. To the north the nose of a second two course riser was encountered. This riser was ca. 25 cm high, and probably led down to the earlier A4-7th building platform surface (Level 6A) at 179 cm Below the Structure Datum. This surface had deteriorated, leaving the underlying Level 6/A4-8th surface exposed at ca. 181 cm Below the Structure Datum. This earlier surface functioned as the basal stair tread. This tread was ca. 60-70 cm deep, and terminated at the nose of a final ca. 31 cm riser that led down to the Level 4, Ac courtyard surface at ca. 210 cm Below the Structure Datum. The A4-6th plaster surfaces were generally poorly preserved. The remnant plaster cap that did remain on the upper building platform was ca. 1-3 cm thick. This overlay a ca. 5 cm ballast layer, composed primarily of pebble (0.4-6.4 cm) sized clasts. Beneath this was a ca. 48 cm thick dry-stone core deposit. This fill was loosely compact, and consisted mainly of pebble (0.4-6.4 cm) and cobble (6.4-25.6 cm) sized clasts. The fill beneath the upper stair tread (Level 5B) was consistent with that previously described.

Within Units A4-3 and A4-6, the A4-6th additions (Level 4B) acted to create a formal entrance between the *Ac* and *Cutz* courtyards. The preceding A4-7th terrace (Level



5) was raised ca. 52 cm above the *Ac* courtyard surface to ca. 157 cm Below the Structure Datum (Level 4B). This elevation was consistent with the upper step for the A4-6th building platform exposed within Unit A4-2a (Level 5B), ca. 32 cm below the surface of the A4-6th upper building platform within that same unit (Level 5), and ca. 20 cm above the western building platform surface in Unit A4-1a (Level 6B). Within Unit A4-6 a ca. 30 cm high, two course, north/south retaining wall was exposed. This represented the eastern extent of the higher A4-6th building platform surface exposed within A4-2a. Within Unit A4-3 the new terrace step was ca. 150 cm deep. To the north the verge of the terrace met a ca. 42 cm high, four course riser. The foot of the terrace riser met a ca. 83 cm deep tread at ca. 199 cm Below the Structure Datum. This tread in turn terminated at the nose of a short, ca. 10 cm high, two course riser, which led down to the *Ac* courtyard surface at ca. 209 cm Below the Structure Datum (Level 4A). To the south the terrace verge led to a ca. 50 cm high, three course riser. The foot of this terrace riser terminated at a tread surface at ca. 207 cm Below the Structure Datum. The tread was bisected by a ca. 28 cm high, medial balustrade. This balustrade, the top of which was exposed at ca. 179 cm Below the Structure Datum (level with the building platform surface in Unit A4-1a), was ca. 35 cm wide. The stair tread ran ca. 56 cm to the south, where the southern wall of Unit A4-3 was located. This precluded further investigations in this area, but indications are that this tread represents the upper step of a stair which led down to the *Cutz* courtyard surface. In general, the plastered surfaces of this formal access stair were well preserved. The southern stair and balustrade, and upper terrace step, exhibited ca. 5-6 cm thick plaster caps. The northern step also contained preserved plaster, but this surface was much thinner (ca. 1-2 cm thick) than in other areas. A thin ca. 4-6 cm ballast layer, composed mainly of pebble (0.4-6.4 cm) sized clasts, underlay the plaster surfaces. The fill (Level 4B) deposit beneath this varied in thickness, depending on whether it was beneath the terrace or the steps. This deposit consisted of loosely compact dry-stone core. Pebble (0.4-6.4 cm) and cobble (6.4-6.4 cm) sized clasts were prominent.

Cache A4-F/3, a partial vessel termination offering, was exposed in the southwestern corner of Unit A4-2a (see Figure 25) during excavation of the A4-6th upper building platform (Levels 5 and 5B). This cache, consisting of a cluster of sherds from a number of vessels, was found resting on the earlier A4-7th building platform surface (Level 6A). Thus the offering appears to represent a termination offering focusing on the earlier A4-7th structure. Many of the sherds appear to have derived from a Garbutt Creek Red: Garbutt Creek Variety vessel. This dates the termination of A4-7th, and construction of A4-6th, to the Maxik phase (675-875 A.D.). A tighter chronological assessment is suggested by the ceramic assemblage (see below).

Lithic debitage was recovered in moderate percentages from the A4-6th levels. Faunal remains were present but rare. All significant artifacts came from Unit A4-2a, and were limited to a serpentine polishing/grinding stone (A4-SF/90), and a chert biface fragment (A4-SF/110), discovered in building platform fill (Level 5), and a ceramic disk (A4-SF/148), retrieved from the fill beneath the upper step (Level 5B). The ceramic sample obtained from the A4-6th architecture was extremely large. Xnipek (600-675 A.D.) and Maxik phase (675-875 A.D.) varieties dominated the sample. Prominent Xnipek phase varieties included Zibal Unslipped: Varieties Unspecified, Jones Camp Striated: Jones

Camp Variety, Macal Orange-Red: Macal Variety, and Sotero Red-Brown: Sotero Variety. Prevalent Maxik phase varieties included Belize Red: Belize Variety, Benque Viejo Polychrome; Variety Unspecified, Mount Maloney Black: Mount Maloney Variety, Tu-Tu Camp Striated: Tu-Tu Camp Variety, Alexanders Unslipped: Alexanders Variety, and Dolphin Head Red: Dolphin Head Variety. The dominance of the transitional Sotero Red-Brown: Sotero Variety, and early facet Maxik phase, Dolphin Head Red: Dolphin Head Variety, and the incipient presence of the late facet Mount Maloney Black: Mount Maloney Variety, suggest that a date of 725-750 A.D. for the A4-6th structural modifications seems likely.

*A4-5th.* A4-5th, a series of minor modifications to the central portion of the building platform (Figure 27), was exposed in Units A4-2a (Levels 4A and 4C, see Figure 11) and A4-4a (see Figure 20A ). Within Unit A4-2a the previous A4-6th building platform was extended ca. 30 cm to the north. This expansion of the building platform area was achieved by increasing the height of the A4-6th upper stair tread by ca. 29 cm, bringing it level with the A4-6th platform surface (ca. 125 cm Below the Structure Datum). In conjunction with the upper building platform extension (Level 4A), the A4-6th basal step was also raised ca. 25 cm in height (Level 4C). The top of this new tread was exposed at ca. 155 cm Below the Structure Datum. The plaster surface of the platform extension (Level 4A) was poorly preserved, being 1-2 cm thick. This was underlain by a ca. 3-4 cm thick ballast layer, mainly comprised of pebble (0.4-6.4 cm) sized clasts. The fill deposit beneath this was ca. 24-26 cm thick, and consisted of loosely compact, dry-stone core. Pebble (0.4-6.4 cm) and cobble (6.4-25.6 cm) sized clasts were prominent in the deposit. The plaster, ballast, and fill deposits for the basal step modification (Level 4C) generally conform to this description, although thickness may vary slightly. In combination, these two A4-5th modifications acted to enlarge the inhabitable platform space, and decrease the number of steps necessary to ascend the building platform. In conjunction with these modifications, portions of the upper building platform were apparently resurfaced, as evidenced by excavations in Unit A4-4a. This was a relatively thin reflooring, consisting of a ca. 2-3 cm plaster cap underlain by a ca. 2-3 cm ballast layer. The latter deposit was composed primarily of pebble (0.4-6.4 cm) sized clasts. In total, this constituted a 5-6 cm thick replastering event. No evidence for post-holes was found in association with the A4-5th modifications. Thus, no tangible evidence exists for pole-and-thatch or wattle-and-daub superstructure. However, post-holes may have fallen outside of the excavation units in some instances, or have been unrecognizable given the preservation of the plastered surface (e.g. the plaster around a post-hole may be the first to deteriorate). In any event, it seems likely that some type of perishable superstructure did surmount the A4-5th building platform. It is also probable that the postulated A4-6th bench continued to be employed at this time.

Lithic debitage was recovered in small percentages in the A4-5th fill, undoubtedly a reflection of the limited nature of these modifications. Faunal remains were similarly rare. The only significant artifacts discovered during the excavation of A4-5th architecture came from beneath the fill of the building platform extension (Level 4A). These consisted of a chert scraper/drill (A4-SF/111), a medial section of obsidian blade (A4-SF/21), a granite mano fragment (A4-SF/125, Figure 28A), and a chert biface fragment (A4-SF/95). The size of the ceramic sample was also limited by the extent of the modifications. Xnipek (600-

6785 A.D.) and Maxik phase (675-875 A.D.) varieties dominated the assemblage. The most prevalent Xnipek phase variety was Sotero Red-Brown: Sotero Variety. The most prominent Maxik phase varieties were Belize Red: Belize Variety, and Dolphin Head Red: Dolphin Head Variety. Considered in conjunction with the postulated dates for the immediately preceding and subsequent construction phases, a date of 725-750 A.D. is suggested for the A4-5th modifications.

*A4-4th.* A4-4th, a further series of structural modifications (Figure 29), was exposed in Units A4-1a (Levels 5, 5A, 4, 3, see Figure 13), Unit A4-2 (Levels 4B, 3, see Figure 11), Unit A4-3 (Levels 4A and 4C, see Figure 14), and Unit A4-5 (Level 3). Within Unit A4-2a the building platform was again extended northward, by elevating the previous A4-5th basal step to the building platform Level. The top of this new platform addition (Level 4B) was exposed at ca. 137 cm Below the Structure Datum, but given the poor preservation of the surface it is likely that the original elevation was closer to ca. 125 cm Below the Structure Datum. This addition functioned to increase the building platform living space by ca. 60 cm, bringing the northern face of the platform in line with the stair riser of the previous A4-5th basal step. No post-holes attributable to this architecture were recognized, although it is highly likely that a pole-and-thatch or wattle-and-daub superstructure surmounted the A4-4th building platform. It is also likely that the bench originally constructed during A4-6th continued to be employed at this time. The surface of the new addition consisted of a thin ca. 1-2 cm, poorly preserved remnant of the original plaster cap. Indications are that this cap was initially ca. 10 cm thick. This plastered surface overlay a 3-5 cm ballast layer of pebble (0.4-6.4 cm) composition, and a ca. 10-15 cm thick dry-stone core deposit. The latter fill deposit was loosely compact, and consisted primarily of pebble (0.4-6.4 cm) and cobble (6.4-25.6 cm) sized clasts. As a result of the A4-4th platform extension, and the complete burial of the previously employed stair feature, an outset stair had to be constructed in order to ascend to the enlarged building platform. This feature (Level 3) was partially exposed in the northeastern corner of Unit A4-2 (Figure 30), and in the smaller Unit A4-5 extension. This new stair feature was in a poor state of preservation, however, it appears to have originally had three steps. In conjunction with the addition of the outset stair, the Ac courtyard surface was apparently replastered (Level 3). Although this floor was very poorly preserved, given its proximity to the surface, it was consistently recognized between 193-203 cm Below the Structure Datum in all excavation units. This ca. 13 thick replastering of the courtyard consisted of a ca. 1-2 cm thick plaster cap overlying a ca. 10 cm ballast layer. The latter was composed mainly of pebble (0.4-6.4 cm) sized clasts.

The A4-4th structural modifications in Unit A4-1a acted to raise the building platform level with that recognized in Unit A4-2. This activity therefore constituted an extension of the main building platform to the west. The new building platform surface was poorly preserved. An extremely thin (ca. 1-2 cm) plaster cap was recognized across the unit at 128 cm Below the Structure Datum. No post-holes were recognized within this surface, although it is likely that a pole-and-thatch or wattle-and-daub superstructure existed on the A4-4th building platform. Similarly, no evidence for a bench feature was found in Unit A4-1a in association with the A4-4th building platform. The thin plaster cap overlay a ca. 49 cm thick, moderately compact, fill deposit of small aggregate. The fill was composed of moderate percentages of pebble (0.4-6.4 cm) and cobble (6.4-25.6 cm) sized clasts

interspersed within a mortar matrix. The upper portion of this fill deposit was designated Level 4. Within this coarse fill a north/south, one course, "floating wall" was located (Level 5A). This may be a construction wall of some sort, as it was not associated with a prepared sustaining surface. The fill beneath this feature was removed as Level 5. In association with the erection of the new A4-4th building platform, an outset stair (Level 3) was also constructed to facilitate access to the upper building platform. This step was of simple construction, consisting of three boulder (>25.6cm) sized blocks arranged to encase a small amount of moderately compact, small aggregate fill. This latter deposit consisted of moderate percentages of pebble (0.4-6.4 cm) and cobble (6.4-25.6 cm) sized clasts within a mortar matrix. In combination with the erection of the new A4-4th building platform, and the construction of the outset stair, the *Ac* courtyard floor was raised ca. 11 cm (Level 3). This floor was well preserved considering its proximity to the surface. The plaster cap, exposed at ca. 193 cm Below the Structure Datum, was ca. 4 cm thick, and was underlain by a ca. 6 cm thick ballast layer. The latter was composed primarily of pebble (0.4-6.4cm) sized clasts.

Within Unit A4-3, the A4-4th structural modifications included the blocking off of the previously employed axis between the *Ac* and *Cutz* courtyards. This was achieved by filling in the stair leading to the *Cutz* courtyard (Level 4C), bringing it level with the previous upper terrace. The surface of this addition was poorly preserved. The underlying ca. 50 cm thick fill deposit consisted of compact small aggregate, mainly moderate percentages of pebble (0.4-6.4 cm) and cobble (6.4-25.6 cm) sized clasts within a mortar matrix. This closing off of the southern access stair, and extension of the previous A4-5th terrace southward, effectively created the new A4-4th building platform. The surface of this feature was exposed at ca. 157 cm Below the Structure Datum. This portion of the building platform was ca. 32 cm lower than that recognized across the rest of the structure. The earlier A4-5th, north/south retaining wall, exposed within Unit A4-6, continued to divide these two building platform levels. No evidence for post-holes was discovered, although it is probable that a pole-and-thatch or wattle-and-daub superstructure was constructed upon the building platform. To the north of the A4-4th building platform a new terrace step was constructed. The poorly preserved tread, having been elevated ca. 15 cm above its previous A4-5th level, was exposed at ca. 183 cm Below the Structure Datum. The remnant plaster cap was only ca. 1-2 cm thick. This overlay a ca. 12 cm ballast layer, composed of loosely compact, pebble (0.4-6.4cm) sized clasts. In conjunction with the raising of this feature, the terrace step was extended ca. 30 cm to the north, where a ca. 20 cm high riser led down to the new *Ac* courtyard surface (Level 3) at ca. 203 cm Below the Structure Datum. This ca. 6 cm thick replastering of the courtyard surface was achieved by laying down a ca. 3 cm ballast layer, composed primarily of pebble (0.4-6.4cm) sized clasts, and a ca. 3 cm plaster cap.

Cache A4-F/1, a partial vessel termination cache, was encountered in Unit A4-3 during excavation of the A4-4th terrace step (see Figure 27). This large cluster of sherds was found along the western wall of the unit, adjacent to the upper A4-4th building platform facing wall. The sherds had been placed on the earlier A4-5th terrace step, and subsequently concealed by the construction of the A4-4th terrace. The cluster was of substantial size, literally filling the 16 cm between these two terrace surfaces. The

assemblage represented a number of vessels, dating to the Xnipek (600-675 A.D.) and Maxik (675-875 A.D.) phases. Clearly, this was some type of termination offering focusing on A4-5th, although the ritual activity was obviously also connected with the dedication of the new A4-4th structure.

Lithic debitage was recovered in moderate percentages from the A4-4th fill deposits. Faunal remains were less prevalent. Significant artifacts recovered from this construction level included: a carved, limestone spindle whorl (A4-SF/24), and seven medial sections of obsidian blades (A4-SF/25, A4-SF/26, A4-SF/27, A4-SF/28, A4-SF/29, A4-SF/30, A4-SF/70), from the upper building platform fill within Unit A4-1a (Level 4); three medial sections of obsidian blades (A4-SF/31, A4-SF/34, A4-SF/36), two proximal sections of obsidian blades (A4-SF/33, A4-SF/35), a ceramic sherd bead (A4-SF/32), a basalt mano fragment (A4-SF/55), a granite metate fragment (A4-SF/74, Figure 28B), a utilized chert flake (A4-SF/76), and a chert biface fragment (A4-SF/77), from the basal building platform fill within Unit A4-1a (Level 5), a proximal section of obsidian blade (A4-SF/3), from the terrace step fill in Unit A4-3 (Level 4A), and a medial section of obsidian blade (A4-SF/22) from the outset stair fill in Unit A4-5. The ceramic sample was of moderate size, and was dominated by Xnipek (600-675 A.D.) and Maxik phase (675-875 A.D.) varieties. The most prominent Xnipek phase varieties were Sotero Red-Brown: Sotero Variety, and Zibal Unslipped: Varieties Unspecified. The most prevalent Maxik phase varieties were Alexander's Unslipped: Alexander's Variety, Cayo Unslipped: Cayo Variety, Belize Red: Belize Variety, Dolphin Head Red: Dolphin Head Variety, Chunhuitz Orange: Chunhuitz Variety, and Mount Maloney Black: Mount Maloney Variety. This assemblage, considered in combination with the dates for the preceding and following construction phases, suggests a date of 725-750 A.D. for the A4-4th structural modifications.

*A4-3rd.* A4-3rd, the next construction phase (see Figure 31), represents minor alterations to the building platform in Units A4-3 (see Figure 14) and A4-6 (see Figure 20B). The remainder of the structure continued to be utilized in unaltered form. Within A4-3 the previous A4-4th building platform was extended northward ca. 120 cm. This was achieved by raising the old terrace step area by ca. 25-26 cm in order to bring it in line with the front retaining wall for the rest of the A4 architecture, and with the original A4-4th building platform surface at ca. 157 cm Below the Structure Datum. The surface of the A4-3rd building platform extension was poorly preserved, only a thin (1-2 cm) plaster cap remained. This overlay a 2-3 cm ballast deposit, and a ca. 20 cm thick fill deposit (Level 4) of small aggregate. This matrix was composed of moderate percentages of pebble (0.4-6.4 cm) and cobble (6.4-25.6 cm) sized clasts interspersed within a mortar matrix. A4-3rd also saw the addition of a long, low, east/west bench to this locus. This bench feature exhibited a ca. 30 cm high, two course retaining wall. The original plaster bench surface was completely deteriorated. The top of the bench fill (Level 4), which consisted of highly compact, small aggregate, was exposed within Units A4-3 and A4-6 at ca. 126-127 cm Below the Structure Datum. This low bench spanned both the A4-3 and A4-6 units. To the west the bench abutted the north/south retaining wall for the higher A4-4th building platform in Unit A4-2. The top of the bench coincided with the surface of this higher building platform area. Again, no evidence for post-holes was uncovered, although it is felt that a pole-and-thatch or wattle-and-daub superstructure surmounted the building platform. In

conjunction with the bench addition, and building platform extension, a one step outset stair was constructed. The tread of this feature was exposed at ca. 192 cm Below the Structure Datum, ca. 35 cm below the building platform surface. The fill of this tread consisted of two courses of thin (ca. 5 cm), cobble (15-20 cm) sized limestone slabs. The plaster cap was completely deteriorated. This step ran ca. 30 cm to the north, where it terminated at a ca. 11 cm high, one course riser. This in turn led down to the Ac courtyard surface at ca. 203 cm Below the Structure Datum. In combination, these features significantly altered the eastern portion of the building platform, bringing it more in accord with the rest of the contemporaneous A4 architecture.

Lithic debitage was recovered in moderate percentages from the A4-3rd fill. Faunal remains were relatively rare. Significant artifacts recovered from the A4-3rd construction fill (Level 4) included a medial section of obsidian blade (A4-SF/4), an exhausted chert biface fragment (A4-SF/93), a chert scraper (A4-SF/94), a thin chert biface fragment (A4-SF/138), and two granite metate fragments (A4-SF/139, A4-SF/142). An "on-floor" assemblage of artifacts was also recovered from the surface of the A4-3rd building platform in Unit A4-3 (Level 4). This assemblage was composed of a two granite mano fragments (A4-SF/112, A4-SF/115), two chert biface fragments (A4-SF/113, A4-SF/114), and a limestone "pestle" (A4-SF/116). The ceramic assemblage was small, given the limited nature of the A4-3rd additions. The sample was dominated by Xnipek (600-675 A.D.) and Maxik phase (675-875 A.D.). The most prevalent Xnipek phase varieties were Zibal Unslipped: Varieties Unspecified, and Sotero Red-Brown: Sotero Variety. Prominent Maxik phase varieties were Dolphin Head Red: Dolphin Head Variety, Alexander's Unslipped: Alexander's Variety, Cayo Unslipped: Cayo Variety, Belize Red: Belize Variety, Chunhuitz Orange: Chunhuitz Variety, and Mount Maloney Black: Mount Maloney Variety. This assemblage, considered in conjunction with the ceramic samples obtained from the architecture immediately preceding and following this construction phase, indicates a date of 725-750 A.D. for the A4-3rd structural additions.

**A4-2nd.** A4-2nd, the penultimate A4 construction phase, was recognized in Units A4-1 (Levels 3F, 3E, 3D, 3G, see Figure 13), A4-2 (Level 3, see Figure 11), A4-3 (Level 3, see Figure 14), A4-4 (Level 3, see Figure 20A), and A4-6 (Level 3, see Figure 20B). It is with this construction phase that the western section of the architecture (A4-1) begins to exhibit features indicative of more substantial labor investment, in comparison to the rest of the structure (Figure 32). Within Unit A4-1 the building platform was elevated ca. 23 above its previous A4-3rd elevation. The surface of this new building platform (Level 3E), exposed at ca. 105 cm Below the Structure Datum, functioned as an interior room space enclosed by double-faced, masonry walls. This floor was fairly well preserved, consisting of a ca. 6-8 cm thick plaster cap, a ca. 4 cm ballast layer (mainly pebble [0.4-6.4cm] sized clasts), and a ca. 14 cm thick basal fill deposit of moderately compact small aggregate (primarily pebble [0.4-6.4cm] and cobble [6.4-25.6cm] sized clasts). The southern boundary of the room was dominated by a large bench. This feature was not completely revealed by Unit A4-1, but indications are that it was ca. 61 cm high, at least 120 cm wide, and substantially longer than the 180 cm section exposed during excavations. The bench surface, encountered at ca. 44 cm Below the Structure Datum, was completely deteriorated. Its original height was suggested by the presence of a compact aggregate core deposit. This

bench fill (Level 3F), being ca. 84 cm thick, consisted of pebble (0.4-6.4 cm) and cobble (6.4-25.6 cm) sized clasts within a mortar matrix.

The eastern extent of the interior room was bounded by a ca. 60 cm high, ca. 90 cm wide, double-faced masonry wall (Level 3D). This north/south oriented wall, exposed at ca. 45 cm Below the Structure Datum, was three courses high, each course averaging 20 cm in thickness. The wall top was completely deteriorated, but indications are that it was originally consistent with the elevation of the bench surface (ca. 44 cm Below the Structure Datum). The fill deposit that formed the wall body consisted of compact small aggregate, mainly pebble (0.4-6.4 cm) and cobble (6.4-25.6 cm) sized clasts within a mortar matrix. To the south this wall abutted the bench facing wall. To the north, ca. 90 cm from the bench face, a second double-faced masonry wall was encountered (Level 3G). This east/west oriented wall was ca. 80 cm wide, ca. 180 cm long, and ca. 32 cm high. This wall defined the northern extent of the room, and it is likely that it was originally identical in height to the north/south wall (Level 3D) and the bench (Level 3F). However, the upper course of this three course wall had been displaced over time, leaving only the basal two courses. These were exposed at ca. 73-79 cm Below the Structure Datum. The wall body was composed of compact small aggregate, primarily pebble (0.4-6.4 cm) and cobble (6.4-25.6 cm) sized clasts interspersed throughout a mortar matrix. This wall ran ca. 90 cm to the west (from the inside face of the eastern wall) where an entrance to the room was discovered. At this juncture the front face of this northern wall was aligned with a ca. 23 cm high stair riser, which lead to a stair tread at ca. 137 cm Below the Structure Datum. The former A4-3rd building platform surface (Level 4) was employed to form this step. This tread was ca. 50 cm deep, and ran the entire length of the room, at the base of the building's front wall (Level 3G). At the entrance this tread terminated at the nose of a ca. 30 cm high stair riser (previously the A4-3rd building platform retaining wall). This led down to the previous A4-3rd outset stair (Level 3) at ca. 164 cm Below the Structure Datum, and in turn to the contemporaneous Ac (Level 4) courtyard surface at ca. 190 cm Below the Structure Datum. No evidence for post-holes was found within the Unit A4-1 excavations. However, post-holes were found in other units, indicating that A4-2nd was surmounted by a wattle-and-daub or pole-and-thatch superstructure. Within the western portion of the structure it is plausible that the uprights were positioned within the wall body, thus making them difficult to isolate during excavations. It seems likely that, at least in the western portion of Structure A4, the A4-2nd building exhibited a pole-and-thatch or wattle-and-daub superstructure with partial masonry walls.

Within the remainder of the structure significant, albeit less elaborate modifications, were undertaken during the A4-2nd construction phase. The upper building platform was raised ca. 23-24 cm in Units A4-2, A4-4 and the eastern portion of Unit A4-1, and ca. 50 cm in Units A4-3 and A4-6 (Level 3). The fill employed during this elevational increase was consistently small aggregate of moderate compaction. Pebble (0.4-6.4 cm) and cobble (6.4-25.6 cm) sized clasts were present in high percentages within the mortar matrix. The upper building platform retaining wall was concomitantly increased through the addition of two or three course levels. These additions effectively brought the building platform level with that already described for the A4-1 locus (ca. 101-105 cm Below the Structure Datum). As with Unit A4-1, the previous A4-3rd building platform was employed as a step which

fronted the building proper at ca. 137 cm Below the Structure Datum. However, unlike in Unit A4-1, this feature was much wider in depth, being ca. 140 cm deep, and thus is best classified as a terrace rather than a step. In general, the building platform was poorly preserved, except for a small section exposed in the eastern portion of Unit A4-1 (at ca. 101 cm Below the Structure Datum). The superior preservation of this section of the floor was undoubtedly due to its proximity to the masonry wall. Evidence for bench features was found in association with the A4-2nd floor in Units A4-2 and A4-3. These bench remnants were in exceedingly poor states of preservation, thus it is impossible to characterize them with any certainty. Within Unit A4-4 a ca. 22 cm wide, ca. 40 cm deep post-hole was discovered. A similarly positioned post-hole was previously uncovered during excavation of the A4-6th building platform (this portion of the platform was employed during A4-6 thru A4-3rd). This post-hole was clearly intrusive into this level (see Figure 11), implying that it was dug during the A4-2nd construction phase. Unfortunately, the surface of this later building platform was too poorly preserved to permit recognition of the upper portion of the post-hole during excavations. Still, although this post-hole was shallower than the one isolated within Unit 4-4 (ca. 28 cm vs. 40 cm), its spatial location suggests that the two are related. These features reaffirm the notion that a simple pole-and-thatch or wattle-and-daub superstructure surmounted the A4-2nd building platform. The main difference between this segment of the A4-2nd structure, and the extreme western portion of the building, was the use of double-faced masonry walls in the latter.

Lithic debitage was recovered in moderate percentages with the A4-2nd fill deposits. Faunal remains were rare throughout. Significant finds included a chert scraper (A4-SF/108), and a quartz massive mano fragment (A4-SF/109), from the bench fill in Unit A4-1a (Level 3F), two medial sections of obsidian blades (A4-SF/15, A4-SF/20), and an olive shell "tinkler" (A4-SF/40, Figure 12G), from the building platform fill in Unit A4-2 (Level 3), a proximal section of obsidian blade (A4-SF/7), from the building platform fill in Unit A4-3 (Level 3), and an olive shell "tinkler" (A4-SF/39, Figure 12F), a modified slate fragment (A4-SF/83), a chert biface fragment (A4-SF/131), and two utilized chert flakes (A4-SF/132, A4-SF/133), from the building platform fill in Unit A4-6 (Level 3). The ceramic sample was large, and was dominated by Xnipek (600-675 A.D.), and Maxik (675-875 A.D.) phase varieties. Dominant Xnipek phase varieties included Sotero Red-Brown: Sotero Variety, and Zibal Unslipped: Varieties Unspecified. The most prominent Maxik phase varieties were Belize Red: Belize Variety, Chunhuitz Orange: Variety Unspecified, Dolphin Head Red: Dolphin Head Variety, Cayo Unslipped: Cayo Variety, and Mount Maloney Black: Mount Maloney Variety. This assemblage, exhibiting large percentages of Xnipek/Maxik phase transitional varieties (e.g. Sotero Red Brown: Sotero Variety), and early facet Maxik phase varieties (e.g. Dolphin Head Red: Dolphin Head Variety), and limited numbers of late facet Maxik phase varieties (e.g. Mount Maloney Black: Mount Maloney Variety), suggests a date of 725-750 A.D. for the construction of A4-2nd.

*A4-1st.* A4-1st, the last construction phase identified at the A4 locus, constituted a series of minor modifications to the western portion of the structure (Figure 33). These additions were exposed within Units A4-1 (Levels 3A, 3B, 3C, see Figure 13), and A4-4 (3C, see Figure 20A). Within Unit A4-1 the western room floor was resurfaced (Level 3B). This new floor surface was elevated at least ca. 25 cm above its previous A4-2nd height.



The surface of this floor was completely deteriorated. Its original height was suggested by the presence of a fill deposit of moderately compact small aggregate, exposed at ca. 80 cm Below the Structure Datum. This consisted primarily of moderate percentages of pebble (0.4-6.4cm) and cobble (6.4-25.6c.) sized clasts within a mortar matrix. In conjunction with the raising of the interior floor, the bench feature was also increased in height. Due to its proximity to the surface, its plaster cap had been entirely destroyed. The bench fill (Level 3A), a loosely compact small aggregate deposit, was exposed at ca. 30 cm Below the Structure Datum. Evidently, the surface of the A4-1st bench was originally higher than this, as was reaffirmed by the exposure of some bench retaining wall stones at ca. 18 cm Below the Structure Datum. Thus the new bench surface was probably elevated between 14 and 26 cm above its previous A4-2nd height. A more accurate measurement cannot be provided given the deterioration of the surface architecture.

The only other structural modification attributable to A4-1st was the addition of a new, smaller, bench (Level 3C), which was erected in the room immediately to the east of the one just discussed. This bench, exposed within Unit A4-1 and A4-4, was ca. 215 cm long and at least 100 cm wide. This feature was sustained by the earlier A4-2nd building platform floor, at ca. 101 cm Below the Structure Datum. It abutted the A4-2nd north/south double faced masonry wall (Level 3D) on the west, and terminated at the intersection with a post-hole, also attributable to A4-2nd, on the east. Preservation of this feature ranged from good to excellent within Unit A4-1, to extremely poor in Unit A4-4. Within Unit A4-1 a small portion of plaster, indicative of the bench surface, was exposed at ca. 55 cm Below the Structure Datum. This implied that the bench was originally 46 cm high. The bench facing wall was of three course construction. Within Unit A4-4 only the basal course remained, the upper courses having been displaced through natural and/or cultural transformation processes. The bench fill consisted of moderate to highly compact, small aggregate. Pebble (0.4-6.4cm) and cobble (6.4-25.6cm) sized clasts were present in moderate to high numbers within the mortar matrix. The remainder of the A4-2nd architecture appears to have been employed in unaltered form with these new A4-21st additions. The presence of post-holes suggests that the A4-1st superstructure continued to be of pole-and-thatch or wattle-and-daub construction.

Lithic debitage and faunal remains were recovered in small to moderate numbers from the A4-1st fill, undoubtedly a reflection of the limited extent of these alterations. The only significant artifacts were a chert biface (A4-SF/91), and a chert biface preform (A4-SF/92), both encountered during excavation of the western room floor fill (Level 3B). The ceramic sample was similarly small, and highly weathered in some contexts (e.g. the Level 3A upper bench). The assemblage was dominated by Xnipek (600-675 A.D.) and Maxik (675-875 A.D.) varieties. Prominent Xnipek phase varieties included Sotero Red-Brown: Sotero Variety, and Zibal Unslipped: Varieties Unspecified. The most prevalent Maxik phase varieties were Belize Red: Belize Variety, Chunhuitz Orange: Variety Unspecified, Dolphin Head Red: Dolphin Head Variety, Cayo Unslipped: Cayo Variety, and Mount Maloney Black: Mount Maloney Variety. As this sample contains large percentages of Xnipek/Maxik phase transitional varieties (e.g. Sotero Red Brown: Sotero Variety), early facet Maxik phase varieties (e.g. Dolphin Head Red: Dolphin Head Variety), and limited numbers of late facet Maxik phase varieties (e.g. Mount Maloney Black: Mount Maloney

Variety), a date of 725-750 A.D. is likely for the addition of the new A4-1st features.

*Level 2.* Level 2, a fall deposit of variable thickness, was excavated across the structure (see Figures 11, 13, 14, 20A, 20B). This deposit consisted primarily of loosely compacted structural components which had been displaced by natural processes. The ceramic sample from this deposit was highly weathered, and of mixed origin. Lithic debitage and faunal remains were recovered in small to moderate percentages. Significant finds derived from this matrix included a proximal section of obsidian blade (A4-SF/10), a granite mano fragment (A4-SF/130, Figure 34A), a quartzite hammerstone (A4-SF/141), and a limestone spindle whorl (A4-SF/11), from the fall deposit north of the southwest room in Unit A4-1 (Level 2A), a granite mano fragment (A4-SF/106, Figure 34B), and a chert scraper (A4-SF/107), from the fall deposit associated within the southeastern room and associated bench in Unit A4-1 (Level 2C), and a medial section of obsidian blade (A4-SF/2), a drilled sherd (A4-SF/5), a granite mano fragment (A4-SF/80), a chert biface fragment (A4-SF/96), a granite metate fragment (A4-SF/81), and a chert drill (A4-SF/82), from the fall deposit in Unit A4-3. Due to the generally poor preservation of the A4-1st and A4-2nd architecture, it was difficult in some instances to separate the fall deposit from the underlying terminal architecture. This meant that some artifacts were recovered from a matrix composed of a "mix" of the two deposits. These artifacts include a ceramic whistle? (A4-SF/6), a medial section of obsidian blade (A4-SF/12), and a chert grinding/polishing stone (A4-SF/88), from Unit A4-2a (Level 2 and 3 mix).

*Level 1.* Level 1, a surface/humus deposit, was comprised of loose to moderately compact, organic rich sediments (see Figures 11, 13, 14, 20A, 20B). This matrix varied in thickness, and contained numerous roots and rootlets. The deposit formed through the general processes of soil formation, as a result of the stabilization of the underlying fall deposit. Lithic debitage and faunal remains were encountered in small to moderate numbers. A fragment of a plaster briquette was recovered from this deposit during excavations in Unit A4-2. This find reaffirms the postulation that Structure A4 was surmounted by a wattle-and-daub superstructure. Significant artifacts recovered from the surface/humus deposit included a medial section of obsidian blade (A4-SF/8), a limestone bead (A4-SF/9), and a unifacial chert chopper (A4-SF/86), from Unit A4-1 (Level 1), a conch shell adorno (A4-SF/13, Figure 12A), two medial sections of obsidian blades (A4-SF/14, A4-SF/17), a bifacial chert chopper (A4-SF/98), a granite metate fragment (A4-SF/99, Figure 35A), two chert biface fragments (A4-SF/100, A4-SF/105), a utilized chert flake (A4-SF/103), a granite mano fragment (A4-SF/120), a quartz massive mano fragment (A4-SF/121), a shell bead (species unknown [A4-SF/44], Figure 12D), and a chert drill (A4-SF/122), from Unit A4-2 (Level 1), a carved section of freshwater clam (A4-SF/1, Figure 12C), and a chert drill (A4-SF/144), from Unit A4-3 (Level 1), a granite mano (A4-SF/117, Figure 35B), a chert biface fragment (A4-SF/118), and a bifacial chert chopper (A4-SF/119), from Unit A4-4 (Level 1), and a basalt scraper/knife (A4-SF/89), from Unit A4-5 (Level 1). As with the previously discussed fall deposit (Level 2), excavators sometimes found it difficult to separate the surface/humus deposit (Level 1) from the underlying fall (Level 2) and terminal architecture (Level 3). This was due to the poor preservation of the latter deposit, and the consistent interfingering of all three deposits. Artifacts recovered from this mixed matrix included three medial sections of obsidian blades (A4-SF/16, A4-

SF/18, A4-SF/19), a chert biface preform (A4-SF/87), two chert biface fragments (A4-SF/102, A4-SF/126), a quartz massive mano fragment (A4-SF/127), a chert drill/graver (A4-SF/128), and a chert scraper (A4-SF/129), from Unit A4-2 (Level 1-3 mix). Finally, during initial surface reconnaissance of the A4 mound a medial section of obsidian blade (A4-SF/61), a granite metate fragment (A4-SF/85), and a ceramic figurine head (A4-SF/45) were collected.

In summary, Structure A4 is a likely candidate for the primary Zubin residence. This interpretation is suggested by the structure's morphology and relative size, as well as the presence of special features such as benches, and the prominence of utilitarian artifacts within the fill. However, it should be emphasized that this residential function manifested itself rather late at the A4 locus. Although construction at this location was initiated during the Late Formative period, it remained a secondary activity area until the Late Classic period. It was not until this time that this locus began to be the site of residential construction. This fits the general pattern for this time period, whereby with the Late Classic there is a recognizable expansion of residential construction throughout the Zubin site core and periphery. Over time A4's inhabitable space is expanded to the east, west, and north. However, in conjunction with this expansion there appears to have been an overt effort to maintain the original size of the main *Ac* courtyard. When there was a need to expand the size of the living space to the north, this was achieved by covering steps and adding outset stairs, rather than by extending the entire building platform. In conjunction with the enlargement of interior living space, a trend attributable to the natural developmental cycle of an extended family, there was also increasing differentiation between the various portions of the building with reference to the quality of architecture. For instance, the central portion of the structure was the site of the first building platform, and continued to be higher in elevation than the rest of the mound for the much of the early occupation of the mound. However, during the late occupation the western portion of the mound takes over as the most important, as is indicated by the construction of the larger bench and double-faced masonry walls. These differences are suggestive of significant status, wealth, and power differences within the primary family itself.

The artifact assemblage recovered from A4 was rather mundane, which reaffirms the residential interpretation for the mound. This postulation is similarly backed up by the paucity of ritual deposits. No burials were discovered, which undoubtedly reflects the close proximity to the A1 ancestor shrine, this latter structure obviously the main focus for such activity. Concomitantly, virtually no cache deposits were encountered, with the exception of a handful of partial vessel, termination/dedication caches. One interesting find does warrant special mention. The presence of the Naranjo Group sherds tentatively ties Zubin into the wider distribution of politically charged, exotic polychrome ceramics. Reents-Budet (1994:203) notes that vessels of this group have been recovered from "intermediate" elite tombs at a number of sites, and argues for the importance of this ceramic group in the "social politics" of the Early Classic period. She concludes that the "...Naranjo Area Group vessels may have functioned as part of elite exchange or gift-giving events in the overarching realm of social currency prior to ending their pre-Columbian lives in tombs" (Reents-Budet 1994:207). However, given the non-ritual context (residential fill), and the fact that the vessel is only partially present, indications are that Zubin's participation in this

socio-political interaction was minimal at best, and possibly highly fortuitous.

### EXCAVATIONS WITHIN THE *CUTZ* RAISED PLATFORM

The *Cutz* (ocellated turkey) raised platform, located to the south of the *Ac* courtyard (see Figure 2), sustains a solitary pyramidal structure (Str. C9). The raised platform abuts the *Ac* courtyard to the north, although the *Cutz* platform is well over a meter lower. No other structures are readily apparent in the vicinity of the lone pyramidal mound. However, it is possible that hidden structures are present.

#### *Structure C9 Operations*

Structure C9 is situated in the southeast corner of the *Cutz* raised platform. This structure had been extensively impacted by looter's, who had excavated a large trench into the C9 building platform, and what later proved to be the rear of the structure. Given the overall site morphology, I originally interpreted this structure, and associated raised platform, to be Late Classic additions to the main architectural assemblage. This interpretation was suggested by the growth of the adjoining *Ac* and *Bac-ha* courtyards. It seemed plausible that as these courtyards became more restricted with respect to access, the *Cutz* platform and Structure C9 were constructed in order to provide the principal family with a more public, ritual and administrative space. The goals of the 1994 C9 operations were developed with this hypothesis in mind. Specifically, we first endeavored to determine the orientation of Structure C9 in relation to the *Ac* and *Bac-ha* courtyards. To achieve this goal we excavated three 1x1 m test units, one into each of the western (Unit C9-1), northwestern (Unit C9-2), and northeastern (Unit C9-3) faces (Figure 4). These test units were employed to expose sections of terminal and penultimate architecture, and enabled us to establish that the structure faced north. This facilitated the placement of a 6x2 m axial trench along the C9 stair, the excavation of which constituted the second research goal (Figure 4). It was through this excavation that data pertaining to temporal growth of the structure, the quality of overall architecture, and location and inventory of ritual deposits was to be acquired. The axial trench was subdivided into two 3x2 m units (Units C9-4 and C9-5) in order to provide tighter horizontal control over artifact assemblages. A large balk section was left between the axial trench and the looter's excavation for safety purposes.

The final goal was to clean out the C9 Looter's trench in order to assess the construction sequence, and ascertain how deep the looters had excavated. We had initially hoped that the looter's trench might be shallow enough to enable us to continue excavations within the platform itself. Unfortunately, our efforts soon indicated that the looters had excavated quite deep into the structure. The extent of this looting activity, in comparison to that described for the other Zubin architecture, suggested that the looters had been successful enough with regard to recovering finds that they deemed it profitable to continue their excavations deep into the mound. During re-excavation of the looter's trench six building surfaces were exposed, indicating the presence of a more complicated construction sequence than had previously been expected (Figure 36). All of the backdirt was screened in order to recover any finds still present in the mixed deposit, which was designated Level 1A. The Level 1A ceramic sample was large, and surprisingly, of purely Formative period composition. Sherd samples were taken from beneath the various exposed floors in order

to confirm this date. These pristine samples provided evidence for a construction sequence spanning the entire Formative period, beginning in the early facet Kanluk phase (ca. 850-650 B.C.) and terminating in the late facet Xakal phase (ca. 100-350 A.D.). These finds clearly refuted the earlier postulation that this portion of the site was a Late Classic addition to Zubin's main architectural assemblage. Debitage was present in moderate percentages within Level 1A. Faunal remains were also found in moderate numbers. Significant finds recovered from the Level 1A backdirt consisted of a barrel-shaped jadeite bead (C9-SF/1), an irregular shaped jadeite bead (C9-SF/2), a cylindrical jadeite bead (C9-SF/3), a jadeite disk bead (C9-SF/5), one conch shell bead (C9-SF/7, Figure 37I), two medial sections of obsidian blades (C9-SF/4, C9-SF/6), ten greenstone "triangles" (C9-SF/26, C9-SF/30, C9-SF/31 [Figure 38A], C9-SF/32 [Figure 38B], C9-SF/34 [Figure 39B], C9-SF/35 [Figure 40A], C9-SF/36, C9-SF/37 [Figure 40B], C9-SF/38 [Figure 41A], C9-SF/39 [Figure 41B]), two modified greenstone pebbles (C9-SF/33 [Figure 39A], C9-SF/50), an irregular chert biface (C9-SF/52), a chert biface preform discard (C9-SF/54), and a quartzite pestle (C9-SF/53). That so many important finds were overlooked by the looter's implies that they must have encountered a number of elaborate ritual deposits. The depth of their excavations also attests to this. It would appear that at least two burials were disturbed. One burial was rediscovered, partially intact, during re-excavation (C9-B/1). This interment will be discussed in detail below, in conjunction with its associated architecture (Level 7, C9-6th).

*Level 9, C9-8th.* Level 9, C9-8th, constitutes the earliest evidence for occupation at Zubin (Figure 36). Due to its central location within the mound, only a portion of the northern section of the structure was exposed within Unit C9-5 (see Figure 42). The same horizontal surface was also isolated within the looter's trench, but only in a restricted area. The platform, uncovered at ca. 312 cm Below the Structure Datum, exhibited a three course, curvilinear retaining wall of roughly-dressed, rectilinear limestone blocks (boulder size >25.6cm). These were on average 30 cm long and 8-10 cm thick. The course levels were separated by ca. 5 cm thick layers of very dark, organic sediments. The platform was not plastered, although it would appear that a thin layer of tamped, gray-green clay may have been used to finish the surface. The architecture itself probably represents an apsidal platform of very simple construction. This postulation is suggested by the presence of analogous architecture within the Cahal Pech site core dating to the Cunil (1000-850 B.C.) and early facet Kanluk (850-650 B.C.) phases (see Awe 1992:205-210). These structures are contemporaneous with C9-8th (see below), and not only exhibit similar curvilinear frontal retaining walls, but also comparable construction techniques and materials. The limited architectural exposure inhibited our ability to assess whether a perishable superstructure had once surmounted the platform. Similarly, no solid evidence for post-holes or briquettes were discovered, indicative of a wattle-and-daub construction. Indications are, however, given the comparative architectural sample from the Cahal Pech site core, that a simple pole-and-thatch or wattle-and-daub construct did surmount the apsidal platform.

Overall preservation of the C9-8th architecture was good, especially considering the simplistic construction techniques and materials employed. The fill consisted of very dark, organic rich sediments. Compaction was high, and pebble (0.4-6.4 cm) content low to moderate. The platform was elevated ca. 41 cm above a "plaza" surface (at ca. 352 cm

Below the Structure Datum). This latter deposit was comprised of the same dark, organic rich sediments, containing low to moderate percentages of pebble sized clasts (0.4-6.4 cm). Some thin, boulder sized (>25.6 cm) clasts were encountered at the "plaza" interface, indicating that they may have been employed as part of the original surface. However, their random nature argues against there having been an entirely "cobbled" sustaining surface. Due to the fact that this structure was discovered near the very end of the field season, time limitations prohibited us from excavating below the "plaza" level in Unit C9-5. Test excavations within the looter's trench, however, did indicate that bedrock was situated at ca. 390 cm Below the Structure Datum, some 38 cm beneath our termination point in Unit C9-5 (see Figure 36).

Lithic debitage and faunal remains were recovered in moderate percentages within the platform matrix. One artifact of note, a figurine leg? (C9-SF/47) was also discovered. The ceramic sample was not overly large, and consisted entirely of early facet Kanluk phase types (850-650 B.C.). The assemblage was dominated by Savana Orange: Rejolla Variety sherds, an early facet member of the Savana Ceramic Group (Gifford 1976:62). Also present were numerous varieties of the Jocote Ceramic Group, including representatives of the early facet Jocote Orange-brown: Ambergris Variety and Jocote Orange-brown: Jocote Variety (Gifford 1976:61-62). Other potential early facet Kanluk types present in the assemblage included Pital Cream: Varieties Unspecified (black exterior), and Chunhinta Black: Variety Unspecified (see Gifford 1976:62). Taken as a whole, the ceramic assemblage suggests an early facet Kanluk phase date of 850-750 B.C. for construction of the C9-8th platform. Slightly earlier occupation of the site is possible given the presence of some potential Cunil phase (1000-850 B.C.) sherds, in particular a red slipped variety with a buff, ash tempered paste, possibly related to the Consejo Ceramic Group (Awe 1992:227-230; Kosakowsky and Pring 1991:62), and some brown and red-brown slipped varieties with gray paste. This earlier occupation was originally suggested following the recovery of a double strap handle during Level 9/C9-8th excavations in the Looter's trench. This is a variety of the Swasey phase (1200-900 B.C.), Copetilla Ceramic Group, defined at the Northern Belize site of Cuello (Kosakowsky and Pring 1991:62, see also Figure 3.28).

*Level 8, C9-7th.* Level 8, C9-7th, given its central location within the C9 mound, was again only partially exposed within Unit C9-5 (see Figures 36, 43). A ca. 5 cm thick burnt plaster surface, representing the C9-7th upper platform, was also encountered during re-excavation of the looter's trench (at ca. 222 cm Below the Structure Datum; see Figure 36). Within Unit C9-5 a four course, ca. 44 cm high, curvilinear platform retaining wall was exposed. All indications are that C9-7th was also an apsidal structure. The top of the C9-7th building platform was encountered at ca. 308 cm Below the Structure Datum. The building platform retaining wall was composed of roughly-dressed, boulder sized (>25.6 cm) rectilinear limestone blocks. These were on average 28-30 cm long and ca. 8 cm thick. The course layers were separated by ca. 4 cm lenses of very dark, organic rich sediments. This wall was sustained by the earlier Level 9/C9-8th "plaza" surface at ca. 352 cm Below the Structure Datum. To the south of the platform retaining wall a three course stair riser was exposed at ca. 283 cm Below the Structure Datum. This stair riser was oriented roughly east-west, and was straight rather than curved. The riser courses consisted of unshaped limestone blocks of boulder size (>25.6 cm). These courses averaged 6 cm in thickness, and

were separated by ca. 3-4 cm of the same very dark, organic rich sediments. In reality, this riser, being ca. 25 cm in height, constituted the second step, the building platform itself (at ca. 308 cm Below the Structure Datum) functioning as the basal step.

Further to the south, the tread of the second step abutted the foot of what appeared to be the basal two courses of an apsidal terrace retaining wall. The top of this wall was encountered at ca. 261 cm Below the Structure Datum. Although only a small section of this wall was exposed, given that it was encountered near the southern terminus of Unit C9-5, its curvature would seem to match that of the building platform. The upper course of this wall was missing, although remnant cut-stones suggest that the terrace verge would have probably been situated at ca. 251 cm Below the Structure Datum. The previously discussed "rectangular step", located immediately to the north of the apsidal terrace, is clearly outset from this feature. It would appear that the surface of the apsidal terrace, at ca. 251 cm Below the Structure Datum, functioned as the final step leading to the upper C9-7th platform surface exposed within the looter's trench (at ca. 222 cm Below the Structure Datum). Whether the upper platform was apsidal or rectangular could not be determined, as its retaining wall was situated within the unexcavated safety balk.

In total, Structure C9-7th rose 130 cm above its associated "plaza" surface, and ca. 86 cm above its building platform surface. Due to the fact that the upper platform had been almost completely demolished by the looting activity, we could not ascertain whether any post-holes existed. Thus we were unable to determine if a pole-and-thatch or wattle-and-daub superstructure had surmounted the building platform. In general, architectural preservation was moderate to poor, with the exception of the building platform retaining wall and upper platform surface. The only evidence for preserved plaster was associated with the upper platform. Fill was similar to that for Structure C9-8th, consisting primarily of moderately compact, very dark, organic rich sediments. Pebble (0.4-6.4 cm) and cobble (6.4-25.6 cm) content was moderate to high, the fill deposit being generally coarser than that in C9-8th.

Lithic detritus and faunal remains were recovered in moderate percentages from the C9-7th fill. Significant artifacts included two figurine body fragments (C9-SF/14, C9-SF/43), a figurine head (C9-SF/42, Figure 44), a figurine leg (C9-SF/45), a barrel-shaped jadeite bead (C9-SF/21), a cylindrical jadeite bead (C9-SF/22), and a modified greenstone pebble (C9-SF/49). Ceramic sherds were present in moderate percentages, and all were members of the Kanluk Ceramic Complex (850-350 B.C.). The predominance of early Facet Kanluk phase types within the sample, in particular representatives of the Savana Orange: Rejolla Variety, Jocote Orange-brown: Jocote Variety, Jocote Orange-brown: Ambergris Variety, and Chacchinic Red-on-orange-brown: Variety Unspecified, suggest a narrower time range of 750-650 B.C. for C9-7th construction (see Gifford 1976). That this structure was constructed near the end of the early facet Kanluk phase is reaffirmed by the presence of a few late facet Kanluk sherds, mainly solitary representatives of the Reforma Incised: Mucnal Variety, Joventud Red: Variety Unspecified, Black Rock Red: Black Rock Variety, and Palma Daub: Palma Variety.

*Level 7, C9-6th.* Level 7, C9-6th, represents the earliest true, steep-sided pyramidal structure discovered at Zubin (see Figures 36, 45). Within the looter's trench the 6-7 cm thick C9-6th upper platform surface was recognized within the wall sections at ca. 139 cm

Below the Structure Datum (see Figure 36). This new upper platform had been raised ca. 83 cm above the corresponding C9-7th surface. Within Unit C9-5 the poorly preserved C9-6th axial stair was exposed. Indications are that the earlier Level 9/C9-8th "plaza" floor continued to act as the sustaining surface for this new architecture (at ca. 352 cm Below the Structure Datum). Given a plethora of dismantled stair risers, indications are that numerous C9-6th cutstones had been reused during the subsequent Level 6/C9-5th construction. The entire C9-6th basal stair riser was missing. However, the evidence suggests that it was situated ca. 94 cm north of the earlier C9-7th building platform retaining wall. An elevation for the tread of this missing riser was provided by the presence of a remnant plaster turn-up, exposed at ca. 340 cm Below the Structure Datum. This feature suggests that the original riser was ca. 20 cm high, with a corresponding ca. 36 cm deep tread. A subsequent three course, ca. 26 cm high riser lead to the next stair tread at ca. 314 cm Below the Structure Datum. Again, a remnant plaster turn-up permitted the accurate reconstruction of this tread elevation. The three course riser consisted of roughly-dressed, rectilinear limestone blocks of boulder size ( $>25.6$ ), averaging 7 cm thick and 28-30 cm long. The course layers were separated by thin 2-3 cm lenses of light brown sediments. The tread itself was ca. 30 cm deep. A remnant plastered balustrade section was also isolated on the eastern section of the tread, adjacent to the stair riser (see Figure 45). The next riser was also of three course composition, although the courses were slightly narrower, being ca. 5 cm thick. Thin lenses of the light brown sediments were again found between the course levels. This ca. 15-16 cm high riser lead to the next step, which was once again indicated by the presence of a preserved plaster turn-up at ca. 299 cm Below the Structure Datum. This stair tread was ca. 32 cm deep. A further preserved section of the balustrade, and the basal course of the same, were exposed on the eastern section of the tread. The following two stair risers and corresponding treads were incomplete. Indications are, however, that these steps originally exhibited ca. 20-25 cm high risers and ca. 30-40 cm deep treads. At the southern terminus of Unit C9-5 a final plastered turn-up was discovered at ca. 220 cm Below the Structure Datum. The associated plastered riser was ca. 21 cm high, and led to a tread surface at ca. 199 cm Below the Structure Datum. Due to the presence of the safety balk excavations terminated at this point. However, given the evidence, it seems likely that two further steps, ca. 30 cm high and ca. 30 cm deep, would have led to the upper platform at ca. 139 cm Below the Structure Datum. In total, Structure C9-6th rose ca. 213 cm above the "plaza" surface.

