

UNIVERSITY OF CALIFORNIA
RIVERSIDE

Experiencing Maya Palaces: Royal Power, Space, and Architecture at
Holmul, Guatemala

A Dissertation submitted in partial satisfaction
of the requirements for the degree of

Doctor of Philosophy

in

Anthropology

by

Ryan William Mongelluzzo

June 2011

Dissertation Committee:

Dr. Wendy Ashmore, Chairperson

Dr. Karl Taube

Dr. Thomas C. Patterson

Dr. Francisco Estrada-Belli

Copyright by
Ryan William Mongelluzzo
2011

The Dissertation of Ryan William Mongelluzzo is approved:

Committee Chairperson

University of California, Riverside

ACKNOWLEDGEMENTS

I would like to extend my sincerest thanks to my dissertation committee. This gratitude begins with my advisor, Wendy Ashmore. Wendy made me feel most welcome when I first arrived and her strong interest in my research as it evolved really helped me to believe in it as a fruitful avenue of study. I learned, and continue to learn, much from her about Maya archaeology and concepts like Space and Place, but also in how to carry myself as a respected professional. Her patience and emotional support were integral in the completion of this dissertation. I would like to express gratitude to Karl Taube, who in taught me an immense amount about how ancient Maya art and iconography could be brought to bear on my arguments. I would also like to thank Tom Patterson for the conversations we had about the themes of the dissertation and the writing process. I found those discussions really helpful in finding my own productive creative practice. The final member of my committee, Francisco Estrada-Belli deserves special thanks not only for sitting on the committee, but also providing me with the fieldwork opportunity on the Holmul Archaeological Project so that I could conduct my research. Francisco provided room and board and put excavators and equipment at my disposal. This dissertation was also supported by a UCR CHASS Humanities grant.

I would also like to thank the people who have engaged me as mentors both in my early career and here at UCR. From my time at Boston University, especially the field

school at La Milpa, Belize, I owe a great debt to Norman Hammond. He taught me an incredible amount about how a project is to be run, and the trust he has shown in me over the years has meant a lot, as has his continued concern and support. I also learned a lot from Gair Tourtellot and Sara Donaghey in terms of survey and excavation techniques, respectively. Candida Lonsdale and Jan Morrison went a long way in teaching me exactly what I would, and would not, be able to accomplish in terms of drawing and inking. I want to especially thank Amanda Clarke for not only showing me that leadership can be graceful, but also for being a tremendously supportive friend. Finally, I would like to thank Laura Kosakowsky, a mentor never afraid to speak her mind or too tired to hear me vent. She helped me navigate the waters to UCR, through the field, and to a completed dissertation and doctoral degree.

I would also like to thank the many friends that I have made in the field without whose support I would have undoubtedly failed. I especially want to thank Jeremy Bauer, with whom I hope to co-direct a project one day. I also want to show appreciation to Marc Wolf, Ben Thomas, Judith Valle, Jason Gonzalez, Kerry Sagebiel, Jenn Foley, Astrid Runggaldier, Kristen Gardella, Katie South, Anna Browne-Ribeiro, Anna Novotny, Erick Rochette, Mónica Fabiola de León Antillón, Angel Castillo, Alexandre Tokovinine, Antolin Velasquez-Lopez, Edy Barrios, John Tomasic and Michael Callaghan.

At UCR, I would like to thank Juliet McMullin, for sitting in on my defense committee at the last minute. I would also like show gratitude for the discussions that we had impacting the theory chapter of this dissertation. I would also like to show

appreciation to those who showed a genuine interest in me professionally and personally. They would be Anthropology professors Scott Fedick, Al Fix, Carlos Vélez-Ibáñez, David Kronenfeld, Sang-Hee Lee, Sally Ness, Christine Gailey, Yolanda Moses, Derrick Fay, and Paul Ryer. I would also like to thank the director of the CHASS Connect program, Geoff Cohen, for the support and interest he gave. All of the CHASS Connect professors I TA'd for were supportive: Michelle Raheja, Raymond Williams, Juliette Levy, Dylan Rodríguez, Jonathan Walton, Anna Scott, George Haggerty, and Pat Morton.

I want to thank all of my friends and colleagues from the UCR Department of Anthropology for their support. In particular I would like to thank Christina Halperin, Theresa Barket, Reiko Ishihara, Jeffrey Glover, Carrie Furman, Kata Faust, Taryn Rampley, Jon Spenard, Laurette McGuire, Kathy Sorenson, Lauren Schwartz, Shankari Patel, Chelsea Blackmore, John Gust, Dan Leonard, Mike Mathiowetz, Lucia Gudiel, Mark Wright, Jonathan DuBois, Jelena Radovic, Isabelle Placentia, Shuji Araki, and Tai Inoue.

I am very excited and very grateful for a newly found community of archaeologists interested in the senses, whose ideas and passions have greatly impacted this dissertation. This community arose due to the 27th Annual Visiting Scholar Conference at Southern Illinois University, entitled *Making Senses of the Past: Toward a Sensory Archaeology*, which was led by Jo Day who has been very supportive and interested in my work. I would like to especially single out Joe Williams from this

community, as our interests dovetail to an amazing degree even though they developed on different continents.

I would like to extend special love for those that not only showed me close friendship but also played a role in my graduate career. From days long too long ago, I would like to thank Gail Hughes-Morey, who kept me sane on either side of an eternal graveyard shift with the most amazing sense of humor. Nico Maestri played a pivotal role in helping me navigate the first presentation of my work in Guatemala and has been a very good friend. I would like to thank Michelle Butler for reading early drafts, recommending sources, and for being an undaunted friend. I would like to thank two I think of as brothers: Dani Diaz as the slightly older one who has often shown me the way through word and deed, while being a really good friend, and Scott Smith as the slightly younger one who constantly exemplifies that passion and zeal are important parts of this business, while caring for me like few others do. I would like to show my gratitude to Ann Lovell, and her parents, who have shared a warmth, a support, and a genuine concern that could only be called family. Ann, in particular, deserves special mention as this whole dissertation would have fallen apart without her: she even went so far as to allow me to convert part of her house into an office.

Finally, I need to mention my friends and family: Friends who have been like brothers most of my life, which is good, because I have none from blood: Adam Giocondo, Saumil Shah, Snehal Shah, and Scott Massari. And, of course, my actual sister: Kristen Albaneze. My aunt, Pearl Walsh, who has been an unbelievable source of love and support through the years. My cousins, who have always shown a keen interest

in my happenings and been so very very generous: Jeff and Mary Walsh, Carol and Fred Haines, Kathleen and David Coxe, and Skip and Marna Buonadonna. And, of course, my little cousins, who find me on Facebook, blow up my phone, and have huge hugs for me when I see them: Eileen and Kara Coxe, and Alison and Kathryn Walsh.

DEDICATION

This PhD dissertation is dedicated to Phyllis “Pidge” Merle Kholer Fresne. I knew her as “Mom.” It is also dedicated to William “Bill” Mongelluzzo. I knew him as “Dad.” They showed me a love so unconditional and a faith so unwavering that I still feel both of those in my heart to this day, and know I always will.

ABSTRACT OF THE DISSERTATION

Experiencing Maya Palaces: Royal Power, Space, and Architecture at Holmul,
Guatemala

by

Ryan William Mongelluzzo

Doctor of Philosophy, Graduate Program in Anthropology
University of California, Riverside, June 2011
Dr. Wendy Ashmore, Chairperson

This dissertation investigates Classic period (AD 250-900) Maya palaces as experiences. As unique built environments, these palaces were created to engender and facilitate specific experiences for those who interacted in and around their bounds. These experiences were inextricably tied to the rhetoric of rulership which made constant claims of power based on legitimacy, status, and authority. The research focuses on Group III at Holmul, Guatemala, which is compared to other palaces in the Maya region. My approach builds upon multiple theoretical perspectives, informed by the work of de Certeau, Foucault, Hall, and Soja. In the process, I examine palace architecture to explore how the Maya state expressed power through architectural design features. These features were parts of strategies to affect the experience of those in and around the

palace. I examine how the movement and sensory perception of both royal and non-royals persons were affected by palace architecture by concentrating on the spatial layout of morphological features.

To understand these experiences, I set out a rationale on the relationship between the built environment and people. It is termed the archaeology of experience and it explicates how architecture acts as more than a backdrop to social engagements and directly affects behaviors. Experiencers are first treated as bodies, simply the array of their human senses. Once the built environment is perceived and understood, the experiencer reacts. These responses are considered to fall within one of three categories: conceptual, behavioral, and emotional.

Ancient Maya palaces were places where rulership enacted their strategies of self-preservation. Demonstrations of divine power, the exhibition of blood ties to important ancestors, and exhibitions of military prowess were constantly enacted. Yet, palaces were more than a setting for these activities. They were designed to facilitate these activities, but more than that they were created in ways that communicated the same themes of qualitative difference, legitimacy, strength, and authority in completely different ways. By affecting human sensory perception and bodily movement, palaces contributed to the social claims of the ruler. Palaces were a rhetoric made material, but one that worked subtly and symbolically on both the brain, body, and heart.

TABLE OF CONTENTS

Chapter 1. Introduction.....	1
The Selection of the Palace at Holmul.....	2
Studies of Ancient Maya Palaces.....	3
Phenomenology in Archaeology.....	4
Organization of the Dissertation.....	7
Chapter 2. The Archaeology of Experience.....	13
The Archaeology of Experience	13
The Designer.....	15
The Built Environment	19
The Experiencer as Body	21
Seeing.....	23
Hearing.....	24
Touching	24
Smelling	25
Tasting.....	25
Proprioception and Kinesthesia	26
The Experiencer’s Response, a.k.a. The Experience	28
Conceptual Responses	29
Behavioral Responses	30
Emotional Responses	30
Architecture as Power	31
A General Definition of Power.....	31
Design as an Expression of Power.....	35
Power in the Organization of Space through the Built Environment	39
Power of and over the Human Senses.....	42
A Note on Resistance.....	43
Power over Experience (Conceptual-Behavioral-Emotional)	44
Conceptual Responses	44
Behavioral Responses	46
Emotional Responses	41
Conclusions.....	53
Chapter 3. The Ancient Maya Archaeology of Experience.....	55
The Ancient Maya Designer	56
The Ancient Maya Palace, Component of its Built Environment	58
The Material Palace	60
Entrances/Approaches.....	62
Terraced Platforms.....	63
Parsing the Range Structure.....	64

Council and Community Houses	64
Kitchens	65
Room Layouts	66
Thrones	67
Palace Functions	68
The Ancient Maya Body and Senses	70
The Royal Body	70
The Non-Royal Body	72
Ancient Maya Senses	74
Seeing	74
Hearing	75
Touching	76
Smelling	76
Tasting	77
The Ancient Maya Experience	78
Experiencers: Royal vs. Non-Royal	79
Conceptual Responses	80
The Rhetoric of Rulership	80
Lineage	81
Might	83
Deification	85
Social	86
Behavioral Responses	88
Tribute	89
Presentation of Captives	90
Dressing and Bodily Maintenance	92
Writing and Artistry	93
Emotional Responses	93
Conclusions	95
Chapter 4. Introduction to Holmul and its Palace	97
Holmul, Guatemala	97
Geography	97
Holmul's Position in the Political Landscape	97
Groups and Features of Holmul	98
Chronology	101
Previous Work	101
Current Recording System and Nomenclature	102
Structure Numbers	102
Room Numbers	103
Single Context Planning	103
A Note on Terminology	104
Other Relevant Holmul Palace Work	104
Merwin	104

Tunnel	106
Structure 43 Stairs.....	106
Structure 60.....	107
The Juncture between Courts A and B	108
New Work Completed	108
HOL.T.05	110
HOL.T.06.....	111
HOL.T.08.....	113
HOL.T.15	115
HOL.T.19.....	118
HOL.STP.01	118
HOL.STP.02	119
HOL.T.50.....	119
HOL.T.53.....	123
HOL.T.55.....	124
HOL.T.57.....	125
HOL.T.58.....	130
HOL.T.59.....	132
HOL.T.61	134
HOL.T.65.....	138
HOL.T.66.....	141
HOL.T.68.....	144
Architectural Narrative	145
The Eastern Approach.....	146
To the North: Structure 74 and the Northeast Courtyard.....	146
The Northern Rooms.....	147
The North Hallway	148
The Northwest Courtyard	148
To the South: Structure 60 and the Southern Courtyard.....	149
To the West: The Throne Rooms of Holmul	149
To the Southwest: The Vaulted Corridor and Western Court.....	150
Conclusions.....	152
Chapter 5. Descriptions of the Palaces Used in Comparison.....	154
Tikal, Guatemala.....	154
Reasons for the Palace's Selection	155
Deciding on the Tikal Palace	156
Challenges with the Tikal Palace.....	157
Architectural Narrative	157
The Approach.....	157
The Central Acropolis' Internal Courts	158
Court 5D-1	158
The Western Courtyard.....	159
Court 5D-2	159

Court 5D-3	162
The Southern Courtyard.....	163
Court 5D-4	164
Court 5D-5	164
The Central Courtyard	166
Court 5D-6	166
Uaxactun, Guatemala.....	169
Reasons for the Palace’s Selection	170
Deciding on the Uaxactun Palace	170
Challenges with the Uaxactun Palace	171
Architectural Narrative	171
The Approach.....	171
The Main Court.....	173
To the West.....	174
The East Court	175
The North Court.....	175
San Jose, Belize	176
Reasons for the Palace’s Selection	177
Deciding on the San Jose Palace.....	177
Challenges with the San Jose Palace	177
Architectural Narrative	178
The Approach.....	178
Main Palace Court.....	179
The Second Palace Court.....	182
The Western Courtyard.....	183
Aguateca, Guatemala	184
Reasons for the Palace’s Selection	186
Deciding on the Aguateca Palace	186
Challenges with the Aguateca Palace	187
Architectural Narrative	188
The Eastern Causeway Court.....	188
The Approach to the Palace Group.....	190
The Palace Group.....	191
Palenque, Mexico.....	193
Reasons for the Palace’s Selection	194
Deciding on the Palenque Palace.....	195
Challenges with the Palenque Palace.....	195
Architectural Narrative	195
The Approach.....	195
The East Court	197
The Southeast Court.....	200
The Tower Court.....	203
Subterranean Structures	206
The West Court.....	207

Copan, Honduras.....	209
Reasons for the Palace’s Selection	210
Deciding on the Copan Palace	211
Challenges with the Copan Palace.....	212
Architectural Narrative to Palace #1: The East Court	212
The Approach.....	212
The East Court	212
Architectural Narrative to Palace #2: El Cementerio	215
The Approach.....	215
Courtyard A	215
Courtyard B.....	217
Conclusions.....	218
Chapter 6. Analyses: Conceptual Responses to the Built Environment	220
Hypothesis C1: Maya palaces were visually distinct in the landscape, at once a part of a program of monumental architecture, but at the same time different ...	221
Holmul	221
Tikal	222
Uaxactun	222
San Jose.....	222
Aguateca	223
Palenque.....	223
Copan	223
Interpretations	224
At the Center	224
Associated Temples	224
Proximity to Ballcourts.....	226
At Causeway Heads	227
Experience of Royalty.....	228
Experience of Non-Royalty	229
Hypothesis C2: Palaces were decorated using colors and iconography that communicated clear ideologies of power and authority	230
Holmul	230
Tikal	231
Uaxactun	231
San Jose.....	232
Aguateca	232
Palenque.....	232
Copan	233
Interpretations	234
Use of Color	234
Use of Stucco	234
Royal Portraits	235
Experience of Royalty.....	235

Experience of Non-Royalty	236
Hypothesis C3: The vertical Dimension was used to great effect in many contexts within architecture to communicate the social hierarchy	236
Holmul	237
Tikal	237
Uaxactun	238
San Jose.....	238
Aguateca	238
Palenque.....	238
Copan	239
Interpretations	239
Experience of Royalty.....	240
Experience of Non-Royalty	240
Hypothesis C4: Within ancient Maya Palaces, certain structures are retained and maintained due to their historical significance	240
Holmul	240
Tikal	241
Uaxactun	241
San Jose.....	242
Aguateca	242
Palenque.....	243
Copan	243
Interpretations	244
Experience of Royalty.....	244
Experience of Non-Royalty	245
Hypothesis C5: Maya palaces were broken into different segmented spaces for functional reasons, and this differentiation was marked by physical cues in the architecture that prompted such a conceptual shift was necessary	246
Holmul	246
The Central Precinct	246
The North Precinct.....	247
The Northwest Precinct.....	248
The Western Precinct.....	248
Tikal	250
Uaxactun	250
San Jose.....	251
Aguateca	251
Palenque.....	252
The Entrance and East Court	252
The West Court.....	252
The Tower Court.....	252
Subterranean Chambers	253
Copan	253
Interpretations	254

Experience of Royalty.....	255
Experience of Non-Royalty	255
Hypothesis C6: Sounds from within the palace and outside of it were controlled in efforts to control bodies of knowledge that related directly to ideas of authority and legitimacy	256
Holmul	258
Tikal	259
Uaxactun	260
San Jose.....	261
Aguateca	261
Palenque.....	262
Copan	263
Interpretations	264
Experience of Royalty.....	264
Experience of Non-Royalty	265
Hypothesis C7: Sightlines into palaces were controlled in order to control the sight of some within the ultimate goal being the control of knowledge	266
Holmul	266
Tikal	267
Uaxactun	267
San Jose.....	268
Aguateca	268
Palenque.....	269
Copan	269
Interpretations	270
Experience of Royalty.....	271
Experience of Non-Royalty	271
Hypothesis C8: Paths of movement leading up to Maya palaces were controlled in terms of what a potential entrant saw in order to communicate themes of power and authority	272
Holmul	272
Tikal	273
Uaxactun	273
San Jose.....	274
Aguateca	274
Palenque.....	274
Copan	275
Interpretations	275
Experience of Royalty.....	275
Experience of Non-Royalty	276
Conclusions.....	276

Chapter 7. Analyses: Behavioral Responses to the Built Environment	279
Hypothesis B1: Maya palaces were granted commanding views of their respective cities, and they were designed in ways to augment the ability to view out. The ability to observe behavior ensured it was conducted in the manner that royals desired.....	280
Holmul	280
Tikal	281
Uaxactun	281
San Jose.....	281
Aguateca	282
Palenque.....	282
Copan	282
Interpretations	283
Experience of Royalty.....	283
Experience of Non-Royalty	283
Hypothesis B2: Approaches to Maya palaces were observed in the immediate vicinity of palace entrances to ensure appropriate behavior.....	284
Holmul	284
Tikal	284
Uaxactun	284
San Jose.....	285
Aguateca	285
Palenque.....	285
Copan	285
Interpretations	286
Experience of Royalty.....	287
Experience of Non-Royalty	287
Hypothesis B3: Sounds originating within the palace directly influenced behavior.....	287
Experience of Royalty.....	288
Experience of Non-Royalty	289
Hypothesis B4: Access to and within Maya palaces was controlled to a quantitatively significant degree	290
Holmul	291
Tikal	292
Uaxactun	293
San Jose.....	294
Aguateca	295
Palenque.....	295
Copan	296
Interpretations	297
Experience of Royalty.....	298
Experience of Non-Royalty	298

Hypothesis B5: Access was also controlled in a different sense, requiring a higher degree of exertion to reach more important areas of the palace. Through the design of architecture, the bodies of palace visitors were forced into specific movements and positions which reinforced the social hierarchy	299
Holmul	299
Tikal	300
Uaxactun	301
San Jose.....	301
Aguateca	302
Palenque.....	302
Copan	303
Interpretations	303
Experience of Royalty.....	304
Experience of Non-Royalty	304
Conclusions.....	305

Chapter 8. Analyses: Emotional Responses to the Built Environment.....306

Hypothesis E1: Since Maya palaces were courtyard based, and buildings had few rooms, there was a constant shifting from inside to outside space, which had tangible consequences.....	306
Experience of Royalty.....	307
Experience of Non-Royalty	308
Hypothesis E2: An acoustical phenomenon known as a cut out was present in ancient Maya palaces and it served to augment visual cues that prompted changes in concept and behavior	308
Holmul	309
Tikal	310
Uaxactun	310
San Jose.....	310
Aguateca	310
Palenque.....	310
Copan	311
Interpretations	311
Experience of Royalty.....	311
Experience of Non-Royalty	312
Hypothesis E3: The use of smell, particularly the smell of incense, was used in Maya palaces in order to enhance experience.....	312
Holmul	314
Tikal	314
Uaxactun	315
San Jose.....	315
Aguateca	315
Palenque.....	316
Copan	316

Interpretations	316
Experience of Royalty.....	317
Experience of Non-Royalty	317
Hypothesis E4: Differences in height, as well as the use of specific social distances, were used by royalty when speaking and orating to enhance the power of these communicative acts	318
Holmul	318
Tikal	319
Uaxactun	320
San Jose.....	320
Aguateca	321
Palenque.....	321
Copan	322
Interpretations	323
Experience of Royalty.....	324
Experience of Non-Royalty	325
Conclusions.....	326
Conclusions to Chapters 6, 7, and 8.....	326
Chapter 9. Conclusions.....	328
Experiencing Maya Palaces: The Royal Experience	328
Experiencing Maya Palaces: The Non-Royal Experience	330
The Archaeology of Experience: An Assessment	332
Advancing the Definition of Maya Palaces	333
Strides Forward in Phenomenology.....	335
Advancements in the Archaeology of the Body and Sensory Archaeology	335
Possible New Directions.....	336
Final Thoughts	337
References Cited.....	402

LIST OF FIGURES

Chapter 3

Figure 3.1: Piedras Negras Lintel 3	339
Figure 3.2: Piedras Negras Lintel 2	339
Figure 3.3: Maya Hieroglyphs for Tribute.....	340
Figure 3.4: Oval Palace Tablet, Palenque.....	341
Figure 3.5: Naranjo Stela 8	342
Figure 3.6: Piedras Negras Panel 15	343

Chapter 4

Figure 4.1: Landsat Image of the Holmul Area	344
Figure 4.2: Maya Regional Map with Sites from the Text	345
Figure 4.3: Holmul Site Map	346
Figure 4.4: Plan of Holmul Group III, Courts A and B	347
Figure 4.5: Structures within the Holmul Palace	348
Figure 4.6: Rooms within the Holmul Palace	349
Figure 4.7: Others' Trenches	350
Figure 4.8: Burials, Noted Small Finds, and Middens within the Palace	351
Figure 4.9: Trenches placed with the Holmul Palace	352
Figure 4.10: Photo of Burial 1, Room B4 <i>In Situ</i>	353
Figure 4.11: South Profile of HOL.T.08, Structure 43, Room B1	354
Figure 4.12: East Profile of HOL.T.50, Room 1	355
Figure 4.13: West Profile of HOL.T.50, Room 1	356
Figure 4.14: Photo of Burial 23, Room 1 <i>In Situ</i>	357
Figure 4.15: Photo of Figurine from Burial 23	358
Figure 4.16. Bark-beater Recovered from Room 9.....	359
Figure 4.17: North Profile of HOL.T.55, Room 9	360
Figure 4.18: Photo of HOL.T.57, Rooms 17 and 23.....	361
Figure 4.19: Photo of HOL.T.57 and 58, Rooms 19, 22, and 23.....	362
Figure 4.20: Photo of Burial 22, Room 23 <i>In Situ</i>	363
Figure 4.21: Photo of Shell Pendant from Burial 22	364
Figure 4.22: Photo of HOL.T.59, Room 7	365
Figure 4.23: Photo of HOL.T.61, Room 5	366
Figure 4.24: North Profile of HOL.T.65, Room 24	367
Figure 4.25: North Profile of South Walls of HOL.T.66, Rooms 25 and 26.....	368
Figure 4.26: North Profile of South Wall and Steps of HOL.T.68, Room 27	369
Figure 4.27: The Eastern Approach. 3-D Reconstruction.....	370
Figure 4.28: The Central Palace Court. 3-D Reconstruction	371
Figure 4.29: Northeast Courtyard. 3-D Reconstruction.....	372
Figure 4.30: The Northern Rooms. 3-D Reconstruction.....	373
Figure 4.31: The Northern Hallway. 3-D Reconstruction	374

Figure 4.32: The Northwest Courtyard. 3-D Reconstruction	375
Figure 4.33: Structure 60 and the Southern Courtyard. 3-D Reconstruction.....	376
Figure 4.34: The Approach to Structure 43. 3-D Reconstruction.....	377
Figure 4.35: Room B2 of Structure 43. 3-D Reconstruction	378
Figure 4.36: Vaulted Corridor Entrance. 3-D Reconstruction.....	379
Figure 4.37: The Western Court. 3-D Reconstruction.....	380
Figure 4.38: Close-Up of Northern Side of Western Court. 3-D Reconstruction	381

Chapter 5

Figure 5.1: Tikal Site Map.....	382
Figure 5.2: Tikal Central Acropolis Plan.....	383
Figure 5.3: Uaxactun Site Map.....	384
Figure 5.4a: Uaxactun A-V Plan, Outer Area.....	385
Figure 5.4b: Uaxactun A-V Plan, Inner Area	386
Figure 5.5: San Jose Site Map.....	387
Figure 5.6: San Jose Palace Plan.....	388
Figure 5.7: San Jose Structure C-4 Plan	389
Figure 5.8: San Jose Structure C-5 Plan	390
Figure 5.9: Aguateca Site Map	391
Figure 5.10: Aguateca Palace Plan	392
Figure 5.11: Palenque Site Map.....	393
Figure 5.12: Palenque Palace Plan.....	394
Figure 5.13: Palenque Palace Access Route.....	395
Figure 5.14: Copan Site Map.....	396
Figure 5.15: Map of the Structure 10L-32 Courtyard in El Cementerio	397

Chapter 6

Figure 6.1: Tenoned Stucco Element from Holmul.....	398
Figure 6.2: Cross-Section of Group III at Holmul Showing Overall Height.....	399
Figure 6.3: Close-Up of North Wall of Room 5. Note Small Brickwork.....	400
Figure 6.4: The Precincts in the Excavated Areas of Holmul.....	401

LIST OF TABLES

CHAPTER 6

Table 6.1: Cord Holders at the Palace at Palenque.....	269
--	-----

CHAPTER 7

Table 7.1: Spaces in the Holmul Palace with Control Values over 1	300
Table 7.2: The Top 10 Spaces in the Central Acropolis at Tikal with Control Values Greater than 1.....	301
Table 7.3: The Top 10 Spaces in Structure A-V at Uaxactun with Control Values Greater than 1.....	302
Table 7.4: Spaces in the San Jose Palace with Control Values Greater than 1.....	302
Table 7.5: The Top 10 Spaces in the Palace at Palenque with Control Values Greater than 1.....	303
Table 7.6: Spaces in the East Court of Copan with Control Values Greater than 1	304
Table 7.7: Spaces in and around the Structure 10L-32 Plaza of Copan with Control Values Greater than 1.....	305

Chapter 1. Introduction

This dissertation investigates Classic period (AD 250-900) Maya palaces as experiences. As functionally unique built environments, these palaces were created to engender and facilitate specific experiences in those who interacted in and around their bounds. These experiences were inextricably tied to the rhetoric of rulership which consisted of constant claims of power based on legitimacy, status, and authority. Ancient Maya palaces were designed as an architectural instrument that's purpose was to affect the sensory perception of royals and non-royals in ways that maintained and promoted the social inequality in place.

It is crucial to elucidate how palaces and their courts, one component material and one social, combine to result in experiences. Moreover, the intention behind these experiences was to augment the power of ancient Maya rulership. Palace experiences for royalty were set to reaffirm their status, legitimacy, and authority. Experiences for non-royals were designed so that their inferior social position was communicated and reinforced.

To understand these experiences, I first set out a logic on the relationship between the built environment and people. It is termed the archaeology of experience and it explicates how architecture acts as more than a backdrop to social engagements and directly affects such endeavors. The specific archaeology of experience is then defined for the palaces of the Classic Maya. The palace under direct analysis, that at Holmul, Guatemala is introduced, along with comparative examples from Tikal, Uaxactun, San

Jose, Aguateca, Palenque, and Copan. Analyses are subsequently undertaken to explore how ancient Maya palaces affected experiences.

The Selection of the Palace at Holmul

The palace at Holmul was selected because it represented on many different fronts the best example for analysis given the goals at hand. The palace is small, but not overly so; it measures less than 60 meters on a side. The relatively small size means that a greater percentage of the architecture could be exposed in the time available. The Holmul palace is also well preserved. While no roofing remains, wall heights frequently remain preserved over two meters. This level of preservation meant that the morphology would be well understood in terms of the composition of individual spaces and the relationships between them.

The final reason the Holmul palace was chosen was for one of its biggest negatives. The palace went through a slow abandonment process meaning that there were almost no artifacts left in primary contexts. The lack of artifacts makes functional assessments very difficult, and spaces are in danger of becoming inert in terms of how they can be understood. The reason that this was seen as a positive is that virtually all ancient Maya sites were abandoned this way and lack primary contexts in their elite architecture. If I was able to develop a system of analysis for recovering experience that focused on architecture instead of artifacts its applicability in the Maya realm would be much more widespread.

Studies of Ancient Maya Palaces

Early Spanish accounts of Maya sites mention *palacios*, referring to the relatively low, multi-roomed buildings found in the ruins' hearts. For much of Maya archaeology's history the term "palace" was used loosely in contrast to the concept of temple. These two structure types, one sprawling and one tall, seemed to be found in every site center and it was assumed, given their drastically different morphology, that their functions were different. Yet, through time, as social reconstructions evolved from peaceful priestly stargazers to the ancient Maya we recognize today, palaces for the most part failed to get a social definition.

Three archaeological projects concentrated on Maya palaces and each made seminal strides in our understanding of them. The first is the excavation by A. Ledyard Smith (1950) of Structure A-V at Uaxactun from 1931-1937. Smith was able to excavate the entirety of the palace, over 15 structures, through all phases. A project of this scale is virtually impossible today. Next was the work of Peter Harrison (1970) and his excavations and subsequent functional analysis on the Central Acropolis of Tikal. This was really the first work that attempted to add some depth of social meaning to the concept of Maya palaces, but it stood alone for more than twenty years. The final significant project is that of Takeshi Inomata and Daniela Triadan (2010) at Aguateca, which occurred from 1996 to 1999, and was a follow-up to Inomata's dissertation research. This project was important because parts of the greater palace had been rapidly abandoned leaving large amounts of artifacts in primary contexts.

Maya palaces came to the forefront of the discipline in the late 1990's and early 2000's. In 1996, Inomata and Houston organized a session on ancient Maya Royal Courts at the American Anthropological Association annual meeting. They followed this with a symposium on the same subject held at Yale University in 1998, which resulted in the two-volume *Royal Courts of the Ancient Maya* (2001). A symposium organized by Jessica Joyce Christie and held at the 1998 Society for American Archaeology conference resulted in *Maya Palaces and Elite Residences: an Interdisciplinary Approach* (2003). Also in 1998, Susan Toby Evans and Joanne Pillsbury organized a symposium at Dumbarton Oaks, the result of which was *Palaces of the Ancient New World* (2004). Christie and Patricia Joan Sarro organized a session at the 2000 SAA's after which *Palaces and Power in the Americas: from Peru to the Northwest Coast* (2006) was published.

Now that palaces have been defined in great detail, and royal courts, as social entities, have been peopled there is one integral step that remains. The courts have to be situated in their palaces, and the recursive relationship between the two understood. The material entity needs to become more social and the social entity has to become more material. One of the main goals of this work is to continue to increase the understanding of both palaces and courts by showing how the former affected the latter.

Phenomenology in Archaeology

Phenomenology is the study of experience from the first-person perspective. It first arose as a body of philosophy by thinkers such as Husserl (1982 [1913]), Heidegger

(1962 [1927],) and Merleau-Ponty (1945). Phenomenological approaches in archaeology became most fervently used in landscape studies. The most famous example, and most caustic, is Tilley's (1994) *A Phenomenology of Landscape*. This work used Neolithic tombs in Britain as a launching point for understanding the surrounding landscape. More so, this understanding was developed through an explicitly phenomenological approach.

The work was criticized most vociferously by Fleming (1999; 2006) on empirical grounds such as small sample size and the un-repeatability of results. Additionally, Hodder (2000:24-25) criticized these phenomenological approaches for being anonymous and failing to address the identities of the people involved. Tilley (1994:26) cites his work's shortcomings as well as the discipline's when he states:

The experience of these places is unlikely to be equally shared and experienced by all, and the understanding and use of them can be controlled and exploited in systems of domination – a consideration strikingly absent in virtually all phenomenological theory and one that constitutes a major theoretical void.

Phenomenological works struggle when they over-emphasize the possibility of some epitomizing experience to be derived from a place. Instead, one needs to look for the rhetoric that gives meaning to the social interaction occurring. Barrett (1994:18-19) states:

The fundamental reference is created between the architecture and the positions and orientations of the human body, and these references are used in exchanges which take between practitioners. The practices are not present in the void in the physical plan of a building. As Bourdieu as shown, the implications of this slip through our fingers when we objectify space as physical form, but they can be recovered in a consideration of the possible interpretive strategies employed by the practitioners. Our questions have to be (however imperfect our answers): what kinds of

discourse could have been sustained here; what could have been spoken and what left unsaid; what truths could have been discovered, and what were the implications for those who shared them?

If previous phenomenological approaches have been criticized for being short on data and unrepeatable, anonymous in their assignation of experience, and ignorant of social inequality, then I would ensure that my work was prone to none of these criticisms. First, I shift from the landscape to the built environment to increase the density of data available in terms of what the space meant. Built environments contain a plethora of spatial information in relatively small physical areas. This work also analyzes multiple examples in order to increase the available data and allow for the repeatability of analyses.

In terms of anonymity, I agree with Thomas (2006:56) who writes: “it might be fair to reply that the point of these studies is to document experiential worlds and forms of subjectification that are remote from our own, rather than to attempt to recover 'individuals' who are comparable with those of the modern West.” Yet, I believe approaches that are prone to empathy and arriving at a singular experience are faulted. I therefore try to describe the experience of Maya palaces from two different perspectives: royal and non-royal. By doing this, I do not prize one experience over another.

One of the major premises of my work is that it is class based and looks at an environment where there were strong efforts by one social group to control another. These efforts to preserve a social inequality have influenced every aspect of the development of an experience due to the built environment. From design to response, the exertion of power influenced the actions undertaken.

Finally, I agree with Barrett and Ko (2009) who argue for phenomenological approaches drawn from the work of Heidegger (1962 [1927]) as opposed to the work of Husserl (1982 [1913]). This means that experiences do not sit in the mind and are the result of separating oneself from the objectified world. Instead experiences are considered to be dependent on the world, in fact, every experience reconstructed here is still anchored to its built environment. Nowhere in this work do I state what rulers thought of their palaces, instead they are situated inside them and their various experiences are described.

Organization of the Dissertation

Chapter 2 sets forth the archaeology of experience. This rationale begins with the designer and the act of design. The designer is treated as a culmination of history, culture, and agency. The act of design is intentional and premeditated and therefore a way in which thought eventually becomes material. The result of design is the built environment, which is imbued with meaning as it is created through some system of ordering and classification principles. In other words, a built environment divides space in a meaningful way. At this point, experiencers are introduced, those who would interact with the built environment.

Experiencers are first treated as bodies, simply the array of their human senses. This is because perception is the way in which people initially interact with the built environment. It is through the human senses that people understand the division of space and what it is communicating, so sensory archaeology is employed. In her introduction

to a volume on an archaeology of the senses, Day (2010) writes “through combining archaeologically-informed contextual information with the opportunities provided by a shared sensing body, it is possible to formulate new ideas about past experiences of material culture and place.” Once the built environment is understood, the experiencer reacts. These responses are considered to fall within one of three categories: conceptual, behavioral, and emotional. Conceptual responses are changes in belief or thought based on what is perceived. Behavioral responses are actions shaped by cues within the built environment. Emotional responses, as changes in the affective state of consciousness, are potentially dangerous to try and recover in that they can be so idiosyncratic, but it cannot be denied that they exist.

Having defined the archaeology of experience, the discussion then turns to how power becomes intertwined at every stage. I hold that the built environment and social interaction are intertwined in a reflexive relationship, with one eternally affecting the other. Yet, Foucault (1980:149) states “the development must be extended, by no longer just saying that space predetermines a history which in turn reworks and sediments itself in it. Anchorage in space is an economico-political form which needs to be studied in detail.” I believe this work to be just such a study.

Power is defined as two sides of a coin. *Power to* is conceived as the socially embedded ability to create and draw on resources. *Power over* is the ability to get another to do or not do something they would otherwise do or not do. Designers’ power is viewed as what de Certeau (1984) termed a strategy. The built environment becomes

something those with power attempt to reify or change based upon their views. But, as it embodies symbolic meaning, the built environment is reflecting claims of power.

Power intersects with the human senses in the attempts to control them. This is different than influencing thought or controlling the human body, though both of those themes are explored to an extent in this work. Controlling the human senses is an understudied phenomenon in archaeology, and in terms of understanding the built environment, one of the main things it is able to accomplish. Built environments are embedded into the rhetoric of power and therefore also affect conceptual responses. Power influences behavior, and not always overtly, as the built environment influences what Mauss (2007) terms techniques of the body and Bourdieu (1977) terms *habitus*. Power impacts emotion through the built environment by the use of spectacle.

Once the archaeology of experience is defined and it is explained how power is interwoven through the entire process, the ancient Maya archaeology of experience is delineated in Chapter 3. While evidence for ancient Maya designers is scant, attention is instead paid here to those that commissioned the ancient palaces, the rulers. Rulership is defined as a tenuous position highly dependent on one's ability to convince others of one's legitimacy and authority.

The ancient Maya built environment is defined, in this case as palaces. Palaces are defined both materially and socially. The palace will have consisted of multiple stone-roofed structures arranged around courtyards, which may have been on multiple platforms. A palace will contain thrones and other benches. There will also be a high number of rooms compared to other architectural groups elsewhere in the same site. I

consider a Classic Maya royal palace to have been the central location of activities for the ruler, especially activities of the state.

The ancient Maya body and senses are defined as both of these concepts are historically and culturally contingent. The royal body is broken down into three categories: bodily substances, the corporeal body, and the costumed body. The non-royal body is also defined as one that was constantly influenced and controlled. Each of the human senses is defined in terms of how the ancient Maya conceived of them. These definitions are highly dependent on the work of Houston and Taube (2000). Ancient Maya conceptual, behavioral, and emotional responses are described in terms of the work that has been accomplished to date.

I introduce the palace where I conducted my dissertation research in Chapter 4. The palace is part of Group III at Holmul, Guatemala. I conducted clearing excavations within the palace from 2001 to 2005. The goal of the excavations was to expose as much of the architecture as possible in order to have a detailed understanding of the palace's morphology. This chapter describes my work on the palace and the previous work by Merwin (Merwin and Vaillant 1932).

This work is comparative in nature, so after the descriptions of the Holmul palace and my work there, the seven comparative examples are introduced in Chapter 5. These other palaces are the Central Acropolis at Tikal, Structure A-V at Uaxactun, Group C at San Jose, the Palace Group and surrounding structures at Aguateca, the Palace at Palenque, and Structure 10L-22 and the East Court as well as Structure 10L-32 and its courtyard from Copan.

Conceptual responses to the built environment are explored through a set of eight hypotheses in Chapter 6. Hypothesis C1 is that Maya palaces were visually distinct in the landscape and that this was meaningful. Hypothesis C2 is that palaces were decorated using colors and iconography that symbolically communicated clear ideologies of power and authority. Hypothesis C3 states that the vertical dimension in palace architecture was used to reinforce inequality in social standing. Hypothesis C4 is that historical preservation of parts of palaces was quite intentional and in line with political rhetoric regarding lineage. Hypothesis C5 holds that physical cues in the architecture indicated that conceptual shifts were necessary as one moved around a palace. Hypothesis C6 is that sounds from palaces were controlled in order to keep knowledge in the palace and keep the urban din out. Hypothesis C7 is that lines of sight into the palace were similarly controlled. Finally, Hypothesis C8 is that the paths of movement leading up to palaces are explored to see what they communicated conceptually to potential entrants.

In Chapter 7, behavioral responses are explored through a set of five hypotheses. Hypothesis B1 is that views out from the palace across the site would have affected behavior through observation. Similarly, Hypothesis B2 states that approaches to the palace were especially watched. Hypothesis B3 explores how sounds originating in the palace changed behavior. The final two hypotheses have to do with access and how people were controlled in terms of entering the palaces or occupying certain spaces within them. Hypothesis B4 measures this in a quantitative sense by using a measure known as control value. Hypothesis B5 looks at the behavior required to access different areas of the palace based on the architectural morphology.

A set of four hypotheses are put forth to explore emotional responses to ancient Maya palaces in Chapter 8. Hypothesis E1 is concerned with the unique morphology of Maya palaces and how it necessitated constant shifts from inside to outside. Hypothesis E2 explores the impact of an acoustical phenomenon known as the cut out effect. Hypothesis E3 looks at the evidence that incense was used in Maya palaces and the possibility that it engendered emotions. Hypothesis E4 analyzes the social distances through which the ruler interacted with others, and whether these particular distances held a certain power.

The conclusions and summations are set forth in Chapter 9. Archetypal palace experiences are related for both ancient Maya royals and non-royals. Subsequently, the archaeology of experience is assessed as to its viability. Following this assessment, there is a description of in what ways the definition of an ancient Maya palace is advanced. After that, there are summations of the new directions that were taken in phenomenology and sensory archaeology. Possible new directions are recounted before the final concluding remarks are put forth.

This chapter has endeavored to present the main goals of this dissertation, its basic framework, as well as the intellectual context in which I am working and formulating my conclusions. The success of the goal pursuit is discussed in the final chapter along with a discussion about how well the archaeology of experience and subsequent analyses worked.

Chapter 2. The Archaeology of Experience

To draw out the experience of a place is to connect the physical place to the people who engaged socially there. But, the relationship between people and the built environment is not as straightforward as one might think. Is the place merely backdrop or setting? Are experiences solely governed by a person's personality? Is the power of a place solely dependent on the activities that occur there or can its design have an impact? And if so, what is the importance of the designer?

The following chapter lays out a rationale called the archaeology of experience. This rationale links the built environment to people in a way that allows for it to be a place that engenders experiences. It relates the designer, the built environment, the experiencer, and their experiences in a meaningful way.

The Archaeology of Experience

The archaeology of experience is a way of understanding the built world. It relates people to the places we inhabit, and focuses on the unique ways they affect our bodies, and immediately thereafter our minds. Now our experiences are not simply products of the environments in which they occur, of course, but the power of spaces should not be underestimated. And since we are not dealing with an unaltered world, there is an underlying, permeating power encoded in all spaces which means the experiential effects wrought by the built environment are very important. To go from the

agency of one mind to the experience within another's is a process. The archaeology of experience is the study of this process:

Designer(s) → Built Environment → Experiencer → Response/Experience

This power becomes reproduced and embedded in the built environment at two stages: initial design and subsequent use. What is important about this theoretical stance is that it allows for meaning to be inscribed at both stages, design and use, and does not prize the former (Eco 1980) or the latter (Rapoport 1990). What follows are definitions and underpinning theoretical foundations for each component in the archaeology of experience.

I would initially like to address, however, an issue with terminology. The terms space, place, built environment, and architecture are all used heavily in this work, and I feel it important to differentiate them. While more detailed explorations of these concepts follow, the following are good at-hand references to what I mean. Space, for me, has two meanings. First, it is the all-encompassing three-dimensional tableau which humans manipulate through social action to create meaning. Space is also what exists between material objects, and where and in what amounts it exists is important. Spaces that have come to carry social meaning are places. A built environment is any space to which a human has made any material change. Architecture is a particular type of built environment that consists of the use of walls to create buildings.

What complicates matters is that the scholars on which I rely to bolster my argument come from different scholarly fields and varied theoretical backgrounds. Hence, while two scholars may be discussing the same concept, one might couch it terms of “space” and another “place.” For example, Lefebvre (1991) consistently uses the term space even though he is always referring to some sort of built form. This makes sense since he is following Descartes (2001 [1637]) and Kant (1996 [1781]) in his argument. So, while I have defined the terms, and will use them accordingly, any sort of perceived slippage usually comes in relation to the reference of someone else’s work.

The Designer(s)

“But what distinguishes the worst architect from the best of bees is this, that the architect raises his structure in imagination before he erects it in reality.” – Karl Marx (2010:118 [1867])

The explanation starts with the designer, though the dataset always relates most directly to the built environment, because, the archaeological dataset is the built environment or what remains of it. Yet, we must begin with those who designed and constructed these spaces. Even while underplaying their influence, Foucault (1984:248) states that one must take them, their mentality and attitude, into account as well as their projects, in order to “understand a certain number of the techniques of power that are invested in architecture.” I call them something general like designers because in different times and geographies they spanned a spectrum from specialists like architects and engineers to non-specialists who had direct or indirect input as to how a space

developed whether it be a king designing his castle or a homeless person organizing his refrigerator boxes in an alley.

At the most base level we have two entities under the microscope: the designer and the act of designing. So, an individual and a process. Each will now be defined in terms of how it helps contribute to the built environment. The designer can be viewed simply in terms of his/her will, as agency. Agency, is defined here as by John C. Barrett (in Dobres and Robb 2000:9) as the process of intersubjective engagement with the material and social world. Utilizing the concept of agency is beneficial to the archaeology of experience because it avoids the danger of over-generalizing and it acknowledges the influence and effect individuals can muster.

Yet, considering the designer as agency is not enough. The designer's will is conditioned and affected by two crucial components that I would be remiss not to include. They are history and culture. These two concepts are interwoven through agency, limiting it to some extent and swaying it in others.

Historical circumstance has an influence. This idea, of course, is best expressed by Marx (1963:15): "men make their own history, but they do not make it just as they please, they do not make it under circumstances chosen by themselves, but under circumstances directly encountered, given and transmitted from the past." Designers are making their decisions at a relative culmination of a long trajectory of previous designers. Castells (1977:125), taking a Marxist approach, prohibits himself from constructing a general theory of space, instead choosing to understand space "in terms of the historical articulation of several modes of production." Yet, the deliberation on history can be too

great. The fields of architecture and art history are so focused on studying the historical trajectories in the Western world they run the risk of being atheoretical in nature (Egenter 1992).

Besides the historical trajectory, there are different phenomena to which a person in any one historical moment is responding. The call I am making for historical inclusion here echoes the one Boas (1920:317) made against generalizing theories of evolution in favor of more particularistic approaches. In talking about space, Castells (1977:442) cautions “there is the ‘site’, the ‘geographical’ conditions, but they concern analysis only as the support of a certain web of social relations, the spatial characteristics producing extremely divergent social effects depending on the historical situation.”

Obviously, a person’s enculturation is also going to have an effect on the potential design options they foresee. The best way to understand the way culture would influence design decisions is to consider the designer as his/her culture has defined them, i.e. his/her social role. A person’s social role will allow for certain designs and disallow others. Consider the ancient Maya maize farmer. His vocation is at the forefront, but in combination with his religious views, economic means, technological know-how, knowledge of the environment, and familial and social connections, will ultimately determine the location and morphology of his home. Of course, his individual will interplays with all of these cultural considerations, but the design is simply not the product of one or the other.

So, individual agency, necessarily conditioned by culture and as a product of, and working within, a particular historical circumstance develops an intention of design. This

design intent is the concept that will eventually lead to a built environment or a change in an existing one. This idea of designing space leads directly to what Lefebvre (1991:38) terms representations of space: “conceptualized space, the space of scientists, planners, urbanists, technocratic subdividers and social engineers.” Low expands this concept by tying relevant social factors into the design stage as part of her social production of space. “The social production of space includes all those factors – social, economic, ideological, and technical – that result, or seek to result, in the physical creation of the material setting” (Low 2000:128).

This process of design, when successful, leads to an act of construction within space. However, the intention is rarely translated into physical form without concession. Designers are almost always constrained and forced to compromise by a host of complicating and influencing factors (McGuire and Schiffer 1983). As mentioned in the example above, social mores can influence the construction, as can architectural or engineering knowledge. Available materials and the means to acquire them are also a factor. The surrounding environment also impacts the construction process. Therefore, the built environment is almost never a perfect unfettered representation of design intent.

However, because any piece of the built environment is a design intent that went through the “refining” process of construction it is a direct reflection of power. The design intent reflects the social role of the designer, including any political, religious, and economic authority they possess, and his/her means to bring that design to fruition. It is important to note that this reflection may not mirror the power held by the designer, but instead reflect an overarching system of power in place that is affecting the designer’s

design and his/her ability to bring into a physical reality. Because this power permeates all aspects of the archaeology of experience from designer through the built environment, to the experiencer, it will be dealt with in its own section below.

The Built Environment

“All territory occupied with the objective of being inhabited or of being utilized as ‘vital space’ is necessarily transformed from chaos to cosmos.” – Mircea Eliade [1949] in Kus (1983:286)

This section is heavily dependent on the ideas of Soja (1989) who simultaneously criticizes the longstanding error of the social sciences of ignoring space and the built environment or relegating them to the periphery of importance, while also outlining an evocative argument of why this simply cannot continue. Relevant examples of this error would be Saunders (1990:183) who writes that post-processualist archaeologists are in danger of fetishizing space and “consequently spatial structures are given powers rightly due to its constituents, as if space had intrinsic qualities itself.” The idea here is that social relations play out among people, and the emphasis must always remain there. Foucault, in an interview with Rabinow (1984:248), also communicates these sentiments when he says architects and their buildings “are not comparable to a doctor, a priest, a psychiatrist, a prison warden.”

So, the designer or designers through time develop the built environment. The built environment

refers in the broadest sense to any physical alteration of the natural environment, from hearths to cities, through construction by humans. Generally speaking, it includes built forms, which are defined as building types (such as dwellings, temples, or meeting houses) created by humans

to shelter, define, and protect activity. Built forms also include, however, spaces that are defined and bounded, but not necessarily enclosed, such as the uncovered areas in a compound, a plaza, or a street (Lawrence and Low 1990:454).

The built environment is the result of the successful expression of design intents, and though it may not seem so, they are extremely complex. Imagine a simple fence. Seemingly, it relates one spatial principle: you are on one side of it or the other. Yet, the fence also has a beginning and an end. A height. A depth in the ground. If it is constructed of slats, then there may be space between them. Our simple fence is now relating five spatial principles.

At its most simple, the built environment is a set of organizing principles for space made material. However, the principles are anything but simple, and their articulation and expression (the built environment) are meaningful and powerful. Architecture provides “people the world over with an instrument, and a model, for conceiving the world in a complex, comprehensive way” (Wilson 1988:58). The principles then, are drawn from, and communicate beliefs about social life.