As was mentioned previously, with the exception of the plastered upper platform (which had been truncated by the looter's), and a few remnant plaster-turn-ups and riser sections, C9-6th architecture was poorly preserved. This poor preservation was undoubtedly exacerbated by the apparent reuse of cutstones for subsequent construction. The axial stair fill consisted of compact, light brown sediments with moderate percentages of pebble (0.4-6.4 cm) and cobble (6.4-25.6 cm) sized clasts. The platform fill was identical to this, with the addition of a ca. 30 cm thick basal layer of compact, very dark, organic rich sediments. This deposit contained moderate percentages of pebble (0.4-6.4 cm) and cobble (6.4-25.6 cm) sized clasts, and was considered finer in texture than the fill employed within the preceding C9-7th architecture.

Lithic debitage and faunal remains were recovered in moderate percentages within



the fill deposit. Significant artifacts from C9-6th consisted of four conch shell beads (C9-SF/17 [Figure 37C], C9-SF/18 [Figure 37D], C9-SF/19 [Figure 37E], C9-SF/20 [Figure 37F]), two greenstone triangulates (C9-SF/28, C9-SF/48), and three figurine body fragments (C9-SF/13, C9-SF/44, C9-SF/46). Two jadeite beads, resembling human teeth (C9-SF/24, C9-SF/25), were also discovered in the stair fill in close proximity to each other, suggesting intentional placement as a cache deposit. Similarly, a substantial figurine body fragment (C9-SF/12, Figure 46), and a large figurine head (C9-SF/11, Figure 47) were also discovered in an apparent cache-like arrangement, having been placed within the C9-6th fill, directly in front of the earlier C9-7th building platform retaining wall. The figurine head exhibits realistic facial features, a partially section of an elaborate headdress, and large earspools. It is clearly related to the Middle Formative "C8" types defined at Chalcatzingo by Grove and Gillespie (1984). This type is found throughout the Maya lowlands (e.g. Hammond 1989), and is especially prevalent at nearby Cahal Pech (see Awe 1992: 282-286). The ceramic sample recovered from C9-6th was relatively large, and dominated by Kanluk phase types (850-350 B.C.). Early facet Kanluk phase (850-650 B.C.) varieties were prevalent, particularly sherds of the Savana Orange: Rejolla Variety. Other early facet Kanluk phase varieties represented in the assemblage were members of the Chunhinta Black: Variety Unspecified, and Jocote Orange-brown: Ambergris Variety. By far the most dominant variety in the sample was Jocote Orange-brown: Jocote Variety, a ceramic employed throughout the entire Kanluk phase. The inclusion of numerous late facet Kanluk phase (650-350 B.C.) sherds, particularly those epitomizing the Savana Orange: Savana Variety, indicates that a late facet Kanluk phase date of 650-550 B.C. is highly likely for the construction of the C9-6th pyramidal mound.

Burial C9-B/1 (Level 7/C9-6th), portions of which were exposed in the western wall of the looter's trench (see Figure 36), constitutes the earliest interment discovered at Zubin. Due to its precarious location within the looter's trench wall, there was no possible way to fully expose this interment. Efforts to do so, by first excavating into the wall above the body, and subsequently down onto it, proved somewhat successful at first. This method permitted the exposure of the left side of the cranium, mandible, and rib cage, as well as the left humerus, ulna, radius, carpals, metacarpals, phalanges, and upper femur. Unfortunately, because the looter's had undercut this interment, the wall itself was prone to collapse from the outset. Eventually, a large section of the wall gave way, falling directly upon the author while in the midst of exposing portions of the interred individual's upper body. This occurred prior to mapping, thus no plan exists for burial C9-B/1. The collapse was substantial enough to not only completely destroyed the burial "context", but also demolish many of the bones that had been exposed. Further excavation of the remaining bone sections was not taken up due to obvious safety reasons. Following the collapse, bones were collected and taken back to the lab for assessment. Fortunately, the excavations had been extensive enough before the wall failure to allow some conclusions to be drawn concerning this interment.

It was clear from the outset that Burial C9-B/1 had been placed directly on top of the earlier C9-7th upper platform surface, in conjunction with the construction of the new C9-6th structure. The interment of this individual was thus closely connected with the termination of use of this earlier C9-7th architecture, as well as with the dedication of the

new C9-6th structure. The body was surrounded by fill, implying that it is best classified as a "simple" burial, following the Welsh (1988) typology. Preservation of the remaining sections of bone was good to excellent. The looter's had destroyed the majority of the lower portion of the body, thus making it impossible to assess whether the individual was in an extended position or not. However, the left arm was extended at the side, and this is the likely position of the right arm. Thus, the overall body position suggests that the legs were also extended. The body was supine (ventral surface up), with the head to the north, facing west. Given the associated architecture, it is apparent that the burial was axially aligned with both the C9-7th and C9-6th structures. Grave goods discovered during the limited excavations included a barrel-shaped jadeite bead (C9-SF/23), and two greenstone triangulates (C9-SF/40 [Figure 48], C9-SF/41 [Figure 49]). These were all found near the chest area. After the wall collapse an intact section of the left rib cage was taken back to the lab, where it was removed from its surrounding dirt matrix. During this process two conch shell beads (C9-SF/62 [Figure 37G], C9-SF/63 [Figure 37H]) were retrieved, obviously also from the chest area. It is also plausible that some of the special finds recovered during the screening of the re-excavated looter's backdirt (Level 1A) were originally grave goods associated with this individual.

*Level 6, C9-5th.* Level 6, C9-5th, represents a new, 250 cm high pyramidal structure (Figure 36). Within the looter's trench the C9-5th upper platform surface was preserved in the wall sections (see Figure 36). This plaster cap, the surface of which was exposed at ca. 102 cm Below the Structure Datum, was ca. 5-6 cm thick. This overlay a ca. 32 cm fill deposit of dry-stone core. Taken together, these architectural layers acted to raise the new C9-5th upper platform ca. 37 cm above the preceding C9-6th surface. Within Unit C9-5 the poorly preserved axial stair was exposed (Figure 50). Many of the stair risers had been completely dismantled. As with the preceding structure, it would appear that numerous C9-5th cutstones had been re-employed during the subsequent construction of C9-4th. Fortunately, the presence of some intact plaster turn-ups and tread sections permitted a fairly accurate reconstruction of the C9-5th architecture.

The structure's basal step, in the form of a terrace, had been extended ca. 100 cm to the north from its previous location in C9-6th. This was located right at the junction of Units C9-4 and C9-5. The riser was represented by the two basal courses, the upper course having been removed. The Level 9/C9-8th "plaza" surface continued to be employed as the sustaining surface for this new construction. The basal terrace elevation was indicated by the presence of an intact plaster tread at ca. 312 cm Below the Structure Datum. This implies that the riser was originally ca. 40 cm high. The terrace ran ca. 109 cm south, where it terminated with an intact plaster turn-up section and the plastered basal course of the next riser. The upper two riser courses of this step had again been dismantled for reuse. However, a plaster turn-up section at ca. 273 cm Below the Structure Datum indicated that the riser was originally 39 cm high. The tread itself was ca. 60 cm deep. The next riser was again in extremely poor condition. A remnant portion of plaster tread and turn-up, exposed at ca. 233 cm Below the Structure Datum, implied that this step was originally 40 cm high. The tread itself was ca. 45 cm deep, and once again terminated at an incomplete stair riser. A small segment of plaster tread and turn-up, at ca. 188 cm Below the Structure Datum, testified that this step had originally been 45 cm high, with a corresponding ca. 54 cm deep

tread. Due to the presence of the safety balk, excavators could not expose the architecture between this stair riser and the upper platform discovered within the looter's trench. Given the available evidence it is postulated that a ca. 45 cm high riser, a ca. 40-60 cm deep tread, and a final ca. 41 cm high riser, would have lead to the upper platform at ca. 102 cm Below the Structure Datum. Within Unit C9-5 the fill beneath the stair face was comprised of moderately compact, light brown sediments. Pebble (0.4-6.4 cm) and cobble (6.4-25.6 cm) sized clasts were prevalent within the matrix. At the junction of Unit C9-5 and the safety balk, the fill deposit changed to a dry-stone core, corresponding with that recognized within the upper platform in the looter's trench.

Lithic debitage and faunal remains were recovered in moderate percentages within the C9-5th fill. Significant finds included a conch shell bead (C9-SF/15, Figure 37B) and a greenstone triangulate (C9-SF/29, Figure 51B). Ceramic sherds were present in moderate numbers within the fill deposit. This assemblage was dominated by sherds of the Jocote Orange-brown: Jocote Variety, a ceramic found throughout the entire Kanluk phase (850-350 B.C.). Early facet Kanluk (850-650 B.C.) varieties were also present in the assemblage, in particular sherds of the Savana Orange: Rejolla Variety. Late facet Kanluk phase (653-350 B.C.) varieties were equally well represented, especially members of the Savana Orange: Savana Variety. Given this assemblage, and the date for the preceding C9-6th architecture, a date of 550-450 B.C. is suggested for the construction of C9-5th.

*Level 5, C9-4th.* Level 5, C9-4th represents the next pyramidal structure constructed at the C9 locus (Figure 36). This represents the best preserved C9 architecture, as a result of both superior construction techniques, and the fact that this structure was not dismantled for cutstones during the subsequent C9-3rd construction phase. Within the looter's trench the C9-4th upper platform was isolated within the walls sections at ca. 65 cm Below the Structure Datum (see Figure 36). The plaster cap was ca. 5 cm thick. This plaster surface was underlain by a ca. 35 cm thick fill deposit of "whitish", red-mottled small aggregate. Within this mortar matrix pebble (0.4-6.4 cm) and cobble (6.4-25.6 cm) sized clasts were moderately abundant. In combination, these acted to raise the C9-4th platform ca. 37 cm above the corresponding C9-5th surface.

A large section of the C9-4th axial stair was exposed within Units C9-4 and C9-5 (Figure 52). The C9-4th basal step, again of terrace form, had been moved ca. 27 cm north of its previous C9-5th location. In conjunction with this the old Level 9/C9-8th "plaza" was resurfaced. This plaster resurfacing was exposed within Unit C9-4 at ca. 357 cm Below the Structure Datum. The terrace surface was exposed at ca. 329 cm Below the Structure datum, ca. 28 cm above the "plaza surface. The tread was 68 cm deep. To the south a ca. 34 cm riser was encountered, with an associated tread surface at 295 cm Below the Structure datum. This step was relatively narrow, having a tread depth of 25 cm. The next riser was ca. 24 cm high. The associated tread, the top of which was at ca. 271 cm Below the Structure Datum, was 37 cm deep. A further ca. 40 cm high riser led to the next tread at 231 cm Below the Structure Datum. This tread was ca. 52 cm deep, and terminated at a ca. 29 cm high riser. The associated tread was exposed at 202 cm Below the Structure Datum. This ca. 46 cm deep tread led to a 38 cm riser. Two highly weathered graffiti images had been incised into the plaster surface of this riser (see Figure 52). The eastern image represents a "grid", the western a "cross-like" form (see Figure 53). These

representations clearly fit the pattern of entoptic graffiti images described for Tikal by Haviland and Haviland (1995). The tread supported by this riser was exposed at ca. 164 cm Below the Structure Datum. This tread was ca. 47 cm deep, and led to a further ca. 36 cm high riser. The final tread exposed within Unit C9-5 was encountered at ca. 128 cm Below the Structure Datum. The depth of this tread could not be determined with certainty given that the next riser was within the safety balk. Indication are, however, that one final step above this tread would have led to the C9-4th platform. In sum, the C9-4th upper platform was elevated ca. 292 cm above the "plaza" surface. The fill beneath the stairs corresponded to that recognized beneath the upper platform, being small aggregate. This deposit consisted of moderate percentages of pebble (0.4-6.4cm) and cobble (6.4-25.6cm) sized clasts interspersed within a mortar matrix. Stair risers were generally of three course construct. Individual courses were separated by thin lenses of the mortar.

Lithics and faunal remains were recovered in moderate percentages from the C9-4th fill. Significant finds included a conch shell bead (C9-SF/16, Figure 37A) and a greenstone triangulate (C9-SF/27, Figure 51A). Ceramic sherds were also present in moderate percentages. The assemblage was dominated by the late facet Kanluk phase (650-350 B.C.), Savana Orange: Savana Variety. Jocote Orange-brown: Jocote Variety, a ceramic employed throughout the entire Kanluk phase (850-350 B.C.) was also well represented. Also contained within this sample were a number of early facet Xakal phase (350 B.C.-100 A.D.) varieties. These included representatives of the Sierra Red: Variety Unspecified, Flor Cream: Varieties Unspecified, and Polvero Black: Variety Unspecified. Taken as a whole, this ceramic assemblage suggests a date of 350-250 B.C. for construction of C9-4th.

*Level 4A, C9-3rd.* Level 4a, C9-3rd, represents the next pyramidal structure erected at the C9 locus (Figure 36). Remnants of the C9-3rd upper platform were exposed within the looter's trench wall sections at ca. 20 cm Below the Structure Datum. The plastered floor surface was ca. 4-5 cm thick, and was underlain by a ca. 40 cm thick fill deposit. This was comprised of light grayish, small aggregate. The mortar matrix was relatively compact, and contained moderate percentages of pebble (0.4-6.4cm) and cobble (6.4-25.6cm) sized clasts. A large portion of the C9-3rd axial stair was exposed within Units C9-4 and C9-5 (Figure 54). Due to its proximity to the surface, this stair exhibited poor preservation. Fortunately, the structural components that did remain permitted a fairly accurate reconstruction of the C9-3rd architecture. In general, the stair risers appeared to have originally been of three course construction. The basal step had been extended ca. 68 cm north of its previous position in C9-4th. Only the basal course for this stair riser was still in place. The backing masonry beneath the tread, located at ca. 318 cm Below Structure Datum, suggested that this step was originally 27 cm high. This tread ran ca. 35 cm to the south, where it met a ca. 24 cm high riser. The tread for this step was again signified by a backing masonry deposit, exposed at ca. 294 cm Below the Structure Datum. This tread was ca. 40 cm deep. The next riser, again being poorly preserved, appears to have lead to a ca. 64 cm deep terrace step, the backing masonry of which was exposed at between ca. 269 and 239 cm below the structure datum. A further ca. 31 cm high riser led to the backing masonry for a new tread at ca. 208 cm Below the Structure Datum. The tread ran ca. 40 cm to the south, where a subsequent ca. 27 cm stair riser was located. This riser led to a further tread, represented by backing masonry, at ca. 181 cm Below the Structure

Datum. The tread was ca. 50 cm deep, and terminated at a ca. 34 cm high riser. To the south of this it would appear that a further ca. 38 cm high riser, now missing, would have led to a moderately well preserved plastered terrace located at ca. 109 cm Below the Structure Datum. The safety balk inhibited further exposure of this terrace, but indications are that one or two further steps would have led to the upper platform at ca. 20 cm Below the Structure Datum. The backing masonry beneath the stair face was comparable to the fill recognized beneath the upper platform, consisting primarily of fairly compact, small aggregate, mainly light grayish mortar with moderate percentages of pebble (0.4-6.4cm) and cobble (6.4-25.6 cm) sized clasts. In conjunction with the erection of the new C9-3rd pyramidal structure, a new "plaza" floor surface was laid down. This was exposed in Unit C9-4 at ca. 345 cm Below the Structure Datum. The plaster cap was ca. 5-6 cm thick, and was underlain by a ca. 6 cm thick ballast layer, primarily pebble (0.4-6.4 cm) sized clasts. In total, Structure C9-3rd rose ca. 325 cm above the "plaza" surface.

Lithic debitage was recovered in small percentages from the fill deposit. Faunal remains were rare. No significant finds were discovered. The ceramic assemblage was small, and contained a number of sherds of the Jocote Orange-brown: Jocote Variety, a late facet Kanluk (650-350 B.C.) ceramic. The remainder of the assemblage was typical of the early facet Xakal phase (350 B.C.-100 A.D.), and was dominated by representatives of the Paila Unslipped: Varieties Unspecified. Taken as a whole, this assemblage suggests a date of 250-100 B.C. for the construction of C9-3rd.

*Level 4, C9-2nd.* Level 4, C9-2nd, represents the penultimate C9 pyramidal architecture (see Figure 36). Structurally, C9-2nd constitutes a series of modifications to the preceding C9-3rd basal stair portion and "plaza" surface. These structural alterations were exposed within Unit C9-4, and the northern extreme of Unit C9-5 (Figure 55). Portions of terrace sections were also exposed within the C9-2 and C9-3 test units (Figure 56). The C9-2nd stair risers, when intact, were generally one course in construction. Treads were frequently represented by backing masonry, as plaster surfaces were rarely preserved. The basal step had been moved ca. 50 cm north of its previous location during the C9-3rd occupation. This riser was ca. 15-20 cm high. The associated tread, exposed at ca. 319 cm Below the Structure Datum, consisted of a backing masonry deposit. This tread was ca. 30 cm deep, and terminated at a second ca. 26 cm high riser. The tread supported by this riser, uncovered at ca. 293 cm Below the Structure Datum, was again suggested by the presence of backing masonry. The tread itself was ca. 40 cm deep. The following riser was ca. 18 cm high, and led to a ca. 41 cm deep tread. This tread was again represented by the presence of a backing masonry deposit, exposed at ca. 275 cm Below the Structure Datum. This tread terminated at a final ca. 36 cm high riser, which led to a ca. 100 cm deep plastered terrace at ca. 239 cm Below the Structure Datum. South of this terrace the previous C9-3rd architectural features continued to be employed. In conjunction with these structural modifications to the basal stair section, the "plaza" surface, was raised ca. 11 cm above the previous C9-3rd elevation. The plaster cap, exposed at ca. 334 cm Below the Structure Datum, was ca. 5-6 cm thick, and was underlain by a ca. 5-6 cm ballast layer. This deposit was primarily composed of pebble (0.4-6.4 cm) sized clasts.

Due to the limited extent of these modifications, lithic debitage and faunal remains were rare. The only find of significance was a quartzite polishing stone (C9-SF/61),

discovered in Unit C9-5. The ceramic sample was similarly limited, again reflecting the restricted nature of the modifications. The majority of sherds were indicative of the early facet Xakal phase (350 B.C.-100 A.D.), although a number of late facet Kanluk phase (650-350 B.C.) types were also present. Representatives of the Paila Unslipped: Varieties Unspecified, an early facet Xakal phase variety, dominated the assemblage. This small sample suggests an early facet Xakal phase date of 100 B.C.-100 A.D. for the C9-2nd structural modifications.

*Level 3, C9-1st.* Level 3, C9-1st, represents the terminal construction phase recognized at the C9 locus (Figure 36). The upper platform surface was completely deteriorated, and therefore could not be isolated within the looter's trench wall sections. Portions of the C9-1st backing masonry were exposed within Units C9-1, C9-2, and C9-3 (see Figures 56). This was a small aggregate deposit, consisting primarily of pebble (0.4-6.4 cm) and cobble (6.4-25.6 cm) sized clasts interspersed within a mortar matrix. A large segment of the poorly preserved axial stair, and moderately intact "plaza" floor, were uncovered within Units C9-4 and C9-5 (Figure 57). The "plaza" surface was exposed at ca. 318 cm Below the Structure Datum. A thin (1-4 cm thick) remnant of the plaster cap was still preserved. This was underlain by a ca. 10 cm thick ballast layer, primarily composed of pebble (0.4-6.4 cm) sized clasts. In total, this new "plaza" floor had been raised ca. 14-16 cm above the preceding C9-2nd surface. The basal step, consisting of a ca. 34 cm high, one course riser, had been shifted 30 cm north from its previous C9-2nd location. The tread of this first step, represented by a backing masonry deposit exposed at ca. 281 cm Below the Structure Datum, was ca. 44 cm deep. A subsequent two course riser, ca. 25-30 cm in height, led to a terrace step at ca. 240 cm Below the Structure Datum. This terrace was ca. 166 cm deep, and still exhibited some sections of preserved plaster. The stair risers and treads above this terrace were in extremely bad condition, reflecting their proximity to the surface and long exposure to the elements. In total, portions of four further steps were isolated within Unit C9-5. On average these appear to have originally had ca. 34 cm high, 2-3 course risers, and ca. 43 cm deep treads. The safety balk precluded any excavations north of the Unit C9-5 terminus. As was stated earlier, the upper platform was completely deteriorated. Thus it was impossible to ascertain with any degree of certainty the actual height of the structure. However, indications are that C9-1st was a ca. 320 cm high, steep-sided pyramidal structure.

Lithic debitage and faunal remains were recovered in moderate percentages from the C9-1st fill. The only significant find was a syenite metate fragment (C9-SF/51, Figure 58A). The ceramic sample was small, and consisted entirely of Xakal phase (350 B.C.-350 A.D.) varieties. Sierra Red: Variety Unspecified, and Polvero Black: Variety Unspecified, two ceramics employed throughout the Xakal phase, were present in moderate numbers. Some late facet Xakal phase (100 B.C.-350 A.D.) sherds, representing the Old River Unslipped: Old River Variety, and Aguacate Orange: Aguacate Variety, were also present. The inclusion of these sherds in the sample, and the absence of Ahcabnal phase (350-600 A.D.) varieties, implies that a date of 100-250 A.D. is likely for the construction of C9-1st.

*Level 2.* Level 2, a fall deposit, was excavated within Units C9-1, C9-2, C9-3, C9-4, and C9-5 (Figure 36). This loose to moderately compact deposit was formed through the destabilization, collapse, and subsequent downward movement of structural features.

Pebble (0.4-6.4cm) and cobble (6.4-25.6cm) sized clasts were prominent within the matrix.

The deposit varied in thickness, generally being between 40-60 cm thick. Towards the upper portion of the structure (Unit C9-5) it became more difficult to separate this deposit from the comparably less coarse, surface/humus layer (Level 1). This was due to the overall thinness of the surface/humus layer in this area, and the consistent "interfingering" of the two deposits. Due to these factors, in many instances Levels 1 and 2 had to be removed in combination. Lithics and faunal remains were rare in the fall deposit. The ceramic assemblage was small, and highly weathered. This sherd sample was obviously mixed, due to the formation processes involved in the deposition of the fall deposit, as well as the addition of sediments and associated sherds produced during looting activity. The majority of sherds were Formative period types. Some Classic period sherds were also present, although given the more pristine ceramic samples obtained from the intact construction levels, it is likely that these result from site occupation post-dating C9-1st construction. Significant artifacts recovered from the Level 2 fall deposit included a medial section of obsidian blade (C9-SF/8), found in Unit C9-2, and a proximal section of obsidian blade (C9-SF/9), a chert scraper (C9-SF/55), and a chert biface fragment (C9-SF/60), all from Unit C9-4. Excavations within the mixed Level 1 (surface/humus) and Level 2 (fall) sediments in Unit C9-5 produced a slate pendant (C9-SF/10), a broken slate disk (C9-SF/56), a chert biface preform discard (C9-SF/57), and a bifacial chert chopper (C9-SF/58).

*Level 1.* Level 1, the surface/humus deposit, consisted of loose to moderately compact organic sediments (Figure 36). Pebble (0.4-6.4cm) and cobble (6.4-25.6cm) sized clasts were prevalent, as were roots and rootlets. This deposit formed through the general stabilization and accumulation of sediments above the undulating surface of the fall deposit (Level 2). Lithics and faunal remains were rare. The ceramic sample was small, and as with the previously discussed fall deposit, was of mixed origin. The majority of sherds were again representative of the Formative period. The small percentage of Classic period sherds undoubtedly result from site occupation post-dating the construction of C9-1st. The only significant find, recovered from Unit C9-4, was a chert biface preform (C9-SF/59).

In summary, the C9 locus exhibits a long span of occupation, beginning in the early Middle Formative period, and terminating near the end of the Late Formative. The earliest architectural manifestation, represented by the C9-8th apsidal structure, corresponds in form and construction methods to the early Middle Formative architectural pattern recognized within the nearby Cahal Pech site core (see Awe 1992:205-210). This comparative sample also suggests that C9-8th probably served a domestic function (see Awe 1992:208,210). The simple construction methods, lack of evidence for ritual deposits, and overall paucity of significant artifacts, reaffirms this interpretation.

The subsequent C9-7th architecture, in form and construction techniques, also accords quite closely with the contemporaneous early facet Kanluk phase architectural sample from the Cahal Pech site core (see Awe 1992:208-210). Awe notes that during the early facet Kanluk phase (850-650 B.C.) architecture within the Cahal Pech site core increases in height from the previous Cunil phase (1000-850 B.C.). He suggests that this is particularly true for those structures "erected over previous construction phases." Awe also states that there is an increased use of plaster, and construction blocks are better dressed. Finally, he indicates that apsidal structures with pole-and-thatch or wattle-and-daub

superstructures continue to be constructed at this time. Thus, C9-7th, with its apsidal morphology, increased height, and plastered upper platform surface, generally corresponds with Awe's finding for the early facet Kanluk phase architecture at Cahal Pech. With regard to the function of Structure C9-7th, the relative size and complexity of the architecture, and comparative "richness" of the recovered artifact assemblage, would seem to imply a non-domestic function. It should be reiterated that only a small portion of this structure was excavated. Indications are, given the artifact sample obtained during these limited excavations, that many more significant finds were contained within the C9-7th fill. The non-domestic theory is reaffirmed by the overall paucity of domestic type artifacts (e.g. bifaces and other chert tools, obsidian blades, mano and metate fragments). Given the postulated early facet Kanluk date for C9-7th, the non-domestic interpretation is also lent credence by architectural trends recognized at nearby Cahal Pech. Awe (1992:210, Table 2) also argues for the erection of the first non-domestic structure at Cahal Pech during the early facet Kanluk phase. He postulates this for a ca. 70 cm high structure (B-4/5th) based on "...its large size, relative complexity, and the presence of figurines within its fill" (Awe 1992:210). Significantly, our current understanding of Middle Formative figurines points to their use in ceremonies related to ancestor veneration (Awe 1992:210, 282-286; Grove and Gillespie 1984; Hammond 1989), thus offering support for Awe's ritual interpretation. Given the evidence, Awe suggests that the Cahal Pech structure may have been a "family shrine". C9-7th is comparable to this Cahal Pech structure in size and overall architectural complexity. The presence of numerous figurine fragments is also a shared trait. Additionally, C9-7th also contained jadeite beads, items most often found as intentional offerings within ritual contexts. In the end, whether C9-7th served a purely non-domestic function, or whether it retained a degree of domesticity, cannot be determined with certainty. What is clear, however, is that with C9-7th this locus began to take on increasing ritual significance.

The trend first recognized with the preceding C9-7th construction phase, namely the increasing ritualization of the C9 locus, culminates with the construction of Structure C9-6th. This is attested by the architectural morphology, C9-6th being a true pyramidal shrine structure. The simplistic, yet obvious cache-like deposition of jadeite teeth beads and figurine fragments within the C9-6th fill, also testifies to expanding ritual activity at this locus, as does the placement of the axially aligned Burial C9-B/1, and its comparatively elaborate grave offerings. That this increased ritualization of space was directly connected to the institution of ancestor veneration is implied by the presence of this burial and its associated offerings, and reaffirmed by the numerous figurine fragments deposited within the construction fill. This is especially true for the C8 type figurine head. Given variability in facial depictions and headdresses, Grove and Gillespie (1984) have suggested that C8 type figurines represent specific individuals, and have linked them to the "cult of the ruler". They note further that:

the portrait figurines reveal that by the Middle Formative the cult had become more public. At Chalcatzingo, over 700 C8 portrait figurines were found randomly scattered across all the residential areas of the site - both elite and nonelite - and they were also found at other sites in the vicinity which were dominated by Chalcatzingo. This spread



suggests that everyone in the community was allowed to participate in cult rituals instead of serving as mere spectators (Grove and Gillespie 1984:31-32).

This community wide pattern of C8 type figurine distribution has also been recognized closer to home, at Cahal Pech, where Awe (1992:284) has similarly associated figurines with the practice of ancestor veneration, and suggested that they may represent "...family elders or lineage heads..." With reference to the recovery contexts of figurines, within both the site core and periphery of Cahal Pech, Awe concludes that:

these mounds contain the earliest phases of construction within their respective groups, and they also contain the longest occupation sequence within the site core and peripheral settlement clusters. If these mounds therefore represent the initial residences of the founding families at the site, it is possible that the lineage heads of Middle Formative families may have resided in these dwellings. Furthermore, if the heads of portrait figurines were indeed broken off at the death of the individual whom they represented, and if they were subsequently deposited within the residence of the deceased, this could account for the marked frequency of figurines within these mounds and their relative absence in others (Awe 1992:285).

The Zubin example fits this overall pattern, thus suggesting a developmental trajectory beginning with C9-8th. This structure constituted the earliest residence at Zubin. With C9-7th increased ritual activity began to focus on the C9 architecture, although it is possible that a certain degree of domesticity was still retained. Finally, with C9-6th and Burial C9-B/1, the transformation of the C9 locus into a sacred space dedicated to the ritualized veneration of ancestors was completed. The individual in Burial C9-B/1 may have possibly been a lineage head closely tied to the C9-7th architecture. It is likely that it was the death of this individual that prompted the construction of the new C9-6th shrine. Finally, it is tempting to suggest, given the ideas outlined above, that the C8 figurine head was a portrait of this particular individual. However, that is something which can never be confirmed with any certainty.

The construction of the following C9-5th pyramidal structure can be interpreted as an affirmation of the sacred nature of the C9 locus. Its height and morphology would have undoubtedly facilitated public ritual and expression. One would expect that such rituals continued to revolve around the veneration of ancestors. However, it is intriguing that few significant artifacts were recovered from the construction fill. Similarly, no ritual deposits were encountered along the primary axis. With the possibility that the looter's may have discovered such deposits beneath the upper platform, one is left with a structure exhibiting a "ritual" morphology without any tangible evidence for ritual activity. It may be that C9-5th continued to serve a symbolic function associated with ancestor veneration, but that it was no longer the locus for the deposition of ritual offerings associated with this institution. This would suggest that either these activities were conducted elsewhere at Zubin, or that with the exception of the shrine itself, the material manifestations (e.g. cache offerings) of

ancestor veneration ceased to be employed at the site altogether.

As with the preceding C9-5th, C9-4th continued to exhibit a "ritual", pyramidal morphology. Similarly, with the exception that the looters may have encountered burial or cache deposits while digging through the upper platform, C9-4th excavations failed to uncover any finds indicative of ritual activity. However, the graffiti images incised into the C9-4th riser do imply that some ritual did occur at this locus. Haviland and Haviland (1995) have recently argued that images such as these are entoptic in origin, and are related to the early stages of trancing. In fact, the "grid" depiction located on the eastern side of the C9-4th riser is virtually identical to many entoptic images recognized at Tikal (Haviland and Haviland 1995, Figure 2). That trancing or "vision questing" is a shamanic activity aimed at entering into dialogue with the ancestors is widely accepted, both in the Maya area (e.g. Freidel et al. 1993; Schele and Miller 1986; Schele and Freidel 1990; see also McAnany 1995) and elsewhere (Eliade 1964; Lewis 1989). Thus, this evidence clearly reaffirms that the C9 locus continued to be a focus for ancestor veneration. Interestingly, Haviland and Haviland (1995) conclude that the Tikal graffiti assemblage indicates that trancing "...activity seems not to have been restricted to one narrow category of people, but was widely practiced at least among the social elite, as well as by members of the upper stratum of commoners." This pattern is clearly reaffirmed by the Zubin examples, as is the notion that the institution of shamanic vision questing has a long time span in the Maya lowlands (e.g. Freidel et al. 1993).

C9-3rd, C9-2nd, and C9-1st, follow the trends noted previously for C9-5th and C9-4th. There is a continuation of the pyramidal architectural form, suggesting ritual significance for these structures. In contrast, as was discussed for C9-5th and C9-4th, there is a glaring dearth of artifacts or features directly attributable to ritual activity. It is possible that the looters exposed such deposits within the upper platforms of these structures. Unfortunately, this cannot be confirmed. It is telling, I think, that no cache of any type was discovered along the primary axis. Theoretically, these structures continued to be linked to the institution of ancestor veneration. The consistent "shrine" form is again suggestive of this. However, it is possible that although this locus maintained its symbolic connection to the ancestors, it was no longer the focus for the type of venerative activity that left material residues, such as offertory caches.

Finally, with the end of the Late Formative period construction activity ceases altogether at the C9 locus. At the same time other portions of the site begin to take on more ritual significance, in particular the A1 eastern shrine structure. That the focus of ritual activity shifts to this new setting does not rule out the continued importance of the C9 shrine as a perpetual link to the earliest Zubin ancestors. Rather, it is more likely indicative of the multifaceted nature of ancestor veneration (Iannone 1994c; see also McAnany 1995), whereby fresh ties are formed with the ancestors through the creation of newly sanctioned forms of sacred space, such as the A1 eastern shrine structure. Structure A1 may be therefore have been more closely associated with the veneration of recently established ancestors, whereas the ties to more distant ancestors continued to be symbolized and maintained through the older C9 shrine.

## CONCLUSIONS

The 1995 Zubin investigations contributed significantly to the data base produced during the previous two field seasons. These new excavations not only furnished more artifactual data for consideration, but also important insights concerning the temporal development of the site, and the function of specific architectural features. The peripheral reconnaissance and survey activity increased our understanding of the settlement density, and the variation inherent in the immediate settlement continuum. What remains is to "pull things together", and address the questions outlined at the beginning of the project. Undoubtedly, the multifaceted, diachronic data base produced during the Zubin investigations will permit some valuable conclusions to be generated. Before closing, I need to remedy a mistake which crept into the 1994 report (Iannone 1994a). Within the discussion of the Zubin burial assemblage the terms supine (ventral surface up) and prone (dorsal surface up) were reversed by accident. This mistake was not made in the preceding 1993 volume (Iannone 1993a). I stand corrected.

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to be a hardworking lot. Their eagerness to learn rubbed off on all of us. Thanks folks! Finally, a number of other individuals from the BVAR project warrant special mention. Dr. Paul Healy, my previous M.A. supervisor, was a welcome face on the project last summer. Too bad he cheers for the Bruins! Rhan-Ju Song, the winner of the La Milpa meal eating contest, is thanked for running a tight lab. Amy Acord and David Driver, two of our Texan's, are thanked for putting in time on the hill. Carmen Arendt and Jenney McWilliams, our other Texans, are just thanked for being there! David Lee proved to be both an excellent addition to the project, and a good friend. Pat Killpack also continued to be a source of off-beat humor. I value his friendship greatly. It was also great to have Alex Harnett in the fold again. Finally, as I depart from BVAR, I would like to stress my appreciation to Jaime Awe for allowing me to join the project in 1991, and for all his support over the years. He is a wealth of knowledge, and a true friend.

## REFERENCES CITED

Ashmore, Wendy

- 1981 Some Issues of Method and Theory in Lowland Maya Settlement Archaeology. In *Lowland Maya Settlement Patterns*, edited by Wendy Ashmore, pp. 37-69. University of New Mexico Press, Albuquerque.

Awe, Jaime J.

- 1992 *Dawn in the Land Between the Rivers: Formative Occupation at Cahal Pech, Belize and its Implications for Preclassic Development in the Maya Lowlands*. Unpublished Ph.D. dissertation, Institute of Archaeology, University of London, England.

Awe, Jaime J., and Shawn M. Brisbin

- 1993 Now You See it Now You Don't: The Trials and Tribulations of Settlement Survey at Cahal Pech. In *Belize Valley Archaeological Reconnaissance Project: Progress Report of the 1992 Field Season*, edited by Jaime J. Awe, pp. 1-9. Trent University, Peterborough.

Ball, Joseph W., and Jennifer T. Taschek

- 1986 Settlement System and Community Organization in a Classic Maya Realm: The 1984-85 SDSU-NSF Northwestern Cayo Archaeological Project. Second Preliminary Report. Report on file with the authors.

Coe, William

- 1959 *Piedras Negras Archaeology: Artifacts, Caches, and Burials*. Museum Monograph 18, University of Pennsylvania, Philadelphia.

Eliade, Mircea

- 1964 *Shamanism: Archaic Techniques of Ecstasy*. Princeton University Press.

- Freidel, David, Linda Schele, and Joy Parker  
 1993 *Maya Cosmos: Three Thousand Years on the Shaman's Path*. William Morrow and Company, New York.
- Garber, James F.  
 1986 The Artifacts. In *Archaeology at Cerros, Belize, Central America, Vol. 1*, edited by Robin A. Robertson and David Freidel, pp. 117-126. Southern Methodist University Press, Dallas.
- Gifford, James C.  
 1976 *Prehistoric Pottery Analysis and the Ceramics of Barton Ramie in the Belize Valley*. Memoirs of the Peabody Museum of Archaeology and Ethnology Vol. 18, Harvard University, Cambridge.
- Glassman, David M., and Trent C. Stockton  
 1995 Zubin - Human Skeletal Summary. Ms. on file, Department of Anthropology, Southwest Texas State University, San Marcos.
- Grove, David C., and Susan D. Gillespie  
 1984 Chalcatzingo's Portrait Figurines and the Cult of the Ruler. *Archaeology* 37(4):27-33.
- Hammond, Norman  
 1989 The Function of Maya Middle Preclassic Figurines: *Mexicon* 11:112-14.
- Haviland, William A., and Anita de Laguna Haviland  
 1995 Glimpses of the Supernatural: Altered States of Consciousness and the Graffiti of Tikal, Guatemala. *Latin American Antiquity*, in press.
- Iannone, Gyles  
 1992 *Ancient Maya Eccentric Lithics: A Contextual Analysis*. Unpublished Masters thesis, Department of Anthropology, Trent University, Peterborough.
- 1993a Time Among the Thorns: Results of the 1992 Field Season at Zubin, Cayo District, Belize. In *Belize Valley Archaeological Reconnaissance Project: Progress Report of the 1992 Field Season*, edited by Jaime J. Awe, pp. 10-44. Trent University, Peterborough.
- 1993b "Minor Centers" and Ancient Maya Settlement: Current Research in the Periphery of Cahal Pech, Cayo, Belize. Paper presented at the 58th Annual Meeting of the Society for American Archaeology, St. Louis.
- 1993c Eccentrics and the Maya Middle Class: Insights from the Bedran Group, Baking

Pot. In *Belize Valley Archaeological Reconnaissance Project: Progress Report of the 1992 Field Season*, edited by Jaime J. Awe, pp. 225-236. Trent University, Peterborough.

1994a More Time Among the Thorns: Results of the 1993 Investigations at Zubin, Cayo District, Belize. In *Belize Valley Archaeological Reconnaissance Project: Progress Report of the Sixth (1993) Field Season*, edited by Jaime J. Awe, pp. 32-108. Institute of Archaeology, University of London, London.

1994b Ancient Maya Social Organization and the Concept of Middle Class: A Critical Review. In *Belize Valley Archaeological Reconnaissance Project: Progress Report of the Sixth (1993) Field Season*, edited by Jaime J. Awe, pp. 3-31. Institute of Archaeology, University of London, London.

1994c Veneration, Integration, Regeneration, and Disintegration: A Pluralistic Approach to Ancient Maya Ancestor Veneration. Lecture Presented to the 1994 Belize Valley Archaeological Reconnaissance Field School, San Ignacio, Belize.

Kidder, A. V.

1947 *The Artifacts of Uaxactun, Guatemala*. Carnegie Institute of Washington, Publication 576, Washington.

Kosakowsky, L.J., and D. Pring

1991 Ceramic Chronology and Typology. In *Cuello: An Early Maya Community in Belize*, edited by N. Hammond, pp. 60-69. Cambridge University Press, Cambridge.

Lewis, I. M.

1989 *Ecstatic Religion: A Study of Shamanism and Spirit Possession*. Routledge, London.

Loten, Stanley H., and David M. Pendergast

1984 *A Lexicon for Maya Archaeology*. Archaeology Monograph No. 8. Royal Ontario Museum, Toronto.

McAnany, Patricia A.

1995 *Living with the Ancestors: Kinship and Kingship in Ancient Maya Society*. University of Texas Press, Austin.

Reents-Budet

1994 *Painting the Maya Universe: Royal Ceramics of the Classic Period*. Duke University Press, Durham.

Schele, Linda, and Mary Ellen Miller

1986 *The Blood of Kings: Dynasty and Ritual in Maya Art*. Kimbell Art Museum, Fort Worth.

Schele, Linda, and David Freidel

1990 *A Forest of Kings: The Untold Story of the Ancient Maya*. William Morrow, New York.

Stanchly, Norbert

1993 A Preliminary Analysis of the Faunal Remains from the Tolok and Zubin Groups, 1991-1992 Field Season. In *Belize Valley Archaeological Reconnaissance Project: Progress Report of the 1992 Field Season*, edited by J. J. Awe, pp. 130-138. Trent University, Peterborough.

1994 A Report on the Faunal Remains Recovered from the Zubin Group, 1993 Field Season. In *Belize Valley Archaeological Reconnaissance Project: Progress Report of the Sixth (1993) Field Season*, edited by Jaime J. Awe, pp. 109-121. Institute of Archaeology, University of London, London.

Welsh, W.B.M.

1988 *An Analysis of Classic Lowland Maya Burials*. BAR International Series, Number 409, Oxford.

Willey, Gordon R.

1972 *The Artifacts of Altar de Sacrificios*. Papers of the Peabody Museum of Archaeology and Ethnology, Harvard University, Vol. 64, No. 1, Cambridge.

1978 Artifacts. In *Excavations at Seibal*. Memoirs of the Peabody Museum of Archaeology and Ethnology, Harvard University, Vol. 14(1):1-189.

Willey, Gordon R., William R. Bullard Jr., and John B. Glass

1955 The Maya Community of Prehistoric Times. *Archaeology* 8(1):18-25.

Willey, Gordon R., William R. Bullard Jr., John B. Glass, and James C. Gifford

1965 *Prehistoric Maya Settlements in the Belize Valley*. Papers of the Peabody Museum of Archaeology and Ethnology, Volume 54. Peabody Museum, Harvard University, Cambridge.

## FIGURE CAPTIONS

Figure 1. Map of the Zubin site core and periphery.

Figure 2. Rectified isometric plan showing the Zubin site core.

Figure 3. The Cahal Pech phase sequence and comparative chronology.

Figure 4. Rectified Isometric plan of the Zubin site core showing excavations units.

Figure 5. Post-excavation profile of Structure A3, looking north.

Figure 6. Top plan of Levels 6 and 6B (A3-5th).

Figure 7. Top plan of Level 6A additions (A3-4th).

Figure 8. Top plan of Level 5 additions (A3-3rd).

Figure 9. Top plan of Levels 4 and 3 (A3-2nd and A3-1st).

Figure 10. Granite mano fragment (A3-SF/4) from the mixed Structure A3 humus/fall deposit (drawings by Tina Christensen and Gyles Iannone).

Figure 11. Post-excavation profile of Structure A4, Unit A4-2a, facing west.

Figure 12. Shell artifacts from Structure A4: (a) conch shell adorno (A4-SF/13) from Level 1; (b) shell bead, species unknown (A4-SF/49), from Level 10; (c) carved freshwater clam section (A4-SF/1), from Level 1; (d) shell bead, species unknown (A4-SF/44), from Level 1; (e) conch shell "bead" (A4-SF/43) from the Level 6B midden (Unit A4-3, Level 5B); (f) olive shell "tinkler" (A4-SF/40) from A4-2nd; (g) olive shell "tinkler" (A4-SF/39), from A4-2nd (drawings by Peter McDonagh and Lucinda Blatch).

Figure 13. Post-excavation profile of Structure A4, Unit A4-1a, facing west.

Figure 14. Post-excavation profile of Structure A4, Unit A4-3, facing west.

Figure 15. Top plan of Level 8, Structure A4 (spacing of units not to scale).

Figure 16. Top plan of Level 7, Structure A4 (spacing of units not to scale).

Figure 17. Granite metate fragments from Structure A4: (a) A4-SF/78 (Level 7 [Unit A4-3, Level 6]); (b) A4-SF/124 (Level 6B; drawings by Tina Christensen and Gyles Iannone).

Figure 18. Top plan of the midden deposit (Level 6B) in Units A4-1a (Level 6E) and A4-3 (Level 5B [spacing of units not to scale]).

Figure 19. Top plan of A4-8th (spacing of units not to scale).

Figure 20. Post-excavation profiles of Units A4-4a (a) and A4-6 (b), facing west.

Figure 21. Granite mano fragment (A4-SF/84) from A4-8th (drawings by Tina Christensen



and Gyles Iannone).

Figure 22. Granite metate fragment (A4-SF/71) from A4-8th (drawings by Tina Christensen and Gyles Iannone).

Figure 23. Quartzite metate fragment (A4-SF/73) from A4-8th (drawings by Tina Christensen and Gyles Iannone).

Figure 24. Section of Saxche Orange Polychrome: Variety Unspecified bowl from A4-8th (drawing by Nicholas Crow).

Figure 25. Top plan of A4-7th (spacing of units not to scale).

Figure 26. Top plan of A4-6th additions (spacing of units not to scale).

Figure 27. Top plan of A4-5th (spacing of units not to scale).

Figure 28. Groundstone artifacts from Structure A4: (a) granite mano fragment (A4-SF/125) from A4-5th; (b) granite metate fragment (A4-SF/74) from A4-4th (drawings by Tina Christensen and Gyles Iannone).

Figure 29. Top plan of A4-4th (spacing of units not to scale).

Figure 30. Post-excavation profile through the eastern sector of Unit A4-2, facing west.

Figure 31. Top plan of A4-3rd (spacing of units not to scale).

Figure 32. Top plan of A4-2nd.

Figure 33. Top plan of A4-1st.

Figure 34. Granite mano fragments from the Structure A4 fall deposit (Level 2): (a) A4-SF/130 (Unit A4-1, Level 2A); (b) A4-SF/106 (Unit A4-2, Level 2C; drawings by Tina Christensen and Gyles Iannone).

Figure 35. Groundstone artifacts from the Structure A4 surface/humus layer (Level 1): (a) granite metate fragment (A4-SF/99); (b) granite mano fragment (A4-SF/117; drawings by Tina Christensen and Gyles Iannone).

Figure 36. Post-excavation Profile of Structure C9, facing East.

Figure 37. Conch shell beads from Structure C9: (a) C9-SF/16 (C9-4th); (b) C9-SF/15 (C9-5th); (c) C9-SF/17 (C9-6th); (d) C9-SF/18 (C9-6th); (e) C9-SF/19 (C9-6th); (f) C9-SF/20 (C9-6th); (g) C9-SF/62 (Burial C9-B/1); (h) C9-SF/63 (Burial C9-B/1); (i) C9-SF/7

(Level 1A; drawings by Peter McDonagh and Lucinda Blatch).

Figure 38. Greenstone "triangulates" from the Structure C9 looter's backdirt (Level 1A): (a) C9-SF/31; (b) C9-SF/32 (drawings by Matt Edmunds).

Figure 39. Greenstone artifacts from the Structure C9 looter's backdirt (Level 1A): (a) modified pebble (C9-SF/33); (b) "triangulate" (C9-SF/34; drawings by Matt Edmunds).

Figure 40. Greenstone "triangulates" from the Structure C9 looter's backdirt (Level 1A): (a) C9-SF/35; (b) C9-SF/37 (drawings by Matt Edmunds).

Figure 41. Greenstone "triangulates" from the Structure C9 looter's backdirt (Level 1A): (a) C9-SF/38; (b) C9-SF/39 (drawings by Matt Edmunds).

Figure 42. Top plan of Level 9 (C8-th).

Figure 43. Top plan of Level 8 (C9-7th).

Figure 44. Figurine head (C9-SF/42) from Structure C9-7th (drawing by Nicholas Crow).

Figure 45. Top plan of Level 7 (C9-6th).

Figure 46. Figurine body fragment (C9-SF/12) from Structure C9-6th (drawing by David Wheeler).

Figure 47. Figurine Head, "C8"Type (C9-SF/11), from Structure C9-6th (drawing by David Wheeler).

Figure 48. Greenstone "triangulate" (C9-SF/40) from Burial C9-B/1 (drawing by Gyles Iannone).

Figure 49. Greenstone "triangulate" (C9-SF/41) from Burial C9-B/1 (drawing by Gyles Iannone).

Figure 50. Top plan of Level 6 (C9-5th).

Figure 51. Greenstone "triangulates" from Structure C9: (a) C9-SF/27 (C9-4th); (b) C9-SF/29 (C9-5th; drawings by Matt Edmunds).

Figure 52. Top plan of Level 5 (C9-4th).

Figure 53. Graffiti from C9-4th (drawings by Matt Edmunds).

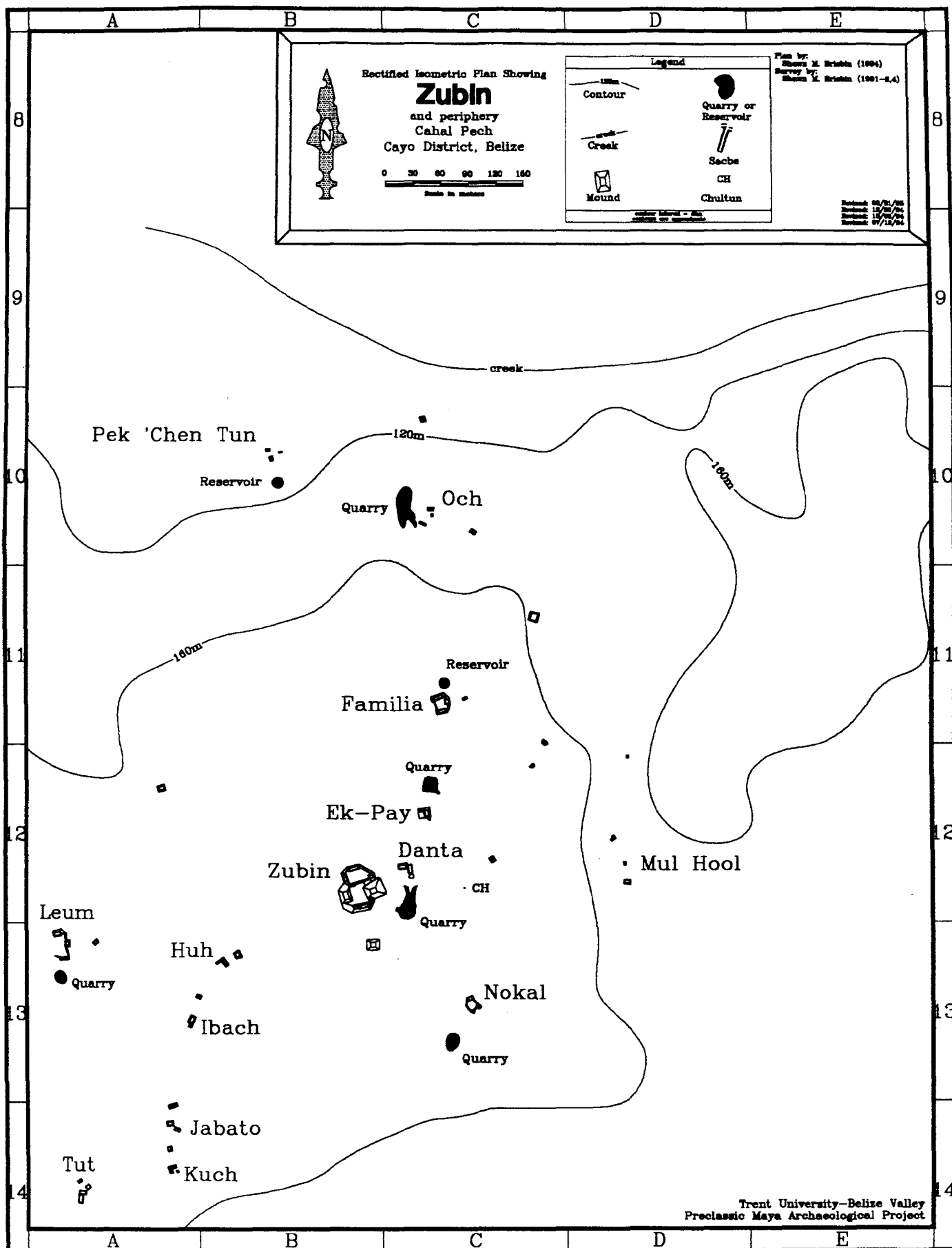
Figure 54. Top plan of Level 4a (C9-3rd).

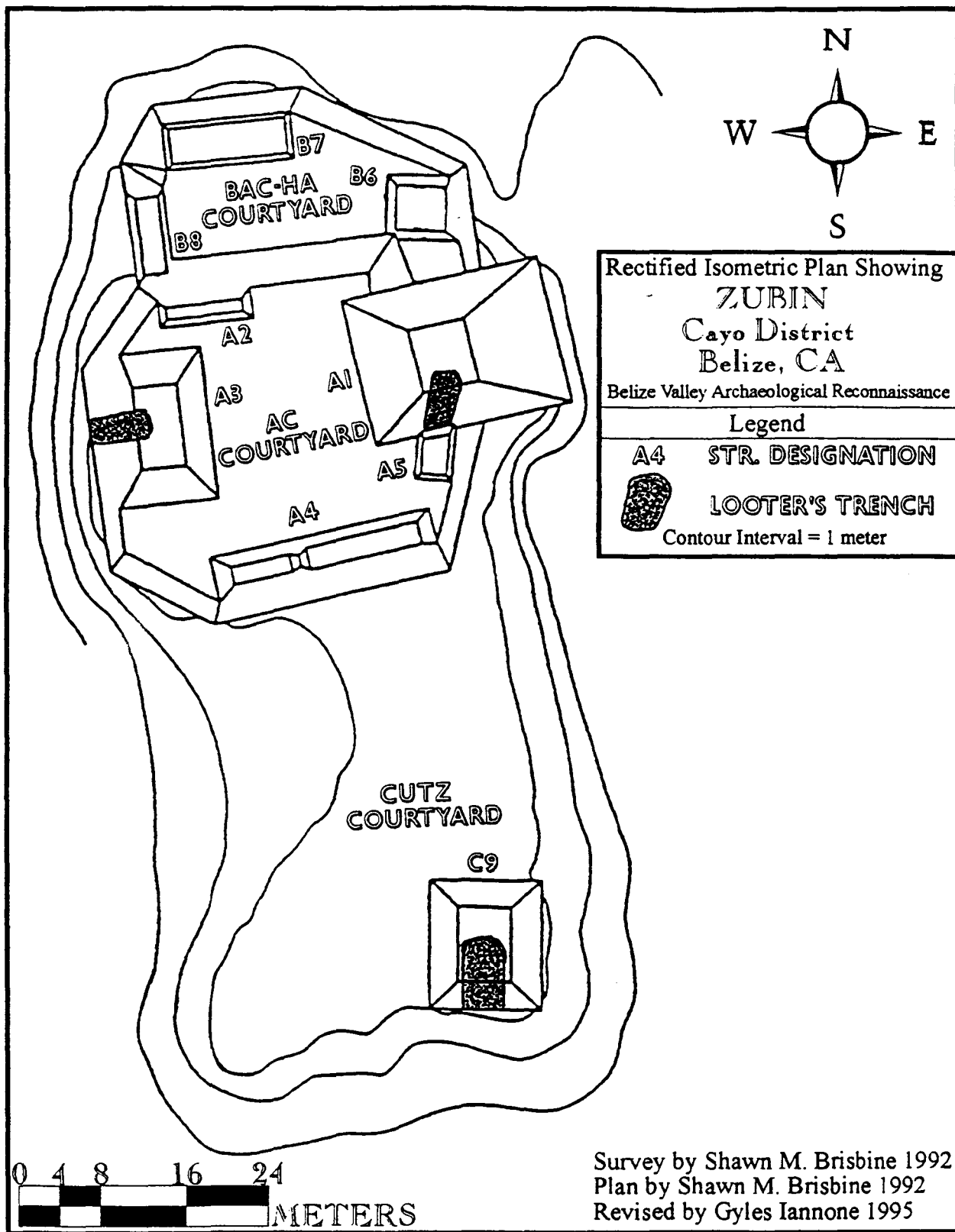
Figure 55. Top plan of Level 4 additions (C9-3rd).


Figure 56. Top plan of the C9-2nd (C9-2, C9-3) and C9-1st (C9-1) architecture exposed within the C9 test units.

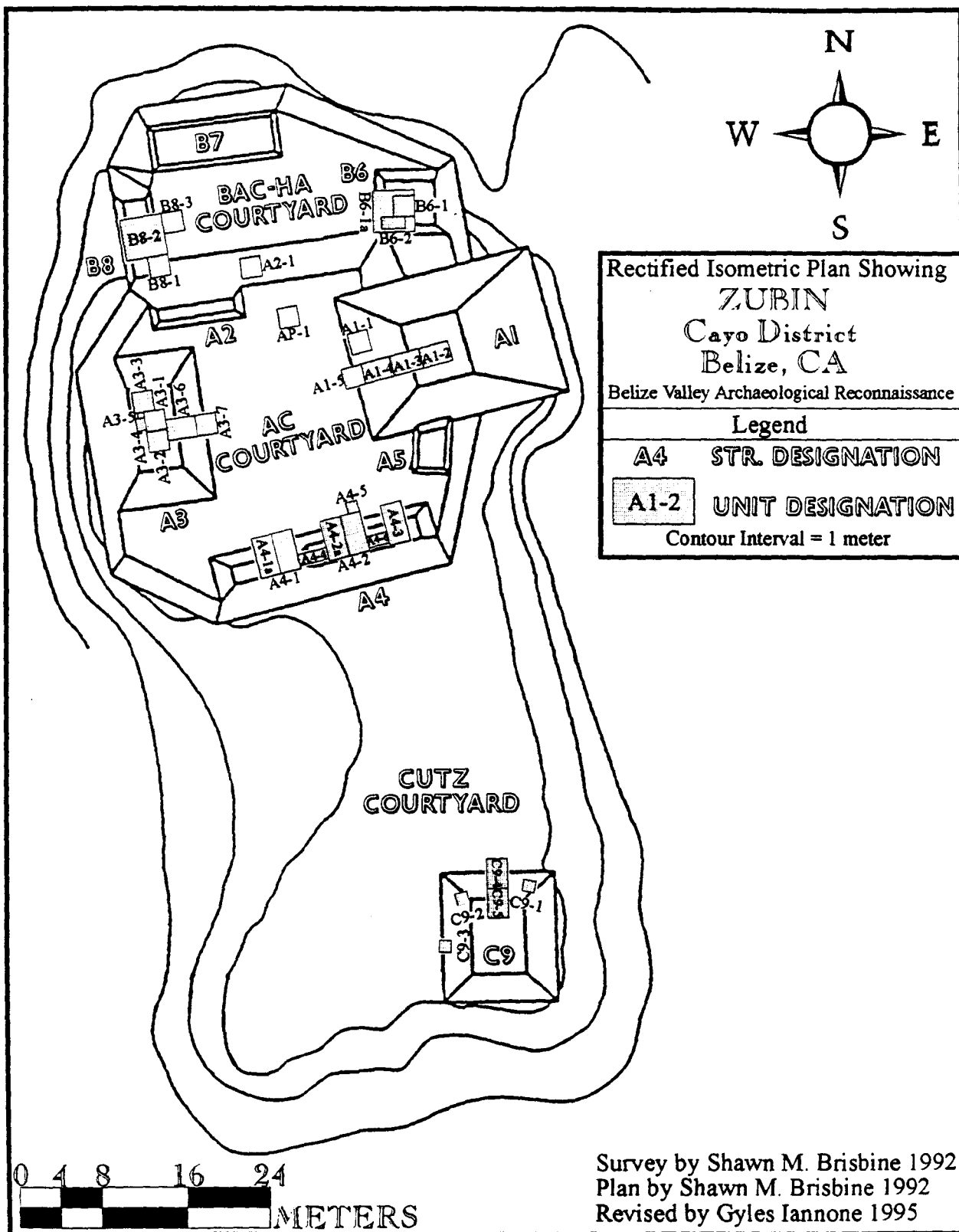
Figure 57. Top plan of Level 3 (C9-1st).

Figure 58. Groundstone artifacts from Structures C9 and D10: (a) syenite metate fragment from C9-1st (C9-SF/51); (b) granite metate fragment (D10-SF/8) from the Structure D10 humus layer (Level 1; drawings by Tina Christensen and Gyles Iannone).



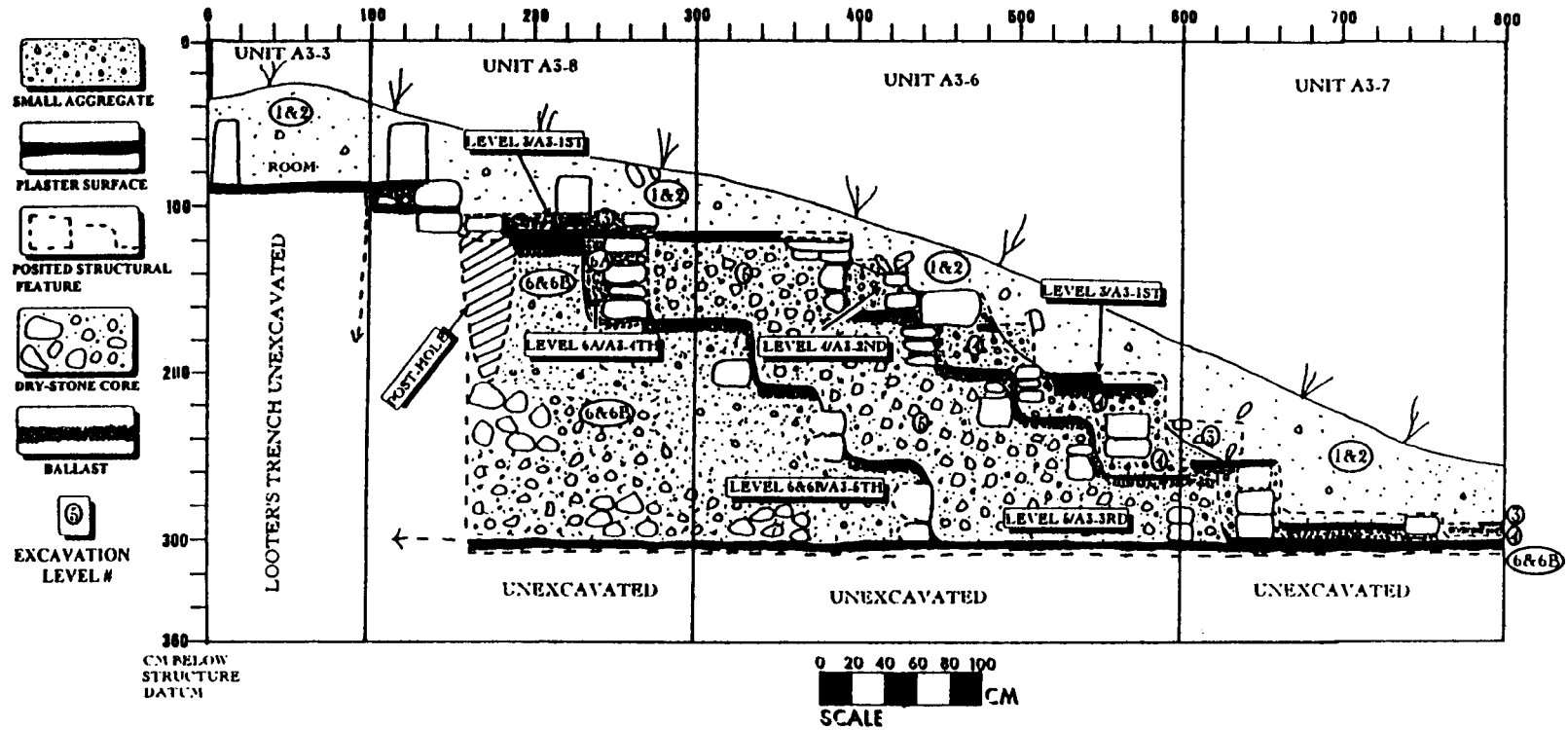


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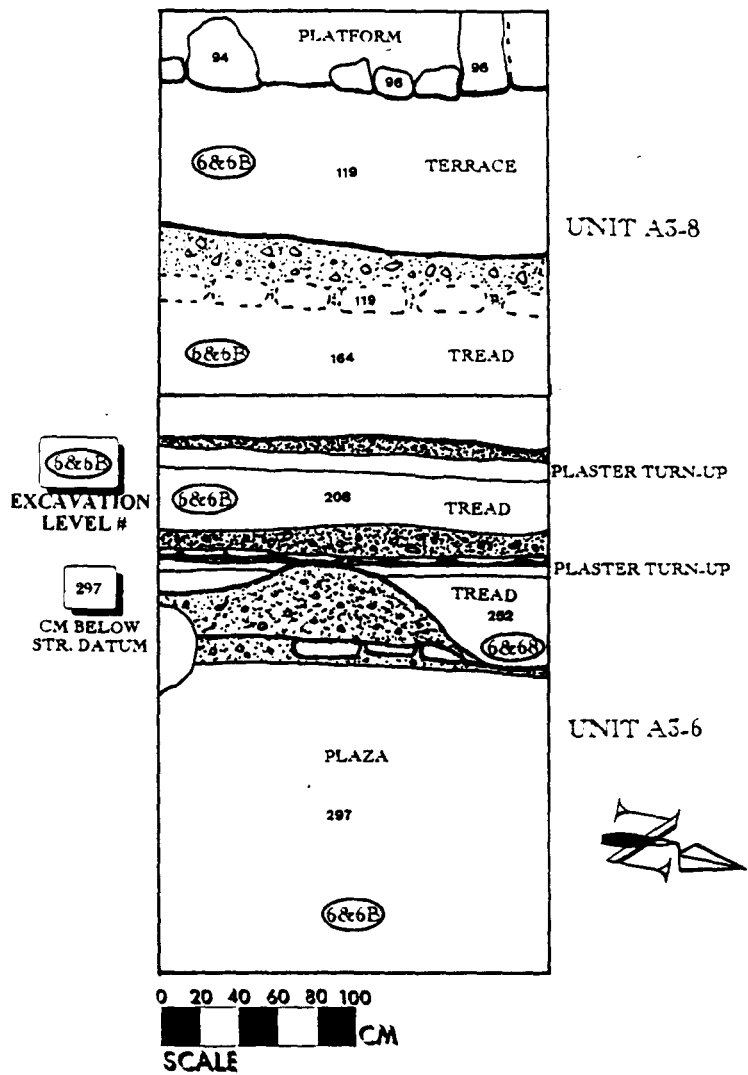


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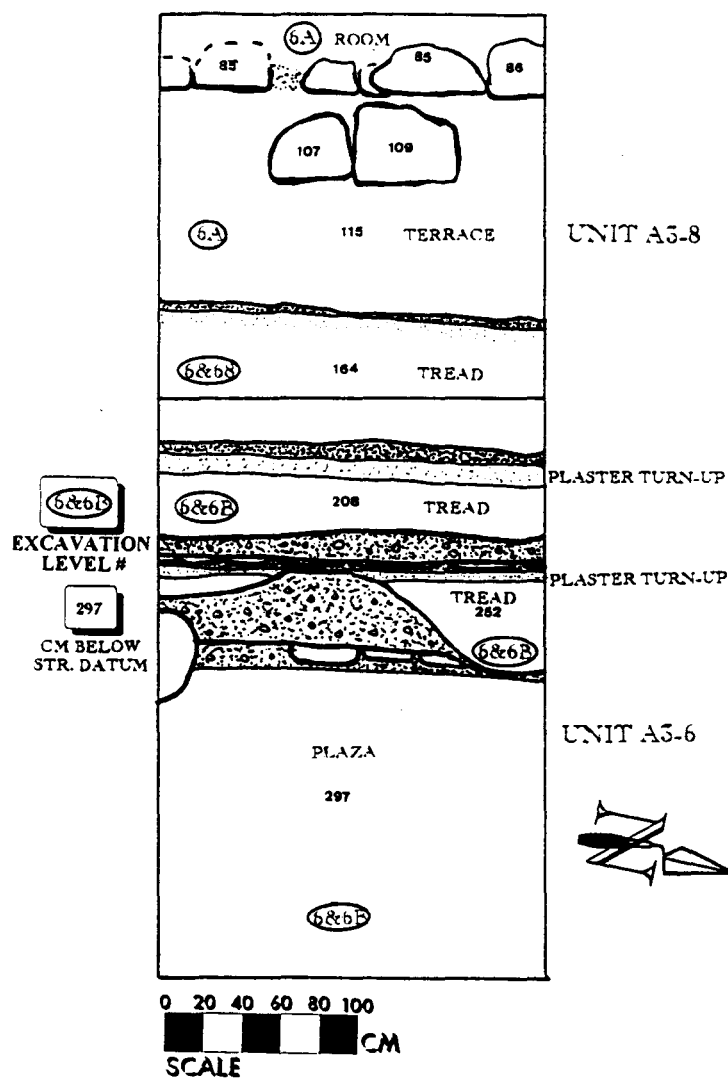
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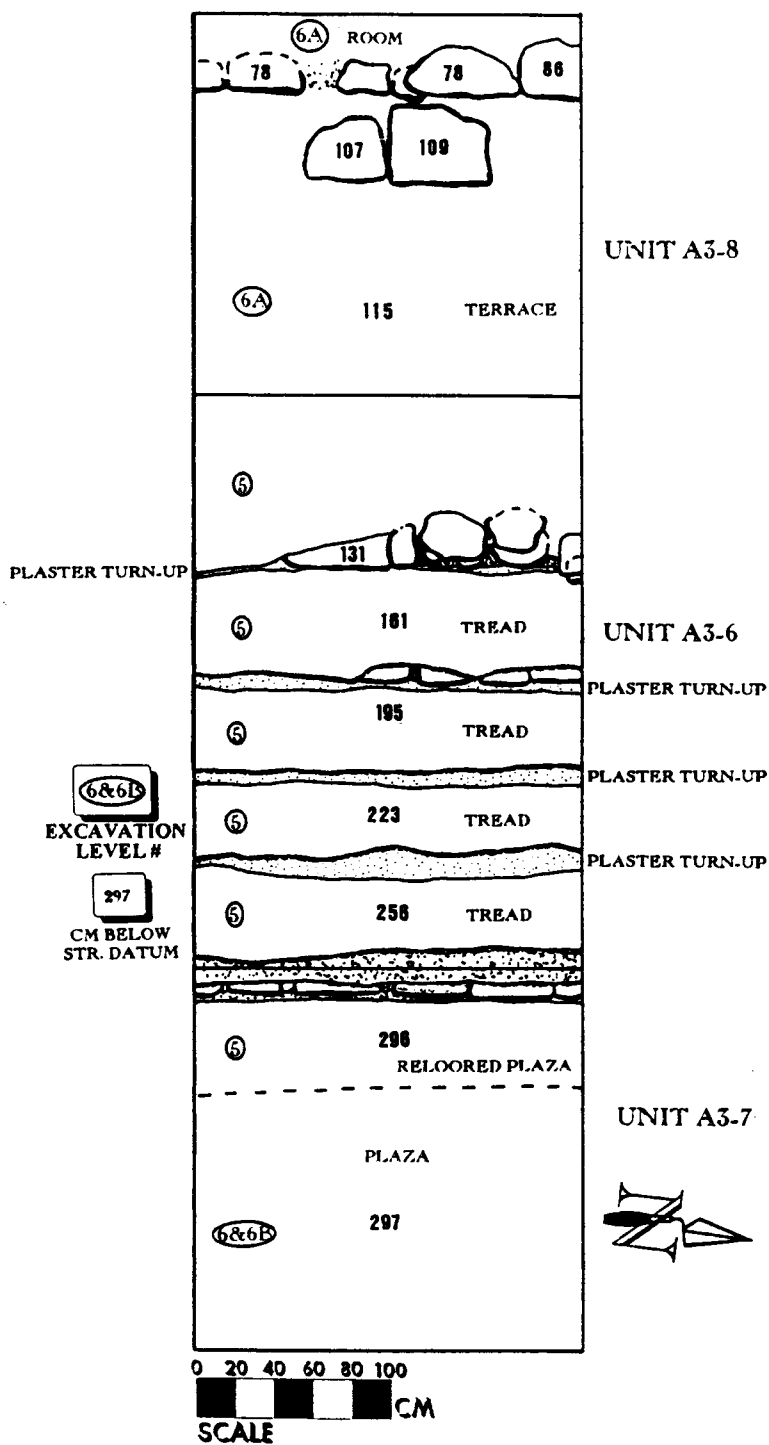


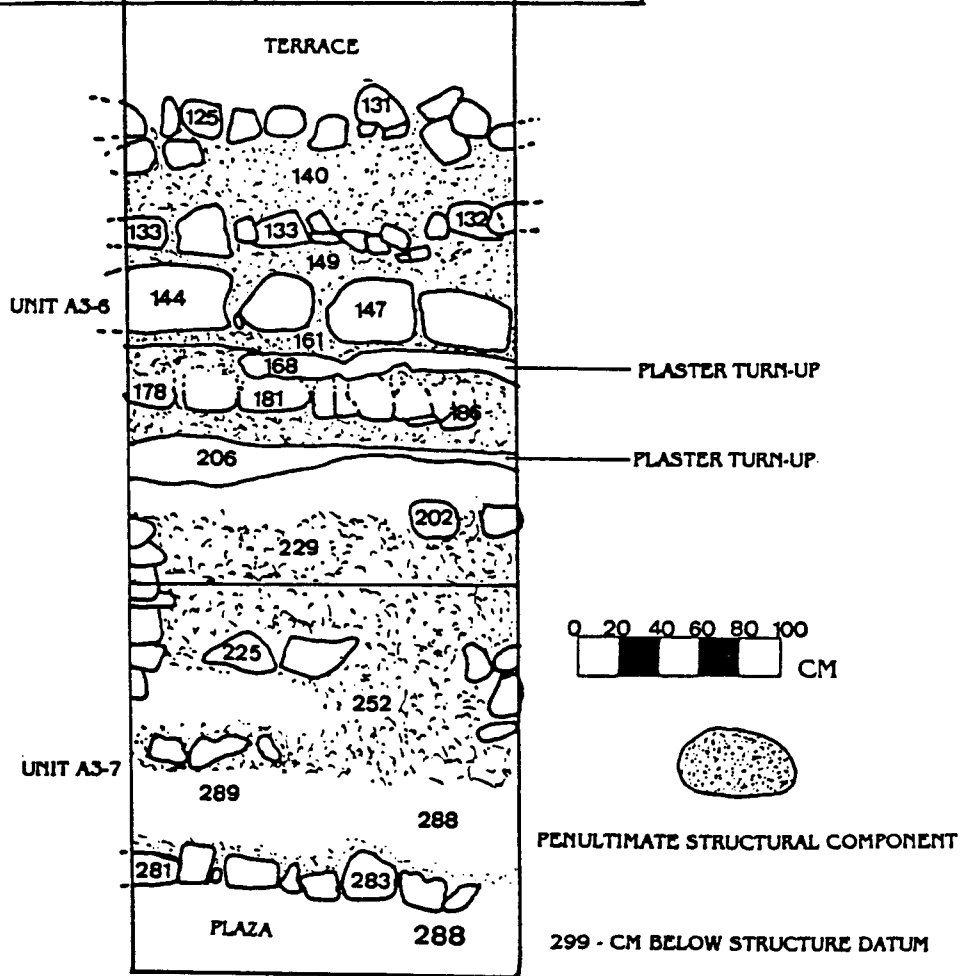
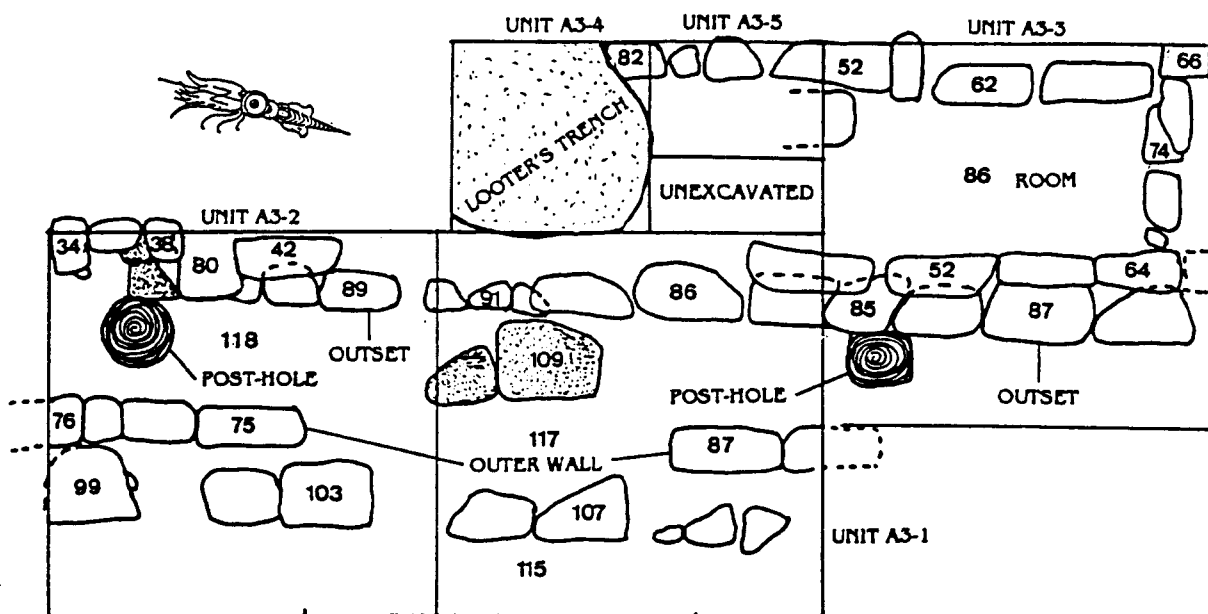


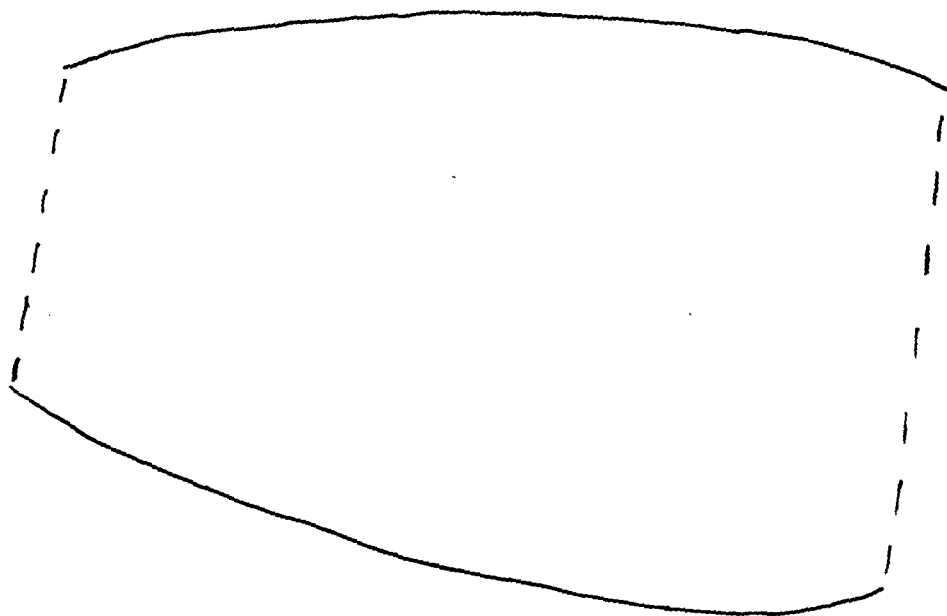
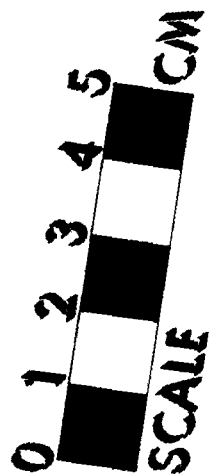
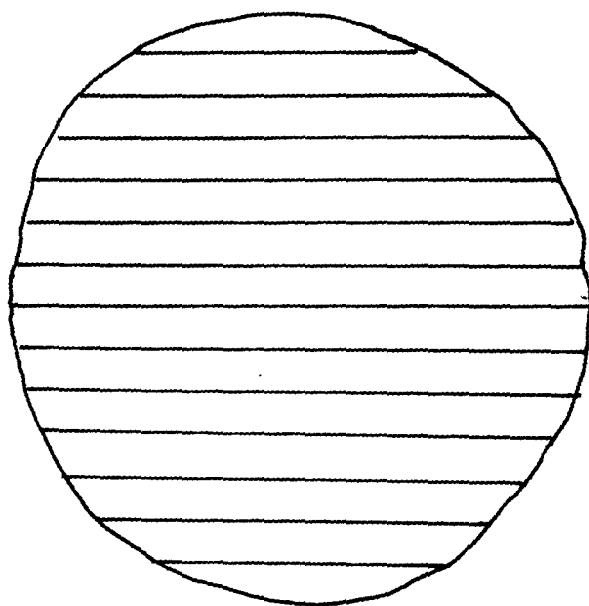


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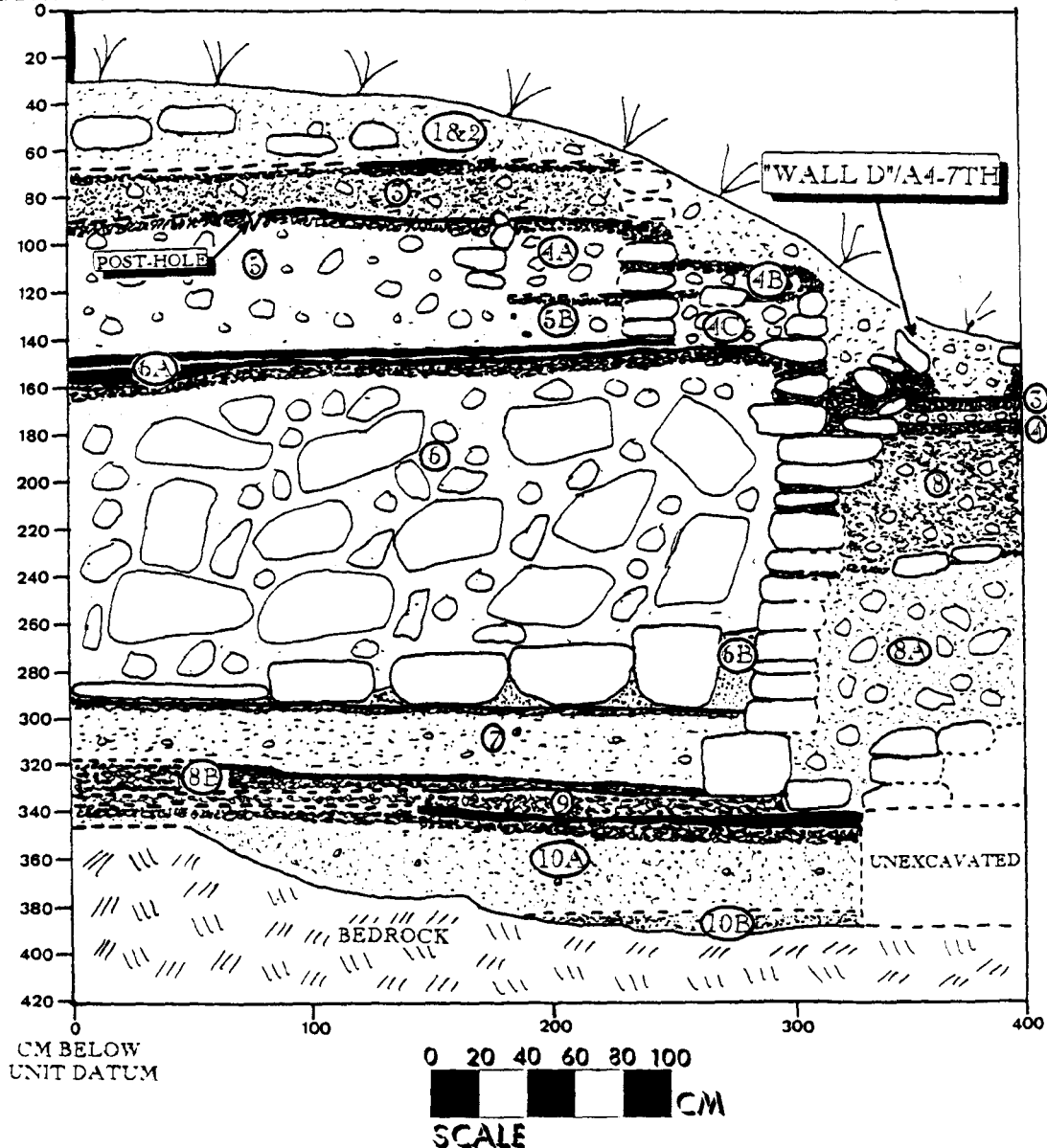
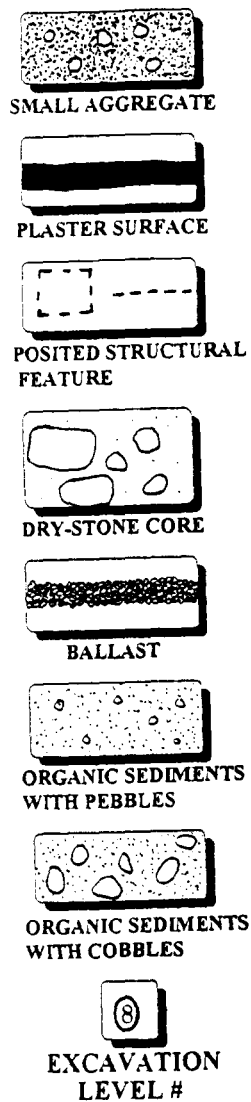


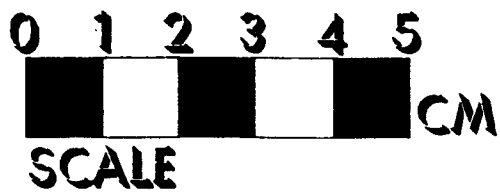
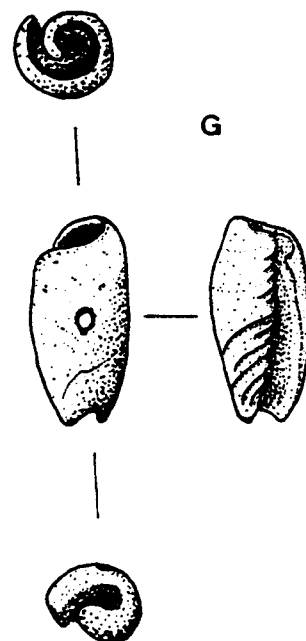
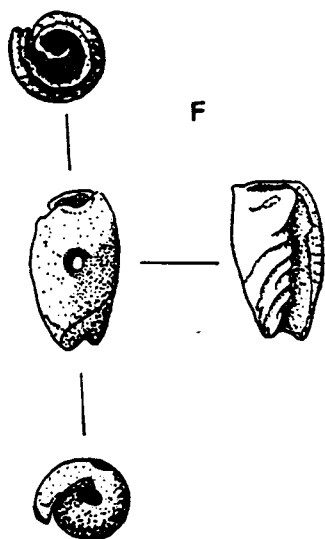
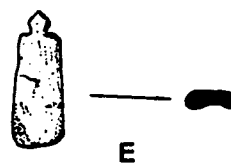
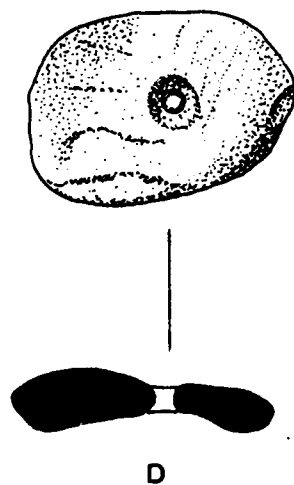
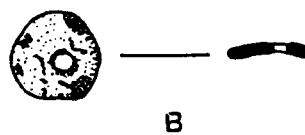
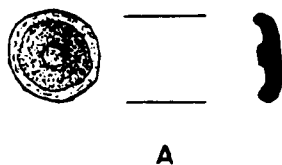


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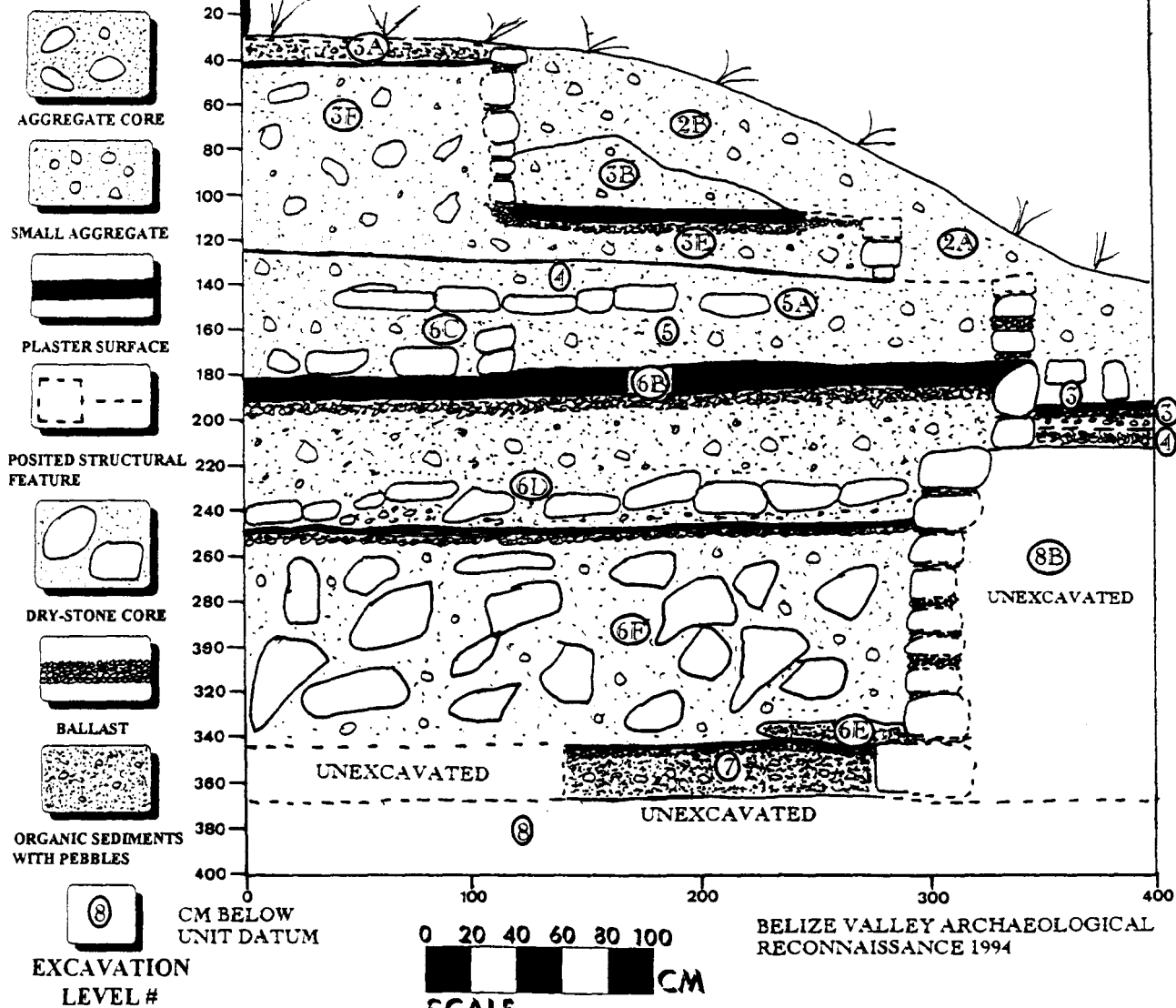




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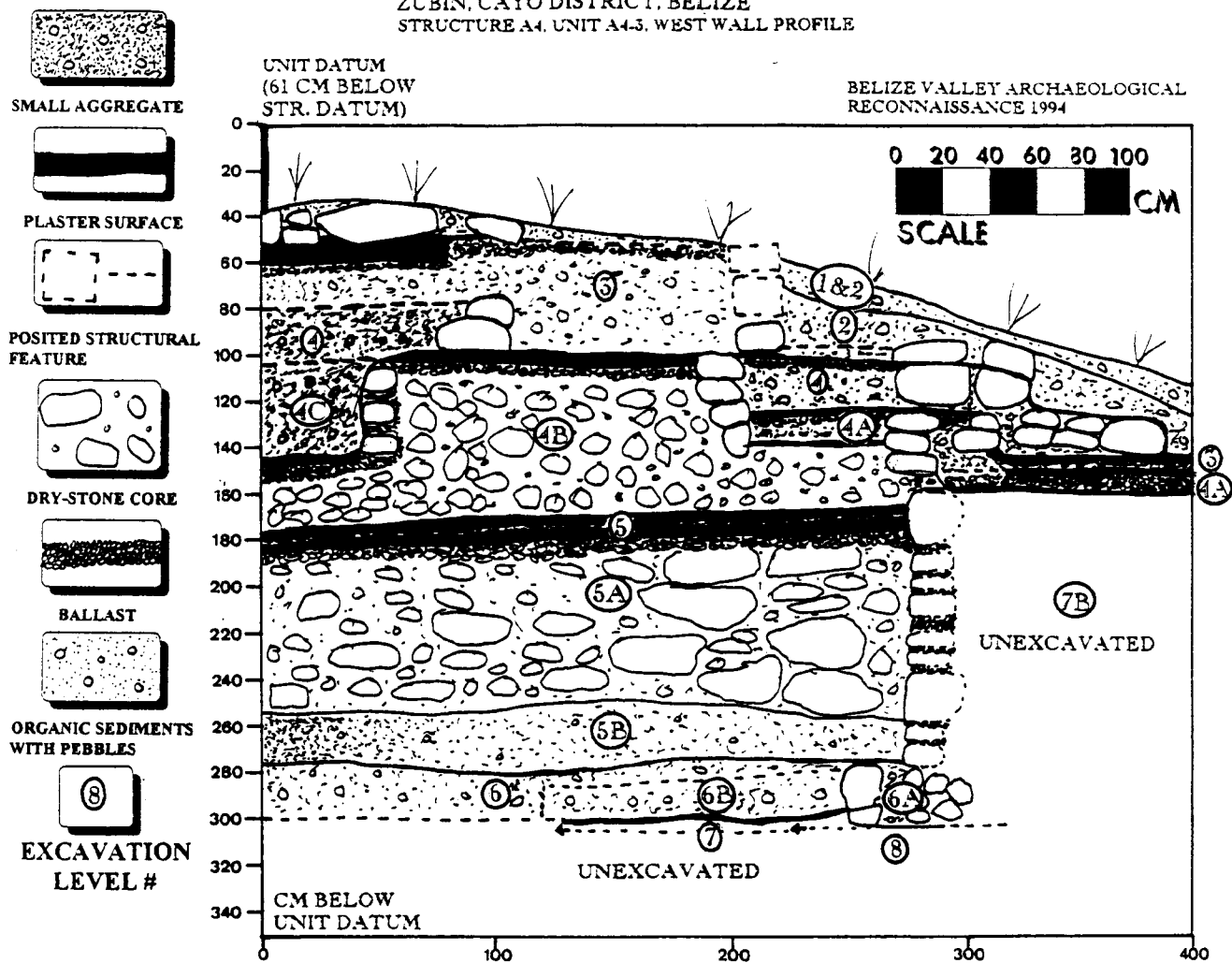
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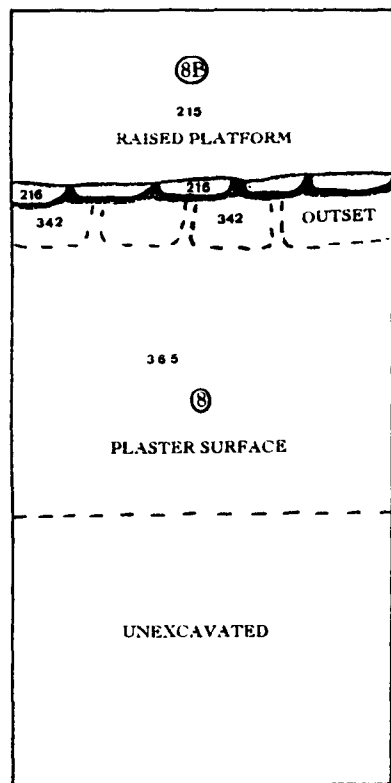


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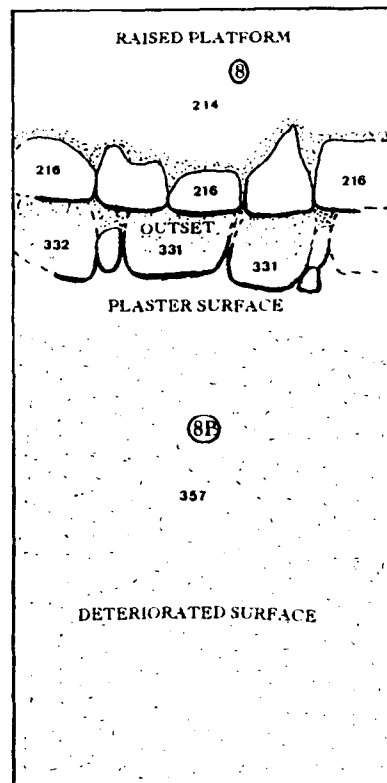
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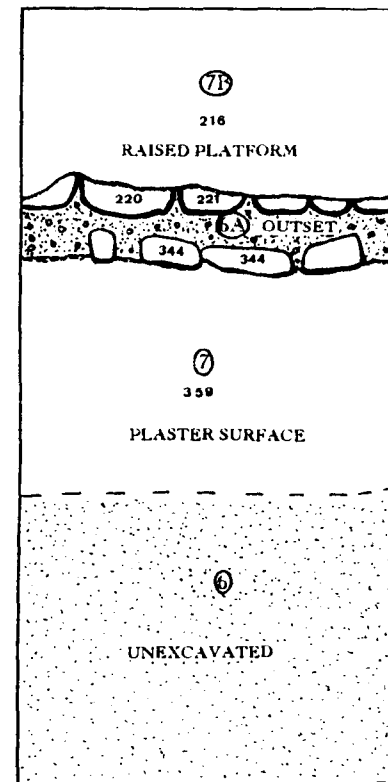
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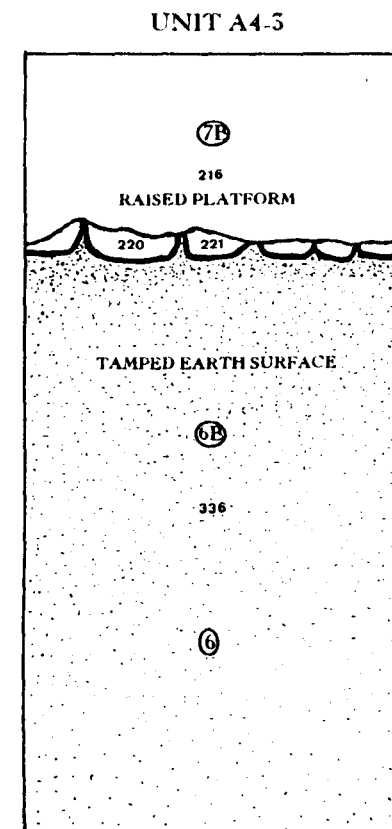
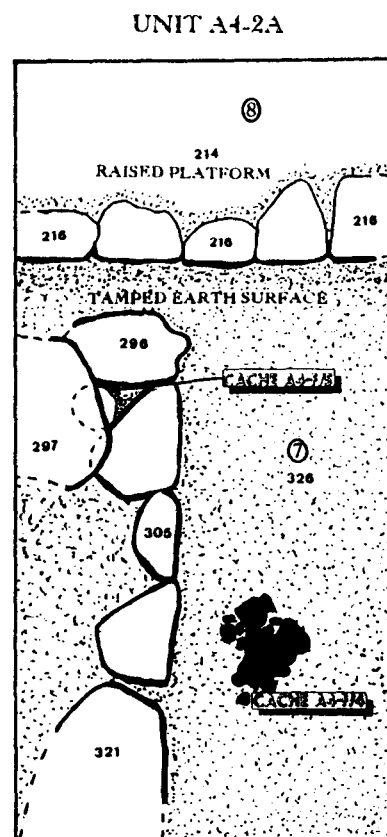
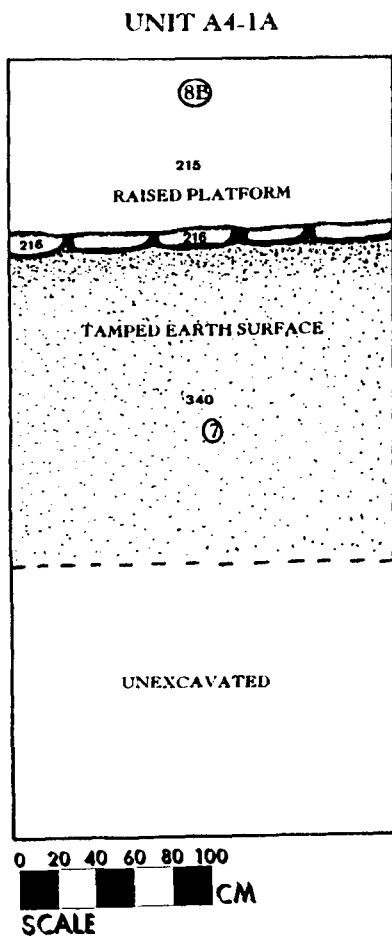
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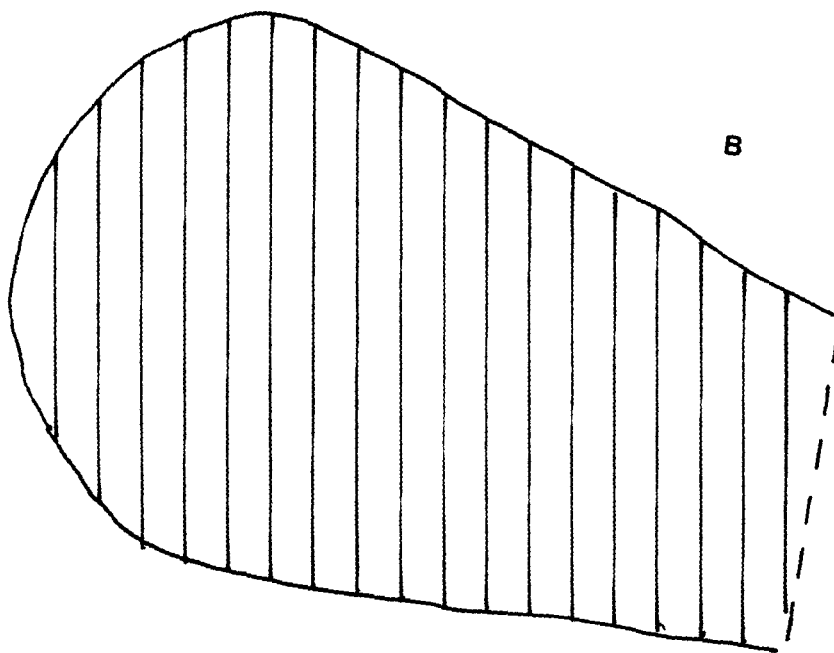
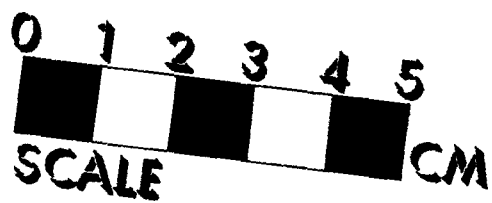
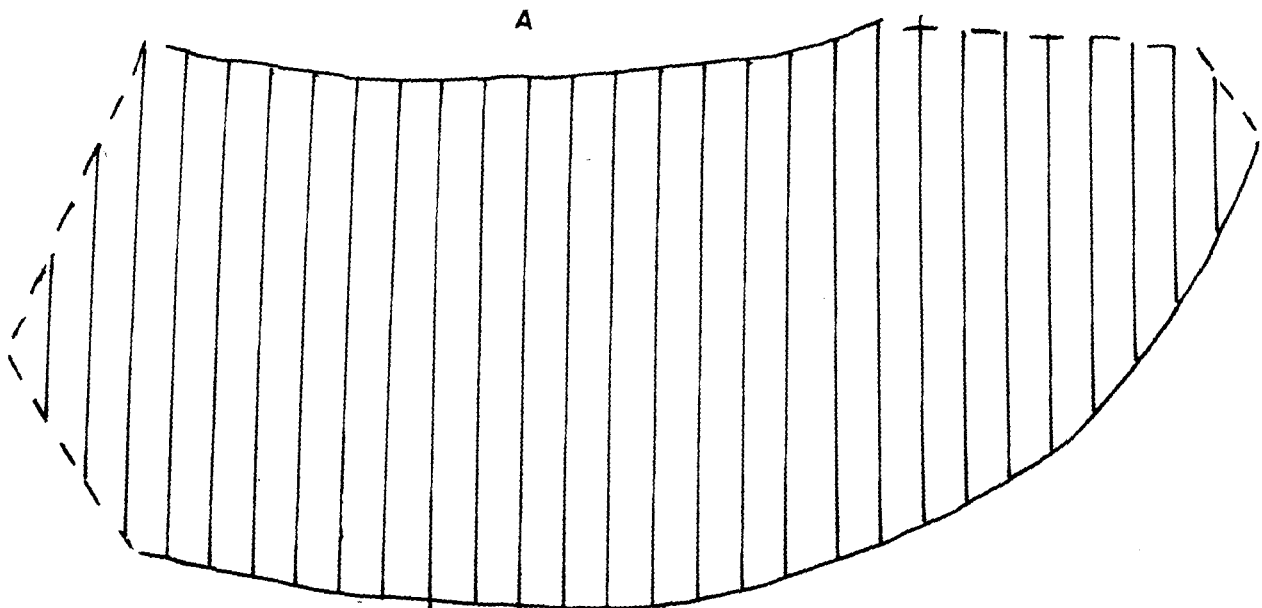
*Scale of 1:2000000  
Belmopan, Belize*



216  
CM BELOW  
STR. DATUM

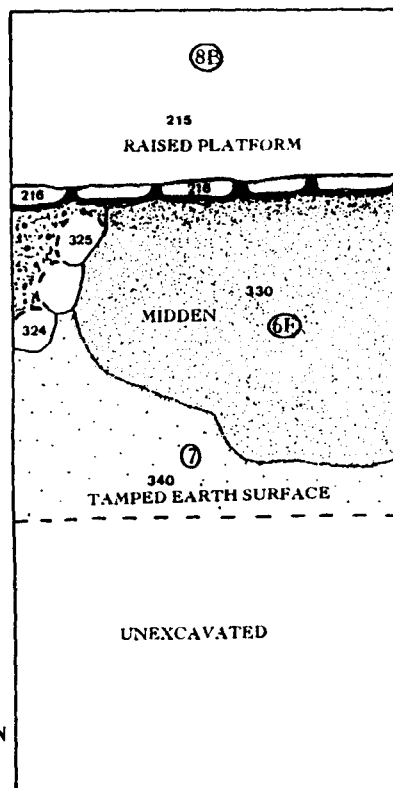
⑦  
EXCAVATION  
LEVEL #





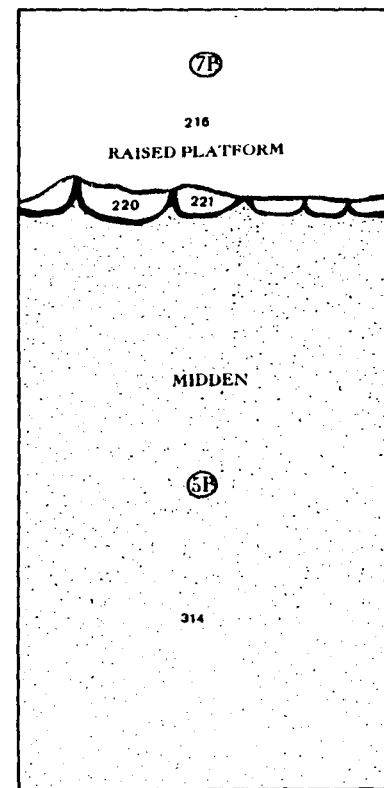


### UNIT A4-1A



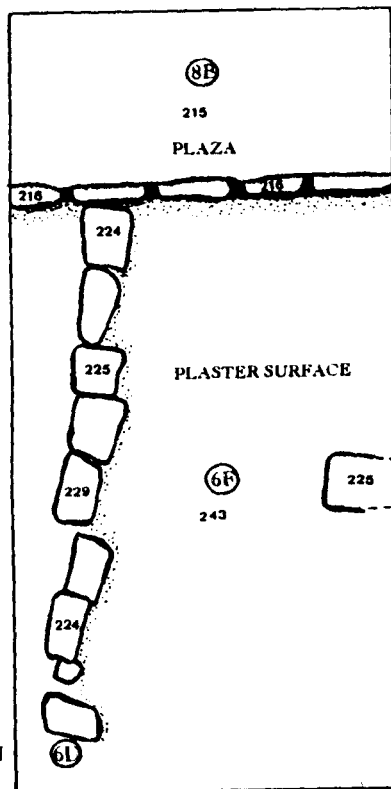
0 20 40 60 80 100  
SCALE CM

### UNIT A4-5





UNIT A4-1A

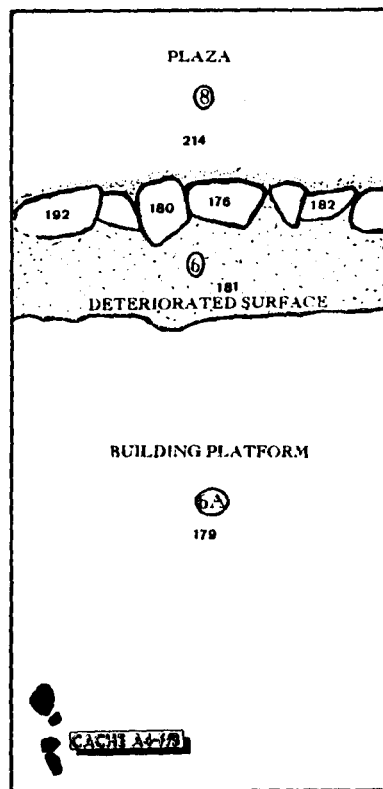


245  
CM BELOW  
STR. DATUM

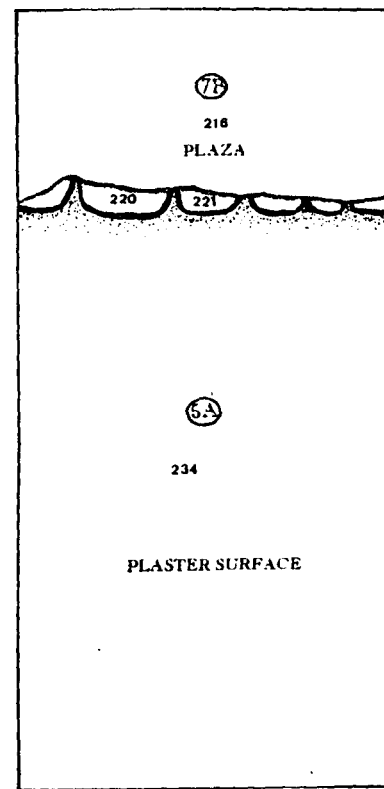
6F  
EXCAVATION  
LEVEL #

0 20 40 60 80 100  
SCALE CM

UNIT A4-2A



UNIT A4-3



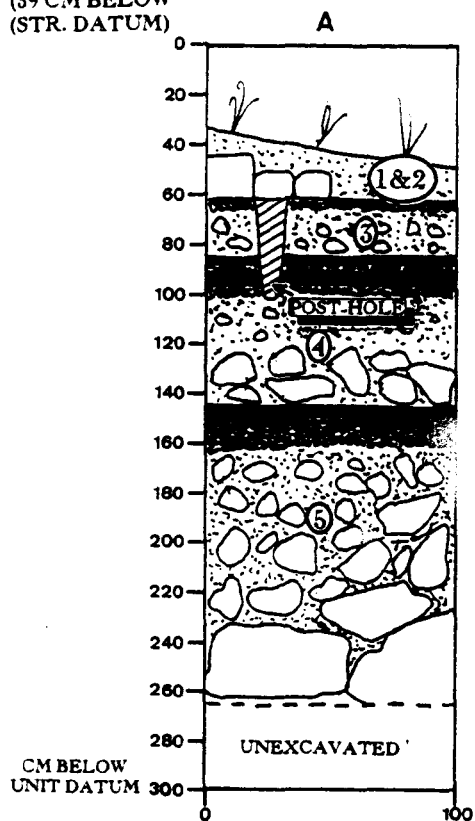
Top of Archaeology  
Bolton, Rollins

ZUBIN, CAYO DISTRICT, BELIZE

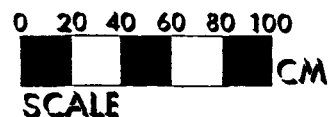
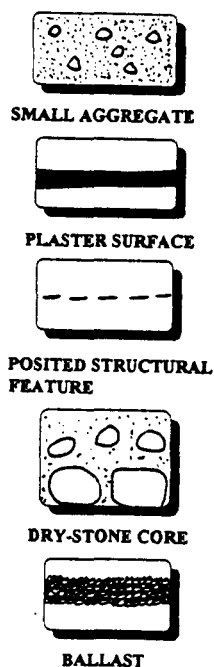
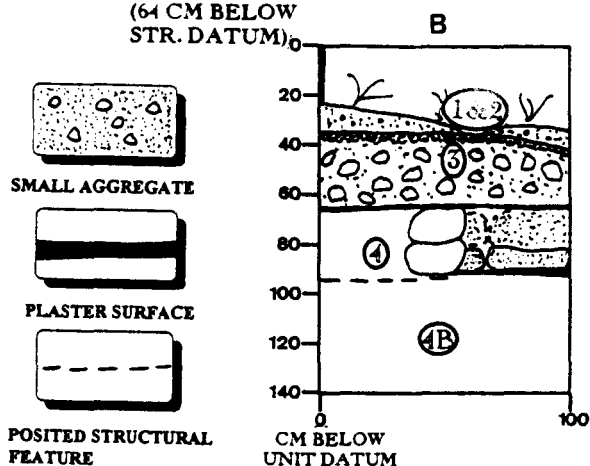
STRUCTURE A4, UNIT A4-4A, WEST WALL PROFILE