The built environment is filled with meaning that reflect social phenomena. As Lawrence and Low (1990:466) state: “As expressions of culture, built forms may be seen to play a communicative role embodying and conveying meaning between groups, or individuals within groups, at a variety of levels.” This meaning is imbued through the repeated staging of activities within a particular built environment. It is important to note that these meanings can transcend their original built environments and be appropriated into new ones through design and subsequent activity.

Through time, in what Lefebvre (1991:38) terms “spatial practice” social actors within the built environment engage in a “reflexive relationship between the production of space and the reproduction of social relations” (Saunders 1990:183). This reflexive relationship, or dialectic, leads to what Soja (1980:209) terms spatiality, “the *created space* of social organization and production.”

It is important to note that space and the built environment do not merely frame social activity, nor do they simply reflect its meaning over time. Social activities become contingent on the spaces in which they are enacted. Soja (1989:129) puts it best:

The spatial matrix must constantly be reinforced and, when necessary, restructured – that is, spatiality must be socially reproduced and this reproduction process is a continuing source of conflict and crisis. The problematical connection of social and spatial reproduction follows straightforwardly. If spatiality is both outcome/embodiment and medium/presupposition of social relations and social structure, their material reference, then social life must be seen as both space-forming and space contingent, a producer and a product of spatiality.

To put it simply, there is a dialectical relationship between social actors and their built environments, mutually affective, as the former attempts to reproduce its social forms behaviorally and materially. Space is a manifestation of society; it is one of its material dimensions (Soja 1985:115). The significance here is that spatiality is an extremely important variable in the analysis of social activities and their actors.

The Experiencer as Body

The built environment causes a quick three-step process in human agents, the first and third have to do with the physical body while the middle step consists of mental

processes. First, social actors engage with the built environment through the human senses. Second, the mind processes this information. Third, the body takes appropriate action. Lefebvre (1991:195) places much emphasis on the interaction between the body and space: “Considered as a ‘machine’, the spatial body is two-sided: one side is run by massive supplies of energy (from alimentary and metabolic sources), the other side by refined and minute energies (sense data).”

The equal weight given between space and the body cannot be overstated.

Lefebvre (1991:184) adds:

Space – *my* space – is not the context of which I constitute the ‘textuality’: instead, it is first of all *my* body, and then it is my body’s counterpart or ‘other’, its mirror-image or shadow: it is the shifting intersection between that which it touches, penetrates, threatens, or benefits my body on the one hand, and all bodies on the other.

This corporeal-centric definition of space inextricably links space to the body, and consequently, spaces are defined by bodies’ actions. Taking an approach that combines practice and discourse Barrett (1994:14) outlines how the body interacts with space:

The immediate point of reference for a person’s understanding of the world on which they act is their own body. The movement and orientation of the self in relation to others is the means of understanding one’s place within a discourse and of gauging one’s ability to act and to speak. The references made to position and to orientation are enhanced by the immediate topography and the architecture of the place; buildings enclose and channel the direction of movement and focus the attention of the eye. At certain places – in front of certain backdrops and behind certain screens – actions occur, words are spoken and others are left unsaid, creating the discourse of a social practice. As we observe the creation of an architecture out of practical understandings of the place, so we see how certain actions and utterances were made possible.

The sense data mentioned by Lefebvre are stimuli in the environment that trigger a response in the eyes, ears, nose, tongue, and skin of a person. The human senses can be considered in their universal physical way, as our sciences do, where barring physical differences in the sensory organs, stimuli are perceived the same way from person to person. After all, “perception can never be isolated totally from the physiological equipment and biological universals that make it possible” (Houston and Taube 2000:262).

In the following section, I will describe each of the five traditional senses, and two more, proprioception and kinesthesia, are of use to this work and therefore defined. It is important to note that I differentiate between active and passive capabilities for the five traditional senses, and those distinctions are also delineated. The theory of overall perception subscribed to here is that all perceptions are hypotheses (Gregory 1997:9). That is, any perception is inherently incomplete and is therefore compared to previous sensory experiences in order to be understood.

Seeing. We see as light is reflected off of objects in the environment into the eye through the pupil and onto the retina (Goldstein 2007:28). The light causes reactions in visual pigments in the eye’s receptors, which trigger the electrical signals that are sent to the brain through the optic nerve. From these receptors, signals are sent through nerves, up the spinal column, and into the brain.

The active sense of sight comprises times when an individual would be looking, scanning, or staring at some external stimulus. The passive sense of vision would be when the eyes are focused on one task and yet perceptions are gained from another

source. A scientific study (Li et al. 2002) has shown, as we may have assumed, that humans are capable of perceiving new information even when their attention is elsewhere.

Hearing. To hear, the tympanic membrane, which separates the outer and middle ear, shifts acoustical vibrations in the air into mechanical vibrations which are transmitted through the ossicles in the middle ear to the cochlea of the inner ear and finally to the organ of Corti which then transforms them to neural messages and sends them to the brain (Christman 1971:242-255). Hearing provides much information about the outside world, but there is one subset of data that I feel needs particular mention. Blesser and Salter (2007:21) state that “hearing decodes size as the global metric of volume because sound permeates air as a fluid, flowing around objects and into crevices...we sense the volume of a large space by its long reverberation time and the volume of a small space by its sharp frequency resonances.” So, we sense spaces aurally as well as visually, and that is how primarily we sense their volume.

Obviously the active and passive distinctions with this sense can be couched in the differences between listening and hearing respectively. When listening, there is the “active attention or reaction to the meaning, emotions, and symbolism, contained within sound” (Blesser and Salter 2007:5), while hearing simply denotes the detection of sound.

Touching. Various entities within the human skin are responsible for the various sensations recognized by the brain. Four different types of mechanoreceptors respond to stimulation of the skin. Merkel receptors respond to fine details; Meissner receptors respond to fluttering and help with controlling hand-grasp; Ruffini receptors respond to

stretching; and Pacinian corpuscles respond to rapid vibrations and fine textures sensed by the fingers moving over a surface (Goldstein 2007:308).

The active capability of touch is denoted here as haptic perception, which is the process of sensory data gathering and recognition through touch. An example would be running one's fingers over the a surface to see how rough it is. The passive capability of touch is designated here as cutaneous sensation; the ability in the sensory nerve endings of the skin to feel any sensation, including pressure, temperature, and pain. An example would be the feeling of a breeze upon one's face.

Smelling. The sense of smell occurs when odorous molecules are absorbed by the cilia at the ends of olfactory vesicles within the olfactory epithelium of the nose (Takagi 1978). From there, electrical pulses are sent to the brain relaying the sensory input. Smell, as we all know, can be a very powerful sensation. The active and passive capabilities of the sense of smell are somewhat different than those of other senses. The sense is usually enacted in its passive sense as smells waft around an environment. When a space is overwhelmed by odorous molecules it becomes impossible not to smell them: one can only hold one's breath for so long! Sniffing, the positive aspect of the active capability also occurs, but is usually reserved for smells with a limited range in the environment.

Tasting. According to Beidler (1978:22) "the flavor of food derives from the simultaneous stimulation of the olfactory, gustatory, thermal, and mechanoreceptors, as well as the free nerve endings" of the mouth. The gustatory system is composed of the taste buds, which are stimulated by chemicals in the vicinity through a process of

adsorption (Beidler 1978:30). Obviously, taste for the most part only has an active sense: one must physically put something in contact with the mouth to engage the sensation. However, smell and taste are linked and smells in the environment could also trigger the sense of taste involuntarily.

Proprioception and Kinesthesia. Proprioception refers to our ability to sense the position of our limbs. Refshauge (1998:5) writes:

The three classes of afferent fibre that potentially contribute to proprioceptive sensibility are cutaneous, muscle and tendon, and joint capsule and ligament afferents. When a joint is moved passively, its joint, cutaneous and muscle structures are likely to be progressively shortened, or become increasingly 'slack', on the side of the joint in the same direction of the movement...the adequate stimulus for all three receptor types is stretch of the tissue in which they are located.

In other words, the microscopic tensions felt in our joints is what scientists believe causes our sense of proprioception. Most of the time proprioception is passive. The body is sending constant feedback as to its position, and these sensations are incorporated into experience. The incorporation becomes more in the active sense when the proprioceptive sensation is, for one reason or another, placed at the forefront of the experience. This could be due to a new or unusual bodily position or perhaps, staying in a single position for a long time.

For kinesthesia, I will distinguish between the active and passive senses on whether or not the individual instigated the specific movements solely to gain kinesthetic knowledge. Active kinesthetic sensations are produced when a person willfully engages in motion, most likely as some sort of status check. Flexing a numb hand in the snow for sensation produces active kinesthetic sensations. The passive capability occurs as a result

of movements engaged for another purpose. The sensations in the arm from swinging an axe would be an example.

Another, and I believe, complementary, way to look at the senses is as culturally (Stoller 1989, Classen 1993) and historically (Smith 2007) constructed. Another culture may have distinct concepts of what defines a human sense or how it functions. Which senses are given primacy in terms of value and use is also culturally dependent. Classen (1993:136) goes on to state “as sensory values are social values, sensory relations are also social relations.” It follows, then, that the way members of a culture engage or limit sensory perception through the built environment is reflective of deeper social knowledge systems.

I also wish to echo the importance of multi-sensory analyses voiced by Howes (2006) and Frieman and Gillings (2007). Many scholars (Classen 1993:6, Hamilakis 2002:122, Pinney 2002:84-5, Brück 2005:50) have pointed out the overemphasis placed on vision due to a Western bias, and how it clouds our understanding of the other senses and their cultural significance in other cultures. Not only are the non-visual senses important, but data from different senses are taken in concert to perceive the world. Smell and taste. Vision and feel. Movement and sound. The senses can also be interrelated producing different effects as with Houston’s and Taube’s (2000:263) concept of synaesthetic communication, where information to one sense relates data that are to be processed by a different sense.

The Experiencer's Response, a.k.a. The Experience

The designer of a built environment intends a response in the social actors after they perceive and understand the space. This response can be conceptual, emotional, behavioral, or some combination of the three. Responses to the environment continue to imbue the space with meaning. These responses are what is to be considered spatial practice or what Low (2000:128) terms the social construction of place.

Each of the type of the responses is dealt with in turn below, but must also be considered together in a more general sense: as meaningful engagement within the built environment. Miles Richardson's (1982:431) use of Heidegger's concept of being-in-the-world is very useful for understanding experience because it necessitates the combination of the material setting and social interaction:

The objectification of the emerging sense upon the material setting is essentially the transfer of the what of the ongoing social experience onto the where of the material setting. The "what" is the sense, or the understanding, of the situation that is emerging out of people's interpretive responses to one another's actions. The objectification of that sense onto the "where" of the setting means that the social situation becomes physically placed. This, in turn, means that the setting, which earlier (prior to the situation being formed) was a preliminary definition, now becomes a full exposition of what is occurring. The material image, in brief, is the implicit, preliminary definition made explicit and complete; with its formation the participants have moved from simply being there to being-in-the-world.

Being-in-the-world implies that the "world," i.e. the built environment has *a priori* social meaning, in a relative sense, to subsequent social activities, and that the experiencer understands these meanings. Being-in-the-world, then, is understanding and tying into

these meanings. I believe this is accomplished through three types of responses to the built environment: behavioral, conceptual, and emotional.

Conceptual responses. Conceptual responses are those changes made in the beliefs and attitudes of a person based on their sensory perceptions of the built environment. The idea of the built environment containing behavioral cues was voiced most evocatively by Umberto Eco who appropriated the concept of semiotics from linguistics and applied it to architecture. Eco (1980:24) denotes a secondary function in his semiotic approach, one that is connotative and relates information of a symbolic nature. His example is the differences between what a chair and a throne communicate to someone. The throne has another layer of meaning wrought with social implication. While this semiotic approach helpfully focuses on the communicative nature of architecture, it is important to note that this nature is not a static one. Barrett (1994:19) states that taking behavioral and conceptual cues from architecture:

is always more than reading a material ‘text’; it moves beyond the text and involves the annotation and transcription of such texts. In this way practical knowledge is constructed through an engagement with material conditions. Architectural traditions and the traditions of practice contained by that architecture become two interlocked fields which exchange and transform a common set of symbolic resources.

I draw on the concept of conceptual landscapes here and am simply changing the resolution of focus. Knapp and Ashmore (1999:11) define conceptual landscapes as “characterized by powerful religious, artistic, or other cultural meanings.”

Since this conceptual communication is done through symbols, it often draws on social memory to ensure the symbols are understood and related to deep and profound systems of meaning. These symbols become strengthened through subsequent behavior.

Because this relationship is reflexive, social memory is also produced this way and often strongly tied to place (Van Dyke and Alcock 2003:5).

Behavioral responses. Behavioral responses are physical actions taken based on sensory perception of the built environment. Eco's (1980:20) primary function of architecture is denotative, that is, it communicates the functions it permits and promotes. A stair communicates the possibility of going up or down. It is important to note that this function works only so long as the form of the architecture fits into a previously learned code of architectural functions. Eco also designates secondary functions for architecture that are connotative, and thus dealt with in the following section.

Donald Sanders (1990) emphasizes the behavioral cueing system present in the territorial systems identified within the field of environmental psychology (Altman 1975 123-145). While Altman focuses on the ownership aspect of territoriality, Sanders (1990:49) focuses on the functional aspect: "we define spaces, mark them for specific uses, create visible and invisible boundaries, and will defend the territory against unwanted intrusions." Because specific responses are desired in reaction to a territory, the system of encoding is deeper than simply marking possession.

Emotional responses. Emotional responses are changes in the affective state of consciousness based on sensory perceptions of the built environment. Acknowledging emotional responses is potentially dangerous for scholars in that the subsequent scholarly pursuit of the impact of the built environment one could be prone to chasing highly subjective and individualizing ghosts. Yet, whether or not their recovery is possible, it is

impossible to deny that the built environment is ever devoid of emotional content.

Lefebvre (1991:141) believes this is due to the symbolic content contained in space:

Space may be marked physically, as with animals' use of smells or human groups use of visual or auditory indicators; alternatively, it may be marked abstractly, by means of discourse, by means of signs. Space thus acquires symbolic value. Symbols, on this view, always imply an emotional investment, an affective charge (fear, attraction, etc.), which is so to speak deposited at a particular place and thereafter 'represented' for the benefit of everyone elsewhere.

The symbolic content of the built environment is emotionally charged to some degree. Tuan (1977:110) holds that sometimes emotional responses require an objective materiality such as place for clarity, in other words, places can facilitate or augment emotional expression. Emotional responses can be then be an original intention of the built environment, but can also occur concomitantly with conceptual and behavioral responses. The built environment represents meaning through design and subsequent behavior, and these spaces retain that meaning through symbolic encoding.

Architecture as Power

"A whole history remains to be written of *spaces* – which would at the same time be the history of *powers*." – Foucault (1980:149 [1977])

A General Definition of Power. In a consideration of Foucault, Thomas (2002:38) writes "power is dispersed as a field that invests and inhabits all social relationships. Power is not directed by a single agent but is composed of many shifting strategies that are played out simultaneously. Sovereignty, domination, and authority are not so much the

primordial forms of power as they are the outcomes of its operation.” Considering power in this diffuse permeating way allows it to be present in the entire reflexive relationship of spatiality. Power is embedded in the built environment through the meanings inscribed within because of the social practices enacted, which themselves are enmeshed in power.

But, what then of social hierarchy? Of kings and emperors? Miller and Tilley (1984:7) write that power “can be regarded as a dispositional capability, neither possessed nor exercised or controlled by any particular agent or collectivity, but as a structural feature of social systems, which is only manifested through its effects on individuals, groups, and institutions.” Social members, then, are constantly engaging in attempts to affect power.

I conceive of power using the foundation laid out by Miller and Tilley (1984), which itself is derived from the work of Foucault (1977, 1978, 1980). Miller and Tilley break power down into two aspects: *power to* and *power over*. “*Power to* is an integral element of social life, a component of all social practices, an existential part of human existence and can be disassociated from the social control and domination characterized by *power over*” (Miller and Tilley 1984:8).

Power to is conceived as a the socially embedded ability to create and draw on resources. Resources can be material or non-material. Material ones include media, raw materials, means of production, while non-material ones are knowledges, skills, and competences (Miller and Tilley 1984:7). *Power over* is the ability by an individual or collective agent to get another agent to do or not do something they would otherwise not

do or not do (Miller and Tilley 1984:7). This aspect of power deals with concepts such as coercion, oppression, repression, and domination. It should be noted that combining these two aspects into a less delineated concept would result in something similar to Weber's (1964:152) definition of power: "the probability that one actor within a social relationship will be in a position to carry out his own will despite resistance."

Miller and Tilley were concerned with complicating the concept of power and showing that it resulted in outcomes other than dominance. Because of this, they conceived of *power to* and *power over* as two sides or faces of power the former positive and the latter negative in nature (Miller and Tilley 1984:6). As this research is not concerned with any moral assessment of power's exercise, these two concepts are not viewed as oppositional and instead are seen as two distinct aspects of power that are functionally different.

Any agent can then exercise different degrees of these two aspects. The two aspects are linked in that to achieve *power over*, one must always involve *power to* (Miller and Tilley 1984:5). Additionally, if, in a society, there are high degrees of *power over*, this begins to affect the *power to* within that group. Social control and domination begin to erode the ability of individuals or groups to engage in society. Many forms of control can simply be viewed as actions preventing the gathering of resources. Incarceration, lack of citizenship or voting rights, or the favoring of a particular coding system (i.e. language) to the detriment to those who do not know it all limit *power to* in this way.

What follows then, are not different types of power, but descriptions of the different ways power is expressed at the various steps in the process that is the archaeology of experience, in what might be termed a general “paradigm of power” (Love 2002:216). These expressions are described in two ways: their process and their outcome. What they have in common is that they are all efforts to obtain or increase *power over* and to maintain the tenuous amount already gained. Again, I do not mean to intimate that an individual’s level of *power to* and *power over* are dependent solely on their actions; the larger society must allow for it and there are many other variables in play.

One other commonality between these exercises of power is that they all attempt to naturalize the asymmetrical social relations that are present. One reason for this is because these processes are all somehow tied to the built environment. Therefore, the processes become tied to the organization of space, a set of fundamental principles. The built environment also acts as an encompassing setting that is enduring. By being embedded in space, the logic becomes removed from the fallibility of human argument. The materiality of the built environment means that the process seems timeless in that it communicates statements regardless of time of day or year, and does so most likely over multiple lifetimes. For an individual, something that exists for his/her entire lifespan is eternal in a sense. As a result of these factors, exercises in power involving the built environment are also ones in naturalizing the resultant social inequality.

Design as an Expression of Power. The power of the designer is expressed in his/her *power to* design and construct a material experience. The design is a concept rife with intent, and the choices made reflect the social goals of the designer. It should be noted that the outcomes of efforts at power may not always conform to the original intent of the agent concerned (Hindness 1982). However, in this case, the chance of successful outcomes is bolstered when original design intents are followed by social action that is in line with those intents.

I attribute the process from *power to* to *power over* for designers as one to be couched in the concept of de Certeau's (1984:36) strategy:

I call a *strategy* the calculation (or manipulation) of power relationships that becomes possible as soon as a subject with will and power (a business, an army, a city, a scientific institution) can be isolated. It postulates a *place* that can be delimited as its *own* and serve as the base from which relations with an *exteriority* composed of targets or threats (customers or competitors, enemies, the country surrounding the city, objectives and objects of research, etc.) can be managed. As in management, every 'strategic' rationalization seeks first of all to distinguish its 'own' place, that is, the place of its own power and will from an 'environment.' A Cartesian attitude, if you wish: it is an effort to delimit one's own place in a world bewitched by the invisible powers of the Other.

As is clearly evident, strategies are enacted initially through spatial separation. "Power manifests itself convincingly by transcending the local. When potentates use power this way they are fully conscious of having created something that stands out and does not blend with local life" (Tuan 1989:29). By changing the organization of a space or the experience within it from that expected within the surrounding related spaces, power is demonstrated.

Strategies are efforts to distinguish a space from others and as such all designs with *power over* as their goal are strategies. This spatial separation is equated with a social hierarchy. Once separation is gained, strategies work to communicate this difference, and to maintain if not increase it.

Strategies are enacted by those at the top of the social hierarchy, from a spatially delimited origin point, by using material and non-material resources (*power to*), to maintain and increase this social inequality by enacting social manipulation and control measures (*power over*). Designs for the built environment are strategies made material through architecture. Smith (2003:108) defines legitimacy as the ability to “synchronize practices that perpetuate the existing political order within a discursive framework that generates the allegiance of subjects.” I argue that some of the practices to which Smith refers are strategies. As with Smith, I believe that exercising power and legitimacy leads to authority.

Strategies designed to affect experience in the built environment fall within two categories: those that are an effort to augment the experience of the person or group exercising power and those that are enacted to impact the experience of those not able to exercise it. In the case of the former, the theoretical model set up by Goffman (1959), known as dramaturgy, is employed here to increase insight.

Dramaturgy uses a theatrical metaphor to talk about how the self is communicated to others in face-to-face interactions. This communication is referred to as a performance because only specific, and what are inferred by the actor to be idealized facets of the self are presented. Performances, then, possess a “front” the function of which is to “define

the situation for those who observe the performance” (Goffman 1959:22). The situation in this case is the power dynamic. Fronts are composed of two components: setting and personal front.

Performances can be marked by two strategies that are efforts to increase their efficacy. First, is the previously mentioned idealized presentation of self; the hiding of fault and display of value (Goffman 1959:34). The second strategy is termed mystification. This strategy involves maintaining a greater social distance to limit and regulate what is shown to an audience, which can lead to awe (Goffman 1959:67). In essence, this strategy is about controlling knowledge about specific aspects of the actor, usually ones that would create a sense of qualitative and inherent commonality.

This model is very useful in talking about experiencing the built environment because it necessitates a union between physical setting and social actor. In a volume on performance, Inomata and Coben (2006) debate using Goffman’s (1959) definition before ultimately deciding to use a less inclusive definition by Dell Hymes (1975) that focuses on creativity and transcendence of the ordinary. I do not criticize their decision because the thrust of their endeavor was ultimately discussing spectacles and public events.

In the same volume, Houston (2006:137-8) is highly critical of the Goffman model, going so far as to cite someone who called it literally absurd. Here is some of Houston’s (2006:138) criticism:

Perhaps interaction really is like a game in that it has problematic outcomes – no foregone conclusions – and affords the opportunity to display valued attributes such as dexterity, strength, and self-control (Goffman 1961). But, in contrast to these maneuvers, true

performance, is above all a ‘marked’ behavior of restricted occurrence (e.g., Beeman 1993:377). It deliberately contrasts with, and is bounded from, the neutral hum of quotidian existence. The Japanese tea ceremony is a performance; eating noodles at a bar in Tokyo (or San Francisco) – which may follow accustomed habits of behavior – is not.

I would argue that eating those noodles is not quotidian if, for example, there is someone of romantic interest seated across from you. Or if the context of the noodle dinner proves to be during a recent PhD’s visit to a university during a faculty search. Interestingly, I have been told not to order the noodles in this scenario as they may produce an embarrassing eating pattern (i.e. slurping). Social meaning is often derived from face-to-face interaction and it is at this point that Goffman’s points become valid.

In truth, I think what is of greatest import is not what constitutes a performance. It is recognizing that there is, at times, a secondary level of communication going on within social interaction. Somewhere between quotidian and the Hymesian, there exists social interaction of heightened and weighty importance. The aforementioned Japanese have made this recognition of layers of meaning and go to great lengths to control it in their business culture. There are, as I count them, at least seven rules on the proper way to exchange business cards in Japan. On the other hand, I feel I should note that the aforementioned slurping is not offensive there and instead a sign that one is enjoying the meal. In terms of power, I believe Goffman would say that to be a king, one must live in a palace, dress like a king, but just as importantly be “kingly.”

Power in the Organization of Space through the Built Environment. The built environment, at its most fundamental levels, is the material expression of a conceptual ordering of space. Spaces are created for activities and interactions and in doing so determinations are made as to what activities belong together and how interactions are to be accomplished. By ordering, one is exercising power.

To see this link, we need to see organization principles as a classificatory system. Durkheim and Mauss write of the cross-cultural commonalities of classification systems belonging to different groups. “To classify is not only to form groups; it means arranging these groups according to particular relations...Every classification implies a hierarchical order.” (Durkheim and Mauss 1963:8).

This idea is closely related to Wolf’s concept of organizational power. This is when power is exercised in a way “that controls the contexts in which people exhibit their capabilities and interact with others. This sense calls attention to the instrumentalities through which individuals or groups direct or circumscribe the actions of others within determinate settings” (Wolf 1999:5). If one is expressing a new spatial order, one is engaging in *power to*, however if one is repeating and capitulating to the predominate spatial order this may be characteristic of *power over*, though the individual creating the space is obviously not the one exercising power.

Once these spaces are created as the built environment, a process of definition, negotiation, and maintenance or change occurs. Sanders (1990:183) states “as space is constantly being defined and redefined by day-to-day social activity, the process of its reproduction presents a continuing source of struggle and contradiction. Space is

consequently political, being the domain of social conflict and antagonisms.” So, not only are spaces exemplifying organizational principles, they are the site and occasional focus of social conflict.

Here we come, then, to the dramaturgical concept of setting. Goffman (1959:22) defines setting as the “furniture, décor, physical layout, and other background items which supply the scenery and stage props for the spate of human action played out before, within, or upon it.” Settings are produced to enhance the presentation of self. Goffman (1959:23) gives the example of the elaborate scientific stages that doctor’s use when seeing a patient. In this way, built environments are material versions of self.

It is no wonder then, that power claims become inscribed in the built environment. Foucault (in Rabinow 1984:252) states: “Space is fundamental in any form of communal life; space is fundamental in any exercise of power.” Statements of power can be made material in the built environment. The most straightforward way is as symbol in the landscape. At this scale, the built environment can be a statement of power on a different and greater order of magnitude than could be otherwise had. For examples, one need only think of the plethora of past cultures that have built mountains for one reason or another. *Built* them.

When built environments successfully communicate the rhetoric of the dominant agent, among several layers of depth of meaning, they can be considered as what Kehoe terms “theaters of power.” Kehoe (2002:267) sees monumental architecture as “complementing the richly accoutered lord of the realm, acting as a platform and

background to the lord's ritualized acts, the architecture powerfully proclaims the state's undying *corpus mysticum*."

Aside from being filled with symbolic content, the built environment can also make statements of power using history. The result of power, or political agendas, being situated in place, in the built environment is what Smith (2003:235) refers to as the institution: "[i]nstitutions – collectivities bound together by shared histories and interests that shape ingrained values and routines – recursively shape their members, and over time, can provide the foundations for governmental stability (or ossification) and transformation." Smith (2003:235) goes on to say that political institutions are "profoundly sited in place within an architectural landscape that draws together not only discourses on appropriate action but also physical demands on inter-institutional ties and imaginings of the governmental apparatus as a whole." Institutions are sites using settings; architectures that best express history, value, and routine.

The built environment can be subsequently affected to communicate power in different ways. Tilley (1994:27) states "the ability to control access and manipulate particular settings for action is a fundamental feature of the operation of power as domination." This manipulation is subsequently directed at controlling the perceptions and experience of those undergoing power. Controlling access is one way this can be accomplished, but the following sections reveal a more complete picture as to how this is completed.

Power of and over the Human Senses. The power of the human senses is that they lead directly to knowledge. They are the devices through which humans interact with the world and each other. Their power is perhaps best exemplified in Foucault's (1977) exploration of Jeremy Bentham's *Panopticon*. The panopticon is known for its morphology. A central cylindrical tower that provides 360 degrees of viewing possibility sits in the middle of surrounding cells all facing the tower. From the tower vantage point, those exercising power gain round-the-clock surveillance abilities with a minimum of labor expenditure. The intensity and expansiveness of this type of observational environment exemplifies the power of the human senses.

Power over the human senses is a much less directly acknowledged phenomenon, and this is a tragic oversight. If the eyes are what give power, do they not give it to everyone? If part of dominance is seeing and hearing everything, so is resistance. As is shown below, there is a strong literature on controlling the body. But it is the behavioral body that is controlled or the mind? Control over the sensorial body is intimated and undervalued. With the panopticon, the hyper-surveillance is always the focus. An all-seeing eye is always watching. But, there is another aspect of the panopticon that is mentioned: power within the structure must always be visible and unverifiable (Foucault 1977:201). The central tower is always visible, but it is impossible to tell if the tower is manned. But from whose perspective? That of the prisoner! The panopticon not only facilitates the sensory perception of those exercising power, but it controls the senses of those who are undergoing power.

Bourdieu similarly understates this control, while, as with Foucault, painting it in the correct light. In defining one aspect of the complexity that is *habitus*, Bourdieu (1977:124) states:

the principle is nothing other than the *socially informed body*, with its tastes and distastes, its compulsions and revulsions, with, in a word, all its *senses*, that is to say, not only the five traditional senses – which never escape the structuring action of social determinisms – but also the sense of necessity and the sense of duty, the sense of direction and the sense of reality, the sense of balance and the sense of beauty, common sense and the sense of the sacred, tactical sense, and the sense of responsibility, business sense and the sense of propriety, the sense of humor and the sense of absurdity, moral sense, and the sense of practicality, and so on.

Here the senses are conflated with a plethora of mental constructs. This is conflation akin to the foundational one phenomenologist Merleau-Ponty (1945:3-15) sets out when he writes that there is no sensation without meaning, that one cannot fruitfully begin at the physiological. In principle this makes a lot of sense, the meaning drawn from physiological sensation is what is important, not the sensations themselves. However, we can see from the panopticon, that those meanings can be controlled, and this can be done through manipulating and controlling the human senses, the sense-data they receive. This is categorically a different exercise than influencing the mind (Bourdieu's socially informed body) or controlling the body (as Foucault explored in the prison and hospital). Returning to the above statement by Bourdieu, the control over the human senses is acknowledged, but its import is virtually lost, existing only as a parenthetical statement.

A Note on Resistance. Focus will now turn to the responses an experiencer has to the built environment. However, at this juncture, it is important to note that responses may

not necessarily be in line with the built design intent. So, experiencers can be said to be reproducing the original spatiality (compliance) or instead producing a new, and potentially very different set of meanings. Change then, comes in terms of resistance or what De Certeau (1984:37) would term tactics.

I mention tactics here because I believe that resistance can begin with the human senses. Decisions to try and see what is held from view, or not to taste what is proffered can be seen as ways of opposing the dominant structure non-violently. During the Velvet Revolution of 1989 in what was then Czechoslovakia, demonstrators jingled keys, forcing the Communist state and its members to listen to a sound that symbolized the unlocking of doors.

However, whichever path is taken, reproduction or change, experiencers must first respond to the built environment and the meaning encoded therein. Also, the original design in combination with subsequent and ongoing social activities that reproduce the meaning make it tremendously difficult for change to occur.

Power over Experience (Conceptual-Behavioral-Emotional)

Conceptual Responses. I consider conceptual responses to be when the built environment engenders an idea or set of ideas in the experiencer. These ideas are to be thought of as belonging to one of two related spheres of thought. The first conceptual sphere is the set of ideas having to do directly with the built environment. The second sphere contains ideas that relate to everything else: the world, the identity of the thinker,

or something about the building's occupants; any concept not relating directly to the built environment.

The first sphere can be thought of as place as statement. "This is the center of the universe." "This is where tuna fish is made." "This is where our lords have lived from time immemorial." "This is home." Rodman (1992:642) states "places not only feature in inhabitants'...narratives, they are narratives in their own right: a place comes explicitly into being in the discourse of its inhabitants, and particularly in the rhetoric it promotes."

The rhetoric in the above quote is what draws in the second sphere. The built environment can provoke ideational responses about entities other than itself. "The universe has a center." "Consuming tuna fish is good." "Lords are natural and necessary." "This is where you belong." When social inequality is expressed through the built environment, the built environment is subsequently used to naturalize and justify that power.

When the naturalization process is successful the result is hegemony, and I think the built environment plays a special role in regard to it. Lefebvre (1991:11) is adamant that the hegemonic tactics of the dominant class would include focusing on the production and use of space. Gramsci (1971:12) defines social hegemony as the:

'spontaneous' consent given by the great masses of the population to the general direction imposed on social life by the dominant fundamental group; this consent is 'historically' caused by the prestige (and consequent confidence) which the dominant group enjoys because of its position and function in the world of production.

I believe this consent is intrinsically and concomitantly related to the naturalization of domination. *Power over* is consented to and one of the ways this is achieved is by taking away the possibility of questioning the power structure. The built environment works particularly well with naturalization processes for the reasons delineated at the beginning of this section.

Behavioral Responses. Before discussing the efforts at controlling the behavioral responses of those under power's sway, I must first return to dramaturgy to discuss the responses by those with *power over*. Already having discussed setting, the other component of presentation of self is personal front. This component is made up of two parts: manner and appearance. Manner is defined as the "stimuli which function at the time to warn us of the interaction role the performer will expect to play in the oncoming situation" (Goffman 1959:24). Examples include facial expressions, gestures, and posture; that set of behaviors termed kinesics. As I see it, an actor, utilizing the setting as impetus, carries themselves in a way which communicates their power and the social logic for it. This is accomplished through coherence between setting and front.

I believe appearance is the component that binds setting and manner. Goffman (1959:24) defines it as the "stimuli which function at the time to tell us of the performer's social statuses." Appearance includes clothing and insignia, but also physical characteristics such as size and sex. It is through appearance that the actor takes parts of the external world and incorporates them into (or more realistically) onto the body. As such, appearance can almost be seen to be a hybrid of setting and manner.

From the dramaturgical front, a performance is enacted. This performance is designed to communicate social standing, and in situations of social inequality to communicate the hierarchy. The use of setting and appearance work with behavior (what Goffman terms manner) to reveal an idealized version of self to others, in this case a self with the ability to exercise power.

For Lefebvre (1991:143), the production of space is heavily tied to the notion of controlling behavior: “Space commands bodies, prescribing or proscribing gestures, routes and distances to be covered. It is produced with this purpose in mind; this is its *raison d’être*.” Interestingly, and importantly, for Lefebvre this connection between *power over*, space, and behavior is at such a fundamental level it is inescapable. “If there is indeed a text, inscription or writing to be found here, it is in a context of conventions, intentions, and order (in the sense of social order *versus* social disorder). That space signifies is incontestable. But what is signified is do’s and don’ts – and this brings us back to power” (Lefebvre 1991:142). That space is organized through meaningful principles, for Lefebvre, immediately draws in power. Once accepting this premise, the question quickly becomes how? The answer is through the built environment. A strong exploration of the way power is enacted in built forms to evoke behavioral responses is Smith’s (2003) volume on what he terms political landscapes. Defining the more general term of experience as “the flow of bodies and things through physical space,” Smith (2003:73) demonstrates how behavior is controlled and affected at the different political scales including that of the institution.

From within the built environment, a theme drawn from Foucault becomes very useful: political anatomy. Political anatomy is a concept developed as part of Foucault's arguments about discipline. I do not wish to use the concept of discipline *in toto* because it is a very particular historical argument that therefore bears components that are not widely applicable, such as discipline going hand-in-hand with punishment and a necessary goal being improvements in efficiency.

Within the framework of political anatomy, Foucault looked at it as both a decreasing and increasing phenomenon. It is defined as "how one may have a hold over others' bodies, not only so that they may do as one wishes, but so they may operate as one wishes, with the techniques, the speed and the efficiency one determines" (Foucault 1977:138). As applied to my research, I divorce the concept from necessarily including the increasing aspect. In my opinion, Foucault erred in intertwining these two elements because controlling bodies has been a phenomenon going back thousands of years and widespread concerns over efficiency are a much more recent happenstance borne from the Capitalist mode of production.

In prefacing his argument about Discipline, the historical phenomenon, Foucault (1977:136) writes "it was certainly not the first time the body had become the object of such imperious and pressing investments; in every society, the body was in the grip of very strict powers, which imposed on it constraints, prohibitions, or obligations." Foucault mentions different types of political anatomies in his writing: slavery, vassalage, military, and monastery (asceticism) forms. The point then is that the control of bodies is a widespread and long-standing historical phenomenon. The reasons why, in any

particular space and time, the control is being enacted requires further exploration.

However, suffice it to say that any goal of a particular political anatomy can be couched in terms the exercise and maintenance of power. Foucault (1977:137) aptly describes this bodily control, though sadly using a Capitalist analogy: “not treating the body *en masse*, ‘wholesale’, as if it were an indissociable unity, but of working it ‘retail’, individually; of exercising upon a subtle coercion, of obtaining holds upon it at the level of the mechanism itself – movements, gestures, attitudes, rapidity: an infinitesimal power over the active body.” Control can be enacted in many ways, but I argue that the built environment is and has been universally used to coerce and force bodies into particular positions and through specific movements. These positions and movements, in turn, reaffirm the social hierarchy that is in place.

Mauss (2007 [1934]) develops a concept of techniques of the body that are culturally specific ways of physically engaging in an activity that are passed down, and taught and learned through time from generation to generation. I argue here that built environments require their own techniques of the body in order to be successfully navigated and utilized. The morphology of a structure requires a specific set of physical movements to be successfully navigated. This path of navigation becomes a technique and is learned through repetition.

This repetition, given the permanent nature of the monumental built environment, can lead to Bourdieu’s (1977:72) concept of *habitus*:

The structures constitutive of a particular type of environment (e.g. the material conditions of existence characteristic of a class condition) produce *habitus*, systems of durable, transposable *dispositions*, structured structures predisposed to function as

structuring structures, that is, and principles of the generation and structuring of practices and representations which can be objectively 'regulated' and 'regular' without in any way being the product of obedience to rules.

Habitus, then, is a mental construct, a way to produce practices, perception and attitudes. When techniques of the body are ingrained this way and help to form *habitus*, the result of subsequent physical behavior is *body hexis*. This term "is used by Bourdieu to denote the various socially inculcated ways an individual moves, carries, and positions his or her body in the lived world" (Throop and Murphy 2002:188). Bourdieu holds that these movements are learned through the observation of others. I believe they are also communicated through the built environment.

For some, these techniques of the body translate into *body hexis*, repeated behaviors that work to communicate a specific social ordering. But, I argue these techniques even work for those not engaging in repetition. If we take a set of techniques as being specific to a space, and that space is where power is housed, then a sole encounter with that space will be further marked experientially by the unfamiliarity and alien feel in terms of proprioception and kinesthesia.

Additionally, parts of the unique experience may not be new, and these components will be compared and contrasted to prior experiences. This is one way in which new statements of power can be drawn from older logics. An example here would be the construction of a Catholic church by the Spanish on the same ground where the Aztec Templo Mayor stood in what is now Mexico City. The church would have been a unique built environment to the Aztecs, but it was situated in the landscape in a familiar

way, hence the new was tied to the familiar facilitating the desired conceptual, behavioral, and emotional responses.

Going back to the encompassing concept of political anatomy and discipline, it is important to note that both those exercising power and those it is exercised against are subject to such a system when it is in place. Love (2002:216) puts it best:

paradoxically, though, such discipline necessarily affects all members of a society. Both the dominated and the dominators become disciplined. In fact, however, although all social agents may be disciplined, some are more disciplined than others, and discipline generally serves the interest of the dominant groups more than it does the subalterns.

This realization about disciplinary power meshes exceptionally well with the built environment. For the most part when rules are encoded into architecture, they must be followed by all who use that building. If the best room is the penthouse, even the rich occupant must endure the long elevator ride to get there.

Emotional Responses. Emotional responses to the built environment are related to what Smith (2003:73) calls evocative space: “the dangerous spaces of alleys and docks, the inviting space of parks and gardens; the sterile, impassive spaces of corporate office buildings; the distinctly unmiraculous spaces of the miracle mile and the overdressed facades of the strip mall.” The impact on the human senses combines with memories created through human activity and previous knowledges to induce an emotional expression and tie. I use the word knowledges because it may refer to previous memories, differing ideologies, or rhetoric which are not in line with each other and may be oppositional.

Tuan (1974:93) began to explore the idea of an affective tie to the landscape with his concept of topophilia, all of the affective ties between human beings and the material environment. It is, in essence, love of place. Tuan (1974:100) allows for this love to be co-opted into programs of power saying that what usually stands in the way is that the area in question is too large to produce topophilia (think states, nations, and empires).

I believe that there are also different types of emotional ties to place besides love. There should be a topophobia, and acknowledgment of place evoking emotions for which the Greeks did not provide us such handy suffixes: sadness, anger, joy, surprise, awe. All of these can be played upon to exercise, maintain, and reify the power structure. If these emotions are tied to space, having people experience that space produces those emotions or memories of them. Emotions are then incorporated into rhetoric, propaganda, and reasoning.

In discussing Bertrand Russell's (1986:19) definition of power: "the production of intended effects," Wilson believes that the definition is sufficiently vague that in addition to physical effects, there is room to associate less tangible effects like impressions with power. Wilson (1988:118) states:

If power is the production of (intended) effect by some persons on other people, then producing an effect can be an end in itself, and we are carried straight to possibilities of illusion, superficiality, insincerity, and deception. Furthermore, producing something intentionally for effect implies acting with a degree of exaggeration, acting flamboyantly, doing more than is necessary to achieve a designated purpose.

In considering emotional evocation, the expression of power, and this concept of extraordinary, we are brought to the idea of spectacle and that of spectacular

architecture. Broudehoux (2010:52) believes structures of power “co-opt the material landscape to build, consolidate and reproduce their hegemony” through the use of spectacle. Spectacle works because it is effective on a different level than other avenues of power. It works to overwhelm and dazzle. Broudehoux (2010:53) continues:

Monumental spaces and spectacular architecture act as communicative mechanisms for state ideologies, and shape human experience through the manipulation of objects and symbols. More than a simple stage and a backdrop for elaborate rituals, protocols and other state choreographies, spectacular architecture becomes a participant in the machinery of power, and both mirrors, complements and enhances other forms of the spectacle.

However, in terms of the built environment, an explosion is not always the proper analogy for a spectacle. Spectacular architecture may shock and awe at first glance. But, it takes on different abilities after the initial impression. It may overarch or loom. It may encompass. It may resonate like a beacon. My point here is to highlight that the emotional evocations of spectacle may not necessarily be short-term or episodic, and that long-standing emotional effects are different.

Conclusions

As has been shown, the archaeology of experience overtly links the built environment to people in a way that allows for experience. These relationships need to be described overtly, because they are more complex than one might think. The key points of the archaeology of experience are that intention of design is an important component, the built environment needs to be understood in terms of its effects on the

human body and sensory perception, and that these effects produce different types of responses in the experiencer. Social inequality is interwoven through every point of this rationale and as such an intrinsic property, cannot be stripped away.

Chapter 3. The Ancient Maya Archaeology of Experience

The following chapter utilizes the framework set forth in the previous chapter to recount the relevant research of past and current Maya scholars. The ancient Maya designer is defined in the first section. In the second, the pertinent built environment is defined and discussed, in this case Maya palaces. This section is organized into a seemingly disjointed set of morphological characteristics for palaces. The categories seem ill-fitted because they are created by the previous research in the field which, of course, was not set forth under a single overarching plan. The third section is a discussion of the ancient Maya body and its senses. This is solely an emic account where possible.

The final section concerns the ancient Maya experience, which consists of behavioral, conceptual, and emotional responses. Now as the thrust of the entire work is to effectively understand how Maya palaces engendered these responses, so this section describes what the discipline currently understands about them. Behavioral responses are drawn from palace scenes painted onto polychrome cylinder vessels. Conceptual responses are drawn from the rhetoric of Maya rulership. Emotional responses are, like the senses, an emic account of ancient Maya emotion.

The Ancient Maya Designer

The identity of the designers of ancient Maya palaces are not clear. Unlike written works, which were sometimes signed by the scribe, royal buildings bear no such mark by their designer. The buildings often do bear statements of dedication and patronage, yet these contain the names of rulers (Stuart 1998). While architects as a type of craft specialist were thought to have existed (Houston 1998:530; Karl Taube, personal communication 2010), evidence, other than the circumstantial type such as the quality and complexity of design, is scant. Instead, the link here is made to include the ruler and the buildings they commissioned. Palaces are viewed as materializations of royal power, legitimacy, and authority. Architects were the ones with the artistic, technical, and perhaps religious knowledge to take this philosophy and create buildings, but this was done in conjunction with rulers as it was done under their auspices. Consider the use of the term designer(s) here to be a concomitant union of ruler and architect, with the knowledge that the relationship between the two obviously would have been hierarchical.

While not much is known about ancient Maya royal architects, a plethora is known about their rulers. The title used by the ancient Maya for rulers, and most familiar to scholars is *ajaw* or lord. Houston and Stuart (2001:59-60) exhibit how use of this title increased through time with the proliferation of nobles (Marcus 2003:101), resulting in the addition of the adjective “holy” (*ch’uhul/k’uhul*) in the Early Classic (AD 250-550). The title was inherited, creating dynastic lines (Mathews 1975; Schele 1986; Martin and Grube 2000), though the Classic Maya had strategies in place for when succession was ambiguous. For example, Piedras Negras Lintel 3 relates the visitation of a Yaxchilan

lord to Ruler 4 as the latter was close to death (Figure 3.1), and, it has been argued to oversee an ambiguous succession (see Proskouriakoff 1963; Marcus 1976:87; Houston and Stuart 2001:71). When the use of the first son was not possible or feasible other tactics were employed including the use of regents, e.g. Kaloomte' B'alam at Tikal (Martin and Grube 2000:38), second sons, e.g. K'inich K'an Joy Chitam II at Palenque (Martin and Grube 2000:171), and implanted rulers, e.g. Lady Six Sky at Naranjo (Martin and Grube 2000:74).

Rulers controlled a political entity that could be as small as a subservient polity to something as large as a multi-polity "superstate" (Martin and Grube 1995). There was also a complex hierarchy below the position of ruler including the position of *sajal* (Mathews and Justeson 1984; Martin and Grube 2000:19). The resultant exogenous and endogenous complexity is one of the phenomena that propagated a strong tenuousness in Maya rulership. Houston and Stuart (2001:58), relating a concept of Bourdieu to the ancient Maya, believe that royalty would have affirmed authority through "outstanding conformity to the values of the group." I believe this type of strategy was so attractive because of the delicate positioning of Maya rulers.

Rulers were "competing political leaders in a landscape of war, economic pursuits, alliances, and intrigue" (Demarest et al. 2003:120). Houston and Stuart (2001) exhibit the proliferation of elite titles through time and how these are a direct reflection of a similar growth in the noble class. A portion of this group always represented danger to the throne. Houston and Cummins (2004:368) point out that the Classic Mayan glyphic phrase for "to govern" has a root meaning of "to cultivate, plow." I find it interesting that

the concept of governance was tied to another that requires great strategy and planning due to a myriad of variables.

Classic Maya rulers, as designers, would have been trying to advance the same ideas that they were with the rest of their political and religious actions. Rulership was, in a relative sense, tenuous. Threats existed from below and above in the social hierarchy as well as from peers. Due to the fragility of their social position many of these ideas centered around legitimacy and authority.

The Ancient Maya Palace, Component of its Built Environment

Webster (2001:131) argues that Maya rulers were tethered to their palaces more strongly than in other cultures. Because of the precarious nature of Maya rulership, a position which had both internal and external threats, the ruler had to be strongly identified with a built environment in order to further maintain his or her legitimacy.

Ancient Maya palaces have been somewhat difficult to define. In the spectrum of architecture the term “palace” was used in contrast with “temple” early in the discipline’s history (see Christie 2003a:3; Harrison 1970:227; Harrison and Andrews 2004:113; Webster 1998:24). Yet, a specific set of characteristics that unambiguously distinguishes a palace from all other structure types had been subsequently elusive. I believe this because palace is both an architectural and a social concept. Most hold that a palace is the epicentral and monumental residence and administrative center of a ruler. Well, that it is a residence means that it has morphological commonalities with other houses, which is potentially muddling. Mayanists also found numerous monumental residences in a

single center (Chase and Chase 2001:106) or ones that are not central (Ball and Taschek 2001:170) or not royal (Webster 1989; Webster and Inomata 2004).

Suffice it to say, it can be a challenge to create a definition that would account for all desired examples while excluding all of the ill-favored others. In fact, this task may prove to be impossible. Besides, “black sheep” palaces have proved interesting in their own right, being conceptualized as seasonal residences (Ball and Taschek 2001) or evidence of rulership rotating through different lineages within a center (Harrison and Andrews 2004:138).

However, a definition, while not perfect as a distillation tool, must address both the material and social characteristics of a palace. I consider a Classic Maya royal palace to have been the central location of activities for the ruler, especially activities of the state. These activities will have included political, administrative, and ritual functions, with residential and domestic activities incorporated less prominently, but just as integrally. The palace will have consisted of multiple stone-roofed structures arranged around courtyards, which may have been on multiple platforms. A palace will contain thrones and other benches. There will also be a higher number of rooms compared to other architectural groups elsewhere in the same site. Palaces are also spatially distinct from the other monumental architecture at the site, especially temple complexes, though Caracol possesses notable exceptions (Chase and Chase 2001:108) and single temples are sometimes associated with palaces. This definition integrates the material characteristics of the definitions forwarded by Inomata and Houston (2001:8) and Chase and Chase (2001:103) with the more social definitions like that of Webster and Inomata (2004:149)

and Demarest (2006:118), while highlighting characteristics that were observed with frequency in the comparative aspects of this study.

I believe three chief concerns shaped the morphology of these palaces. First, as residences, they were larger, more complicated versions of mounded house groups that are a tradition to this day. This meant that Maya palaces consisted of multiple structures arranged around open-air courtyards. Second, limits in architectural engineering knowledge caused the corbelled vault to be the predominant method of raising a stone roof. I agree with Miller (1998:191) that this vault style should be viewed as more than a limitation and instead a transformation of the thatch roofed style into stone. Nonetheless, because of this design choice, rooms were small and narrow, as corbelled vaults can solidly span only limited distances. Finally, palaces were often occupied over multiple generations for hundreds of years, which resulted in morphologically complex palimpsests. These palimpsests can present difficulties to the archaeologist because they grow as the result of historical contingencies and eventually constrain later design strategies (Webster 1998:18). The historical circumstances can be difficult to recover without texts, and the constraining factor can mask or impede symbolic communication.

The Material Palace. Support for the above definition comes from multiple arguments. In terms of its materiality, Inomata and Houston (2001:8) indicate that royal courts, as a whole, are usually anchored in a built environment differentiated spatially both horizontally and vertically from its neighbors. Simply, but significantly, this means that there is architectural and spatial evidence in support of a structure or structures being identifiable as a palace. Diane and Arlen Chase (2001:103) define a Maya palace more

concretely as an elite or royal dwelling place with administrative functions, usually constructed with stone walls, possessing more than one room, and a vaulted roof. Palaces are often located in an epicentral location, but outliers do exist. Although their inclusiveness enlarges the samples of buildings one could examine, focus here is the potential palaces that are most centrally located, and most likely to have served as the principal royal headquarters.

The stucco and plaster facades of ancient Maya monumental architecture were often painted predominantly red (Houston et al. 2009). This color would have contrasted strongly with the natural landscape (see Miller in Houston et al. 2009:72), while also reducing glare from the formerly white plaster (Schele 1985:37). The color red was sometimes achieved using specular hematite, especially for floors, which resulted in a subtle sparkling effect when viewed. Citing David Stuart, Schele (1985) linked the use of this red exterior paint to a complex of hieroglyphic symbols that represent blood, and by extension, lineage and dynasty. More recently, Houston et al. (2009:30) point out the Mayan word for red (*chak*) relates to such concepts as big and great. Obviously, these are symbolic ties that would relate directly to the rhetoric of divine kingship, and would have been dominant in the views of palatial architecture. The inside of palaces are depicted using a much wider spectrum and “provided richly colored backdrops for the dazzling colors of personal adornment” of rulers and courtiers (Houston et al. 2009:84). A notable exception to this usage is the throne building of the great ruler Pakal at Palenque, which was painted predominantly white though the rest of the palace was red (Stuart and Stuart 2008:156).

Commonly, the facades of Maya palace buildings were covered in stucco sculptural elements (Schele 1998). Most of these were on the roofs or roof combs of palace buildings (roof combs being relatively lightweight vertical additions to roofs that made buildings appear taller without adding the corresponding amount of mass). These elements would have primarily depicted religious themes of rulers, deities, supernatural creatures, and elements corresponding to the politico-religious tales of which they were a part. It is important to note that in such adornments, rulers invariably linked themselves to these sacred themes in efforts to validate their power.

Portraits of rulers were also common visual elements of palace contexts, a phenomenon linking them to lineage and dynasty in that portrayals of past rulers remained on display for generations. Sometimes, these representations were even moved to palace contexts later in their use histories. At Uaxactun, stelae were re-erected at the primary entrance of the palace after being removed from other locations. Relating the image of the ruler, both past and present, directly to the palatial architecture had multiple impacts including reinforcing a justification of authority based on lineage history. It also tied the ruler to the building even when the ruler was not physically present or visible.

Entrances/Approaches. Palace entrances have been described as meaningful and designed to communicate the power and station of the ruler. For example, at the Late Preclassic site of San Bartolo, Runggaldier (2009:307) has identified an architectural pattern where palaces possess a path consisting of a stair topped by a “gateway” building and followed by a courtyard, second stair, and finally a throne room. This pattern also occurs at the palaces of Becan, Cancuen, Piedras Negras, Uaxactun, and Tikal, among

others. That a widespread, perhaps codified, morphology exists for palace entrances may be indicative of a similarly described and coupled set of behaviors and movements that enabled one to enter.

Through their approaches, palaces have also been considered in the greater context of the site. For example, the Dos Pilas palace is approached from the west by a path flanked by two funerary shrines, which tie the palace to previous rulers (Demarest et al. 2003:127; Demarest 2006:121). Here we see, as with the rhetoric of the ruler relating to lineage, the architecture is capable of the same sort of claims.

Movement within palaces has also been of interest. Liendo Stuardo (2003) analyzed the access patterns of the Palace at Palenque and found that there was differential access to various areas of the palace, the most restricted being to what he considered the living quarters. In support of this concept of restrictive access in palaces, Harrison (1970:186) notes various architectural features in the Central Acropolis of Tikal designed to control movement including screens and baffolds.

Terraced Platforms. Maya palaces are composed of courtyards ringed by structures raised on platforms. These buildings are reached by stairs, which also are complemented by terracing. I agree with Reents-Budet (2001:202) when she writes that some court activities took place on these steps and terraces. The Bonampak murals, specifically those of Rooms 2 and 3 in Building 1 also show elite behavior on steps or terracing (Miller 2001:218-219). The scene depicted on Piedras Negras Stela 12 takes place with the ruler seated on the top of steps and captives on the steps below him.

Parsing the Range Structure. In her study of pictorial ceramics, Reents-Budet (2001:199) claims the range structure is the most commonly represented architectural form. Yet, the buildings she is terming range structures are identified on the ceramics by their floor, piers, cornice, and bench or throne. In other words, there is nothing to think that these buildings are the long multiple-doorway structures found in palaces that can have upwards of seven rooms on their front face. They are more likely what I term throne buildings, which are usually only one or three rooms wide on their front face.

These throne buildings can only be considered range structures in the most minimal sense. Often with a throne building, even if there are multiple doorways, they lead to a single room, which is an antechamber before the throne room. Examples of throne buildings include the House of Bones also known as M7-32 at Aguateca, Chak Tok Ich'aak I's building 5D-46 at Tikal, Yax Pahsaj Chan Yopat's building 10L-32 at Copan, and all of Pakal's internal houses in the Palenque palace. These buildings would have had decorated piers, ones that were perhaps changed dependent on the occasion (Reents-Budet 2001:205). Most are of a closed variety often with restricted doorways and antechambers, but Valdés (2001:151) has identified a more open variety with a throne centered on a wide doorway that he terms "presentation palaces."

Council and Community Houses. Council houses, or *popol nah*, were elite structures whose function was to house the meetings between a ruler and other high-ranking lords, usually from within the polity. The iconography of the most famous council house, Structure 10L-22a at Copan, led Fash et al. (1992) to question the political strength of the ruler responsible for its construction. While the structure is not obviously

associated with a palace, Copan's rulers appear to have undertaken building programs that left more dispersed signatures (Andrews 2003; Webster 1989; Webster 1998; Webster and Inomata 2004). Miller (1998:199) believes that House B at the Palenque palace may have also been a council house due to its open design and the use of lord and mat motifs.

These spaces may not only have held representatives from different locales. Houston and Stuart (2001:66) point out that Early Colonial sources have women's weaving as a communal activity set in devoted architecture. Structure 23 at Yaxchilan is held to be a queen's quarters or women's house through an analysis of texts inscribed onto the building (McAnany and Plank 2001). Piedras Negras Lintel 2 is an argument for a school for young lords at the site, as young warriors kneel before a ruler of the site (Figure 3.2).

Kitchens. Harrison (1970:248), citing specific midden composition and burn patterns believes that a platform designated as 5D-131 which sits to the south of the Central Acropolis was the location of the palace kitchens at Tikal. Similarly, Structure M7-9 which sits to the north of the Palace Group at Aguateca is thought to be the kitchens or at least part of them due to a high frequency of *manos* recovered in a nearby test pit (Webster and Inomata 2004:163).

In both of these cases, the food preparation was not conducted in the palace proper. The reason for the peripheral location is not clear and may be due to quotidian reasoning (Harrison believes the location of the kitchens has to do with the Palace Reservoir), something more religious (perhaps there was something profane in the act of

food preparation), or more social (the cooks were not of a social station able to enter the central palace precinct).

Maya palaces, materially speaking, are epicentral constructions of stone with vaulted roofs. They may consist of multiple structures on multiple platforms, all of which are physically linked in some fashion. There will be a high number of rooms, and a number of benches, some of which are thrones.

Room Layouts. Palace layouts can be either dispersed or concentrated (Martin 2001:175). Open palatial compounds may have been more oriented to community involvement and spectacle (Ball and Taschek 2001:175). For example, the Central Acropolis at Tikal possesses six large courtyards within its bounds, which may have been used for feasting or other small-scale efforts devoted to political maneuvering or social integration. Concentrated layouts may arise from architectural buildup over long periods of time. However, the tight, intricate layout of the Cahal Pech palace leads Ball and Taschek (2001:175) to interpret it as having a focus directed from the outset towards personal activities and routines. Harrison (1970) has posited that at Tikal's Central Acropolis west-facing doors were associated with religious functions, while east-facing ones were more residential in nature.

Multiple studies have posited that this multifunctionality led to different morphological manifestations. Maya palaces could consist of a palace compound, such as Group 10L-2 at Copan (Andrews and Fash 1992), where functions were spread through various structures or instead be a complex of palaces such as Tikal's Central

Acropolis, where the same set of multiple functions were given to multiple structures (Harrison and Andrews 2004:141).

Sometimes, such as at Copan's Structure 10L-41 (Andrews et al. 2003) and the ancillary palaces at Aguateca (Inomata 2001), functions changed on a room-by-room basis. Christie (2003b) has focused on palace buildings with tripartite morphology and links the phenomenon to other divisions of three in the Maya belief system including the three hearth stones and three vertical divisions of the cosmos.

Thrones. Palaces will also include thrones, which as Maya vessels, sculptures, and paintings attest, were involved heavily in occasions of meetings, tribute submission, and ritual preparation: “[t]he throne is a device used in royal courts to formally raise the ruler to a position above the visitor-suppliant and to symbolize his power” (Harrison 2003:113). Judging by their depiction on polychrome ceramic cylinder vessels thrones were iconic symbols signaling a ruler. Harrison (2001) has developed a series of physical attributes to differentiate thrones from benches. These include legs, arms, an overhanging lip, elaborate decoration, and abutment to a single wall. In essence, a bench is a plain solid platform. A throne, on the other hand, combines some or all of the aspects mentioned above. Palaces also contain what Harrison (1970:173) has identified as sleeping benches which contrast with thrones in function and are recognized by their flat surface, long length, lack of occurrence in front of doorways, and association with cordholders.

Contextual clues, such as surrounding architecture, also provide evidence for function as a throne. Arguing for its importance and power, Demarest et al. (2003) show

how the throne in structure N5-3A in the Murciélagos palace complex at Dos Pilas may have been destroyed as part of the center's political fall. Noble (1999:69-77) believes that the placement of thrones in palaces is diffuse enough to warrant considering a factional model of social hierarchy. This, of course, would also be consistent with a more precarious rulership position in that these factions would constantly be vying for power.

Palace Functions. Webster and Inomata (2004:149) advance a much more social definition of Maya palace: "Palaces are the residences of individuals of wealth or high social rank, along with their families and retainers, and they include facilities appropriate to the ritual, political, recreational, and economic functions of elite households and individuals as foci of power."

Palaces served to communicate the power of the ruler to those who came in contact with it. Demarest (2006:118) states "palaces, as principal sites for ritual and political events, were also among the instruments of power utilized by elites in their status rivalry with other rulers and their efforts to generate, consolidate, and legitimate their power and authority over their local and regional populations, courts and vassals." Maya palaces were not isolated architectural features existing in a vacuum. In a very real sense they helped comprise a landscape of social order (Knapp and Ashmore 1999:16). Maya royal palaces were located in civic centers along with public plazas and tall temple pyramids. While not attaining the heights of temples, palaces were quite large in footprint, and were of comparable or greater heights than other monumental structures including ceremonial ballcourts. Palaces were linked visually with all of the other civic-ceremonial architecture and public spaces in site centers, given their size and proximity to

said architecture. All of these structures and spaces had dynamic and real purposes but also were the backdrop for all of the activities that occurred in and around the city center, serving as a composite reminder to all of the social order.

Palaces also represented a timelessness or eternal claim on power. Houston and Cummins (2004:366) relate how the stone architecture of palaces contrasted with the more common wood and thatch structures that were in use, and this served to make the impermanent permanent. As rulers tied back to royal ancestors, palaces bridged the gap between them, acting as the material symbol that would seemingly endure forever. During the Classic period, a palace was trans-generational, and since it existed longer than a lifetime it could be considered eternal.

It is also important to remember that palaces also functioned in quotidian ways. Harrison's (1970) seminal research on Tikal's Central Acropolis, showed through the presence of benches and middens, that ancient Maya palaces without a doubt held residential functions. Yet, Stuart and Stuart (2008:154) believe that the royal residences at Palenque were not held in the palace. However, the thrust of their argument is that there are better views to be had in the city.

The functional palace acted as the headquarters for the ruler and was the setting for political, administrative, and ritual activities. Residential and domestic functions were also part of palace life. Their epicentral spatial positioning was important because the palace was used as a symbol for the political, economic, military, and ideological power held by the sovereign.

The Ancient Maya Body and Senses

The Royal Body. Rulers' bodies, and their relationship to palaces, represent one of the key linkages that lead to understanding of the experience of Maya palaces. Royal bodies inhabited palaces and were depicted in the political media of the time in ways that communicated much about how the ruler was treated physically. The royal body can be best broken down into three categories: bodily substances, the corporeal body, and the costumed body. As the middle category is tied most closely to the built environment it is explored in the most depth here.

By far the most important royal bodily substance was blood. Stuart (1984:16) states "the prime substance of the world as defined and pictured by the Maya was royal blood, and that, conversely, the rulers were themselves embodiments of the blood of the Cosmos." For many rituals, rulers let blood and this blood became the integral component of the ritual. An important ritual involved letting blood to conjure ancestors and deities (Schele and Miller 1986:177). Monuments were created and dedicated to these acts indicating how important they were.

In terms of the corporeal royal self, there is the obvious: it was presented as the apex of society. For example, at Yaxchilan rulers are presented standing directly on top of captives (Miller 1998:203). Yet, one must begin with the more general ancient Maya self to truly understand the royal one. The concept of *baah*, which means personhood or self, is closely linked to the head and face of the body. Houston and Stuart (1998:95) explain:

References in hieroglyphic texts reveal an essential unity between ruler and representation. More than mere likenesses, portraits contained part of the royal essence, in ways that multiplied his presence, that made possible more than one, simultaneous appeal by supplicants, perhaps in competition with other rulers. Underlying concepts show that such personal identity was embodied, perhaps like the Central Mexican *tonalli*, in the face or top or forehead of the cranium, a key location that also assigned salience in references to people of different rank. It was the head or face that received royal diadems as marks of accession; it was the head or face that, through such usage, entered grammar as a reflexive element.

The importance of the head and face became emphasized in royal contexts. This is demonstrated, in part, in what we know about what it meant to look upon another's face. Through a study of the depiction of gaze between ancient Maya courtly personages on pictorial ceramic vessels Jackson (2009:74) recognizes the power of face-to-face interactions, stating,

the privilege of direct or connective gaze not only suggests one element of a codified set of performed behaviors that defines elite identities, and differentiates among ranked elite identities, but also signals the ways in which ordinary actions and nonmaterialized patterns (not directly recoverable through the archaeological record) structured social interaction and marked difference in a lived context.

It will be shown that this type of interaction had a great effect on the design of palace environments.

In terms of costume, there was much variation and one can correctly consider the royal body a canvas upon which political statements were adorned. For example, Baudez (2000) exhibits how, at times, the ruler's costuming depicted them as a cosmogram, literally the embodiment of the universe. Different costuming portrayed rulers as warriors and deities. These costumes were complex and each of their elements carried symbolic meaning.

For example, rulers were often adorned in jade, which Houston and Cummins (2004:366) citing David Stuart, have said represents botanical elements specifically flowers. As the stone palaces represented permanency, so did these jade elements. Bachand et al. (2003:245) describe how members of society how viewed representations of these decorated bodies in the form of stelae and other portraiture were confronted with “the experience of evaluating themselves in the light of these permanent ideals.” The royal body, in flesh and in stone, was reflective of the social order. Sanchez (2005) echoes these sentiments in her exploration of the role of the stela in ritual; the presence of a representation of the royal body was used strategically to make power claims.

The Non-Royal Body. In the palace context, we have a plethora of evidence to show that non-royal bodies were made to show deference and respect. Obvious examples include the many depictions of captives who are kneeling. The aforementioned research by Jackson (2009) indicates that there may also have been bodily gestures with similar functions of reverence. There are two examples of this deference directly embedded into the architecture of palaces from other scholars. First, Stuart (1998:409) describes the “step” verb in ancient Mayan dedicatory texts and relates it to the giving of tribute. The glyph and its variants contain literal steps (Figure 3.3), which Stuart (1998:411) relates to the climbing of steps to reach a throne. Here, then, a direct analogy is drawn between deference and physical movement. The climbing of steps, in its association with tribute bearing, comes to symbolize the same social gestures that the tribute itself does. That this association was strong enough to become the mnemonic in the writing system speaks volumes.

A second example is drawn from the multiple examples of hieroglyphic stairways that were to be found throughout the Classic Maya world. The most famous hieroglyphic stairway is the one on Structure 10L-26 at Copan, constructed in part by Waxaklajun Ub'ah K'awil, or 18 Rabbit, the 13th ruler of the polity and completed by K'ak' Yipyaj Chan K'awil, the 15th ruler. The text, initially designed by 18 Rabbit to recount his exploits and tie him to his ancestors, eventually became a theme of “royal ancestor worship, embedded in the context of war, sacrifice, and Teotihuacan symbolism (Fash 2001:146).

Again, the physical act of ascending steps causes a secondary effect. In this case, as the stairs are climbed an argument of legitimacy is presented. The physical act of ascension becomes a capitulation to authority as written. It should be noted that this type of staircase is not unique. Houston (1998:356) points out that the text of Hieroglyphic Stairway 1 from Yaxchilan is laid out in such a way that climbing the stairs leads one back through that polity's dynastic history. I believe these stairs were designed to force bodies and press minds to bend to these arguments of authority and legitimacy. I find it tremendously interesting that the ancient Maya coupled a physical component to their rhetoric.

The above examples are evidence of an overarching social process of enculturation belonging to a highly stratified society. Meskell and Joyce (2003:53) write: “By the time a Classic Maya adult entered into formal life, they were thoroughly conditioned by the practices through which their bodies were materialized, transformed, and disciplined, and through which their person was given a soul, a destiny, and names.”

Ancient Maya Senses. As stated in the previous chapter, I hold the belief that the human senses are culturally constructed. Accepting this necessitates an exploration of the Classic Maya version of the human senses. Most of our understanding of emic concepts of the senses for the ancient Maya, particularly sight and hearing, have been drawn from the fields of epigraphy and iconography.

Seeing. Though I cautioned against simply placing vision at the forefront of the senses for the Maya, it seems appropriate to do so to some degree, at least according to Houston et al. (2006:138):

Maya peoples had the means to record sight, in what might be described as a meta-sensory manner. That is, the act of “seeing” truly absorbed them, at least to judge from the available evidence. In contrast, the processes of “hearing,” “smelling,” “touching,” and “tasting,” as opposed to their results, interested them far less, or, based on modern Tzotzil evidence, they were encompassed by “sight” as the general expression for total physical appreciation (Vogt 1976:61-83).

In terms of sight, or vision, two concepts held by the ancient Maya are of particular importance for this work. The first is that viewing was not considered to be a passive sensory act. “What is crucial here is that the eye is *procreative*. It not only receives images from the outer world, but positively affects and changes that world through the power of sight – in short, it behaves as an ‘emanating eye’ that establishes communion between internal will and external result” (Houston and Taube 2000:281). That seeing something changed the very nature of what was viewed is a especially powerful belief, and architecture was used to facilitate the gaze of some and control the gaze of others.

The second concept of vision is one specifically denoted in the textual records as relating to Maya rulers and is called *-ichnal*. This concept is defined as a perceptual field held by the ruler (or a deity), and extending out in front of him, that served to witness and validate what was perceived. Interestingly, *-ichnal* was constituted not only by the presence of the ruler, but by the objects and people in view, in particular the other perceivers present, and “served almost as a notarial presence that made actions more concrete through shared experience and participation” (Houston and Taube 2000:289). The concept of *-ichnal* also reified the social hierarchy by granting the ruler privileged spatial positions in the environment. Furthermore, “broad fields, issuing from the view bodies accorded *-ichnal* in Classic Maya rhetoric, impart meanings to architectonic spaces” (Houston and Taube 2000:289). When *-ichnal* was brought to bear in a palace setting, the space gained in significance, but what I demonstrate further here is that these settings were designed to express a sense of *-ichnal* to those present in the spaces.

Hearing. With respect to hearing and sound, much evidence suggests that among the Classic Maya “there was a strong distinction between mere sound and songs of beauty and praise” (Houston and Taube 2000:276). Preferential consideration of types of sound is indicative of a larger system that categorized everything within a sound environment. While impossible to know if the cries of a macaw ever or always grated, the theoretical framework here considers sound as information, a perspective that may help us to understand acoustic goals and perceptions in royal architecture.

One sequence of sounds is of particular interest in the case of Maya palaces; that which emanated from the lips of rulers. It has been credibly argued that, perhaps, rulers

may have not always deigned to speak (Houston et al. 2006:229), but when they did it “consisted not just of empty words but potent emanations, sometimes of an especially fiery nature” (Houston et al. 2006:228). Houston and Stuart (1996:295) write that *ajaw* may derive from a term meaning “he of the shout, shouter.” Do not mistake the preceding description as one referring to simple oratorical skill because the “ancient Maya believed that vitalizing forces resided in the breath and other exhalations” (Houston et al. 2006:228). Vocalizations were materialized as speech scrolls on ceramic vessels, and tied to the concepts of wind, gas, heat, and fire.

Touching. The sense of touch is not well represented in the epigraphic record. The term for birth was expressed by the Classic Maya as “touching earth,” thought to be a reference to the traditional birthing practice where the mother is standing (Houston et al. 2006:141). Jackson (2009:75), in her analysis of bodily gestures, indicates that some examples of reaching out by individuals are so close to other people or objects that this is indicative of touch or near-touch. As is shown later, the spatial proximity to which royals allowed others near is very interesting and one tied heavily into palace architecture.

Smelling. This sense, perhaps more than any other, is the one demonstrated most clearly in the iconography of the Classic Maya and therefore is the best understood in its emic sense. Houston and Taube (2000) exhibit how breath was associated with the soul, and importantly for this discussion, flowers. Scented breath was that of life, and it appears as though royal breath was to be considered especially fragrant. Rulers were often adorned in jade flowers, and were depicted with jade beads or flowers emanating from the nose. As an architectural example, Houston and Taube (2000:270) also point

out that the west façade of House E at Palenque not only displays an elaborate series of hovering flowers but also three prominent Ik' sign windows. Ik' is the Mayan term for wind. Additionally, foul smells were also depicted using symbols for darkness, bones, and “elements of death and the underworld” (Houston and Taube 2000:276) We see, then, an emphasis on how something smelled; a scent carried particular meanings that perhaps could not be gained through the use of the other senses.

One must also consider what a Maya palace would have smelled like. Perhaps the two easiest scents to relate to palaces would have been the ones emanating from food and incensarios. Food is oft depicted in tribute scenes, but also would have been a part of daily life and feasting occasions. A more thorough exploration of food is found in the section below on the sense of taste. Incensarios, according to Taube (1998:446), “are the kitchen hearths of the gods and ancestors” and the smells emanating from them would have evoked these concepts. It is likely that were palace occasions were incense was burned. The censer and its smoke symbolized central concepts of Classic Maya ideology. These concepts were communicated visually, but more strongly through the sense of smell.

Tasting. Again, for this sense, epigraphic evidence is scarce, though the root verb for “to taste,” *eh̄ta*, is known (Houston et al. 2006:141). By extension, some insight may be gained into what the Classic Maya considered of the taste sense by looking at how they conceptualized food. Taube (1989) looks at the usage of the word *wah*, which means tamale, but the sign for which was also used in phrases about blood offerings. Here we see that these offerings would have been considered food for the gods. If taking

an offering was as eating food, one is left to wonder if one of the chief ways to interact with the deities was through their tongues. The food metaphor meant a supplicant's blood was not viewed, it was tasted.

We also see a refined sense of taste by the Classic Maya for their various foodstuffs. Classic Maya hieroglyphic phrases for three different types of cacao drinks have been compiled, including one flavored with cherries (*suutz kakaw*), and two different types of atole (Beliaev et al. 2009). There was also a wide trade network that brought salt down into the lowland Maya area from Yucatan (Kepecs 2003) and the Belizean Coast (McKillop 2002). Hopefully, this evidence brings forth the emphasis the ancient Maya placed on the sense of taste.

The Ancient Maya Experience

Maya scholars to date have rarely worked to understand what they consider explicitly to be experience. Yet, there is still a wealth of their material that relates to ancient Maya experience, and certainly to the categories of which I believe it is composed. The behavioral responses that are required for the analysis to follow are the activities that occurred within the palace. These are drawn from Late Classic polychrome cylinder vases that depict scenes of palace life. One should not assume however that the vases are all-encompassing. A wide array of likely activities are not depicted. Yet, the ones that are should be described here as they more than likely occurred.

What we know about what may have been the conceptual responses to Maya palaces are drawn from what rulers hoped they would be. What I term the “rhetoric of

rulership” was a constant communication of conceptual beliefs, and one is safe to assume that this rhetoric was as successful as the state and offices it was supporting. As the Classic Maya states existed for hundreds of years, the rhetoric must have been very successful.

Emotional responses begin to mark the edge of what an archaeologist can infer. Some would say they are past it. However, Mayanists have done some work in exhibiting how the Classic Maya conceived of some of these emotional states and that is of great use to the present work. What will be left to do is to see how the palace architecture in particular evoked emotion. In fact, what is left to do is see how palaces evoked all of what is described below. Before the descriptions can be begin however, a moment is taken to discuss who, exactly, is doing the experiencing.

Experiencers: Royal vs. Non-Royal. I do not mean to set up a fictitious dichotomy in setting up a royal versus non-royal set of experiences, and it may seem if I am doing just that. However, what is in fact happening is that I consider the royal experience to be unique and attributable only to a select few. This necessitates a large diverse group of people who did not experience palaces in this fashion. This diversity would have created a plethora of experiences I cannot hope to capture here. Yet, I think this group can be broken down into more manageable groups.

There is a group of such low status they would not have been allowed into the palace, whose experience of it would only be, as I later describe it, as it sits on the landscape. Other than this, the palace is unknown to them and there are no experiences to recover. Then, there is a group of people, of varied social status, who entered the palace

to partake or facilitate its functions or to interact with the ruler. These people would have ranged in position from food-preparer to the visiting ruler from another polity.

At the apex of the non-royal experience would be visiting rulers, some of whom may have been of equal social standing with the lord in whose palace is the focus. Directly under the *ajawob* would be *sajalob* or subordinate lords who themselves were ranked and differentiated (Houston and Stuart 2001:61). This group is of greatest import because it ranges from those who also exercised power (*power to*) to those who would be at its mercy (*power over*). In this sense, there is a dichotomy with the ruler on one side. However, as I am cognizant of the diversity on the other side I do propose differences in experiences when they are apparent. In this way, the following work infers different experiences.

Conceptual Responses. As a palace is a symbolic materialization of a ruler, the concepts it should draw forth, support, and communicate are the ones that serve to secure a ruler's social position. Luckily, rulers left behind a wide corpus of materials that let archaeologists, iconographers, and epigraphers understand what these conceptual responses ended up being. We must take these with a grain of salt, as they are the propaganda of the state, but we cannot be so cynical that we fail to accept that these ideas were in the ancient belief system.

The Rhetoric of Rulership. One of the best ways to understand Maya rulers is in the ways they expressed themselves, especially since many of these statements were inscribed directly on or within their palaces. I have broken down the rhetoric used into

the referents through which they justified their position of authority, the last of which is further delineated. They are: lineage, divine rulership, might, and social.

Lineage. Maya rulers often cited their ancestors as justification for succession (Lounsbury 1974; Schele 1981; Schele and Miller 1986; McAnany 1995). According to Freidel and Schele (1988:563), the Classic period institution of *ajaw* resulted in a powerful focus upon the dynastic lineage from its inception in as early as the Late Preclassic.

The immediately preceding ruler may be cited, but others were as well. Christie (2006:364) states “in the Maya system of succession, political power was legitimized primarily through descent from a lineage founder” and buttresses this idea with evidence from Tikal where the palace grew agglutinatively over time as each ruler added his own architectural presence.

By working through the lineage system, the system itself became hierarchical. Hendon (1991) puts forth a model of ranked lineages for the Classic Maya exhibiting its co-presence with class based social structures. As previously stated, this complex system is part of what led to the tenuous nature of Maya rulership. Subsequent strategies worked to retain the pinnacle of the hierarchy. McAnany (1998:285) points out that on the eastern gallery of House A of the Palenque palace, ancestor cartouches are present and this may be indicative of an increased importance of royal bloodlines in the Late Classic period.

While there are a myriad of examples of rulers citing lineage, I will simply point out two of the more famous examples. The Oval Palace Tablet found in House E of

Palenque shows the ruler K'inich Hanab Pakal receiving a sacred headdress from his mother Ix Sak K'uk' (Figure 3.4). What is most interesting is that the depiction is anachronistic, depicting the ruler as an adult (it was commissioned when he is 49) while he was only an adolescent when the historical event actually occurred (Stuart and Stuart 2008:157). Decades after Pakal was in power, he was still making statements indicative of his genealogy.

Royal status was so important it was often buttressed from both sides, meaning that descent was traced through both the father and the mother. As indicated above Lady Ix Sak K'uk' figured heavily into Pakal's claims of power. The same was true of Yax Pahsaj Chan Yopat, 16th ruler of Copan, who also took the throne at a very young age. His primary claims of descent are through his mother, Lady Chak Nik Ye' Xook of Palenque (Martin and Grube 2000:209). Houston and Stuart (2001:59) point out that in post-Classic Yucatan, nobility continued to recount their descent on both sides of the family. To me, this is an indication that the lineage system was utilized, bent, and overwritten to serve a non-kin based political system.

The second account comes from Copan. The tomb of K'inich Yax K'uk' Mo', an early ruler and dynastic founder of the polity, who began his rule in AD 426, was placed below what is thought to be his royal residence (Traxler 2001:56). After this internment, a series of constructions were built on the same ground each commemorating the ruler. The culmination of this dedication was a structure named by archaeologists as "Rosalila" a temple that had the ruler's name emblazoned on all four sides (Fash and Fash 1996).

This example highlights how sequences of rulers would turn back to their lineage time and again through new acts and materializations of veneration.

Interestingly, though the Copanec example seemingly indicates otherwise, and while Maya commoner houses often underwent a complex and dynamic series of interments and re-interments (Geller 2004; Lisa J. Lucero as interviewed by Thompson 2010), palaces are not the location of royal interments. Webster (2001:150), for example, describes the burials recovered from the Central Acropolis at Tikal as “comparatively modest.” Rulers tombs are instead located within and under the sacred precincts created by temple mound groups like those seen at Tikal and Copan (Bell et al. 1999, 2004; Sharer et al. 1999) believe it an interesting line of inquiry, this shift from burial in the home to the temple, from a quasi-private to public setting, but one beyond the scope here.

The frequency and intensity of use of lineage statements in the rhetoric of rulers cannot be overstated. These claims were made across the ancient Maya world for the whole of the Classic period. They were made on tablets and altars, and occasionally on entire buildings.

Might. Rulers also engaged in statements about their military prowess. Stelae present rulers dressed in full warrior regalia with weaponry. A panel from Temple 17 at Palenque depicts the ruler K'inich Kan B'alam II, spear in hand, as he stands over a bound captive. It is unlikely that these costumes were worn in palace contexts outside of ceremony, but there were times when they were adorned that were not on the battlefield. By dressing this way, and being depicted as a warrior, rulers were very clearly evoking

the idea of military strength, presumably on an individual and simultaneously much larger scale.

A strong piece of rhetoric showing military strength is one tied to what was an ongoing social phenomenon: the capture and presentation of captives. Whether or not the ruler was the actual captor, e.g. as depicted on Lintel 8 from Yaxchilan, they were often the one to which captives were given in an act of fealty, e.g. Bonampak Room 2. In the first example, the ruler Bird Jaguar forces his captive to the ground having gripped him by the wrist (Schele and Mathews 1986:212). In the subsequent two examples, multiple captives who are exhibiting signs of torture, are presented to their respective lord. Of palace scenes rendered on ceramics, the presentation of war captives is a common theme (Reents-Budet 1994:253).

Many artistic representations of ancient Maya rulers with their captives provide insight into how the Maya considered socially hierarchical relationships in a spatial sense. As in our society, high, up, and above in spatial senses signaled authority and power. Houston (1998:343) originally described this ancient concept of verticality representing social hierarchy. Perhaps the most overt examples of this spatial hierarchy between rulers and captives occurs on many of the stelae at Naranjo, where the ruler stands directly on the back of a prone captive (Figure 3.5). Miller (1998:203) explains how there were captives depicted on the steps of Structure 44 at Yaxchilan and that the ruler would have stood directly on them as he climbed, a phenomenon also present on some of the risers of Copan's hieroglyphic stairway. The effectiveness of this type of rhetoric should not be overstated. Houston and Stuart (2001:56) point out the inherent

instability of political systems based on terror. The threat alone of physical violence represented in the sacrificed captive would not have been enough to maintain the structure of Maya kingship that lasted for well over 500 years.

Deification. It is widely accepted that Maya rulers were believed to be divine in nature (Fash 2001; Friedel and Schele 1988; Houston and Stuart 1996; Joyce 2000; McAnany 1995; Tate 1992). Yet, the rhetoric of rulership went further than simply having rulers serve as ritual leaders of religion. Grube and Martin (2006:149) state “[a]fter 400 A.D., the highest rulers were given the title of *k’uhul ajaw*, ‘divine king,’ in order to differentiate them from a growing category of lesser nobility and emphasize their divine origins.” It is likely that all kingly duties were also seen in a religious light. For example, the adjective *k’ul* (holy, sacred) was used as part of royal titles (Houston and Stuart 1996:295). Rulers possessed powers that no others did and the result was that they were believed to be the embodiment of deities.

In terms of these special abilities, Stuart (1996:165) exhibits how the ancient Maya held “the belief that rulers were themselves embodiments of time and its passage - a role that was fundamental to the cosmological underpinnings of divine kingship” and how this was accomplished through various ceremonies and rituals including the *k’altun* or stone-binding ritual. Here we see an act of which only the ruler was capable. This logic served to separate and elevate the ruler from the rest of society.

Houston and Stuart (2001:55) believe that ancient Maya royal power may relate to the concept of *ip*, “a near-sexual potency inspiring awe, projecting gravity, and fortifying the self.” Again, we see a qualitative differentiation of rulers based on characteristics

only they possess. In a direct way, the military prowess of the previous section comes into play here as well. These elevating and separating strategies passed a particular threshold of significance in that they became deities. Houston and Cummins (2004:365) write that “the archetype of the dignified ruler was the Sun God” and rulers came to embody this and many other of the different Classic Maya deities. Interestingly, at Palenque, rulers tied themselves back to very ancient and perhaps mythical kings (Stuart and Stuart 2008:110). In essence, they fused this idea of divinity and the importance of lineage by asserting that their lineage founders were divine.

With the prevalence of secularism in our own society, it can be difficult to truly understand the impact of such a belief. Dornan (2004) goes so far as to write that the day-to-day functioning of Classic Maya society was to a degree dependent on the belief by and experience of the masses that the ruler was divine.

Social. Classic Maya rulers also engaged in different social endeavors to help secure their position. These acts may have been the most frequently undertaken by rulers and therefore would have filled much of their days. It is these acts that would have served to create social ties resulting in a hierarchy marked by its interrelatedness. What is also important to note is that, as orchestrators, rulers were able to fashion the hierarchy as they saw fit.

One of the primary social acts of a ruler was his marriage or marriages. Demarest (2006:125) writes that a strategy of rulers “was alliance formation sealed and marked by royal marriages linking dynasties.” Marriage was a main path towards supra-polity political entities. Schele and Mathews (1991:243) demonstrate known examples of

interdynastic marriages and the sites between which they occurred. These events, obviously, were not taken lightly. Reents-Budet (2001:213) cites two depictions of marriage negotiations in throne rooms. An example from the site of Dos Pilas can relate the importance and prevalence of these strategic marriages. B'alaj Chan K'awiil was the initial ruler of the splinter polity called Dos Pilas and held that role from 648-692 AD.

Martin and Grube (2000:57) describe the marriages he likely influenced:

B'alaj Chan K'awiil took at least two wives. One provided him with a daughter, Lady Six Sky, who was to gain great fame in later years when sent to forge a new dynasty at distant Naranjo. What may have been a further daughter, or sister, married into the local lineage of Arroyo de Piedra. B'alaj Chan K'awiil's other marriage, to a royal woman from the nearby Itzan kingdom, seems to have produced two sons.

As the passage indicates, a ruler and his offspring were, in a sense, viewed in the way they could best improve the political standing of a ruler. The idea might be to further concretize relations with a subsidiary lord or to create a tie with a new and unfamiliar polity. All in all, the efforts belie the aforementioned tenuous nature of Classic Maya rulership.

The linking role of wives, while certainly not their sole purpose, was very important. Depictions of bloodletting rights by women of Yaxchilan including Lady Xoc (Lintels 24 and 25) and Lady Balam-Ix (Lintel 17), the wives of rulers a generation apart (Schele and Miller 1986:189) attest to this.

The second type of social act I believe to be of great importance was that of patronage. Martin (2001:185) states that in the system of "overkingship...the most powerful Classic polities operated a system of political patronage, extending networks of personal ties among fellow dynasties that effectively reduced them to client status."

Reents-Budet (2001:213) describes a vessel where one ruler visits another. The one ruler is seated on a throne in his palace, while the other has arrived on a mobile throne or litter for the interaction. What an interesting sight it must have been to witness this ruler carried into and set down into someone else's throne room. The litter is higher than the throne, indicating that the lord seated on the former is higher in rank. These relationships could be quite necessary to lend legitimacy to ritual and social acts. For example, a ruler of Dos Pilas visited Calakmul to witness the accession of a ruler there (Martin 2001:179). These visits were augmented by feasting and royal dances (Grube 1992:213-214), which served to communicate the importance of the visit and those involved in the occasion.

Client lords were, at times, kept under direct supervision. Martin (2001:182) argues that the youth lords on the aforementioned Piedras Negras Panel 2 are not merely visiting the court, but are instead there as neophytes in residence at the palace school and hail from other polities including Bonampak, Lacanha, and Yaxchilan. If this is the case, we see both the reach and structure that were at the control of ancient Maya rulers. In conclusion, these four themes that rulers used as part of his rhetoric of power are clearly indicative of two key points. First, that the ruler was a powerful entity in ancient Classic Maya society. Second, judging from the varied strategies and the frequency of their use, power was under constant threat from above and below in the social hierarchy.

Behavioral Responses. Maya palaces and the architecture around them were the main locus for many elite activities. From the utterly mundane (the palace at Palenque had bathrooms) to the unique and divine (that same palace may have been the location for the

crowning of rulers), palaces were the setting for a wide array of behavior. As previously stated, archaeologists lack direct material traces of many actions in palaces, depictions imply a repeated set of behaviors. For the most part these come from polychrome cylinder vessels with palace scenes painted onto their sides.

Tribute. Politically, ancient Maya rulers exhibited power through the collection of tribute. Tribute collection is both a symbolic gesture of deference and a very real way to hinder a group economically. This strategy could be rendered on potential competition within a polity and on subsidiary centers. It is important to remember that a tribute system affects the entire social hierarchy. It is usually those in the lowest rungs of the social ladder who have to intensify their labor in order to meet tribute demands.

Houston and Stuart (2001:69) recount a text that reads tribute was “heaped within view of the ruler.” The key idea to be drawn from this statement is that there this structured act of physically presenting the tribute to the ruler. Again, we see the importance of the ruler’s gaze (*y-ichnal* is the term used in the phrase). This gaze lends legitimacy to the tribute act, which makes every tribute act mutually beneficial. The person giving is recognized. The ruler, in turn, receives an economic boon and, arguably just as important, an act of deference.

On a vessel from the tomb of Tikal ruler Jasaw Chan K’awil I (Burial 116) is a ceramic vessel in which a ruler seated on a throne presented tribute (Stuart 1998:411). On an entirely different vessel Nikolai Grube has identified the glyph for payment (Reents-Budet 2001:228). Almost ceramic tribute scenes show an elite figure sitting on a throne, while other figures kneel or stand in front of the throne holding items of tribute.

Another common scene is where the noble is engaged in another activity, but tribute goods are present in quantity in the scene.

The rooms in which tribute is presented are very diagnostic. The noble who is receiving the tribute almost invariably sits on a throne. In addition, the room must also be able to accommodate the retinue of elites are doing the giving. Reents-Budet (2001:205) has identified iconographic elements on the piers of buildings that contribute to the overall meaning of the activity depicted. For example, mat designs on the pillars are a reference to the noble lords. This would seem like a helpful tool in analyzing room function, but there are two issues which cloud the picture. First, the same historical act has been depicted with piers decorated differently in the various representations. This is most clear in the pots from Burial 116 at Tikal, where the same act is depicted three times, two by the same artist, and the piers are decorated differently each time (Reents-Budet 2001:205). While this is not an issue for interpreting the act iconographically (the motifs, are in fact, complementary), it is problematic in that the motifs do not tie strongly to particular acts. Second, in the elite architecture that has been excavated the piers are not decorated. Reents-Budet (2001:205) explains that decorations in stucco or paint are not common on piers, but tapestries could be a way to have the motifs presented on piers. In this case we are confronted with the possibility that decorated motifs on piers may be a convention employed solely by ceramic artists.

Presentation of Captives. The presentation of captives is often related to the giving of tribute. Usually the product of war events, captives are presented to superior lords as part of the spoils of war. Captives would then be tortured in various ways from

bloodletting to ways leading to death. It is not clear if some captives were used in the long term as slaves. Obviously, captives are a very overt sign of military and political power. The fact that the captives subsequently play a role as a sacrifice within the religious system makes them even more powerful symbols. A strong example of this type of portrayal is Piedras Negras Stela 12, which also serves as evidence for Houston's verticality principle. On the stela, eight captives depicted, at the bottom, are presented to a ruler, at the top, by two "war captains" (Schele and Miller 1986:219). A more direct example of the tie of captives to palaces are the captives depicted on Houses A and C of the Palenque palace, which indicate that their common courtyard was used for captive presentation to Miller and Martin (2004:203).

For portrayals on ceramic cylinder vessels, nobles are almost always present in royal costume. Other nobles, in war regalia, present individuals who have been bound and disrobed. Besides the clothing, various weapons are often depicted. However, it may be difficult to distinguish weapons from tools in some cases.

Some depictions of captive presentations are set around thrones and obviously conducted inside. Other presentations are conducted on the steps of platforms or temples. When a throne is used, it is a mobile temporary one like a palanquin. The presentation of captives, perhaps due to its sensational nature, apparently quite often was a public act. While the mundane act of frequent tribute exaction could be conducted within the palace, those captured in warfare events were brought to the eyes of many. Other than steps, there is no strong archaeological signature of the act to be garnered from its depictions on

pottery. Archaeologists, however, could attempt to recover where the captives were housed.

The clearest evidence that is left behind about the presentation of captives may be the captives themselves. Their skeletal remains are often recovered in sub-floor interments and caches. Here, however, we are presented with a shift in time and space from the actual act of presentation. Nevertheless, important information about state maintenance could be inferred from the placement of sacrificial interments.

Dressing and Bodily Maintenance. Rulers often used mirrors held by attendants to put on their regalia or otherwise affect their personal appearance. Usually, the ruler is on or near his thrones and being served by other attendants. Other than the diagnostic mirror and the placement of the act often in throne rooms, there are no other real potential signs of evidence for the activity.

Judging by the fact the act is always conducted indoors; one would think that the act is a very private one. But, lest we forget, the act is being commemorated on the side of a ceramic vessel. It is probable that the act that necessitated the special appearance for the noble was commemorated in part by making the dressing ceremony of special import. As for the more mundane appearances of mirrors, they were an elite good so depicting scenes of their use would be a statement of nobility.

As stated above, mirrors and throne rooms are the diagnostic features of dressing maintenance activities. The mirrors are pretty specific to the act, while the spatial dimension is the location for other activities, as we have seen. The multiple functions of a throne room should not be viewed as a hindrance to an exploration of the function of

architecture. Instead, one should see thrones as a good marker for a set of activities instead of one.

Writing and Artistry. As Coe (1977) initially elucidated, scribes, as writers and producers of other art and media, were held in high regard in ancient Maya society. These individuals were members of the elite social class and often part of the royal family. One need only look at the elite Structure 9N-82 in the Las Sepulturas enclave of Copan, which is thought to be that of a scribe's. The building is large and stone-roofed with both the outer façade and inner bench containing scribe imagery (Webster 1989). Also at Copan, paint pots and the image of a scribe on a pot were included among the burial goods of Smoke Imix, the site's 12th ruler (Fash 2001:111). Similarly, the tomb of the Late Classic ruler, Jasaw Chan K'awil I, contained a bone with the inscribed image of a hand holding a paint brush (Sharer 1994:Figure 14.29).

Their productions included codices (folding, bark-paper books), the texts of hieroglyphic inscriptions, the designs of stelae and stucco facades, and more delicate work like stone and shell working. Their importance to those in power cannot be overstated; they were responsible for the content of major channels of communication within the polity and in between polities.

Emotional Responses. In one sense, we must consider ancient Maya emotions to be just like ours. And I say that to encourage a sense of respect for them. The following discussion is somewhat rudimentary and that is a product of the evidence remaining not of the people. So, while they conceived of their emotions differently than we do and used different metaphors for them, they still felt the same depth, complexity, and intensity of

human emotion that we all do. I simply regret that the archaeological record, as it stands, does not allow us to capture that intricacy to the degree to which it existed.

What complicates matters further is that the Classic era texts that exist do not relate emotional information. Scholars are left then to interpret pictorial representations and hypothesize about the emotions depicted within them (see Schele and Miller 1986; Miller 1999). Of course, this work is concentrating on the responses to a particular built environment: the palace. We must, then, add another level of difficulty. It is thought that Classic Maya courtly life had a rigid social etiquette (Inomata and Houston 2001), though there are a notable set of exceptions when elites let down their guard in drunken revelry (Houston et al. 2006:191). It is easy to see how emotional displays were unseemly and unwelcome in this context. Yet, not all emotions need be expressed, so while cloaked behind stoicism and formality, my undertaking is still to discover the emotions evoked by a Maya palace.

Perhaps it is best to begin with the heart of the matter. Literally. The Classic Maya term *ohl* translates to “heart, within” and has a locational connotation, but was also the term for the emotional heart as well (Houston et al. 2006:185). That places were conceptualized to have a center, and through use of the same term, were conceptualized the same as the emotional center of a person is useful to this analysis. It is not too great a stretch to associate something akin to a sense of topophilia to the locational uses of *ohl*. To dwell in the center of a place, was to dwell in its emotional heart.

In terms of overt emotional expression represented in the pictorial record, it is held that in the Late Classic the most abundant type is the “terror and expression of

captives” (Houston et al. 2006:190). Yaxchilan Lintel 16 depicts a kneeling captive with his hand to his mouth in what is described as possibly a “nervous gesture” (Schele and Miller 1986:226). Panel 15 at Piedras Negras displays captives who “stroke their bodies, their mouths open, perhaps as cues for pain or entreaty” (Figure 3.6) (Houston et al. 2006:190). The Bonampak murals display captives exhibiting multiple signs of torture, and these captives like virtually all others are wearing scant clothing with their hair disheveled.

Ideas of terror, fear, and humiliation are direct and overt in the displaying of captives. Obviously, one does not need a palace to evoke these emotions in someone who has already been captured, stripped, bound, and marched for who knows how long through the jungle only to be tortured. But, for the other palace visitors who witnessed these captives’ emotional states, palaces must have come to represent, in part, a place of potential violence and a place where one could be stripped of everything. Literally. In this way palaces would have evoked fear. Yet, due to its association with the authority of royalty, this fear would have been something more akin to awe.

Conclusions

The archaeology of experience for ancient Maya palaces has been put forth. Ancient Maya designers, in this case rulers, have been defined as well as their creations: palaces. The ancient Maya experiencer has been described in terms of ancient conceptions about their body and senses. Finally, previous work that has revealed their conceptual, behavioral, and emotional responses has been recounted. It is clear that the

general rationale can have situated within it a culturally specific archaeological example. It is also apparent how the particular built environment, in this case palaces, becomes something much more akin to the socially produced and constructed place it actually was.

Chapter 4. Introduction to Holmul and its Palace

The following chapter relates descriptive information for the Holmul palace as well as the palaces to which it is compared. The site of Holmul of first introduced and information is provided on its geography, position in the ancient political landscape, as well as a general description and chronology. Information is provided on the nomenclature and recording system used by the Holmul Archaeological Project. Previous work that had occurred in the palace is recounted. All of my excavations are reported, followed by an architectural narrative of the palace.

Holmul, Guatemala

Geography. The site center of Holmul is located on a L-shaped ridge running from the northwest to the southeast (Figure 4.1). The ridge is situated on top of the watershed divide of a large limestone peninsula, surrounded by extensive bajo areas on all sides but north. To the west, is a massive escarpment ridge which runs from the Yaxha site area to the Rio Hondo area of Belize dividing the watershed of the north-central Petén upland region from the rest of the Eastern Lowlands.

Holmul's Position in the Political Landscape. Holmul (Figure 4.2) is 20km north of Naranjo, a site to which it has multiple stylistic and textual ties (Estrada-Belli 2000:8). It is 40km east of both Tikal, the largest site in the region, and Uaxactun another important site in the region.. Other nearby sites are Nakum and Yaxha, 22km and 30km away to

the southwest, respectively. Holmul is 44km southeast of San Jose, 140km northeast of Aguateca, 270 km north of Copan, and 300km east of Palenque, the other sites used in this analysis.

Groups and Features of Holmul. Holmul's site center is comprised of three monumental groups (Figure 4.3). If one begins in the Main Plaza, to the north, sitting on a large platform, is Group I. This group is dominated by a large temple pyramid, Building D, which is centrally located on the platform and may have also had a primary face to the north away from the Main Plaza. Two structures, Buildings, C and E, appear to abut the pyramid and may have housed temple caretakers, given the high frequency of benches. Two ancillary structures, Buildings A and B, on the southern side of the group are interesting because of their unusual room morphologies, high ceiling heights, and very tight and restrictive passages between rooms. The final structure of the group, Building F, was a funeral shrine in the southeast corner of the platform in which Merwin recovered a Late Classic elite burial (Merwin and Vaillant 1932:15), that included the "Holmul Dancer" vase.

To the east of the main plaza is Ruin X, a 12.5m high temple pyramid structure. Interestingly, two small temple buildings were fitted onto its pyramidal platform. One of the buildings had all of its entrances sealed and was used as a burial vault. Stelae 6 and 7, both plain stelae, are associated with Ruin X. Due east of Ruin X is the East Plaza, which is bordered on its eastern side by a long range structure, Structure 7, and on its northern one by the pyramidal Structure 5. One stela and altar set, Stela 1 and Altar 1,

sits between Structure 7 and Ruin X, while another, Stela 2 and Altar 2, sits in front of the Structure 5.

Returning to the Main Plaza, one can see that it is bordered on the south and west by the courts of Group III. These courts, Court A to the south and Court B to the west, sit on platforms that are much lower in height than the Group I platform. Court A is dominated by a temple pyramid, which is ringed by ancillary structures (Figure 4.4). The focus of Court B, alternatively, is Structure 43 which proved to hold a series of thrones and was decorated in the mat motif. Court B of Group III was the focus of all excavations for this work; this research is detailed below.