STRUCTURE A4, UNIT A4-6, WEST WALL PROFILE

UNIT DATUM  
(39 CM BELOW  
(STR. DATUM))

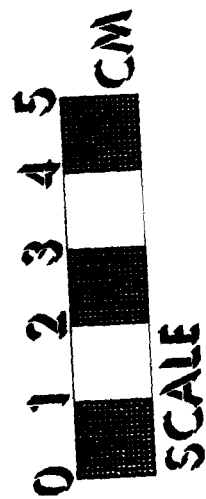
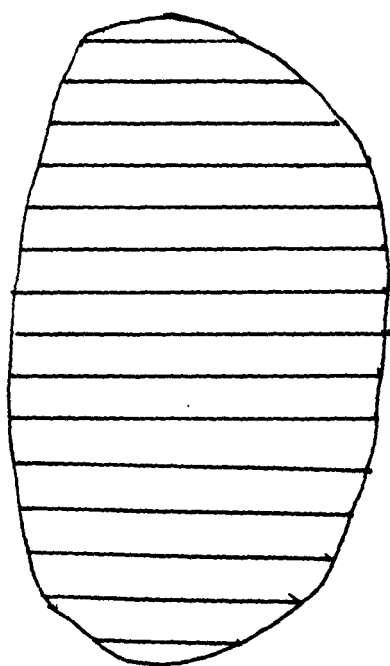
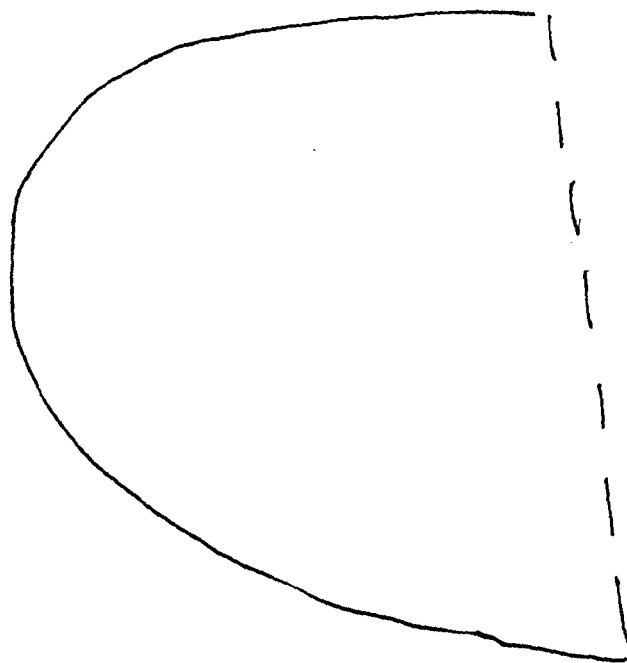


UNIT DATUM  
(64 CM BELOW  
(STR. DATUM))

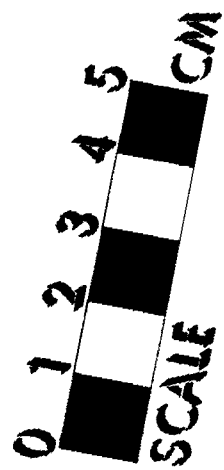
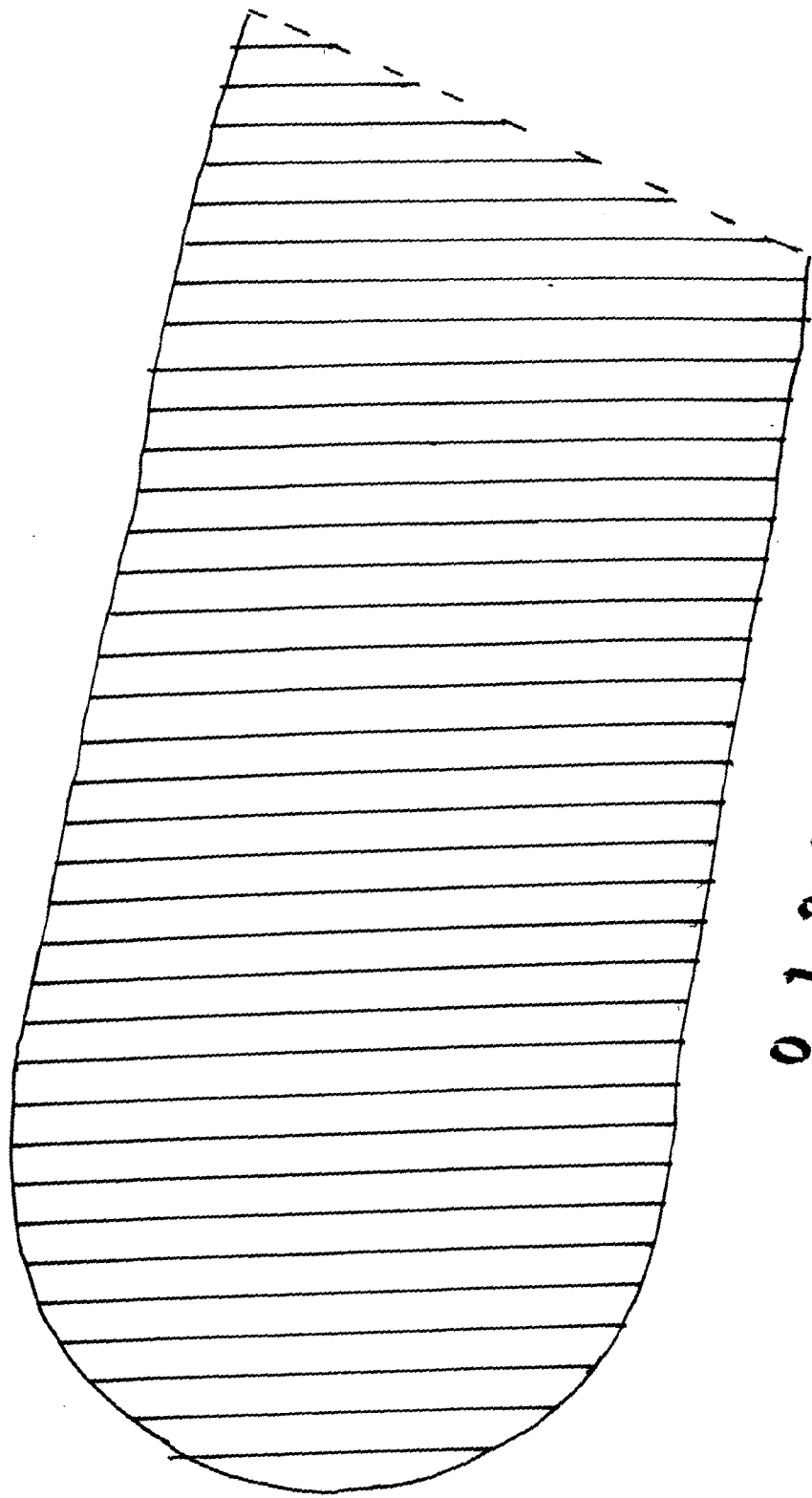


EXCAVATION  
LEVEL #

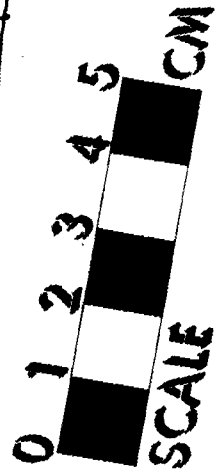
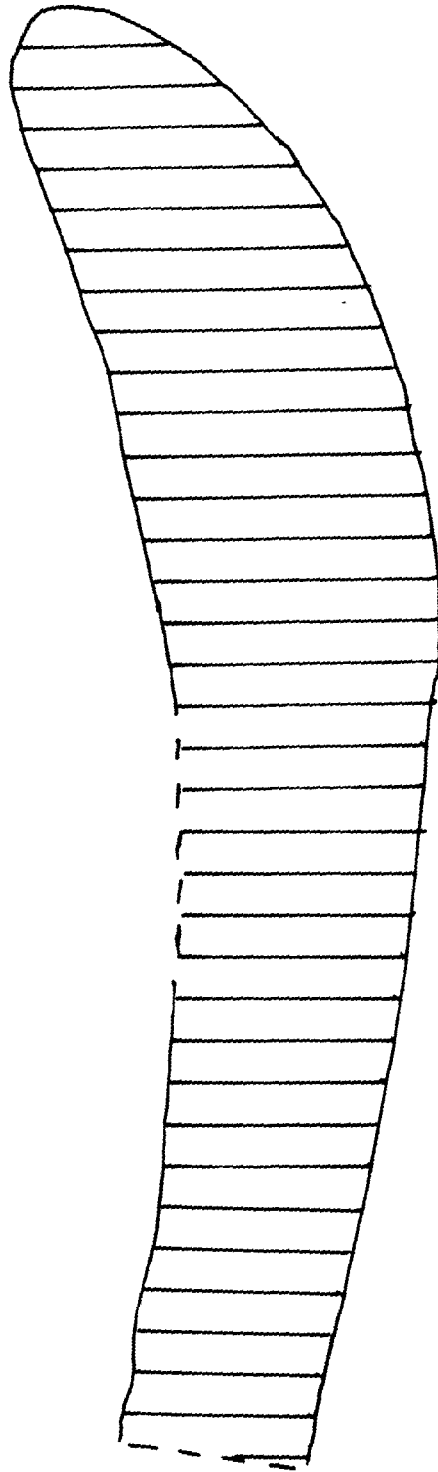
BELIZE VALLEY ARCHAEOLOGICAL  
RECONNAISSANCE 1994

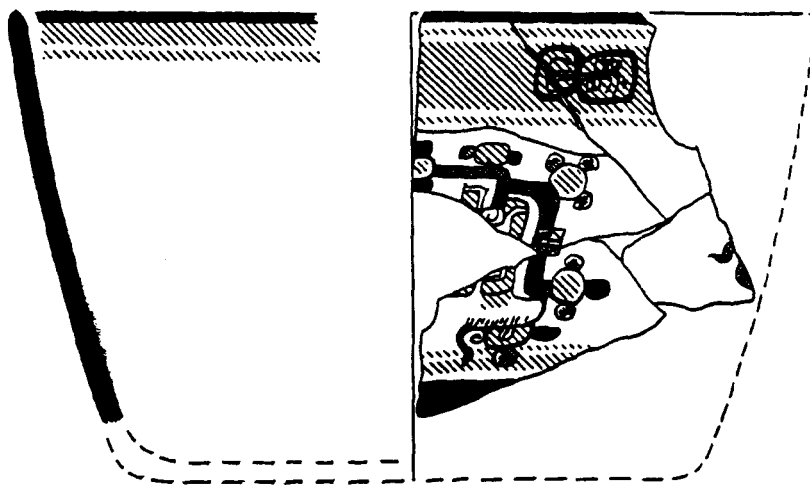






Map of Krakatau  
Kalampong, Balio



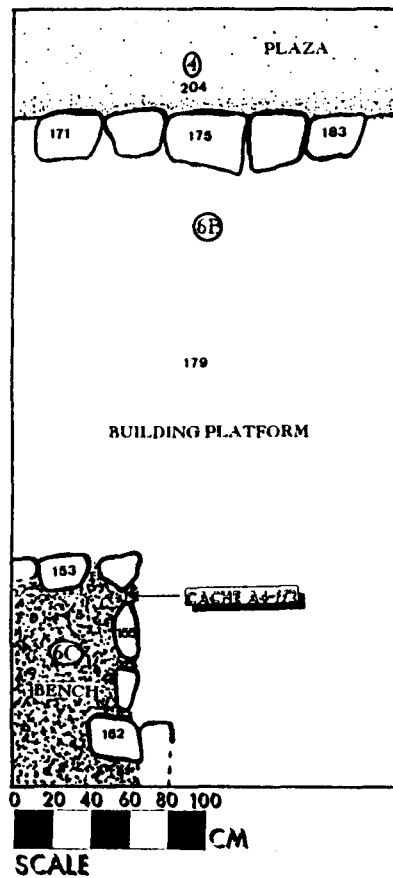


0 1 2 3 4 5  
SCALE CM

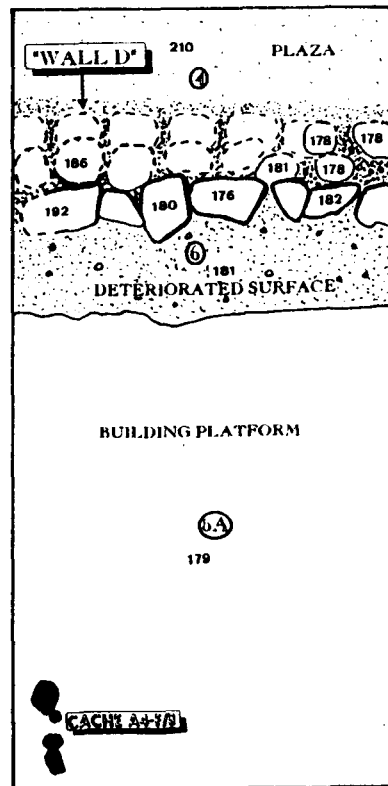


UNIT A4-1A

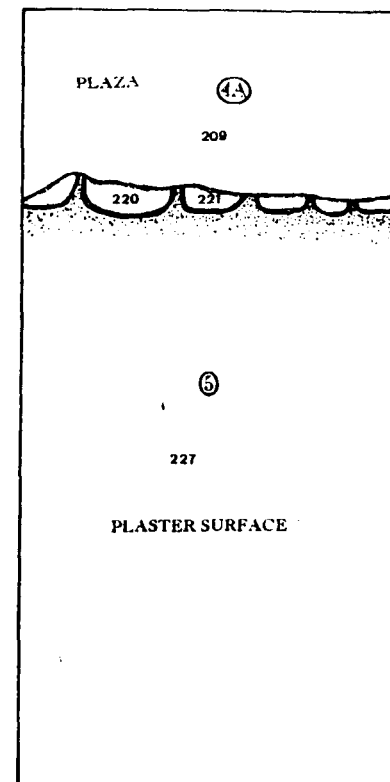
179  
CM BELOW  
STR. DATUM  
④  
EXCAVATION  
LEVEL #



UNIT A4-2A



UNIT A4-3

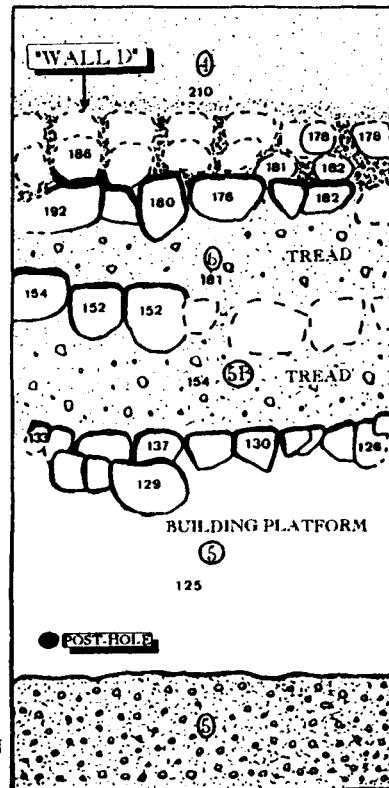


UNIT A4-2A



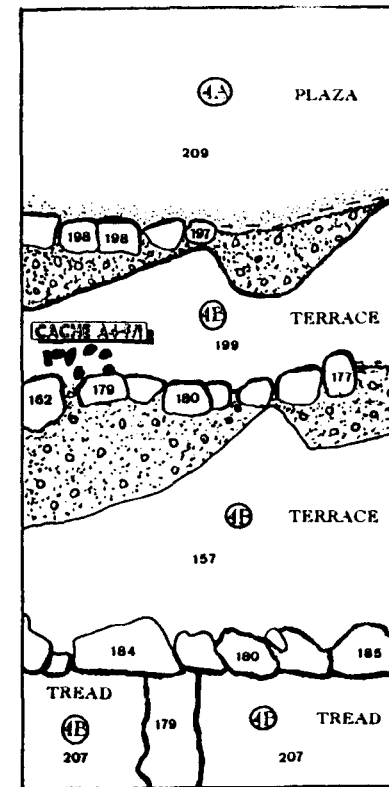
125  
CM BELOW  
STR. DATUM

③  
EXCAVATION  
LEVEL #



0 20 40 60 80 100  
CM  
SCALE

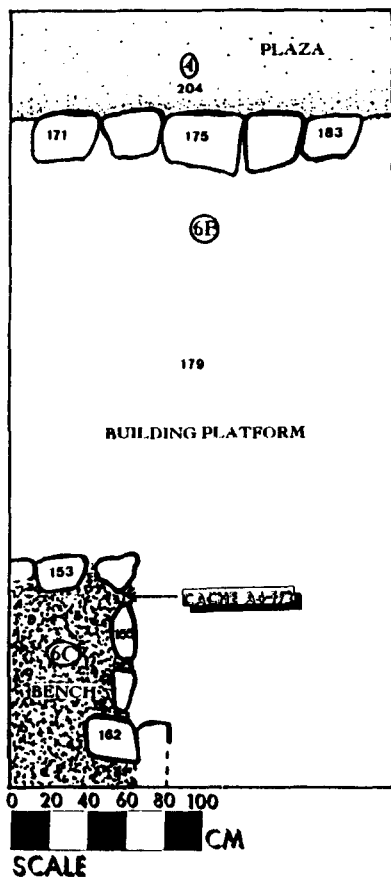
UNIT A4-5



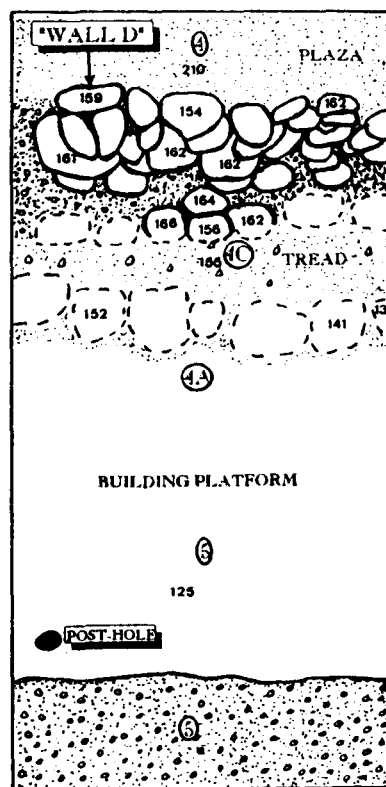


UNIT A4-1A

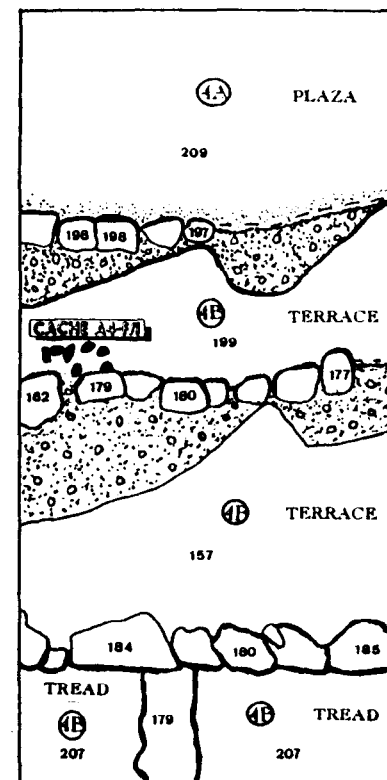
179  
CM BELOW  
STR. DATUM  
④  
EXCAVATION  
LEVEL #

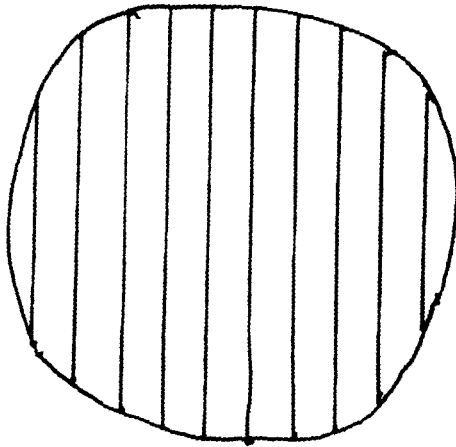


UNIT A4-2A

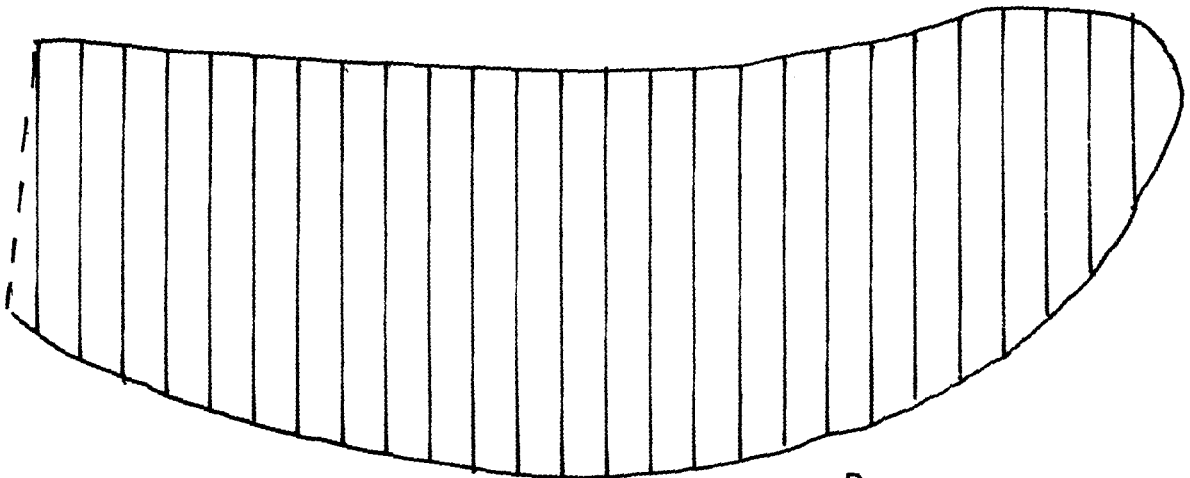
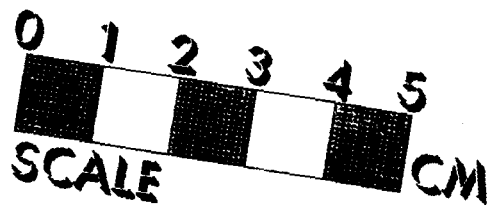
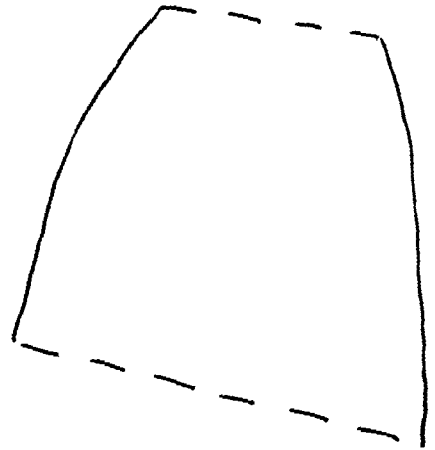


UNIT A4-3



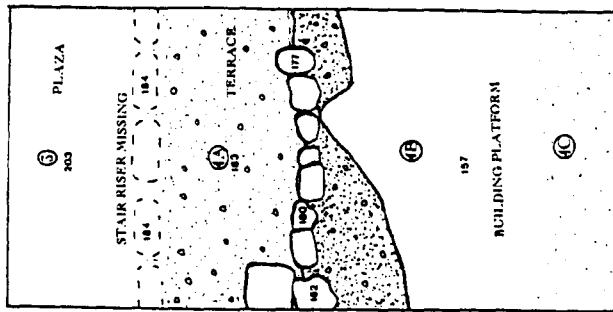


A

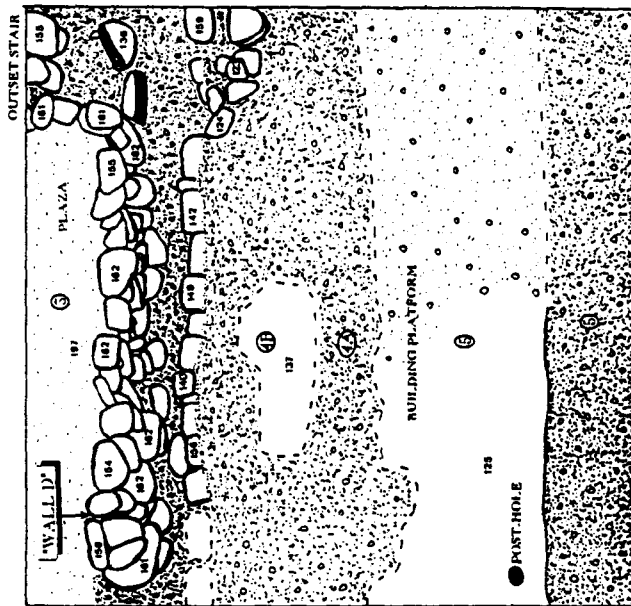


B

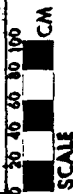
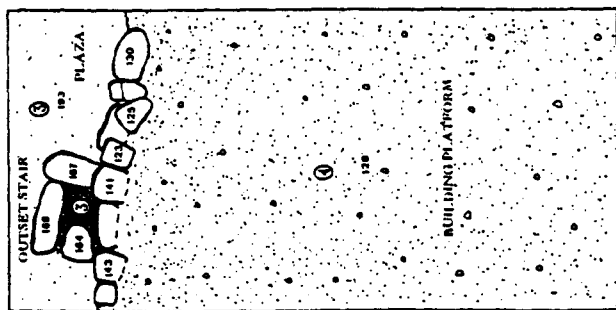
UNIT A4-3



UNIT A4-2



UNIT A4-1A



**CM BELOW  
STR. DATUM**

③  
EXCAVATION  
LEVEL #



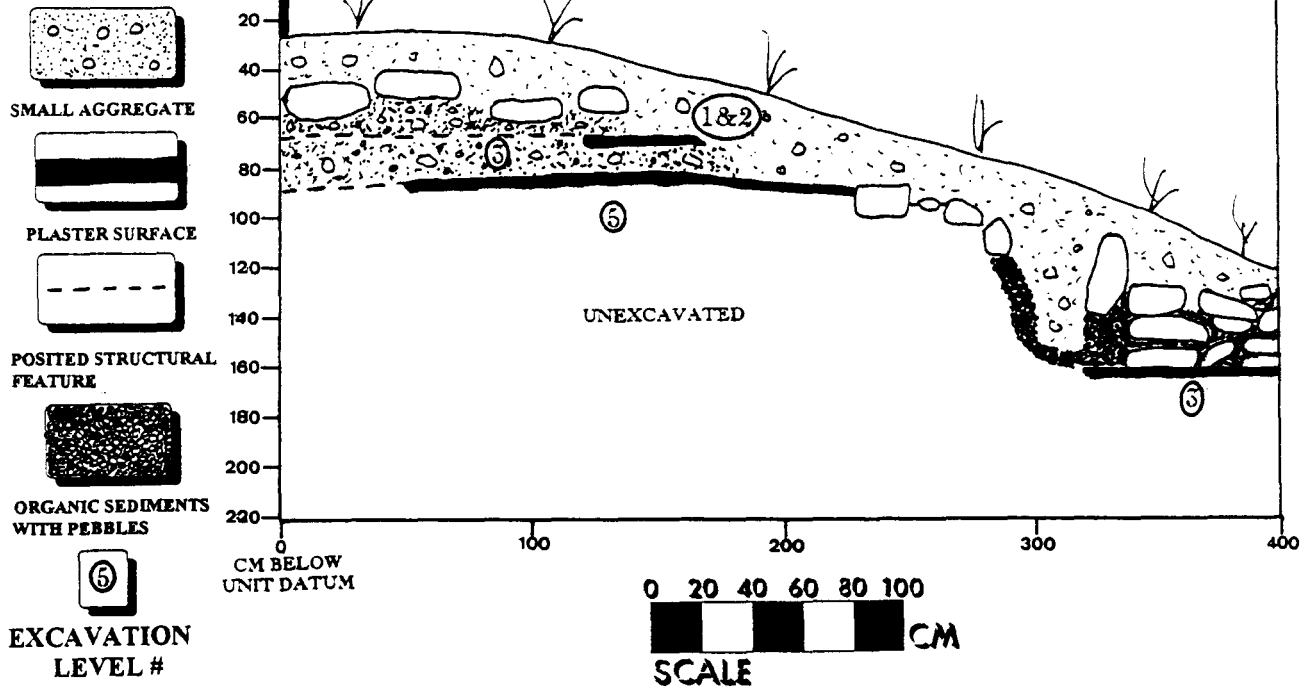


ZUBIN, CAYO DISTRICT, BELIZE

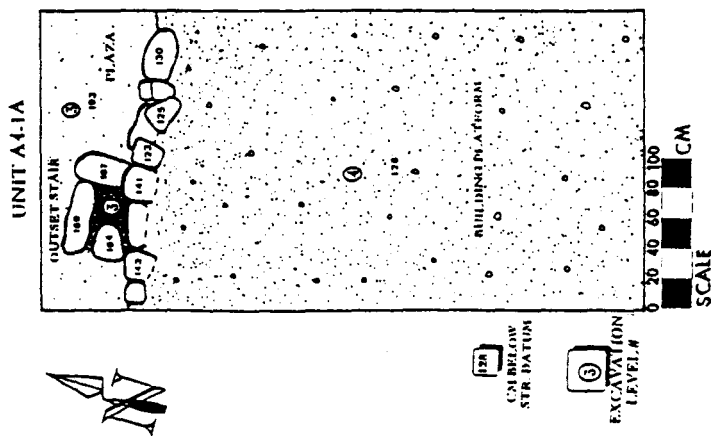
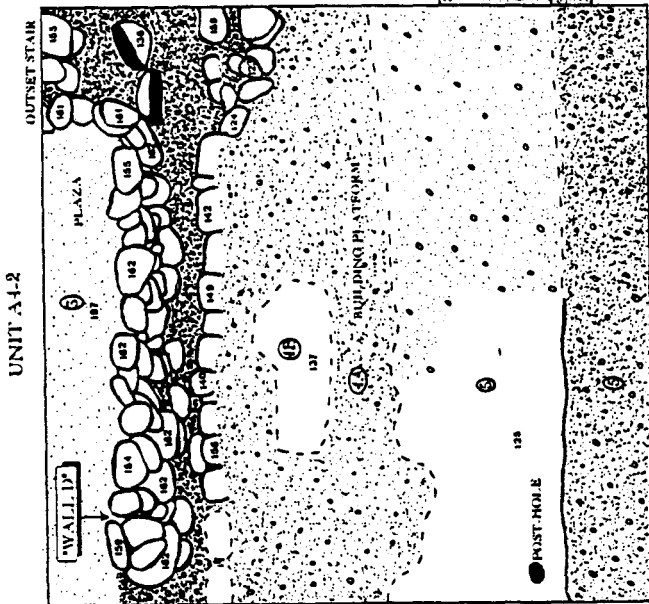
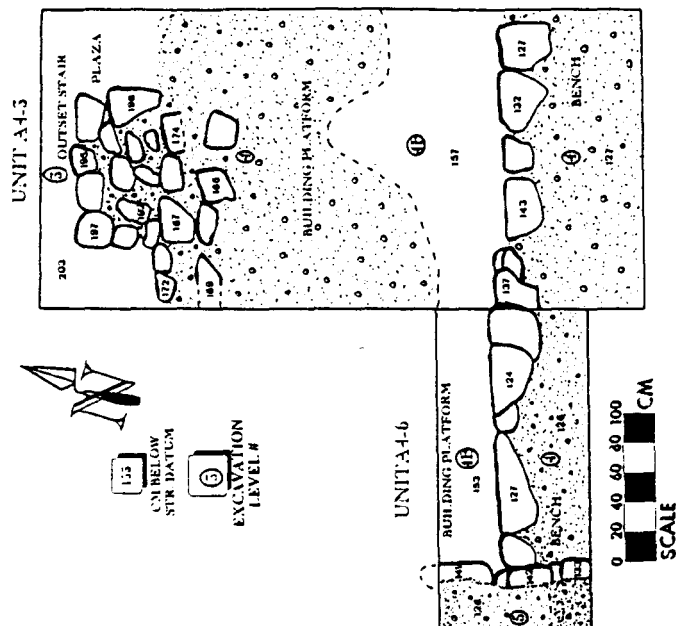
UNIT DATUM  
(37 CM BELOW  
STR. DATUM)

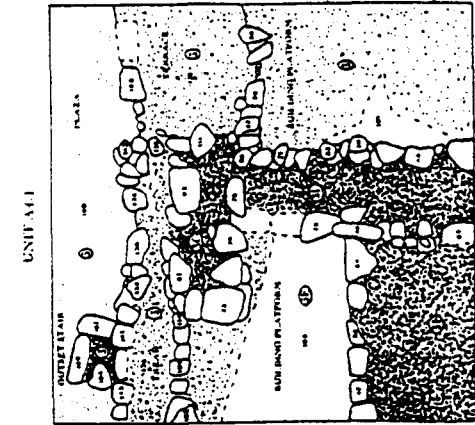
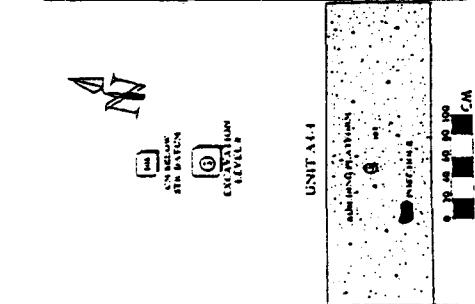
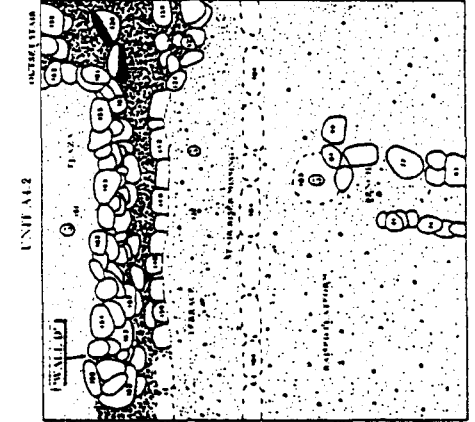
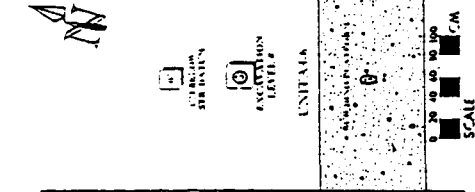
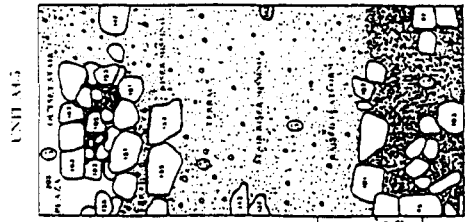
STRUCTURE A4, UNIT A4-2, PROFILE THROUGH  
EASTERN SECTION OF UNIT (FACING WEST)

BELIZE VALLEY ARCHAEOLOGICAL  
RECONNAISSANCE 1994



Dept. of Archaeology,  
Belmopan, Belize





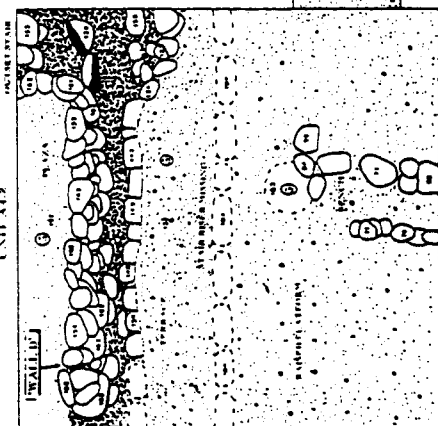


NEW YORK

UNIT 4.6



UNCLAS

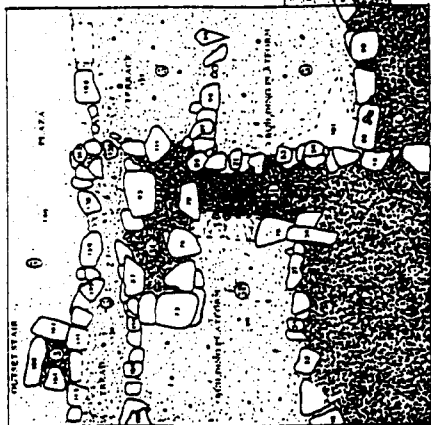


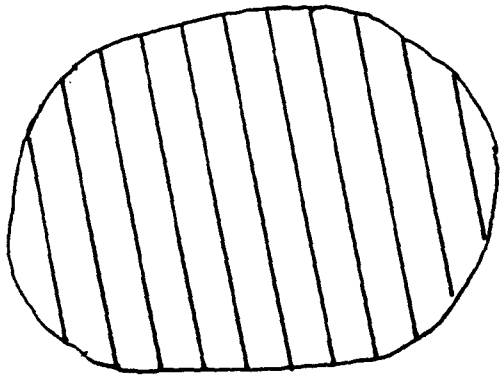
**Excursion**

## UNIT A4-4

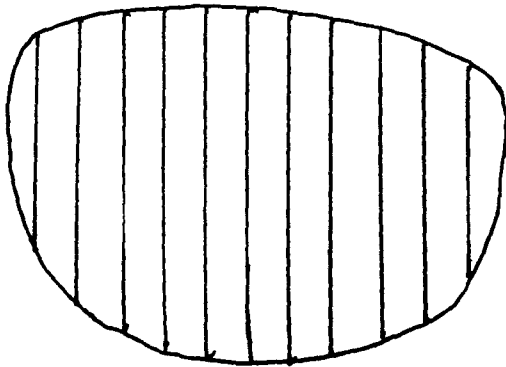
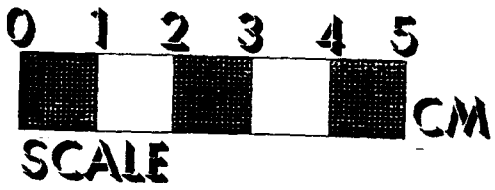
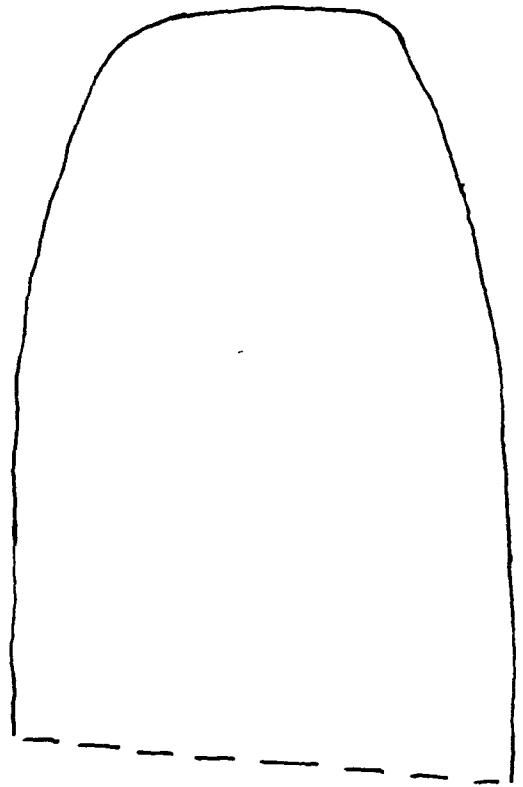


UNIT A4.1

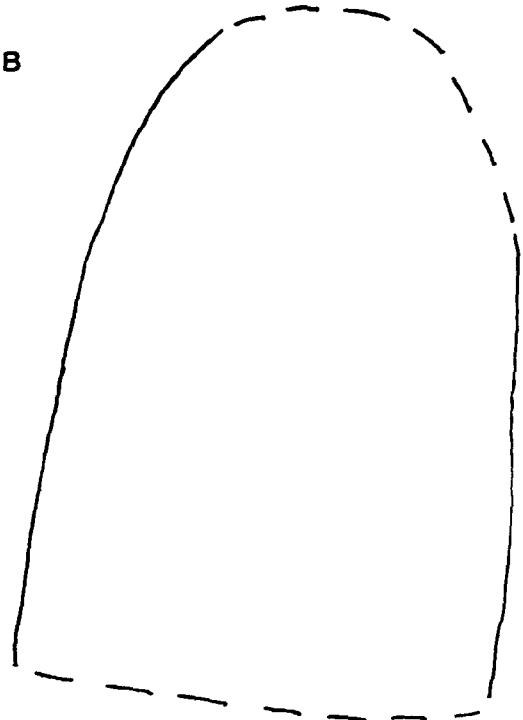




A

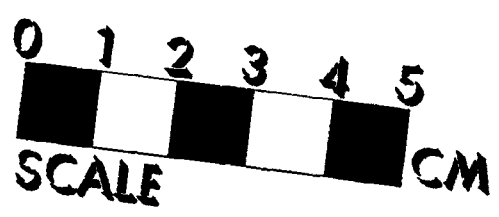
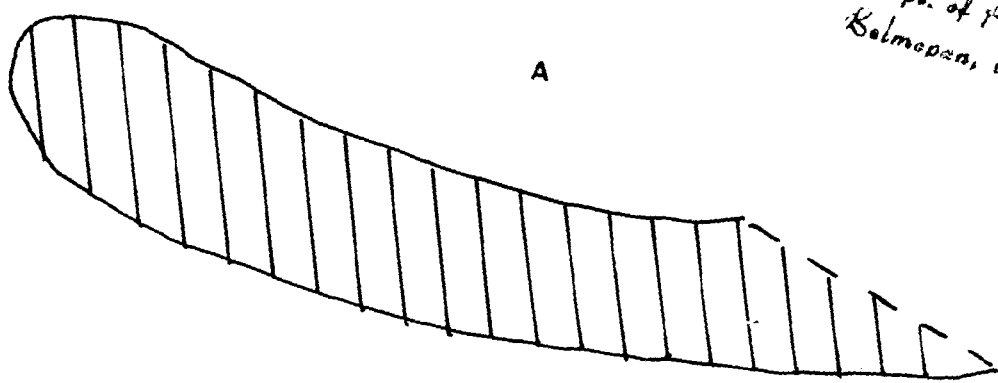


B

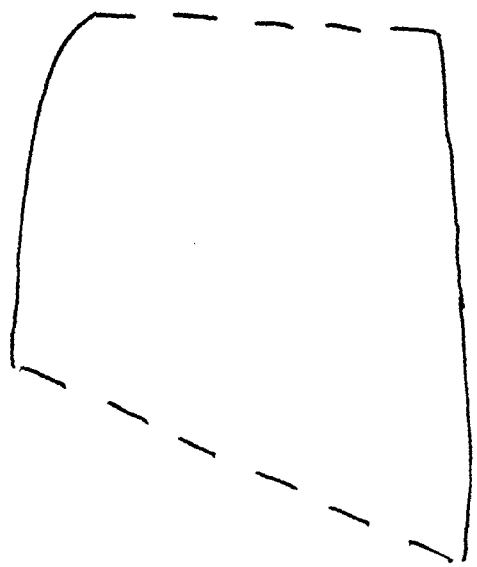
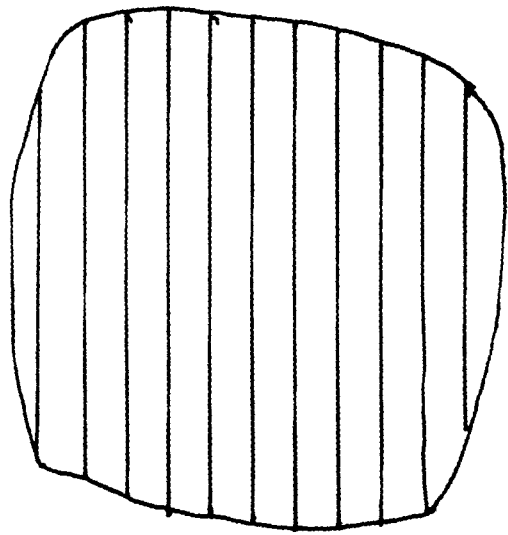


*Dept. of Archaeology  
Belmopan, Belize*

A

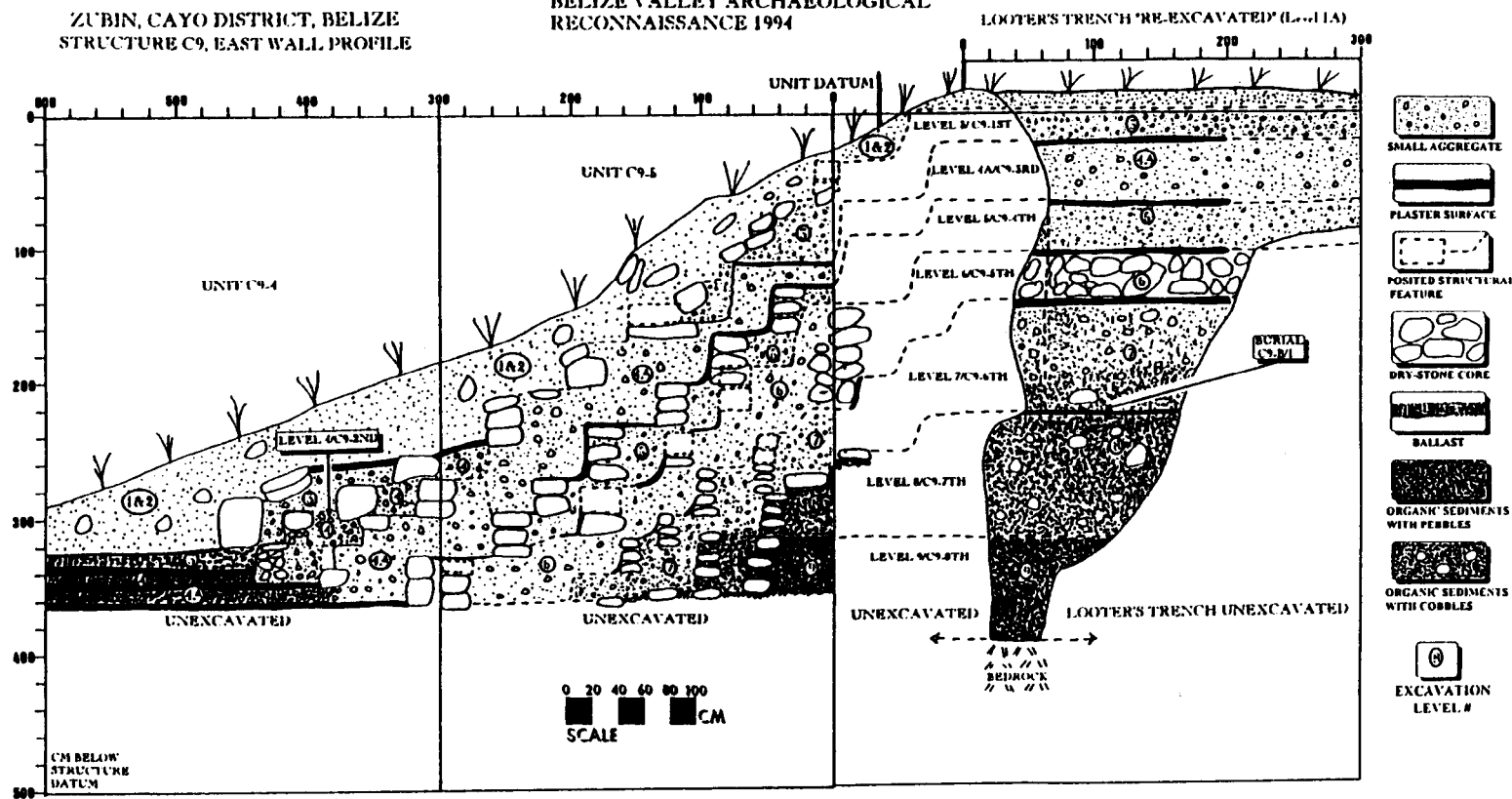


B



ZUBIN, CAYO DISTRICT, BELIZE  
STRUCTURE C9, EAST WALL PROFILE

BELIZE VALLEY ARCHAEOLOGICAL  
RECONNAISSANCE 1994



Dept. of Archaeology  
Belmopan, Belize



A



B



C



D



E



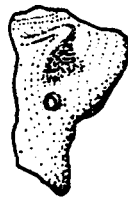
F



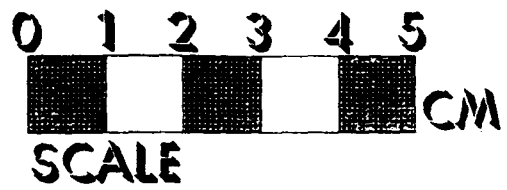
G



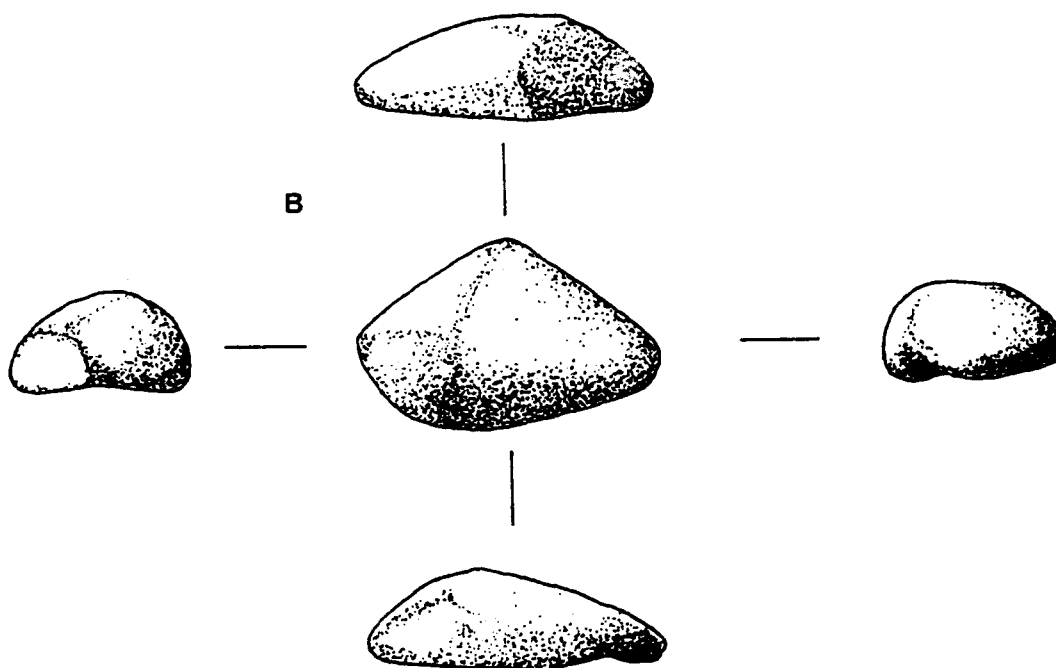
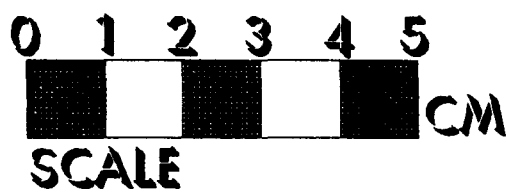
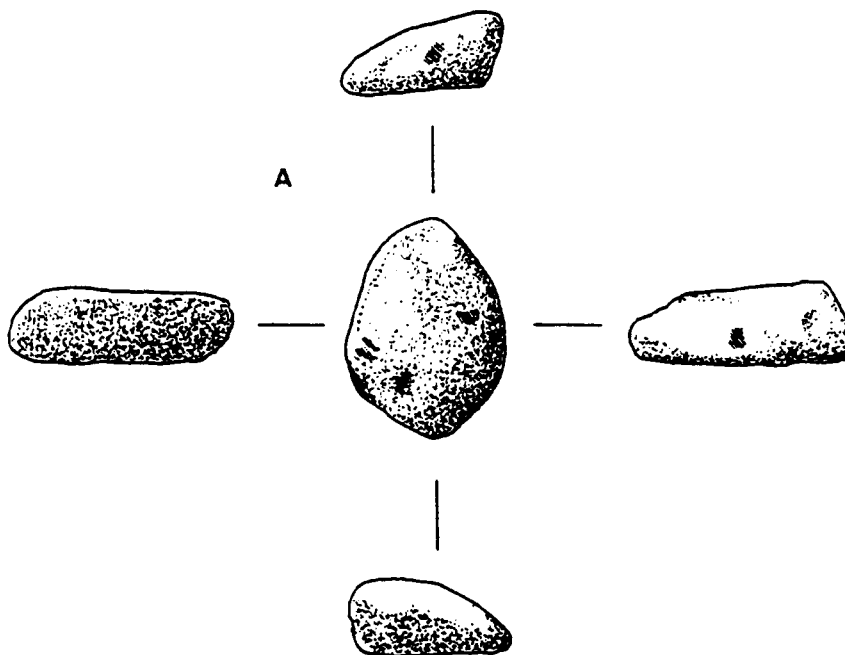
H