Immediately west of Group III, the topography descends severely. So much so, that, approached from the west, Court B of the group would have appeared to have been about twice as tall as it actually was. To the north of the group, just where the descent begins lies Altar 4, and due west of it, down the slope is Stela 5. Continuing west, is the pyramidal Structure 8, which has two stelae (3 and 4) and one altar (5) on its eastern side.

Heading north from Structure 8, back up the slope, one reaches Structures 11 and 12, the ballcourt of the site. Also nearby are Structures 13-15 a courtyard group. North of this group is Group II, the final monumental group of the site core. This group, similarly to Group I, sits on a massive platform. Interestingly, the structures are not arrayed in a courtyard pattern nor around a central feature. The largest of the seven structure on the platform is the L-shaped Building A, which has the remnants of masks surviving on its eastern and western facades. The building consists of three rooms, which, in a morphology unusual for the Classic Maya, the rooms lie in sequence, but not

linearly. Building C abuts the platform of Building A. Its morphology is similar to Structure 43, in terms of room layout and bench placement.

Building B, centrally located on the north side of the platform is known more for the mausoleum it was converted into than its original function as a temple. Through time, its rooms were sealed and others added so that they could act as burial chambers. These elite burials are known for containing ceramic vessels which argue for a Protoclassic period between the Late Preclassic and Early Classic time periods. Buildings E and F to the east and west of Building B respectively, were both sealed as burial vaults as well. Building D was a two-roomed structure on the west side of the platform, one room of which was sealed, though there were no burials recovered. The final structure, Building G, was centrally located on the western side and proved to be a low platform mound and may have been a wall (Merwin and Vaillant 1932:46).

Overall, what perhaps is most striking about Holmul's site core are the sheer sizes and volumes of the platforms supporting Groups I and II. Instead of simply raising the temple pyramids to towering heights, as at Tikal and other lowland centers, the entire group is raised. Another interesting feature is the seeming lack of spatial narrative in terms of the stelae and altars. Some are in lines arrayed in front of temples, but others are not. This may be a product of some monuments being moved from their initial locations in late time periods. This phenomenon has been documented at La Milpa (Hammond and Bobo 1994) and at other sites in the region (Satterthwaite 1958). Group III is remarkable for the complexity of the internal architecture in Court B. This complexity of design, though partly the result of a palimpsest, is the focus of this work.

Chronology. Ceramics recovered from Holmul have dated to as early as the Early Middle Preclassic period (1000-850 BC), though no isolated contexts have yet been discovered producing these materials (Callaghan 2008:240). Every time period following the Middle Preclassic is represented by pottery through the Terminal Classic (AD 830-900) Tepeu 3 wares. Holmul was thriving in monumental form as early as the Terminal Preclassic (AD 150-250) period, as the famous Merwin burials, and their housing structure attest.

In terms of the palace, sealed contexts, such as construction pens, from within the palace reached through limited and small-scale test probes, produced ceramics that date to the Late Preclassic (350 BC – AD 250) and Early Classic (AD 250-550) time periods. However, almost all of the surface and tumble contexts have a mix of Late and Terminal Classic sherds.

Previous Work. During the 1909-1910 field season, Raymond Merwin accompanied Alfred Tozzer into the Petén region of Central America as part of the Peabody Museum Expedition. It was during this season that Holmul was discovered (Tozzer 1932:iii). During the following field season, Merwin enacted extensive excavations at the site. He returned in the 1913-1914 season for a short time, but only to clarify his excavation and survey notes. Ill health took Merwin beginning in 1915, something he struggled with until his death at age 47 in 1928 (Tozzer 1932:iv). He never returned to Holmul after the 1913-1914 season.

Archaeologists did not return to Holmul until 2000. This expedition was led by Francisco Estrada-Belli, then of Vanderbilt University. Work has continued there under his direction through the 2009 field season. I was a part of the initial season in 2000, but my work did not begin in earnest on the Holmul palace until 2001. I returned in the 2004 and 2005 seasons to continue and eventually complete my work on the palace.

Current Recording System and Nomenclature. Unit Numbers (LLL.L.##.##.##.##) were designated based on a sequence used to designate all excavations within Holmul's site center. The "HOL" prefix can be contrasted with other with designations for other sites within the permit area such as "CIV" for Cival and "SUF" for La Sufricaya. The second part of the designation sequence relates information as to what type of excavation was performed "T" for trench or "STP" for shovel test pit. The third part of the designation was a number sequence numbering all of the excavations for each individual site, so HOL.STP.47 would be the 47th shovel test pit dug within Holmul's site center. The following number is the context number; the logic for designating contexts is explained below. The next-to-last number is an optional designation for artifact type, with the final number being a sequential one given to the number of artifacts of that type in that trench. So, HOL.T.57.13.06.04 is the fourth piece of jade (6 is the number given to the jade artifact type) recovered from context 13 in trench 57 in Holmul's site center.

Structure Numbers. Structures are numbered by the Holmul Archaeological Project. Group III structures begin at 50, and to date, go up to 74 (Figure 4.5). In many cases, the structure number was assigned at the time of surface survey. If more structures

were discovered upon any subsequent excavations, the structure was numbered accordingly with the first available number at the end of the sequence.

Room Numbers. Rooms in the palace were assigned individual numbers continuing a process begun by Merwin during his work there (Figure 4.6). The initial room numbering went up to number 23 (Merwin and Vaillant 1932:48). My excavations uncovered additional rooms, and for these the original numbering sequence was continued. This pushes the number up to 28. It should be noted that the four rooms of Structure 43 were numbered outside of this sequence by Merwin, instead being denoted B1 through B4 as he termed the structure Building B. In this manner, the above room sequence could all carry an “A” designation before the number. However, what Merwin was referring to by Building A is not clear, as it designates two distinct buildings in the Group III plan (Merwin and Vaillant 1932:48).

Single Context Planning. Excavations were recorded using a system known as single context planning. In this system each context is given a unique designation as soon as it is identified. Once it was fully exposed, it was photographed and drawn. Contexts are easily thought of as the different strata as one digs down. In this case, contexts were a bit more complicated as there were a plethora of standing architectural features present. In theory, with this system each individual brick of a wall could be considered its own context if there was a reason to do so. However, that level of resolution was unnecessary for this research. Instead every architectural feature was given a separate number, including each individual wall.

A Note on Terminology. Please note that for this writing, I am using an ad-hoc difference in meanings for the spatial terms court and courtyard. I consider a court to be substantially larger than a courtyard. Courtyards are spaces 20 meters or less on a side; courts are more than 20 meters. Sometimes this differentiation is at odds with the names bestowed on spaces by original excavators. However, this issue is noted when it occurs.

There are two other important notes on terminology. For doorways, the term “internal” is used when the doorway connected two rooms, and “external” when the doorway opened to the outside. Finally, I defer to Loten and Pendergast’s (1984:6) definition of a “cord holder”, but I spell it as a single word.

Other Relevant Holmul Palace Work

Merwin. Merwin did excavate parts of the palace during his work at the site. However, exactly where is not always clear. For example, Merwin’s 1910-1911 notebook (which appears to have been compiled from loose notes, post-excavation) contains detailed information for the rooms on the east side of the palace, but the level of detail varies. For example, Room 1 was excavated, Room 3 was not, and Room 6 has space left in the notebook that was never filled (Figure 4.7) (Merwin 1911). As best as can be surmised, Merwin excavated Rooms B1, B2, B3, B4, 1, 2, 4 (partially), 5, 7, 8, 9, 10, 11, 12, and 16 (see Figure 4.6). So, in addition to the rooms of Building B, Merwin excavated many of the rooms on the east side, and a few rooms in the northeastern corner.

Room 1 had human remains on the floor and evidence of fire in the southwest corner (Figure 4.8) (Merwin 1911:50). There was also bone recovered from the

southeastern corner of the floor in the adjoining Room 7 (Merwin 1911:59). In Rooms 2 and 10, each had an L-shaped bench and a few ceramic sherds on the floor (Merwin 1911:52-3). Room 4 exhibited the same pattern, though one of the bone fragments was thought by Merwin (1911:52) to be part of a human skull (see Figure 4.8). There was a bench across the south side of Room 12 and a large number of pottery sherds along with a carved shell were found on the floor (see Figure 4.8) (Merwin 1911:54). According to Merwin (1911:55), Room 16 had an L-shaped bench on which were part of a human jawbone still containing teeth and “a number of sherds” (see Figure 4.8).

There was a C-shaped bench in Room 8 upon which a crude bench was built. On this bench, a human skeleton was recovered with some ceramic sherds (see Figure 4.8) (Merwin 1911:57). The east wall also contained a cordholder. The sole, northern doorway had been sealed. Room 9 had some pottery sherds on the floor (Merwin 1911:60). Merwin (1910:59) recovered around 50 sherds and 5 pieces of bone in Room 11 (see Figure 4.8). Room B1 had two flint spearheads and a few sherds (Merwin 1911:62). One piece of perforated jade, two fragments of possible human bone, and about 30 sherds were found in Room B2 (Merwin 1911:63).

I re-excavated all but rooms 2, 4, 10, 12, and 16. The reason for these re-openings was to see if there were signs of Merwin’s excavations, but also to have more detailed plans of the rooms’ morphology. This work was key in that Merwin sometimes did not note bench height, and almost never mentioned the presence of cordholders. Both of these phenomena directly impact various analyses in this work.

Tunnel. In 2003, Chris Hewitson supervised the excavation of HOL.T.35, which was in actuality not a trench, but a stratified removal of the debris from the covered hallway linking the Central Palace Court to the Western Court (see Figure 4.7). Most of this debris was from looters excavating into the walls of the hallway (Hewitson 2003:64).

Structure 43 Stairs. In 2002, HOL.T.21 was begun due east of Structure 43 in an effort to recover the stairway between the structure and the courtyard floor below (see Figure 4.7). This effort was successful and a series of six steps were recovered. Several stones of note were recovered from the layer of tumble above the steps. Estrada-Belli (2002:10) writes “within the fill, a number of carved stones were recovered. Among them, was a tenoned depiction of a mat motif surmounted by a tied bundle of feathers or hair, and fragments with sets of parallel grooves possibly indicating the feathers of a headdress.” Trench HOL.T.22 was put in to determine the furthest width of the steps and it was concluded that the stairs only ran in front of the central portion of the building. Excavators returned in 2003 to trench the base of these stairs. They recovered a cache consisting of “8 large obsidian blades, two blades with opposing notches at either end, a wellformed symmetrical knife blade and a series of other single edged blades that suggested these to be the remnant of a personal tool kit” (Hewitson 2003:63).

In the same year, HOL.T.23 was laid out from the courtyard floor due south up the north side of Structure 60 (see Figure 4.7). This excavation also recovered a stairway, though this one ran the entire length of the building. By the northwest corner of the building, near Structure 43, the entrance to a Z-shaped vaulted corridor was found. This corridor was surveyed and found to run underneath the small patio in front of Room B4

of Structure 43. Also in this corner was a Terminal Classic midden, which suggests that the corridor was in disuse in the latest stages of the palace (see Figure 4.8) (Estrada-Belli 2002:11).

In 2003, HOL.T.42 was placed to link the previous two trenches. Hewitson (2003:65) states:

Excavation revealed the remains of a platform enclosed to the south and north by two ranges of buildings Structures 57 and 58. Centrally located door jambs suggested the presence of a formal arched entrance to the complex, but the platform did not appear to be roofed.

The jambs are also likely indicative of doors or some other manner of closing or regulating access to the palace.

Structure 60. In 2002, a trench was opened (HOL.T.23), by Joseph Mella) from the courtyard floor extending south towards Structure 60. This excavation uncovered a broad stairway that ran the whole length of the building. “The function of this stairway may have been that of a monumental access to a yet to be excavated important building to the south of the “throne room” and/or perhaps as reviewing stands” (Estrada-Belli 2002:10).

In 2003, Judith Valle (2003) supervised excavations of HOL.T.40 which was placed on the south side of Structure 60 (see Figure 4.7). The south side of the structure possessed three steps leading south into a courtyard; they may have led north to the roof of Structure 60. The eastern end of the excavation may have also exposed part of the west wall of Structure 57.

The Juncture between Courts A and B. In 2004, Christopher Hewitson supervised the excavation of HOL.T.60, a trench at the juncture between Courts A and B of Group III (see Figure 4.7). The goal of the operation was to see the relationship between the two platforms. The conclusion drawn was that the two platforms simply abutted and there was no internal access between the two areas. One would have had to exit one court and walk around to the formal entrance of the other court. Due to illness on the part of the excavator, there are no surviving records of this excavation.

New Work Completed

From 2001 to 2005 work centered on Court B of Group III at Holmul. A total of 20 trenches uncovered 16 rooms of the palace (Figure 4.9). These were clearing excavations, in most cases stopping when the latest floor surface was reached. In most cases, standing architecture allowed for the trench limits to be determined by the room's dimensions, though trenches were always larger than the exact room dimensions because doorway thresholds were always excavated. When this was not the case, trenches were laid over mounds in dimensions large enough to uncover the entirety of the underlying rooms.

Two shovel test-pits, HOL.STP.01 and HOL.STP.02, were placed on the down-slope of the western side of the palace platform, which recovered midden material. Within trenches HOL.T.08, HOL.T.55, HOL.T.57 surfaces were penetrated in three small area probes which were executed to gain a deeper chronology, in the first case a bench surface, in the latter two, floors. The only other penetrations of floor surfaces occurred

because sub-floor burials were apparent in trenches HOL.T.06, HOL.T.50, and HOL.T.57.

In 2001, five trenches and two test pits were excavated. The four rooms of Structure 43 were excavated, though portions of Rooms B1 and B3 were left unexcavated due to tree growth. A child burial was recovered from the eastern portion of Room B4. A trench was placed on the rear, or western side of Structure 43. Two test pits were placed on the western slope of the Court B platform.

In 2004, work continued in Group III, Court B in the Holmul site center in order to extend our understanding of the Holmul palace. Work concentrated on the north side of the palace, specifically Structures 59, 61, 62, and 64. Excavations were centered on the rooms within these structures. Merwin designated these rooms 1, 5, 7, 9, 17, 19, 22, and 23. The strategy was to employ area excavations to expose the internal architecture of the individual rooms along with any features that were present.

In 2005, excavations were re-opened in Merwin rooms B1 and B3. In both cases, parts of the room had been obscured by tree growth, but by 2005 the trees had fallen or been removed, so excavations could be completed. Along the north side, Rooms 24 of Structure 64 and 25 and 26 of Structure 65 were excavated. Also, Room 27 of Structure 66 in the northwestern corner was excavated during this season.

Overall, the work was successful. The individual rooms were exposed, which produced data that bring more detail (in some cases corrective) to the previous attempts to map the structures. Architectural features such as benches, windows, doorways, cordholders, niches, and lintel holders were recovered. Three burials were found, all

beneath plaster floors, and all children. Two test pits and four probes were completed, the ceramics from which indicate construction periods as early as the Late Preclassic, but predominately in the Late Classic. Ceramics from the tumble layers and middens also indicate a Terminal Classic occupation of the palace as well.

HOL.T.05. *HOL.T.05* was begun in 2001 to uncover the internal architecture of Room B2, the eastern room of Structure 43, in order to better understand the main throne building, as a whole and perhaps deduce the room's function. The second goal was to determine whether Merwin had excavated this room, and if so, how had he left it. The third goal was to recover diagnostic artifacts that would allow for the structure to be dated. A pair of L-shaped benches flanking a small throne, Throne #3, were found in this room.

The walls of Room B2 were constructed first, leaving a doorway (*HOL.T.05.21*) in the east wall to act as entrance from the outside and a doorway (*HOL.T.05.20*) in the west wall to act as an entrance to Room B3. The eastern wall was designated *HOL.T.05.14* for its northern portion and *HOL.T.05.15* for its southern portion. The northern and southern portions of the western wall were denoted *HOL.T.05.16* and *HOL.T.05.17* respectively, in the same fashion. The southern face (*HOL.T.05.18*) of *HOL.T.05.16* comprised the north side of a hallway than ran back to Room B3. Similarly, *HOL.T.05.19* is the north face of *HOL.T.05.17* and is the corresponding southern side of the hallway. The northern and southern walls were designated *HOL.T.05.12* and *HOL.T.05.13*, respectively.

After the walls were built, two benches were constructed. The northern bench (HOL.T.05.05) was rectangular, and the southern bench (HOL.T.05.11) was L-shaped. A plaster floor (HOL.T.05.07) was then put into the room. At some point, there was an addition (HOL.T.05.06) to the northern bench, making it into an L-shaped mirror image of its southern counterpart. Also occurring after the floor was constructed was the installation of a small throne (HOL.T.05.09) set up in the hallway between rooms 1 and 4, which became the new floor level of Room B3.

The last material found in the trench was ceiling and roof tumble. These limestone blocks and rocks were designated HOL.T.05.01 if they were above the surfaces of the benches and HOL.T.05.03 if they were below it. The division was an arbitrary one and only made because there was so much tumble.

HOL.T.06. An initial goal of the excavation, conducted in 2001, was to uncover the internal architecture of Room B4, in order to better understand Structure 43 as a whole and perhaps deduce the room's function. It was also hoped that diagnostic artifacts would be recovered that would allow for the structure to be dated. The final goal was to determine whether Merwin had excavated this room, and if so, how had he left it. A bench with arms and a sub-floor burial of a child, Burial 1, were recovered from this room.

The four walls of Room B4 were constructed first, leaving a doorway (HOL.T.06.13) in the southern wall to act as an entrance, with a small stairway (HOL.T.06.15) leading out of it. The north wall was designated HOL.T.06.10, the eastern wall was HOL.T.06.11, and the western wall, HOL.T.06.23. The southern wall

was split into its eastern (HOL.T.06.14) and western (HOL.T.06.12) portions. A plaster floor (HOL.T.06.08) was then put in. Afterwards, a sleeping bench (HOL.T.06.04) was installed in the center of the room abutting the northern wall. Each side of it was subsequently flanked by elevated surfaces, creating two elevated platforms in the room.

The eastern surface (HOL.T.06.16) was penetrated by an ovoid cut measuring 50cm by 45cm (HOL.T.06.17) and a burial (HOL.T.06.18) was interred, a small plaster platform (HOL.T.06.19) in the fetal position (see Figure 4.8; Figure 4.10). The burial possessed no grave goods that were recovered. It appears as though the body had been covered in a textile and then with wet plaster. This is inferred through the textile pattern imprint left on some of the plaster that covered the skull. The child was in poor health at the time of death, as hypoplasias on the dentition and porotic hyperostosis were noted (Novotny 2005:3). The porotic hyperostosis may indicate either anemia due to a maize rich diet or a parasitic infection of the intestines (Scherer et al. 2007:88).

There was then a plaster re-surfacing (HOL.T.06.07) which had signs of being red. The western elevated surface was also re-surfaced twice (HOL.T.06.06 and HOL.T.06.21), though there was no evidence of a cut. The final deposits were roof and ceiling tumble. As in the previous trench, an arbitrary distinction was made between tumble above and below the surface of the bench. This room most likely acted as a private sleeping chamber. The doorway possesses cordholders, which is evidence that the entrance was occasionally closed off by a curtain. There is also not much room around the bench for other activity or movement. There may have also been a window in the eastern wall.

HOL.T.08. HOL.T.08 was initially opened in 2001 to uncover the internal architecture of Room B1, in order to better understand the structure as a whole and perhaps deduce the room's function. It was also hoped that diagnostic artifacts would be recovered that would allow for the structure to be dated. This room had been excavated by Merwin, though all that was noted were two "flint knives or spear heads" (Merwin and Vaillant 1932:49) on the floor near the door. Excavations uncovered a large bench with arms, one of which had been converted into a wall creating a small alcove in the room. There were cordholders and two recesses near the floor that may have held incense or some sort of pitch for light, all of which were associated with the northern entranceway.

The walls for Room B1 were constructed first (east: HOL.T.08.19, west: HOL.T.08.22, south: HOL.T.08.06) with a gap left between the eastern (HOL.T.08.08) and western (HOL.T.08.09) portions of the northern wall to act as an entranceway (HOL.T.08.10). Two voids (HOL.T.08.15 and HOL.T.08.16) are located in the sides of the entrance, which burnt marks indicate were either sources of light or incense burners. A void (HOL.T.08.20) was also left in the eastern wall, which may have acted as a window. Due to subsequent construction that was not removed, it is unclear whether the plaster floor (HOL.T.14) or the sleeping bench (HOL.T.08.03) (see Figure 4.9) was constructed next. It should be noted that the bench is asymmetrical and has an outflaring ridge on its eastern side. The sleeping bench was subsequently extended (HOL.T.08.21) in length to the north. After the extension, the areas to the east and west of the sleeping bench were raised, which were termed the eastern (HOL.T.08.05) and western

(HOL.T.08.27) platforms. It is possible that a cut exists in the eastern platform similar to the one located in Room B4.

At some unknown point, the western arm of the bench (HOL.T.08.12) was extended up, presumably to meet the corbel vault (Figure 4.11). This makeshift wall left a small doorway up onto the western elevated surface effectively creating an alcove, the entranceway to which was designated HOL.T.08.11). A wooden lintel was also added in a haphazard manner near this area of the southern wall as judged by a void (HOL.T.08.33) in the wall.

Outside of the room, through the doorway, there was a step (HOL.T.08.18) down into the courtyard termed Room 29. The floor of the courtyard was designated HOL.T.08.25, and it was re-surfaced not once (HOL.T.08.24), but twice (HOL.T.08.23). Past the eastern jamb, a wall (HOL.T.08.17) was recovered. The wall most likely belongs to a structure added late to the palace and directly abutted the throne building. The final deposits were roof and ceiling tumble (HOL.T.08.01).

It is believed that this room held a similar function to that of Room B4. It is similar in its layout, possesses cordholders (HOL.T.08.28 and HOL.T.08.29) in the same places, and has the same access route. This room most likely, then, served as a sleeping chamber. Apparently, at some point structural integrity of the vault became an issue because there are two instances where the construction was clearly bolstered.

HOL.T.08 was re-opened in 2005 with two goals in mind. The first was to expose the western area of the room, excavation of which was prevented during the 2001 season due to a large tree. The second goal was to place a small probe into the bench of the

room in order to date its construction and test the hypothesis that the bench had been elongated at one time. This probe measured 50cm by 50cm. The newly exposed western area of the room did not possess any architectural features, and its morphology mimics the eastern portion of the room, except that it does not possess a window.

The first 2005 context to be deposited was the old northern bench wall (HOL.T.08.32). Its presence indicates that the bench did indeed have two phases, with the second one extending the bench to the north. The subsequent context is the fill (HOL.T.08.31) of the room's bench behind this old wall. On top of that, was more fill (HOL.T.08.30), though this was mixed with plaster, finally resulting in the plaster surface of the bench. The final new context to be laid down was the tumble and collapse of the western portion of the room. Since it bore no differences from the tumble of 2001, it was given the same context number, HOL.T.08.01.

The shift in bench shape, along with some other evidence may indicate a shift in function from administrative to residential. The western arm of the room's bench was converted into a wall, making the western space almost a separate room. The bench extension created more room on the bench at the expense of presentation space in front of the bench.

HOL.T.15. The primary goal of HOL.T.15 in 2001 was to uncover the internal architecture of Room B3 of Structure 43, in order to better understand the structure as a whole and perhaps deduce the room's function. It was also hoped there would be diagnostic artifacts that would allow for the structure to be dated. The final goal was to determine whether Merwin had excavated this room, and if so, how had he left it. The

room contained the first two phases in the building's throne sequence. The first consisted of flanking thrones that faced each other, presumably there had been a wooden or other less-permanent material throne between them. In the second phase, these thrones acted as the arms for an enormous throne created by spanning the distance between the two with a bench.

The walls for Room B3 were constructed first with a gap left in the eastern wall to act as an entranceway from Room B2. Both the northern (HOL.T.15.07) and southern (HOL.T.15.06) portions of the eastern wall possessed cordholders; the southern portion also had some red stucco (HOL.T.15.15) remaining. The one (HOL.T.15.14) in the southern portion contained a vertical bone post. The northern one (HOL.T.15.16) was not preserved well, but was considered a cordholder due to the symmetry it held with the other one. The north wall was designated HOL.T.15.23, though it was not clearly visible due to the presence of a large tree, while the west wall was designated HOL.T.15.20 and was spilling out to the west at the time of excavation. A window (HOL.T.15.17) was left in the south wall (HOL.T.15.05), and there is evidence of two lintels supporting the vaulted roof in the southern portion of the east wall. The window, which measured 40cm by 20cm had been filled in by cut limestone blocks designated HOL.T.15.22.

A floor (HOL.T.15.12) was then put in, which may have been a continuation of the first floor of Room B2. On top of this floor, a bench (HOL.T.15.03) was put into the east end of the room, Throne #1. The bench is more aptly called a throne since it possessed two functional legs in an imitation of a slab throne and was painted red on its

face. The bench top was initially red (HOL.T.15.19), but eventually painted black (HOL.T.15.18).

At some point, this throne was covered by a subsequent one, Throne #2, (HOL.T.15.09), that was oriented to face the doorway, and ran the length of the room. This one was also painted red. A new floor was put in at this time. The face of this throne was covered by subsequent construction, the third throne in the sequence, designated in this excavation as HOL.T.15.21. This final construction phase was the step-up referred to in the Room B2 summary. In Room B3, this construction acts not only to cover the face of the throne, but to raise the floor level. This final construction phase was the step-up referred to in the Room 1 summary. In Room 4, this construction acts not only to cover the face of the throne, but to raise the floor level.

The only work done in HOL.T.15 during the 2005 field season was a small probe into Throne 1 along the western side of the room. This probe measured 50cm by 50cm. The goal of the probe was to recover enough ceramic data to date Throne #1's construction.

A portion of an earlier throne phase (HOL.T.15.20) was recovered. This phase ran north-south and while perpendicular to the following phase, the throne appears to have had the same shape of a rectangle with an underlying niche. This statement is based on the fact that the eastern vertical slope appeared to be at an angle. The subsequent deposition is the fill (HOL.T.15.19) of Throne #1. The final context deposited was roof and wall tumble (HOL.T.15.01).

HOL.T.19. The primary goal of this excavation, conducted in 2001, was to uncover some of the external architecture of Structure 43, specifically part of its western, or rear wall. The first construction that was laid was the west wall (*HOL.T.19.04*) of the structure. There was tumble (*HOL.T.19.05*) in front of and resting on this wall. Due to time constraints, it was not possible to find the platform or floor surface that adjoins with the wall. There was no plaster remaining on the wall, so no decorative or iconographic motifs have been observed on the outside of the building.

HOL.STP.01. The primary goal of this test pit, excavated in 2001, was to recover ceramic material that would help to date the platform and give some insight into its function. It was also hoped a midden associated with the structures on top of the Court B platform would be recovered. The pit's location was on the western down-slope of the Court B platform.

Work on Shovel Test Pit 1 was aborted due to its overall depth and structural instability. There had also been an absence of artifacts observed at the stopping point. There were three definite midden (*HOL.STP.03*, *HOL.STP.05*, and *HOL.STP.06*) levels each marked by a distinctive gray color (see Figure 4.8). Although the shade varied between the contexts, in all cases the color may be the result of the presence of ash. It is believed at this point, that the soil color differentiation is indicative of sequential deposits of waste material.

HOL.STP.02. The primary goal of this test pit, excavated in 2001, was to recover ceramic material that would help to date the platform and give some insight into its function. It was also hoped a midden associated with the structures on top of the Court B platform would be recovered. The pit's location was on the western down-slope of the Court B platform.

This excavation was halted when probable midden deposits were encountered in STP01. It is possible that a midden would have been encountered in a deeper context, but the steep slope combined with the small pit size caused the focus to shift to the other, more artifact rich excavation.

HOL.T.50. *HOL.T.50* was placed in 2004, in an effort to expose Structure 59, or Merwin Room 1. Structure 59 is on the north side of the palace on the easternmost side. The upper walls of the room were visible before excavation, so the walls were used to bound the excavation. Features of interest that were recovered were two benches, 3 doorways (2 of which were sealed), one sherd locus, and Burial 23. *HOL.T.50* was 4.5m by 2.3m with a 1m by 1m extension to the east on the southern side, and a 0.8m by 1.5m extension to the south on the western side.

The oldest contexts are *HOL.T.50.13*, the older part of the western portion of the southern wall, and *HOL.T.50.14*, the old southern wall on the eastern side of the room (Figure 4.12). Both were walls of respective free standing structures. The structure to which *HOL.T.50.13* belongs is Structure 62; it acts as the structure's southern wall. The structure to which *HOL.T.50.14* belongs is not visible due to tree growth. It is, at this time, not stratigraphically possible to know which of the two buildings is older.

Although, judging by the architectural styles, it appears as though Structure 62 may be earlier. Also, it appears as though the plaster floor (HOL.T.50.28) seen in the section of a later burial cut (HOL.T.50.17) predates Room 1 and would have been an outside patio space behind the two freestanding structures.

Subsequently, the walls to Room 1 were built. The two portions of the southern wall were added (HOL.T.50.06 and HOL.T.50.09) creating the southern doorway (HOL.T.50.07) (Figure 4.13). HOL.T.50.06 was added against HOL.T.50.14 and HOL.T.50.09 was added against HOL.T.50.13. These two walls were added for two reasons. First, the two previously mentioned freestanding structures were not placed exactly parallel to each other. Hence, the two additions were made to make the southern wall of the new room straight. The strongest evidence for this is the differing thickness of the two walls. Also, the cornice and roof of Structure 62 are visible. They are constructed in a way that it would not have been possible to build a corbel arch over Room 1, unless walls were added that could support the arch. At this time, both portions of the north wall (HOL.T.50.15 and HOL.T.50.21) were also added. The wall is a long one as it also acts as the north wall for Room 7 directly to the east. While it was hypothesized in 2004, Merwin seems to have actually observed a northern doorway (HOL.T.50.22). It appears on one of the plans associated with his notebooks and measures 5'6" (1.67m) and begins 1.2m from the northwest corner of the room. It appears as though this room was vaulted. After the walls were added, the eastern bench (HOL.T.50.03) was put in, presumably immediately. Due to its immense size and orientation (it does face the main doorway), I believe this was a sleeping bench.

However, there does seem to be an unusual number of entrances, three, for a private residential chamber. The plaster floor (HOL.T.50.05) was put in after the walls and eastern bench.

There is a chance that the west doorjambs (HOL.T.50.19 and HOL.T.50.20) were added after the room was completed and in use for a while. The northern doorway (HOL.T.50.22) is quite wide and the eastern bench (HOL.T.50.03) is very long. These two elements appear out of sync with the rest of the space of the room. However, if one ignores the doorjambs and looks at Rooms 1 and 7 as one space, the northern doorway and eastern bench seem a better fit. If this is the case, then the jambs may have been put in to help support the roof vault. This would not be the first case of such behavior in the palace.

Subsequently, the southern (HOL.T.50.07) and western (HOL.T.50.10) doorways were sealed by HOL.T.50.11 and HOL.T.50.12, respectively. It is not clear stratigraphically in which order these events occurred or why. After the southern doorway was sealed, the small southern bench (HOL.T.50.08) was constructed. This area could have been used as a sleeping bench for a child, used as a storage space, or could have had something interred within it. It is not likely an altar as it is not very high. In fact, it should be noted that this bench is lower than the eastern bench, which supports the storage and child's sleeping bench hypotheses.

After all construction episodes, there were two other episodes of activity. Burial 23 was interred below the floor (HOL.T.50.05) (see Figure 4.8; Figure 4.14). As with every burial recovered in the palace so far, the burial is that of a child in the fetal

position. The bones were articulated and complete, although preservation was very poor. The body was flexed, with the head to the west, but facing south. A sex determination was not able to be made, but by using the teeth, mandible, and maxilla an age determination was possible. By comparing the erupted and un-erupted teeth, along with what un-erupted teeth had roots, to Bass's dental chart, the age of the child at death appears to be 10 years old \pm 30 months. Novotny (2005:15) states there were no identifiable pathologies in the relatively well-preserved skeleton, indicating an individual in stable health at the time of death.

The grave goods, HOL.T.50.25, consisted of 6 figurines (HOL.T.50.25.03.01 to .08), two of which were flutes, the other four ocarinas (for one example see Figure 4.15). The other grave goods were 30 *Pomacea* shells (HOL.T.50.10.01 to .30) located near the head. This was the only palace burial with substantial grave goods, and it is interesting to note that this child was around twice as old as the two other palace burials (Burials 1 and 22) recovered.

Finally, the sherd locus (HOL.T.50.04) was placed on the southern bench (see Figure 4.8). Merwin's (1911:50) notes indicate that he did excavate this room, noting a burning of the floor in the southwest corner of the room and human remains on the floor. Merwin (1911:50) also mentions "about 20 pot sherds scattered in room" which conceivably could be the pile I recovered on the bench.

The two subsequent occurrences within this room are post-abandonment. The roof and walls began to tumble and collapse, leaving the context HOL.T.50.02 over the

entire room. Subsequent rains and wind borne organic material resulted in the layer of humus, HOL.T.50.01.

HOL.T.53. HOL.T.53 was placed in an effort to expose the westernmost portion of Structure 64, or Merwin Room 19. Structure 64 is on the north side of the palace somewhat centrally located. The upper walls of the room were visible before excavation, so the walls were used to bound the excavation. The main feature of interest that was recovered was a bench. HOL.T.53 was 3.6m by 2.5m. Merwin's notes do not mention Room 19 though it is drawn on his plan. Only the door jambs and western wall are drawn with a solid line, so I think it likely that he did not excavate this room.

The oldest construction episode visible in the trench was the construction of the north (HOL.T.53.05) wall and the two southern doorjambs (HOL.T.53.07 and HOL.T.53.08). The west wall (HOL.T.53.06), floor (HOL.T.53.04), and bench (HOL.T.53.03) were put in at this time as well. All of this construction is part of the building phase that built Merwin Rooms 9 and 17. All subsequent activity was post-abandonment, with wall and roof collapse (HOL.T.53.02) followed by the influx of organic detritus (HOL.T.53.01) over the whole area.

The most interesting feature of the room is the large bench (HOL.T.53.03) with its diagonal eastern side (see Figure 4.6). The eastern side of the room could not be excavated due to a large tree. It is most likely that the room is residential, as there is little space in front of the bench within the room. The peculiar angle of the bench's side may indicate that it was constructed in conjunction with some feature to the east that necessitated the bench's shape.

HOL.T.55. *HOL.T.55* was placed in an effort to expose the eastern portions of Structure 64, or Merwin Room 9. Structure 64 is on the north side of the palace due west of Structures 61 and 62. The upper walls of the rooms were visible before excavation, so the walls were used to bound the excavation. Features of interest that were recovered were one bench, 1 doorway, 1 sherd locus, 1 cordholder, and a partial *mano* implanted within a floor (see Figure 4.8). A bark-beater was also recovered from sub-floor fill (Figure 4.16). *HOL.T.55* was a rectangular trench that measured 2.5m in length and 1.75m in width. Merwin (1911:60) notes that he recovered a “number of pot sherds” from the room.

The earliest construction episodes recovered from *HOL.T.55* are the sequence of courses and fills from a small probe placed in part of the trench (*HOL.T.55.20* to *HOL.T.55.31*) (Figure 4.17). These comprise what appears to be a very elaborate construction pen. The term “elaborate” is used because the stones that comprise the one visible wall, *HOL.T.55.20*, are cut and dressed. However, it is their short sides that are used to face the wall, which leaves the wall with a rough finish. This pen is a very tentative assignation because there is no clear simultaneous phase construction on top of the pen.

The next construction episode resulted in the first incarnation of Merwin Room 9, which really would have been a large room also composed of the space of Merwin Room 17. The southern (*HOL.T.55.06*) and western (*HOL.T.55.07*) walls were constructed to

form the western doorway (HOL.T.55.09). The eastern wall (HOL.T.55.08) was also constructed at this time.

In this, the eastern side of the room there would have been a western facing bench (HOL.T.55.13) and a plaster floor (HOL.T.55.14). In front of the bench, to the west, a cordholder (HOL.T.55.32) was recovered in the north wall. Interestingly, this coldholder is not flanked by another on the south wall. Perhaps, due to the small width of the room two were not necessary.

This room was subsequently filled in by HOL.T.55.19. The western wall, HOL.T.55.07, was constructed creating Merwin Room 9 in its proper form. The area in front of the bench (HOL.T.55.13) was filled in and the bench was completely buried in this phase of the room. The floor level is even with the bench level in Merwin Room 17. HOL.T.55.03 was a locus of ceramic sherds recovered on the floor (HOL.T.55.04). The sherds were located along the entirety of the east wall from 0cm to 30cm out towards the west (see Figure 4.8). The context was composed of 3 chert fragments and 400 ceramic sherds. The sherds date to the Late Classic. Tinaja Red, Cambio Unslipped, Maquina Café, Encanto Striated, Achote Black, and Azote Orange are types recovered from the locus. There were also some bone fragments (HOL.T.55.03.08.01) recovered. I believe this room, then, was an ancillary space to the southern facing bench in Merwin Room 17.

HOL.T.57. HOL.T.57 was placed in an effort to expose the central and southeastern portions of Structure 64, or Rooms 17 and 23 (Figure 4.18). These rooms are not mentioned in the Merwin (1911, 1914) notebooks, and are drawn with dashed lines on the sketch plan, so I believe that they were not excavated by Merwin. Structure 64 is on the

north side of the palace due west of Structures 61 and 62. The upper walls of the rooms were visible before excavation, so the walls were used to bound the excavation. Features of interest that were recovered were one bench, 1 step, 2 doorways, one of which was partially sealed, 1 sherd locus, 1 ash locus, and a possible hearth. HOL.T.57 was an L-shaped trench with the longer arm heading east-west. The longer arm measured 5.6m in length and 1.6m in width. The shorter, north-south arm measured 3m in length and 2.8m in width.

The oldest masonry in HOL.T.57 is the eastern wall HOL.T.57.09, which acts as the western wall of Structure 62, Merwin Room 5. This wall is abutted by all subsequent construction to the west. It is also part of the structure, that the southern wall of the corridor (HOL.T.57.10), was designed to avoid in its construction. The wall turns north before continuing west in order to leave room for moving around Structure 62 and exiting the corridor to the east.

While HOL.T.57.09 is the earliest masonry that was excavated, it is not tied strongly into the floor sequences. All that is known is that the wall must have been constructed on or before the time that the floor HOL.T.57.35 was put down, as that is the floor that the southern corridor wall sits on. Since HOL.T.57.09 and HOL.T.57.10 have markedly different architectural styles, the former using small tightly packed blocks and the latter using much larger roughly hewn blocks with lots of mortar and chinking, the HOL.T.57.09 wall is likely much earlier in the floor sequence than HOL.T.57.35.

The first linked building episode in HOL.T.57 is the plaster floor, HOL.T.57.39 and its sub-floor fills, HOL.T.57.40 and HOL.T.57.41. This floor predates

stratigraphically the two adjacent walls (HOL.T.57.10 and HOL.T.57.25). Unfortunately, there were no ceramics to date the fill layers. This floor would have acted as outside space, as a patio or walkway.

Following this building episode, the thick fill layer HOL.T.57.38 was put in, and subsequently capped by the plaster floor HOL.T.57.37. The ceramics from HOL.T.57.38 date to the Early to Late Classic period. A thick plaster floor, HOL.T.57.36, was put in place subsequently. All of this activity also predated the two adjacent walls. After HOL.T.57.36, a resurfacing occurred, which was HOL.T.57.35.

The southern corridor wall, HOL.T.57.10, was constructed directly on HOL.T.57.35, and is actually the back wall of a freestanding structure that faced south into the palace's inner courtyard. This structure was painted in red specular hematite. The southwest corner, which is inset, was recovered and the wall can be seen heading south as the structure's eastern side. It should be noted that the architectural style of HOL.T.57.10 (described above) strongly matches the construction style of Early Classic walls at the nearby site of La Sufricaya.

Also, a rain line, which is an imprint made by rain running off a surface for long periods of time was left in the plaster floor HOL.T.57.04. The rain line indicates two things. First, since it is not directly next to HOL.T.57.10, the structure to which HOL.T.57.10 belongs must have some sort of roof element that caused rain to fall away from the wall. This was most likely a cornice that jutted out from the wall where the roof began. Furthermore, a cornice has been observed on Structure 62.

The second conclusion that the rain line allows, is that the corridor did not have a vaulted roof. This is supported by the fact that, as evidenced in HOL.T.50, it is necessary to add a supporting wall when vaulting a roof behind a preexisting structure. It is not possible to vault off a wall that is also supporting a roof with cornice in the other direction.

The low platform wall HOL.T.57.33 was also put in directly on top of the floor HOL.T.57.35. The function of this wall, and the fill it is retaining (HOL.T.57.34), are unclear. The pen did not have a stucco surface, although its top may have been removed in order to construct later buildings. The floor HOL.T.57.18 lips up to it, so it can be reasonably assumed that the floor and platform were used in conjunction.

HOL.T.57.22, a fill layer, was put in up to the level of HOL.T.57.33 and the plaster floor, HOL.T.57.21 capped both elements. HOL.T.57.22 dates to the Late to Terminal Classic Period. After the floor HOL.T.57.21, the floor, HOL.T.57.19 and its fill, HOL.T.57.20 were deposited also in the Late to Terminal Classic periods. The floor was resurfaced by HOL.T.57.04.

After HOL.T.57.04 was put in the wall, HOL.T.57.25 was constructed. HOL.T.57.25 acts as a wall for Merwin Room 17, part of HOL.T.57, and Merwin Room 9, part of HOL.T.55. This large construction episode also probably includes Merwin Room 19, part of HOL.T.53. It is important to note that the architectural style of HOL.T.57.25 is different than the two styles previously discussed, it uses larger blocks than the earliest HOL.T.57.09, but smaller, better cut blocks than the middle phase HOL.T.57.10.

The north wall HOL.T.57.06, would have been constructed at the same time as HOL.T.57.25. The west wall, HOL.T.57.31, was put in last. Merwin Room 17 was originally one with Merwin Room 9. There would have been a bench facing the southern doorway in Merwin Room 17. To the east, there would have been a smaller bench facing east. A cordholder was present in the north wall of HOL.T.55, so the two areas appear to have been able to be separated from their inception. Please refer to the section on HOL.T.55 for more information about Merwin Room 9.

After all of the major walls were constructed, the step (HOL.T.57.23) was constructed. This step is part of the staircase that eventually leads to in front of Structure 62, Merwin Room 5. Since the movement to get from the corridor would involve going up a few stairs to immediately go down some more, the stair must be considered a way to impede movement between the two areas. The stairs therefore act as a marker (and liminal zone) of two markedly different spaces, just as the archway (HOL.T.58.10) does at the other end of the corridor.

A late building episode was the construction of the east wall (HOL.T.57.28) which was added onto the eastern portion of the bench. It is believed that this episode is very late because the wall has at least one reutilized block within it. The block is carved with three vertical lines creating four sections of the block. This resembles other carved blocks found in the tumble around the north side of the palace. It is believed that the block is reused because none of the surrounding stones in the wall are carved. The construction of the eastern wall, in its somewhat unusual position on top of the bench, may have been an effort to preserve the roof vault that was over the room.

The final construction episodes are the new bench face (HOL.T.57.32) and the southern door closure (HOL.T.57.27). These are considered one episode because in conjunction they create the box-shaped feature HOL.T.57.11. At this time the room was not able to be accessed, but the door way was turned into a hearth, as the heavy presence of ash (HOL.T.57.07) suggests (see Figure 4.8).

Evidence for activities other than construction are a possible midden (HOL.T.57.08) and a possible burial cut (HOL.T.57.14) in the corridor. The midden ran from 400cm to 430cm from the front of the step (HOL.T.57.09) and from 0cm to 40cm from the southern wall of the corridor (HOL.T.57.10) (see Figure 4.8). The locus sat on the latest plaster floor (HOL.T.57.04) and was 9cm thick. Four chert fragments and 64 ceramic sherds constituted HOL.T.57.08. The locus dates to the Terminal Classic with types such as Encanto Striated and Achote Black present. There were some bone fragments recovered from the mass as well, which were given the small find number HOL.T.57.08.08.01.

Post-abandonment occurrences included the collapse of the vaulted roof of Merwin Room 17, and the partial collapse of all walls in the trench boundaries, and the subsequent formation of a humus layer by wind borne organic material.

HOL.T.58. HOL.T.58 was placed in an effort to expose the western portion of Structure 64, or Merwin Room 23 (Figure 4.19). Structure 64 is on the north side of the palace somewhat centrally located. The upper walls of the room were visible before excavation, so the walls were used to bound the excavation. Features of interest that were recovered were an archway, 2 doorways, 2 possible cordholders, and Burial 22. HOL.T.58

measured 7m by 1.8m. As stated in the previous section, it is unlikely that Merwin excavated in this area.

The earliest building episode in the trench limits of HOL.T.58 is most likely HOL.T.58.18, the southwestern wall. The wall is a continuation of HOL.57.10, which as has been previously discussed was a freestanding structure facing east into the palace's inner courtyard. HOL.T.58.20 also was a freestanding structure, and given its alignment and position, was probably constructed close to the time that the building to which HOL.T.58.18 corresponds. At some unknown point, these two structures were joined. The timing is probably close to the construction of the final north side rooms, since the closure helps restrict access and vision to Merwin Room 23, the corridor.

The floor HOL.T.58.21 is the next construction episode, followed by the construction of floors HOL.T.58.05 and HOL.T.58.04, respectively. Subsequently, the walls HOL.T.58.08 and HOL.T.58.09 were constructed, which was part of the episode that created Merwin Rooms 5, 17, and 19.

After the later north side rooms were added, the archway (HOL.T.58.10) was constructed. It is most likely, that, like the connection wall HOL.T.58.19, the archway was constructed around the time of the north side rooms. This archway marks the final event of large scale, quality construction in the north side of the palace. As argued above, the corridor was not vaulted. The archway aids in this argument, since the arch base walls (HOL.T.58.24 and HOL.T.58.25) are the only constructions in the limits of HOL.T.58 that could have supported vaulting over the corridor.

Burial 22 (Figure 4.20) cannot be fit into the construction sequence easily due to the poor preservation of HOL.T.58.04, the latest plaster floor. However, the burial must have occurred after the construction of plaster floor HOL.T.58.05. Also, the ceramics recovered from the burial fill layers (HOL.T.58.14 and HOL.T.58.15) date the burial to the Late Classic Period. Judging by tooth eruption, the child was about 5-10 years of age, and while preservation was very poor, no pathologies were noted (Novotny 2005:14). The only grave accompaniments were three small shells about 1.2 cm in length that were perforated so that they could be suspended (for an example see Figure 4.21).

The rest of the actions for which there is evidence in HOL.T.58 are all post-abandonment. Tumble (HOL.T.58.02) was recovered from portions of the walls collapsing. There was also a layer of topsoil (HOL.T.58.01), that was created by wind borne organic material settling on the collapse.

HOL.T.59. HOL.T.59 was placed in an effort to expose Structure 61, or Merwin Room 7. Structure 61 is on the north side of the palace, due west of Structure 59, or Merwin Room 1. The upper walls of the room were visible before excavation, so the walls were used to bound the excavation. Features of interest that were recovered were one hole for a roof lintel and three niches, which may have been used for light or to burn incense. Merwin (1911:59) mentions one piece of bone found in the southeast corner of the room on the floor, so it is likely that Room 7 was excavated by him.

As mentioned earlier, Structure 61, Merwin Room 7 may have originally been part of Structure 59, Merwin Room 1. They share northern and southern walls. In fact,

the western wall (HOL.T.59.06) is interlinked to the southern wall (HOL.T.59.04), while the southern jamb (HOL.T.59.08) of the eastern door merely abuts it.

The initial construction appears to be the southern (HOL.T.59.04) and western (HOL.T.59.06) walls. As evidenced in HOL.T.50, this southern wall abuts Structure 62. There is evidence that a lintel holder (HOL.T.59.11) was placed into the wall. Due to its height and its position above the point where the vault begins, it is believed that this hole was designed to support a roof lintel. HOL.T.59.12, a circular hole, appears to have been used to burn incense since it exhibits evidence of burning on its inner surface. The square niche (HOL.T.59.13) is similar to a pair of niches found in the entrance to the northern room of Structure 43, the main palace structure. This pair was also low to the ground and exhibited evidence of burning. It appears as though these niches may have been used for light. The northern wall (HOL.T.59.05) was subsequently put in after the western one.

At a later time, the eastern doorway (HOL.T.59.09) was created. This was done by building the northern (HOL.T.59.07) and southern (HOL.T.59.08) door jambs. The function of the hole feature (HOL.T.59.15) in the southern jamb is not clear. It may have also been used to burn incense, but it may also have been a cordholder. The latter function is somewhat unlikely because it is not flanked by lower ones near the floor.

The timing of the construction of the latest plaster floor (HOL.T.59.03) is somewhat difficult to understand. The floor abuts the east doorway closure (HOL.T.59.10), but there are no other entrances into the room. Obviously, it is impossible for the floor to be laid down after the room was sealed shut. Actually, the

floor only abuts the first stone of the closure, and may have been put in just before the room was sealed. In this case, the floor would not have been a living surface, but instead used to cap some other feature. There was not time to put in a test pit during the season to see if anything is below the floor, but it is interesting to note that the floor of HOL.T.59 is much higher than the immediately adjacent one in HOL.T.59 to the east.

After the room was sealed, all subsequent activity was post-abandonment. This includes collapse of the stone roof (as evidenced by the lintel holder in the southern wall) and parts of the walls, leaving the context HOL.T.59.02 over the entire room. Subsequent rains and wind borne organic material resulted in the layer of humus, HOL.T.59.01.

HOL.T.61. HOL.T.61 was placed in an effort to expose Structure 62, or Merwin Room 5 (Figure 4.23). Structure 62 is on the north side of the palace near the eastern side, due south of Structure 61, Merwin Room 1. The upper walls of the room were visible before excavation, so the walls were used to bound the excavation. Features of interest that were recovered were a doorway, one throne, two windows/niches, two lintel holders, and one hole/niche of unknown function. HOL.T.61 measured 4.9m by 3.5m. It is also interesting to note that the one-roomed Structure 62 appears to have existed without external alteration for much of the palace's history. There are detailed notes (Merwin 1914) about the bench sequence of this room, so it is likely that it was excavated by Merwin.

Structure 62 was initially constructed by erecting its northern wall (HOL.T.61.07), and subsequently adding its eastern (HOL.T.61.09) and western

(HOL.T.61.08) walls. After this step, the southwestern (HOL.T.61.14) and southeastern (HOL.T.61.15) jambs were added. Structure 62, or Merwin Room 5 was originally a freestanding structure. This is evidenced by the presence of windows on the northern (HOL.T.61.19) and western sides (HOL.T.61.21), which had to be sealed because of later construction episodes.

The initial internal phase of the room had a central L-shaped throne (HOL.T.61.10) as its main feature. The term throne is used here, because the bench possesses legs, which is a strong sign that the construction is a throne. Along with the previously mentioned windows, there were at least two (HOL.T.61.24 and HOL.T.61.25), and presumably four, lintel holders up in the roof vault.

Another interesting internal feature of the room is HOL.T.61.23, the hole near the northern window. Recall that the hole, like the window, passed all the way through the northern wall (HOL.T.61.07). It would have taken a considerable amount of effort to pass a round hole through all 56cm of the northern wall, as the wall was constructed.

The hole is small, and very close to the northern window, which makes its function difficult to discern. There are not many functions it could have performed better than the window. To view out, communicate out, or pass things through, the window would have served someone better. Therefore, the hole must have served a complimentary function to the window.

One possibility is that something long, perhaps a pole, was put partially through the hole, leaving part of the pole pointing north through the wall, held in place by the constricted orifice. If something were affixed to the end of the pole, it could have been

used as a basic, though far-reaching, communicative device. This possibility is supported by the fact that when Structure 62 was freestanding, the north wall would have looked directly off of the north side of the palace platform out over a distance onto Group I.

Activities subsequent to the initial building of the structure can be classified into two categories: internal and external. This dichotomy is also useful because it is not possible to understand the sequence of the activities overall, but it is possible to order them within the two categories. Externally, Merwin Rooms 1, 7, 9, and 17 were added using Structure 62 as a base. Also, the two small external staircases (HOL.T.61.26 and HOL.T.61.30) were added subsequent to construction.

Internally, HOL.T.61.31, the eastern wing to the bench was added first. This wing makes the room more symmetrical, since the main bench was originally built with a wing on the western side. After HOL.T.61.31 was constructed, a new bench face (HOL.T.61.11) was added. It is possible that this was to cover up the two voids (HOL.T.61.28 and HOL.T.61.29) in the bench and wing. Perhaps, items were sealed into these areas. Nothing was recovered from them, but the new bench face (HOL.T.61.11) was not well preserved, so any items may have been removed or destroyed prior to excavation.

HOL.T.61.02 is a locus of ceramic sherds. The deposit was located 0cm to 40cm from the north wall (HOL.T.61.07) and from 120cm to 230cm from the west wall (HOL.T.61.08) (see Figure 4.8). HOL.T.61.02 was 8cm thick. There were a total of 35 sherds in the locus, which dates to Tepeu I/II of the Late Classic Period. HOL.T.61.04 is also a locus of ceramic sherds. The deposit was located 20cm to 30cm from the north

wall (HOL.T.61.07) and from 0cm to 53cm from the west wall (HOL.T.61.08) (see Figure 4.8). There were two small finds recovered from this locus. The first, HOL.T.61.04.01.01, is a Terminal Classic animal effigy head in the shape of an unidentified mammal. The second, HOL.T.61.04.07.01, is a metate fragment. There were a total of 67 sherds in the locus, which dates to the Terminal Classic Period. Diagnostic types present include Tinaja Red, Cambio Unslipped, Machina Café, Achote Black, and Manteca Impressed. Another sherd locus was recovered and designated HOL.T.61.12. The locus was located at the junction of the southwestern wall (HOL.T.61.14) and the western wing of the bench (HOL.T.61.10) to 30cm out from that point. The layer was 10cm thick. There were two samples taken from this context. HOL.T.61.12.13.01 is a carbon sample and HOL.T.61.12.13.02 is a soil sample. There were three small finds recovered from HOL.T.61.12. The first, HOL.T.61.12.05.01 was a partial obsidian blade. HOL.T.61.12.07.01 was a complete mano. The third small find, HOL.T.61.12.10.01, was a shell fragment. There were also 15 chert fragments from this context and 190 ceramic sherds recovered. Diagnostic types from the ceramics include Tinaja Red, Cambio Unslipped, Machina Café, Achote Black, and Manteca Impressed. The ceramics date to the Terminal Classic period.

All subsequent contexts were laid down either as a product of collapse, erosion, or subsequent organic growth and decay. This structure is in danger of collapse because there are very large trees growing in what remains of the roof vault. The roots of these trees are so large and pervasive that removing them would also have caused collapse.

HOL.T.65. HOL.T.65 was begun in 2005 to recover Room 24 on the north side of Court B, which exists northwest of the archway leading from Room 23, the open hallway, into the small courtyard north of Structure 43. The trench measured 7.5m by 3m originally, though there was an extension to the south which measured 1.5m by 6.5m which was an effort to capture the continuation of the hallway, after the arch. The trench revealed a room with an L-shaped bench, three small middens (see Figure 4.8), and the presence of a wall outside of the room that looks to have drastically affected movement through the palace from east to west.

The room uncovered in HOL.T.65 measured 6.82m by 1.64m. The first construction elements within the operation were parts of the room: the north (HOL.T.65.11) and south (HOL.T.65.04, HOL.T.65.09) walls. The south walls are separated to provide access as a doorway (HOL.T.65.10). HOL.T.65.04, the southeastern wall contains a cord holder (HOL.T.65.26) on its western face, which was constructed using a broken *metate* as one of the elements. Subsequently, the east wall (HOL.T.65.12) was constructed.

These three walls are abutted by the L-shaped bench (HOL.T.65.05), the length of which runs the entire room. HOL.T.65.05 is composed of rubble fill (HOL.T.65.20) and sits on a rough plaster surface (HOL.T.65.22). A plaster floor (HOL.T.65.17) within the room abuts the bench and northern, eastern, and southern walls. A sequence of plaster floors, HOL.T.65.14 (upper) and HOL.T.65.15 (lower) are in front of the single room structure to the south, but were not preserved well enough to understand their relative chronology to the building.

The west wall (HOL.T.65.13) abuts the bench, floor, northern, and southwestern walls. It appears to have been constructed in order to seal off part of the western portion of the room. This hypothesis could not be tested because a looter's trench was driven from the north into the western portion of the mound. From within the trench it is possible to see the southwestern wall continuing to the west which supports the idea that the room was once bigger. This wall appears to be part of a group of walls in the palace that served to strengthen roof vaults at the expense of space or original morphology.

Two elements abut the outer sides of the southern walls. It is not clear in which order they were added. The first, to the southeast, is the northern base (HOL.T.65.03) of an archway that acted as an entranceway for the hallway that is designated as Merwin Room 23. This hallway runs off to the east, and so the room under discussion here does not feed into it. The archway base contains a cord holder (HOL.T.65.27) on its western face.

The second element is a long north-south running wall (HOL.T.65.18) that connects this building to the main palace building, Structure 43. The fill behind HOL.T.65.18, to the west, was designated HOL.T.65.19. The abutment to Structure 43 occurs to its northwestern wall (HOL.T.65.21). A circular niche (HOL.T.65.23) in HOL.T.65.21 was placed in the western portion near the abutment at floor level. This niche appears to be constructed as the wall was, and is not intrusive. The fill in the niche was designated HOL.T.65.24. The connecting wall may be the east wall of a structure that faces west, but there was not time to pursue this possibility. This wall does close off access from the northern side of the palace to the western or "back" side of the palace.

The space between Room 24 and Structure 43 has been designated Room 29, which may have acted as an antechamber to Building B, Room 1.

Two middens were recovered within the room. Both sat on the bench along the west and east walls. While the Merwin Notebooks contain a rough sketch of this room, it is not accurate and the room was not numbered by Merwin. This indicates to me that there was no work by Merwin in this room so the middens are unlikely left by him or his crew. The western one is designated HOL.T.65.07 and the eastern one HOL.T.65.08. At some point after, the southern doorway was sealed permanently closing off access to the room. The seal is designated HOL.T.65.06, with the fill behind it to the north, HOL.T.65.16.

Another midden (HOL.T.65.25) was recovered outside of the building in the corner formed by the southwestern wall and north-south connecting wall. After the midden placement and room closure, all subsequent depositions are post-abandonment. The roof and upper walls collapsed (HOL.T.65.02) and a layer of organic detritus was left (HOL.T.65.01).

In conclusion, HOL.T.65 contained a one-roomed structure that possessed an L-shaped bench. There is not much space within the room that is not taken up by the bench. The morphology of the room is similar to that of Merwin Rooms 17/9 and 19, which are due east, also with southern entrances. What differentiates this room is that it resides on the other side of the archway and faces into the northern room of the main palace structure, although their doorways are not directly across from each other. Given the

space limitations, large bench, and cord holder, it appears that the room had a residential function.

HOL.T.66. HOL.T.66 was put in place in 2005 to capture the last of the northern side before the platform turns west. The mound topology of Structure 65 indicated that the entirety of the architecture recovered from the operation would be at a lower elevation than the rest of the north side buildings. The initial trench measured 7m by 3m.

The trench was extended to the west in an effort to capture the western side of the building that was uncovered. The trench was extended 2m to the east to see the relationship between the building excavated and the one uncovered in HOL.T.65 directly to the east. The trench was also extended 2m to the south and 3m in width centered on the trench in order to expose a small platform in front of the structure, which was partially uncovered within the original trench limits.

HOL.T.66 contained a building that faced south (Figure 4.25). The building contained two rooms, Room 25 to the east and Room 26 to the west. These numbers were assigned continuing the sequence by Merwin. Room 25 contained an L-shaped bench, while Room 26 possessed no internal architectural features. The western portion of the trench revealed the junction between the building and the first building of the west side of the platform. In this corner, a midden was recovered (see Figure 4.8). In the eastern side of the trench, the remnants of the west and south walls of the building excavated in HOL.T.65 were found. A sub-floor drain, that ran in front of and under the HOL.T.65 building, was also found in the east.

The temporal relationship between the buildings of HOL.T.66 and HOL.T.65 was not deducible. Therefore, the operation summary will move from east to west in terms of discussing the construction. The remnants of two walls of the building of HOL.T.65 were recovered in the trench. The western wall (HOL.T.66.22) and southern wall (HOL.T.66.23), while part of the same building, were not adjoined at the time of excavation. This was a case of poor preservation. A plaster floor (HOL.T.66.28) abuts the southern wall, which begins roughly two meters up the trench wall.

The west side of the platform that the HOL.T.65 building sits upon was not preserved, so it was possible to see the elements below the floor just mentioned in the trench's section wall. They will be dealt with from oldest to newest. The first of these sub-floor contexts to be deposited was a plaster surface (HOL.T.66.26), which was cut on its west side. Above it, the sub-floor fill (HOL.T.66.25) of a plaster surface (HOL.T.66.24) was placed. The upper plaster surface was also cut on its western side.

The next secure context was found just below HOL.T.66.28, the plaster floor. A drain (HOL.T.66.31) was recovered that would have been used to evacuate rainwater. A sediment (HOL.T.66.32) had built up in the drain, which included some artifacts. In the southern profile, a wall (HOL.T.66.20) was present. This wall ran north-south, but its northern termination occurs a short way north of the profile wall. No walls abut this construction to the east or west. The function of the wall is not clear, but it may be related to the long north-south wall (HOL.T.65.18) recovered in the other trench.

In terms of Structure 65, the first construction was a platform to act as a base for the building. The platform was larger than the structure, and the southern portion

(HOL.T.66.09) acted as a walkway in front of the building. The next constructions were the southeastern (HOL.T.66.04), south-central (HOL.T.66.03), and southwest (HOL.T.66.18) walls. Presumably, the northern wall of the structure was also built, but it was not preserved. The space between the southeastern and south-central walls is the entrance (HOL.T.66.05) to Room 25, while the space between the south-central and southwestern walls is the entrance (HOL.T.66.29) to Room 26.

The next construction is the east wall (HOL.T.66.10) followed by the L-shaped bench (HOL.T.66.06) in Room 25. The bench takes up most of the room. It is abutted by two elements: the plaster floor (HOL.T.66.07) of Room 25 and the medial wall (HOL.T.66.15) of the structure. The plaster floor of Room 26 was denoted HOL.T.66.27, and it abuts the southwestern wall. It runs under the medial wall and therefore is really the same surface as the floor of Room 25.

To the east of the building, in between the building and the building of HOL.T.65, is a set of three steps (HOL.T.66.17) that lead up to the north edge of the palace platform. The stairs do not continue north, down off of the platform, so this stairway most likely acted as a lookout off of the platform. Also to the east is a step (HOL.T.66.14), this one leading east up to a continuation of HOL.T.66.09.

To the south, centered on the southeastern doorway, is a small platform (HOL.T.66.12). The fill of this platform is denoted as (HOL.T.66.21). The platform seems to have been constructed to make the entrance to Room 25 a more formal one. To the west, the southwest wall joins a wall (HOL.T.66.11) that runs north-south and is the eastern wall of the first structure of the western side.

There are three post-construction episodes for which there is evidence. A midden (HOL.T.66.08) was recovered in the outside corner created by the southwest wall and the wall of the west-side structure. Room 25 had a burned surface (HOL.T.66.13) in the southwestern corner (see Figure 4.8 for both midden and burn locations). There was no ash above the scorched area and its cause is not clear. The doorway of Room 26 was sealed at some point by a limestone block wall (HOL.T.66.30).

The final contexts laid are all post-abandonment. The tumble and collapse of Room 25 and the area in front of the building was denoted HOL.T.66.02. For the same type of material, but recovered in Room 26, the number given was HOL.T.66.16. A change in matrix color (from brown to gray) was observed in the area of the southern platform, therefore the context number was changed to HOL.T.66.19. The inclusions for this context were similar, so the context is still considered to be tumble as well. The final material deposited was a layer of organic detritus.

HOL.T.68. Operation HOL.T.68 was the first trench placed to capture Structure 66 along the west or “back” side of the palace. The trench, excavated in 2005, measured 2m by 6m and was placed in the northwest corner and adjoins the west side of operation HOL.T.66. The trench revealed Room 27, which possessed entrances to the east and south (with the southern doorway leading to another room) and a rectangular bench.

The first elements constructed within the limits of HOL.T.68 were the northeastern (HOL.T.68.04) and southeastern (HOL.T.68.05) walls. Presumably, the western wall was also constructed at this time, but it does not survive at this point in time.

The space between the two eastern walls comprises the eastern doorway (HOL.T.68.06), which leads out to the courtyard behind the main palace building.

The next set of elements was the northern (HOL.T.68.08) and southern (HOL.T.68.09) walls. The southern wall does not abut the western wall, and the space between the two is denoted as HOL.T.68.07. A set of two steps (HOL.T.68.10) leads into the southern doorway (Figure 4.26). The subsequent element constructed was the rectangular bench (HOL.T.68.03). The bench takes up so much of the room that it is impossible to walk with the hips facing forward into the northern part of the room in which there is no bench. A step (HOL.T.68.11) abuts the northern side of the bench, and may indicate that the bench was meant to be walked upon. This idea is supported by the fact that the bench comes out to around the halfway point of the southern doorway and the southern steps rise to the same height as the bench.

The final constructed element is the plaster floor (HOL.T.68.12) of the room. The floor was recovered in all areas of the room that were not taken up by the bench, and abuts all remaining walls and the bench. The final two contexts were deposited post-abandonment. HOL.T.68.02 represents the tumble and collapse of the roof vault and upper walls. Subsequently, a layer of organic material (HOL.T.68.01) was deposited.

Architectural Narrative

The following is an architectural narrative of the Holmul palace. It is intended to be a descriptive account that adds detail, but more importantly, allows for the inherent spatial relationships to be conceptualized. Now, grouping some architectural features

together and excluding them from others requires decisions on my part. Once those decisions are made, this narrative becomes, at first glance, very subjective. However, justification for the categorization does follow in the analyses of Chapter 6.

The Eastern Approach. One approaches Court B of Group III from the east (Figure 4.27). Along the eastern side of the Holmul palace, and facing out, are a series of seven rooms. Three are north of the entrance stairway in Structure 58, and four are south of it in Structure 57. Most, if not all, of these rooms contain benches. The entrance stairway reaches up to a platform that was a vaulted entranceway. Unfortunately, the existence of a vault was only detected by the presence of tumble and the foundation stones in the entranceway.

Once on the platform, there was only one option: to descend another stairway down into the Central Palace Courtyard. The courtyard measured about 15m on a side and was covered by a plaster surface (Figure 4.28). From this courtyard, there were four options: a stairway to the west, structure and stair combinations to the south and likely to the north, and a vaulted hallway in the southwestern corner.

To the North: Structure 74 And the Northeast Courtyard. Structure 74 sits on the north side of the Central Palace Courtyard and for the most part went unexcavated. Part of its back wall was exposed in HOL.T.58. The structure ran the length of the courtyard and was at least 10m tall, though this would account for both its platform and building. In its initial phases, it may have a similar morphology to Structure 60 as it sits symmetrically across from it. It is presumed that on its eastern side, there was a stair to reach the

Northeast Court, though there was not time to enact the necessary excavations to prove this hypothesis.

The Northeast Courtyard consists of Rooms 5, 6, 8, access west to Room 23, and, at one time, access north to Rooms 1 and 7 (Figure 4.29). Room 5 is the sole room of Structure 62, a formerly freestanding structure and one of the oldest preserved in the final incarnation of the palace. Room 5 contained what was initially an L-shaped throne with legs and a single arm. However, through time, its legs were covered by additions to the face of the bench. Room 8, directly across from Room 5, was a part of Structure 63. This room also contained a single-armed and footed bench, and went through a similar evolution with an application to its face, obscuring its legs. Room 6, directly adjacent to the east, did not contain any internal features. The northern path to Room 1 was sealed by a substantially thick wall construction, but before that there would have been access from this court.

The Northern Rooms. Room 1 contained a long sleeping bench. A child burial was placed in the northwestern corner of the room. A doorway to the west led to Room 7, which lacked internal architectural features. A doorway north led path on the platform that led west to Rooms 11, 13, and 15 (Figure 4.30). These were not preserved at the time the modern excavations were conducted. Even in Merwin's time, these rooms were poorly preserved, on the plans smaller and smaller portions of the eastern and western walls are noted as one moved left. Merwin does not note any benches.

The North Hallway. The access west from the Northeast Courtyard was restricted due to the proximity of Structures 62 and 74 to one another. Interestingly, the corner of Structure 74 was made to be the inverse of the corner of Structure 62, creating a right-hand turn as one descended a few steps down into the open hallway designated Room 23.

Room 23 was an open-air hallway with two doorways to rooms off of its northern side (Figure 4.31). It was also the location of a child burial. The western door led to Room 19, which was dominated by a bench with a curiously slanted side. The eastern door led to Room 17, also dominated by a bench, though this room had internal access at its eastern end to Room 9, which in its final phase was devoid of architectural features, though its floor was at the height of the bench in Room 17. In the preceding phase, it was also dominated by a bench. The North Hallway gives way to another court through an archway to the west: the Northwest Courtyard.

The Northwest Courtyard. The Northwest Courtyard could only be reached by the archway at its eastern edge. Within the courtyard were only two rooms: Room 24 of Structure 64 and Room B1 of Structure 43 (Figure 4.32). The Northwest Courtyard is also marked by the tall freestanding wall on its western side. Room 24 contains an enormous L-shaped bench which takes up almost all of the floor space. There was a cordholder present within the room. Across from Room 24 was Room B1. Room B1 had a bench with arms, one of which was eventually converted into a wall. There were cordholders in this room and also niches outside the room in the jambs, near the floor, that exhibited burning. These may have been for incense or for light. Material, including

a double-headed serpent mica pendant was cached in the outer face of the northern wall of Room B1.

To the South: Structure 60 and the Southern Courtyard. Structure 60 was originally supported by a block wall and plinth platform that was eventually covered by a broad set of stairs on its north side that ran the length of the building (Estrada-Belli 2002:11). It is abutted by the Southern Courtyard on its southern side, which sits at a much higher elevation than the Central Palace Court (Figure 4.33). Three low steps led from the top of Structure 60 down into the Southern Courtyard (Valle 2003:54). There was also a doorway on the eastern side of the courtyard that may have been the door to a western facing room of Structure 57. The Southern Courtyard is bordered to the west and south by Structures 70 and 71, respectively.

To the West: The Throne Rooms of Holmul. Heading due west would bring one directly to a stairway centrally located in front of Structure 43 (Figure 4.34). This structure with its corresponding stairway were at one time consecrated by the ritual internment of various obsidian objects. At the top of the stair is the entrance to Room B2 of Structure 43. Room B2, with its two short L-shaped and flanking benches, seems to have had two separate functions through time. In both, there were cordholders present at the doorway from outside to close access. In its first phase, it seems to have acted as an antechamber to Room B3. Phase 1 of Room B3 exhibits benches on its northern and southern sides. These benches are ornate enough to qualify as thrones, possessing carefully constructed central niches and painted tops. During Phase 2 of Room B3 the benches become arms

of a much larger throne. Up to this phase, cordholders could close off Room B3 from its antechamber. This information, combined with the fact that most of the space in Room B2 is taken up by benches, leads me to believe that the room acted as a waiting chamber for an audience with the elite on the throne.

The third phase of Room B2 is marked by the addition of the step up into the hallway (Figure 4.35). This construction covered the front of the second throne in Room B3 (Phase 2), effectively hiding its painted façade, which marked it as a throne. Additionally, stucco legs and paint were applied to the face of the step creating a throne, Throne #3, out of the hallway construction. The recess between the legs was at one time painted red, but at another black, or perhaps a combination of both. Being black or possessing black elements would mimic darkness and help the appearance that Throne #3 was a slab throne. I believe that this changed the function of the benches in Room B3. Instead of there being a wall between the benches and the throne (as in the 1st phase), the benches now flanked the throne with a clear view towards it. These benches were more likely seats of lesser, but complementary nobles who flanked the ruler on the throne.

To the Southwest: The Vaulted Corridor and Western Court. The Vaulted Corridor sits in the southwest corner of the Central Palace Courtyard (Figure 4.36). Its width is such to only fit one person at a time, and even then, they could not be adorned in a large headdress or back rack. The corridor initially runs loosely west for about 5m, before turning south for 2.5m, and turning again to the west for another 5m, thus producing its Z-shape. The walls are at angles different from the rest of the walls of the palace. Because of this, I believe the walls are of earlier palace structures that date to a time

when the orientation of the palace was different. The Corridor, then, was initially simply the spaces between buildings.

The Vaulted Corridor opens to the west onto the Western Court. This courtyard is large, running the length of the western side of the palace (Figure 4.37). Due to time constraints, only the northern portion of this court was excavated, though one excavation was placed on the eastern side abutting the rear of Structure 43. However, given the topography of the mounds, it is thought that rooms lined the southern and western sides. The east side does not appear to have any rooms, and this is not surprising given its proximity to the throne rooms of the palace.

That the western side was lined with rooms was further indicated by the presence of Rooms 27 and 28 in the northwest corner of the palace which face east. Room 28's existence is deduced through the presence of mounding and an internal entrance on the southern side of Room 27. The two rooms did share an internal entrance with each other, and interestingly, a bench ran between the two rooms taking the entire width of the doorway. Room 27 is long and rectangular and the portion of the bench in this room is similarly described. Unlike anywhere else in the palace, the bench had steps leading up to it, one at its northern end, and one abutting the southern jamb of the eastern external entrance.

Room 27 represents the western side of the courtyard group whose main focus is the two-roomed structure that contains Rooms 25 and 26 (Figure 4.38). Its function is not clear in that it possesses many architectural elements to facilitate movement, but the room itself is not in a central location. The bench's size appears to have been one of the

main foci of the design as it inhibits movement within the room (necessitating the addition of two sets of steps).

The focus of the Western Courtyard appears to be Room 25, which sits on its northern side and faces south. Outside of the rooms, due south, is a low ancillary platform. This platform abuts a walkway that appears to have ringed the Courtyard. Room 25 contains an L-shaped sleeping bench that takes up virtually the whole room. Flanking the room, to the west, is Room 26, which also faces south. This room was probably supplementary to Room 25 as it was smaller and more square in shape and contained no internal architectural features. The two rooms used to be a single room with two doorways, as the medial wall between them was a late addition. To the east of Room 25 was a set of three tiered platforms, acting as a stairway, which led up to what appears to be a place simply to look out to the north over the site.

Given the “hidden” nature of the courtyard in the back of the palace platform, the highly restricted access to it, and the special stairway construction to provide a view, it is possible that the northern building represents the domestic residence of the ruler. The room morphology also suggests a residential function. If this is the case, then we see a clear example of a segmented space.

Conclusions

This chapter has recounted all of the relevant information for the Holmul palace and the palaces to which it is compared. The excavation strategy was designed to expose as much of the palace architecture as possible given the time constraints, while also

making use of previous work that had already occurred. The Holmul palace is an excellent choice to be the main dataset of this study due to the quality preservation of its many rooms and buildings.

Chapter 5. Descriptions of the Palaces Used in Comparison

This chapter includes introductions and descriptions of each of the palaces used for comparative purposes: Tikal's Central Acropolis, Uaxactun's Structure A-V, San Jose's Group C, Aguateca's Palace Group and Elite Residential Area, the Palace at Palenque, and Copan's East Court and Group 10L-32 in El Cementerio. For each palace, the reasons for the palace's selection are recounted. The logic used in determining the palace from the population of structures at the site is described. Challenges with the palace are put forth. Finally, an architectural narrative is given.

Tikal, Guatemala

Tikal is located in the central Petén region of Guatemala (see Figure 4.2). The site was examined in an official capacity in 1848 by Guatemalan government representatives Modesto Mendez and Ambrosio Tut. An artist, Eusebio Lara accompanied them. Maler visited in 1877 followed by Maudslay in the 1880's. The initial archaeological work was conducted by Maler around the turn of the 20th century. This work was supported by the Peabody Museum at Harvard University. The Peabody sent Tozzer and Merwin to Tikal in 1910. A huge project by the University of Pennsylvania began in 1955 and ran until 1969.

Excavations of the Central Acropolis, which was the main palace of the site, began in 1962 under the supervision of Peter Harrison. Harrison's (1970) dissertation concentrates on the Central Acropolis is the most important work conducted in

understanding that area of the site. Many of the palace's 47 structures were excavated while still more were cleared. Additionally, some of the open spaces between structures were explored.

The site core of Tikal consists of hundreds of structures, often grouped around plazas, courtyards, and temples (Figure 5.1). The centrally located Great Plaza is bordered by two massive temples on its east and west, and possesses many of the site's stelae. To the north lies the North Acropolis, another temple compound. To the east of the North Acropolis is the East Plaza and has been posited to have held the marketplace of the city (Jones 1996:91). The West Plaza sits west of the North Acropolis and is a wide open space with monuments bordered on all but its southern side by range structures.

To the south is the Central Acropolis, the main palace of the site. The Central Acropolis is absolutely sprawling, spanning both the Great Plaza and East Plaza combined, in width. The Palace Reservoir sits adjacently to the south of the Central Acropolis, and across from it sits Temple V and the South Acropolis.

Reasons for the Palace's Selection. The Central Acropolis is one of the largest palaces so far discovered in the Maya area. As such, it presents two qualities that need to be included in a comparative study of this type. First, the size leads to a very high level of complexity in layout. This makes for interesting, albeit circuitous, paths of movement. Also, the size of the acropolis is not only due to the success Tikal enjoyed as a polity. It also had an occupation ranging over hundreds of years. This habitation resulted in a palimpsest of architecture, which should be a good indicator of what choices were being

made in terms of a desired morphology. Also, the palace's growth was not purely vertical; the many courts of the palace indicate horizontal growth as well.

Harrison's (1970) work also addresses some of the questions addressed in this work. A few of his analyses will be employed for the Holmul palace and in the comparisons with other palaces. Therefore, inclusion of the original palace where these studies were conducted is essential.

Deciding on the Tikal Palace. There are many elite compound groups that, at any other site, might be considered palatial in size and morphological complexity. There is a group just east of Temple V and another just south off the Mendez Causeway that would be candidates. But given all of the architectural marvels found at Tikal, the palace must also display a larger size and more complex nature than the average Maya palace. And it is the Central Acropolis that fits perfectly these criteria.

The Central Acropolis, as its name implies is centrally located. It sits in the middle of the city near the religious heart, the ballcourts, the reservoir, and borders the large public space that was the Great Plaza. The composition of buildings that comprise this acropolis also are palatial in design and function. While the buildings are large, there are none of the temples that are dominant elsewhere in the site core. Instead, there are many rooms that possess benches or thrones. The layout of buildings also caused many access restrictions as one delved deeper into the compound.

Furthermore, a cache placed under the stair of Structure 5D-46 in the Central Acropolis lent textual evidence that this area was the palace. A vessel in this cache contained a hieroglyphic inscription naming the structure as the house of the ruler Jaguar

Claw I or Chak Tok Ich'aak I (Harrison 1999:77). Here we have a direct link between a building and the royal residence of a personage from Tikal through artifactual evidence. This type of evidence is highly valued because it is rarely recovered from the archaeological record.

Challenges with the Tikal Palace. What makes the Central Acropolis special also results in what makes it difficult to study. While its size and large number of structures aid in statistical analyses, qualitative analyses become very difficult simply due to the sheer amount of data. Also, much of the small-scale data, such as the locations of cord holders, has not been published. Even some of the larger-scale data are somewhat obscured. Harrison (1970:153) notes that there are 104 benches in the Central Acropolis, but he only notes which structure some of them are in and never the room.

Architectural Narrative

The Approach. There are multiple views out from the Central Acropolis on the northern, southern, and eastern sides providing wide vistas of potential visitors (Figure 5.2). The only approach not viewable is to the west from the Tozzer Causeway originating at Temple IV. Rather than a confusing anomaly, this fact may instead indicate something about the path of movement from Temple IV to the palace. Instead of approaching directly, the Central Acropolis possesses no obvious western oriented entrance; potential visitors using the Tozzer Causeway would have had to swing up to the Northern Acropolis and approach southwardly in between Temples I and II. What we see, then, is

a formal entrance that required movement through the religious and political statements made by the stelae and temples of the North Acropolis.

The Central Acropolis' Internal Courts. In the sprawling Tikal palace, one moved through sequences of royal courtyards. However, Tikal's rulers did not sit within its historically most important and potentially most restricted court, Court 5D-6, the one which contained the "clan house" (Harrison 1999:76) of ruler Toh-Chak-Ich'ak I, who ruled in the 4th century AD. We know that this ruler's throne building was preserved almost unchanged for over five hundred years (Schele and Mathews 1998:94), and that new courts and throne buildings were constructed for later rulers.

When analyzing a plan of the palace, it is evident that there were multiple entrances to this hallowed court. A formal, almost processional, path through the later courts is one example. Using a less formal, but more direct path from the east or south would have been physically possible, but perhaps only allowable at certain times or to certain personages. For the purposes of this work, the architectural narrative is written using the more formal path.

Court 5D-1. Court 5D-1 was the westernmost of the Central Acropolis courts. To the north was Structure 5D-71, to the west Structure 5D-70, and to the south was Structure 5D-67. Interestingly, the east side only possessed buildings that faced away from the court.

Structure 5D-71 was a portal structure on the western side of the Central Acropolis that led from outside of the palace into the north side of Court 5D-1. From the

north, a long, broad stairway led up to three parallel doorways that all led to the same long room. The southern side of the room had three adjacent doorways that led out south to a wide low stairway. These steps led down into the aforementioned court.

Structure 5D-70 sat on the western side of Court 5D-1, the westernmost court in the palace. The rectangular building had a north-south long axis and three external doorways on its eastern side. Structure 5D-67 was a range structure that faced north and was reached by a low wide stairway on that side. Five external doorways sat parallel on the northern side of the building. They all led to the same room which ran the entire length of the building.

The Western Courtyard. Tucked just to the south of Court 5D-1 was a small, adjoining courtyard. To the north was Structure 5D-68. All of the entrances to the building's single room were on the southern side. There were three such external doorways all parallel to one another. Structure 5D-69 sat to the west. The building contained one room with a single external doorway in the eastern wall. To the east was the rear of a structure, and to the south was the edge of the Central Acropolis platform.

Court 5D-2. Court 5D-2 sat to the east of Court 5D-1. Six structures ringed the court. There are two obvious entrances to the court in the northeastern and southeastern corners of the court. Harrison (2001:91) has identified baffles in the palace that he believes were in place to restrict movement between them. One of these sets of baffles exists in the northeastern passage.

On the north side, Structure 5D-63 sat to the west and Structure 5D-62 to the east, though the latter did not face into the court. Structure 5D-63 was a C-shaped structure in the western portion of the Central Acropolis that faced Court 5D-2. The structure was oriented south towards the court, but its shape created a smaller courtyard in the center around the rooms. The western leg of the building was composed of two rooms, each with a single central doorway, one room set behind the other. The eastern leg also had two rooms, one set behind the other, but the western room had a western entrance and the eastern room had an eastern entrance, both external. The bottom, or northern portion, of the “C” consisted of five rooms here described from east to west. The first room was in the northeast corner and possessed a sole eastern doorway. The central rooms ran three deep each possessing a central doorway in their southern wall. The middle of these opened to the west into another room that ran in a perpendicular direction. The structure also had a two-armed throne and three benches longer than they were wide, one of which had a headrest.

While not facing the court, Structure 5D-62 was most likely conceptualized with it by the ancient Maya. A short wide stairway on the eastern side led up to three parallel doorways. Inside there was a sequence of three rooms each deeper than the previous, each with three doorways. There was an east-west stairway in the southern portion of the structure. The building contained a bench with a headrest and a two-armed throne.

To the west, were Structures 5D-118 and 5D-66. Structure 5D-118 sat on the west side of Court 5D-2 in the western area of the Central Acropolis. The building was oriented to the east facing out onto the courtyard. The structure consisted of two rooms,

one set behind the other. Each had a single east facing doorway. Structure 5D-66 was a single room structure on top of a tall platform. This building was reached by manner of a tall stairway. The building's long axis ran north-south and there was a single external doorway to the east. Both buildings also contained tall rectangular benches, and Structure 5D-118 also possessed a low rectangular bench.

To the south, was Structure 5D-65, a large portal structure, which had a broad stairway on the northern side that led up to three parallel doorways each leading to a different room. The western doorway opened into a room, the southwestern corner of which possessed a doorway from which one could have headed east to a southern facing room with an external doorway or west to a western facing cross-shaped room. The central doorway on the north side led to a single room that was fairly small. The eastern doorway led to a C-shaped room that also had a southern external entrance. There was an internal doorway in the southeast corner of this room that led east to a room that also possessed an external doorway to the east. The building possessed four benches, one of which was C-shaped, and a two-armed throne.

The western room of Structure 5D-58 sat to the east. The structure was L-shaped with the portion that ran north-south longer than the portion that ran east-west. There were entrances from both the east and west, reached by a low wide stair on the west and a taller stair to the east. The western room possessed an internal doorway that led to a circuitous sequence of six rooms that composed the southern portion of the building. The last room in the structure faced north and was not connected to any of the other rooms.

Court 5D-3. Court 5D-3 consisted of Structure 5D-59 to the northwest and Structure 5D-57 to the northeast. A long passageway to the northeast, and running north, led to Court 5D-5. To the south, was the rear of Structure 5D-52, with none of its rooms on that side. There was only one room inside Structure 5D-59 and it possessed two benches, a two-armed throne, and a single southern facing doorway. Because there was only one room, it allowed the room to be deeper than most rooms in the Central Acropolis and still be held under a single vault.

Structure 5D-57 was oriented south onto the courtyard and had an east-west long axis. There were four rooms, three of which had southern external doorways. These were reached by a low wide stairway. The central doorway led to a small antechamber, which led to a rectangular room behind it. This room possessed an external doorway to the north. The two flanking rooms were symmetric opposites that were L-shaped.

To the east, was portal Structure 5D-54. The building contained seven rooms, but only a single room faced west onto the court. The building also contained six benches and two two-armed thrones. Another room faced south and was not connected to the other rooms, but was reached by the court.

Structure 5D-58 was to the west and southwest. The structure was L-shaped with the portion that ran north-south longer than the portion that ran east-west. There were entrances from both the east and west, reached by a low wide stair on the west and a taller stair to the east. Each entrance led to a rectangular room, but the western room possessed an internal doorway that led to a circuitous sequence of six rooms that

composed the southern portion of the building. The last room in the structure faced north and was not connected to any of the other rooms.

The Southern Courtyard. A long rectangular courtyard sat to the south of Structure 5D-52 and was actually the space to which it faces. The structure was composed of six rooms, three side by side in both the front and back. The building also contained a tall rectangular bench and a bench longer than it was wide that had a headrest. A stairway to Court 5D-2 bounded the courtyard on the west. A stairway that was part of the southeastern palace entrance existed on the eastern side. To the south is the rear of Structures 5D-50, but none of its rooms faced into this courtyard.

Structure 5D-50 instead faced south and looked off of the palace platform. It was an amazingly long (over 60 meters) range structure that made up much of the southern border of the Central Acropolis. The main access to the building was a set of stairs that, interestingly, ran parallel to the structure's long axis. Seven rooms comprised this building. A rectangular three-door room sat westernmost. Once inside three internal doorways led to a deeper room of the same size and shape. This pattern was repeated with the two rooms directly adjacent to the east. Another three doorway room sat to the east of that one, but lacked the full length rear room instead possessing a small room on the western side that was less than a quarter of the size of its adjacent mates. The final room on this southern side was a smaller rectangular room with just a single doorway. This building contained two benches and a two armed throne.

Court 5D-4. Court 5D-4 is much smaller in area than any of the other courts. Three structures face onto the court: Structure 5D-122 to the south, Structure 5D-51 to the west, and the portal Structure 5D-49 to the east. The rear of the south side of Structure 5D-53 was on the northern side of the court.

Structure 5D-122 consisted of three components. The first was a low wide stairway on the north side of the building that provided access. The second and third were two rooms, side by side, each possessing a northern doorway. The western room was much smaller than its eastern counterpart.

Structure 5D-51 was a small building with a single doorway on its eastern side. This entrance led to a rectangular room with a north-south long axis. A centrally located inner doorway led to the second, deeper room which was the same size and shape as the first. The building possessed a bench longer than it was wide.

A single doorway to the east led to the western room of Structure 5D-49, which was oriented to the east and Court 5D-6. The room possessed internal doorways to all three of the structures other rooms, and was the only room of the building able to make that claim. The building possessed a bench longer than it was wide that had a headrest.

Court 5D-5. Court 5D-5 sat on the northern side of the Central Acropolis. It looks to have only possessed one entrance. The long passageway mentioned in the description of Court 5D-3 began to the south, and ran south, leading to that court. There is a hypothesized stairway on the Central Acropolis plan on the north side of the court. But, the northern structures of the court did not possess northern doorways, so this hypothesis is dubious.

The two northern buildings of the court were Structures 5D-56 and 5D-139. The northern arm of the C-shaped Structure 5D-138 also sat to the north. At Structure 5D-56, a tall, broad stairway ran up to a single room with three southern facing doorways. Structure 5D-139 abutted structure 5D-56 on the latter's eastern side along the north side of Court 5D-5. A small stairway ran up to the single room building that faced south onto the courtyard.

Structure 5D-138 was C-shaped and oriented to the east. Three doorways on the eastern side of the structure led to a single internal room. Each of the arms, one north and one south, possessed a single long room with off-center, but facing doorways. Aside from the southern arm, there were no other buildings that faced into the court from the southern side. The northern sides of Structures 5D-53 and 5D-54 were present on the south side of the court.

Directly behind Structure 5D-138 was Structure 5D-140. A wide stairway ran up to the rectangular building on the building's eastern side. The building consisted of two rooms one set behind the other, each had three parallel doorways on the eastern side allowing entry. This building had a low rectangular bench. The building also had two external stairways on its sides leading to Structure 5D-61.

Structure 5D-61 was an L-shaped structure centrally located along the north side of the palace. The shorter portion of the building consisted of one northern facing room. The sole external doorway was reached by a short stair with a balustrade. Within this room an internal doorway led east to the southern room of the long portion. This was the only entrance into the room. Centrally located in the long portion was an east facing

room, which was the largest within the building. The final room of the long portion was northernmost and faced north as evidenced by its single external doorway. The building contained a rectangular bench with a headrest and a two-armed throne.

Structure 5D-55 was a single-room structure on the east side of Court 5D-5. A short stair led up to the entrance of the room from the courtyard floor. There was a sole western entrance into the building.

The Central Courtyard. A small passageway led out of the southeastern corner of Court 5D-5 into a narrow courtyard. Three of the four sides of the courtyard were made up the C-shaped Structure 5D-53. The five rooms of this building were all oriented around the small courtyard, one each to the north and south, and three to the west. The building possessed a bench longer than it was wide. The eastern side of the courtyard was made up the western, or back, side of Structure 5D-128.

Court 5D-6. Court 5D-6 was composed of two adjoining courtyards, one to the west and one to the south. The western one ran north-south and really was just the space in front of Structure 5D-46. The building was a large 17 room compound on the eastern side of the palace with entrances to the east and west by stairways. The structure also had six benches of different types and two two-armed thrones. The western entrance led to two rooms adjacent to one another, each leading to a deeper room. The eastern entrance of Structure 5D-46 led to a two room deep sequence. The front of these two rooms had a northern doorway that led to a stairway up. The small courtyard on the eastern side of this building is described at the end of this section.

Structure 5D-44 sat to the on the northern edge of the court. The structure possessed four rooms, one to the north that ran the entire length of the structure, and three side by side in the southern portion. The building possessed a bench longer than it was wide. Structure 5D-141 was nestled in between this building and Structure 5D-46. Two rooms composed the structure one sitting behind the other. Each room had a single western doorway allowing entry.

To the west, across from Structure 5D-46, sat Structure 5D-128. The structure consisted of two rooms one to the north facing west, and one to the west facing east. This second room had three doorways. While facing north, and sitting at a ninety degree angle to this building sat Structure 5D-137. The building had one room and the back wall of the structure acted as a jamb to the entry to Court 5D-4.

The southern courtyard consisted of Structures 5D-49 to the west, 5D-48, 5D-124, and 5D-125 to the south, and 5D-47 to the east. Structure 5D-49 was a stair and building combination. A tall stair led up from the court to a four-roomed structure. A single room faced east, but it possessed an internal doorway to a symmetrical western facing room. The room had a two-armed throne. This western room was previously described in the description for Court 5D-4.

The northern face of Structure 5D-48 was reached by a low stairway that led to a long room that ran the entire length of the building and could be reached by any of five doorways on the northern side. The southern side was an upside-down U-shape situated around a courtyard. A terrace ran around the inside of the “U” itself composed of single rooms to the east and west and three rooms to the north. Structure 5D-123 was a building

that abutted the southwestern corner of Structure 5D-48. There was only one room inside the structure and it was oriented to the west facing a stairway that led deeper into the palace. Structure 5D-123 contained a two-armed throne.

Structure 5D-125 abutted the east side of Structure 5D-48 in the southeastern corner of the palace. It was oriented north, as evidenced by its single doorway to the north, and onto the courtyard. A wide, low set of steps reached up to the doorway of the structure. The structure possessed a low rectangular bench. Structure 5D-124 abutted the west side of Structure 5D-48. This small single room building was oriented north, as evidenced by its single doorway to the north.

Structure 5D-47 sat in the southeast corner of the palace and helped to bound the palace in that area. The long rectangular structure had a north-south long axis and a single room that ran its entire length. Three doorways on the western side of the structure led to the room.

Structure 5D-46's eastern side led to a narrow courtyard. It was bounded to the north and east by Structure 5D-45. Structure 5D-45 represented part of the easternmost expanse of the Central Acropolis. The structure was C-shaped with a courtyard in the bracketed space. The long axis ran north-south. Five rooms faced east onto the courtyard, with one room facing in from the north and south respectively. Five rooms also faced west into the palace and onto the east side of Structure 5D-46 across a narrow courtyard. One additional room was located on the northeast corner of the structure, facing south also onto the narrow courtyard.

Structure 5D-126 was a portal structure that abutted Structure 5D-46 on that structure's southeastern corner and Structure 5D-45 on that structure's southwestern corner. The square single room structure possessed external doorways both to the north and south. Two steps up led to the southern doorway from Court 5D-6 and into the single room. From there, the northern doorway led, after a single step down, to the narrow courtyard that sat behind or to the east Structure 5D-46. Structure 5D-127 abutted both Structures 5D-46 and 5D-141 in the eastern area of the palace. The single room of the structure was oriented to the east and possessed a low rectangular bench and a bench longer than it was wide.

Uaxactun, Guatemala

Uaxactun is in the Petén region approximately 19 km north of Tikal (see Figure 4.2). Uaxactun was discovered by Morley in 1916 and various Carnegie Institution expeditions visited the site in the early 1920's. Work was begun at the site as part of a large program to better understand the ancient Maya that also included the sites of Chichen Itza and Tayasal. Excavations at Uaxactun began in 1926, though not at the site's palace until 1931. This work was directed by and subsequently published by A. Ledyard Smith (1950).

The site core of Uaxactun consists of a series of architectural groups located on the tops of low hills. These hills strongly influenced the decisions about where to build. The site's center or acropolis is created by Groups A and B and the causeway that runs between them (Figure 5.3). Both groups possess large plazas, numerous large structures,

and multiple stela and altar combinations. Groups C, D, and F consist of primarily elite house groups. Group E, east of the acropolis, is a temple complex that has been found to be aligned with where the sun rises on solstices and equinoxes. Group G is 1.5 kilometers from the site core and probably represents a satellite center. More recent work has concentrated on Group H. This group is an early assemblage of temple structures around a plaza.

Reasons for the Palace's Selection. Structure A-V at Uaxactun is one of the most thoroughly explored palaces in the Maya area. The work at the palace provides a rare example that enables both a view of the palace's humble beginnings and the accretion over time that results in the type of palimpsest that is consistently when one views a Maya palace. Uaxactun is also fairly close to Holmul at around 40 kilometers away.

Deciding on the Uaxactun Palace. Of the seven main groups at Uaxactun, Group G can immediately be dismissed as possibly possessing the palace due to its distance from the site's core. Group E's function has been clearly determined and it is not of a palatial nature. Groups C, D, and F all are residential in nature and lack civic and ceremonial components. They also lack in the number of structures and in the complexity of individual structures. Group B is dominated by ceremonial architecture, though the structures that ring the main plaza there do possess characteristics such as Structure B-I, a range structure, and Structure B-II which exhibits a high degree of morphological complexity.

However, the buildings that make up Structure A-V really are the best candidates for the site's palace. The mix of residential, civic, and ceremonial structures is located centrally in the site's core. The size, height, and complexity of buildings fit with one would expect from a palace, with a high number of thrones and benches also present.

Challenges with the Uaxactun Palace. Smith's (1950) volume is written mainly as a construction history of the various structures. So, the description of the palace is as it grew over time and does not strongly focus on the morphology at any one moment in time. Therefore, while we are given a keen understanding of the changes that occurred, we have to hope that all of the features, both architectural and artifactual, have been noted along the way. Even if this is the case, it is challenging to always know if a feature added in one phase remains visible and in use during subsequent phases.

Architectural Narrative

The Approach. Based on the morphology of the inner architecture of the palace, it is likely that the palace's main entrance was from the south (Figure 5.4a). There were also northern and eastern entrances, but the orientation of the main palace structure was such that the main entrance was the southern one. This entrance was from the South Plaza, which had the South Court to its west and Structure A-XV away to the east.

The first building encountered would have been Construction M. This structure formed the western portion of the southern side of the palace. The base consisted of two platforms, each holding a set of three rooms. At each end, an additional room projected

to the north, creating a U-shaped building. Single steps, that ran almost the whole length of the building, adjoined on the north and south side. The building contained five benches, and two two-armed thrones.

To the east of Construction M, but facing west, was Construction V. It adjoined the south side of Construction T on that structure's south side, eastern portion. The rectangular platform's long axis ran north-south. The basal platform was 1.7m high and supported another, smaller platform. This higher level was reached from the plaza by a stair on the western side. There was a burial, Burial A23, recovered from the platform.

The central rooms of Construction M could be passed through to gain entry to a small rectangular courtyard, named the South Court. This space should not be confused with the space of the same name that exists outside of the palace. Enclosed on all sides except the north by Construction M, the South Court opened on to Constructions G, H, and I to the north. Two burials, A8 and A19, were recovered from below the courtyard.

Construction G was the most central building of the three structures that bounded the southern edge of the Main Court (Figure 5.4b). This two-roomed structure was oriented north-south with one room behind the other. Two platforms composed the base of the structure. The rear platform was at a higher level, and not as wide. This building was very similar to Constructions H and I which flanked it on both sides, however it had a panel projecting from its north side that set it apart from the other two buildings.

Construction H was the farthest west of the three buildings. The building had two rooms, one deeper than the other, with the rear at a higher level. Traces of red paint were found on the exterior of the building. A stela, Stela 22, was housed in the rear room.

One other interesting note is that excavations revealed that black lines had been drawn prior to construction outlining where the walls should be placed (Smith 1950:24).

Construction I was the easternmost structure of the three similar parallel buildings that were Constructions G, H, and I. Again, there were two rooms one set behind the other, the rear at a higher level but not as wide. The relationship, in terms of deposition, between walls and floors led Smith (1950:25) to believe that Construction I was the latest constructed of the three buildings.

The Main Court. The Main Court had Construction P to the west, Constructions Q and C to the east, and Construction L to the north. All but Construction C existed on raised platforms. Construction C was a two-roomed building that sat on a platform with a stair leading up to the doorway. The rooms sat one behind the other so that one had to pass through one to reach the deeper room. The vault spring was not offset in this building, so the internal walls were slightly concave. This structure had been heavily decorated as evidenced by the amount of stucco elements found around it.

Tucked between Construction C and Construction I was Construction Q. This building was three stories, but a room on the top floor was the only one to face into the Main Court. Room 60, a long rectangular room ran north-south with a sole external doorway in the northern portion of the western wall. Three steps led up to the room. Under the floor both a fragment of Stela 25 and Altar 3 were recovered.

Construction P was a combination of platform, stair, and building that sat on the west side of the Main Court. The platform rose 2.5 meters on a batter and had a parapet around its upper edge. The stair of this building contained a stairway block. Smith

(1950:35) hypothesized that the face of this block was carved, as carved blocks resembling glyphs were found around the remains of its base. The building possessed three rooms, and was oriented to the east. Two of the rooms contained two-arm thrones, and the third had a simple bench.

Construction L was an eight-roomed structure in its final incarnation. It occupied the northern side of the Main Court. The building was constructed on a low platform that sat on a larger platform that rose on a batter to a height of 6.7 meters. A pair of stairways provided access to the top of the platform on the north side. On the south side, a wide stair that consisted of three steps was divided by a large masonry block that began on the second step. All of the vaults within Construction L had three wooden crossbeams. The central room, Room 93, possessed a large throne with two arms that took up virtually the whole room. In fact, there were six other two-armed thrones to be found in the rooms of this structure, along with two other benches, and two burials (Burials A34 and A69).