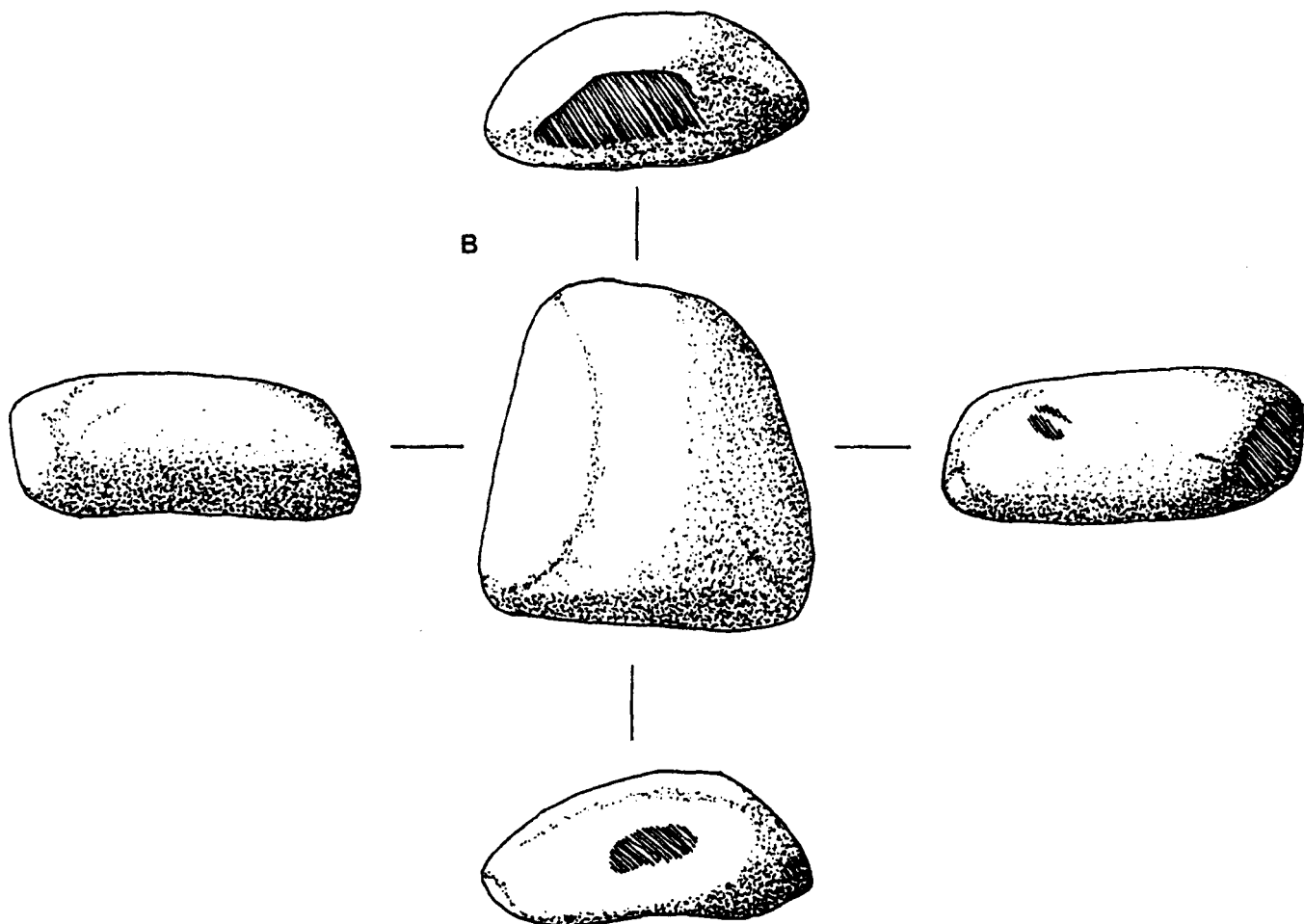
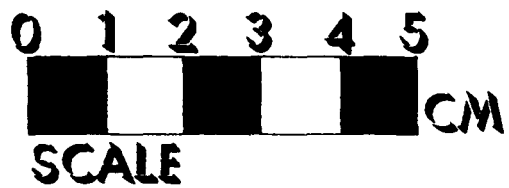
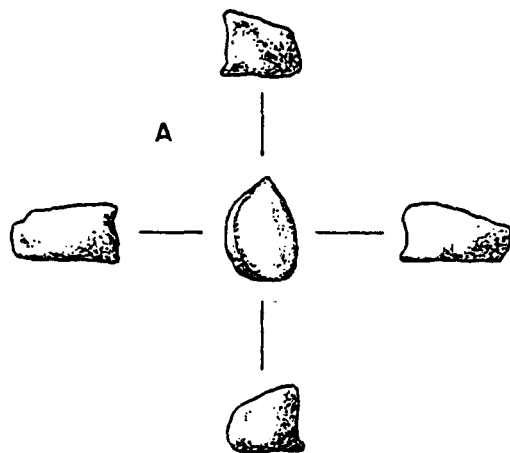


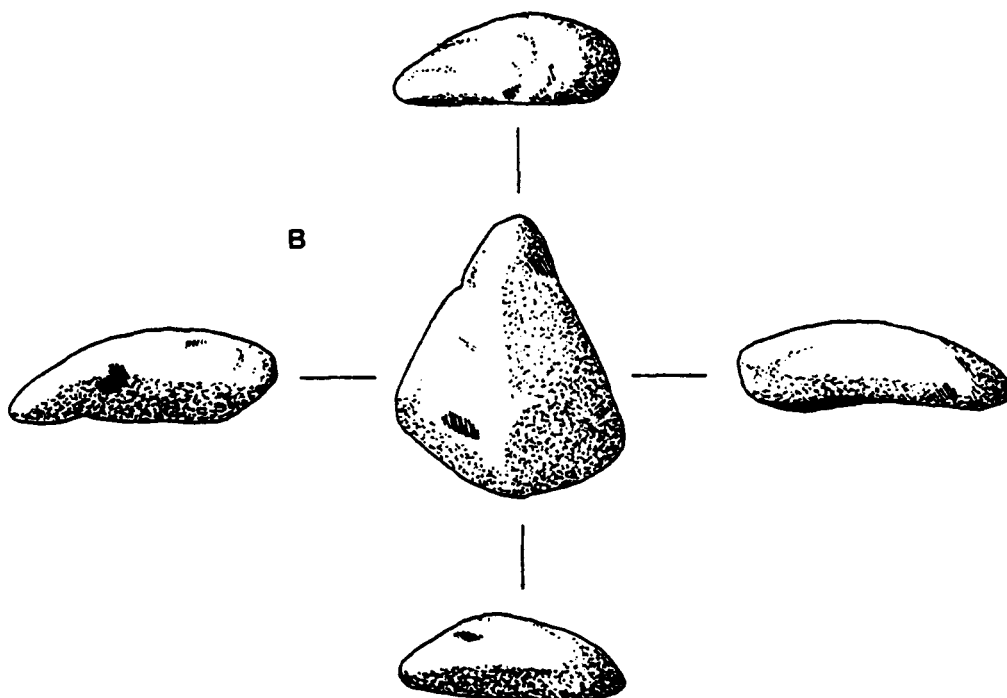
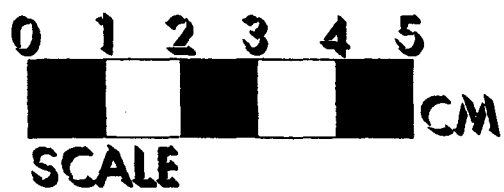
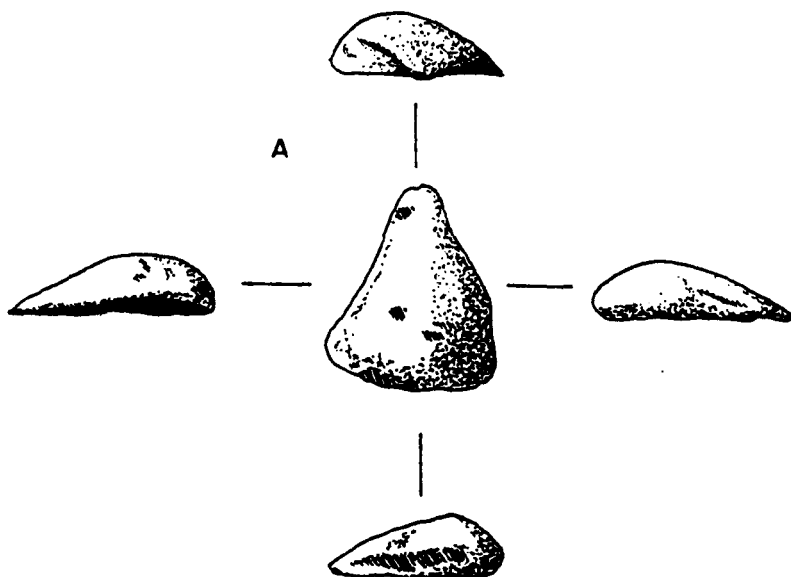
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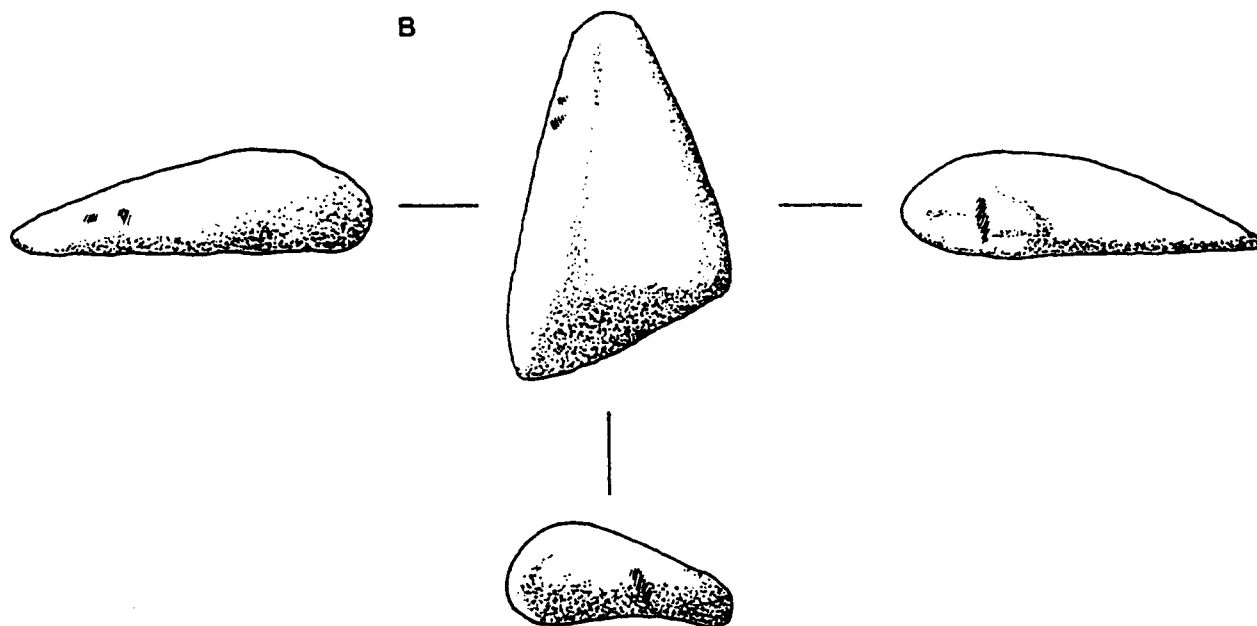
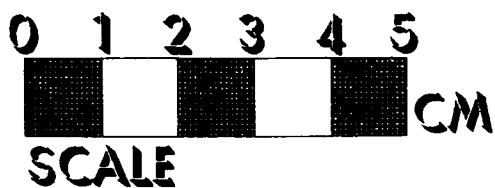
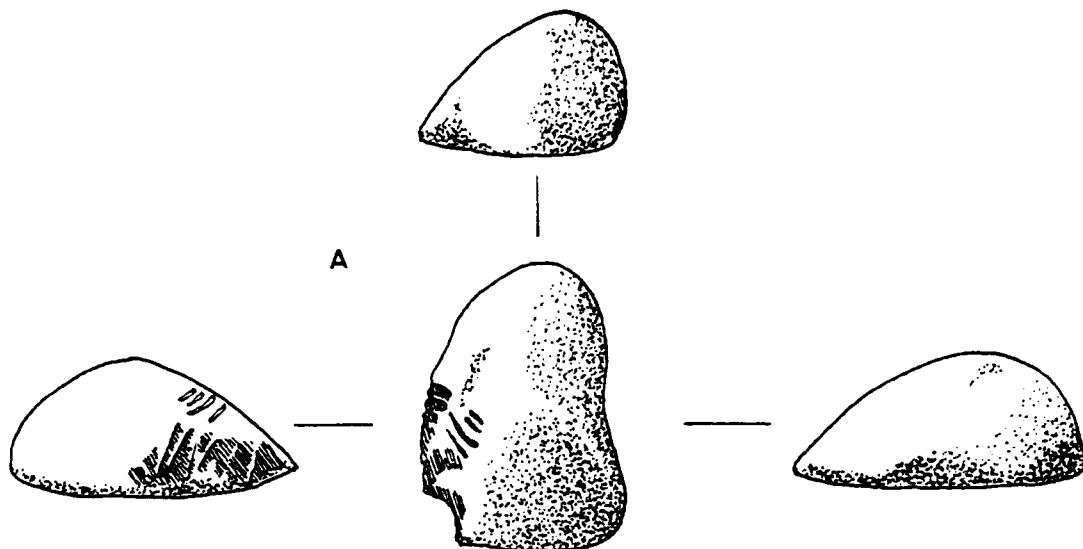


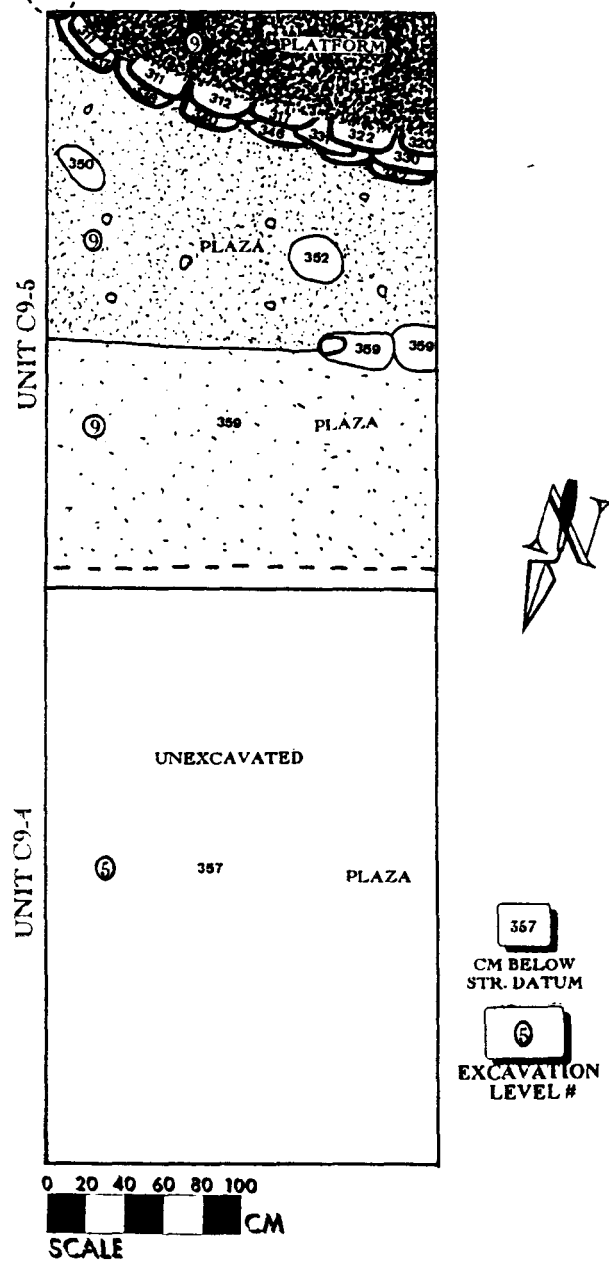




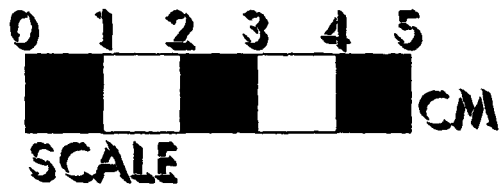
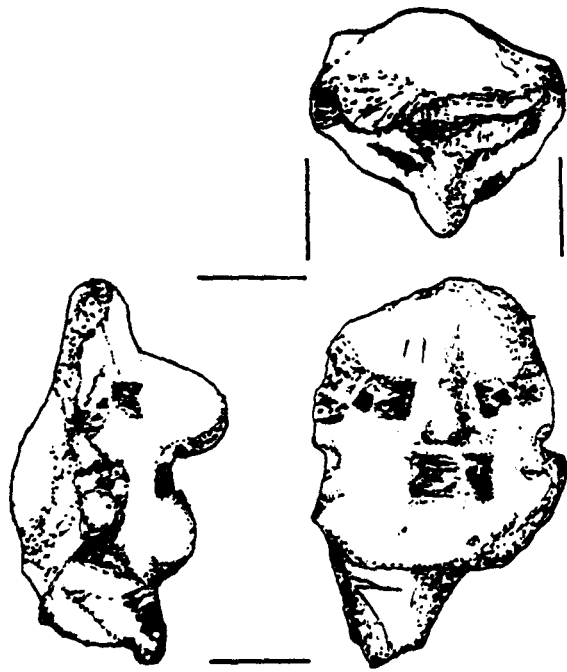


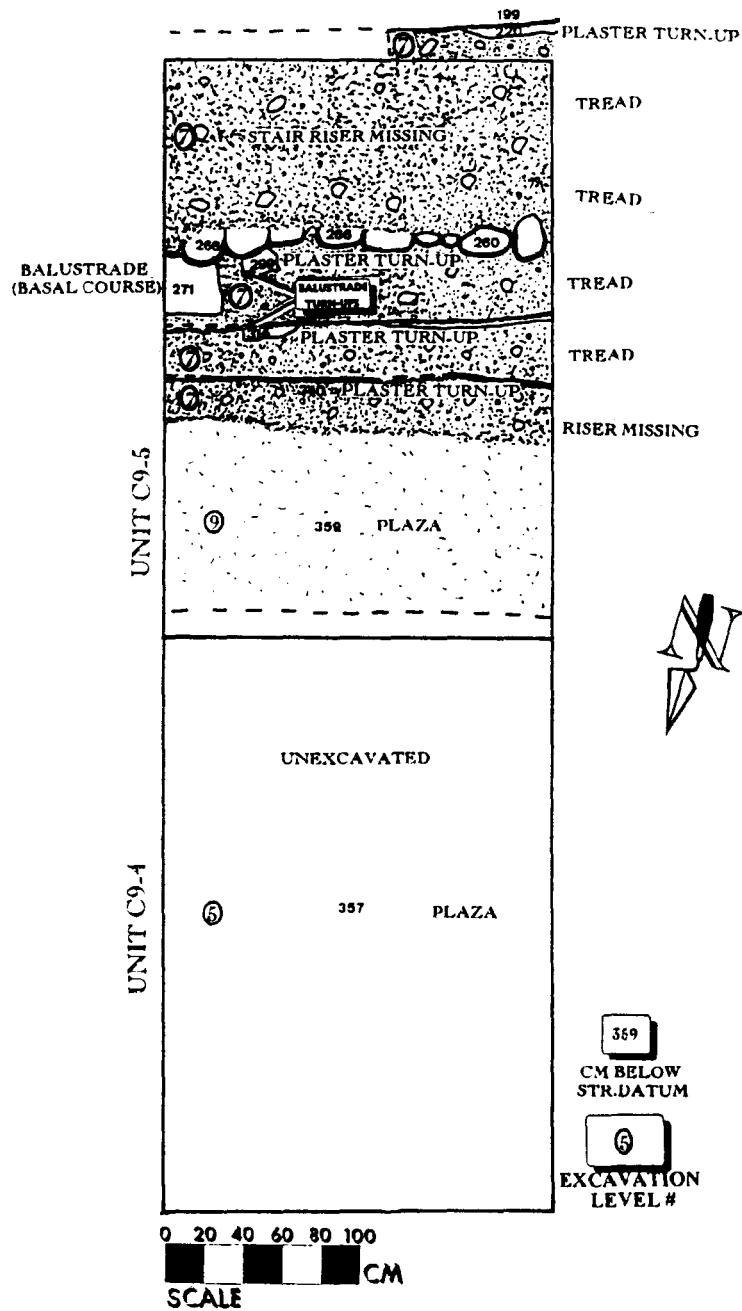




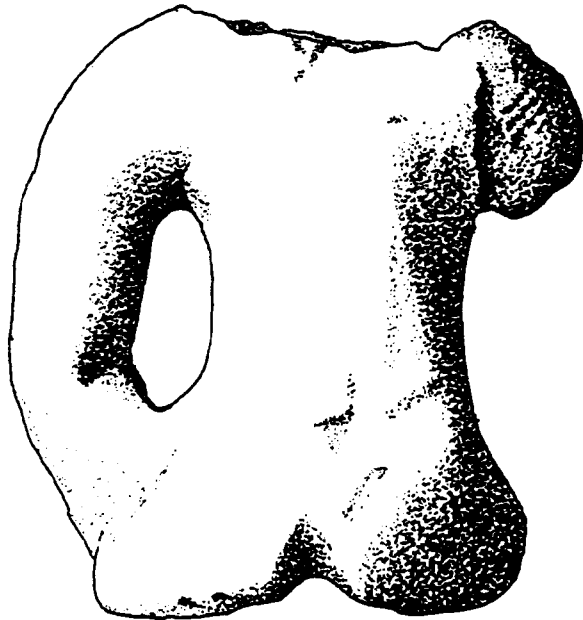
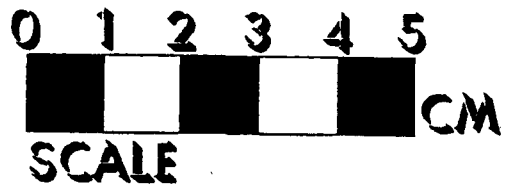
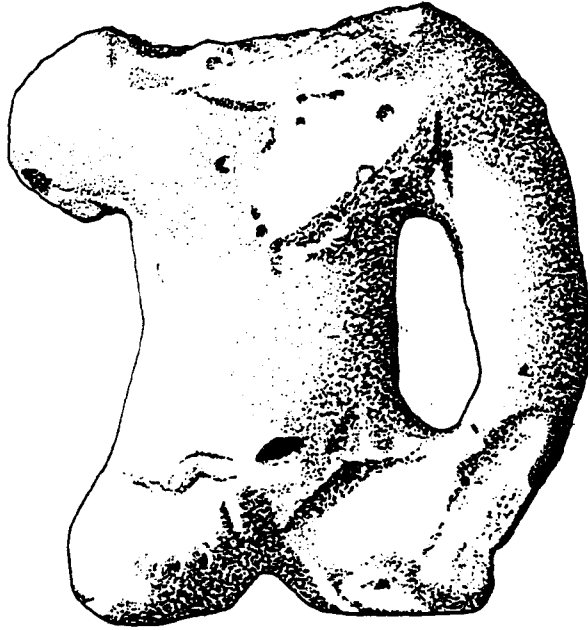




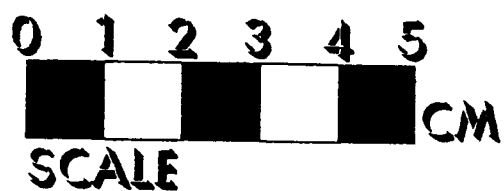


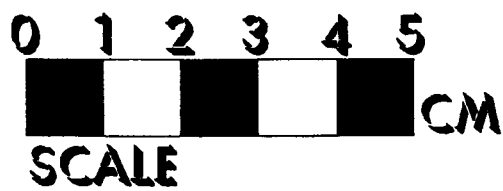
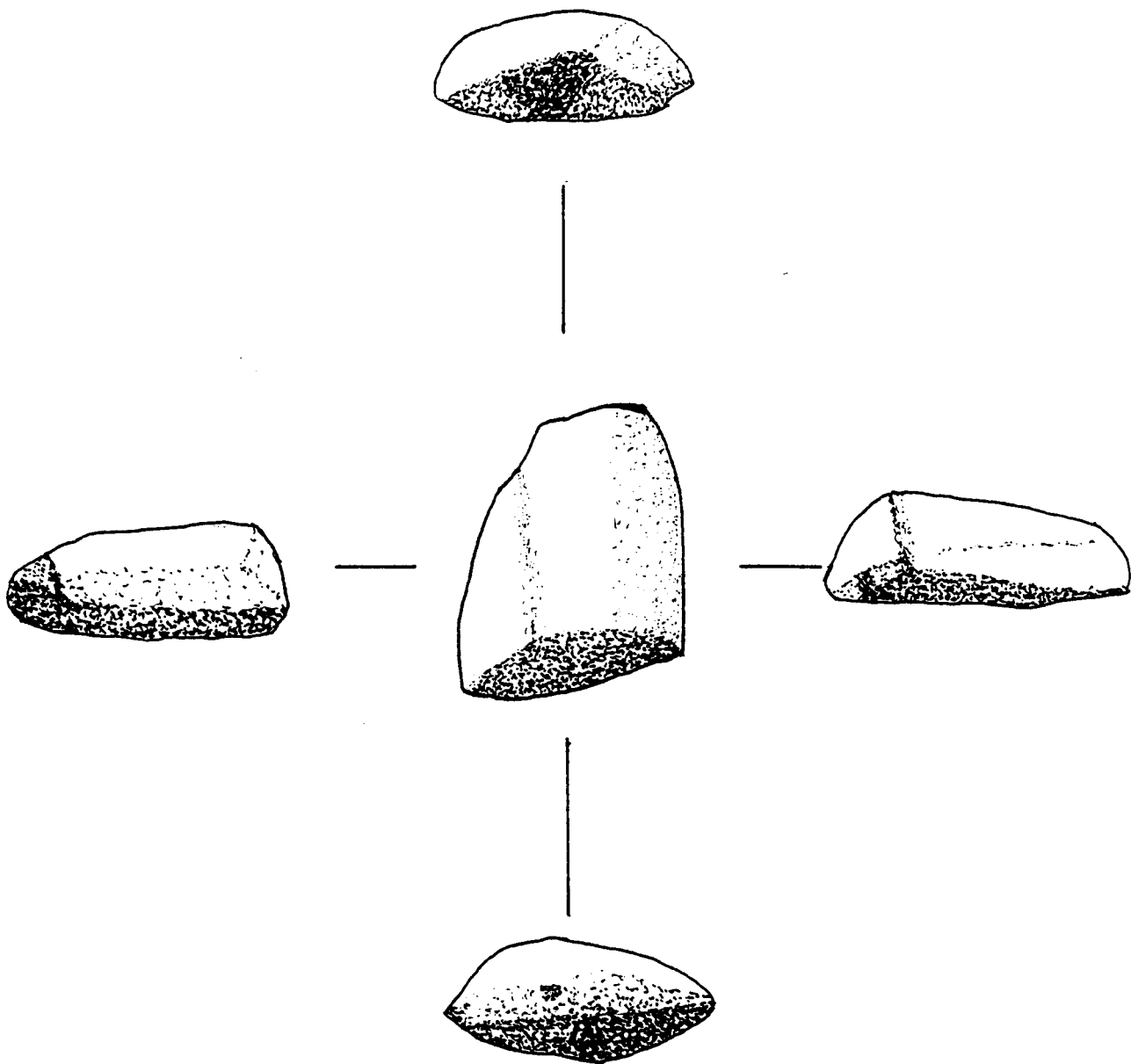


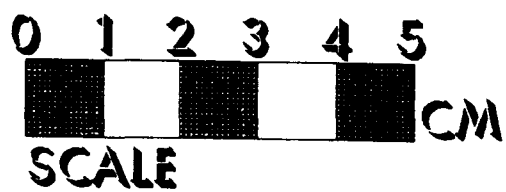
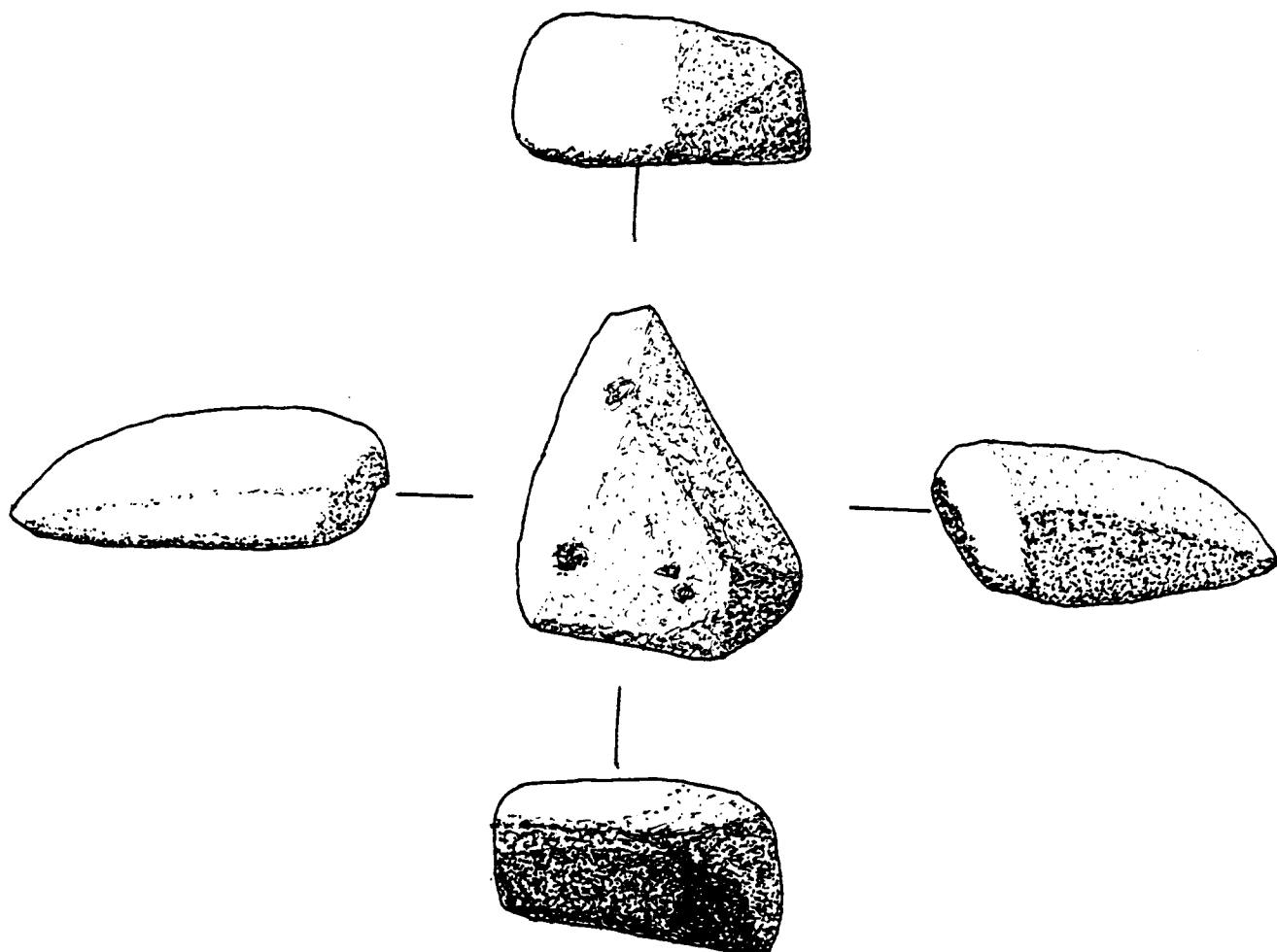


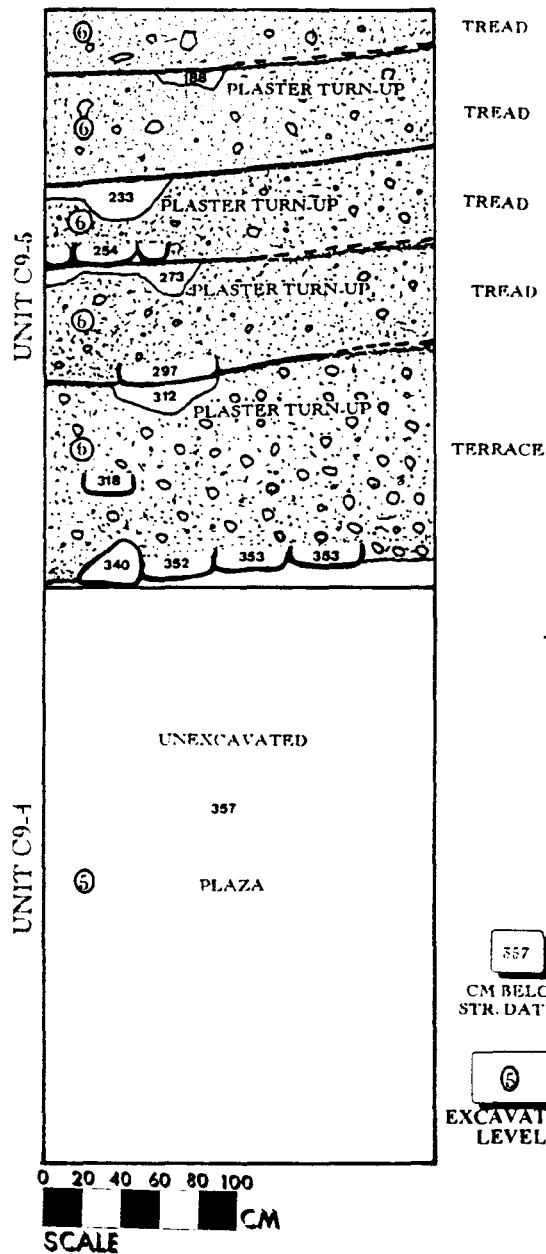


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Belmopan, Belize*

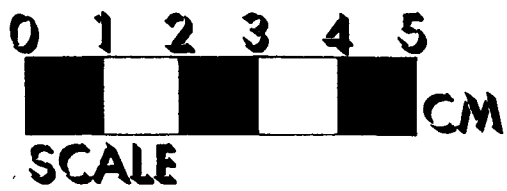
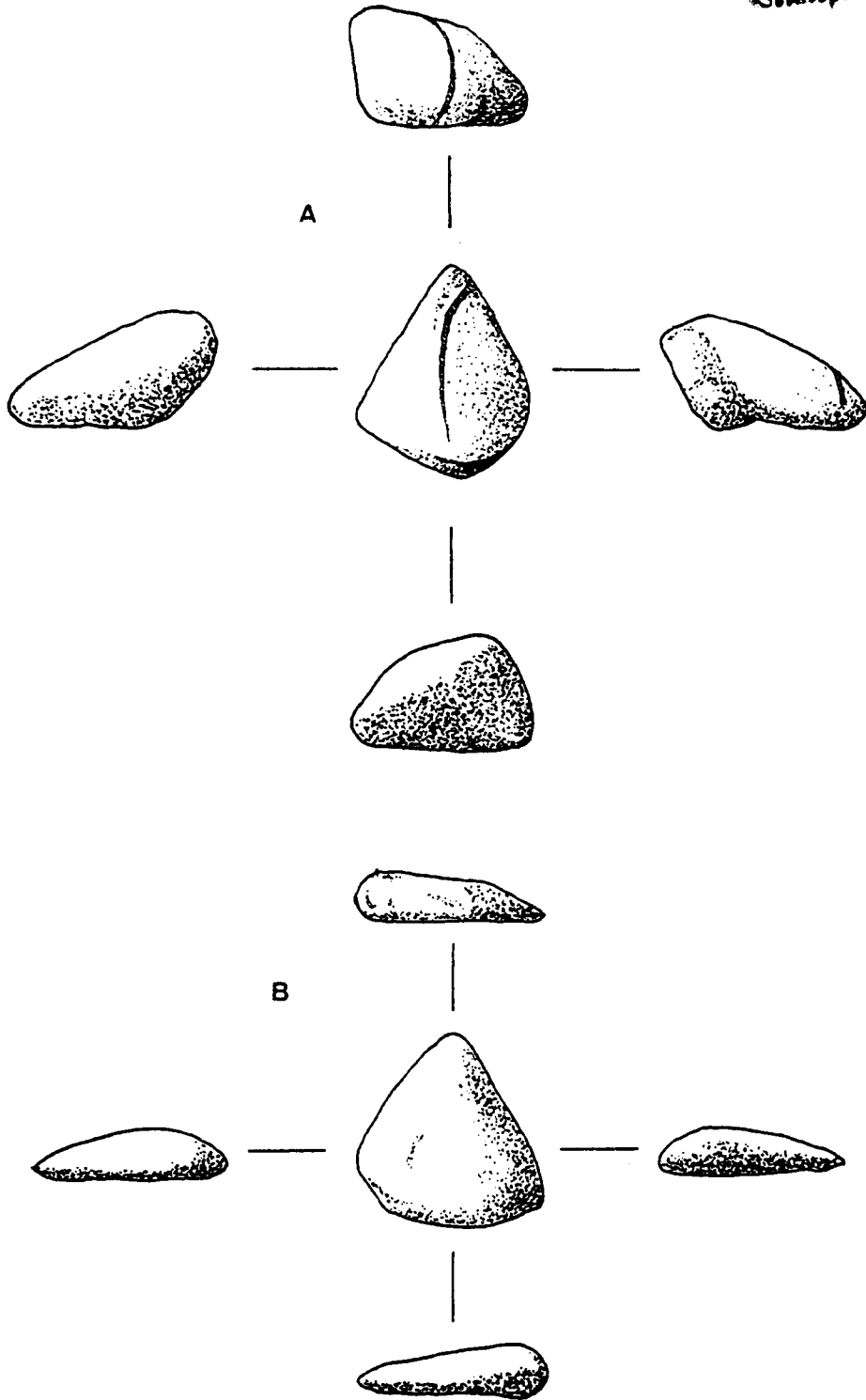






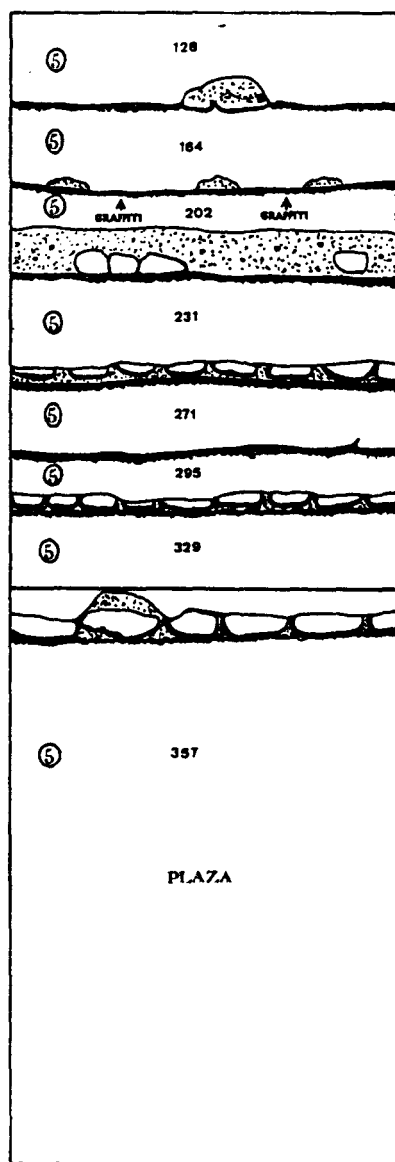


*Age of prehistoric  
Belmopan, Belize*



UNIT C9-5

UNIT C9-4



TREAD

TREAD

BALUSTRADE

TREAD

TREAD

TREAD

TREAD

TREAD

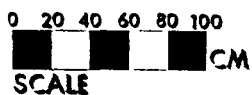


357

CM BELOW  
STR. DATUM

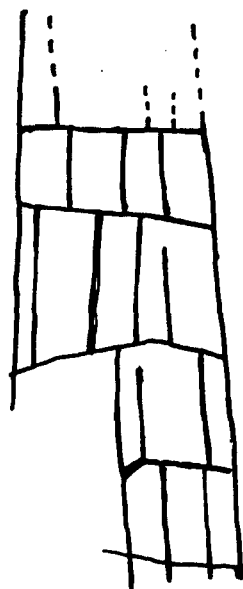
6

EXCAVATION  
LEVEL #

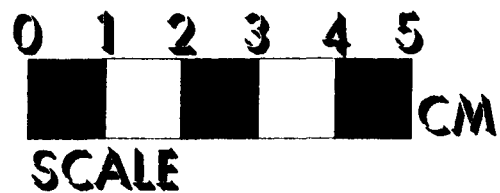
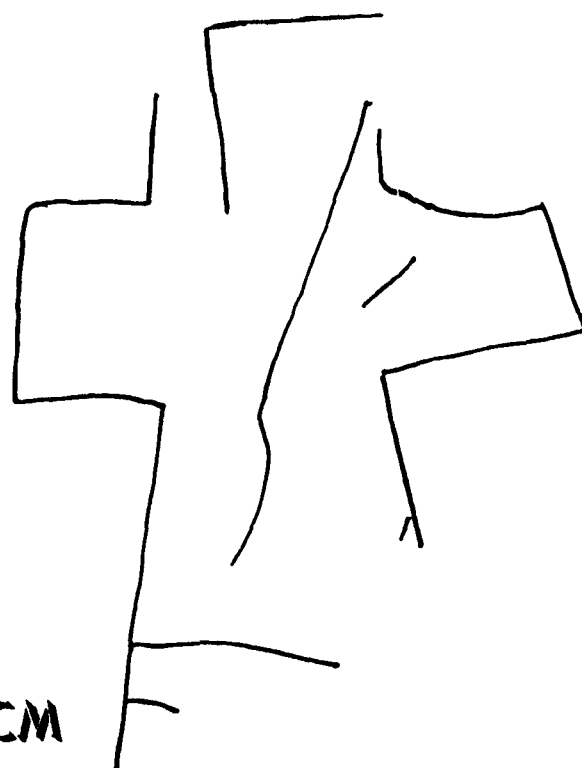


ZUBIN, CAYO DISTRICT, BELIZE  
Graffiti: Structure C9, Level 5, C9-4th

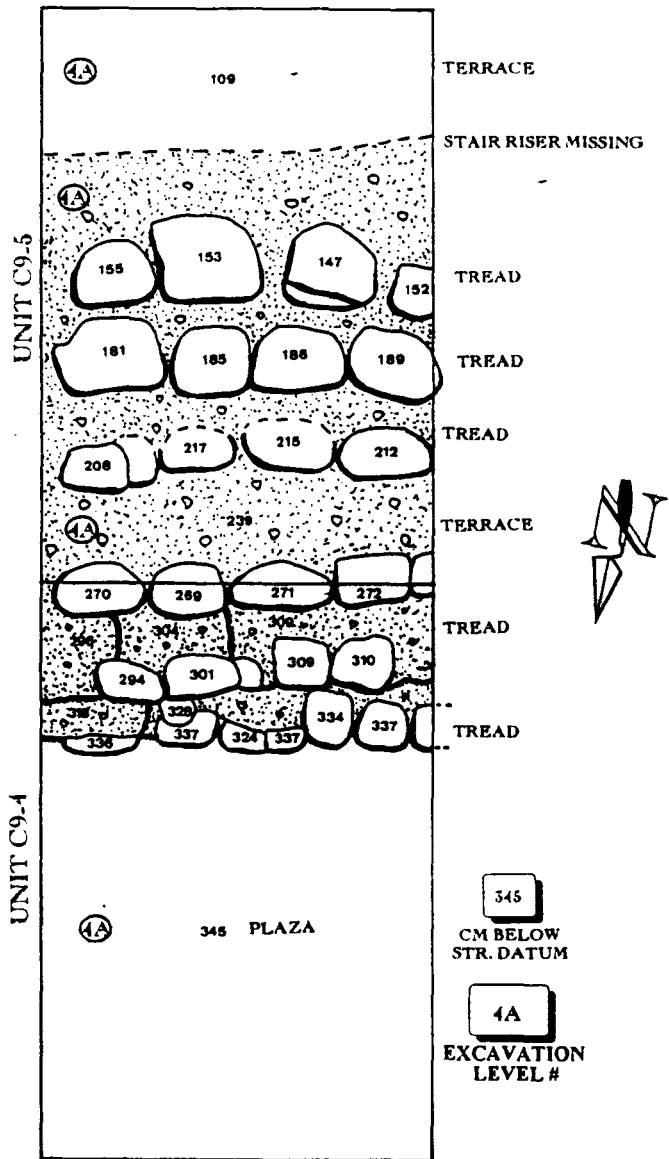
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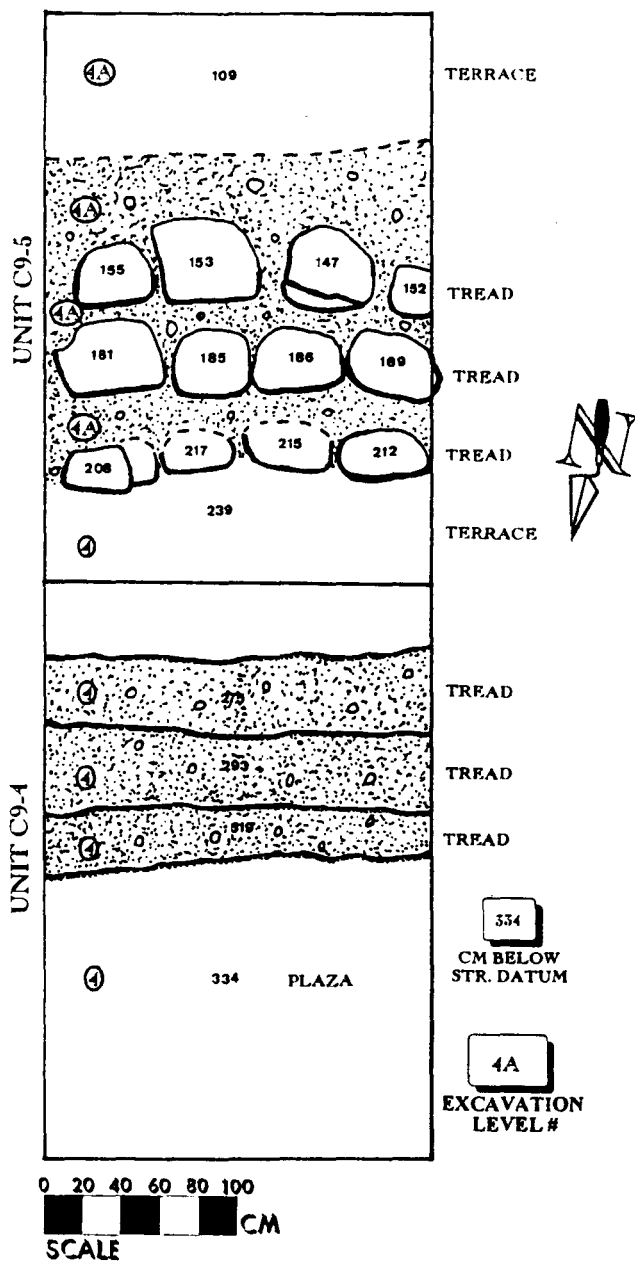
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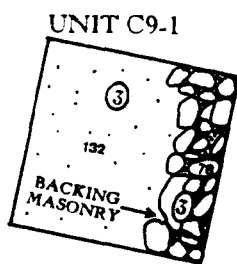




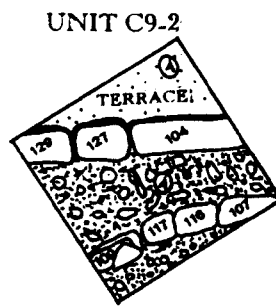


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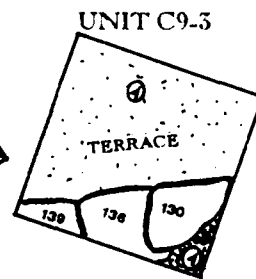




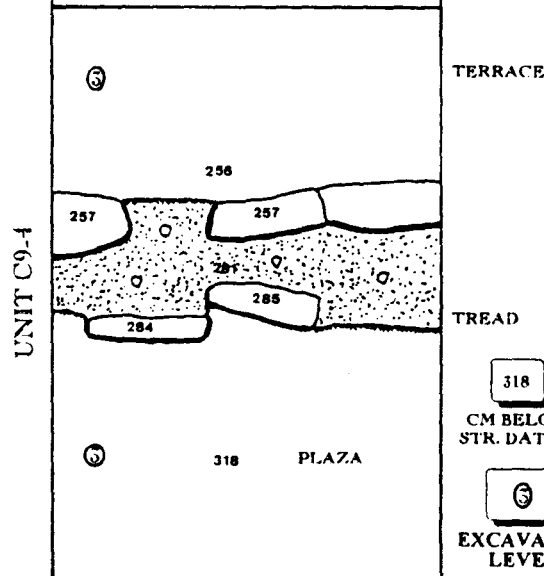
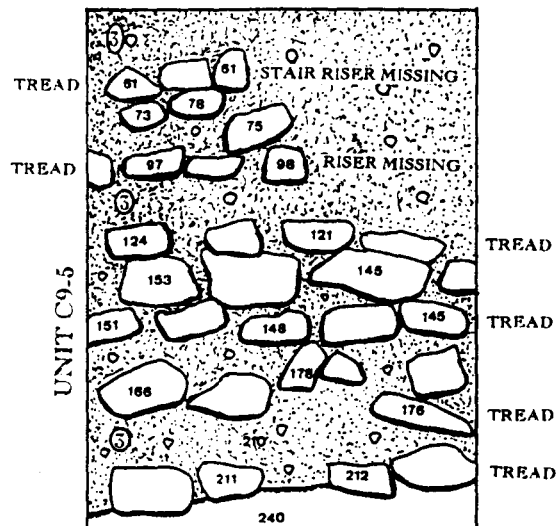
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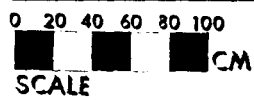
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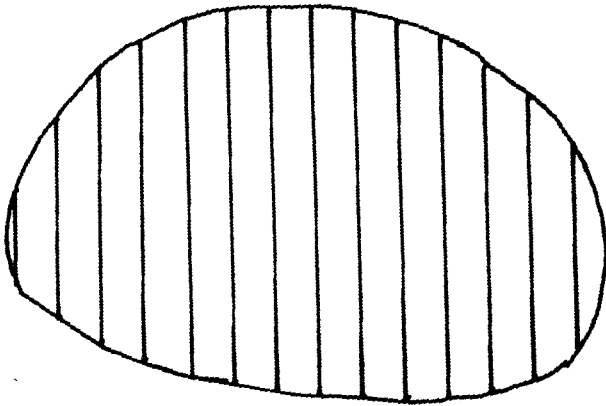
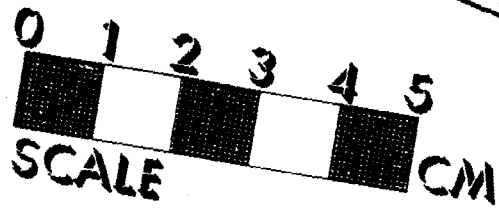
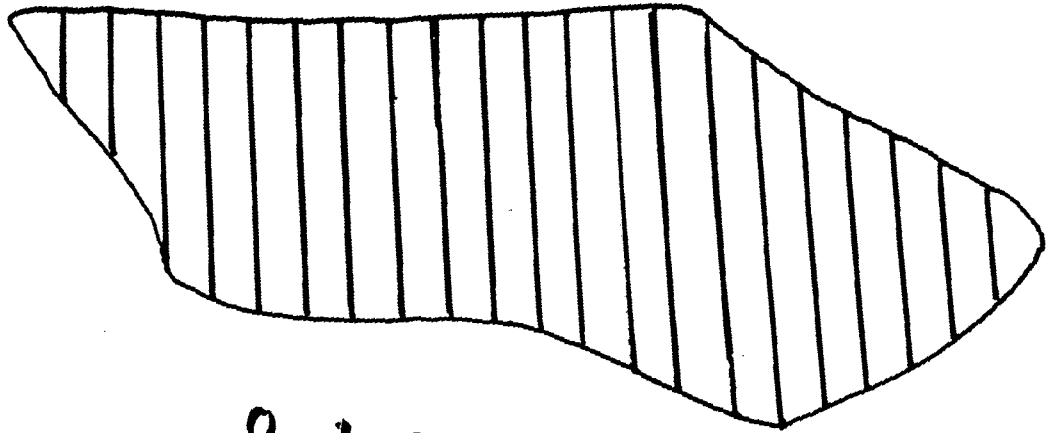
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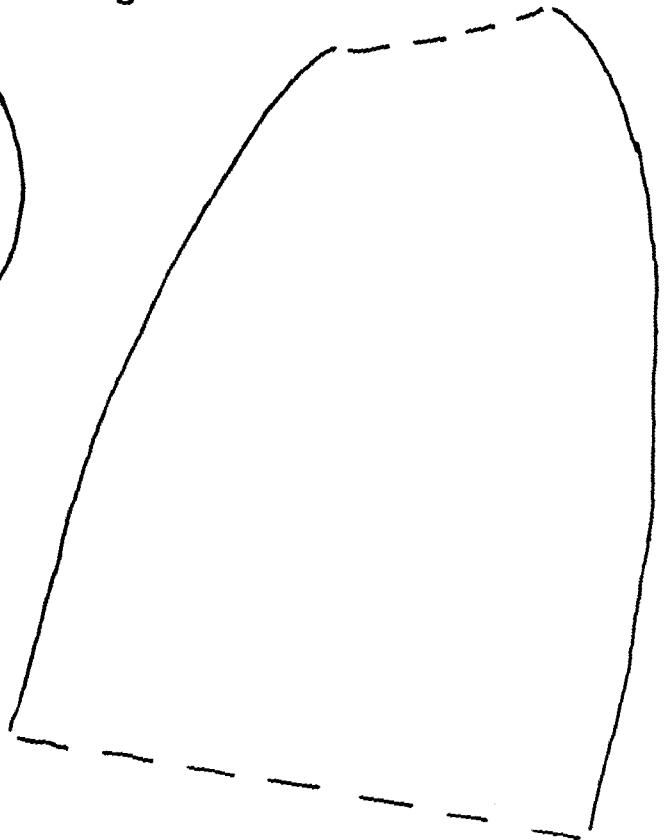
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A



B



# **Investigation of the Ek-pay Group, Zubin, Belize**

by

**Tina Christensen**

## **Introduction**

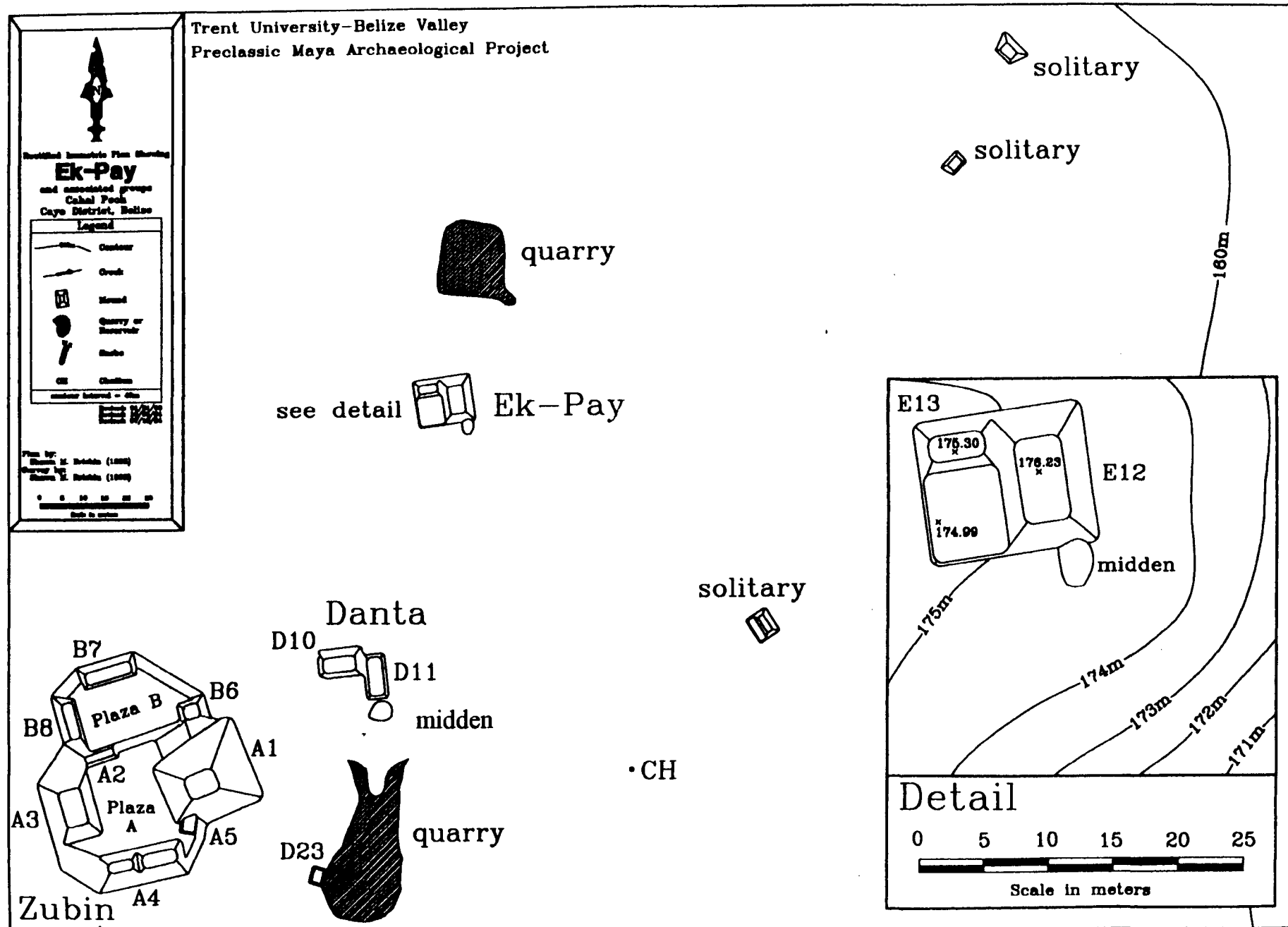
During the 1994 field season of the Belize Valley Archaeological Reconnaissance Project, several operations were conducted at the Cahal Pech peripheral site of Zubin. The operation to be discussed here is the excavation of a formal L-shaped patio group, named Ek-pay (Black Skunk), located approximately 100 metres north of the Zubin site core (Fig. 1).

In a previous field season, two other patio groups in the Zubin periphery were investigated. Two units were excavated at the Danta Group in an attempt to determine if there was any significance associated with its close proximity, a mere 22 metres, to the Zubin site core (Sunahara 1993:63). The other plazuela configuration, the Familia Group, is the largest patio group, both in size and number of patio structures, in the Zubin periphery. The data collected from the Familia Group is included in this volume (see Iannone). We decided to excavate the Ek-Group for three reasons: its mediary position between the two patio groups already sampled, the large size of its eastern flanking structure, and because one of the goals of the Zubin excavations was to sample each of the core structures and as many of the peripheral groups as possible. The goals of the excavation were:

- a. to determine the diachronic development of the Ek-pay group.
- b. to determine the architectural function of structure E12.
- c. and following the initial goals of the Zubin project, to "explore the character of social relations as they existed between the peripheral population and the minor centre"(Iannone 1993:14).

## **Description of Patio E**

Ek-pay consists of two structures arranged in an L-shaped pattern as seen in Willey and Bullard (1965:362 figure 1-f). Ek-pay is a patio group as defined by Ashmore (1981:49). One structure was constructed on the east side of the plaza and the second structure flanks the northern side of the plaza (fig. 1). This mirrors the arrangement of the Danta Group to the south. Ek-Pay is located upon a high, well-drained limestone ridge, the preferred physical location for housemounds (Willey and Bullard 1965:366). Patio groups in the periphery of Zubin exhibit many of the characteristics common to housemounds in that they are found in areas with well-drained terrain, an available water supply, and good farmland. As well, housemounds are usually near areas where there are ceremonial centers as is the case with Ek-pay (Willey and Bullard 1965:371). Most of the patio groups to the east of the Zubin site core are located in cattle grazed pasture land consisting of short cropped grasses, small acacia bushes, cohune nut trees, and other sparse vegetation. This allows for excellent visibility of both the spatial layout of the community as well as exposed architecture.



**Fig. 1. Map of Zubin showing the location of Group E.**

## **Excavations**

The excavation of the Ek-pay Group began late in the 1994 field season, consequently, only structure E12, the eastern flanking structure, was subsurificially examined. Prior to excavation, the inward facing side of E12 was approximately 1.24 metres high while the "back" side that faces the south was approximately 2.23 metres high. It measures approximately 12 metres by 7.5 metres and is the largest of the two mounds at Ek-pay. A benefit of excavating this structure was the amount of architecture that was already exposed because of sparse vegetation in the cattle pasture in which Ek-pay was located. Before excavation, cut-stone alignments showed that the terminal expression of E12 was as a two level structure consisting of a terrace and a platform. The location of the stairway was easily observed because of its outset nature. A unit was placed along the primary axis of the structure as this area was likely to provide the most data. In order to expose the sides and base of the stairway as well as the top of the platform one unit, E12-1, two metres wide and five metres long, was placed down the front of the stairs.

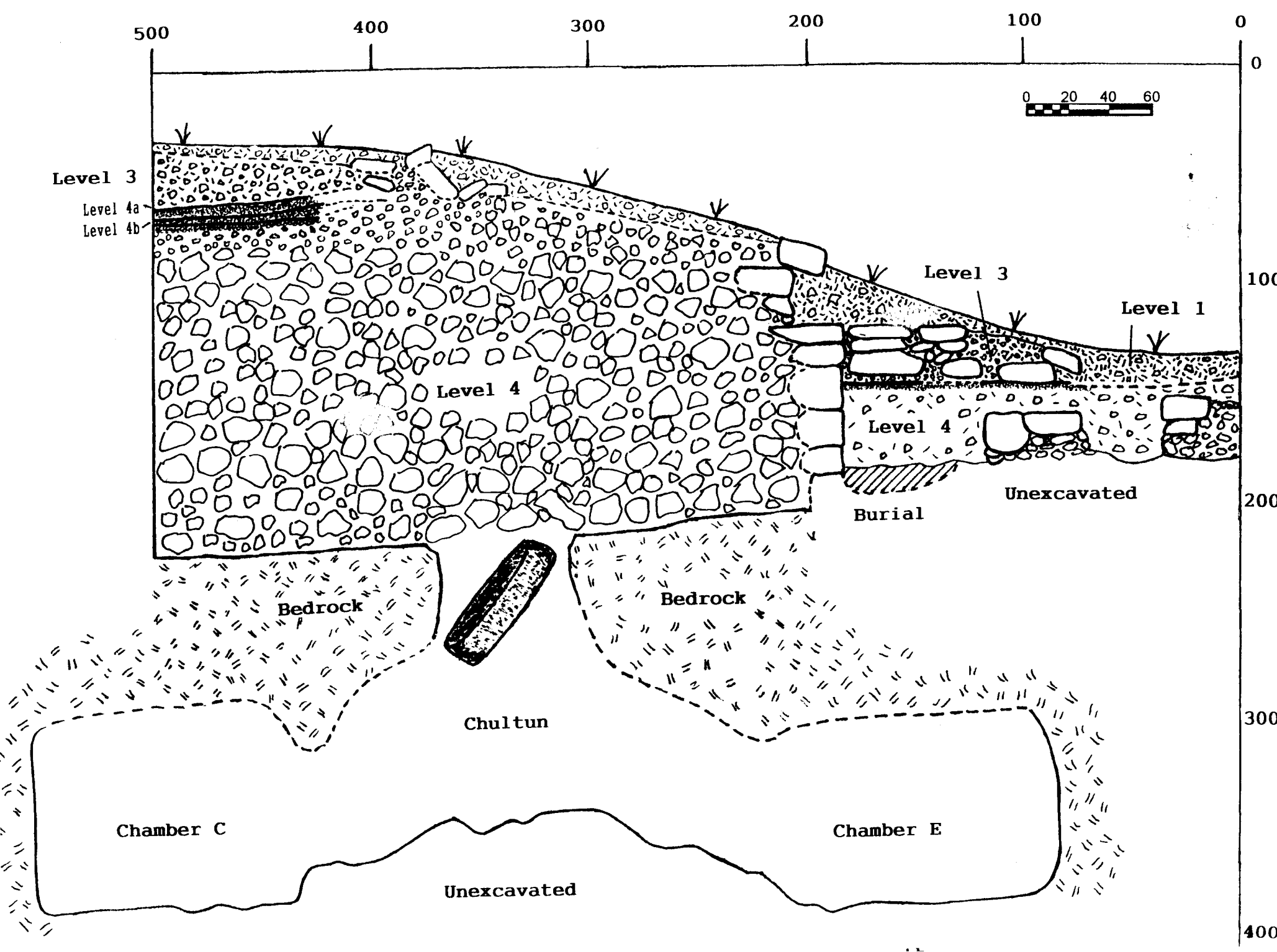
The stratigraphic levels exposed by this unit will be discussed diachronically in the order in which they were most likely constructed based on superposition and ceramic data.

## **Chultun**

E12 was excavated to bedrock in only one section of unit 1, that area beneath the fill of the main body of the structure. This area is located east of the retaining wall which held in place the bulk of the structure (see fig. 2). At bedrock, aligned just slightly south of the central axis of the structure, we uncovered what Puleston (1971:323) would have defined as a lateral chambered chultun. A chultun is a "small human made subterranean chamber" (Aylesworth 1993:78). The E12 chultun would best be described as a radiating lateral chambered chultun. It consists of five chambers radiating out from a central antechamber over which the entrance hole or orifice is located (Fig. 3). The antechamber is accessed by the round orifice. Its circular capstone was wedged sideways in the entrance when we discovered it (Fig. 4).

The distance from room to room varies as a result of the radial pattern of the chultun but its average approximate diameter from the back of one room to the back of the room on the same axis, is 4.6 metres. The depth of the chultun from the top of bedrock to the lowest point (without excavation) was 1.65 metres. This chultun has many of the characteristics common to chultuns listed by Aylesworth (1993:80): the diameter of the orifice is 60 cm (the chultun average is 50 cm), it is longer than it is deep, the capstone was not completely in situ, and it was found at a high elevation in a peripheral community. Careful attention had been given to the excavation of the chultun by the Maya. Several of the chambers have sills separating them from the antechamber (see fig. 5). As well, Figure 5 shows shows the care with which the entranceway to chamber C was constructed. Figure 3 shows "niches" at the corners and ends of the chambers. These niches may have been the natural features of the soft limestone bedrock from which the chultun was carved.





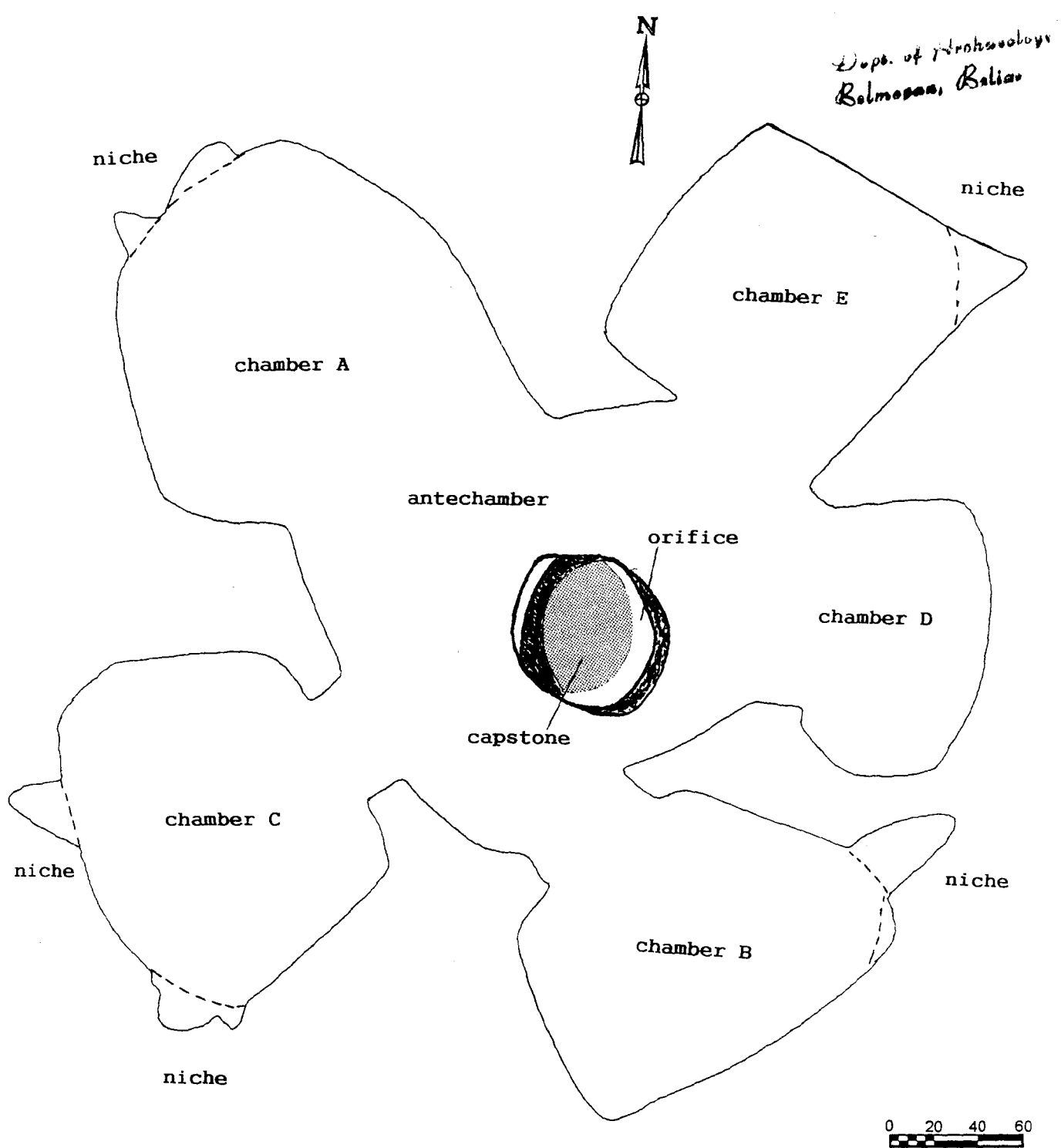


Fig. 3. Top plan of the chultun showing rooms radiating out from the central antechamber.

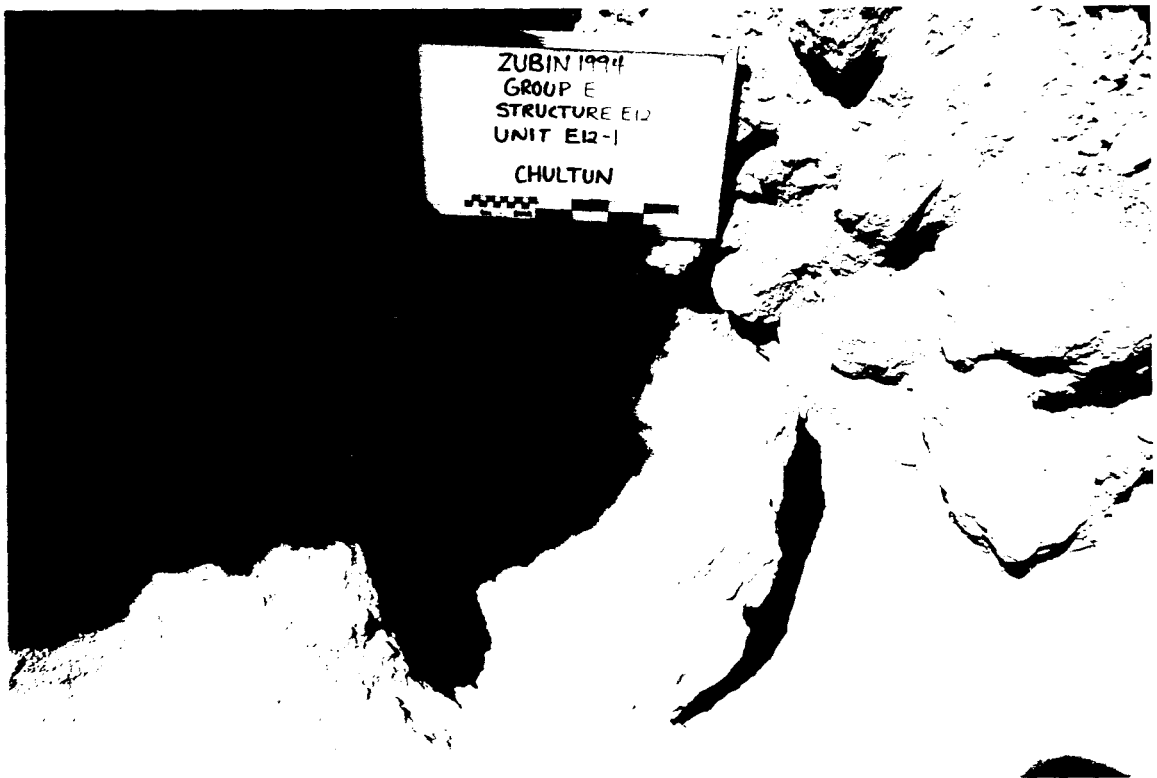


Fig. 4. The chultun capstone wedged into the orifice.

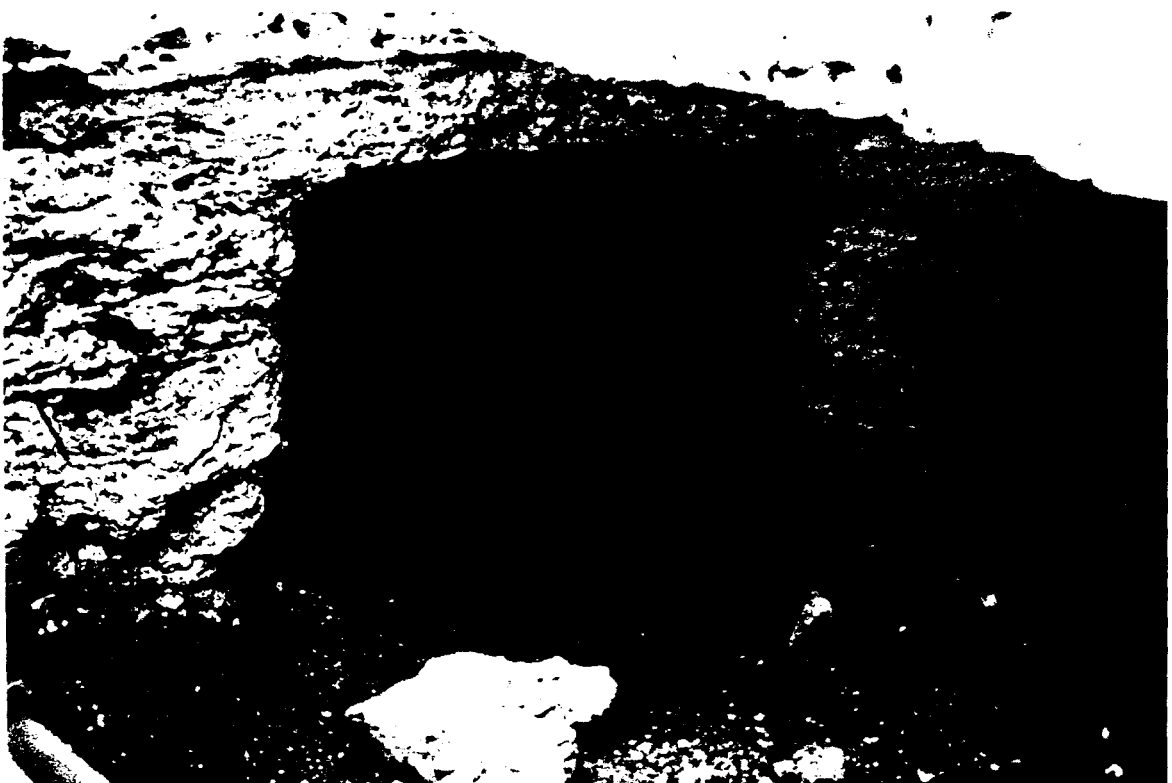


Fig. 5. The entrance to chamber C within the chultun.

Debris, consisting of small pebbles, cobbles, silty soil, and pottery sherds, most likely fell from the structure fill above through spaces created by the displacement of the capstone. The result being a mound of debris directly below the orifice. This was the only area where artifacts were discovered. No *in situ* artifacts were located on the undisturbed surface of the chultun floor. At the time, it was not possible to conduct an excavation test for subsurface artifacts.

Chultuns are thought to have served the following functions: as food and water storage chambers, as burial chambers, ceremonial chambers, rooms for fine weaving, sweat baths, and as areas for fermenting and pickling liquids (Aylesworth 1993:88). As well, Friedel (1993:131) cites Hanks (1990) who collected information on one possible function of chultuns. He writes: "when the shaman is ready, he gets the guardians to "drop" the evil spirits and to cast it out into the wilderness where it can be locked into an abandoned underground place called a chultun" (Friedel 1993:131). Unfortunately this chultun was uncovered only a few days before the end of the field season so that excavation of its contents was not possible. Consequently, it is difficult to determine its function. Nevertheless, the feature was mapped and some significant information was collected that can indicate the possible function of this chultun.

Landa writes that the Maya kept maize and other grains in "fine underground places" (Landa 1966:96). It would seem food storage was a possible function of Classic and Preclassic lowland chultuns but Puleston's (1971) experimental work on chultuns showed that the only food beneficially affected by chultun storage was the Ramon nut. This food source stayed edible for at least 13 months within a chultun (Puleston 1971:333). None of this species of tree grows at Zubin. It is possible that they were storing Ramon nuts that they had acquired from another location.

The Ek-pay chultun was not plastered as far as we could tell and the soft limestone marl walls were riddled with small holes that would have allowed water to quickly drain away. As well, the sills between the antechambers and the central room serve no function in a water storage scenario. Further evidence against the water storage theory in this case is the existence of a large plastered reservoir, just north of the Familia Group, which could have provided water for the community. Another possible reservoir, which is unexcavated, is located to the north of Ek-pay.

Puleston's experimental excavation of a chultun using stone tools took 30 hours (Puleston 1971:328). Despite the speed of excavation, the construction of chultun is still an investment of time and energy. The care taken in forming sills and entranceways, and the size of this chultun indicates a large investment of energy. Therefore, it is interesting that this chultun would be made inaccessible by overlying it with a structure. This may indicate that it served a ceremonial or other spiritual role for the residents of Zubin similar to that given by Hanks discussed above.

It is difficult to determine what structure the chultun was associated with. Obviously, it could not have been physically used by the occupants of structure E12 since it would have been inaccessible. Structure E-13 has not been excavated but could predate E12 and be coterminous with the chultun.

A further and more intense investigation of the E12 chultun may prove useful in the study of this type of feature. First of all, it was covered over at the time of the

construction of structure E12 and thus would not have been disturbed or reused by later generations. As well, Aylesworth writes that only a limited number of chultuns have been excavated in the Maya area and consequently there is a paucity of data on this type of structure. Chultun morphological variation and differences in artifact assemblages recovered from chultuns are further reasons to reopen the chultun. Data recovered could facilitate comparison. Perhaps questions concerning the possibility of food storage in this structure, and if so the types of food stored, could also be resolved. Finally, because the interior of this chultun was so large it was not necessary to remove the fill in order to access the antechamber. Therefore, the excavation of this chultun could provide a good stratigraphic profile, the inspection of which could determine whether the fill was intentional, a by-product of use, or the result of overlying burden.

### **Plaza Excavations**

As a result of both poor preservation and not being able to complete the excavation in the plaza area, the lowest levels are difficult to place in the construction sequence of E12 but will tentatively be designated level 5.

#### ***Level 5***

The excavation of the earliest level in the plaza area halted when a burial was encountered. The top of the E12 burial was found at 172 cm below unit datum (see fig. 6). The burial was only partly uncovered when we decided not to continue excavation because of time limitations. Despite the poor preservation of the skeletal material a few preliminary comments about the burial can be made. A cursory examination of the uncovered remains, a few long bone fragments, indicate that the burial was oriented north/south, a common practice in this area (see Iannone 1993 and 1994). The skull was not visible and it was not possible to determine whether it was actually deposited with the rest of the remains. Consequently, we could not determine which direction the head was facing or whether the body had been placed in a supine or prone position. The human remains may have been deposited at the time of the construction of the retaining wall or just after but this is difficult to tell since this area was not excavated to bedrock. The stratigraphy seems to suggest that the burial was deposited after the construction of the retaining wall. No artifacts were found associated with the burial. The location of the burial, in front of the structure and beneath the plaza floor, is similar to those excavated from the plaza floor just at the base of the structure A1 stairs in the Zubin site core (see Iannone 1993). If there is a parallel between the Ac plaza burials and the E12 burial it may indicate a parallel in structure function since both are located on the east side of the plaza, an area traditionally associated with ancestor shrines. This is probably unlikely since no other burials were uncovered during the excavation of unit 1.

At approximately 168 cm B.U.D., partial portions of two cut-stone walls were excavated. One of the walls is oriented north/south, is one to two courses high, and approximately three stones long. The other wall runs east to west, is one course high and two stones long. No remnant of the floor that these walls would have been associated with, and that would have capped the burial, could be located. If these walls sat upon a floor it would have been located at approximately 171 cm B.U.D.. We were not able to determine the function of these two walls because of their fragmentary

Level 4  
Platform Surface

70

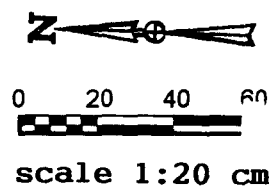
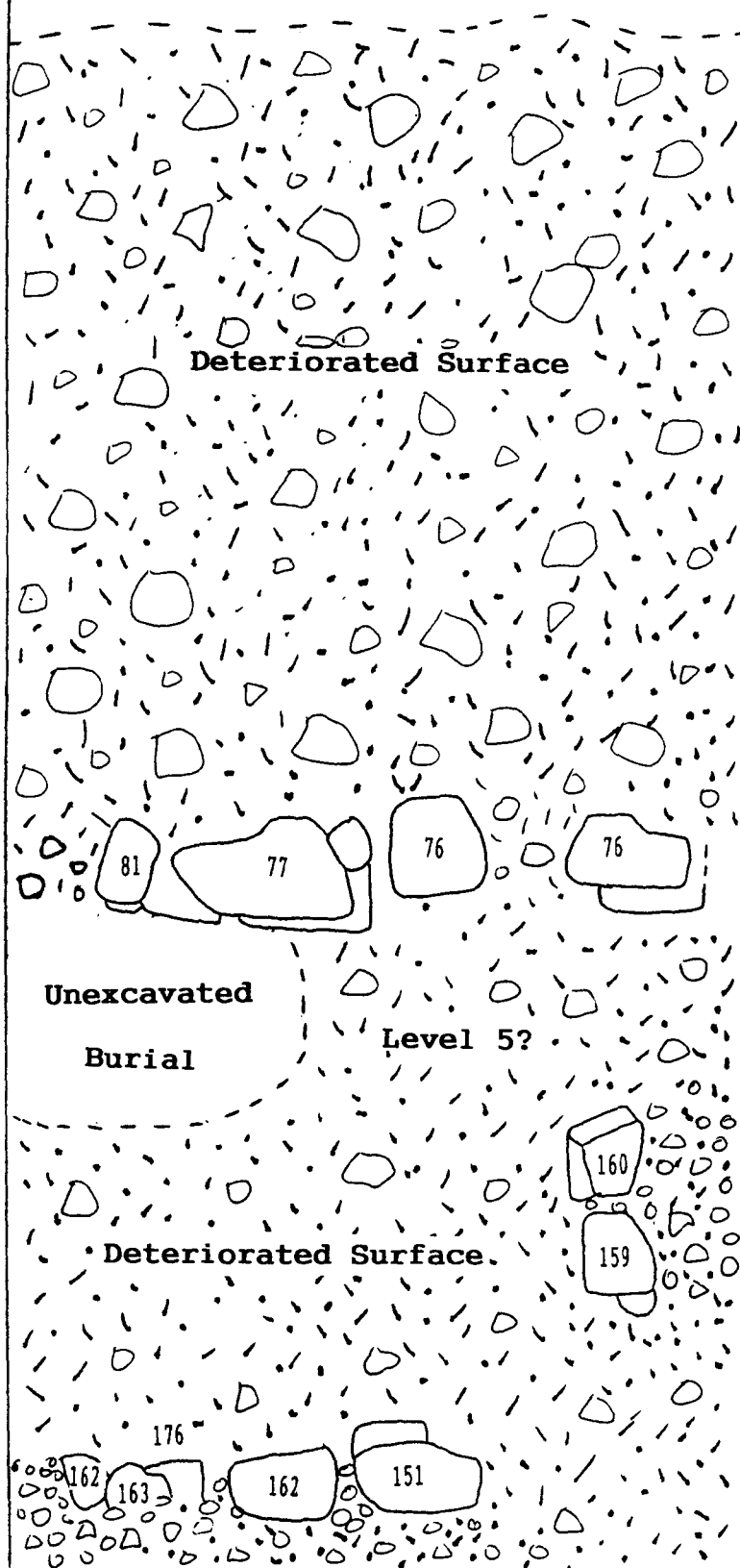


Fig. 6. Top plan of level 4/5? (structure E12).

state. They may have been part of a staircase that would have preceded the level 3 basal stair or may have been part of a different structure. The identifiable ceramic assemblage from this level was quite small but the presence of both early facet and late facet Maxik phase sherds as well as examples of the transitional Sotero group gives the level a tentative date spanning the years 700 -750 AD. The burial would be coterminous or precede this date.

#### **Level 4**

The final plaza floor, the only intact plastered plaza surface uncovered, was found at approximately 134 cm B.U.D (see fig. 7). From the retaining wall, the floor extends to the west. Subsequent construction levels also seem to have used this floor as well. The plastered surface occurs approximately 3 courses up the retaining wall measured from the top of the burial. The fill below the floor consisted of a dark soil with pebble and small cobble inclusions. A large sample of faunal material was recovered from this level. The sample included nine jute (*P. indiorum*) shells (two with the end broken, two with the side broken, four with both the end and side broken, and one indeterminate). 11 examples of *Nephronaias ortmanni* were also found. As well, a large sample of chipped stone and ceramic artifacts were recovered. Diagnostic lithic artifacts included one gabbro metate fragment (SF/22), one chert biface preform (SF/24), and one bifacial chopper (SF/23). The majority of the ceramic sherds from this level date to the Maxik phase. Examples of Belize Red, Dolphin Head Red, Mount Maloney, and Meditation Black sherds were abundant. Sherds dating to the Xnipek phase, such as Sotero Red/Brown and Silkgrass Fluted types, were also present but in much smaller quantities. The presence of early facet Maxik sherds as well as transitional sherds tentatively dates this level to between 700 and 750 AD.

### **The Excavation of Structure E12**

#### **Level 4**

Overlying the chultun discussed above, the main body of structure E12 was constructed. The earliest construction phase (4/1st) consisted of a cut-stone retaining wall that held the fill for a single level platform (see fig. 7). The retaining wall most likely extends around the whole structure as evidenced by the exposed architecture. This level, designated level 4, is approximately 148 cm thick and consists of silt, pebble (0.4-6.4), and cobble (>25.6 cm) sedimentary clasts. At approximately 6 courses up the retaining wall the next course of cut-stone were set back about 20 cm (see figure 2). Three courses of this set back wall were preserved and gave the structure a more terraced appearance. The fill presumably would have been capped with a plaster surface but deterioration was so advanced that no remnants of a plaster surface remained near the retaining wall. The stratigraphy suggests that the level 4 plaster floor that is preserved near the eastern end of the unit may be a remnant of the floor associated with this single level structure.

The original platform floor surface occurred at approximately 70 cm. below unit datum and in some areas is as much as 4 cm. thick. Most of this "floor" was deteriorated but it was preserved near the eastern end of the unit which corresponds with the center of the structure. This surface caps the original structure fill which is continuous to bedrock. Underlying the floor surface was a

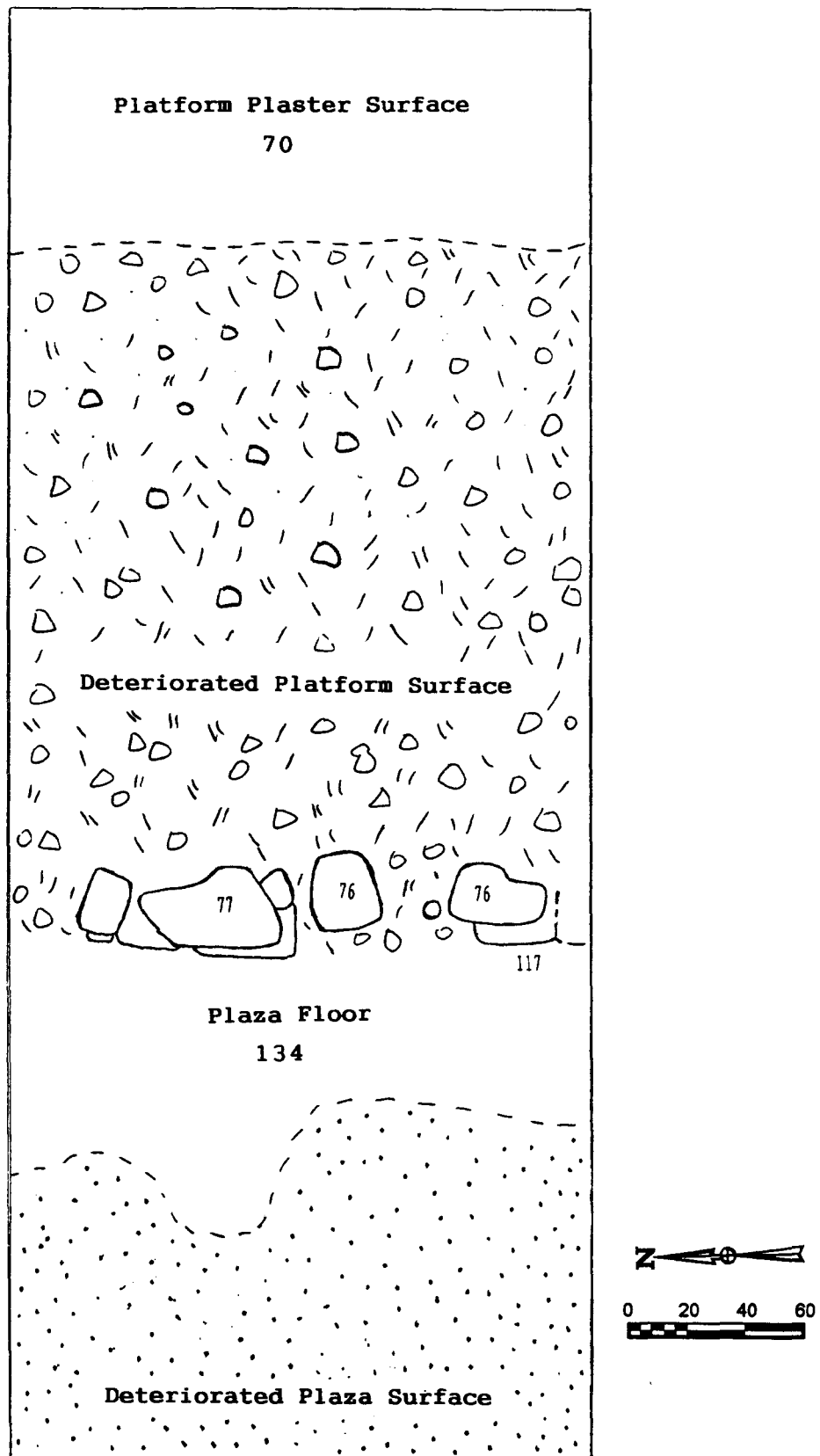


Fig. 7. Top plan of level 4, penultimate architecture (structure E12).



compact ballast layer (ca. 4 cm. thick) consisting of small pebbles and silts. Below this was a thick marl like surface of pebbles and limestone (ca. 10 cm. thick). Underlying this was a very loosely compacted dry fill containing boulders and large cobbles with large air pockets, potsherds, and chert flakes interspersing the clasts. The rest of the fill mostly contained small cobbles (ca. 15 cm in diameter) until approximately 60 cm above bedrock where the fill was a loose bouldery matrix interspersed with chert, granite, and pottery artifacts.

The abundant artifact assemblage found within the structure fill was largely composed of chert flakes, chert debitage, and pottery sherds but some more specialized artifacts were also found in this level. An obsidian blade (E12-SF/6) is one of these. Another artifact, E12-SF/3, is a carved limestone artifact that resembles the earplugs from excavations at Altar de Sacrificios (see Willey 1972 fig. 197:f). Like the earplugs this artifact has a disk end with a bowl carved into it. Within the bowl a further hole is carved. Unlike the earplugs from Altar this second hole does not connect with another drilled hole. Unfortunately the "stem" has been broken off of this pipe-shaped earplug (for further discussion of this artifact see Christensen this volume). The third significant artifact recovered from this level has been classified as a fragment of a ground slate wrench (E12-SF/4). Several utilitarian artifacts were recovered from level 4 as well. Five chipped stone artifacts are part of this assemblage. SF/20 is a chert scraper, SF/26 and 21 are chert biface preform discards, and SF/17 and 18 are biface fragments. One ground stone metate fragment, SF/25, was also found within the deposit. Some modified faunal material included two culturally modified olivella shells (E12-SF/1 and SF/2) called tinklers. The sides of both of these fresh water shells had been drilled. Other faunal remains include three jute (one *P. indiorum* and one *P. glaphyrus*) with the ends broken off, one jute (*P. indiorum*) with a hole in its side, six *Nephronaias ortmanni*, and what may be an intrusive rodent pelvis and maxilla. The majority of ceramic sherds from this level date to the Maxik (Spanish Lookout) phase and consist of Belize Red, Mount Maloney Black, and Dolphin Head Red sherds. The second largest sherd count belonged to the Sotero Red/Brown type which is transitional between the Maxik and Xnipek (Tiger Run) phases. The assemblage suggests a tentative date of 700-750 A.D. for the first construction phase of E12.

#### **Level 4a**

The original platform surface was replastered twice before the next construction level was added. Level 4a is the first reflooring. Removal of this reflooring surface was quite simple due to a thin soil layer with root matter separating refloorings 4a and 4b. Level 4a consists of approximately 4 cm of plaster and ballast. No ceramic sherds or other artifacts were found in this level.

#### **Level 4b**

Level 4b, is the final reflooring surface for the first construction phase of structure E12. This reflooring surface was badly deteriorated in terms of its spatial extent but the surfaces that were preserved were fairly intact. The level begins at an average of 63 centimetres B.U.D. and is an average of 3 cm thick. The preserved area extends only to approximately 72 cm west of the eastern wall of unit 1 before it deteriorates. The identifiable sherd sample from this floor matrix was not large enough to confidently date the time of reflooring.

### **Level 3**

Level 3 is the terminal construction phase of structure E12. This level represents the addition of another platform, of a smaller size, upon the original platform (4/1st) to create a terraced structure (3/2nd) (see fig. 8). A portion of the first platform near the primary retaining wall was reused as a terrace. The terrace would have been approximately 1.4 metres wide. 1.4 metres to the east of the retaining wall, discussed above, a second wall was constructed in order to construct the new platform which increased the height of the structure. This "wall" was seriously effected by erosion so that very little of it remained in situ. The platform fill would have been overlain by a plaster floor but since this was the terminal architecture and exposed to the elements no remnants of this floor remain.

The artifacts recovered from level 3 included ceramics, lithics, and faunal material. The proximal end of an obsidian blade (E12-SF/5), a bifacial chert chopper (E12-SF/29), a chert scraper/drill (E12-SF/27), a chert biface preform discard (E12-SF/28), two jute (one *P. glaphyrus* and one *P. indiorum*) shells with broken ends, and two ceramic samples came from this level. Unfortunately, level confusion, a consequence of poor floor preservation, resulted in level 3 ceramics mixing with level 4 ceramics in one of the samples. This sample was dated to the early facet of the Maxik phase because of the number of Sotero Red/Brown sherds in the assemblage. The other level 3 sample was uncontaminated but is so small that it is not a very reliable method of tentatively dating this level. It contains both early facet Dolphin Head sherds as well as transitional Sotero Red/Brown sherds and tentatively dates to between 700 and 750 AD. Level 3 overlies the level 4 platform, therefore, it must have been constructed subsequent to the construction of level 4 and consequently the dating of level 3 must post-date that of level 4. The number of refloorings and the poor preservation of the level 4 floors would suggest that these surfaces had been extensively used, probably over long periods of time. Therefore, despite the tentative ceramic dates associated with this level I would suggest that it tentatively dates to post 750 AD.

An outset stairway, also designated level 3, was added to E12 tentatively at the same time as the addition of the upper platform. The northern side of the stairway was caught by the excavation unit and what remained of it was approximately 3 courses high. The outset stair was constructed upon the level 4 plaza floor which measured to a depth of 135 cm B.U.D. The stair rises to the present maximum deteriorated height of 123 cm B.U.D. The plaza level 4 floor may have been initially constructed to provide a level surface for the stair to sit upon. The ceramic assemblage suggests that the basal stair was built post 750 AD as indicated by the abundance of Belize Red and Mount Maloney Black sherds and the lack of early facet Maxik ceramics. Four metate fragments (E12-SF/8,12,13, and 14) were also found in the fill of the basal stair.

### **Level 2**

Level 2 is the fall deposit of this structure. This deposit was quite jumbled despite the fact that there is little evidence for root action. In addition, there seems to have been a lot of mixture with the humus layer above. This level consisted of large cobble size cut and uncut stones and broken up cobbles which were once part of the terminal architecture, interspersed with fine silty soils and small

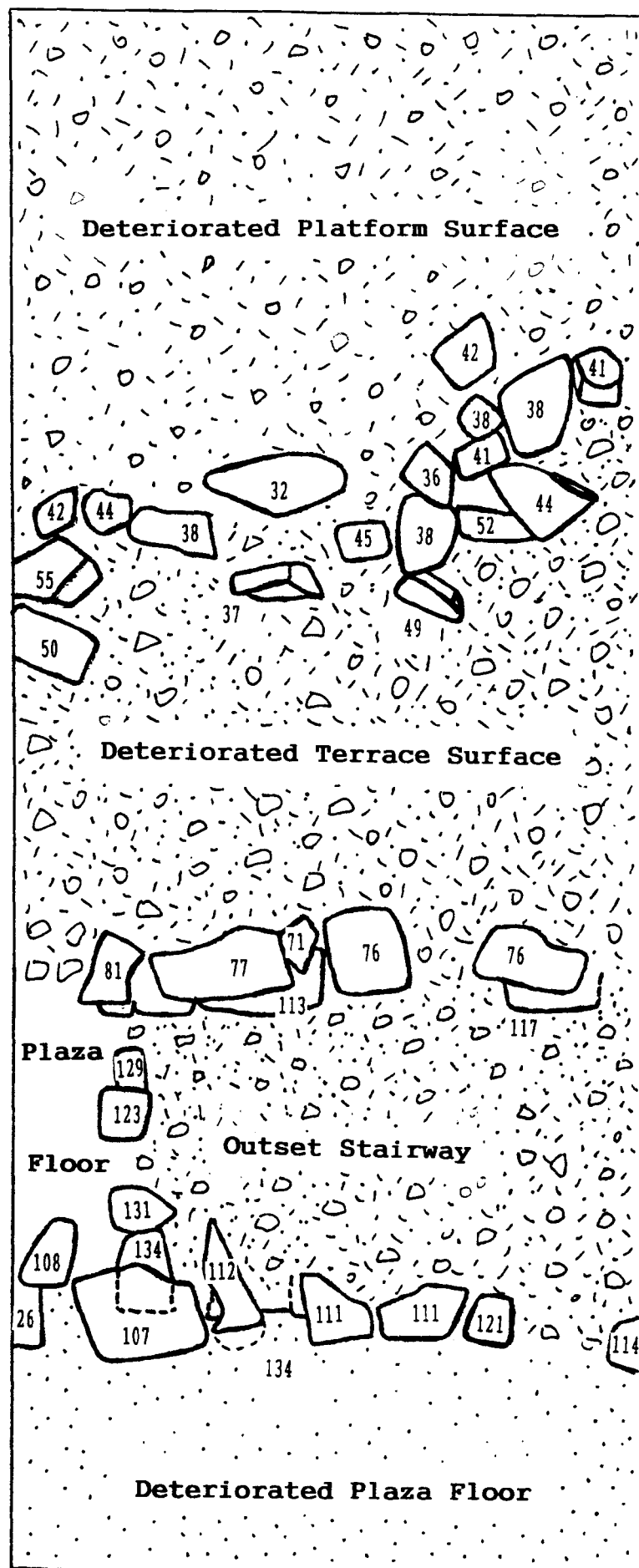


Fig. 8. Top plan of Level 3, terminal architecture (Structure E-12).

pebbles. The lithic assemblage consisted mostly of chert flakes and debitage. Only one formal lithic artifact was recovered from this level. E12-SF/11 is a fragment of a granite metate. Three jute (*P.*

*indiorum*), two with the ends broken off and one with a hole in its side, make up the faunal assemblage for this level. All of the identifiable ceramic sherds, except for one, date to the late facet of the Maxik phase, post 750 AD. This supports the date of the terminal architecture discussed above.

#### **Level 1**

Level 1, the humus or natural layer of the stratigraphy, was approximately six centimetres thick at the top of the mound, the eastern end of the unit, and approximately 17 cm at the western end of the unit. This level consisted of a fairly compact matrix of silty soil and small pebble (0.4-6.4 cm) and cobble (ca. 7 cm) clasts. Few artifacts were recovered from this assemblage. The lithic artifacts recovered were mostly primary flakes and a few chert cores. Faunal remains from this level included two jute (*P. indiorum*) shells, one with the end broken off and the other with a hole in its side, and one *Nephronaias ortmanni* shell. It is interesting to note that no Post-Classic ceramic artifacts were recovered from any of the layers in this structure. All of the ceramic sherds from this level were badly eroded late facet Maxik phase types.

Several utilitarian artifacts were found on the ground surface scattered around the area between the Familia and Danta Groups (see fig. 1). Three granite metate fragments (E12-SF/9,10,15), one granite mano fragment (E12-SF/19), and one biface fragment (E12-SF/16) were found in the vicinity of Ek-pay.

#### **Discussion**

The excavation of Ek-pay proved productive in that several goals were met and we also encountered some unexpected features. Furthermore, data was gathered which will enhance the study of domestic activities and intergroup relations at middle stratum sites such as Zubin.

The first construction phase of structure E12 exhibited a very simple architectural style, constructed and occupied over a relatively short period of time. At approximately 700 to 750 AD, a 1.78 metre high platform, was constructed on bedrock over top of an earlier excavated chultun.

By approximately 750 to 800 AD, the need to expand the structure, most likely for a social reason, arose. The addition of a smaller platform upon the first decreased rather than increased living space. Therefore, the upward expansion of the structure was probably not the result of familial growth but social position. The addition of the smaller platform created a more complicated and aesthetically pleasing construction.

Several attributes of structure E12 confuse the issue of structure function. Initially, its eastern location within the patio group would suggest that it could have served as a family shrine yet no dedicatory caches were located along the primary axis, the location where they most commonly occur in that type of structure. Furthermore, the only burial found was outside the main body of the structure, underneath the plaza floor. Although the burial was not excavated it was obvious that it had not been given any special attention as an ancestor would be given. It was very exposed in that it had no protection in the form of a cyst or chamber and there were no visible associated burial

artifacts. From the evidence listed above we could conclude that structure E12 did not function as a shrine but may have been used as a residence.

Several conclusions can be drawn from an analysis of the artifact assemblage recovered from this structure. Willey et al (1965:16) noted that a small number of artifacts indicate domestic activities. These include "an accumulation of sherd debris, particularly culinary wares, and broken stone metates and manos." A total of eleven mano and metate fragments were found within and around structure E12. Other utilitarian artifacts were also abundant including bifaces, which Willey has classified as general utility tools, and ceramic sherds, a large number of which were utilitarian in nature. The presence of these artifacts seems to indicate that structure E12 served a residential purpose.

Three artifacts recovered from E12 may indicate that the residents of this plazuela group had access to some form of wealth. Two obsidian blades are part of the lithic assemblage of E12. Because obsidian must be imported, it is common that obsidian artifacts are categorized as "luxury or elite items". This suggests that obsidian artifacts would be in the control of the ruling elite and out of the sphere of access for others. The distribution of obsidian at the site of Zubin, as evidenced in the lithic analysis for this site (see Christensen, this volume), seems to indicate that either obsidian was available to all or that the elite may have been distributing the obsidian for some "political" purpose.

Another artifact which might indicate access to wealth or status for E12 is the ear-plug found in level 4. The evidence seems to suggest that this is not the case. Landa discussed the use of ear plugs by the Maya in his *Relacion de las Cosas de Yucatan* (1941) but he does not discuss whether they were exclusive to the elite or not. He does mention that this practice was more common among men than women (1941:88). The fact that the plug was made of limestone rather than some less common material is further evidence that the wearing of ear-plugs may have been a common practice in the Late Classic. Slate wrenches served a ceremonial function in Maya society. Willey (1965:482) noted that very few of these wrenches are reported in the literature for the lowland area but a total of eight were found at Barton Ramie, many in fill or refuse contexts. All of the decorative, ceremonial, and exotic material items were found in the E12 structure fill. Both the wrench and ear-plug were broken and therefore could have been taken, along with other refuse, from a midden associated with the site core and not be connected in any way to the residents of the Ek-Pay Group.

Little evidence for the subsistence activities of the occupants of this patio group were available. Like the other structures at Zubin the majority of faunal material consisted of jute and *nephronaias* shells.

Although the relationship between Ek-pay and both the Zubin site core and other peripheral settlements was not established from the data collected in the 1994 field season some observations on community interaction can be made. The presence of "exotic" items at E12 would suggest that the Ek-pay group had access to material wealth, probably accessed through the site core, but there is no tangible evidence of this. The terminal architecture of structure E12 is very similar in form to that of structure B8 in the site core, a long low mound structure. Both consist of an outset stairway leading to a terrace and platform. The difference between the two structures is the quality of construction which can be seen in floor thickness and retaining wall construction. The retaining wall of

structure B8 consisted of "finely cut and fitted stones" (Hodgson 1993:48). This quality of craftsmanship was not seen at structure E12. The artifact assemblages of both these structures were quite similar in types but not in quantity. Utilitarian tools and ceramics were abundant, exotic artifacts were present but not in great quantities in both structures. As well, there was a lack of ritual deposits at B8. Iannone (1994:98) notes that the Ac Plaza in the Zubin site core seemed to continually be the focus of ritual activity for the core residents and it is probable that the same can be said for the residents of Ek-pay. From the similarity of architecture and artifact assemblages between B8 and E12, we can conclude that the residents of the core and periphery seemed to have been guided by very similar cultural preferences and practices, the only difference being one of access to quality items. In contrast the two patio groups nearest to the site core, the Danta and Ek-pay Groups, are very different both structurally and in terms of associated features. The architecture of structure E12 has features such as the outset stairway and terracing that were not used at the Danta Group. As well, more time and energy seemed to have been put into the construction of E12 evidenced by the more than a metre in height difference of its structural fill. The Danta Group had the advantage of being constructed upon a bedrock ridge which gave the illusion of the group being higher than it actually was (Sunahara 1993). By constructing a large eastern structure, the residents of Ek-pay may have been compensating for their location which was farther from the site core and on a lower ridge than the Danta Group. E12 is different from the Danta Group in the fact that it was constructed over top of a chultun and has a burial placed beneath its plaza floor but the artifact assemblages are both largely composed of utilitarian items.

In conclusion, like the two other patio groups excavated in the vicinity of the Zubin site core, E12 was constructed and occupied in the Late Classic period attesting to the increased population growth at Zubin during this period. The fact that this structure was built over top of a chultun, that it occupies the eastern edge of the patio, and its association with a few "exotic" artifacts could indicate that it served as a special function structure but the excavation of its primary access did not reveal any conclusive evidence for this. In fact, the contrary seems to be the case. The artifactual data discussed above suggests that it probably served a strictly residential function.