To the West. By following a thin walkway in the northwest corner of the Main Court north, one could eventually swing around to Construction R, the main western face of the palace. At its southern limit it was adjacent to Construction N. The three rooms of this structure, with their seven doorways, all faced west. The basal platform of this structure was composed of three terraces, which rose on batters and had basal moldings. On the west side, three successively wider stairways led up to the superstructure, the terraces marking the point of widening. The central room contained a rectangular bench or altar, under which was Burial A43. Burial A41 was recovered from the floor just outside of this room's doorway.

The East Court. The East Court was a wide rectangular space just east of the Main Court. Part of the court was bounded to the west by the aforementioned Construction Q. It possessed rooms on its first and second floors that faced on this court. Two of the rooms contained benches and the building held Burial A37, Cache A32, and a firepit.

Also on the west side was Construction S, an L-shaped addition to the northeast corner of the Main Court, extending it outwards. All but one of the eight rooms faced to the east toward what would be the East Court. Three of the east facing rooms were on the bottom floor, the rest all on the second. A wide stairway on the eastern side provided access onto the platform which served as a terrace on this side. The building contained two two-armed thrones, three benches, and five burials (A16, A44, A45, A48, A52). Three burials, A46, A47, and A51 were placed directly in front of the structure.

Construction T sat at the southern boundary of the court, and consisted internally of seven rooms in a U-shaped arrangement. All of the north facing rooms contained benches, four of which were two-armed thrones. Construction U ran along the entire eastern side of the court. It was a long platform running north-south rose to a height of about 1.5 meters. This supported another platform that was smaller in all dimensions. There were no signs of a building on this platform: neither walls nor postholes. A stair on the eastern side led to the top of the construction from the plaza to the east, while a stair on the western side led up from the East Court.

The North Court. The North Court was a rectangular courtyard just north of Construction L. It was bounded to the west by the back of Construction R and to the east by the platform that was Construction U. To the north of the court was Construction W. The

structure was I-shaped and contained nine rooms and was never vaulted. Smith (1950:42) felt that even though the structure went through subsequent phases, the lack of stone vaults left the building unfinished. The building was reached from the north by a wide stairway, but needed to be passed around to gain entry to the palace. There may have been as many as seven benches in this structure but preservation was poor and only their faces remain. One of the rooms contained two burials, A67 and A68.

San Jose, Belize

San Jose is a fairly small site located in northwestern Belize (see Figure 4.2). Sir J. Eric S. Thompson (1939) conducted work there under the auspices of the Carnegie Institution of Washington D.C. and the Field Museum of Natural History in Chicago in the 1930's. Excavations begun during an aborted season in 1931 were continued in 1934 with some finishing work completed in 1936. The main impact of the project was due to its initial goal being to focus on a site smaller than the other sites excavated during that era (Hammond 1994:55).

The site consists of four main groups, one of which contains a ball court (Figure 5.5). Group A, the site's main plaza is on the eastern side of the site is composed of seven large ceremonial structures that ring a plaza. The site's only stela was recovered in front of Structure A4 and was plain. Group B lies to the north of Group A and is a collection of residential structures constructed around a courtyard. Group C, to the northwest of Group A, is the palace of the site and contains both civic and ceremonial

structures. Group D is the southernmost group and consists of a platform supporting two mounds and a temple pyramid.

Reasons for the Palace's Selection. The palace at San Jose was selected primarily for two reasons. First, the layout, in terms of central rooms and thrones, is very similar to that of Holmul's palace. This similarity holds true to some degree even in the subsequent design changes that were made to the palaces in their later phases. Second, San Jose is fairly close to Holmul being only 35 kilometers to the northeast.

Deciding on the San Jose Palace. Of the four main groups at the site only one, Group C, exhibits the combination of residential, civic, and ceremonial characteristics one would expect from a palace. Range structures, multiple rooms with benches, and small temples are all present. Groups A and D, alternatively, are comprised of primarily temples. Group B appears to be largely residential in nature, but Group C is both larger and more complex in terms of room morphology. Finally, as will be explored below, Group C possesses a bench feature with a hieroglyphic inscription that names it as a throne.

Challenges with the San Jose Palace. The San Jose palace was not explored thoroughly, either through survey or excavation, so important features of the architectural morphology are not well understood. While some areas of the palace are recorded in high detail, other areas are drawn as prismatic mounds only. While this is also an issue with the Holmul palace, the lack of detail with the San Jose palace is more problematic because of the specific areas of ambiguity. For example, the entrance to the palace is not

clear. Contextual clues allow for the likely entrance. An inference on such a fundamental issue weakens further analyses (such as an access analysis).

There is also a challenge with the nomenclature. Structures were named with a group designation and then a sequential number. But, so were burials and caches. Therefore in Group C there is a Structure C3, Burial C3, and Cache C3 and none of these have any relationship to each other, other than having all been recovered in Group C. To avoid confusion, type designations will always be given before group designation/number combination.

Architectural Narrative

The Approach. As one made his/her way from the tall temples and stelae of the main plaza over to the palace of San Jose, one crossed a gentle down slope. One would have passed the site's ball court, Structures C1 and C2, where many a ballplayer had tried to best his opponents with there being athletic, political, and religious ramifications. No objects usually associated with ball courts, such as rings, markers, etc. were recovered.

Close to the ball court, and next to the palace, was a 10 meter high temple at a peculiar orientation, Structure C3, its off-angles making it stand out against the backdrop of other structures. There was no superstructure at the top of the building. Thompson (1939:53) trenched the structure but found no features of interest.

Finally reaching the main entrance to the palace, one was confronted with a long, three meter high building on the eastern and southern sides, that restricted both access and the view inside (Figure 5.6). Thompson's (1939:9) map labels a long range structure

on the east side as C10 while a similar structure bounding the southern side is denoted as C11. However, Thompson's (1939:63) architectural description conflates the two structures as a single L-shaped building denoted as C10. No excavations were conducted at either portion of the structure.

However, even from outside, one could have viewed the second floor of the building from which the ruler conducted his affairs, a "beacon" signaling the power housed inside. From the opposite side, the palace appeared to tower over a nearby aguada, strongly relating the idea of power to the water held at San Jose.

Main Palace Court. What I am terming the Main Palace Court consisted of the aforementioned Structures C10 and C11, but also Structure C4 to the west and Structure C5 to the north. These were arranged around a courtyard that measured roughly thirty meters on a side. Structure C4, to the west, appears to have been the focal point of the court since it was the largest, contained a throne and a second story.

Structure C4 is the largest and most complex structure within the palace (Thompson 1939:53). The two-story building possessed eight rooms on the first floor, three rooms on the second floor, and an internal stairway that connected the two. The second story was built first, on top of pre-existing architecture, and the first floor was built around this construction (Figure 5.7). Three rooms (A through C) faced the front (east) side of the structure, and mimicked the layout of the original, now upper, structure. Two rooms, Rooms D and E were on the north side, while only one, Room G was on the southern side. The western side possessed Rooms F and H. The second story consisted of one building, measuring just under 15 meters long by roughly 6 meters, while

containing three-rooms (K, M, O). Room K, the central room, had an unlabeled antechamber that we might give a separate designation to today.

Room A of Structure C4, to the southeast, is a small room that possessed a large L-shaped white-stuccoed bench with an overhanging lip that took up almost the entire room, extending out through an internal northern doorway. Room B, centrally located along the eastern side, possessed a roughly 2.5 meter recess or niche centered along its rear (western) wall. A low construction termed an “altar or throne” by Thompson (1939:30) was placed into this recess and later extended out of it. The extension consisted of four small pillars that supported the extension of the altar/throne top. The recesses between the pillars were red-painted. Applied near the top of this new façade was a 17-glyph stucco band, which was also painted red.

Room C contained a stairwell that led up to the second story of Structure C4. Room F, to the northwest and facing west, contained an L-shaped bench. Burial C12 was interred partially in Room F and partially in its doorway. This internment was of a child about three years of age, thought to have been placed in the flexed position within a textile shroud (Thompson 1939:212). In addition to a jade bead pendant, two ceramic grave goods were recovered neither of which were similar to other wares recovered at the site.

Room G was in the southern portion of the building and it also possessed an L-shaped bench, though this one had an arm on its western side. Three burials (C8, C9, and C10) and one cache (C5) were recovered from below the floor of this room. Burials C8 and C9 are of children and termed by Thompson (1939:210) as a double burial, quite

possibly sacrificial in nature. Cache C5 was recovered from within the initial bench construction. It was composed of a tubular bone ornament, a jade pebble, one human incisor, a decorated spindle whorl, and the skull of a leaf-nosed bat.

Room H, to the southwest, had a bench construction that occupied almost the entire room. Burial C11 was recovered below the floor of this room, partly in the doorway and partly in the room. The burial is of a child roughly six years old at the time of death in the flexed position. There was a collection of twelve bone beads with one shell bead and a perforated univalve shell associated with the right wrist which may have originally formed a wristlet. Thompson (1939:211) posits that this was a dedicatory burial since the floor was not penetrated to inter the individual.

The central room on the second floor, Room K, contained a red-stuccoed C-shaped throne that ran from north to south for the entire length of the room. The “top” and “bottom” of the “C” were at a higher level than the central throne portion. The northern room, Room M, did undergo heavy modification in a later phase and it is probable that a bench was removed (Thompson 1939:36). A cache, C3, was recovered from below the floor of Room M in the center of the room. Thirty-three of the objects were shells: twenty-five sea snail shells, five Auger shells, two West Indian Dove shells, and one from the Cerith family. Also included in this cache was a perforated sherd disk. Room O, to the south, contained a red-stuccoed bench that faced south.

Structure C5 separated the Main and Second Palace courtyards. It possessed three doorways along its southern front, Rooms A through C from east to west (Figure 5.8). Room A contained a greenstone pendant portraying a human head was found embedded

in the floor (Thompson 1939:60) and below this floor was Burial C-6, that of a adult in the flexed position (Thompson 1939:209) wearing an ornate shell spindle whorl pendant. Two sub-floor caches were also recovered from this room.

Room B also possessed a burial, Burial C5, that of a child. A single dish represented the only grave good. Room C possessed white-stuccoed benches on its eastern and western sides that flanked each other. Two burials and once cache were recovered from this room. Burial C1, a subfloor burial, is that of an infant in the flexed position with no discernable grave goods. Burial C2, also subfloor, is that of a stillborn or newborn infant, also possessing no grave goods. Cache C4, of the lip-to-lip vessels variety was recovered in the eastern portion of the room below the floor.

Room G was the only room on the west side. Room D was in the northeast corner of the structure with entrances to both the north and east. Additionally, the northern side possessed Room E, which is centrally located and has three doorways along its northern side. Room A shared an internal passage with Room E, meaning would could access either court by walking through the building. Room F is the westernmost northern room. All of the rooms were stone block constructed and vaulted. Stucco decorative elements were recovered in front of Room C indicative of a façade over the door.

The Second Palace Court. What I term the Second Palace Court consisted of Structure C5 to the south, Structure C7 to the west, Structure C8 to the north, and Structure C9 to the east. If, as in the Main Palace Court, we consider the largest structure in the court to be the focus, then Structure C8 is the one for this court. If this is the case, the differences in orientation of the two courts may prove interesting.

Structure C5 has been discussed in the above section, so discussion here will begin with Structure C7. Structure C7, a two-roomed building, measured well over 30 meters in length, but was less than two meters in width. Thompson (1939:63) believes the walls rose to a height of less than two meters and that there had been a thatched roof, given some possible postholes and a lack of roof debris.

Room A composes the southern half of Structure C7. Its sole doorway is an external one in the eastern wall, all the way in the northeastern corner of the room. There were five burials recovered from this room, Burials C14 to C18. Room B was north of Room A in Structure C7 and was of a similar shape and orientation to that room. According to Thompson (1939:63) “little of this interior room was excavated, and no caches, burials, or material objects were recovered.”

Structure C8 was a roughly 40 meter long by 18 meter wide rectangular mound running east-west and bounding the northern side of the palace’s northern courtyard. In the center was a 5.6 meter tall pyramidal structure, while the rest of the mound rose to a maximum height of 2.8 meters. Structure C9 sat on the eastern side of the northern palace courtyard. Its long axis ran north-south, and the structure was rectangular in shape. Thompson (1939:63) reports that the maximum mound height was two meters. No excavations were conducted at either structure.

The Western Courtyard. The Western Courtyard measured roughly ten meters on a side and was nestled between the western buildings of both the Main and Second Palace Courts, Structures C4 and C7, respectively. The two-roomed Structure C6 sat at the courtyard’s northern end. Stucco decorative elements were recovered from the base of

the structure's north wall. Room A, the western room, possessed a small bench in its northeastern corner. Burial C19 was recovered below the floor. This internment is that of an infant in what may have been a seated position. No grave goods accompanied the body.

Rooms D and E of Structure C4 faced the courtyard from the south. Room D was created by the construction of a wall on the eastern side of the bench that now resides in Room E. This wall separated the space that was Rooms D and E into the two distinct rooms. Room E contained the bench and wall mentioned above. Burial C13 is that of a child no more than three years in age. This internment was originally in the doorway between Rooms D and E. The burial was discovered as the result of a trench wall collapse and therefore its original position is unknown. There were no grave goods recovered.

On the eastern side of the courtyard was Room G of Structure C5. It is a rectangular room running north to south. There were no internal architectural features recovered. The room possessed an internal doorway, to the east, leading to Room F, and the obvious external doorway on its western side.

Aguateca, Guatemala

Aguateca is located in the west of Guatemala, in the Petén region (see Figure 4.2). The site was discovered in the late 1950's (Inomata 1995:29), but excavations did not begin until 1990 when the Petexbatun Regional Project began work there under the direction of Inomata (1995:70). This project ran field seasons during most of the years

between 1990 and 2005. Work on the Palace Group occurred during all of the field seasons.

The Petexbatun project ran from 1990 to 1993. During this time, Structure M7-35 which sits just outside of the Palace Group in the Causeway was excavated. Structures M8-10, M8-11, and M8-17 were also excavated. These structures help bound the Causeway on its eastern side. Work continued at the site from 1996 to 1999 during the first phase of the Aguateca Project. Two structures of the Palace Group, M7-22 and M7-32, were excavated at this time. Work also continued on elite structures in the vicinity of the palace, including Structures M7-34, M8-2, M8-3, M8-4, M8-8, and M8-13.

The final work occurred during the second phase of the Aguateca Project, which ran in 2004 and 2005. Work continued on Structures M8-3, M8-4, and M8-8 during this time. All of the above excavations were supervised by Takeshi Inomata, initially while as a graduate student at Vanderbilt University, but eventually as a professor at the University of Arizona.

The site was built as a twin capital to the site of Dos Pilas, along a natural chasm or *grieta* in a single phase and was occupied roughly from the late seventh to early ninth centuries (Inomata 2001a:41). The Palace Group, Group M7-5, sits to the east of the *grieta* in the northeast area of the site core (Figure 5.9). The group consists of multiple palace and range structures oriented around a large courtyard that measures more than 30 meters across. A long causeway originating in the southwest leads to the palace. The Causeway is flanked on both sides by structures, though the settlement is more dense along the eastern side (denoted as the M8 group). Many of these structures, while not

part of the Palace Group, do appear to have been part of the elite apparatus due to their size in both height and volume.

Reasons for the Palace's Selection. One reason that the palace at Aguateca was selected was because of its unusual level of preservation. The site was abandoned rapidly because of warfare and therefore has produced very rich floor assemblages. At this palace, the position of artifacts can reveal information about room and building functions. The artifacts, in this rare case, can act as the bridge between behavior and architecture. Another reason for the site's selection is that it was abandoned around the same time that Holmul was. Aguateca would have been responding to the same overarching stresses, though a set of regional ones. Finally, since the site was occupied for such a short time, the effects of the creation of a palimpsest should be minimized. In other words, since there was not a long period of architectural buildup, the designers' original layout should be more apparent.

Deciding on the Aguateca Palace. As mentioned earlier, the Palace Group sits at the end of a long causeway. The structures ring a small sunken plaza (Figure 5.10). Normally, one would expect this plaza to be a public space ringed by temples. Instead, the structures are the large range and residential structures understood to be palatial in nature. Inomata (2001a:43) states that the Palace Group is significantly larger than the other residential complexes at the site and was the most heavily defended during final wartime events. Given the size, location, type, and importance of the Palace Group, there is little doubt that it is aptly named and indeed the palace of Aguateca.

There is an issue with bounding the palace. While the Palace Group is clearly bounded spatially, there are structures outside of the group with apparent royal functions. For example, Structure M8-4, also known as the House of Mirrors has been posited as the site for the storage and refurbishing of the royal regalia (Inomata 2001b:329). This structure sits distinctly outside of the Palace Group, along the Causeway in part of a group I am terming the Eastern Causeway Court. With only a half dozen or so buildings, there are relatively few structures within the Palace Group compared to other Maya palaces. This paucity raised the possibility of needing to expand the boundary of the Aguateca palace outwards. To include other structures of the site core as part of the palace is a slippery slope because clear spatial boundaries are not as clear as one moves south.

For the purposes of this analysis, the Aguateca palace will be treated in its larger sense, including the Eastern Causeway Court. That is, it will be considered as more than just the residence of the ruler, and therefore include structures outside of the Palace Group. These structures are clearly elite and have some semblance of royal functions. Inomata (2001a) has argued for a wide social definition of the royal court, and it makes sense to have a palace that could be the setting for many of these activities.

Challenges with the Aguateca Palace. The amazing level of preservation is a negative as well as a positive. Due to the presence of many artifacts and the inherent importance of their exact location, archaeological explorations moved more slowly than usual. Therefore, not as much area was uncovered as one would expect otherwise. This also means that within small horizontal areas, there will be a plethora of information for one

mound (which was excavated) and comparatively little for an adjacent (and unexcavated mound). In essence, excavated structures are representative samples for their unexcavated neighbors, and very few neighboring groups of buildings were excavated as a whole. On a different note, the late construction of the palace means that it is not an example that one would consider necessarily the epitome of Classic palatial style if there turns out to be such a thing.

Architectural Narrative

The Eastern Causeway Court. This court consists of nine structures ringing a courtyard. The structures are M8-2 through M8-6, M8-8, M8-10, M8-13, and M8-14. The courtyard is rectangular and runs from north to south. The group abuts the Palace Group to the north, but sits at a lower elevation.

Structures M8-2 and M8-3 were tucked into the northeast corner of the court. They were each one-roomed structures with only low side and rear walls (Inomata and Triadan 2010). Structure M8-3 did possess a C-shaped bench. Directly to the west of these structures was Structure M8-4. Structure M8-4, the House of Mirrors, sat along the eastern side of the Causeway towards the Palace Group end, but faced away from the Causeway to the east. The building consisted of three rooms each with a bench and a sole eastern facing external doorway. A series of pillars in front of the structure helped to support a thatch roof. In front of the eastern or front walls of the central and northern rooms were southern facing benches that also abutted two of the aforementioned pillars. Also, there was an addition made to the north side evidenced by a single line of stones

and an unstuccoed floor. Inomata (2001b:329) states “It is possible that a resident of this building was a high courtier responsible for the storage, maintenance, and preparation of royal regalia” due to the presence of mortars, pestles, worked alabaster, and remains of a pyrite mirror.

Structures M8-5 and M8-6 ran along the east side of this court. These structures went unexcavated, but from the site map it is possible to say that Structure M8-5 is much larger than its adjoining counterpart. They may have also have sat on the same platform. Inomata and Triadan (2003:165) attribute residential functions to these structures.

Structure M8-8, also known as the House of the Axes, sat along the east side of the causeway behind Structure M8-9 and facing M8-10. The building consisted of five rooms. Three rooms were centrally located side-by-side each with a large bench and a single exterior doorway to the east. Room additions to the north and south came out past the exterior eastern wall of the central part of the structure, creating a general C-shape to the building. Eighteen polished axes were recovered from the building, and it is believed they were the toolkit of a stone carver (Inomata 2001b:328).

Structure M8-10, also known as the House of the Scribe, was set along the eastern side of the Causeway in the space between Structures M-8, M-10, M-11, and M-13. Similarly to Structure M8-8, this building consisted of three central rooms with an additional room added to both the northern and southern sides. The central rooms also all possessed benches and sole exterior doorways on their eastern sides. Inomata (2001:326) recovered mortars and pestles used for pigment preparation from this structure.

Structure M8-13 closed off this court at its southern end and faced north. The building consisted of three rooms. Both the western and center rooms contained benches.

Inomata et al. (2010:104) write:

The artifact assemblage from Structure M8-13 appears similar to those from the excavated elite residences (Structures M7-35, M8-4, M8-8, and M8-10) in terms of objects related to essential domestic activities, such as food storage and preparation. Yet, the number of valuable goods, such as jade beads and fine shell ornaments was extremely small, which stands in contrast with the abundance of such materials in the elite residences.

This economic distinction between buildings in such close proximity is interesting to say the least, especially since it is similar in function. Structure M8-14 sat to the east of Structure M8-13. It was not excavated, but may have also been a residence.

The Approach to the Palace Group. The main approach to the Palace Group was from the south and it was the architectural culmination at the end of the Causeway. Several structures could conceivably have undertaken gateway functions for the palace.

Structures M7-29, M7-30, M7-34, and M7-35 were all in the area immediately outside of the Palace Group, though none required passing through to get into the group. Structures M7-34 and M7-35 sat across from one another with the former to the east. Structures M7-29 and M7-30 sat further to the north in the same flanking layout.

Structure M7-34 was denoted as the House of the Metates due to the high number of the artifact type recovered from the excavations. The building was surrounded by stone walls and faced east. The building consisted of three rooms, each broken into a front and rear portion. Each rear portion contained a bench. Inomata (2001a:46) believes Structure M7-34 was more public in function than residential, possibly the location of

feasting behavior and even a communal house, due to the presence of incensarios and a low amount of pottery in comparison to other elite residences at the site within the structure, and a high number of metates and reconstructible vessels outside of it. It also possessed a different floor plan (Inomata and Triadan 2003:171).

Structure M7-35, also termed the House of the Niche, sat on the west side of the Causeway, facing south. The building consisted of six rooms, three to the front and rear. The front rooms, each possessing a bench, faced east, south, and west, in that order. All of the rear rooms possessed raised areas termed tables by Inomata (1995:205). The artifact assemblage, including an inscribed polychrome vessel discovered in the niche of the central bench, indicates that the building was an elite residence (Inomata 1997; Inomata and Stiver 1998).

Inomata (1995:214) posited that Structure M7-30 was a defended entrance to the Palace Group. However, subsequent excavations could neither confirm nor deny this hypothesis as the structure was badly damaged by tree falls. Structure M7-29 was not excavated, though it appears from the site map to have been a set of conjoined platforms roughly five meters on a side. Their location may attest to the idea that this flanking structure also made up part of the entrance with Structure M7-30.

The Palace Group. As already mentioned, the Palace Group consists of elite structures ringing a large courtyard with the main entrance to the south. Interestingly, Structure M7-22 was an apparent site-wide focal point as it is aligned to face the Causeway at the expense of being centered on the courtyard.

Structure M7-22 sat in the northeast corner of the Palace Group, and is also known as the House of Masks. The long axis ran east-west and the building consisted of five rooms in a row. Three of the rooms were south facing, and one each faced east and west. In terms of the central room, Inomata et al. (2001:297) state “it is probable that the ruler or his close relative used this room to give audience to their subjects and to receive emissaries from other centers.” The easternmost room appears to have been a storeroom of royal possessions (Inomata et al. 2001:294). This building along with M7-32 are thought by Inomata (2001:43) to be the main living quarters of the royal family.

Two range structures make up the rest of the northern side and the entirety of the eastern side of the Palace Group. Structure M7-25 sat on the northern side adjacently to the east of Structure M7-22. Structure M7-26 ran north-south down the eastern side of the Palace Group. Inomata and Ponciano (2010:23) describe the structures thusly:

Structure M7-26 consisted of rows of columns and entrances to long open halls on both sides of the thick center wall which probably supported beams for a thatched roof. This open configuration indicates that the building served as a place for meetings, administrative work, or ceremonial activities rather than as a dwelling. The preservation of Structure M7-25 was worse, but it appears to have had a configuration and functions similar to those of Structure M7-26.

Structure M7-32 sat along the western side of the Palace Group courtyard to the west of pyramidal M7-31. This structure is also known as the House of Bones. Directly to the rear of the structure was the Grieta which could be reached by a stairway that ran along the exterior western side of the structure. This structure is the tallest of the Palace Group and was thought before excavations that it was a temple (Ponciano and Pinto 2000:802). M7-32 consisted of two eastern facing rooms at its front, and three rooms to the west or rear.

The central of these rear rooms faced east and gave access to the northernmost. The southern room faced south. Inomata et al. (2001:298) state “the large central room may have been a throne room of the ruler, and the north room connected with the central room may have been his private chamber.” Parts of the building were painted red. This building along with M7-22 are thought by Inomata (2001:43) to be the main living quarters of the royal family, while M7-31 may have been a temple.

Benches were recovered adjoined to the outsides of Structures M7-22 and M7-32. Both of these faced Structure M7-33. This structure, a low platform, sat in the northwestern corner of the Palace Group. Inomata and Ponciano (2010:51) state “Structure M7-33 may have been an open platform used for dancing, which could have been seen by individuals sitting on the outdoor benches, as well as those occupying the plaza.” An elevated space adjoining a courtyard is not often observed in Maya palaces.

Palenque, Mexico

Palenque is a site in Chiapas, Mexico (see Figure 4.2). The site was visited by interested amateurs and government officials as early as the mid-1700’s. In the early 1800’s expeditions occurred headed by Guillermo Dupaix and his artist Jose Luciano Castañeda. Waldeck spent the year of 1832 at the site. Stephens and Catherwood visited in 1840 and produced the best renderings of the site up to that time. Maudslay surveyed the site in 1891 through the use of clearing excavations.

Modern work on the site was begun by Blom in 1922 with investigations and consolidations commencing in 1934 by Miguel Angel Fernandez under the auspices of

the Mexican government. Ruz, working under INAH, began working at Palenque in 1949 and continued until 1958. Jorge Acosta took over in the 1960's. The Mesas Redondas de Palenque began in 1973, and have continued under INAH since 1993. Ed Barnhart headed up the most recent and complete survey of the site which ran from 1998 to 2000.

The site core of Palenque sits on streams that eventually reach the Michol River. This core is densely populated with settlement; Stuart and Stuart (2008:19) cite the presence of 35 major building complexes and the remains of 1,500 structures (Figure 5.11). All of the site core is interspersed by elite architectural groups and non-elite mounds. The density makes the site appear very agglutinative, and may be due in part to the fact that the site is situated on the narrow shelf of an escarpment.

The center is so dense that it defies easy description. The famous structures (Palace, Temple of the Inscriptions, Temple of the Sun, Temple of the Cross, Temple of the Foliated Cross) all sit at the eastern edge of the site. The Palace sits at the eastern end of a long east-west plaza, and at the southern end of a shorter north-south one. The former is bounded to the southeast by The Palace and the Temple of the Inscriptions.

Reasons for the Palace's Selection. The Palace at Palenque is perhaps the most famous Maya palace. Its omission would be remiss. The palace displays one of the densest morphologies in the Maya world; it is almost labyrinthine in nature. The structures that comprise it have all been excavated. Additionally, there is good scholarly work on the sculptural elements that adorned the buildings. These elements can give insight into the function and meaning of the buildings.

Deciding on the Palenque Palace. As mentioned in the previous chapter, Stuart and Stuart do not believe that the residential aspect of royal life was tied to the Palace. They believe a more likely candidate for domestic functions is the Otulum Group just east of the Palace (Stuart and Stuart 2008:154). Yet, even they do not doubt that the Palace did hold many royal functions, if not all of them. House E of the Palace was very clearly a throne room for K'inich Janaab' Pakal, the famous ruler. The Oval Palace Tablet was set in this building, a depiction of K'inich Janaab' Pakal on his throne anachronistically receiving the crown of office from his mother.

Challenges with the Palenque Palace. The Palace at Palenque is challenging foremost for the abovementioned density. The complex does not easily break down into courtyard groups, and is therefore difficult to analyze as one would the other palaces. Also, archaeological work on the Palace has occurred over many years and different projects. It is impossible to recover or process all of these data. Also note, that cordholders, which are important keys to various analyses in the following chapter, are numerous at Palenque totaling 1,116 in the remaining standing architecture (Anderson 1985:23). There are 237 countable cordholders in House E of Palenque alone (Greene Robertson 1985a:37).

Architectural Narrative

The Approach. The Palace at Palenque possesses major entrances on two of its sides: north and west (Figure 5.12). The most formal entrance appears to have been the

northern one. The northern approach is not in a straight line, though one would have passed by the North Group, Temple of the Count, Temple X, and the Ball Court.

On the other hand, the western entrance was approached directly by the long plaza. Walking towards the plaza in this manner, Temple XI would have sat on the left, but have been oriented towards the Palace and not the plaza. On the right, sat Temple XII, Temple XIII, and the Temple of the Inscriptions, in that order, as one moved towards the Palace. Of course, the Temple of the Inscriptions was the funerary monument of the ruler, K'inich Janaab' Pakal. Yet, the House D on the western side of the Palace did not possess a direct entrance into the interior of the complex.

Instead, one would have made one's way up the northern stairs. At its apex sat House A-D. The building was a long range structure, with twelve doorways all leading to one long room that was more of a corridor. Each of the piers between doorways had stucco elements on the exterior face. The two surviving examples are of a figure in an elaborate headdress and one of a *xul* animal. Upon entering the building, one was confronted by the Palace Tablet, which hung on the structure's rear wall. The long text of the tablet relates events "leading to the accession of Kan-Xul II, ruler of Palenque from A.D. 702 to A.D. 711" (Greene Robertson 1985b:55). A throne would have sat under this tablet.

From this building, Greene Robertson (1985b:51) supposes that entrants went eastward and around the northeast corner of the Palace eventually to House A and the East Court (Figure 5.13). House A was another range structure, but instead of a single room was two, one behind the other. The eastern exterior of House A, which would not

have been visible to entrants on this path, consisted of seven doorways whose piers contained a pattern of glyphic inscriptions on the initial outer piers and figural sculptures on the piers closer to the center of the building.

The building was topped by a mansard roof and a roof comb. Figures seated cross-legged on thrones were set into the sides of the roof. The main-entrance, between the central piers was in the shape of a lobed trefoil. Upon entering the front, or east room, one saw thirteen medallion figures set upon the rear, or medial wall each one a portrait bust in a solar cartouche. The sole doorway in this wall was able to be closed by two wooden hinged doors (Greene Robertson 1985b:24).

Passing through this doorway led to the rear, or west room, which was similar to the front room in its corridor-like nature. The medial wall that the two rooms shared possessed four Ik' or T-shaped openings, one of which was a window, one originally a window and then sealed to become a niche, and the other two were always niches. All of the niches were in the western side of the wall. They were five doorways in the western wall, each leading to a stairway that led down to the East Court. This stairway was flanked by human figures, four on the north side and five on the south side, which Greene Robertson (1985b:62) compares to the Danzantes of Monte Alban. An important note: the height of the steps of each of the four stairways that descend into the East Court increased as one went down.

The East Court. The East Court consisted of the aforementioned House A to the east and House A-D to the north. Directly across from House A sat House C, and to the south were Houses B and E, with House E sitting perpendicular to the other buildings and

presenting its shorter, northern side to the court. The biggest court in the Palace, at over 20 meters on a side, sat at the center of the buildings. Interestingly, none of the southern rooms of House A-D could be entered from its northern room and instead had to be entered from this court because the two doorways allowing access had been sealed.

There were four southern rooms, Houses A-D, but only the eastern two are discussed here. The other two are mentioned below in relation to the West Court. The eastern room adjoined Building A, and possessed a single doorway into the East Court. The western room possessed four doorways to the East Court. Neither of these rooms possessed internal features of note. A wide stairway that ran the length of these two rooms facilitated access to the court.

The steps that led to House C had hieroglyphic inscriptions which record K'inich Janaab' Pakal's name and birth date (Greene Robertson 1985a:51). As one crossed the East Court, the eastern side of House C's roof was visible. It was decorated with stucco masks of Witz heads, or zoomorphic mountains, that had human figures in various poses around them. House C originally possessed five doorways on its eastern side, but the outer one on the north side, and the outer two on the southern side had been sealed.

The stucco elements on the eastern side of the piers between the doorways did not survive. Inside the room was another long gallery, though late perpendicular stub walls did affect the spatial layout. The medial wall, or the eastern room's western wall, possessed nine stucco masks laid out in a row, along with two Ik' windows. In the north wall was an Ik' niche, and there was another in the southern portion of the medial wall. A doorway in the southern wall led to House E and the Tower Court discussed below. A

narrow doorway led to the western room of House C, which is discussed with the rest of the West Court.

House B sat in the southern side of the East Court. It was reached by a seven meter wide stairway. Three doorways sat in the northern side of the building. The two central piers possessed sculptures of over life-sized figures in feather headdresses on their northern sides. The three doorways each led to its own room, none of which has surviving interior decoration.

The northeastern room had an Ik' niche in its eastern wall and an Ik' window in its southern wall that it shared with the southeastern room of the structure discussed in the Southeast Court section below. The central room ran all the way through the building, running north-south. It possessed an Ik' window in its southern wall. The northwestern room used to have a narrow doorway in its western wall that led a short way to House E, but this had been sealed.

House E, the oldest structure on the upper terrace of the Palace, is noted for its many unusual features and for housing the Oval Palace Tablet. Two unusual features were viewable from the outside: the building had no roofcomb (the only standing building at Palenque able to make this claim), and imitation stone thatching was placed on the roof mimicking the roofing of the traditional Maya house. House E consisted of five rooms, two rooms each running parallel to one another running north to south and an additional room a southeastern addition.

The northeastern room had a narrow doorway in its north wall leading to the East Court and a wider doorway in its east wall leading to the Southeast Court. There were Ik'

windows in the northern portions of the east and west walls, the first looking outside and the second looking into the northwestern room. There was another one in the southern portion of the western wall that also looked into this room. The southern portion of the eastern wall had an Ik' niche.

The northern portion of this room was decorated by the stucco sculpture of what Stuart (2005:72) has identified as the bicephalic Starry Deer Crocodile, the nocturnal aspect of the Celestial Monster, with each head flanking the doorway, respectively. The piece extended onto the east and west walls. The southern wall had a geometric wall painting. The other rooms of House E as well as its exterior decoration are described on the Tower Court section, because the rooms were more closely tied with that space and the exterior painting is better preserved on the western side of the building. At this point attention turns to the Southeast Court, the other area accessible by the northeastern room of House E.

The Southeast Court. The Southeast Court was rectangular and more of a courtyard in size: the longer north-south side ran less than 10 meters and the shorter east-west side just over five. The west and south sides were bounded by parts of House E discussed earlier, the north side by the rear of House B, and the east side by House F.

House B's southern side faced onto the Southeast Court. This side consisted of two rooms, ones that flanked their northern counterparts. The southeastern room contained a stucco sculpture on its north wall of a stepped-fret motif with supernatural creatures emanating from it. Ik' signs were part of the sculpture, one of which was

actually a window into the northeastern room. There was also an Ik' niche in the eastern wall.

The southwestern room had decorations on its northern and eastern walls and both doorjambs. There was also an Ik' niche in the western wall. The northern wall possessed an elaborate stucco narrative scene of a woman holding an offering in front of a throne with bicephalic Witz heads for legs. An Ik' niche was also in this wall. The eastern wall held a painted mural that is now too obscured to make out. Each doorjamb held a stucco standing figure, one of which is thought by Greene Robertson (1985a:46) to be K'inich Janaab' Pakal.

House F was an elaborate eight-roomed building, that was very late in the construction sequence, "poorly constructed" (Greene Robertson 1985b:84), and is noted for its narrow doorways. The western side that faced the Southeast Court consisted of three rooms. Within the central room a "sanctuary" had been built, its function not clear. The central room also possessed a western exterior doorway and an interior doorway in the western portion of the north wall. There was an cross-shaped niche in the eastern or, rear, wall. The northwestern doorway led to the northwestern room. This room possessed cross-shaped windows in its western and northern walls. There was a sole interior doorway that led to the northeastern room.

The northeastern room had an exterior doorway in its northern wall, and an additional interior doorway in the western portion of its southern wall. There had been an interior doorway in the eastern wall, but it had been sealed. The southeastern doorway

led to the eastern room which was marked by two stub walls protruding from the western wall that partitioned the space.

The southwestern room possessed a western exterior doorway that was flanked on each side by cross-shaped windows. There were two cross-shaped niches in the eastern wall and one in the southern wall. An interior doorway in the southern portion of the eastern wall led to the southern room. The southern room also had an cross-shaped niche in the southern wall. An interior doorway in the northern portion of the eastern wall led to the long southeastern room.

The southeastern room ran almost the entire length of the building, but was partitioned by four stub walls protruding from the east wall. The southern wall possessed an exterior doorway. The northeastern room was portioned out of the southeastern room and was created by inserting two L-shaped walls into the room leaving room for what would be the sole doorway of the room to the south and outside.

House J sat to the east of House F and was the original eastern boundary of the Southeast Court, before House F's construction. The structure abutted House A's southern side and was the same width. But, instead of being of the corridor style like Room A, this building possessed five southern facing rooms.

The northernmost room had a slab bench abutting its northern wall and its sole doorway was very narrow. Moving south, the northern room had an interior doorway in the western part of the southern wall that led to the central room. The central room possessed two benches that look like the legs of the slab bench in the northernmost room, perhaps its slab is simply missing.

The southern room is featureless save for its southern exterior doorway. The southernmost room does not so much possess a southern doorway so much as lack a southern wall.

The Tower Court. The Tower Court was rectangular with its longer side running east-west. The Tower sat on the northern side, House K on the western side, and House I on the southern side, and the western rooms of House E sat on the eastern side. Houses G and H, though not directly on the Tower Court, were immediately south of Houses E and I. House E also contained an entrance to subterranean structures that sat under the palace to the south.

The Tower was three floors high, though the first floor was of limited function. It consisted of a walkway around the central core that supported the floors above. The south side held steps to the second and third floors. The second floor was similar in layout. On the wall of the steps between the second and third floors was painted a venus glyph. On the top level was a bench from “where an observer may have sat while keeping track of the activities within the Palace or where a watchful eye could be kept on the horizon for approaching groups” (Greene Robertson 1985b:80).

Stairs were built up to the tower on its south side. The Tablet of the Orator and Tablet of the Scribe were recovered flanking this stair, and the Tablet of the 96 Glyphs was set at its base. However, Porter (1994) has convincingly argued that last of these was the seat of a composite throne built into the base of the steps. The throne's back screen was the Tablet of Creation, while its legs were the Palenque Intaglios. The legs were inscribed with directional Chaaks, seating the ruler as the center of the universe (Karl

Taube, personal communication, 2011). The south side of the Tower is also posited to have had a stucco scene or mural for which only scant pieces remain (Greene Robertson 1985b:78; Schele 1986:9). At the base of the eastern side there were a series of seven figures, six of which were seated, all using their arms in a gesture.

Abutting the west side of the Tower was a three-roomed building that were bathrooms. Two doorways on the southern side each led to a room. The southwestern room held no internal features save for an internal doorway in the north portion of its eastern wall. This doorway led to the southeastern room which could also be accessed from outside using the other southern doorway. This room had an internal northern doorway that led to the northern room. This room had its northwestern corner portioned into the fourth room. In the floor of the fourth room were holes that led to subterranean architecture where “piles of rock were placed to act as a cesspool” (Greene Robertson 1985b:79).

A set of stairs directly adjacent to the bathrooms, led up to House K. House K was the same width and abutted the southern side of House D. Two doorways, one of which was sealed, allowed entry from the eastern side. The centrally located remaining door led to the east room. The two features of note were an Ik’ niche in the extreme northern portion of the western wall and a stairway in the south that led down to the subterranean architecture discussed below.

A doorway in the southern portion of the western wall led to the southwestern room. This room was L-shaped with its longer side running north-south. This longer side contained two doorways west that led outside and to the west palace stairs. A

doorway in the eastern portion of the west wall also led outside. An internal doorway in the northeastern corner led to the southeast room which was discovered featureless. The northwestern room of House K was not accessible from any of the other rooms of the house. It faced west and possessed five doorways in its western wall in a similar fashion to the western wall of the adjoining House D.

House I sat on the southern end of the Tower Court. Two western doorways led to the single room of the rectangular building. There were also eastern and western doorways, but the western one had been sealed. The exterior of the north wall had the remains of a standing human figure sculpted in stucco. A stucco serpent was set over the interior of the eastern doorway. Greene Robertson (1985b:84) hypothesizes that the serpent is a boa due to its length and multiple coils.

House H used to be the southern border of the Tower Court until the later addition of House I. The building was oriented to both the north and south. The northern room possessed two northern doorways, both leading to a single wide room. There were also three Ik' windows in the north wall, while there were three Ik' niches in the south wall of the room, which was the medial wall of the structure. A slab bench was placed in the eastern end of the room. There were three rooms that faced south, each reached by its own southern exterior doorway. The southwestern one of these contained an entrance down to the subterranean structures next to a bench that Greene Robertson (1985b:92) thought would have been for a guard.

House G sat due east of House H as a twin structure. Both of them had truncated pyramid niches in their vaults near the medial wall. House G also presented two northern

doorways, with Ik' windows on each side of them, but the doorways led to two different rooms. The northwestern room did possess a stub wall emerging from the medial that did partition the space somewhat. The southern room was accessible through three exterior southern doorways, and only possessed a similar stub wall to note here. Houses G and H were conjoined by a few late-added walls. A crude bench was recovered in this area.

The two western rooms House E faced the Tower Court. The western wall best exemplifies the decoration of the building. It was painted white, and had rows of repeating symbolic motifs. The southwestern room is known for housing the Oval Palace Tablet. It also held a large mural on its rear wall, which is not preserved well enough to understand. There were also four Ik' windows in this room.

The southeastern room was entered by a single western door and it contained Ik' windows in its east and west walls. There was an entrance into the subterranean structures in this room. A northeastern door led to another set of rooms one behind the other. The front room held a slab throne in its eastern end, and elaborate wall and cordholder measures to prevent access and observation.

Subterranean Structures. As stated above, there were subterranean structures to be found south of Houses G and H. They could be reached by one of two stairways, one originating in House H and the other in House E. The main structure can be conceived of as three adjacent corridors that ran east-west, which were partitioned into rooms.

The northern corridor was broken into two rooms, each receiving one of the stairways. The northwestern room also contained a hieroglyphic bench with legs against its northern wall. The inscriptions occurred on three sides of the bench (and not the one

against the wall), but the bench is not well preserved. Two southern doorways in the northeastern room led to the central corridor.

The central corridor consisted of four rooms with shared interior doorways. From west to east, the second and fourth rooms contained benches. The second room was small, and contained only the bench. In the fourth room, the bench sat in the northwest corner. The first and fourth rooms contained southern interior doorways that led to the south corridor.

The southern corridor consisted of one long room. The room contained three southern doorways that led outside. One of the piers between doorways contained an Ik' window. The easternmost portion of the northern wall was abutted by a hieroglyphic bench. The inscription included another depiction of the Starry Deer Crocodile (Stuart 2005:Figure 46) like that on a wall of the northeastern room of House E and described above. The glyphs referred to the seating of 9.11.0.0.0, a date in K'inich Janaab' Pakal's rule.

The West Court. The West Court was reached by a narrow path from the Tower Court. The court, while rectangular, was second in size only to the East Court. It was bounded to the south by a set of pillars, to the west by the eastern rooms of House D, to the north by the southwestern rooms of House A-D, and to the east by the western rooms of House C. The three pillars are thought by Greene Robertson (1985b:75) to be all that remains of a two-story structure that was built against the Tower. Each of the three pillars was embellished by stucco sculptural figures. The western pillar has one individual, while the others have two.

Along the base of House D's eastern side were panels of what Greene Robertson (1985b:74) terms *casitas*; stucco sculptures of small houses containing the bust of a human figure. The four rooms of the building's eastern side face into the West Court. The northernmost room was notable for the unusual opening in its northern wall. The opening was big enough to be a doorway, but sat almost a meter above the floor and impossible to use in this manner (Greene Robertson 1985b:33). The room also had an Ik' niche, while the northern room had three of them.

The southernmost room could have been reached from one of two eastern doorways. The room was marked by an Ik' niche in the eastern wall and an Ik' window in the western wall. To the north, an internal doorway led to the southern room. This room was marked by an Ik' niche on the eastern wall and a wall painting on the interior of the western wall, its subject now unrecognizable. Two doorways from House A-D sat on the northern side of the West Court. These both led to the same rectangular room. An internal doorway on the east side of the room led to another rectangular room.

In front of House C sat the east wall of the sunken West Court. On this wall were inscribed multiple instances of glyph blocks. Above this wall and set back, sat House C and its five western facing doorways. The piers between these doorways possessed stucco sculptures of "personages seated lotus fashion on thrones with short legs" (Greene Robertson 1985a:54). On the south side on one of the piers was the sculpted figure of a dwarf, while another had another figure on a throne.

Past the doorways is one wide room, though it possessed a stub wall jutting out from the southern portion of the medial wall, creating a partitioned space there. The walls

of this room were covered in murals. The mural that sat on the medial wall in the partitioned space is the best preserved today. The scene depicts two seated figures holding up bowls filled with serpents and other substances to a third seated figure holding a scepter (Greene Robertson 1985a:61). Painted hieroglyphs accompany this scene. A stucco sculpted figure of a standing figure wearing a headdress had been applied over this mural.

Copan, Honduras

Copan is a site in western Honduras, in the Copan Valley (see Figure 4.2). The site was reported on by Diego Garcia de Palacio in 1576 who was under the auspices of the King of Spain. In 1834, Colonial Juan Galindo visited on behalf of the government of Central America, and Stephens and Catherwood visited in short time. The first archaeology was enacted by Maudslay and commenced in 1885. The Carnegie Institution began various recording and excavation projects in 1920, which ran through 1942.

Modern work on Copan commenced with the separate projects by Willey of the Peabody Museum and Baudez of the French Centre de Recherche Scientifique in the 1970's. Bill Sanders and David Webster, of Pennsylvania State University, took over for Baudez in 1980. William and Barbara Fash, currently of Harvard University, began the Hieroglyphic Stairway Project in 1986 and the Copan Acropolis Archaeological Project in 1988. As part of this project, Will Andrews, of Tulane University and the Middle American Research Institute, began work on different areas of the acropolis in 1990.

The site core of Copan exists nestled against the Copan River . It is so close to the river, in fact, that parts of the site core have been washed away as the river changed course. The site core can be conceived of in two parts, the plazas to the north and the courts to the south (Figure 5.14). The Great Plaza sits northernmost, while the Middle Plaza sits south of it. The Great Plaza is marked by a stela and altar program and the radial pyramid 10L-4. The Middle Plaza is dominated visually by a large ballcourt.

The courts begin south of the Middle Plaza with the Court of the Hieroglyphic Stairway, named for the stairs of 10L-26. Due south of this court are the West and East Courts. Both of these are surrounded by monumental architecture. The West Court is dominated by the temple, Structure 10L-16, while the East Court seems to be focused on the court's northern side and its suite of Structures: 10L-22A, 10L-22, 10L-21A, and 10L-21 as they run from west to east. Structure 10L-22 is the dominant structure of the north side in terms of size.

All of the site core is bounded by elite architectural groups beginning on the west side, continuing around the southern end, and then likely back up the eastern side. The southern area is known as El Cementerio and contains groups that are hypothesized to be palaces.

Reasons for the Palace's Selection. It is apparent that the site core of Copan does not contain a complex palace compound like the other sites in this study. Since the site has a detailed and extensive history of rulers, their palaces must have existed, but in a different spatial form. By including a contrasting example, commonalities between the two can be

viewed as core attributes of palaces, while differences are to be understood as best as the contextual evidence allows.

Deciding on the Copan Palace. A complex easily identifiable as the Copan palace is not apparent. The northern part of the site core possesses none of the architectural complexity that usually marks a palace. The West Court is dominated by temples, Structures 10L-11 and 10L-16. The East Court is a possibility, but has many purely religious themes in its associated sculpture. A sad option are the two-adjointed courts created by Structures 10L-217, 10L-219, and 10L-224 through 10L-229. Most of this architecture has been destroyed by the river.

Webster (2001) holds that the entire site core of Copan, what he terms the Main Group, is the courtly complex, and that royal residences shifted through time within the group. For example, Andrews (2003) believes that Courts A and B of El Cementerio (the 10L-2 group) comprise the palace of Yax Pahsaj Chan Yopat, the 16th ruler of Copan (Figure 5.15).

I also posit that temple, Structure 10L-22 of the East Court, was in actuality the throne building of Waxaklajun Ub'ah K'awil, the 13th ruler of the polity, and the coeval structures around its court were palatial in function. While scholars (Schele and Freidel 1990; Fash 2001) have heretofore considered the structure to be purely religious in function, I believe its morphology is somewhat contradictory to this assessment. And, in truth, less religious functional assessments have been made for the structure, specifically by Sanders (1989). Stuart (1986) indicates that the inscription on the step into the building's inner room, in addition to dedicating the building, point out who the lord's

parents were. The morphological argument for this functional designation is made in Chapter 6, Hypothesis C5.

Challenges with the Copan Palace. The challenges with the Copan palace are the same ones outlined in the above. Copan simply does not possess a clear a palace as Tikal, Palenque, Uaxactun, Holmul, and San Jose do. Even Aguateca, with its palace's boundary issues, possesses an area clearly evocative of the other palaces. El Cementerio does possess a similar morphology, but its secondary location is somewhat unusual and it is somewhat small in relative scale. The East Court is centrally located within the site core, but its architectural layout is somewhat different.

Architectural Narrative to Palace #1: The East Court

The Approach. The East Court was reached by an L-shaped passage from the West Court. The first leg ran east-west and was bounded to the north by temple Structure 10L-16 and to the south by Structure 10L-27. The northern leg ran north-south and was bounded to the east by the rear of temple Structure 10L-16 and on the east by Structure 10L-17. Each of these legs began with walls that were present to help restrict access.

The East Court. The East Court was roughly square in shape and about 30 meters on a side. All of the structures in the court sat high above the court below and were reached by wide ringing steps that ran the western, northern, and eastern sides. The court consisted of Structures 10L-19 through 10L-22 and 10L-25, with there also being

buildings designated 10L-21A and 10L-22A. The court was closed to the south by Structures 10L-16 and 10L-18.

It is important to note that the entire court lies in close proximity to Structure 10L-16. Taube (2004) has demonstrated how this building and its antecedents were dedicated to the dynasty's founding ancestor K'inich Yax K'uk Mo'. Structure 10L-25 sat along the entire western side and was a wide rectangular platform. The northern side ran from west-to-east as Structures 10L-22A, 10L-22, 10L-21A, and 10L-21. Structure 10L-22A is well known for its assessment as a council house, though there is conjecture on this issue. Fash et al. (2002:437) believe that sculptural elements in the form of a woven mat and others of glyphs emblematic of different locales indicate that the building was "where the representatives of the polity's major subdivisions could have a voice." The building faced south and possessed two rooms one behind the other. The front room had three doorways, while the back room was reached through a single wide internal doorway with a step up. A circular altar was placed at this threshold, and what might have been a stone throne back was recovered from the rear room.

Structure 10L-22 was the visually dominant structure of the north side of the court, and was also centered in regard to the court. The superstructure consisted of four rooms, though there was only one external doorway, which faced south. The southern room, was an antechamber with internal doorways to the other three rooms. The western room ran north-south and had a bench at its northern end. A niche sat in the wall behind the bench and there was another niche in the western wall. The western niche became more restricted as it ran west, becoming a narrow window.

The eastern room originally had a narrow passage outside to the east, but this was sealed when Structure 10L-21A was constructed (Trik 1939:91). A low bench was placed in this passageway. The northern room was reached by a step up from the southern room. This step had a hieroglyphic inscription along its entire face that is known for being a very rare instance of the use of the first person. In this case, Waxaklajun Ub'ah K'awil marks the end of a K'atun of rulership. The frame of this doorway possessed the Starry Deer Crocodile (Stuart 2005:72). The room was innocuous except for a niche in the east wall near where it met the north one.

From a hieroglyphic bench recovered from the building, we know that Structure 21A was commissioned by Yax Pahsaj Chan Yopat, to “add his seal of approval to the still revered ‘sacred mountain’” (Fash 2001:168). In general morphology, the structure was similar in form to Structure 10L-22A, though slightly smaller.

Structure 10L-21 has since been lost to the river cut. It was originally a temple with a stepped platform base. On top sat a three-roomed superstructure, with a sole southern external entrance. The main room led to T-shaped chambers on both the east and west sides. The outside of the building was decorated in an interwoven array of obsidian disk eyes, and has been posited by Fash and Fash (1989) to be a *chayim ha*, or House of Knives due to the presence of massive stone blades on its roof.

The east side of the court was comprised of Structures 10L-19 and 10L-20. Both of these have been lost to river erosion but Structure 10L-20 was partially excavated by Maudslay. The excavations revealed a two floor superstructure, the outside of which proved to be very interesting. Fash (2001:130) states that coldholders were found on the

outside of the building and it was decorated in sculptures of bats that had death signs on their chests.

Architectural Narrative to Palace #2: El Cementerio

The Approach. In terms of monumental architecture El Cementerio sat in closest proximity to Structures 10L-16 and 10L-18, both constructed by Yax Pahsaj Chan Yopat. South of temple Structure 10L-16 was the range structure, Structure 10L-27. Immediately south of the range structure was a wide platform. The platform was bounded on the west by the higher West Court platform and on the east by Structure 10L-28. The only other structure on the platform was centrally located, the L-shaped Structure 10L-29. By traveling south between Structures 10L-28 and 10L-29, one would have descended into the Court A of El Cementerio, which sat downhill and secluded from the rest of the site center.

Courtyard A. Courtyard A of El Cementerio consisted of nine buildings, Structures 10L-30 through 10L-33, with the latter designation being further broken into 33, 33N, 33C, and 33S, and Structures 10L-231, 10L-232, 10L-234, and 10L-235. These were situated around a relatively square court measuring almost 30 meters on a side. The court was reached by a wide stair on the northern side. The only structure on the northern side, 10L-235, sat in the northeastern corner. It possessed two rooms side-by-side each with a bench. The building faced south into the court.

The court was dominated by Structure 10L-32 at its southern flank. The building faced north and sat on a wide basal platform. A wide central stair led to the top of the platform, while an additional thinner stair went up to the superstructure. This building was fronted by three doorways. The east and west doorways each led to two-room sequences with one behind the other. The central doorway led to another of these two-room sequences but, in this case the antechamber had two L-shaped spaces to its east and west. This structure sat enough to the west to allow passage from the court.

The eastern side of the court consisted of Structures 10L-30, 10L-31, and 10L-232 from north to south. Structure 10L-30 was a wide two-tiered platform reached by a wide set of stairs on its western side. Structure 10L-31 also had a western stair, but interestingly, the building was situated directly adjacent to 10L-30 meaning it faced the side of that structure and not the court. The building consisted of four rooms, three containing a bench. Structure 10L-232 abutted 10L-31 on its southern wall, and also faced west. The building had a single room with a bench.

The western side was comprised, north to south, by 10L-33N, 10L-33C, 10L-33, and 10L-33S. All of the structures faced east, but Structure 10L-33S also faced the western side of Structure 10L-32. Structures 10L-33N and 10L-33C were reached by a stair that was as wide as both buildings combined. The superstructures' morphology is not clear. Structure 10L-33 was a single room with a C-shaped bench and possessed three niches along its rear wall. Structure 10L-33S was likely four rooms and L-shaped. The two rooms of the western arm faced east, while the rooms of the hypothesized southern arm faced north.

Courtyard B. Courtyard B was more rectangular in shape, with its long side running north-south and measuring well over 30 meters. The width of the court was about 15 meters. The courtyard consisted of eight buildings: 10L-41A-D, through 10L-44 and 10L-86, and 10L-237. The court was open on its southern side, with only a platform, 10L-42 present there.

On the northern side was Structure 10L-43, the tallest building of the court, and one that faced south. It consisted of a basal platform and a superstructure. A stair led to the top of the platform. The superstructure was a two-room sequence with one behind the other.

The eastern side consisted of Structures 10L-41A through 10L-41D; all of these structures sat on the same low platform and faced west, though 10L-41C had doorways on both its western and eastern sides. Structure 10L-41A was northernmost, and was comprised by two rooms: the northern one faced west and possessed a two-armed throne, and the southern one faced south and possessed a bench.

Structure 10L-41B had just one long room that took its entire width that could be reached by two western facing doorways. The room contained a large bench that took up the entire room. Unusually, two piers sat on the bench to support the ceiling vault. The final structure of the eastern side, Structure 10L-41D, also had two western doorways. These led to a single room with another large bench, though this one left room for chambers on each side.

Structure 10L-237 was L-shaped and sat in the northwestern corner. The northern, and shorter side consisted of two adjacent rooms each facing south and possessing a bench. Three rooms with eastern doorways comprised the western arm of the building. Each of these also contained a bench.

Structure 10L-44, to the south, consisted of two buildings. The northern building was three rooms: a central one with an eastern doorway, a northern one reached by the central room, and a southern one with a southern doorway. The central and southern rooms contained benches. The second, southern building had the same morphology except the doorway of the southern room faced east. The final building of the western side, Structure 10L-86, was not well preserved. It faced east, though it may have been L-shaped, and contained two rooms, each with its own eastern doorway and bench.

Conclusions

Each of the palaces used for comparison is important in its own way and necessary in its inclusion. The Central Acropolis at Tikal was massive with a high room count and has already had a functional analysis conducted on its data. At Uaxactun, Structure A-V had one of the most thorough excavation histories of any palace in the Maya area. The San Jose palace exhibits some common morphological characteristics to the Holmul palace, which is interesting given their geographical proximity. Some of the structures in the greater Aguateca palace were abandoned rapidly, leaving behind many primary contexts. The Palace at Palenque has an unparalleled level of preservation in terms of its paint and stucco decoration. The East Court of Copan represents an

intriguing example, where the subsequent analyses help assure the assessment that the area was a palace. El Cementerio can be thought of as the prototypical Copanec palace, which appear to have been ruler or lineage specific.

Chapter 6. Analyses: Conceptual Responses to the Built Environment

In Chapter 2, it was stated that conceptual responses to the architecture hinge on the ability of that architecture to communicate symbolic knowledge. This communication is quickly tied to practice in a recursive relationship because activities are enacted within these communicative spaces. Once time is introduced as a variable, social memory becomes a product of practice within the conceptual landscape, which subsequently supports both the symbolic communication and social practice. In chapter 3, it was shown how key concepts for ancient Maya royalty to convey were lineage, might, ruler as deity, and ruler as social actor.

In this section, eight hypotheses are explored. Hypothesis C1 is that Maya palaces were visually distinct in the landscape and that the unique visage they presented held much meaning to observers. Hypothesis C2 is that palaces were decorated using colors and iconography that symbolically communicated clear ideologies of power and authority. Hypothesis C3 states that the vertical dimension was used to great effect in many contexts within palace architecture to communicate the social hierarchy. Hypothesis C4 is that that structures within Maya palaces were sometimes preserved nearly unchanged for centuries and this was a type of historical preservation with very clear intentions. Hypothesis C5 holds that Maya palaces were amalgamations of segmented spaces and physical cues in the architecture at the borders of the segments indicated that conceptual shifts were necessary as one went from one space to the next. Hypothesis C6 relates to sounds from outside the palace and within. It asserts that these

sounds were controlled in order to keep knowledge in the palace and keep the urban din out. Hypothesis C7 is related except instead of sound, it asserts that lines of sight into the palace were similarly controlled. Finally, Hypothesis C8 is that the paths of movement leading up to palaces are explored to see what they communicated conceptually to potential entrants.

Hypothesis C1: Maya palaces were visually distinct in the landscape, at once a part of a program of monumental architecture, but at the same time different.

Maya palaces were not isolated architectural features existing in a vacuum. In a very real sense they helped comprise a landscape of social order (Knapp and Ashmore 1999:16). Maya royal palaces were located in civic centers along with public plazas and tall temple pyramids. While not attaining the heights of temples, palaces were quite large in footprint, and were of comparable or greater heights than other monumental structures including ceremonial ballcourts. Palaces were linked visually with all of the other civic-ceremonial architecture and public spaces in site centers, given their size and proximity to said architecture. All of these structures and spaces had dynamic and real purposes but also were the backdrop for all of the activities that occurred in and around the city center, serving as a composite reminder of the social order to all.

Holmul. The Holmul palace (see Figure 4.3) sat at the southeast end of the site core. Its two courts bounded what is modernly termed the Main Plaza to the south and west. Due to its position on the Main Plaza it was associated visually with Group I and all of the features of the plaza including stelae and Ruin X. To the northwest and down a slope, sat

Holmul's ballcourt and Group II, the older temple group that had long been sealed and converted to funereal structures.

Tikal. Tikal's Central Acropolis (see Figure 5.1) sat centrally located at the confluence of three of the site's causeways. The paths meant the palace was linked conceptually if not by sight to Temple IV to the west, the twin pyramid groups of Group H to the north, and southeast to Temple VI. The western portion of the palace helped form a plaza along with the North Acropolis to the north, Temple II to the west, and Temple I to the east. The North Acropolis consisted of a dense cluster of temples with a line of associated stelae in front of it. The east portion of the palace was adjacent to the East Plaza.

Uaxactun. Uaxactun Group A-V (see Figure 5.3) was centrally located within the site core and bordered the Main, North, South, and East Plazas in some fashion. The Main Plaza was marked by Structure A-II and a large stela and altar program. Across the North Plaza, a causeway led down a slope to Group B. The South Plaza was bordered to the west by the South Court, a compound of temples and supporting structures. The East Plaza contained Structures A-XV and A-XVIII, both temples.

San Jose. It is somewhat difficult to understand the surrounding landscape of Group C at San Jose (see Figure 5.5) because the map is drawn at very close range not revealing much of the surrounding area. The centrality of the palace is therefore hard to determine. The palace was adjacent to Structure 2, a temple pyramid, as well as the site's ballcourt. Groups A and B of the site sat not far to the east. Group A was a temple group arranged around a plaza. Group B appears to have been residential or administrative in function.

Aguateca. Due to its rugged topography, real estate was at a premium at Aguateca. That the Palace Group (see Figure 5.9) sat at the end of a causeway nestled between a natural slope and the Grieta, says volumes about its importance. The Grieta did however separate the Palace Group from the other monumental architecture at the site's core. It should be noted however, that the Causeway that led to the Palace Group was entered from the Main Plaza of the site.

Palenque. The Palace at Palenque (see Figure 5.11) sat at the far eastern side of the main public space at the site on a huge platform. The Palace was in close proximity to Temples XI, XII, and XIII, as well as the Temple of the Inscriptions. The city aqueduct ran along the Palace's eastern side. The ballcourt sat a short way to the northeast. The urban sprawl of Palenque continued to the east past the Palace.

Copan. Structure 10L-22 at Copan (see Figure 5.14) was centrally located at Copan, but it did possess many paths of access tucked into the East Court. The East Court could only be reached from the West Court and there therefore was a clear association. Structures close to Structure 10L-22 were 10L-20, 10L-21, 10L-21a, 10L-22a, 10L-25.

El Cementerio sat at the southern end of Copan's site core. As such, it was as far from the Great Plaza as one could be in the site core. The groups were in close proximity to the East and West Courts, but they do not sit on the same base platform as those architectural groups, were downhill and secluded, and not really visually striking.

Interpretations

At the Center. All of the palaces under study are centrally located within their sites. They are not, however, all at the center of the center. Only the Tikal and Uaxactun palaces could be considered at the dead centers of their cities. However, a general centrality is inarguable, and is a necessary component of my definition for Maya palaces in chapter three.

The importance of centrality was explored very convincingly by Taube (1998) who argued that rulers were tied to the world center by wearing images of the Jester God. While he ties the *axis mundi* to temples by their censers that symbolized hearths, and I do not disagree with that assessment, I believe that palaces may have also been conceived this way due to the presence of rulers, domestic functions, and most likely, real hearths.

Regardless of the specific symbolic center of a site, palaces at the very least were in the vicinity of this center. The ruler governed from the center outwards, surrounded by his subjects, surrounded further out by competing lords. This position was simultaneously safe and very dangerous; the center of one's territory, but a territory only tenuously possessed. It is no wonder that rulers inhabited the center, but did so in palaces, huge material statements justifying their legitimacy and authority.

Associated Temples. The Holmul palace consists of two adjoining courts, though focus in this work is mostly on Court B. Court A is dominated by a temple pyramid, with that structure as its heart instead of the throne building of Court B. Similarly, the San Jose and Aguateca palaces, as well as Structure 10L-22 at Copan were all abutted by temple

pyramids or groups whose main focus was a temple. At Tikal, the western portion of the palace is adjacent to both Temples I and II. The same proximity was seen at Uaxactun with Structures A-XV and A-XVIII, at Palenque with the Temple of the Inscriptions, and at El Cementerio at Copan with Structures 10L-16 and 10L-18.

The Palenque instance is very informative because we know that the Temple of the Inscriptions was the funerary monument of K'inich Janaab' Pakal, the ruler who had such a great hand in the design of the Palace. The temple was completed by Pakal's son, K'inich Kan B'alam II, who followed inscriptions about his father's life with the story of his own accession. This is similar to the relationship El Cementerio had to Structure 10L-16, the former being Yax Pahsaj Chan Yopat's palace and the latter a temple built over the funerary monument of the dynastic founder, Yax K'uk Mo'. Structure 10L-18 can also be included in this comparison because it is evocative of the Temple of the Inscriptions in form and function, the latter being the funerary monument of Yax Pahsaj Chan Yopat. The similarities are not surprising given that the ruler's mother was from Palenque.

I think this example goes a long way in explaining why temples are often found in proximity to palaces with the justification of authority is here played out spatially. Ancestors' buildings are physically touched by palaces or at least in close proximity. McAnany's (1995; 1998) argument of ancestor veneration as political tool clearly comes into play here. Interestingly, the location of internments has changed, a direct extension of the argument would have the burials below the palace floors. Instead, important

ancestors are held in monumental structures of their own, in what is clearly attributable to the desire to have royal ancestors viewed as deities.

Proximity to Ballcourts. The Central Acropolis at Tikal, Group C at San Jose, and the Palace at Palenque all had ballcourts within a close distance. At Tikal the ballcourt in question sat between the palace and Temple I. To the southeast of Group C at San Jose was the aforementioned temple pyramid followed by the ballcourt in quick succession. At Palenque, the ballcourt sat on the platform directly adjacent to the Palace to the northeast. At Holmul, Uaxactun, Aguateca, and Copan, this was not the case.

It is not surprising that palaces and ballcourts are found near one another because rulers would clearly want to co-opt the ideology associated with the ballgame and its architecture. Schele and Mathews (1998:213) highlight three significant beliefs the ancient Maya had: 1) the ballgame was a metaphor for life and death 2) the ballgame was a metaphor for war 3) the ballcourt was seen as an entrance to the underworld.

Rulers took a very hands on approach to manipulating the first belief by participating in ritual versions of the game where the losers were sacrificed. Here, the difference between life and death is held right in the ruler's hands. Similarly, the war metaphor, more specifically prowess in war, was a way rulers wanted to portray themselves, as was pointed out in chapter three. That the ritual ballgames were made possible by raiding events (for captives) created a direct tie between political power and the ballgame. As for the entrance to the underworld, this would have been one of the most religiously significant spaces in the city. Having the palace in close proximity could be seen as controlling access or intimating that the building itself came from there.

At Causeway Heads. While not the case at Holmul, palaces in this study were often at the confluence of causeways or at their head. This is the case at Tikal, Aguateca, and Uaxactun. If one considers the east-west expanse of space at Palenque's center a principal path of movement, then that site's palace would qualify as well. Structure 10L-22 at Copan was at the end of a path, though it was circuitous in nature and access was controlled along it. Ancient paths are not clear at Holmul, San Jose, or around the El Cementerio group at Copan, but that is not to say they did not exist.

One of the significant results of being associated with causeways was the simultaneous perception of the palace as destination as well as a key node within the city. These concepts would have raised the palace within the urban-goer's consciousness as a navigation tool, but also as one of the components that came to define the city.

Another implication of this association is that the palace would be associated with all of the other nodes within a causeway system and therefore become part of the monumental rhetoric of the city. I am reminded of my undergraduate days at Boston University and my universe was laid out between the Kenmore to Harvard Avenue "T" stations. Kenmore Square and the Harvard Avenue neighborhood that marked the extents of my usual and familiar forays into the city held specific significance, and were also tied together as opposites.

A completely different type of meaning is garnered if we consider the paths in a qualitative sense. This is seen most clearly with Copan Structure 10L-22, which can only be reached by a spiral path originating in the West Court. Of interest is not only the turns

in the path, but also the fact that the width of the path is severely restricted at two instances along the path, which could be considered choke points. It should be noted, however, that this spiral did not develop until late in Copan's history, perhaps when Structure 10L-22 no longer functioned as a palace.

At Holmul there is a similar impedance between Group III (the palace group) and Group I for any east-west traffic. A structure sat between them, although on the map it appears that this structure only ran part of the way between the platforms of the groups, this is due to it having been partially destroyed by the cut for the logging road that runs through the site's center. In antiquity, this structure would have allowed for access to be controlled between the two sides of the site center, even if there was not a proper causeway.

This is evidence that the paths approaching a palace were considered with great care, and at the very least were observable and controlled. This concept is addressed in the behavioral responses section of the dissertation (Chapter 7), but it is of importance here as well. Palaces were not necessarily conceptualized as particularly inviting and access was restricted to a high degree, even if they did sit along and at the end of causeways.

Experience of Royalty. Royals would have identified most closely with their palaces among all the architecture within a site center, because they spent the majority of their time there. That "their place" was at the city's heart would have helped to affirm in their own minds, their position in society. The palace contrasted morphologically with the other structures of the city center, but most strongly with the houses of their subjects

found in the outer urban core and hinterland. Again, this knowledge would act as affirmation.

Presumably, royals would have had a sense of topophilia with their palaces. As the reader will recall from chapter two, topophilia is a concept by Tuan (1974) indicative of an affective tie to place. This sense was created in multiple ways. First, royal ancestors were in close proximity to their ancestors housed in nearby funerary temples. Often, a ballcourt was as well a place of ritual importance, as well as one of sport. As a node at the end of causeways, palaces would beckon to their rulers as they returned from being away because of the uninhibited view they had of their residence on these last roads home.

Experience of Non-Royalty. To an extent, to non-royals palaces would have been associated with, as opposed to being contrasted to, the surrounding architecture of the site center. The civic program of temples and ballcourts included palaces as part of the monumental core, which can be viewed as a symbolic narrative. As a component of the political and religious center of the person's world, palaces helped to order that world conceptually in both of those senses. The ruler was housed there, the same place that held the bridges between the political and religious worlds, which were in no way dichotomized to the ancient Maya.

It is not clear how much direct interaction non-royals would have had with the palace. So, one could envision the palace, at the end of its road, being a place of trepidation or of the unknown. It certainly held power in many forms both ideological

and practical. Was it, as a segregated space, a place of wonder or of dread? The answer is probably both and everything in between.

Hypothesis C2: Palaces were decorated using colors and iconography that communicated clear ideologies of power and authority.

The stucco and plaster facades of ancient Maya monumental architecture were often painted predominantly red (Houston et al. 2009). The inside of palaces are depicted using a much wider spectrum and “provided richly colored backdrops for the dazzling colors of personal adornment” (Houston et al. 2009:84) of rulers and courtiers.

Commonly, the facades of Maya palace buildings were covered in stucco sculptural elements (Schele 1998). Portraits of rulers were also common visual elements of palace contexts, a phenomenon linking them to lineage and dynasty in that portrayals of past rulers remained on display for generations.

Holmul. Evidence of decoration for the Holmul palace is somewhat scant. There is evidence that walls and floors were painted red, but to what extent is not clear. The thrones of Structure 43 were at times red and at others painted black, the however verall programs of their decoration unclear. But, Holmul in terms of color usage appears to have been right in line with what is described above.

Some pieces of sculpture were recovered from the tumble around Structure 43. The most notable of which (Figure 6.1) was described by excavators as a “tenoned depiction of a mat motif surmounted by a tied bundle of feathers or hair, and fragments

with sets of parallel grooves possibly indicating the feathers of a headdress” (Estrada-Belli 2002:10). Another hypothesis is that the piece is a belt element from frontally facing figurine (Karl Taube, personal communication, 2011). Obviously, this piece can be described as containing royal iconography. As stated in chapter three, mat designs are a simple of nobility. Ornate feathered headdress are a similar symbol. Overall, with what little evidence survives, I do believe the Holmul palace abided by the general motifs seen in other Maya palaces.

Tikal. Harrison (1999:111) states that “decoration on the surface of walls of a temple or palace was very rare at Tikal” though this is likely a preservation issue and counterexamples do remain. Harrison (1970:89) himself refers to the extreme complexity of exterior, upper-zone decoration of the structures of the Central Acropolis. Structure 5D-57 has a carved panel of the ruler Jasaw Chan K’awil I in his battle armor (Harrison 1999:Figure 76). Structure 5D-52 possessed carved eyes of K’inich Ahau in this position. Its Lintel 2 exhibited a lord being attended by a dwarf and cormorants. I believe that Harrison must be referring to surviving decoration, which would not be unusual for a Petén area site and the level of preservation they tend to exhibit. From the ornate stela and other lintels recovered from Tikal, it is unlikely that the site and its palace did not possess the paint and stucco decoration of other palaces.

Uaxactun. At Uaxactun, the A-V group had the remains of exterior stucco decoration in its tumble and most of its interior walls and floors were painted red (Smith 1950:83). Elements included a jaguar face and hieroglyphic writing. It should also be noted that

two stelae were re-erected at the primary entrance of the palace after being removed from other locations.

San Jose. Decorative stucco elements were recovered in the tumble outside of Structures C-4 and C-6 (Thompson 1939:43). The elements from Structure C-4 were painted red, except for one example, the lower half of a human face, which exhibited red, yellow, and green paints. Similar elements were found in the inside of the building, as well. A small human eye and lower jaw elements were recovered from Structure C-6.

Aguateca. Red painted floors were found in the center, east, and easternmost rooms of Structure M7-22, while the easternmost room of the structure had a red-painted bench (Inomata and Ponciano 2010:33-37). There were traces of red paint recovered from the floors of Structure M7-32, as well.

Palenque. As seen in the previous chapter, the Palace at Palenque had immense amounts of painted and carved stucco decoration on both the interiors and exteriors of the buildings, the full extent of which cannot be recounted here. There were also numerous glyphic texts in place. The colors and symbolism used also ranged widely within the Palace, from all red buildings to House E with its white walls and rows of iconography.

Themes of the Palace decoration include statements of accession, military prowess, and religious themes of primordial origin. To name but a single example for each: the Oval Palace Tablet depicts Janaab' Pakal with his mother, an obvious accession statement. Captives are depicted on the sides of House A. Finally, House D has

decorative symbolism that invokes Matwiil, the place of dynastic origin (Stuart and Stuart 2008:161).

Copan. Fash (2001:122) states that Structure 10L-22 has long been considered Copan's most beautiful. It had traces of red and blue paint on its exterior, which had been repainted up to 25 times (Triak 1939:99). Carved Cauac Monsters and Maize Gods also decorated the exterior. Also, "the façade of the structure once featured a great reptilian monster mouth at its entrance" (Schele and Miller 1986:145). The inner doorway was decorated with a Starry Deer Crocodile like those found in the Palenque palace (Stuart 2005:72).

Andrews and Fash (1992:67) describe the decoration found associated with Structure 10L-32 of El Cementerio:

[it] bore sculpture on the upper building facades, perhaps on part of the lower register flanking the central doorway, and possibly on the upper stage of the platform. The dominant motifs on the building were six seated male figures, each associated with a long-nosed monster head. The male figures depict a young individual who may be the noble for whom the structure was built; only one head from one of these six figures is known.

These decorative elements are closely related to those of Structure 10L-16, the burial location of Yax K'uk Mo' (Karl Taube, personal communication, 2011). There were also waterlily decorative elements on the roof and both waterlily and snub-nosed monster masks on the sides of the building. Structure 10L-29 also possessed a heavily decorated exterior, the particular elements of which, led Andrews and Fash (1992:72) to conclude that the building was an ancestor temple.

Interpretations

It is clear that the decorative programs of Maya palaces were integral to their meaning. It is a pity that these programs do not survive in all of their glory; they must have been truly stunning.

Use of Color. The use of the color red would have contrasted strongly with the natural landscape (see Miller in Houston et al. 2009:72), while also reducing glare from the formerly white plaster (Schele 1985:37). The color red was sometimes achieved using specular hematite, especially for floors, which resulted in a subtle sparkling effect when viewed. Citing David Stuart, Schele (1985) linked the use of this red exterior paint to a complex of hieroglyphic symbols that represent blood, and by extension, lineage and dynasty. More recently, Houston et al. (2009:30) point out that the Mayan word for red (*chak*) relates to such concepts as big and great. Obviously, these are symbolic ties that would relate directly to the rhetoric of divine kingship, and would have been dominant in the views of palatial architecture.

Use of Stucco. Most carved stucco usage was on the roofs or roof combs of palace buildings. These elements would have primarily depicted religious themes of rulers, deities, supernatural creatures, and elements corresponding to the politico-religious tales of which they were a part. It is important to note that in such adornments, rulers invariably linked themselves to these sacred themes in efforts to validate their power.

Royal Portraits. Portraits of rulers, as seen on the exterior of structures at Copan and Tikal, and on the interiors of buildings at Palenque were frequent. Sometimes, these representations were even moved to palace contexts later in their use histories. Relating the image of the ruler, both past and present, directly to the palatial architecture had multiple impacts including reinforcing a justification of authority based on lineage history. It also tied the ruler to the building even when the ruler was not physically present or visible.

Experience of Royalty. Color for royalty had to be an interesting concept because, from birth, life was so full of it. Clothing and headdresses were richly adorned and colorful, and jade and shell jewelry was worn. That all of the palace buildings used these same colors to communicate the similar symbolism as the other items, would have just furthered the ubiquitous of color. The link between adornment and architecture would have helped tether royalty to the space as well as help to ingrain the personal belief of divinity in that royals looked similar to the depictions of supernaturals, often intentionally.

Royals had to have had a confirmation of their status and legitimacy by viewing the stucco depictions of their ancestors. Additionally, they themselves were depicted and portrayed at key historical moments of their political lives or during important ritual behavior. Palaces became literal texts that told the story of the universe and their place in it.

Experience of Non-Royalty. For non-royals, the color schemes of palaces would have mimicked the rest of the monumental site core, and would have provided a great and dramatic contrast to anywhere else in the world to a non-royal. The jungle environment only provides snippets of intense colors, in the pedals of a flower or the plumage of a bird for example and was not close at hand. The city centers had to be awe-inspiring in their use of color, not only because of their vibrancy, but also because painted stucco and plaster was a labor intensive endeavor, and therefore a sign of wealth.

Not knowing how much access non-royals had to the insides of palaces, the focus here is the carved and molded stucco exteriors of palaces. Roof combs and upper zone wall decoration would have been visible from some distance away. Unlike hieroglyphic inscriptions, the iconography used would have been easily understood as it was repeated throughout the site core. The synthesis of religious and political symbols would have gone a long way in asserting the social hierarchy and naturalizing it.

Hypothesis C3: The vertical dimension was used to great effect in many contexts within palace architecture to communicate the social hierarchy.

Many artistic representations of ancient Maya rulers provide insight into how the Maya considered socially hierarchical relationships in a spatial sense. As in our society, high, up, and above in spatial senses signaled authority and power. Recall from Chapter 3 that the ancient Maya put great importance on the head of the body, for example, choosing to place emblems of royalty there as a place of prominence. Its position at the top of the body was well recognized. Also previously mentioned, Houston (1998:343)

exhibited the ancient Maya concept of verticality representing social hierarchy in artistic renditions. Two examples depicted on architecture can be seen from Palenque. One is the Oval Palace Tablet where the ruler Janaab' Pakal is seen in a dominant position over his mother who is handing him a crown. Also, depicted on the western side of House C, within the palace, are six lords captured in AD 659 (Martin and Grube 2000:164). The key to their representation is that they are at the base of the structure simultaneously acting as a symbolic base for power and literally depicted offering upward gestures of submission. There are also many ceramic cylinder vases where the ruler is depicted in various activities with those lower in the social hierarchy in subordinate spatial positions (Reents-Budet 2001:213).

In the following section on behavioral responses, this principle of verticality is explored in how it affected human movement. For this section, discussion will pertain only to the overall height of palaces and how that affected the built landscape.

Holmul. The Holmul palace rose at least 8.5 meters over the plaza below (Figure 6.2). This figure does not account for roof vaulting or roof combs as none remained, though there was definite evidence for the former. The real height, then, could have risen an additional two to three meters. Of the three main groups at the site, Group III, the palace group was the lowest in height.

Tikal. Looking north, the Central Acropolis towered almost 30 meters over the plaza below (Harrison 1970:59). This was due to Court 5D-3's Structure 5D-52 and its five stories. Other courts did have buildings that rivaled it in height while not having as many

stories, due to having been constructed on top of previous architecture. Structures 5D-62 and 5D-65 of Court 5D-2 rose nearly as high over the floor below. In contrast, the highest temple at Tikal, Temple IV rose over 70 meters (Coe 1999:123).

Uaxactun. Group A was the second highest set of structures at the site, with only Group G taller. The two story Construction C of Structure A-V was estimated to have risen about 16 meters over the lower East Court (Smith 1950: Fig.73). Constructions L and P reached a similar, though lower heights. Alternatively, Structure A-XVIII, a temple rose over 19 meters in height (Smith 1937:26).

San Jose. Structure C-4, with its second story, was the tallest of the excavated palace structures at San Jose. Its reconstructed height was about 10 meters (Thompson 1939:18). The unexcavated Structure 8 had an elevation of 12 meters. The pyramid temple, Structure 3, had an unexcavated elevation of 15 meters.

Aguateca. Structure M7-32, one of the main palace buildings at Aguateca has an estimated re-constructed height of over five meters (Inomata et al. 2001:297), not including the platform on which it rests. Information for temple architecture is scant, though it is known that the unfinished L8-8 temple, rose to a height of six meters while not its intended final height (Inomata et al. 2004:800).

Palenque. The tallest building within the Palace is, of course, the Tower. The Tower rose four stories, the first of which reached over 5 meters in height (Greene Robertson 1985b:77). The overall height of the Tower reached 18 meters (Stuart and Stuart

2008:24). None of the other palace buildings came anywhere close to rivaling the Tower in height. All of the other buildings were of a similar height, about 10 to 12 meters, save House E, which lacked a roof comb. In contrast, the nearby Temple of the Inscriptions rose over 35 meters in height.

Copan. Structure 10L-22 sat on a six meter high terrace that bordered the East Court. The structure itself rose, in its unexcavated form in 1935, an additional seven meters (Triak 1939:88). Therefore, a cautious estimate of 13 meters in height over the court below seems appropriate.

For the El Cementerio group, height data are not readily available. Structure 10L-29 was hypothesized to be 8 meters tall (Andrews and Fash 1992:75). The other main focus of the group, Structure 10L-32, did not appear to attain the height of its counterpart.

Interpretations

Heights of palaces are consistently monumental in size, but always lower than the temples in their cities. Based on the available evidence, five meters may be considered an absolute minimum for the tallest palace building, including its sub-structure. Palace buildings tended to be of a similar height to each other within a site, though the marked protrusions of the Tower at Palenque and the Five Story Palace at Tikal are notable exceptions. Temples are consistently taller than palaces; I would attribute this fact to the idea that palaces were a place of daily business and it would have been highly impractical to require people to consistently climb the stairs that one views on temples.

Experience of Royalty. For royals, the monumental heights of palace architecture served to confirm its place within the social order. Having buildings that reached closer to the heavens fit with their ideology as far as being and having proximity to the divine. As is seen in the final section of this chapter, this notion of vertical superiority was executed to evoke emotional responses as well. Royals' buildings towered over the houses of everyone else, even other elite lords. Rulers on their thrones towering over visitors as they sat on the floor, compares directly to this concept and is explored in Hypothesis E4.

Experience of Non-Royalty. The monumental height of palaces helped to confer in people's minds that this ostensibly political building was in fact a place of divine power. Palaces were the synthesis of house and temple. Their heights must have also conveyed a sense of grandeur to the average city-goer. While not attaining the heights of temples, these buildings were in constant use; a living monumentality that was directly associated to those at the top of their social hierarchy.

Hypothesis C4: Within ancient Maya palaces, certain structures are retained and maintained due to their historical significance.

Holmul. There is one very clear example of historical retention in the Holmul palace. Structure 62, which contained only a single room, Room 5, was a standalone structure. All of the surrounding architecture abutted this building and was subsequently abutted by

later structures. Special stairs had to be constructed in order to retain access to the building as the palace grew up around it.

The architectural style of the building is markedly different than all of the other known buildings within the palace, utilizing many small bricks for the walls instead of bricks that varied greatly in size some of which could be quite large, which is what is seen elsewhere in the palace (Figure 6.3). Additionally, the building had one of the lowest reconstructible vaults at the site, similar to a room vault found in the Protoclassic Group II (Merwin and Vaillant 1932:57). The earlier age of the building may also be inferred from the three distinct phases of the room's bench.

Tikal. At Tikal, the epitome of historic preservation within the Central Acropolis is Chak Tok Ich'aak I's throne building, Structure 5D-46. Harrison (1970:12) states that this was the only building of the palace to not be buried by later construction. This building was in use without major alteration for over 400 years, and even interloping rulers declined to modify or destroy it (Harrison 1999:78). While this is an extraordinary case in the level of ancient Maya preservation, the overall phenomenon of sequential courts in the Central Acropolis is indicative that some level of preservation was always in play.

Uaxactun. The construction history of Structure A-V at Uaxactun was impressively reconstructed by Tatiana Proskouriakoff in a series of drawings (Smith 1950:Figures 2-5). The original structures, Constructions A, B, and C, were simple two-roomed buildings with one room sitting behind the other. These were arrayed around a courtyard that was open to the south. The buildings stayed in use virtually unaltered from Smith's

Vault Ic period to the Vault IIa period, a span of over 200 years. Constructions A and B were eventually expanded and modified to be most unlike their original forms.

Construction C, on the other hand, went without major alterations from the Late Preclassic to the site's abandonment in the Terminal Classic.

San Jose. San Jose Structure C-4 provides another interesting example of ancient Maya historical preservation. The building's first phase was marked by the single unit that contained Rooms K, M, and O. The building was changed by adding Rooms A-H around the platform upon which this unit sat, essentially creating a two story structure by adding a first floor.

Obviously, the retention of the Rooms K, M, O suite was important, as later additions were built around the rooms and not over them. I should also add that this was not an easy task, as the roofs of the new rooms were higher than the plinths of the old rooms by more than half of a meter (Thompson 1939:55). This fact necessitated that all of the floors associated with the original building, both internal and external, had to be raised.

Aguateca. Seemingly, there are no examples from Aguateca that support this argument for ancient historical preservation. The site was built up over a relatively short period of time, and subsequently rapidly abandoned long before preservation strategies could be undertaken. However, if one considers the abandonment strategy, there is evidence in favor of the present argument. Inomata (1997:342) states that the defensive walls erected formed a set of concentric rings around the Palace Group. The clear focus was on

protecting the palace, and it is a safe conclusion that the hope was that these structures would be unharmed and continue their role in the urban landscape.

Palenque. Like the Central Acropolis at Tikal, the Palace at Palenque also has a structure that went through a very long occupation without much alteration. In the Palenque case, the example is House E. It was the oldest known building in the Palace, dedicated in November of 654 AD. The alterations that were made by later rulers were minor and are viewed by Stuart and Stuart (2008:156) to have been efforts to link to the former king. There were also multiple entrances left open to subterranean structures under the Palace. These structures, while having been built over, were still incorporated into the Palace's functioning, most likely for their historical significance.

Copan. The changes made to the 10L-32 courtyard in El Cementerio seem to mimic what was observed at Uaxactun in that relatively simple buildings were retained, but became more complex. In this case, Andrews and Fash (1992:63) note that the buildings were originally domestic in nature and became more devoted to ritual and public functions through time.

Structure 10L-22 was constructed by Waxaklajun Ub'ah K'awil, and contained a monument celebrating his first katun of rulership. This structure was also largely unchanged through time, and it is posited by Mary Miller and Linda Schele that it was used by Waxaklajun Ub'ah K'awil and later rulers for bloodletting rituals (Fash 2001:123). It is not clear whether the untimely death of the 13th ruler at the hands of rival

Quirigua imbued the structure with even more significance than it already would have had, but it is not hard to believe so.

Interpretations

There appear to be two complementary phenomena in play in terms of utilizing buildings for their historical significance. The first is that important structures often went unchanged for immensely long periods of time. The examples brought to bear from Holmul, Uaxactun, and San Jose are all of buildings where great care and, at times, expense were undertaken so that structures were retained as part of the palace evocation. These palaces underwent substantial morphological changes through time, but there were structures inside them where this was absolutely not the case.

The second phenomenon is similar in that buildings were preserved for long times, up to hundreds of years. But, in this case, there is the understanding in these cases that the buildings were also strongly tied to specific individual historical figures, rulers. This occurrence is evident at Tikal, Palenque, and both examples from Copan. For example, House E at Copan retained all of the decorative trappings of Janaab' Pakal long after his death. Not only was the throne building preserved, but it was *his*. It should be noted that it is likely that the examples from the preceding paragraph fall into this category as well, except their ties to particular individuals have been lost with time.

Experience of Royalty. For royalty, these buildings would have evoked feelings of history and lineage; a bloodline to the past expressed in stone. The building would not

have simply belonged to a ruler from an era in the past. That person would have been great-grandfather. This tie is a stronger one than is described below for non-royals. There could be no stronger justification for controlling the space that was the palace, or the seat of authority it represented.

With a widespread and strong cultural focus on ancestor worship, it seems very likely that royals would have engaged in ritual endeavors towards such worship within and around these buildings preserved for their history. I cannot think of a more apt location for a conjuring ritual whose goal was the council of an ancestor.

Experience of Non-Royalty. The use of historical preservation would have had very interesting effects upon non-royals. Ancient Maya royalty spent a great deal of effort tying itself to supernatural beings and the mythical past from whence they came. By maintaining structures in existence for longer than a human lifetime, and having them tied to people who actually existed, but no longer exist, it becomes easier to blur the lines between history and mythical history, between men and gods. The structures must be in use for longer than a lifetime so that they exist in the social memory of multiple generations of the community thus enabling significance of the past.

It is not known how much interaction non-royals would have had with these “buildings of history.” They tended to be obscured within the surrounding palimpsest of construction even though they went unscathed by the newer buildings. Further complicating their use with the general populace is that they were firmly planted in the ground and could not simply be brought out to more public areas, such as perhaps a famous warrior’s armor, or an ancient ruler’s headdress. Perhaps processions were

brought to these spaces on certain occasions, or simply knowledge of their presence, even if not at first hand, was enough to have the intended effect.

Hypothesis C5: Maya palaces were broken into different segmented spaces for functional reasons, and this differentiation was marked by physical cues in the architecture that prompted such a conceptual shift was necessary.

What becomes quickly obvious when looking at the plans of ancient Maya palaces is that they were courtyard based. A central courtyard was in place and it was also abutted by courtyards and sequences of them. The result was a high number of segmented spaces. Segmented spaces here are defined as ones that are separated and potentially conceptually and/or functionally different (Kent 1990). If Eco (1980) is correct in his assertion that architectural cues are in place to communicate precisely this type of change, then we would expect to see these cues in place at the borders of two segments.

Holmul.

The Central Precinct. The sole entrance to the Central Precinct was on the eastern side of the palace, which was also the main entrance to the palace (see Figure 4.5; Figure 6.4). The precinct's main features are the central courtyard of the palace, and the throne rooms within Structure 43. To gain entrance to the Central Precinct from the plaza level outside of the palace, one first would have had to use a formal path which contains multiple changes in height. First, a wide stairway would lead up to an open archway, and

having passed through that one would have descended another stair down to the main courtyard.

This stair-archway-stair sequence was a set of behavioral cues. Note that moving through the zone requires multiple changes in vertical height and passing through what in essence is a framed space. Also, when one was at the apex, one would have been visible to the sovereign on the throne. After passing through the zone, would one have had access to all of the activities that occurred within the courtyard space and the buildings that adjoin it to the north and south.

Access to the throne rooms within Structure 43, actually requires passing through a second set of cues. This first phase of this zone required crossing the courtyard, while being visible to everyone in the buildings that ring the courtyard and also those in the throne room. Subsequently, another stair needed to be ascended followed by entering an antechamber which signaled the subsequent throne room. The antechamber contains two L-shaped benches in the corners, which may have been for retainers.

The throne room, then, required passing through two sets of cues in a very formal approach and path of movement. As previously stated, the spaces contain changes in vertical height. Symbolic architecture is present in that the archway serves no practical purpose other than as anchor points for a mechanism that closed access such as a door or curtain.

The North Precinct. Entrance to this precinct began with a restricted entrance to a hallway (Room 23), connoting another behavioral cue (see Figure 4.6). The eastern entrance was small and indirect which communicated an impending change in space

usage. The hallway itself contained no roof and was fairly wide with two Rooms (19 and 17/9) off its north side before leading to an archway to the west (Room 22). The morphology of the two rooms is similar, a good indication that they had the comparable functions. Each room contained a bench facing the doorway. One room possessed another bench, but this one faced west, towards the first bench.

The Northwest Precinct. As stated above, there was an archway (Room 22) at the western end of the hallway. This archway acted as a behavioral cue, as the room morphologies on one side of the archway do not match those on the other. Through the archway, the hallway opens into a small courtyard (Room 29) with rooms to the north (Room 24) and south (Room B1) and closed off to the west by a tall wall. Room 24 was long and rectangular with a bench that runs its length.

Room B1 was part of Structure 43, and contained a throne with arms. There were two raised areas on either side of the throne, possibly for storage, although a similar area in the northern room of Structure 43 contained a burial. The entranceway to the room has two small niches near the floor that held either incense or fire for light as there was evidence of burning inside them.

The Western Precinct. The Western, or rear, precinct was very interesting, though this is more for the behavioral cue at its border, rather than any morphological feature. The Northern Precinct did not allow access, as a wall prevented this. Along the south side of the palace, it is believed that the only means of access was a tunnel that ran under the southern portion of Structure 43. This tunnel measures 68cm wide. For the most part, the walls of the tunnel consist of outer walls of structures that were in use during a

previous phase of construction. Because of this, the tunnel is not straight, but instead is offset or Z-shaped. Possessing a vaulted roof, the tunnel was a very restricted path in the palace. It was not wide enough to allow the passage of more than one person simultaneously. The person could not have been adorned in a wide headdress or backrack either. That it was narrow indicates that it did not act as the conduit between a staging and dance performance area. The combination of roof vault and offset path resulted in the need for artificial light to pass through the tunnel easily regardless of the time of day. Access to this part of the palace was intensely restricted due to the tunnel, and clearly not many regularly passed through it.

From the western end of the tunnel, a right turn leads to a courtyard whose main structure is on the north side. This orientation was perpendicular to the main palace building, and can be considered to have a much different function. Only two of the structures within this precinct were excavated. One was the main courtyard structure on the north side, Structure 65. This building contained two rooms side by side, Rooms 25 and 26. The eastern room contains a rectangular bench taking up the entire room. The western room contained no internal permanent features, and may have been for storage.

A comparison between this building and Structure 43, the other central focus of a courtyard in the palace, highlights some key differences. First, this structure is not differentiated vertically. Also, it does not possess the symmetry that Structure 43 does, and lacks thrones. However, it was much more difficult both to gain access to the Western Precinct or even gain a vantage point where it would have been possible to observe the activities occurring there.

There were buildings along the western side of the courtyard, but an excavation revealed no such structures on the eastern side. This absence of structures along this side aided in the perceived separation between the Central and Western precincts. Sound from the Western precinct was less likely to drift into the throne room since the activities would have been oriented away from the boundary between the two areas.

Tikal. The Central Acropolis of Tikal was clearly delineated into six different courts. In many cases the access routes between courts were marked by additional features that may have acted as conceptual cues. The clearest example was the path between Courts 5D-2 and 5D-3, which was restricted by what Harrison (1970:187) termed a “masonry gateway” at its western end and a “masonry screen” at its eastern end. A masonry gateway consists of walls constructed to narrow a passage. A masonry screen acts more as a baffle in that the walls are staggered.

Uaxactun. For the most part, Structure A-V at Uaxactun can be viewed as one court nestled inside a larger court. To gain entrance to this palace, one had to pass through Construction M, which had doors at its front and back. I refer to this type of structure as a gateway building and it should not be confused with Harrison’s masonry gateways. Having to pass through a building definitely would create conceptual shifts in terms of the surrounding space.

After passing through the structure, one was in the South Court. To again entrance to the Main Court, one had to descend a stair, and then navigate Constructions G, H, and I. Construction G, for a time, was a gateway structure. Also for a time, it was

possible to pass between the buildings. Either passage could have cued the conceptual changes necessary to enter the Main Court. To enter Construction L, the main throne building, one was prevented from climbing the middle of stairs as a platform jutted out. Forcing indirect access also may have been a cue.

San Jose. The San Jose palace clearly consisted of two conjoined courtyards. Presumably there would have been behavioral cues at the entrances to the courtyards, but these entrances were not excavated. However, Structure C-5, which sat in between the two courts and was excavated. One could pass through the structure, from Room A to Room E, to get from courtyard to the other. This path was not linear. Also, one doorway to the south led to three doorways to the north. The non-linearity, change in doorway number, and having to pass through a building all would have been behavioral cues. The building can be described as the gateway type.

Aguateca. The most obvious case of architectural cues with the greater Aguateca palace had to do with separating the Causeway from the structures that bordered it. Structures M7-34, M8-10, and M8-11 all had buffering walls that sat between the Causeway and the buildings. A similar wall may be viewed at the south end of the Causeway as well.

The structures that sat in the Causeway near the Palace Group, Structures M7-29, M7-30, and M7-35, may have cued the conceptual changes necessary to entrance the inner sanctums of the ruler. The first two structures may have been paired and their placement indicative of exactly where the line between segmented spaces existed.

Within the Palace Group the only obvious architectural cue was the extra tier of platforms that existed in front of Structures M7-22 and M7-32. This additional layer may have been the conceptual cue. It may have also marked the line of segmentation between engaging with and not engaging with one of the two buildings.

Palenque.

The Entrance and the East Court. If one recalls from Chapter 4, Greene Robertson's path for entrance to the Palace at Palenque required two turns and exposure to the Oval Palace Tablet, all of which were behavioral cues differentiating the inside of the Palace from the outside.

To exit the East Court, one climbed a stairway and entered one of two restricted northern doorways of House E. Alternatively, one could walk the narrow path between Houses B and E into the labyrinthine spaces of Houses F, G, and J. The path contained an Ik' window on each side.

The West Court. The West Court could have been entered by walking through House C beginning on its eastern side. This would have necessitated passing through a very restricted doorway with a protruding stub wall on its western side. The stairs down into the court were offset almost seeming to require navigation around the stub wall.

The Tower Court. To reach the Tower Court one had three choices. The first was to pass around the northeastern corner of the Tower from the West Court. Another was to pass along the narrow path adjacently east of House K. Further east a formal stair led

into the court. The final way was to exit one of the western entrances of House E and take a wide short set of stairs down into the court.

Subterranean Chambers. One of the entrances to the subterranean chambers was in the southwestern room of House E. It was surrounded on three sides by windows. The other entrance was in the western room of House H; the room was so small that its sole function appears to have been housing the entrance to the chambers below. As previously mentioned, a bench was also stationed at the entrance.

Copan. During the reign of Yax Pahsaj Chan Yopat, the sole path to the East Court contained two sequential masonry screens, which in addition to controlling traffic, may have acted as conceptual cues. These screens consisted of walls that constricted the path to the court. Crossing their thresholds may have signaled that one was in the territory of the palace. The entrance to Structure 10L-22 was very ornate. As mentioned in Chapter 3, the frame of the inner doorway was in the shape of a Starry Deer Crocodile. This decorative element certainly evoked certain religious and political concepts upon being viewed. As a doorway, its threshold may have also acted as a conceptual border.

The internal morphology of Structure 10L-22 of a rear room with antechamber, flanked by adjoining (or adjacent) and perpendicular rooms is similar to that seen in many other throne buildings. This was the layout of Structure 43 at Holmul, Structure C-4 at San Jose, Construction L at Uaxactun, the eastern side of Structure 5D-46 at Tikal, Structure M7-32 at Aguateca, and Structure 10L-32 at Copan.

The group based around Structure 10L-32 and its courtyard, on the other hand, were a relatively simple architectural arrangement. Other than Structure 10L-29, which

existed outside of the group and clearly held its own functions, there was not a lot of complexity. The main entrance, to the north, was marked by a wide set of stairs. More interestingly, the final approach to Structure 10L-32 was marked by two sets of stairs. All of these stairs could have acted as conceptual cues.

Interpretations

Palaces were set up into precincts, each distinct from one another. The spaces are morphologically and functionally different and the shift from one to another is marked by what I term a “transitional zone”. These zones communicated the change from one precinct to another and probably indicated that behavioral changes were expected.