### **Acknowledgments**

Several people have figured prominently in my field instruction and guidance. I would especially like to thank Jaime Awe for the opportunity to work at Cahal Pech, for his enthusiastic instruction, and for making our stays in Belize always run smoothly. I would like to thank Gyles Iannone for giving me the responsibility of assisting the field work at Zubin, for the opportunity and guidance in the excavation and artifact analysis of structure E12, and for always being a good friend. Dave Cheetham has always given me never ending encouragement as well as expert help in ceramic analysis, for this I would like to thank him. Shawn Brisbin deserves a large thank-you for providing the site map for this report. And of course I am grateful to all of the hard-working and energetic students for helping us complete the work at Zubin. Special thanks to the Archaeology Department, for none of our work would be possible without their support. Finally I would like to thank the people of San Ignacio for warmly welcoming us back every year.

## References

Ashmore, Wendy

- 1981 Some Issues of Method and Theory. In *Lowland Maya Settlement Patterns*, edited by Wendy Ashmore, 19-37. A School of American Research Book, University of New Mexico Press.

Aylesworth, Grant R.

- 1992 Chultuns: Burials, Refuse, Sour Wine, and Rotten Food. In *Belize Valley Archaeological Reconnaissance Project: Progress Report of the 1992 Field Season*, edited by Jaime J. Awe, pp. 78-96. Trent University, Peterborough Ontario.

Friedel, David, Linda Shele, and Joy Parker

- 1993 *Maya Cosmos: Three Thousand Years on the Shaman's Path*. William Morrow and Company, Inc, New York.

Gifford, James C.

- 1976 *Prehistoric Pottery Analysis And The Ceramics Of Barton Ramie In The Belize Valley*. Memoirs Of The Peabody Museum Of Archaeology And Ethnology Vol. 18. Harvard University.

Hodgson, J. Garwood

- 1993 A Preliminary Report of Excavations at Plaza B, Zubin, Belize. In *Belize Valley Archaeological Reconnaissance Project: Progress Report of the 1992 Field Season*, edited by Jaime J. Awe, pp. 63-77. Trent University, Peterborough Ontario.

Iannone, Gyles

- 1993 Time Among the Thorns: Results of the 1992 Field Season at Zubin, Cayo District, Belize. In *Belize Valley Archaeological Reconnaissance Project: Progress Report of the 1992 Field Season*, edited by Jaime J. Awe, pp. 63-77. Trent University, Peterborough.

- 1994 More Time Among the Thorns: Results of the 1993 Field Season at Zubin, Cayo District, Belize. In *Belize Valley Archaeological Reconnaissance Project: Progress Report of the Sixth (1993) Field Season*, edited by Jaime J. Awe, pp. 32-108. Trent University, Peterborough Ontario.

Landa, Diego D.

- 1941 *Landa's Relacion de las Cosas de Yucatan*. (ed) Alfred M. Tozzer. Papers of the Peabody Museum of American Archaeology and Ethnology, Harvard University vol. XVIII.

Loten, H. Stanley and David M. Pendergast

- 1984 *A Lexicon for Maya Architecture*. Royal Ontario Museum, Monograph 8.

Puleston, Dennis E.

- 1971 An Experimental Approach To The Function Of Classic Maya Chultuns. *American Antiquity* 36(3).

Sunahara, K

- 1992 A Report of the 1992 Excavations on Structures D10 & D11 of the Zubin Group at Cahal Pech, Belize. In *Belize Valley Archaeological Reconnaissance Project: Progress Report of the 1992 Field Season*, edited by Jaime J. Awe, pp. 63-77. Trent University, Peterborough.

Willey, Gordon R.

- 1972 *The Artifacts of Altar de Sacrificios*. Papers of the Peabody Museum of Archaeology and Ethnology, Harvard University Vol. 64, No. 1.

Willey, Gordon R., W.R. Bullard Jr., J.B. Glass, and J.C. Gifford

- 1965 *Prehistoric Maya Settlement in the Belize Valley*. Papers of the Peabody Museum of Archaeology and Ethnology, Harvard University, Cambridge, Mass.

Willey, Gordon R. and William R. Bullard Jr.

- 1965 Prehistoric Settlement Patterns in the Maya Lowlands. In *Archaeology of Southern Mesoamerica, Part 1*, edited by Gordon R. Willey. Pp. 360-377.  
Handbook of Middle American Indians, vol. 2, Robert Wauchope, General editor. University of Texas Press, Austin.



# **REPORT OF THE 1992 EXCAVATIONS IN THE FAMILIA GROUP, ZUBIN, CAYO DISTRICT, BELIZE.**

**By**

**Tim Stevens and Barry Nicholas Ford**

## **Introduction**

This paper provides an overview of the 1992 excavations carried out within the Familia Group, and the associated reservoir/quarry feature (Op. 100), at "minor" or middle-level centre of Zubin. These operations were conducted as part of the Belize Valley Archaeological Reconnaissance Project (BVAR) under the auspices of Trent University and University College London. Zubin itself has been extensively discussed by Iannone (1993, 1994b, this volume), as has the rationale behind the investigations (Iannone 1994a). Therefore only a short description is appropriate here. The site is located on an east-west-running limestone ridge approximately 2.1 km south of the larger, medium sized major centre of Cahal Pech (see fig.1). The Zubin core consists of two main plazas with substantial architecture, and a southerly outlying large ceremonial structure, and has evidence of occupation from the Formative early Kanluk phase (850-750 BC) to the Terminal Late Classic Maxik phase (800-875 AD).

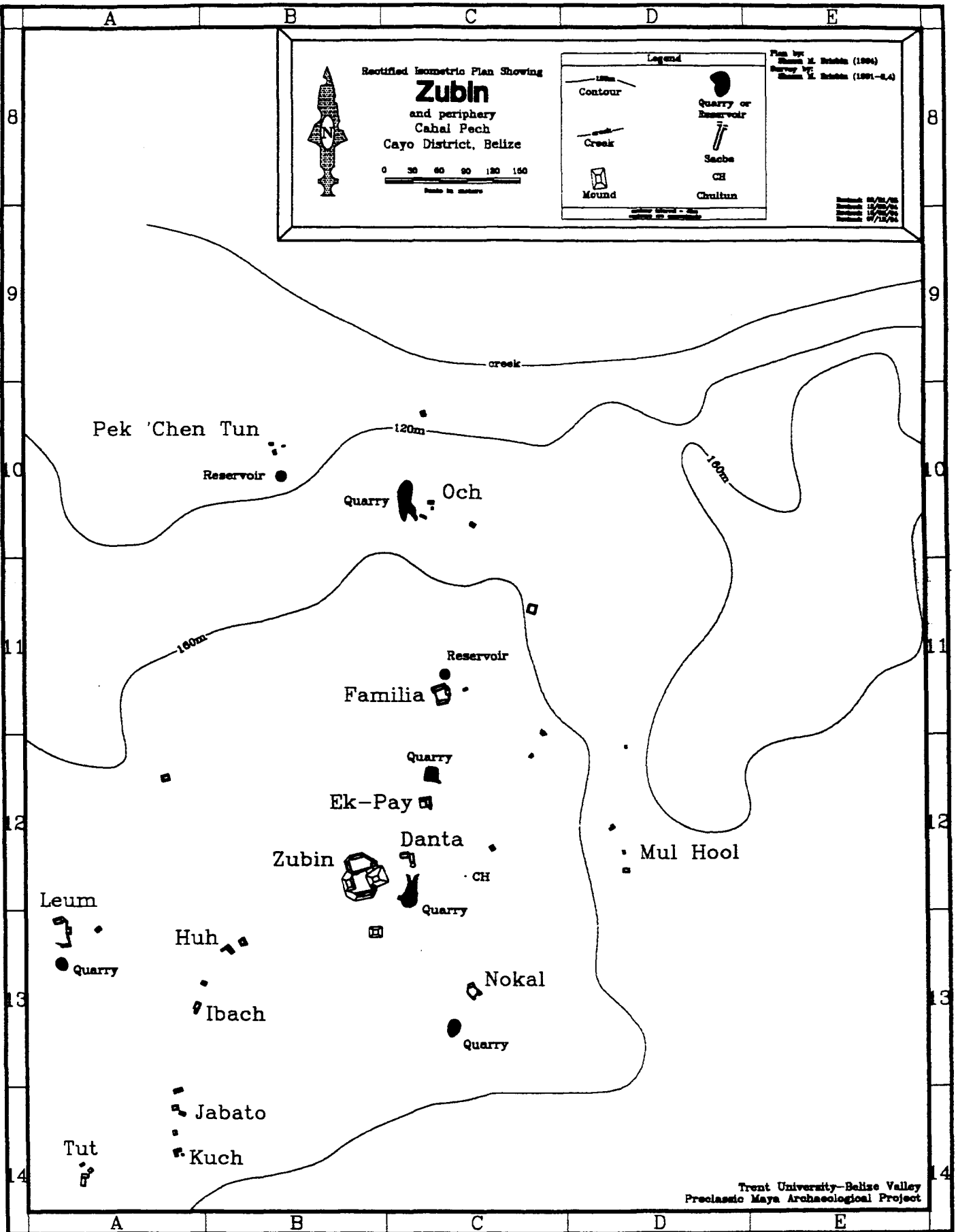
Associated with the Zubin site core are several peripheral groups (see fig.1), notably the Danta Group, ca.50m east of Zubin (Sunahara 1993), and the Ek-pay Group, ca.100 m northeast of the site core (Christensen, this volume). Several other mound clusters and solitary mounds are also located around the main Zubin architectural configuration (see Figure 1). From BVAR survey data, the Familia Group is given as 224 m from the Zubin site core and 2054 m from Cahal Pech. It is located roughly northeast of Zubin, and to those familiar with the site topography, is "down-the-hill" towards the ephemeral creek-bed that forms an approximate midpoint between Zubin and Cahal Pech. It is situated, like most of the peripheral mounds at Zubin, on cattle pasture, which facilitates excavation and allows a preliminary visual assessment of the structures contained within the group.

Two low range-structures (F14 and F16) are arranged approximately parallel on the north and south sides of the group respectively, along with a smaller, squarer eastern structure F15 (looted on its eastern flank). F16 is approximately 15m by 3m and ca. 2m high; F14 is about 13m by 3m; F15 is approximately 5m on all sides and about 1.5 m in height. All three structures are located on a raised platform. A small mound F17 is situated slightly to the east, and a quarry/reservoir (Op. 100) just to the north of the group. The western edge of the group is open (see fig. 2).

All chronological terms used refer to the new Cahal Pech ceramic sequence (Iannone, pers. comm.) as opposed to the Barton Ramie sequence (Gifford 1976).

## ***Structure F14, Level Four***

This level, representing the F14-3rd construction phase, was exposed in unit F14-2, and consists of a raised platform sustaining surface. This construction was evidenced by a low retaining wall (facing south) exposed near the north wall of unit F14-1. This raised platform extends north to form the plaza floor around which the Familia Group is centred. The retaining wall consists of two or



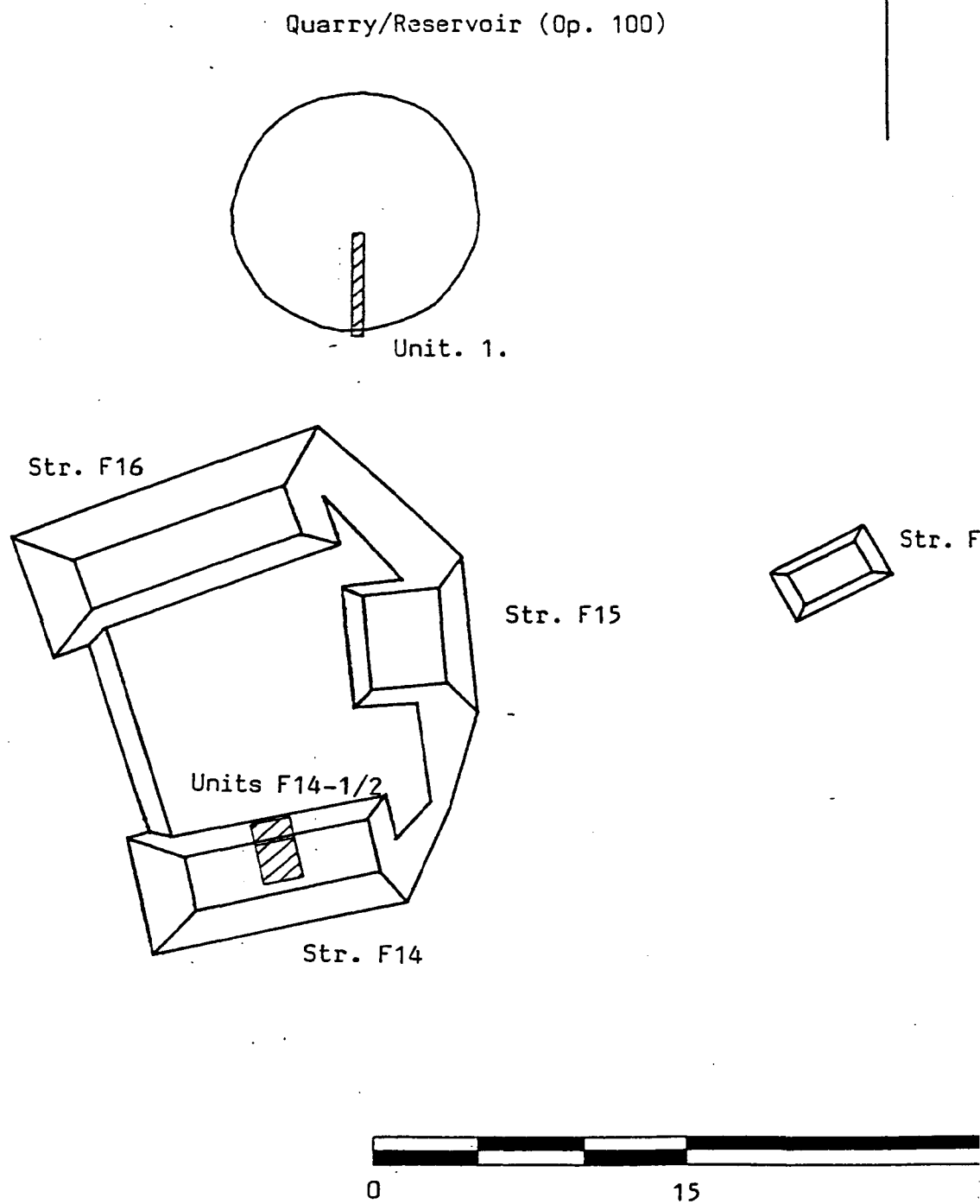


Fig. 2

Survey by S.M. Brisbin 1992

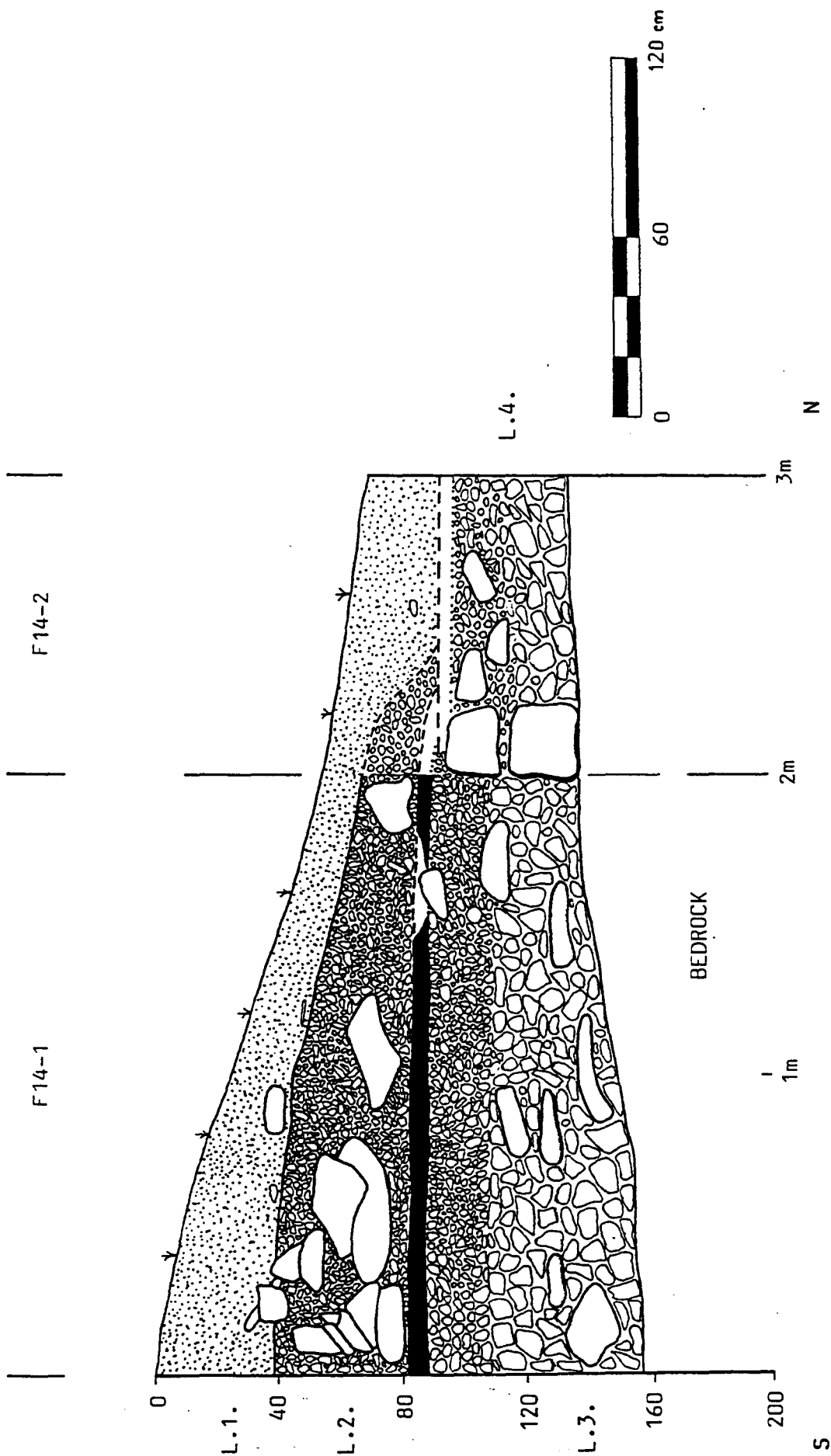


Fig. 3

three courses, faced to the south (i.e. the 'outside') and rough-hewn to the north (see fig. 4). Bedrock was encountered ca. 135-140 cm B.U.D., the construction fill consisting of a mainly pebble-sized (0.4-6.4 cm) ballast layer ca. 10 cm thick, and a primarily cobble-sized (6.4-25.6 cm) core layer ca. 35-40 cm thick (see fig. 3). Being an earlier architectural phase than the rest of F14 (and not, per se, being F14), and in keeping with the architectural phasing in the Zubin site core, this earliest known Familia Group construction is provisionally dated to the early-middle Late Classic Maxik phase (A.D 700-725).

#### *Structure F14, Level Three*

Level 3, representing F14-2nd, the penultimate phase of architecture, was exposed in unit F14-1 and the southern edge of unit F14-2. This phase consists of a building platform rising southwards from above the F14-3rd retaining wall, levelling off and running into the unexcavated area south of unit F14-1.

A poorly-preserved plaster floor (6-8 cm thick) was encountered ca. 81-90 cm B.U.D. underlain by a layer of mainly pebble-sized (0.4-6.4 cm) ballast ca. 20 cm thick, and a drystone core deposit ca. 30-52 cm thick, consisting mainly of cobble-sized clasts (6.4-25.6 cm). Bedrock was encountered ca. 132-158 cm B.U.D., and slopes southwards; given this, F14-2nd is presumably artificially raised on its southern side more than on the north, which conjoins the plaza. As with several other structures at Zubin (e.g. Sunahara 1993: 66) this creates the impression of height, in this case to the south, whilst reducing the actual labour involved in effecting this height via utilisation of the already extant raised platform (F14-3rd) to the north (see fig. 3).

All diagnostic ceramics within this level indicate Late Classic Maxik phase (A.D. 750-800) construction. The only artefacts of note are a broken limestone spindle whorl ca. 3 cm in diameter (F14-SF/2) and a drilled Belize Red sherd (F14-SF/3), both screen-recovered. Lithic percentages were low, but included an exhausted chert biface (F14-SF/14) and a chert biface fragment (F14-SF/20).

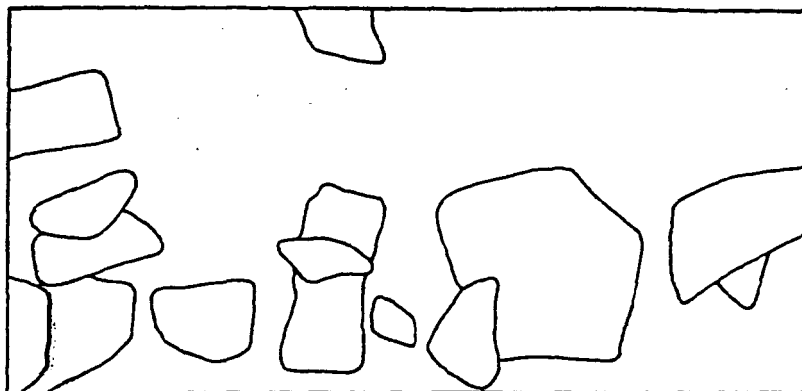
It would seem that F14-2nd was the first construction phase of F14 itself, representing an addition to the patio group shortly after the construction of the central plaza platform (F14-3rd).

Curiously, within the fill is situated a line of cut-stones orientated north-south but apparently not associated with any perceivable structure or feature (see fig. 5). It appears to run into the F14-3rd retaining wall but is not contiguous with it. Assuming it to also have been constructed after the F14-3rd wall, it may itself be a retaining or construction wall for some aspect of the F14-2nd construction, though the orientation of the 'ghost wall' remains a mystery.

#### *Structure F14, Level Two*

Level 2 was excavated in unit F14-1 to a depth of ca. 81-90 cm B.U.D., but was mixed during excavation in F14-2 with the humus layer, Level 1. It consists of construction fill, mainly pebbles (0.4-6.4 cm) and cobbles (6.4-25.6 cm) combined with soil. The terminal architecture F14-1st, was visible on the surface as a line of cut-stones running east-west just north of the approximate 'summit' of structure F14 (see figs. 3, 6 and 7).

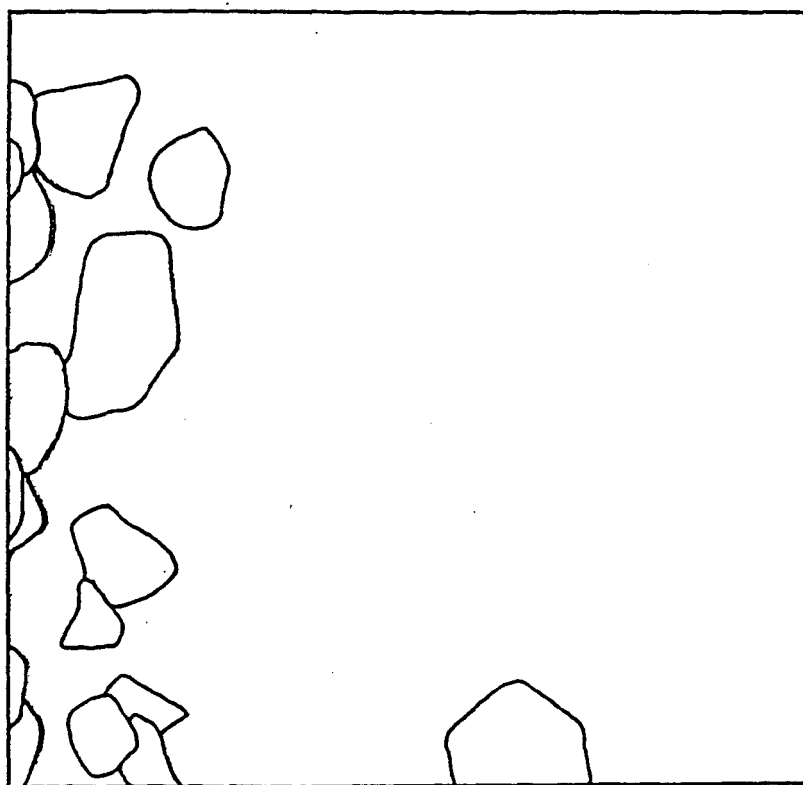
This level is a successive building platform for structure F14, ca. 50-70 cm thick and represents the last construction phase within F14. The architecture, such as it is, consists of the summital step/wall and an assortment of jumbled cut-stones on the inner (west) face of the mound,



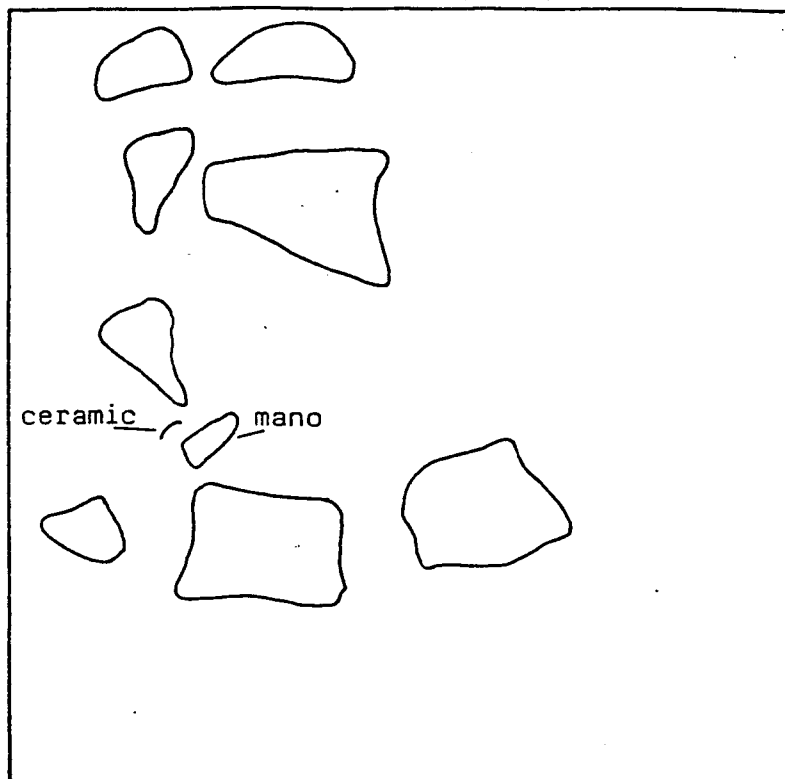
**Fig. 4. Top plan of platform retaining wall,  
Level 4, Unit F14-2**



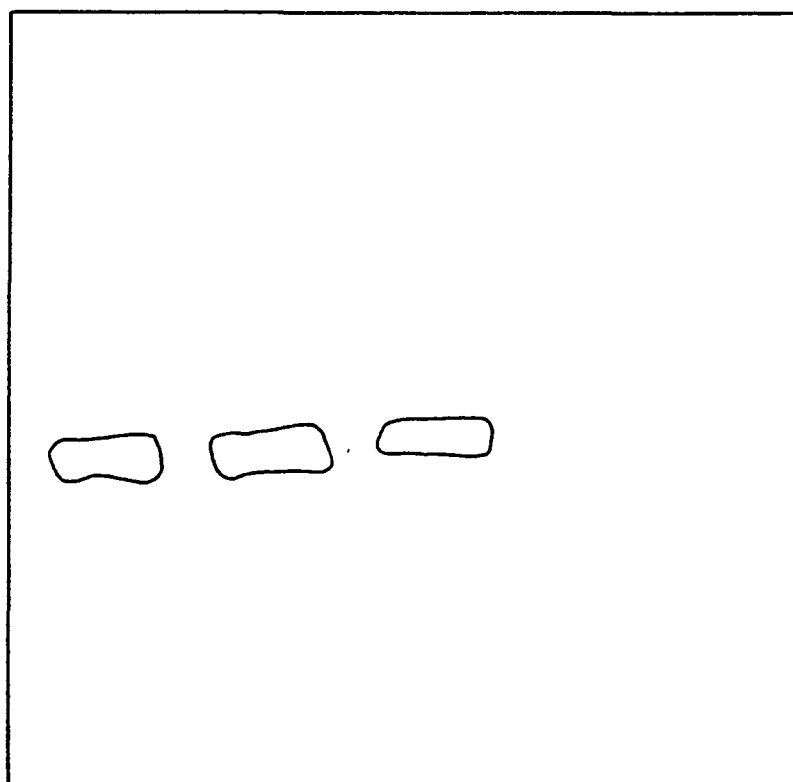
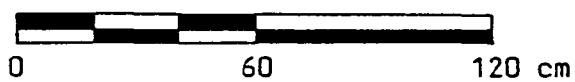
0 60 120 cm



**Fig. 5. Top plan of "ghost wall", Level 3,  
Unit F14-1**



**Fig. 6. Top plan, Level 2, Unit F14-1**



**Fig. 7. Top plan, Level 1, Unit F14-1**

possibly the remnants of lower steps rising to the top of the mound. At most, there may have been three such single-course steps. There was no evidence of plaster facing, although this is hardly surprising given the state of preservation and the environmental conditions to which terminal architecture is subjected in this region.

Ceramics date to the Late Classic Maxik phase (A.D. 750-875) and are predominantly large unslipped utilitarian sherds. A limited amount of lithics were also recovered, including several chert biface fragments, a chert scraper or awl (F14-SF/16) and a greenstone celt fragment (F14-SF/17). A proximal section of an obsidian blade (F14-SF/1) was also recovered from the southern portion of unit F14-1.

#### *Structure F14, Level One*

Level 1 consisted of humus and fall materials, representing a surface deposit of variable thickness (ca. 1-50 cm). The level of compaction in this level was high due to the use of the area for cattle pasture (see fig. 3).

Ceramics from this level are dated to the Late Classic Maxik phase (A.D. 750-875) and, as in level 2, are primarily large unslipped sherds. A number of lithic artefacts were recovered, including a chert chopper, a number of biface fragments, two chert scrapers, and a granite mano fragment. In addition, an obsidian flake (F14-SF/4) and a section of conch shell (F14-SF/5) were found in unit F14-2.

#### *Operation 100*

Op.100 involved the excavation of the quarry/reservoir structure just north of the Familia Group. A 0.5 m by 5 m unit was excavated north-south within the structure. As the profile shows (fig. 8), the structure was cut directly into the limestone bedrock, though not in a simple pit shape. The 'lip' at the edge of the structure is well-pronounced and cuts back in on itself forming a substantial overhang. Close to this overhang are two pottery concentrations - the excavators' notes indicate that in fact the vast majority of recovered artefacts came from this area, including all the lithic debitage. This Late Classic Maxik phase (A.D. 750-875) pottery cluster may represent a dedicatory or ritual offering, although it more than likely represents the periodic breakage of utilitarian vessels during the water collection process. The humus and fall layer (6-140 cm thick) generally follows the line of the bedrock, and is mixed with limestone-derived material, including a number of chert nodules. Two artefacts of note were recovered from this layer: a retouched medial section of an obsidian blade (100-SF/1) and a granite mano fragment (100-SF/2).

#### **Conclusions**

Three major architectural features were discerned during the 1992 excavations. First, the raised platform (F14-3rd, ), and subsequently the F14-2nd and F14-1st constructions. The latter were built partially sustained by the preceding raised platform. Whether the other structures in this central grouping (F15 and F16) are contemporary with the raised platform or with F14, or otherwise, is uncertain, and only answerable with further excavation. However, given the possibility that, without F14, the group bears a similarity to the Danta Group and many other small patio groups in its L-shaped configuration (see Sunahara 1993:75) we would postulate the former.



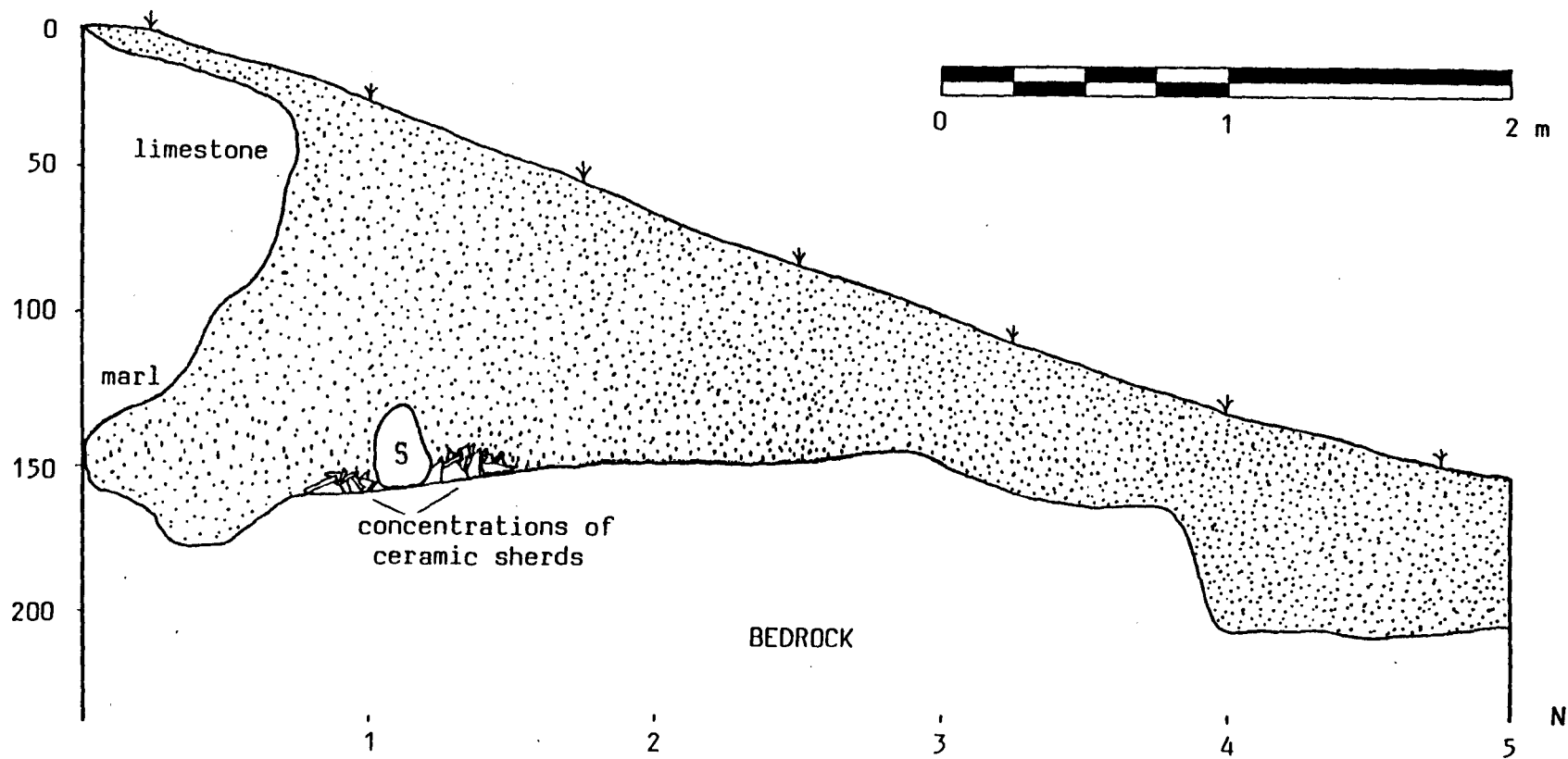


Fig. 8. Profile of west wall, Unit 1, Op.100

The relationship between the Familia Group and the quarry/reservoir Op.100 is uncertain, as are the relationships with the Zubin site core, but the chronological similarities between the reservoir and the later addition of structure F14 to the Familia Group may indicate a highly-localised phase of construction and modification in the immediate vicinity of the Familia Group during the Late Classic Maxik phase (A.D. 750-875). The extraction of limestone from Op.100 may have occurred, and the stone used for ballast/core or cutstones in the Familia Group itself. Without further excavation, we cannot ascertain with certainty the function of the Familia Group, nor the nature of its relationship with Zubin, though the oft-encountered configuration of the group in the region, particularly with the presence of an eastern structure dissimilar to the other structures, may indicate a domestic context with ritual elements such as a small ancestor shrine in the eastern structure F15.

### **Acknowledgements**

Thanks to Gyles Iannone and Jon Binns for helping to unravel field notes from years past, and to the excavators of Group F, Laura Ludevics (supervisor), Denise Mardiros, Charles Hargrove and anyone else who pitched in during the 1992 field season.

### **References cited**

Gifford, James C.

- 1976 *Prehistoric Pottery Analysis and the Ceramics of Barton Ramie in the Belize Valley*. Memoirs of the Peabody Museum of Archaeology and Ethnology, Volume 18. Harvard University, Cambridge.

Iannone, Gyles

- 1993 Time Among the Thorns: Results of the 1992 Field Season at Zubin, Cayo District, Belize. In *Belize Valley Archaeological Reconnaissance Project: Progress Report of the 1992 Field Season*, edited by Jaime J. Awe, pp.10-44. Trent University, Peterborough.
- 1994a Ancient Maya Social Organisation and the Concept of Middle Class: A Critical Review. In *Belize Valley Archaeological Reconnaissance Project: Progress Report of the Sixth (1993) Field Season*, edited by Jaime J. Awe, pp.3-31. Institute of Archaeology, University of London, London.
- 1994b More Time Among the Thorns: Results of the 1993 Field Season at Zubin, Cayo District, Belize. In *Belize Valley Archaeological Reconnaissance Project: Progress Report of the Sixth (1993) Field Season*, edited by Jaime J. Awe, pp.32-108. Institute of Archaeology, University of London, London.

Sunahara, Kay S.

- 1993 A Report of the 1992 Excavations on Structures D10 and D11 of the Zubin Group at Cahal Pech, Cayo District, Belize. In *Belize Valley Archaeological Reconnaissance Project: Progress Report of the 1992 Field Season*, edited by Jaime J. Awe, pp.63-77. Trent University, Peterborough.

Jewels Among the Thorns:  
An Examination of the Modified Shell Artifacts From Zubin,  
Cayo District, Belize.

Josalyn M. Ferguson

INTRODUCTION

While the modified shell artifacts recovered during the Zubin investigations are by no means numerous, they do provide some insight into ornamental trends in terms of materials used, stylistic qualities, contextual and temporal distribution, in addition to functioning as indicators of the status of the Zubin inhabitants. This report presents a descriptive analysis of the modified shell artifacts recovered from excavations conducted at Zubin during the 1992, 1993 and 1994 field seasons, in light of the above noted analytical components, while making comparisons with other Maya sites.

This report will not discuss in any depth the pretence behind the Zubin investigations, a detailed description of the site or its archaeological evaluations, nor will it provide a detailed faunal analysis of the specimens. The reader is directed to previous papers on Zubin by Iannone(1993a, 1993b, 1994), Sunahara & Awe (1993), Hodgson (1993) and Stanchly (1993, 1994) for more detailed discussions on such areas of concern.

THE ARTIFACTS

In total, there are 44 modified shell artifacts from Zubin ranging from simple drilled fresh water clams to the more elaborate carved *Spondylus* shell rosettes. The artifacts were generally well preserved, likely in part due to the tolerant nature of shells to acidic soils because of their calcium carbonate composition (Stanchly 1994:110). Within the Zubin collection, four specimens were unable to be identified. As previously noted by Stanchly (1994:110), all the marine species of shell discovered at Zubin (*Spondylus*, *Olivia* and *Strombus* sp.) were modified or worked specimens. A few modified shell artifacts were fashioned from fresh water clams (*Nephranaias* sp.), although these represent a small percentage of the entire collection. For a more detailed illustration of these percentages, please see figure 1.

Included among the modified shell collection is an unmodified *Nephranaias* shell that was excavated along with other modified shell artifacts in a burial (A1-B/9). This particular shell is being included in this discussion because of its context and close relationship to other modified shell artifacts. For typological purposes, it has been included under the "unspecified" artifact type category. Despite the fact that offerings or caches of unmodified shell are somewhat common among other lowland sites (Andrews 1969; Dreiss 1982), no such obvious occurrences are noted at Zubin with the exception of the aforesaid right *Nephranaias* valve.

Considering the nature of the majority of the artifacts, it would not be unreasonable to suggest that the modified shell artifacts from Zubin were generally created for

ornamental or ceremonial purposes rather than utilitarian ones. This seems to be the case at many inland Maya sites such as Uaxactun (Kidder 1947:61), Altar de Sacrificios (Willey 1972:220) and Colha (Dreiss 1982:215). Most of the artifacts do not retain any resemblance to the original shells from which they are worked. The shell simply becomes a medium through which artistry, symbolism and status is expressed.

Ten modified shell artifact type categories have been identified at Zubin which include the following: beads; tinklers; pendants/adornos; drilled fresh water clam; carved fresh water clam; inlay; disks; sections; rosettes; and unidentifiable pieces (Figure 2).

Figure 3 illustrates the patterning of artifact type distributions with their respective manufacturing mediums, in addition to showing occurrence totals for the materials and artifact types.

### CHRONOLOGY

The first shells to be modified at Zubin peculiarly enough are not the locally procured fresh water clams (*Nephranaias* sp.), but rather Conch (*Strombus* sp.) shell which first begins to appear at Zubin during the Kanluk phase (650 B.C.-450 B.C.). Conch (*Strombus* sp.) continues to be the material of choice until the apparent abandonment of the site during the late Maxik phase (750-875 A.D.), the final phase of occupation at Zubin. Although modified shell begins to appear at Zubin fairly early, it does not show signs of increasing popularity until the late Xakal phase (250 A.D.-350 A.D.), where we begin to see a range in artifact types. This time phase also represents the second highest rate of occurrence for modified shell artifacts, as 31.9 per cent of Zubin's total collection occurs during the Xakal phase. Most of Zubin's worked shell occurs during the Maxik phase, as 50 per cent of the sample dates between 675 and 875 A.D. It is also during the Maxik phase that the greatest scope of shell artifacts occur. The increase in scope and numbers of modified shells artifacts reflects a general increase in specialized deposits at Zubin. Despite an early introduction of marine shells to Zubin, the marine species *Spondylus* does not appear until the Maxik phase (675-875 A.D.), the final phase of occupation at Zubin. Please see Figure 4 for an illustration of the distributions of artifact types over the different time phases. The appearance of *Spondylus* corresponds with a general increase in shell jewellery during the Classic period at Maya sites (Andrews 1969:45-7, Willey 1972:221).

Of particular interest is the fact that two hiatus' have been identified at Zubin. The first is the largest and occurs between the Kanluk and the onset of the late facet of the Xakal phase, a 600 year time span. The second hiatus last 325 years and occurs between the end of the late Xakal phase and the Xnipek phase. However, artifact occurrences do not escalate steadily until the Maxik phase. The hiatus' are understood to reflect an interruption in construction, and consequently in the deposition of specialized artifacts at Zubin, rather than an indication of the ceasing of specialized artifact use and production (Iannone 1995, personal communication). We have also identified two periods of high construction and consequently specialized deposits during the Late facet of the Xakal phase and during the Maxik phase. Please see Figure 4 for a more detailed illustration of the artifact time span distributions.

It seems apparent that from the initial stages of occupation of Zubin a preference for such "exotic" trade goods as marine shells existed, as is illustrated by the number of artifacts fashioned from marine shell. This pattern of marine shell use has been noted at such inland sites as Pacbitun (Healy 1990), Xuantunich (Zelevnik 1994), Baking Pot (Rickertson 1970), Cerros (Garber 1989), Colha (Buttles 1992, Dreiss 1982), Altar de Sacrificios (Willey 1972), Uaxactun (Kidder 1947), and Piedras Negras (Coe 1959). Recent discussions have raised the question as to whether marine shells were traded to non-coastal sites as a raw material, or as the final ornamental or ceremonial object (Buttles 1992:81; Cobos 1991). However, there is nothing to suggest that both practices were not being carried out at any one site. Caracol (Cobos 1991), Colha (Dreiss 1982:215; Buttles 82) and the Cas Pek group of Cahal Pech (Sunahara & Awe 1994) have evidence of having been involved in the production of shell objects. We found no indications to suggest that Zubin had been involved in shell production as we found no evidence of manufacturing tools or raw material.

### CONTEXT

The majority of modified shell artifacts from Zubin were excavated from burials. In total, 56.9 per cent of the collection comes from burials, most of which were located within Structure A-1, an eastern ancestor shrine. Seven burials from A-1 had funerary items which included objects of modified shell. Not only does Structure A-1 have the highest number of shell artifacts, it also boasts the widest range of shell artifact types and identified materials.

Two modified shell artifacts came from the remains of a burial (C9-B/1) in Structure C-9 which had been looted. C-9 is located south of Plaza A, and is somewhat offset from the rest of the sites main area. C-9 is suggested to be the oldest structure at the site, as all ceramics from it date to the Pre-Classic period. Not all of the burials exhibited the same degree of "affluence" in terms of the quantity and quality of the shell artifacts interred. For instance, burial A1-B/9 had as many as seven shell artifacts associated with it, however, while this burial had the most shell objects in it, they were fairly inelaborate pieces compared to Burial A1-B/2, which had only two shell artifacts, but which were the most elaborate shell objects recovered from Zubin.

Despite the abundance of shell artifacts in burials, modified shell also occurs in less distinctive contexts and structures. Figure 5 illustrates the distribution of shell artifacts per structure. Of note here is the fact that while C-9 is considered an important structure at Zubin, and has the second highest percentage of shell artifacts, only one type of shell artifact is represented here (beads). Structure A-4 is an elaborate household structure within the main Plaza. It has the third highest ratio of artifacts per structure, and the second widest range of artifact types and materials.

*Figure 5.*  
**Percentages of Artifacts Per Structure**

A1	C9	A4	E12	B8	F14
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54.6%      20.5%      16%      4.6%      2.3%      2.3%

As was stated earlier, the majority of shell artifacts were retrieved from burial contexts (56.9%), while 27.3% came from construction fill, and 2.3% came from a midden. The remaining 13.5% of shell artifacts came from more abstract deposits, which include the humus level, fall materials and the back dirt of a looters trench.

### BEADS

Beads were the first ornaments of shell to occur at Zubin, and represent the majority of the modified shell sample for the site. There are 14 beads in all, nearly all of which are identical in overall appearance, with the exception of size, cut, and finish. They are circular in shape, fairly thick, and exhibit a centrally drilled hole for suspension. Their exteriors range from polished to porous. Eight specimens of this type of bead are fashioned from Conch (*Strombus* sp.), while three are made from Spondylus (*Spondylus* sp.). There were 2 beads whose material could not be identified, but whose characteristics strongly resemble those of the *Spondylus* and *Conch* beads. This style of bead occurs throughout Zubin's occupation, and is recognized at other Maya sites such as Colha (Dreiss 1982:212; Buttles 1992:86), Cerros (Garber 1989:67), Altar de Sacrificios (Willey 1972:223), Uaxactun (Kidder 1947:62, Fig. 85 c) and at the Cas Pek group at Cahal Pech (Sunahara & Awe 1994:201). There is one bead which is flat and rectangular shaped with a semi-diamond shaped protrusion at one end. Needless to say this bead does not resemble any of the other Zubin beads, nor does it resemble any in the literature of other sites. Eight beads were found in construction fill levels, five were found in burials, and one was excavated in a humus level.

### TINKLERS

Tinklers are an artifact type which are well known throughout the Maya lowlands at such sites as Cerros (Garber 1989:68), Altar de Sacrificios (Willey 1972:223), Piedras Negras (Coe 1959:57), Baking Pot (Ricketson 1970:16), Uaxactun (Kidder 1947), Dzibilchaltun (Andrews 1969:55) Colha (Dreiss 1982:216-17), Cerros (Garber 1989:68) as well as in the highlands (Willey 1972:223) and Mesoamerica in general (Coe 1959:57). They are most commonly made from Olive shells (*Olivia* or *Olivella* sp.), although they are also noted as fashioned from *Morum tuberculatum* (Coe 1959:57) or *Jenneria pustulata* (Willey 1972:222). This type of artifact is regarded as a decorative ornament on such garments as skirts and belt fringes, as well as accessories on jewellery items (Andrews 1969:49, 55; Coe 1959:57-8). Evidence of their use can be seen on individuals depicted on monuments at such sites as Piedras Negras, Seibal, Naranjo, Tikal and Yaxchilan (Coe 1959:58).

The transformation of olive shells to tinklers involves the removal of the spire and smoothing of the resulting sawed or cut surface, in addition to the drilling of one or more perforations to allow for its attachment to a garment or piece of jewellery (Figure 6a). Not all tinklers, however, may have their spires removed, while others may show no evidence of drilling.

There are a total of eight tinkler ornaments at Zubin, seven of which have had their spires removed, at varying degrees of proficiency, and all eight show evidence of drilling.

Four tinklers date to the Xakal phase (250 A.D. to 350 A.D.), and four date to the Maxik phase (675 A.D. to 875 A.D.). Four of the tinklers exhibit central drill holes, of these, three are drilled through the exterior whorl only (A4-SF/39, 40; E12-SF/2), while one is perforated through the entire shell on an angle (E12-SF/1). Another three tinklers have single drill holes at the posterior end of the shell, two of which perforate the entire shell (A1-SF/40, 41). The third of these specimens shows evidence of what may have been the beginning of a second perforation near the this shells apex, but which was evidently left unfinished (A1-SF/43). The remaining tinkler (A1-SF/42) differs from the rest in that it did not have its spire removed, and it exhibits drill holes which perforate the entire shell on the opposing apex and posterior ends and sides of the shell. These last four tinklers (A1-SF/40-43) were excavated together from burial A1-B/10, and were found beneath the remains of the interred child's cranium (Iannone 1994:54), while the rest of the tinklers were found in construction fill levels.

The manner in which tinklers are drilled clearly illustrates their function by design, in that they are intended to be fashioned to something, for instance a garment, rather than be strung or suspended from a string (Andrews 1969:55). The tinkler designated as A1-SF/42 is interesting in that it may have been re-used as a decoration on more than one occasion, as suggested by the drill holes on opposing sides and ends of the shell, implying that one side of the shell was more preferable for one kind of ornamentation than the other.

### SECTIONS, DISKS & INLAYS

I have grouped these three artifact types together here as although they differ in appearance, speculations as to their possibly uses are similar, if not identical in some cases.

#### SECTIONS

There are four specimens within this type (A1-SF/46-49), all of which date to the Xakal phase (250 to 350 A.D.). The specimens are made from *Conch* and besides having been cut, shaped and polished, they exhibit no clear signs of their orientation or ornamentation (Figure 6b). The specimens vary in size and the roughness of their execution, however they are generally rectangular in shape, some being more exact than others. None of the pieces display any signs of drilling, and evidently, only one side on each seems to have been polished. Two of the specimens (A1-SF/46, 47) may have been damaged or broken at some point, as they are less finished than the others and show signs of having been re-modified around the cruder edges, and yet were never completely finished.

Comparable specimens have been identified at Altar de Sacrificios (Willey 1972:224) and Uaxactun (Kidder 1947:65) in marine and freshwater shell, as well as at Baking Pot (Ricketsen 1970:15), Piedras Negras (Coe 1959:59), and Cerros (Garber 1989:70). However, most of the samples from these sites show further signs of modification in having been drilled. At Piedras Negras, Willey (1972:59, Fig. 54) excavated 205 such specimens, all of which were conically drilled. While most were rectangular and fairly uniform in shape, others were more irregular, some even exhibited rounded edges. These sections came from

Burial 5 at Piedras Negras, and it was decided on the basis of their arrangement in relation to one another, that they were adornments sewn on to a cloak (Coe 1959:59). All four sections were excavated from Burial A1-B/9, along with a plethora of other grave goods (Iannone 1994:51).

Similar to specimens within the Cerros sample, the Late Preclassic specimens A1-SF/47, 48, & 49 have a convex and opposing concave side, giving an arched affect to the pieces. Garber (1989:70) has suggested that the Late Preclassic cached *Spondylus* pieces from Cerros are part of a mosaic.

Suggestions as to the function of the Zubin sections vary. It is evident that similar pieces, such as those from Piedras Negras, were used as adornments on clothing, and could be appended to the garments via drilled perforations. However, none of the specimens from the Zubin sample have perforations, thus they may have been attached to the garment by stitching around the artifacts exterior, or perhaps they were fashioned to garments by means of a some kind of adhesive.

Such items may have been used as decorative inlays in ceremonial objects (Kidder 1947:65), or even in the interiors of structures as decoration (Buttles 1992:97). If they did function as inlays, they likely were set in wood or other perishable materials which have since disintegrated (Willey 1972:224). As noted above, another possibility is that these pieces were part of mosaics (Garber 1989:70), however, mosaics commonly included combinations of such materials as jade, mother of pearl, hematite or pyrite, as was the case of a mosaic face found in Burial 115 at Piedras Negras (Willey 1972:226). In respect to the Zubin sample, none of the sections were found in association with such supplementary materials, with the exception of the jadeite bead in Burial A1-B/9. In addition, the Zubin specimens are generally too large for the average mosaic piece. The curved nature of some of these sections would also prevent or hinder their moulding to a wood or similar backing. A final speculative function which has been suggested for similar artifacts referred to as disks, and which may be extended to sections is that of gaming pieces (Buttles 1992:96; Iannone 1995, personal communication).

## DISKS

Disks are very similar to sections, differing really only in their shape. There are two shell disks from Zubin (A1-SF/229, 230), both of which are cut and polished *Conch* shell (Figure 6c). They were excavated from a Late Classic (Maxik phase 675-700 A.D.) burial (A1-B/12), together with an assortment of grave goods (Iannone 1994:57). This type as well as perforated versions have been noted at Colha (Buttles 1992:96-7), Uaxactun (Kidder 1947:65-66), Altar de Sacrificios (Willey 1972:224), Cerros (Garber 1989:68) and the Tzinic Group at Cahal Pech (Conlon & Awe 1990:8). The examples from Tzubin are exactly the same size, 2.3 cm in length and .3 cm thick. In both cases one side is more finished than the other, as one side has been smoothed, but not polished. The "underside" or unfinished side

Speculations as to their function are the same as those outlined above for sections,



with the additional theory of their having conceivably been used as earplugs, and the similar perforated versions having possibly been utilized as throat plates or gaming pieces (Buttles 1992:97). Other suggestions include the possibility that these disks may be incomplete beads, however, this is unlikely as their flatness and general size are unlike any other bead. In fact, because of their thinness they are more likely to be incomplete adornos or rosettes rather than beads, if preforms at all. Another possibility is that the disks, like the sections were gaming pieces, as their size, shape and deposition together mirror that of the sections (Iannone 1995, personal communication. It is my opinion however, that it is not mere coincidence that the two disks from Zubin were placed in a burial together, and they are exactly the same size. One would like to classify these pieces as part of a mosaic because of their size and shape, however, the other burial goods found within burial A1-B/12 do not confirm this, as no similar objects of other materials were discovered. The absence of perforations for the attachment of these artifacts to a garment or jewellery item suggests they are more likely to have been some sort of inlay. Perhaps the shape and exactness of their size attest more to the possibility of their having been employed as earplugs, a form of "inlay" in a sense.

A final speculation is that these pieces were used as a kind of tool similar to a pick used with musical instrument. This proposal is made on the basis of the shape of A1-SF/230, which has a slight convex curve to its underside, in which a thumb could conform to comfortably. Understandably, the curve of such pieces in part is due to the nature of the shell, having been made from the body whorl section. Correspondingly, two of the sections described above (A1-SF/48, 49) may also have functioned as "picks" as they too have this convex curve in which ones thumb could conform nicely to.

#### INLAY

There are two specimens from the Zubin modified shell sample which have been classified on the basis of their size and design as inlay pieces (A1-SF/53, 54). Both examples measure .7 cm by .7 cm, with thickness measurements differing by .1 cm (.2 cm and .3 cm respectively). Comparable to the aforesaid disks, the two inlay pieces are smoothed, but not polished, and are uniform only on one side, which implies that the specimens were likely attached to something on this rough side. Both of these pieces were found together in the Late Classic (Maxik phase 725-750 A.D.) burial A1-B/5, along with 170 other grave goods, including eight jade mosaic inlay pieces (Iannone 1994:71), the latter confirming the classification of these pieces as inlays. Inlays for mosaic pieces have been noted at many Maya sites all over the Maya realm, including Uaxactun (1947:66), Altar de Sacrificios (Willey 1972:227) and Cerros (Garber 1989:70).

#### ADORNOS/PENDANTS

There are five artifacts within this type category, all of which are made of *Conch*. This category umbrellas a small assortment of artifacts which differ in appearance, but have been positioned together here on the basis of their speculated use.

The smallest of the adornos (A4-SF/13) measures 1.1 cm x 1.1 cm by .2 cm in height,

and has a cup-shaped depression with a central round rise within it. Unlike the other artifacts of this category, this adorno has no perforations for its suspension, and based on the plainness of its underside, one could suggest that it may be another inlay piece. Comparable yet slightly different objects were noted by Kidder (1947:63) to have been excavated in a burial (Burial A-22) at Uaxactun. The sample from Uaxactun was a double strand of 154 beads, many of which had a cup-like depression, one of which was "inlaid flush with a bit of jade cut to fit perfectly". While this was the only such specimen with the inlay visible, he suggests that others may have had perishable materials inlaid within them, which had since decomposed (Kidder 1947:63). Unfortunately, the Zubin example was discovered in a relatively unsecured context, as it was found in the humus level of Structure A4, and hence, there were no signs of any accompanying jade. The subject piece from Zubin may have had a perishable material inlaid within its depression, and been an inlay in itself.

The one pendant in this grouping (C9-SF/7) was discovered in the looter's backdirt of Structure C-9, and thus has been assigned a rough date of pre-200 A.D. This artifact is unlike the others of this assemblage in that it has been modified only slightly. It appears to be a section roughly cut from the body whorl, or more likely the lip of a *Conch* shell, with a drilled perforation in the centre of the pendant for suspension.

The remaining three adornos are made from *Conch* shell, are floral in form and design, and range in size from 2.1 cm x .2 cm, to 2.3 cm x .2 cm (Figure 6d). Two of the florals (A1-SF/231, 232) were excavated together in a Late Classic (Maxik) burial (A1-B/12) dating to 675-700 A.D., whereas the remaining floral (A1-SF/39) was found in the construction fill of the penultimate architecture of Structure A-1 and dates to 700=725 A.D.

Artifacts A1-SF/231, 232 each have six pedals, whereas A1-SF/39 has eight. All three have a centrally drilled perforation, and have additional decorative patterns besides that of their overall form carved into only one side of the artifact. A1-SF/231 is cup-shaped, comparable in form to a true flower, and has carved striations leading from each pedal to the central drill hole. The pedals on A1-SF/232 are more defined than the other two examples, and have small carved indents at the end of each pedal. A carved ring circles the central perforation, as it does with A1-SF/39, which is the most inferiorly executed of the sample, as its pedals are poorly defined and rather rugged. This may in part be, however, due to poor preservation rather than inferior craftsmanship, for at one point, A1-SF/39 was considered significant enough to have an additional perforation drilled at the end of one of the pedals, and hence could also be classified as a pendant.

One might be inclined to suggest that the floral adornos are beads, suspended through the central perforation, however, this would not permit the carved design of the adornos to be seen. In order for the designs to be seen it would require that the florals lie flat, and unless they had been drilled laterally, which they were not, the suspension of these adornos is unlikely. The exception to this may be A1-SF/39, which has the second drill hole at the end of one a pedal. This artifact could have been suspended with the aid of an additional ring through it, nonetheless, no such additional piece was found. The question then remains, how were these decorative artifacts fastened and what were they fashioned to. It is possible that the floral adornos, and analogously A4-SF/13, were decorative

attachments sewn on to garments. However, I cannot help but speculate that the florals, in addition to the floral rosettes yet to be discussed, were at one time a variation of ear plug, and that the central hole in the florals once held some sort of extension by which the plug was secured thereby allowing the carved design to be seen. Miller & Taube (1993:88) have noted that similar four-petal artifacts carved from jade were worn as hair ornaments. By extension, we could suggest that the carved conch floral adornos from Zubin were also hair ornaments.

### ROSETTES

There are two carved *Spondylus* shell rosettes in the Zubin sample (A1-SF/13, 14), previously illustrated in Iannone 1993: fig. 7c, 7d. Both rosettes were recovered from the Late Classic or Maxik phase Burial A1-B/2, which dates to approximately 725-750 A.D. The rosettes were found in the south central region of the grave, and although the skeletal remains were poorly preserved, "indications are that the head was to the South", (Iannone 1993:23; Stanchly 1994:113). It would appear, therefore, that the rosettes were found around the cranial area of the internment. Circular and rectangular *Spondylus* shell rosettes are noted at Altar de Sacrificios (Willey 1972:224) as were square and hexagonal shapes at Uaxactun (Kidder 1947:66, fig. 53, c). The Altar specimens are centrally drilled and achieve the rosette appearance through the notching of the artifacts edges (Willey 1972:224). The Uaxactun specimens are noted by Kidder (1947:66) as being "characterized by incised lines radiating to points". Additional sites at which rosettes have been noted include Siebal (Willey et al 1975:45), Baking Pot (Ricketson 1970:16) and the Tzinic Group at Cahal Pech (Conlon & Awe 1991:9).

Like the floral adornos, a six pedal floral design was carved on one side of the artifact, leaving the underside left bare. Incised lines run down the centre of each pedal and run into an incised circle which surrounds a centrally drilled perforation. Their apparent identical size and craftsmanship, and the fact that the two were found together around the cranial area of the a burial, suggests that the two were a pair. That the rosettes were found together around the cranial area of a burial only adds weight to the speculation that such artifacts possibly functioned as ear plugs, as mentioned above.

Floral designs have been noted at many sites, including Altar de Sacrificios (Willey 1972:227), Uaxactun (Kidder 1947:65-66), Cerros (Garber 1989:86, Fig. 21f), Burial 15 at Baking Pot (Ricketson 1970:16, Plate 18), and Burial 2 at the Cahal Tzinic Group at Cahal Pech (Conlon & Awe 1990:9).

### CARVED AND DRILLED FRESHWATER (NEPHRANAIAS)

There are two complete drilled *Nephranaias* shells within the Zubin assemblage (A1-SF/51, 228), both of which were found in burials (Figure 6e). A1-SF/228 is the smaller of the two shells and has one drill hole on each valve at the crest of its hinge. A1-SF/51 is approximately 2 cm larger and has two drill holes on each valve, along its larger and more centrally located hinge crest. Aside from the drilled holes, the bivalves were not modified to the extent that most of the other shell artifacts were, and thus the ornamental nature of this type of artifact seems to have been the shell itself. Unfortunately the significance of

the *Nephranaias* shell is unknown.

While both artifacts come from burials within Structure A-1, there is a considerable time difference between the two.

A1-SF/51 was excavated from Burial A1-B/9 along with an unmodified *Nephranaias* valve, four conch sections, and a large piece of modified conch. This is a Late Formative or Xakal phase burial dating between 250 A.D. and 350 A.D. A1-SF/228 was discovered along with two floral adornos and two conch disks (Iannone 1994:57) in the Late Classic or Maxik phase Burial A1-B/12, which dates to 675-700 A.D., a time difference between the two burials of at least 325 years.

Drilled *Nephranaias* shells are known from burial and other contexts from the Maya area in general and are suggested to have possibly had a "symbolic purpose" (Andrews 1969:50). Some sites which are noted as having drilled *Nephranaias* include: Altar de Sacrificios (Willey 1972:228), and Colha (Dreiss 1982:220). This style of modification has have been noted for *Spondylus* shells at Uaxactun (Kidder 1947:62) and from burials at Piedras Negras (Coe 1959:56), although these shells had the additional modification of having had their spines removed.

A further fresh water specimen within the Zubin assemblage is unique in that it is the only artifact carved from a *Nephranaias* shell. This artifact (A4-SF/1) is a semi-circle or arch shape and shows signs of having been polished, thereby allowing the pearly quality of the *Nephranaias*'s interior to have been emphasized. It is proposed that A4-SF/1 was once a full circle, and was likely discarded upon fracturing. This suggestion is based on comparable artifacts found at Uaxactun (Kidder 1947:65) and Altar de Sacrificios (Willey 1972:227).

The specimens from Uaxactun are circular disks of unspecified size and shell, with large openings, too large to have been beads (Kidder 1947:65, fig. 85a, 1 & 2). Judging by the arch of the Zubin specimen, the central perforation would also have been too large an opening to designate this artifact a bead. The specimen from Altar also appears to be broken, as it is "U" shaped. Although the Altar specimen was lost, its size is suggested to be approximately 3 to 4 cm across and was likely fashioned from the columella of a *Conch* shell. Willey (1972:227) first thought that the artifact was a nose ornament, as one could suggest for the Zubin example. However, a study of similar artifacts from Mesoamerica by Ekholm (1962), and his suggestion "that such objects were finger-loops fastened to atlatl shafts" (Willey 1972:227, 228) changed Willey's opinion and offered a plausible use for the Zubin specimen.

#### UNSPECIFIED ARTIFACTS

Within the Zubin sample there are four shell artifacts whose appearance, unlike the above modified shell artifacts, does not suggest a purpose or type classification. One specimen is an unmodified right valve of a freshwater clam (*Nephranaias*) (A1-SF/50). While unmodified *Nephranaias* shells are often noted in construction fill levels, A1-SF/50 was deliberately included in the Xakal phase (250 B.C.-350 A.D.) Burial A1-B/9

along with four *Conch* sections, a drilled *Nephranaias* bivalve and the unspecified *Conch* artifact discussed below. The significance of this particular artifact is unknown, however, occurrences of unmodified shell artifacts have been noted in burials and caches at many sites, for instance Dzibilchaltun (Andrews 1969:50), Uaxactun (Kidder 1947), Piedras Negras (Coe 1959) and Altar de Sacrificios (Willey 1972:220) and are often considered to be offerings of "raw material".

The second unspecified artifact is fashioned from the body whorl or columella section of a *Conch* shell (A1-SF/45), and although its function is undetectable, it has obviously been carved or cut on three sides, the fourth having been left unfinished or natural. As discussed, this artifact was included amongst the above noted grave goods in Burial A1-B/9. Of interest is the fact that both of the artifacts from the Zubin sample whose use is unspecified by its appearance, were discovered within the same burial. Perhaps the individual interred in Burial A1-B/9 had some sort of connection with the shell manufacturing process. Perhaps he had connections to the nearby shell manufacturing site at Cas Pek.

Similar marine shell "chunks" have been noted at Cerros (Garber 1989:70, Fig. 22e), Colha (Dreiss 1982:221) and Uaxactun (Kidder 1947:66) where there is also a similar specimen fashioned from a freshwater clam. Speculated uses of such specimens include scrapers (Garber 1989:70) a flaking tool or possibly a Celt blank (Dreiss 1982:221). The specimen from Zubin differs from the above noted pieces in that while it does have a ridge which could scrape well, it does not have a sharp edge. Another possibility is that this artifact is an offering of "raw material" as the unmodified *Nephranaias* bivalve may be.

The two remaining specimens are simply roughly cut and obscurely shaped pieces of modified *conch*. These two artifacts are solitary examples of modified shell artifacts from Structure's B8 (B8-SF/1) and F14 (F14-SF/5), both of which come from deposits dating to the Maxik phase (675-875 A.D.).

## CONCLUSION

We have been able to see a number of trends within the Zubin modified shell sample. We have noted that beads have a continuous use throughout Zubin's occupation, that tinklers and drilled bivalves have a long tradition of use, and that the majority of artifacts come from burial contexts. Through our excavations we have identified two periods of construction hiatus' at Zubin, between 350 B.C. and 250 A.D., and between 350 A.D. and 600 A.D. As a result of this determination we have been able to observe a correlation between the lack of speciality deposits and the interruptions in structure construction. Thus we are able to conclude that the lack of modified shell and other speciality artifacts is not necessarily the result of a departure from the traditional production and use of such artifacts at Zubin, but is a reflection of a stagnant construction phase.

As was mentioned earlier, 56.9 per cent of the Zubin collection comes from burial contexts. Altar de Sacrificios (Willey 1972), Pacbitun (Healy 1990), Blackman Eddy (Garber et al. 1992; Driver et al. 1992), Baking Pot (Ricketson 1970), Colha (Buttles 1992; Dreiss 1982), Uaxactun (Kidder 1947), Piedras Negras (Coe 1959), and the Tzinic (Conlon

& Awe 1991) and Cas Pek (Sunahara & Awe 1994) groups at Cahal Pech all have had modified shell artifacts excavated from burial contexts. The profusion of shell objects excavated from burials at Zubin and other Maya sites attests to the significance of the shell artifacts. The question remaining is what was that significance?

Andrews (1969:48) suggests that the significance of marine shell to the Maya may have resulted from the belief that the marine shells held "magic or symbolic properties". He also notes that frequently gods are depicted carrying or protruding from a *Conch* shell, and that "the molluscan symbol...(is) associated with the underworld, (and) with death". Perhaps it is this type of belief that accounts for the inclusion of objects of shell in burials.

Of particular interest is the concentration of marine shells, specifically conch, within the Zubin sample. Artifacts made from marine shells are the first modified shell artifacts to occur at Zubin, and dominate the sample throughout Zubin's occupation, despite the ready availability of locally procured *Nephranaias* clams. This may in part be due to the nature of the marine shell, in that it is generally a thicker, and therefore a more hardy material. Its hardness would allow marine shell artifacts to endure minimal breakage during manufacture and wear. Nonetheless, it is probable that the dependence on marine shell for ornamental artifacts has a more significant purpose than "wear-and-tear".

Notwithstanding, many of the modified shell artifacts, such as drilled bivalves and tinklers, are modified only slightly, with the intentions of maintaining the shells original appearance. Thus, the archaeologists may be observing two separate types of shell veneration, one which honours the shape of the shell itself, while the other honours the significance of the material, perhaps for specific qualities which have been attributed to it by the Maya. Andrews (1969:61) notes that "shells had a definite religious connotation documented in sculptures, ceramics, and the codices", and that "shells were deeply involved in Maya ideas of cosmogony"(Andrews 1969:48).

On the basis of the data presented in this paper and others in this report (see Christensen 1995; and Schwake 1995, in print), the individuals who occupied Zubin appear to have been persons of consequence. The assemblage of modified shell and other specialty artifacts attests to their status, in that such items are noted to be luxury goods through the "exotic" material from which they are fashioned, as well as the craftsmanship of most pieces. When one considers the types of luxury goods available to Zubin's population and its relative location to the site core of Cahal Pech, it can be suggested with some certainty that Zubin held a position of distinction within the Belize Valley.

### Acknowledgements

I would like to thank Dr. Jaime Awe and Gyles Iannone for permitting me access to Zubin's modified shell artifact assemblage and for reading earlier drafts of this paper. I would also like to thank Peter McDonagh for the illustrations, Jeff Mackintosh for his computer graphing skills, Tina Christensen and Sonja Schwake for their constant support and help, and last but not least, Norbert Stanchly for the identification of shell species.

### REFERENCES CITED

Andrews, E. Wyllys

- 1969 The Archaeological Use and Distribution of Mollusca in the Maya Lowlands. Middle American Research Institute Publication 34, Tulane University, New Orleans.

Buttles, Palme Jeanne

- 1992 Small Finds in Context: The Preclassic Artifacts of Colha, Belize. Thesis Presented to the Faculty of the Graduate School of the University of Texas at Austin.

Cobos, Rafael

- 1991 Craft Specialization During Prehistoric Times: An Example From Chichen Itza, Yucatan. Paper Presented at the 47th International Congress of Americanists, New Orleans, Louisiana.

Coe, William R.

- 1959 Piedras Negras Archaeology: Artifacts, Caches and Burials. The University Museum, Museum Monographs, Philadelphia.

Dreiss, Meredith L.

- 1982 "An Initial Description of Shell Artifacts from Colha, Belize" IN Archaeology at Colha, Belize: 1981 Interim Report. Thomas R. Hester, Harry J. Shafer and Jack D. Eaton, editors, pp. 208-224, University of Texas, San Antonio.

Driver, David, James F. Garber, Lauren A. Sullivan and David M. Glassman

- 1992 The Creation, Utilization, and Deactivation of Sacred Space in a Maya Household at the Site of Blackman Eddy, Belize. Paper Presented at the 57th Annual Meeting of the Society for American Archaeology, Pittsburg.

Ekholm, G.F.

- 1961 "Some Collar-Shaped Shell Pendants From Mesoamerica." IN Homenaje a Pablo Martinez de Rio. 287-93. Instituto Nacional de Anthropologia e Historia. Mexico.

Garber, James F.

- 1989 Archaeology at Cerros, Belize, Central America, Volume II, The Artifacts. Southern Methodist University Press, Dallas.

Garber, James F., W. David Driver, Lauren A. Sullivan, Sean Goldsmith

- 1992 The Blackman Eddy Archaeological Project: Results of the 1991 Field Season. Southwest Texas State University, San Marcos.

Healy, Paul

- 1990 "Excavations at Pacbitun, Belize: Preliminary Report on the 1986 and 1987 Investigations." IN Journal of Field Archaeology 17:247-262.

Hodgson, J. Garwood

- 1993 "A Preliminary Report of Excavations at Plaza B, Zubin, Belize." IN Belize Valley Archaeological Reconnaissance Project: Progress Report of the 1992 Field Season, edited by Jaime J. Awe, pp. 10-44. Trent University, Peterborough.

Iannone, Gyles

- 1993a "Time Among the Thorns: Results of the 1992 Field Season at Zubin, Cayo District, Belize" IN Belize Valley Archaeological Reconnaissance Project: Progress Report of the 1992 Field Season. edited by Jamie J. Awe, pp. 10-44, Trent University, Peterborough.
- 1993b "Minor Centers" and Ancient Maya Settlement: Current Research in the Periphery of Cahal Pech, Cayo, Belize. Paper presented at the 58th Annual Meeting of the Society for American Archaeology, St. Louis.
- 1994 "More Time Among the Thorns: Results of the 1993 Field Season at Zubin, Cayo District, Belize" IN Belize Valley Archaeological Reconnaissance Project: Progress Report of the Sixth (1993) Field Season, edited by Jamie J. Awe, pp. 32-108, Institute of Archaeology, London.

Kidder, A. V.

- 1947 The Artifacts of Uaxactun, Guatemala. Publication 576, Carnegie Institution of Washington, Washington.

Miller, Mary and Karl Taube

- 1993 The Gods and Symbols of Ancient Mexico and the Maya, Thames and Hudson, London.

Ricketson, Oliver Jr.

- 1970 Excavations at Baking Pot, British Honduras. Carnegie Institution of Washington Contributions to American Archaeology, Vol. 1, No.1. Washington.

Stanchly, Norbert

- 1993 "A Preliminary Analysis of the Faunal Remains From the Tolok and Zubin Groups, 1991 and 1992 Field Seasons" IN Belize Valley Archaeological Reconnaissance Project: Progress Report of the 1992 Field Season. edited by Jamie J. Awe, pp. 130-138, Trent University, Peterborough.



Stanchly, Norbert (continued)

- 1994 "A Report on the Faunal Remains Recovered from the Zubin Group, 1993 Field Season" IN Belize Valley Archaeological Reconnaissance Project: Progress Report of the Sixth (1993) Field Season, edited by Jamie J. Awe, pp. 109-121. Institute of Archaeology, London.

Sunahara, Kay S. and Jaime Awe

- 1993 "A Report of the 1992 Excavations on Structures D10 and D11 of the Zubin Group at Cahal Pech, Cayo District, Belize" IN Belize Valley Archaeological Reconnaissance Project: Progress Report of the 1992 Field Season. edited by Jamie J. Awe, pp. 63-77, Trent University, Peterborough.

Willey, Gordon R.

- 1972 The Artifacts of Altar de Sacrificios. Papers of the Peabody Museum of Archaeology & Ethnology, Vol. 64, No. 1, Harvard University, Cambridge.

Willey, Gordon R., A. Ledyard Smith, Gair Tourtellot III and Ian Graham

- 1975 "Excavations at Seibal, Department of Peten, Guatemala". Memoirs of the Peabody Museum of Archaeology and Ethnology. Volume 13, Numbers 1 & 2, Harvard University.

Zelevnick, Scott

- 1994 "The 1993 Excavations and Consolidation of Structure A-1" IN Xunantunich Archaeological Project, 1993 Season Report, pp. 29-55.

# Zubin Material Distribution

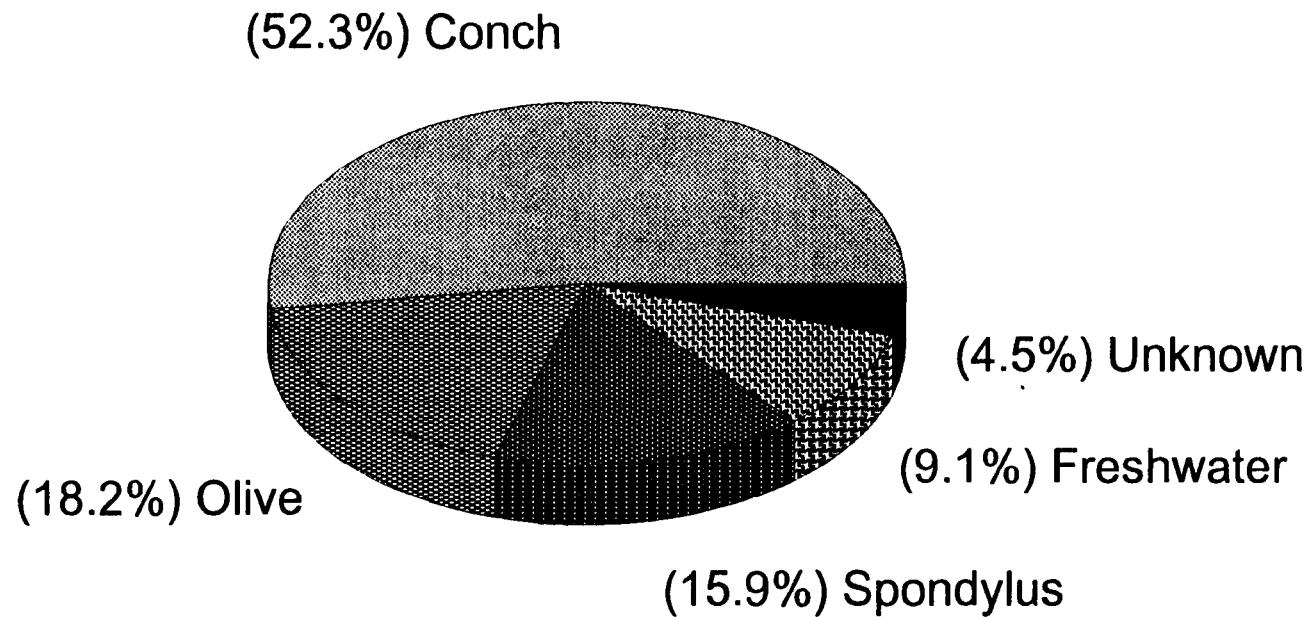


Figure 1. Percentage of Artifact Materials

## Artifact Types

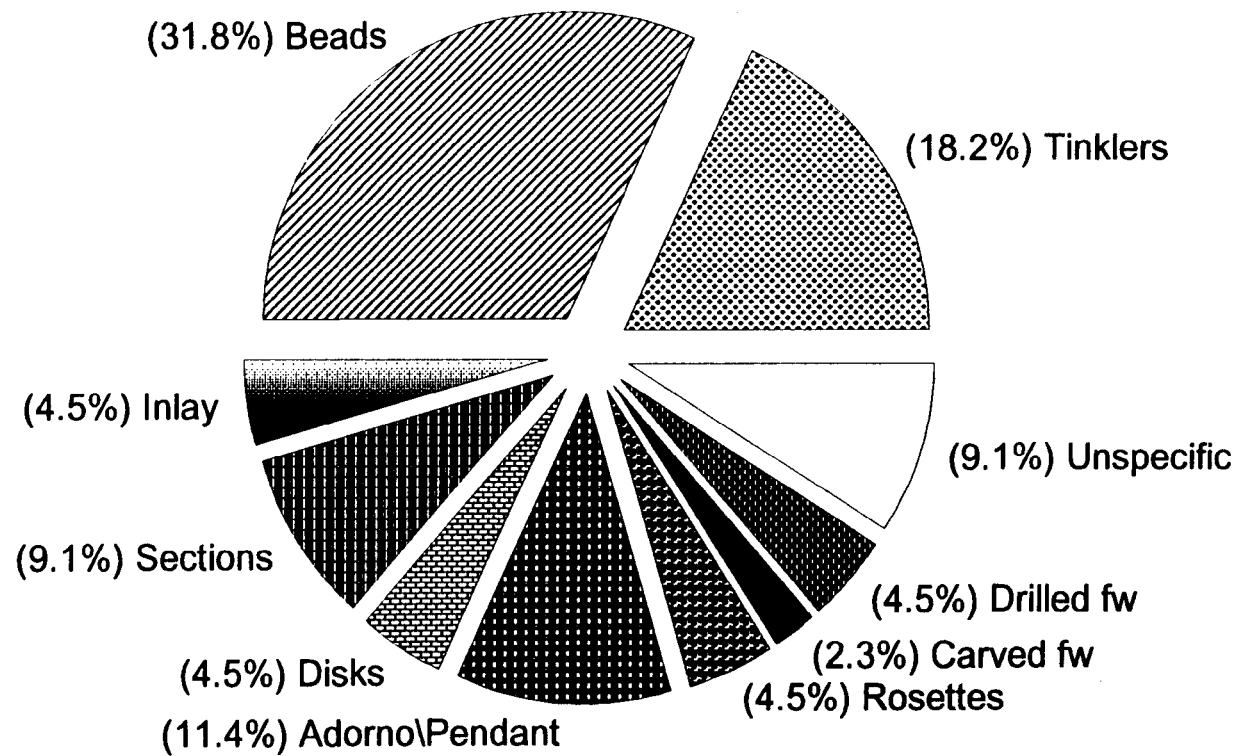


Figure 2. Percentage of Artifact Types

# Material Distribution

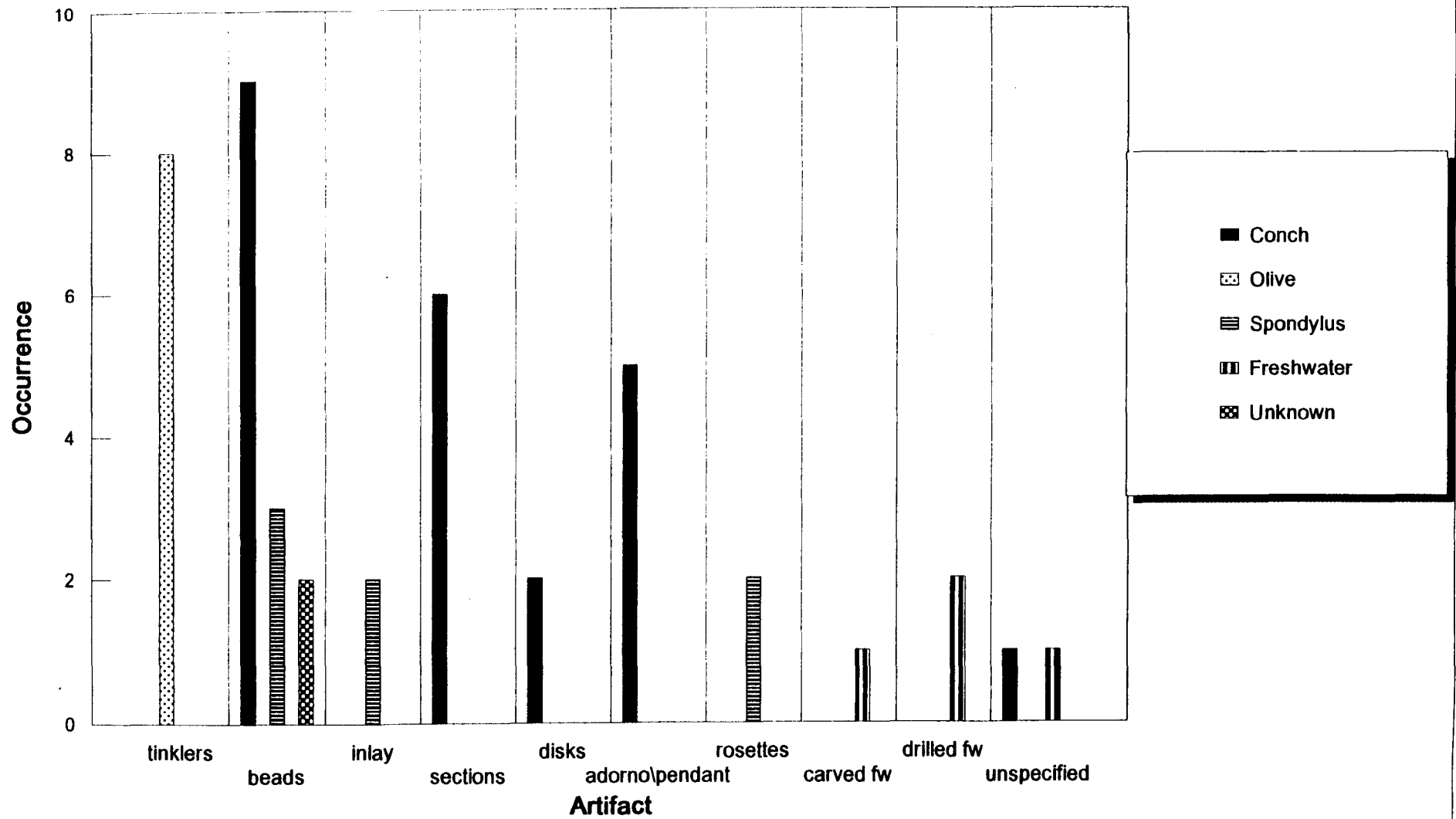


Figure 3. Distribution of Artifact to Material

Dep. of Prehistory  
Belmopan, Belize

## Artifact Time Phase Distribution

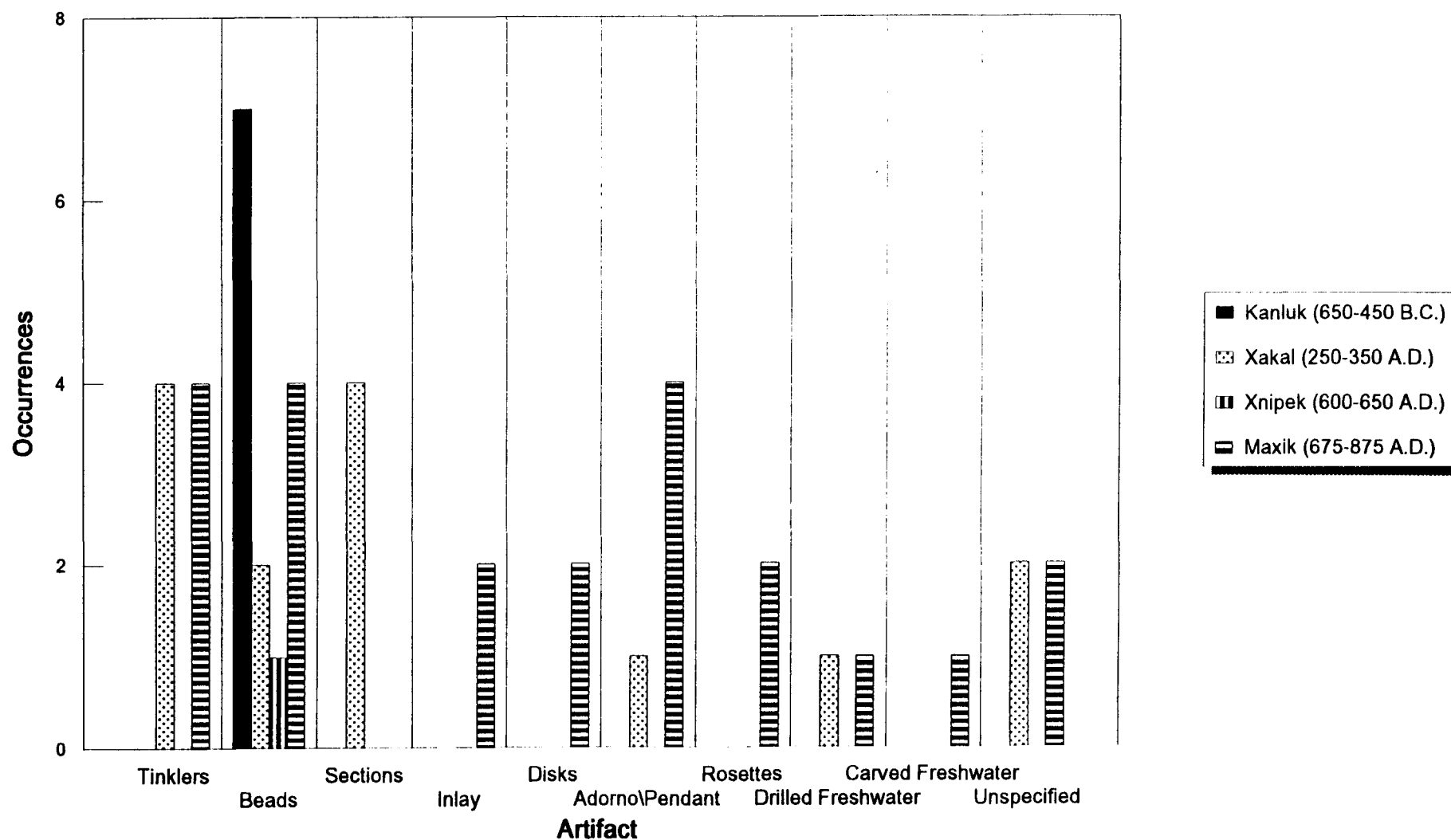


Figure 4. Distribution of Artifacts to Time Phases

FIGURE 6 .

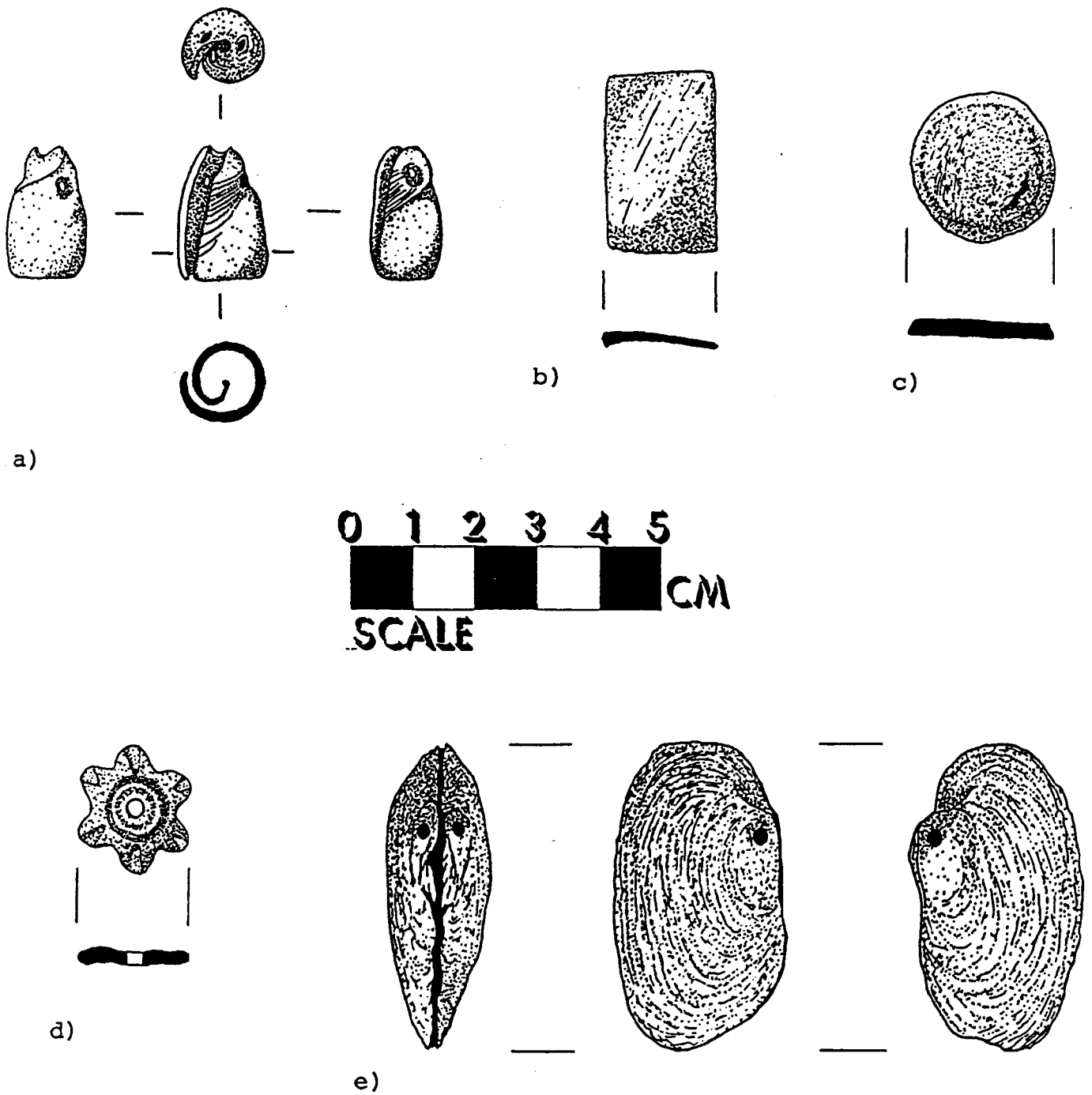


Fig. 6 a) Tinkler (Al-SF/41); b) Section (Al-SF/48);  
c) Disk (Al-SF/230); d) Floral Adorno (Al-SF/232);  
e) Drilled Freshwater Clam (Al-SF/228).

# A SUMMARY OF THE FAUNAL REMAINS RECOVERED FROM THE ZUBIN GROUP, CAHAL PECH, BELIZE, 1994 FIELD SEASON

By

Norbert Stanchly  
University of Toronto

## **Introduction**

Excavations conducted at Zubin during the 1994 field season resulted in the recovery of 629 faunal remains which are reported on below. This number represents the total amount of faunal material recovered while the author was in the field. An additional unknown quantity of faunal material was recovered but has yet to be examined (Iannone, personal communication). All of the remains reported here were recovered from within structures A4 and C9, the focus of the 1994 investigations (see Iannone, this volume).

Both shell and bone remains were recovered with shell comprising 87.4% ( $n = 550$ ) of the total sample, and bone 12.6% ( $n = 79$ ) of the sample. The bone remains represent the largest quantity of non-intrusive vertebrate elements yet recovered at Zubin in three seasons of excavations and almost all were retrieved from a Late Classic midden found in Unit A4-3.

Taxa represented and identified to date include local freshwater shells, terrestrial and arboreal snails (both probably intrusive elements), marine shell, local mammal, reptile, and bird species, as well as marine fish (Table 1).

The presence of marine fish specimens and marine shell indicates access to these coastal resources by the Zubin inhabitants. The exact nature of this access is however unclear and not discussed in any detail.

## **General Observations of the Faunal Sample**

Invertebrate remains represent the majority of the faunal sample and include specimens of jute (*Pachychilus spp.*), river clams (*Nephronaias ortmanni*), marine conch shell (Strombidae), netted olive shell (*Oliva reticularis*), and local land and arboreal snails (*Euglandina* sp. and *Orthalicus* sp., respectively).

Vertebrate remains identified to date include elements representing white-tailed deer (*Odocoileus virginianus*), rabbit (*Sylvilagus* sp.), grouper (Serranidae), parrotfish (Scaridae), and possibly paca or agouti (Dasyproctidae). One lizard (Sauria) element has been identified. Bird remains await identification below the class level. Two bird elements (a carpometacarpus and a partial synsacrum) should be identifiable to the species level and their size suggests dove or parakeet sized species may be represented. Both elements may be from the same animal.

**Table 1: List of Taxa Identified**

<b>Taxon</b>	<b>Common Name</b>
<i>Euglandina</i> sp.	land snail
<i>Pachychilus indiorum</i>	jute

<i>Orthalicus</i> sp.	tree snail
<i>Nephronaias ortmanni</i>	river clam
<i>Pachychilus</i> sp.	jute
<i>Pachychilus glaphyrus</i>	jute
Strombidae	conch
<i>Oliva reticularis</i>	netted olive shell
Rodentia	rodent
Reptilia	reptile
<i>Odocoileus virginianus</i>	white-tailed deer
<i>Sylvilagus</i> sp.	rabbit
Dasyproctidae?	agouti or paca?
Scaridae	parrotfish
Serranidae	grouper
Mammalia	mammal
Cervidae?	deer?
Aves	bird
Osteichthyes	bony fish

All faunal remains reported on are presented only by the number of identifiable specimens (NISP) method of quantification. For this report identifiable is synonymous with specimen meaning that all specimens or fragments of bone or shell were counted. This value represents a total specimen count. Calculation of minimum number of individuals (MNI) awaits further analysis. Any listing of such values at this time would be tentative and conservative. As it is felt by the author that a real or more accurate estimate of individuals is desired, this calculation will be undertaken once all of the faunal remains have been identified and all provenience information has been taken into account.

**Table 2: List of Invertebrate Remains**

<b>Taxon</b>	<b>NISP</b>
<i>Pachychilus indiorum</i>	243
<i>Nephronaias ortmanni</i>	149
<i>Euglandina</i> sp.	90
<i>Orthalicus</i> sp.	45
<i>Pachychilus glaphyrus</i>	10
Strombidae	7
<i>Euglandina</i> sp.?	3
<i>Oliva reticularis</i>	2
<i>Pachychilus</i> sp.	1
Total	550

**Table 3: List of Vertebrate Remains**

<b>Taxon</b>	<b>NISP</b>
Mammalia	40



Dasyproctidae?	5
<i>Odocoileus virginianus</i>	4
Osteichthyes	4
<i>Sylvilagus</i> sp.	4
Rodentia	4
Aves	4
Cervidae?	2
<i>Sylvilagus</i> sp.?	2
Rodentia?	1
Scaridae	1
Serranidae	1
Reptilia	1
Class Unknown	6
Total	79

### **Account of Invertebrate Remains**

Local snail (Gastropoda), bivalve (Pelecypoda), and marine shell representing at least 7 taxa are represented in the Zubin sample and are discussed below (also see Table 2).

At least two species of the local freshwater snail *jute* are represented (*P. indiorum* and *P. glaphyrus*) while some specimens could only be identified to the genus level (*Pachychilus* sp.). These may represent additional species. In all 254 were identified, the vast majority of which (n = 243 or 95.7%) are *P. indiorum*. All of the remains were recovered from fill contexts and were broken suggesting their use as a food source and subsequent disposal as refuse. The *jute* snail is still consumed by some modern Maya, however their inclusion as a dietary supplement appears to be on the decline (Healy et al. 1990:178-180). The nature of *jute* utilization as both a food source and ritual item is still not well understood (Healy et al. 1990; Stanchly and Dale 1992).

Remains of the local freshwater river clam *Nephronaias ortmanni* (n = 149) were recovered primarily from within Str. C9 (n = 106 or 71.1%). Large quantities of this species were recovered during previous seasons from construction fill contexts, mainly in Plaza A. Larger frequencies of this clam have been noted in Formative period contexts from both the Cahal Pech site core (Structure B-4, B-4 Plaza) and the peripheral Cas Pek and Tolok groups (Stanchly 1995) as well as at the site of Barton Ramie (Willey et al. 1965:527). The recovery of so many specimens from the Formative C9 structure may lend support to an interpretation which suggests that the clams were an important Formative period dietary supplement and part of a subsistence economy which focused on local freshwater resources (Puleston and Puleston 1971; Willey et al. 1965). The clams recovered from Plaza A contexts in 1992 also date primarily to the Formative period.

Only seven conch shell fragments (Family Strombidae) were observed by the author. These shells have been used as raw material for several artifact types including beads, adornos, and inlays, and have been recovered in burial and cache contexts at Zubin (Iannone 1993, 1994, this volume; Stanchly 1994). None of the conch shell remains listed in this report exhibited modifications although they may still represent detritus by-product from shell artifact manufacture.

Two tinklers made from the netted olive shell (*Oliva reticularis*) were analyzed (A4-SF/39, A4-SF/40). Several olive shell tinklers have been recovered from Zubin both from burial and fill contexts (Iannone 1993, 1994; Stanchly 1994). The use of olive shells as tinklers has been well documented throughout the Maya lowlands (Andrews 1969:17-19) and at Cahal Pech (Awe 1992).

Specimens of both *Euglandina* (cf. *Euglandina rosea*?) and *Orthalicus* were recovered, although both are considered intrusive elements in the sample.

### **Account of Vertebrate Remains**

Excavations at the Zubin group have produced a number of vertebrate remains from earlier field seasons. Almost all of these are intrusive rat or mouse bones recovered from burial fill (Stanchly 1993). During the 1994 season a substantial amount of vertebrate material was recovered from a Late Classic midden in unit A4-3. Much of this material exhibits heat alteration (both charring and calcination) probably due to cooking practices. The species represented by these remains were available locally to the Zubin inhabitants. All of these remains (Table 3) are believed to represent food refuse and are discussed in detail in a separate section below. Three intrusive remains from the looter's backdirt in Str. C9 were also analyzed. Briefly, they include two rat and/or mouse bones ( a humerus and maxilla fragment) and a lizard (Gekkonidae?) mandible fragment. Other bone material from Str. A4 included 13 remains including a right white-tailed deer astragalus, two fragments of what may be the femur of a deer (Cervidae?), two unidentified bird long bone fragments (from a tibiotarsus?), two rodent (rat or mouse) long bone fragments, and six fragments identified only as mammal.

### **Distribution of the Faunal Remains**

Faunal remains were recovered from structures A4 and C9 and from both Formative and Classic period contexts (Table 4). Structure C9 remains were all from Protoclassic or Formative contexts. Some, recovered from looter's backdirt, were of mixed and unknown exact provenience but are believed to be from pre-200 A.D. contexts (Iannone, this volume). Faunal remains from within Str. A4 were retrieved from contexts dating to the Early to Late Classic periods (250-850 A.D.). A listing of exact provenience data is not provided in this report. General cultural phases are only discussed in some cases since this information is still forthcoming and undergoing revision. However, the dates discussed herein are fairly secure. A complete listing of faunal materials and their exact provenience will be forthcoming (Stanchly, n.d.)

**Table 4: Distribution of Faunal Remains by Structure**

<b>Taxon</b>	<b>Str. A4</b>	<b>Str. C9</b>	<b>Total</b>
<i>Pachychilus indiorum</i>	194	49	243
<i>Nephronaias ortmanni</i>	43	106	149
<i>Euglandina</i> sp.	80	10	90
<i>Orthalicus</i> sp.	40	5	45
Mammalia	40	-	40
<i>Pachychilus glaphyrus</i>	2	8	10
Strombidae	3	4	7
<i>Odocoileus virginianus</i>	4	-	4

Osteichthyes	4	-	4
Rodentia	2	2	4
<i>Sylvilagus</i> sp.	4	-	4
Aves	4	-	4
<i>Euglandina</i> sp.?	3	-	3
Cervidae?	2	-	2
<i>Oliva reticularis</i>	2	-	2
<i>Sylvilagus</i> sp.?	2	-	2
Dasyproctidae?	5	-	5
<i>Pachychilus</i> sp.	1	-	1
Reptilia	-	1	1
Rodentia?	1	-	1
Scaridae	1	-	1
Serranidae	1	-	1
Class Unknown	6	-	6
Total	444	185	629

#### **Structure A4**

A total of 444 faunal remains from units A4-1, A4-1A, A4-2, A4-2A, A4-3, A4-4, A4-5, A4-6 were presented for analysis. The majority of the A4 materials were recovered from secondary contexts such as fill materials and construction fill, although a substantial midden accumulation was encountered in unit A4-3 dating to the Late Classic Xnipek phase (600-650 A.D.). Almost all of the bone material reported on in this report was recovered from within this midden accumulation.

#### **A4-3 Midden**

A total of 63 remains were presented for analysis. To date, 16 have been identified to family or lower taxon and include white-tailed deer, rabbit, agouti or paca, grouper, and parrotfish remains. The remaining 47 bones include unidentified bird, possibly rodent, fish, and mammal remains. Twenty-four of the bone specimens were either charred or calcined and included a proximal epiphysis of an immature white-tailed deer and two rabbit tibia fragments.

All of the species identified to date were consumed by the Maya. All except for the coastal fishes could have been procured locally. The rodent bones probably represent intrusive elements. Two small bird bones (possibly from the same species) may represent food refuse. The size of the birds would suggest that they held little nutritional value in terms of edible meat available, however, their inclusion in a midden suggests that they may have been eaten. Hopefully, once a species identification has been made this question can be resolved by comparison with other known faunal assemblages.

#### **Structure C9**

A total of 185 faunal remains were recovered from Formative contexts in Str. C9. The majority of these remains were shells including *Nephroniaia ortmanni* and *Pachychilus* spp. Some conch was also recovered. Only 3 vertebrate remains were recovered, all of which are intrusive. All of the remains were recovered from fill contexts and little can be said concerning their importance as foodstuffs.

### **Discussion of the Zubin Faunal Remains**

The analysis of the faunal remains recovered during the 1994 season suggests the procurement of local vertebrate and invertebrate species as well as access to coastal resources such as reef fishes and marine shell. The exact nature of this access remains unclear. Faunal remains from a Late Classic midden in Str. A4 show that the Zubin inhabitants were consuming local terrestrial game such as white-tailed deer, rabbit, agouti or paca, grouper, and parrotfish. Local freshwater snail and bivalve species were probably consumed as supplements to a diet based on maize agriculture and the hunting of local terrestrial game.

The local freshwater river clam *Nephronaias* appears to have been utilized more readily during the late Formative period, a trend seen elsewhere at Cahal Pech and other lowland sites (Stanchly 1995). The freshwater *jute* snail is present at Zubin but not in any great numbers. Overall, bone and shell remains are present in relatively few numbers although several worked specimens have been recovered from burial and other special deposit contexts. A detailed analysis of the worked shell remains has been undertaken by Ferguson (this volume).

Inferences regarding intra-site patterns of faunal utilization will be forthcoming once the analysis of all shell and bone remains has been completed and all cultural data have been secured. It is hoped that this will be completed during the summer of 1995. At that time it is also hoped that not only might we be able to infer real patterns at the intra-site level but also at the inter-site level within the Cahal Pech community as a whole. Moreover it is our intention to address issues concerning social organization with a particular focus on the concepts and theories proposed by Iannone (1994) on middle level settlement units.

### **Acknowledgements**

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### **References Cited**

Andrews, E.W., IV

- 1969 *The Archaeological Use and Distribution of Mollusca in the Maya Lowlands*. Tulane University, Middle American Research Institute, Publication 34. New Orleans, LA.

Awe, J.J.

- 1992 *Dawn in the Land Between the Rivers: Formative Occupation at Cahal Pech, Belize and its Implication for Preclassic Development in the Maya Lowlands*. Unpublished Ph.D. dissertation, Institute of Archaeology, University of London. London, U.K.
- Healy, P.F., K. Emery, and L.E. Wright
- 1990 Ancient and Modern Maya Exploitation of the *Jute Snail* (*Pachychilus*). *Latin American Antiquity* 1(2): 170-183.
- Iannone, G.
- 1993 Time Among the Thorns: Results of the 1992 Field Season at Zubin, Cayo District, Belize. In *Belize Valley Archaeological Reconnaissance Project: Progress Report of the 1992 Field Season*, edited by J. J. Awe, pp. 10-44. Department of Anthropology, Trent University. Peterborough, ONT.
- 1994 More Time Among the Thorns: Results of the 1993 Field Season at Zubin, Cayo District, Belize. In *Belize Valley Archaeological Reconnaissance Project: Progress Report of the Sixth (1993) Field Season*, edited by J.J. Awe, pp. 32-108. Institute of Archaeology, University of London. London, UK.
- Pohl, M.
- 1976 *Ethnozoology of the Maya: An Analysis of Fauna from Five Sites in the Peten, Guatemala*. Unpublished Ph.D. dissertation, Department of Anthropology, Harvard University. Cambridge, MA.
- 1985 The Privileges of Maya Elites: Prehistoric Vertebrate Fauna from Seibal. In *Prehistoric Lowland Maya Environment and Subsistence Economy*, edited by M. Pohl, pp. 133-145. Harvard University, Peabody Museum of Archaeology and Ethnology, Paper 77. Cambridge, MA.
- Puleston, D.E. and O.S. Puleston
- 1971 An Ecological Approach to the Origins of Maya Civilization. *Archaeology* 24(4): 330-337.
- Stanchly, N.
- n.d. *A Listing of the Faunal Material Recovered from the Zubin Group, Cahal Pech, Belize, 1992-1994 Field Seasons*. Manuscript in preparation.
- 1993 A Preliminary Analysis of the Faunal Remains from the Tolok and Zubin Groups, 1991-1992 Field Season. In *Belize Valley Archaeological Reconnaissance Project: Progress Report of the 1992 Field Season*, edited by J.J. Awe, pp. 130-138. Department of Anthropology, Trent University. Peterborough, ONT.
- 1994 A Report on the Faunal Remains Recovered from the Zubin Group, 1993 Field Season. In *Belize Valley Archaeological Reconnaissance Project: Progress Report of the Sixth*

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(1993) *Field Season*, edited by J.J. Awe, pp. 109-121. Institute of Archaeology, University of London. London, England.

- 1995 Formative Period Maya Faunal Utilization at Cahal Pech, Belize: Preliminary Analysis of the Animal Remains from the 1994 Field Season. In *Preclassic Maya of the Belize Valley*, edited by P.F. Healy and J.J. Awe. Trent Occasional Paper No. 10. Trent University Press, Peterborough, Ont. In press.

Stanchly, N. and J. Dale

- 1992 An Analysis of the Faunal Remains from Structure B-4, Units 4 and 5, Cahal Pech, Belize. In *Progress Report of the Fourth Season (1991) of Investigations at Cahal Pech, Belize*, edited by J.J. Awe and M.D. Campbell, pp. 141-167. Department of Anthropology, Trent Univeristy. Peterborough, ONT.

Willey, G.R., W.R. Bullard, J.B. Glass, and J.C. Gifford

- 1965 *Prehistoric Maya Settlement in the Belize Valley*. Harvard University, Peabody Museum of Archaeology and Ethnology, Paper 54. Cambridge, MA.