Edmund Leach (2001) refers to the concept of liminal zones as areas between sacred and profane spaces that both signal that change and possess qualities of both spaces. Liminal zones aid a person in the psychological and behavioral changes that are necessary to act appropriately in the sacred space.

Transitional zones are similar in that they communicate changes in the functions of spaces that require a difference in cognition and behavior. They differ in that they do not necessarily signal a change to the sacred, but instead communicate any strong functional difference between two spaces. These zones are marked by architectural features some as simple as a doorway or step. Others are as complex as archways and tunnels. They often obstruct, inhibit, or restrict movement in some way and require at least a slight change in the type of movement that is made (a turn, a duck, a step up or

down). The importance of transitional zones lies in their communicative aspect and how they signal changes in the use of space.

Experience of Royalty. The conceptual cues for royalty may have served to indicate more about changes in designated function from one space to another than anything else. To live in highly segmented space, as we do in our society, is not a particularly unusual system. That the segmentation was ingrained at such a deep level (in the layout of the bricks themselves) may have seemed stifling to royals, but the ancient Maya commonly re-modeled. The most interesting question is whether the architectural cues continued to have impact for those who routinely encountered them.

Experience of Non-Royalty. It is safe to assume that particular mindsets were desired for those that entered a palace. These conceptual shifts were cued by the architecture as one passed through it. As each threshold was crossed deeper into the palace, a non-royal was made aware of each crossing. These cues would have most obviously served to reinforce the social hierarchy. Some cues may have in fact cued a denial of access, in which case there was the forced understanding that some areas of the palace and the activities that occurred within them were outside the body of knowledge.

Hypothesis C6: Sounds from within the palace and outside of it were controlled in efforts to control bodies of knowledge that related directly to ideas of authority and legitimacy.

When considering the relationship of sound to power, it is easiest to think of it in terms of the control of information. Maya royals would want some sounds to go unheard by all but a few, and, in terms of privacy, there were some sounds they would not have wanted to hear. Obviously, there are other sounds (e.g. music, song, pronouncements, royal decrees) that the rulers would want well communicated.

The first element to consider is preventing unwanted sounds from outside of the palace from being heard inside. Palaces are often in close proximity to the rest of the civic center and therefore would be exposed to two types of elements. One is termed drone, a constant layer of stable pitch with no noticeable variation in intensity (Augoyard and Torgue 2006:40). This sound would be created by the constant activity that goes on in any city center, ancient or modern. Markets, religious ceremonies, celebrations, construction and repair, and conversations of hundreds or thousands of people at once would have combined for a drone effect.

A far more difficult set of sound effects to deal with are called incursions. These are effects that refer to unexpected sound events that modify the climate of a moment (Augoyard and Torgue 2006:65). Anything occurring unexpectedly in the sound environment would create an incursion. In contemporary Western culture, the ringing of a phone would be the epitome. In ancient Maya cities, examples might be the calls of

kept birds or the crash after a tumpline has broken. The Bonampak murals tell us that music and the cries of tortured captives were also an occasional issue.

Incursions can lead to an effect known as decontextualization. Augoyard and Torgue (2006:37) define this term as an incongruous intervention of sounds into an environment of different or unknown expectations. Essentially these are sounds heard that do not belong to that environment. Private sounds in a public space or vice versa would both be examples. In terms of privacy, Maya royals would want some sounds they produced not heard, and would likewise not want some outside sounds to enter the palace walls. The competing desires arise in conjunction with attempting to communicate power from a space and the architecture constructed there. How palace designers worked to lessen these aversive sound effects will be discussed below.

To ease discussion, I have distinguished two types of sound filters. First, a closed filter is an attempt to block sound substantially or completely. These are usually walls. Second, an obscuring filter has the same goals, but concessions are made to allow some movement of the sound through the space. Two almost ubiquitous filters in Maya palaces are their foundational platforms and the use of curtains. The platforms serve to lift the buildings up and create some distance from the plaza level below. All of the palace examples under study here sat on platforms that lifted them up.

Curtains in doorways could have been closed, and depending on the material from which they were made, some degree of sound would have been kept out. Evidence for curtains is the presence of cord holders, which are widespread in Maya palace

architecture, but not always noted on plans. Below, the presence of cord holders is noted when the data recorded by the original excavators allow for it.

Holmul. There are two clear examples of closed filters in the Holmul palace. The first is a sealed hallway that connected Room 1 to the courtyard of Rooms 5, 6, and 8 (see Figure 4.6). When the hallway was open there would have been no filter from outside the palace into the courtyard, because Room 1 possessed doorways on its north and south sides. What is interesting is that the closure is much thicker than is seen with any other door closures observed in the site core of Holmul. The other closed filter separated Room 29, which was actually a courtyard, from the western precinct (see Figure 4.6). In fact, that is the only purpose of the wall, as it is a non-load bearing one. The preserved height of the wall was well over head height, reaching almost three meters.

Obscuring filters occur at both the main entrance of the Holmul palace (see Figure 4.6, just south of Room 6) and the entrance to the supposed royal quarters (the aforementioned Z-shaped tunnel). Obscuring filters are coupled into transition zones presumably to help keep the sounds of each place within that space. Transition zones are discussed in great detail later in the chapter, but for now understand that I argue that ancient Maya palaces are broken very clearly into segmented spaces, and that on the borders of the spaces there are architectural features that mark them. Sound filters were coupled with these architectural features or were created because of them.

The obscuring filter in the main entrance is created by an archway and would have aided in keeping sounds from outside of the palace out. The last two obscuring filters were walls within rooms that were added well after the initial construction of the

room. One created Rooms 9 and 17 from a single room, and the other created a small space in Room B1 of the main throne building. This second example was originally the arm of a throne that was subsequently built upwards.

Cord holders were recovered from the doorways of Rooms B1, B2, Phase 2 of B3, 7, 22 (the Archway), and 24. Merwin (1911:58) drew the plan and section of a cord holder next to a sketch of Room 5, but it is not clear if the cord holder was associated with this room. Otherwise, none of the early Holmul work notes their presence, though they may have existed.

Tikal. The Central Acropolis at Tikal also contains many closed filters. Interestingly, they predominantly comprise the rear or medial walls of a structure. Therefore, these filters would have kept sound out of the central areas of the palace, but rooms near the outer limits probably would have been exposed to outside sound as the filters would not have been entirely effective in their immediate vicinity. Because the primary function of these walls is to be part of buildings, it is hard to know how important their filtering qualities were. The only closed filter that is not a load-bearing wall is located in the southeast corner of the palace in Structure 5D-48 (see Figure 5.2). It was created by the sealing of an inner doorway that originally had allowed an unimpeded path from outside of the palace into Court 5D-6. However, its effects must have been minimal as it is flanked on each side by similar doorways that were not sealed.

Four obscuring sound filters are known in the Central Acropolis at Tikal. Each is created due to a restriction of space by the construction of walls. An example of this would be a narrow hallway. The aforementioned baffles identified by Harrison (2001:91)

as restricting people's movement may also have restricted the travel of sound, though it is not clear how high the baffles were built. Three of the four obscuring filters are located around Court 5D-3, the innermost and most private of the palace courtyards. Again, these examples demonstrate how access and sound restriction are intertwined for they are created by the same architectural features.

Harrison (1970:174) states that the "apertures that served as curtain holders on the interior sides of doorways, on the wall near the door jambs above the floor and below the lintel, were noted in every exterior doorway of the Central Acropolis." So, then cord holders were an omnipresent obscuring filter across Tikal's palace.

Uaxactun. In terms of the outer areas of Structure A-V, Constructions M, R, and W could be considered as sound filters as their construction obstructed sound from traveling further into the palace. Only Construction R could be considered a closed filter in that its long eastern wall contained no doorways.

Within the central area, the examples of freestanding walls that as discussed later in the chapter affect movement, also had an impact on sound. The north side, or rear, of Construction H had a non-load bearing wall projected north. The spaces between Constructions H, G, and I were originally constricted by stone additions, and eventually sealed altogether. These filters shifted from obscuring to closed. Similar additions were to be found on the east side of Construction I.

Freestanding walls placed in Patios 2 and 3 would have closed access from the north side of the palace to the Main Court, and also would have acted as closed filters.

Patio 8, which adjoined Patio 2, had constricting elements placed on its east and south walls, and these would have acted as obscuring filters.

Smith (1950:78) notes that cord holders “were in the walls of many rooms” in Uaxactun; unfortunately their exact positions are not noted in the excavation report.

San Jose. The rear wall of Structure C-7 indicates that the range buildings of the palace may have acted as closed filters. The building contained no western entrances, the side of the building which faces away from the interior of the palace. Structures C-8, C-9, and C-10 may have been similarly constructed.

Room A of Structure C-4 had an interesting history in terms of sound filtering. It was first abutted by the aforementioned stone addition which shifted the eastern entrance of the room to instead face south. In addition to closing any view of the room, the addition would have acted as an obscuring sound filter. Subsequently, the entrance was sealed creating a closed filter.

Cord holders were observed in Structure C-4, Rooms B, C, D, F, H, and K. Room C had cord holders associated with all three of its entrances. Structure C-5 had cord holders in two of its rooms: Rooms B and C. Both rooms of Structure C-6 also had cord holders.

Aguateca. Due to the tight focus of excavations at Aguateca on mounds and their immediate vicinity, no real filters of either type were observable. The east room of Structure M7-22 contained cord holders as did the center room of Structure M7-32. These cord holders were not of the form seen in the other palace examples. The first

example appears to have been constructed of a semi-circular chinking stone that protruded from the wall (Inomata and Ponciano 2010:36). The second example appears to have been semi-circular shafts drilled directly into the bricks of the wall.

Palenque. One can almost draw an unbroken line around three sides of the Palace due to the medial walls of Houses J, A, A-D, D, and K. These walls would have acted as closed filters to the interior spaces of the palace. On the final, southern side there is a similar filtering system. It consisted of the medial walls of Houses G and H which were subsequently connected by stub walls. Other than these examples, there are simple obscuring filters created by protruding stub walls on the eastern side of House I and the north side of House F.

As mentioned in the previous chapter, House E possessed 237 cord holders. This number is a little misleading because at Palenque they used cord holders on both the interior and exterior, above the vault spring and below it, and associated with doorways and not. The use of textiles in the Palenque Palace had to be visually impressive. Most of the knowledge of the Palace cord holders comes from a study by Anderson (1985), as shown in the following table of his:

Table 6.1: Cord Holders at the Palace at Palenque

Location	# of Cord Holders Associated w/ Doorways
House A	6
House B	18
House C	6
House D	9
House A-D	2
House E	38
House F	0
House G	7
House H	24
House I	0
Subterranean Structures	19
The Tower	6

Copan. The East Court of Copan is somewhat buttressed from sound in that it was raised high above plaza level and had the river on its eastern side. Additionally, Structure 10L-16 sat as an obscuring filter on the court's southwestern side. The single path to the structures contained obscuring filters at two different points, as well as a left-hand turn which would have served to break up sound waves traveling in.

Structure 10L-22 had cord holders associated with its rooms, but even more interestingly, they sat between rooms as well as between rooms and the outside. The entrance to the building possessed cord holders. The eastern and western doorways of the southern room, which led to other rooms also had them. Interestingly, it does not appear as though Structure 10L-22a, the Council House, had them.

Interpretations

Closed filters were not very common in ancient Maya palaces, though there are examples. Clear examples such as non-load bearing walls were only at Holmul, Uaxactun, and Palenque. The medial or rear walls of outer structures may have also qualified as closed filters. Obscuring filters, that were not cord holders, were far more common, occurring everywhere but Aguateca. That they were not found there leaves one to wonder if filters are more often associated with a palimpsest, and that it took many years of use and change to begin enacting filtering strategies. It must be said that they filtering strategies are all on a relatively small scale, and that more elaborate measures were not undertaken is also important.

Cord holders were a virtually ubiquitous component of ancient Maya palace buildings. Every palace in the study possessed them, though, it should be stated that the degree to which they were employed varied greatly. At Palenque, where they appeared to be utilized as utilitarian components of decorative programs whereas at Tikal, where they were a part of every external doorway, or to examples like Holmul and San Jose where their use was seemingly more limited.

Experience of Royalty. The presence of closed and obscuring filters exhibits that ancient Maya royalty was concerned with sound penetration in both directions. Walls were put up and direct connections were obscured. This was enacted even in the planning stages, as the layout of palaces allowed for their outer buildings to act as filters.

Through the presence of cord holders, royalty could engage an obscuring filter at will. Sounds from inside would be less likely overheard, and incursions and drone from outside would be somewhat dampened the degree to which being dependent on the type of material used. The presence of cord holders is direct evidence that ancient Maya royalty desired some degree of control over the human senses.

Experience of Non-Royalty. Another reason closed and obscuring filters were in place was precisely to limit the sensory perceptions of non-royals. Palaces were conceptualized by non-royals, at least in part, as a place of mystery. Or, even if they could reasonably guess what occurred within, they were also left to guess the details of those activities. For example, it must have been known that feasts were held, but exactly how sumptuous they were was left to the imagination. The palace was an unbroken façade from inside where only glimpses and whispers were to be had.

It is unlikely that cord holders within the palaces played much of a role in what non-royals heard. Though, as stated for royalty, it would have been more difficult to overhear the sounds of royalty. Also, if one were attempting to contact them, it may have necessitated a raised voice if the curtains were closed, creating an interesting dilemma for the non-royal. The closed curtains would seemingly indicate “do not disturb,” and to do so required the will and courage to raise one’s voice and risk potential ire.

Hypothesis C7: Sightlines into palaces were controlled in order to control the sight of some with the ultimate goal being the control of knowledge.

Vision must be controlled for privacy to exist. This can be done with fixed features such as walls or semi-fixed ones such as doors and curtains. This section looks at how much of a palace was visible from the outside. This also refers to how much of a palace it would have been possible to navigate only by prior experience in the space. In other words, how many spaces of a palace were hidden and a mental pathway through them only possible to develop through direct interaction. To qualify, a space needed to be invisible from any entrances from the outside as well as from the initial palace courtyard that would have been encountered upon entering. These parameters ensure the spaces were not seen from the outside or cursory visits to outlying areas of the palace.

Holmul. Many of the Holmul palace rooms and courtyards were not visible from outside. Although, the palace did have out-facing rooms on its northern and eastern sides. None of the other rooms in the palace were visible to the outside. From the main courtyard, Room B2 of Structure 43 would have been visible as well as the western rooms of Structure 57, the northern rooms of Structure 60, and the southern rooms of Structure 74. The rest of the palace rooms would not have been visible from this courtyard. More complete excavations might reveal that even for an individual who had been granted access to the main courtyard, more than 50% of the Holmul palace would still have remained unknown and private in this sense.

Tikal. Similarly, Tikal's palace has many rooms that are not visible from outside or from one of the entrances to the palace. The outside rooms on the south side of the palace only would have been visible from Temple V and even then it is not clear how visible they would have been given the distance. As the courts are nested, it is not surprising that the innermost ones, Courts 5D-2 and 5D-3 contain the most hidden rooms.

What is noteworthy is that visual access to the throne building with the oldest dynastic significance at Tikal, Structure 5D-46 in the aforementioned Court 5D-6, was not more restricted, with subsequent building programs adding construction west of Structure 5D-46 instead of enveloping it completely from view from the outside. As later rulers had their thrones within subsequent courtyards to the west, this early structure and its courtyard held great symbolic value in communicating the origins of royal power and justifying its authority, as discussed above in the section on historical significance. The ancient Maya rulers of Tikal, through time, recognized this and allowed Structure 5D-46 to continue to resonate visually.

Uaxactun. Like the palaces at Holmul and Tikal, Uaxactun's Structure A-V was ringed with rooms that faced the outside, but permitted little of a further view inside. However, Room 48 of Construction N may have been visible from the southwest and the upper stories and rooms of Construction Q would have been viewable from the east. From the south, one could have looked north through Rooms 36 and 53 into the South and from there through Rooms 13 and 14 into the Main Court. None of the other sides provided this sort of view. Interestingly, from the South Court which was the initial court in this

case, the internal morphology would not have been much clearer, with only Constructions H and I newly apparent.

San Jose. Understanding the San Jose palace in terms of views in, is somewhat difficult. The entrance to the palace is unknown and the range structures on its eastern and southern sides have not been excavated so their room morphology is unknown. We can, however, make assessments based on which rooms were invisible from outside of the palace. Only the doorways of Rooms F and H of Structure C-4 could be seen from the outside. Though, the rooms of the second floor, Rooms K, M, and O may have also been visible given their height. For Structure C-5, only the doorways to Rooms D and perhaps, G would have been visible. The other sixteen palace rooms exposed through excavations were not visible from the outside. Of these sixteen, only eight were visible from within the southern, and presumably initial, courtyard.

Aguateca. If we consider the Aguateca palace to have been the whole of the Palace Group and the structures found along the Causeway, then very little of the palace was visible from the outside. The rest of the site spread out to the west, and the Grieta came between it and the palace. Of the Palace Group, Structure M7-31 did face west, but it was a temple. None of the rooms of its neighbor, Structure M7-32 faced west and one western facing room of Structure M7-22 may have been visible. As one made his/her way up the Causeway, various rooms to the east would have come in and out of view. Structure M7-35 would have been visible and eventually the rooms of Structure M7-22. Interestingly, the Palace Group is centered around a slightly sunken courtyard and only a

slight shift in verticality was employed (the sub-structure of Structure M7-22) to prevent viewing.

Palenque. If we consider, as Greene Robertson (1985b:51) does, that the first court encountered in the Palace would have been the East Court, then much of the rest of the palace architecture was not visible. All of the West and Tower Courts, were so, though of course the upper tiers of the Tower would have been known to all. The West Court included the western rooms of House C and the interior rooms of House D. This included Houses E and I of the Tower Court, though one room of House E was visible from the East Court. The southern rooms of House B, the northern rooms of Houses G and H, and all of House F also would have been invisible, as were all of the subterranean rooms.

Also of interest is that most of the outward-facing rooms of the Palace were not divided up into smaller units instead remaining very long. I believe this indicates that they were more corridors than rooms, and their lack of privacy was much less of an issue. What is of even greater interest was the frequent presence of Ik' windows throughout the Palace. These windows allowed for views into the buildings as well as intervisibility between them. However, the design of the windows, t-shaped as opposed to square or rectangular, meant they were fairly restricted in the views they granted, especially from a distance.

Copan. The Structure 10L-22 case at Copan is very interesting. If we consider “outside the palace” to be the West Court and Middle and Great Plazas, then the entire palace was

invisible. Only the initial east-west path along Structure 10L-27 would have been visible.

If we consider that space its initial court, then all rooms were still invisible.

Alternatively, many rooms from the structures of the East Court were visible from that court.

Only two rooms of the Group 10L-2 structures were visible from the outside, they both belonged to Structure 10L-32, one of which was the main throne room. This picture completely changes from the first court encountered as virtually all rooms were visible from there.

Interpretations

Much of palace architecture, especially its inner courts, were not visible to anyone outside of the palace. This is mainly due to the structures having been centered around single points, courtyards, and therefore pointed in instead of out. The only visible rooms were usually the outward facing rooms of an outermost ring. Holmul, Tikal, Uaxactun, Palenque, and El Cementerio Group at Copan all made use of these rings to prevent views inside, and San Jose may have as well. At Palenque, there were no Ik' windows in the outermost buildings that granted views within. Aguateca and Copan's Structure 10L-22 used a different pattern. In these cases, long approaches were used to prevent viewing. This was the pattern at the La Milpa and Cancuen palaces as well, although they used sequential courts instead of the more simple long approaches. The San Bartolo palace could also be described as having a linear pattern.

Even from initial courtyards, not much of palaces were viewable. Though, often the main throne room of a palace or its antechamber became visible. This was the case at Holmul, San Jose, and El Cementerio at Copan. It was true at Uaxactun for a time, before they sealed up the view. It was also the case at Aguateca once someone was far enough down the Causeway.

Experience of Royalty. Royalty would have been the one social group with access to the entire palace. This level of intimacy and knowledge was a body of knowledge presumably held by only a few outside of this social group, retainers for example. That the layout of the palace was unknown to most, but known familiarly by royals was a form of power. These spaces were tied to activities and occasions, which formed memories entwined with the spaces. The level of privacy afforded to royalty may have also had great effects on their behavior. The public image of royalty is as a warrior and a god. The semi-private image, as displayed in the ceramics, is of someone much less formal, for example as someone who partakes of drink and food to excess.

Experience of Non-Royalty. Non-royal personages who had no access to the palace would have had little idea of what the palace looked like inside. Since initial courtyards offered little additional knowledge, even some entrants who were held in this initial space would have only gained a limited understanding. This lack of knowledge most likely served two purposes. The inner areas of a palace, as a space, were kept in the unknown to the average Maya and therefore more easily ascribed with power and sacred significance. The second purpose was to keep the day-to-day activities of the palace

hidden from view and therefore knowledge. These proceedings would have held high political and religious value and were therefore intimately known by only those who had access to the entire palace.

Retainers in this sense are of great interest since they were present in all the spaces of the palace as is shown on polychrome cylinder vases. Their presence ensured their knowledge of both the palace morphology and activities. Yet, there must have been a social commitment in place that ranged in formality from something to an oath to a mutual understanding that this knowledge would not be spread.

Hypothesis C8: Paths of movement leading up to Maya palaces were controlled in terms of what a potential entrant saw in order to communicate themes of power and authority.

Also important is how vision was controlled along major paths of movement in the vicinity of and within the palace, because actors within palace contexts would not have been motionless, and designers would have to do more than control a single vantage point. Of course, as Maya city centers were palimpsests built over time, and with multiple foci, it would be a mistake to think that the layout of a site was specifically designed to orchestrate movement to the palace. Yet, there is no denying the importance of what was viewable by potential entrants while on their approach.

Holmul. The Holmul palace has a steep slope on its western side due to the natural topography, which is augmented further by the height of the palace's base platform (over 4.5 m) and subsequent constructions. This slope would have impeded movement to the

palace, and potential entrants would have had to approach instead from the east or northwest. The most likely entrance to the palace proper was from the east, and was also the most direct. This path would have taken a person by the pyramidal Ruin X and Court A of Group III with its central temple, with the massive Group I looming all the while in the peripheral vision (see Figure 4.3).

Approaches from the northwest would have brought one by the site's ballcourt up to a curious building. During the Classic period, a structure blocked passage between the southwest corner of Group I and the northeast corner of Group III, Court B. As described previously, it is obscured on the current map because it was effectively cut in half by a modern logging road. When the structure was whole, it may have acted as behavioral cue marking a transition in space into the site's main plaza. In both cases, the approaches are messages helping to describe the power of the palace's residents.

Tikal. Instead of approaching directly from the west, the Central Acropolis possesses no obvious western oriented entrance; potential visitors using the Tozzer Causeway would have had to swing up to the Northern Acropolis and approach southwardly in between Temples I and II. What we see, then, is a formal entrance that required movement through the religious and political statements made by the stelae and temples of the North Acropolis.

Uaxactun. While the Uaxactun palace had entrances on all four sides, and all of these were observed by outward facing rooms or platforms, only one, the southern entrance led into the most central areas of the palace. As it is directly across from the main throne

room, it was also likely the main entrance. Interestingly, this entrance faced the relatively barren South Plaza instead of the Main Plaza to the west with its temples, stelae, and altars. Of course, it is possible that the South Plaza was reached by passing through the Main Plaza, in a manner similar to the one hypothesized for Tikal.

San Jose. It is not clear if the San Jose palace was entered from the south or east. Either way, potential entrants would have passed by the site's ballcourt and Structure 3, the adjacent temple. In truth, the site core of San Jose was not overly complex or built up. It is interesting that Group A, what appears to have been the ceremonial focus of the city, and the palace are not linked in any overt way; in fact, Group A has quite a closed feel.

Aguateca. From the Main Plaza one would have passed between temple Structures L8-5 and L8-6 in order to cross the Grieta. These structures were clearly part of the civic-ceremonial core. Structure L8-5 had five stelae and seven altars in front of it. After crossing the Grieta, one turned northeast up the Causeway. To the left would have been low platforms concealing the Grieta, while to the right would have been the elite buildings that I suppose were extended palace structures.

Palenque. If Greene Robertson is correct and the main entrance to the Palace was to the north, then entrants approached from the plaza in that direction. Passing by the North Group and the Temple of the Count, and subsequently Temple X and the Ball Court, one would have climbed low wide stairs to reach the platform in front of the Palace. Potential entrants may have also approached from the west, as the Palace has quite a large stair on

that side, and the path proposed by Greene Robertson would only need to be extended by a turn through House D before reaching House A-D. In this case, one would have passed by the Temple of the Inscriptions and Temples XI, XII, and XIII. The Tower would have loomed over potential visitors regardless of the direction of approach.

Copan. To gain access to either Structure 10L-22 in the East Court or Structure 10L-32 in El Cementerio, one likely began in the West Court. The rear of Structure 10L-11, an ancestral shrine to the lineage founder Yax K'uk Mo' (Fash 2001:168), would have been visible. Structure 10L-16 with its additional references to Yax K'uk Mo', and its associated Altar Q with its portrayal of royal lineage, sat on the eastern side of the West Court. By moving east, in a northerly manner one would reach the East Court. By doing the same in a southerly manner, one would reach El Cementerio.

Interpretations

Approaches to palaces consistently put potential entrants through portions of the public space of the site. The particular spaces often contained temples, stelae, and altars. As mentioned above, these structures acted as an iconographic rhetoric justifying legitimacy and authority by tying to concepts of lineage, deification, and military prowess.

Experience of Royalty. That the approach to the Maya palace was a possible narrative of power, speaks to the efforts at creating a timeless appearance to the very narrative. The seat of royal power was approached through history (the tombs and stelae of former

rulers) and a type of “everpresent” (the temples of deities). Royalty, as they ventured towards their palace, were reminded of their ancestors and their special place in the heavens.

Experience of Non-Royalty. Non-royals were taken on almost a processional journey on their way to the palace. On the way, they were presented a unique narrative that related to the authority of the ruler. The narrative was unique that every city held a different one at its core. Therefore, the approach to the palace would have communicated effectively to residents of the home city, by being comprised of tombs and stelae of people woven into the local history, and to visitors by being comprised of pan-Maya themes.

Conclusions

In conclusion, ancient Maya palaces were used to communicate symbolic information that was integral to justifying their position in the social hierarchy. The symbolism tied directly to large programs of ideological rhetoric employed not only by rulership to ensure legitimacy and authority, but the society as a whole in their religious practice.

The importance of lineage was communicated by using images of ancestors in the decorative motifs of palaces. More subtly, the extensive use of the color red also expressed this theme. Palaces often were built close to funeral temples, which connected the interred to the living political claims. Some palace structures were also historically

preserved through decades and even centuries to evoke social memories about particular ancestors.

The might of rulership was also communicated through palaces. The color red was also a symbol of greatness, and palaces were themselves large and made use of the vertical dimension. Palaces often were in the central area of an urban center and were at the ends of causeways, making very direct claims over these spaces and control over them. Proximity to ballcourts also connected rulership to strength through the use of a formal version of the ballgame, which was an act of ritualized warfare. The historically preserved buildings also likely originally belonged to successful rulers, success probably necessitating military prowess. Finally, rulers were portrayed directly as warriors as were their spoils (captives).

Rulers were deities and of a different order than everyone else and this was communicated symbolically. Simply being located in a palace accomplished this since palaces were unique in the landscape in terms of their size, shape, and decoration. More specifically, some decorative motifs related directly to the supernatural. Proximity to ballcourts and temples also evoked deification. That mundane noises and actions could conceivably be held from public consumption through sound and sightline filtering also helped rulers to appear as different and otherworldly.

In terms of the ruler as a social actor, there are clearly two main themes. First, palaces were obviously the perfect symbolically imbued setting for the political, religious, and domestic activities of royalty. Palaces did not simply act as backdrop, instead they enriched the activities of royalty with deeper meaning. Second, as stated

above, not all activities of royalty were observable. The ones that were perceivable therefore held particular meanings that served to secure the social hierarchy. Activities are handled in much more depth in the following section.

The experience of royalty in terms of conceptions drawn from palaces was one of differentiation and affirmation. As shown above, many features of palace architecture were in place to make claims of legitimacy and authority. From birth, a ruler would have his place in the social order symbolically communicated through the material palace. That this communication was likely intermeshed with affective ties to the spaces made it even more effective and permeating.

Non-royals, on the other hand, were made to understand their lower position in the social hierarchy. Palace architecture was the rhetoric of rulership made material. Non-royals were exposed to concepts that they were lower, smaller, and unworthy of knowledge. Palaces were likely not inviting and instead viewed as places of power and mystery.

Chapter 7. Analyses: Behavioral Responses to the Built Environment

Behavioral responses, as discussed in Chapter 2, are ones cued by elements in the built environment or through the morphology of the architecture. It is through this system of cuing that spaces become defined as territories with specific associated functions. The role of the cues is to promote the specific functions of the territory to those interacting within the space. The cues can also discourage specific behaviors or access.

In this section five hypotheses are explored. Hypothesis B1 is concerned how views out from the palace across the site would have affected behavior through observation. Similarly, Hypothesis B2 states that approaches to the palace were especially watched. Hypothesis B3 explores how sounds originating in the palace changed behavior. The final two hypotheses have to do with access and how people were controlled in terms of entering the palaces or occupying certain spaces within them. Hypothesis B4 measures this in a quantitative sense by using a measure known as control value. Hypothesis B5 looks at the behavior required to access different areas of the palace based on the architectural morphology.

Hypothesis B1: Maya palaces were granted commanding views of their respective cities, and they were designed in ways to augment the ability to view out. The ability to observe behavior ensured it was conducted in the manner that royals desired.

Analysis of the viewshed from a palace out across the rest of the city, or “views out,” concentrates on spaces where views out from the palace were given wide or significant sightlines, what de Certeau (1984:36) called panoptic practice. Palace inhabitants were seemingly granted special purviews that were particularly large and wide in scope. I suggest that these perspectives emanating from the palace were –ichnal writ large across the urban landscape.

Holmul. The north and east sides of the Holmul palace possess rooms that face out away from the palace, and therefore represent initiating points for a viewshed away from the palace (Merwin and Vaillant 1932; Mongelluzzo 2005). The east side, on which sits the main entrance, possesses seven rooms that face out, yielding multiple opportunities to observe potential entrants to the palace from different observation posts (see Figure 4.6). The entrance stairway is capped by a platform that would have also provided a view out. The north side also had at least four outward facing rooms. Additionally, there is a stair in the northwest corner, adjacent and to the east of Room 25 that led to a platform whose sole purpose may have been to provide a lookout to the north for the suite of rooms tucked away there. Views to the north would have looked out onto Group I and the path that led to the site’s ballcourt and eventually Group II, all of the other major civic components of Holmul.

Tikal. The Central Acropolis of Tikal, the palace for this great center, possesses outward facing buildings on all but its western side. These buildings are predominantly range structures with multiple doorways that are parallel to each other and facing the same direction. The potential views out are numerous and create redundancies with one another indicating an almost panoptic scenario. The North Acropolis and the adjacent Maler Causeway to the north, the Mendez Causeway to the east, and Temple V and the Palace Reservoir to the south were all clearly observable from the Central Acropolis.

Uaxactun. Structure A-V at Uaxactun had outward facing buildings on its northern, western, and southern sides. Construction W looked north, Construction R looked west, and Construction M looked south. The eastern side was bordered by a long platform, but a two-story building, Construction Q, did look out in that direction from the inner courtyard of structures. The Uaxactun Palace looked out over the North, Main, and South plazas, what amounted to much of the public space of the city.

San Jose. The San Jose palace does not have strong views out to the north or west, though these directions appear to be away from the site center. The unexcavated range structures on the eastern and southern sides likely had many outward facing doorways. This is more likely true in that the San Jose palace has other morphological similarities to the Holmul palace, including throne room design and adjacent temple, and the latter did have outward facing doorways. The range structures, if they had outward facing rooms, looked out at Groups A and B. It is difficult to know if there was anything else of note, as the site map only notes the main groups.

Aguateca. Range structures sat on the northern and eastern sides of the Palace Group with their many outward facing doorways. Interestingly, the rest of the site core sat to the west, and the palace did not have a range structure facing this direction. However, the Grieta sat on this side and this may have impacted the desire for observation.

Palenque. The Palace at Palenque, with its long hallways of many doors on its northern, eastern, and western sides, very much had the appearance of an entity with many eyes peering out. Twelve doorways were on the northern and western sides respectively, while there were seven on the eastern side. The Palace looked out over plazas to the north and west. Of course, the Tower, with its third floor observation bench, must have provided sweeping views in all directions of the city, and it, in turn, as a possible observation post, was highly viewable rising out from the rest of the palace architecture.

Copan. Structure 10L-22 and the surrounding structures had many views out. All of the buildings that bordered the East Court faced up onto it. While these views would not have granted wide perspectives on the city, palace entrants would have been keenly observed.

At El Cementerio, the main palace structure, Structure 10L-32 had an uninterrupted view out. However, the extent of this view would have simply been to the back side of Structure 10L-27 to the north and not really granted a powerful vista.

Interpretations

Many of the palaces exhibited outward facing buildings on multiple sides. This was true at Holmul, Tikal, Uaxactun, Aguateca, and possibly San Jose. These palaces all had rooms whose sole function could have been to house an observer. At Palenque, the outward facing rooms functioned more likely as hallways, that did not lead to manned rooms. Perhaps the façade of panopticism was enough to affect behavior. The most important conclusion is that palace morphology was not simply focused in, but also focused out onto the surrounding site.

Experience of Royalty. The palace, as the seat of political power, possessed an observational layout that was a strong indicator that royals were keenly interested in having at least a symbolic eye on the surrounding community and its behavior. Royals lived and worked in a set of buildings that were simultaneously inward and outward looking. This second feature would have reminded them both of their obligations and their power.

Experience of Non-Royalty. Much of public space was observable from ancient Maya palaces. Knowledge that the palace and its inhabitants were looming must have impacted people's behavior in public space especially around the palace. Like Foucault's prison tower, it would not have been easy to know which doorways were manned, or even if they were, if the person was keenly observing. Therefore, the assumption had to be that surveillance was always taking place.

Hypothesis B2: Approaches to Maya palaces were observed in the immediate vicinity of palace entrances to ensure appropriate behavior.

As described previously, palaces had a panoptic effect due to their many outfacing rooms. Many areas of the site core would have felt a potentially watchful eye cast over them. The appearance of surveillance was even more pronounced at and around palace entrances. Obviously, one function would have been to control access to the palace. Another would have been to cue appropriate behavioral changes in both potential entrants and passersby.

Holmul. The main, eastern, entrance to the Holmul palace was flanked by rooms, three to the north and four to the south (see Figure 4.27). Three of these contained forward facing benches where someone seated on the bench would have observed someone approaching. None of the other sides of the Holmul palace appear to have contained entrances.

Tikal. Comparing the Holmul palace again with the Central Acropolis of Tikal, the earlier analysis of views out provides some insight into paths approaching the palace. As previously stated there are multiple views out from the northern, southern, and eastern sides providing wide vistas of potential visitors. The only approach not viewable is to the west from the Tozzer Causeway originating at Temple IV.

Uaxactun. Construction M, the main entrance to the palace, had five forward facing doorways, which led to three rooms. The two outside rooms were each antechambers that led to rooms with benches. As with the Holmul palace, people on these benches

could have viewed those who approached. Additionally, Construction V, while just a raised platform, faced the entrance from the side, and those on the platform would have seen all comers.

San Jose. As the entrance to the San Jose palace is not clear, it is difficult to know how well it was observed. That the entrance was likely tied to one of the range structures means that there were probably outward facing rooms around the entrance.

Aguateca. At Aguateca, what is at first apparent is that the structures that bordered the Causeway faced it. So, in essence, they could be seen as observing those on it. The Grieta made it so that the entire Causeway needed to be traversed to access the palace. As one approached the Palace Group, Structure M7-35 sat in front of it, requiring all entrants to pass by. Similarly, Structures M7-29 and M7-30 acted as a gateway to the Palace Group, and sat in a prime location to observe entrants.

Palenque. There were no outward facing rooms on the north side of the Palace, unless one considers the long corridor of House A-D, with its twelve outward facing doorways a room. And, in truth, people could have been stationed in this corridor as observers. The western side did have two outward facing rooms to the south, in addition to the corridor-like House D.

Copan. Structure 10L-22 and the East Court was approachable from a single path. This sole path was observed by at least one building belonging to Structure 10L-27. It was probably also observed at the two points where it became restricted. As mentioned

above, all of the structures of the East Court face onto that court. A ruler in Structure 10L-22 could have viewed all who approached as they entered the court and as they climbed its stairs.

At El Cementerio, Structure 10L-29 faced possible palace entrants. The structure existed outside of the main courtyard group, in a fashion similar to Structure M7-35 at Aguateca. However, in this case, since the El Cementerio group is at a lower elevation, those manning the structure would not have been aware of palace entrants until they were very close to the vicinity. As previously mentioned Structure 10L-32 also faced outward, directly out from the main entrance. The ruler would have had a clear view of all entrants.

Interpretations

The immediate vicinity around the entrance of every palace in this study for which the entrance is known was observable by rooms that faced this space. Whether the sole function of these rooms was to house an observer is not known. Likely, these persons were responsible for the initial communication with potential entrants as well, and these may have been the most public of public offices. The key point, however, is that entrances were controlled spaces, as Foucault would say whether the rooms were occupied or not, and that possible entrants needed to conduct themselves in accord with what the cultural conventions were.

Experience of Royalty. Royalty had to take some comfort in the fact the entrance to their palace was at the least under observance and more likely guarded. Intruders would be stopped, visitors would be announced, and when they themselves returned from an outing the doors would be opened. One is left to wonder if having part of the palace face away from the rest, made that part less palatial and more of a liminal area.

Experience of Non-Royalty. Non-royals, whether they were potential entrants or not, would have had their behavior observed upon nearing a palace entrance. Knowledge of this surveillance would have greatly effected behavior in the area. Of course, potential entrants would have needed to demonstrate specific appropriate behavior to gain entry. The outward looking doorways also may have been successful at keeping undesirables away.

Hypothesis B3: Sounds originating within the palace directly influenced behavior.

Before discussing sound, I caution that I have not discovered direct evidence that the ancient Maya engaged in an advanced science of acoustics. While the effects described in this work are present, they may have been side effects of controlling vision and movement, in a coincidental conjunction of goals. Of course, it is not a great leap to infer that the Maya designed architecture with concepts like privacy and quiet in mind, but there are more complex acoustic phenomena in place and, though unintended, may have had the power to produce psychological or emotional responses. Nevertheless, this

potential lack of intention should not undermine recognition of the presence of these effects and their power.

Ancient Maya palaces were very likely the origin point for sounds signaling where the ruler and palace residents were and what they were doing. Sounds emanating from the palace may have let the immediate population know that the ruler was entering or leaving the palace, or similarly that the palace was the starting location of a royal procession. Rulers were often depicted with accompanying musicians as in the Bonampak murals who in addition to accompanying the ruler's dances could have indicated changes in the ruler's status by playing their instruments. At Aguateca, three drums were recovered from Structure M7-22, four from Structure M8-4, and seven from Structure M7-34 (Inomata et al. 2010a:363). Also, a flute was recovered from the niche in the bench of Structure M8-4.

Rulers may have also signaled their own movement in an intriguing way. Taube (2005:32) has demonstrated how wearing jade celts would have augmented rulers' ritual performances as highly polished jadeite "emits high and sharp clinking sounds." There are also examples of these jade celts hanging nearby rulers seated on thrones and affixed to the thrones themselves (Taube 2005:28) suggesting these celts were worn within the palace walls and that their distinctive clinking would have signaled a ruler on the move (Karl Taube, personal communication, 2010).

Experience of Royalty. If royals did consistently emit sound, they would have been surrounded by an acoustic horizon. An acoustic horizon is the maximum distance a listener can be from a sound source and still hear it (Blessner and Salter 2007:22). As the

ruler moved, this horizon would have shifted with him. One can easily picture people and items being removed from the ruler's path, curtains being opened, and other preparations occurring all before he was visible!

Musical accompaniment, presumably when they wanted it, would have been a consistent presence in a ruler's world. It would have augmented feasting and ritual most assuredly, and likely was used to pass the time. One is left to wonder if members of the royal family studied the musical arts as some did the scribal arts.

Experience of Non-Royalty. A clinking royal must be at all cost, avoided! Perhaps, as mentioned just above, the ruler's presence was quite larger than their physical presence. If so, than non-royals had to react to this particular aural signature long before they saw the ruler. The appropriate behavior is not currently known, but Jackson (2009:74) indicates that a disconnected gaze (not meeting the ruler's eyes) may have been a component. So, as they heard the ruler approaching, non-royals may have looked down or up.

Music emanating from the palace may have marked the occasions of rituals and feasting even if they were not more directly witnessed. Only a partial knowledge of these events in the minds of the populace may have been exactly what royals desired. Part of the event remained esoteric and therefore more powerful. Music may have followed the ruler in and out of the palace eliciting appropriate responses from those in the city.

Hypothesis B4: Access to and within Maya palaces was controlled to a quantitatively significant degree.

One of the ways that behavior could have conceivably been controlled in Maya palaces was by limiting access to the palace or parts of it. Since the palaces were not occupied at the time of their discovery, we do not know if entrances or spaces were guarded, and hence controlled. But the pioneering work of Hillier and Hanson (1984) has resulted in a way to measure which spaces were controlling their neighboring spaces. These spaces, if they existed, would be the gatekeeper spaces that controlled access to other spaces.

Hillier and Hanson (1984:109) use a measure called Control to find these spaces. First, a map is broken into convex spaces, the smallest number of rectangles that fill a given space, in this case, a palace. Lines are drawn between rectangles that allow access to one another. For example, a square room leading to a courtyard would be represented as two rectangles with a connecting line. If another room faced the courtyard, another rectangle would be drawn with a line connecting it to the courtyard rectangle. If the rooms did not share a doorway, no line would be drawn between them. Each palace, in its entirety, is broken into these rectangles and lines, except for the Aguateca whose plans do not exhibit the level of detail necessary for the analysis.

Once this is accomplished, the control value for each space is derived. Each space has n number of neighbors. To calculate control, each neighboring space is counted as $1/n$ with n being the number of neighbors the neighbor has. All of the values for the original space's neighbors are summed resulting in the control value. For

example, if space A is neighbored by spaces B and C, and B has two neighbors, and C has four neighbors, then the control value of A = $1/2 + 1/4$ or 0.75. It also follows that space A has more control over access to space B than space C.

Values below 1 are weak control spaces, and values above 1 are strong (Hillier and Hanson 1984:109). Values within a system (i.e. a palace) can be compared, but because the value is highly dependent on the number of spaces in the system, values cannot be compared across systems unless they have similar numbers of spaces.

Holmul. The Holmul palace had 45 spaces and control values ranged from 7.50 to 0.13. The highest control value was held by the plaza outside of the palace (Table 7.1), as this space held sole control over whether one entered any of the eastern facing rooms. Space 2, with the next highest value, sat due west of Structure 57 and controlled whether any of the western rooms of that structure could be accessed. Space 1 was the small courtyard in the northeast corner of the palace neighboring Rooms 5, 6, and 8. Space 6 consisted of the long courtyard of the Western Precinct.

Rooms 23 and 29 were actually more courtyards than rooms, as they were not roofed. The Antechamber referred to the space in between Rooms B2 and B3 in Structure 43. Space 3 was the courtyard in the southeast corner of the palace. Space 4 was due west of it, another courtyard running east-west. Space 5 was due north bridging Spaces 4 and 6. Rooms 17 and 27 both were examples where the only way to enter an adjacent room was to go through one of these rooms.

Table 7.1: Spaces in the Holmul Palace with Control Values Greater than 1

Plaza	7.5
Space 2	4.75
Space 1	3.33
Space 6	2.83
Room 29	2.5
Room 23	2.25
Central Court	1.55
Antechamber	1.5
Room 17	1.33
Room 27	1.25
Space 3	1.2
Space 5	1.08
Tunnel	1.08

Tikal. The Tikal palace had 176 spaces and control values ranged from 8.61 to 0.10.

Sixty-two spaces in the Central Acropolis had control values of 1 or higher, the top 10 of which are listed in Table 7.2. Space 36 sat due east of Structure 5D-46 and controlled access to its eastern facing rooms, as well as Structures 5D-126 and 5D-127. Space 37 sat to the east of Structure 5D-45 and controlled access to its eastern, northeastern, and southeastern rooms. Space 38 was a courtyard due south of Structure 5D-48 and controlled access to most of its rooms.

Space 23 sat between Courts 5D-4 and 5D-5 due east of Structure 5D-54 and controlled access to that structure's eastern rooms. Space 30 sat between Structures 5D-46 and 5D-128 controlling some of the western rooms of the former and all of the rooms of the latter. Space 35 controlled access to the southern rooms of Structure 5D-44.

Table 7.2: The Top 10 Spaces in the Central Acropolis at Tikal with Control Values Greater than 1

Space 36	8.61
Space 37	6.00
Court 5D-5	5.64
Space 38	5.33
Space 23	4.79
Court 5D-1	4.33
Space 30	3.97
Court 5D-6	3.92
Court 5D-3	3.83
Space 35	3.83

Uaxactun. The Uaxactun palace had 91 spaces and control values ranged from 6.90 to 0.10. Thirty-four spaces had control values of 1 or higher, the top 10 of which are seen in Table 7.3. Space 9 was the small courtyard or patio of Construction T, which directly led to five of the building's seven rooms. Similarly, Space 2 was the patio of Construction L, which controlled access to six of its eight rooms. Space 11 was the space due north of Construction W, which controlled access to the three isolated rooms on the structure's north side.

Space 3 was also similar to the last two examples in that was the patio of the eastern facing Construction S. Passage 8 ran along the western side of Construction S and controlled access to Room 28 of Construction L. Space 8 connected Passage 6, which ran along the western side of Construction L to the north side of the same building.

Table 7.3: The Top 10 Spaces in Structure A-V at Uaxactun with Control Values Greater than 1

East Court	6.9
Main Court	4.2
Space 9	4.0
North Court	3.5
Space 2	3.3
Space 11	3.3
South Court	3.2
Space 3	2.3
Passage 8	2.0
Space 8	2.0

San Jose. The San Jose palace had 28 spaces and control values ranged from 4.08 to 0.13; all of the spaces with control values over 1 can be viewed in Table 7.4. Space 6 was the antechamber of the second floor of Structure C-4, which only possessed three walls. Space 5 controlled access to the rooms of the rear or west side of Structure C-4. Room G of Structure C-4 sat as a cross-roads space between Room H, Room A, and Space 4, a courtyard just south of the building. Room A acted in a similar fashion between Room B, Room H, and Space 3 the area created by the extended doorway in front of Room A.

Table 7.4: Spaces in the San Jose Palace with Control Values Greater than 1

South Court	4.08
North Court	3.49
Space 6	2.50
Space 5	1.50
C-4, Room G	1.33
C-4, Room A	1.16

Aguateca. Control values were not able to be calculated for Aguateca.

Palenque. The Palace at Palenque had 73 spaces and control values ranged from 4.80 to 0.13. Twenty-four spaces had control values of 1 or higher, the top 10 of which are seen in Table 7.5. Space B 6 was a thin walkway abutting the north side of House B controlling access between those rooms and the East Court. Space B 8 played a similar role on the structure's south side. Space L 5 ran along the inside of the eastern side of House L, and solely controlled access to one of the House's rooms.

Space K 5 was the southeast corner of House K. This space partly controlled access to outside and the front or eastern room of the building; it also solely controlled access to the structure's eastern room. Space F 4 was centrally located in House F's eastern side and it effectively controlled access on that side of the building.

Table 7.5: The Top 10 Spaces in the Palace at Palenque with Control Values Greater than 1

Tower Court	4.80
B 6	3.67
East Court	3.03
B 8	2.50
West Court	2.32
L 5	1.75
K 5	1.66
Southeast Court	1.66
F 4	1.50
West Plaza	1.33

Copan. The East Court at Copan had 28 spaces and control values ranged from 2.25 to 0.20. Eleven spaces in this area had control values over 1; they are listed in Table 7.6. The first two spaces were the central rooms of Structure 10L-20, each of which solely controlled access to a pair of rooms. Space 3 was the small courtyard in front of the L shaped Structure 10L-50, which controlled access to most of the rooms of that building.

Structure 10L-21's central room, here listed as Space 21 Room B solely controlled access to rooms on either side of itself. Space 22 Room A was the crossroads space between the rear room of Structure 10L-22, the side rooms, and the space outside. Space 1 ran in front of Structures 10L-22A, 10L-22, 10L-21A, and 10L-21. Space 2 sat in a similar position in front of Structure 10L-20. Space 50 Room B was the front room of a front-rear room combination in Structure 10L-50. Spaces 21A Room A and 22A Room A were similar in morphology to Space 50 Room B and its surrounding spaces.

Table 7.6: Spaces in the East Court of Copan with Control Values Greater than 1

20 Room B	2.25
20 Room E	2.25
Space 3	2.2
East Court	2.03
21 Room B	2
22 Room A	1.7
Space 1	1.58
Space 2	1.36
50 Room B	1.25
21A Room A	1.2
22A Room A	1.2

El Cementerio had 26 spaces and control values ranged from 6.58 to 0.10. Seven spaces had control values of 1 or higher; they can be viewed in Table 7.7. By far, the Central Court has an extremely high control value and this makes sense since many of the buildings were dependent on this space for access. Space 29 A was the patio to the L-shaped Structure 10L-29. Space 32 A was Structure 10L-32's central room.

Space 1 was the path between Structures 10L-31 and 10L-32 and controlled access to the former's rooms. Spaces 32 D and 32 F held similar functions in that they were antechambers to rear rooms on the sides of Structure 10L-32. Similarly, Space 33S was antechamber in Structure 10L-33.

Table 7.7: Spaces in and around the Structure 10L-32 Plaza of Copan with Control Values Greater than 1

Central Court	6.58
29 A	2.25
32 A	2.25
Space 1	2.2
32 D	1.2
32 F	1.2
33 S	1.2

Interpretations

The most controlling spaces for ancient Maya palaces are courtyards and antechambers. Courts and courtyards have high control values because the ancient Maya surrounded them with rooms that faced onto the court. The nature of this analysis indicates that the court then controlled access to those rooms. Given their high control

values in relation to their surrounding spaces, one should not underestimate the importance of courts and courtyards, not only as a setting for activity, but as a location to control movement.

Antechambers' values may be slightly inflated. If they lead to a room that had no other access, than their control value automatically becomes 1, and any other spaces that could be reached from the antechamber would be added to that number. However, these control values may be simply highlighting the liminal nature of these rooms. These rooms tended to straddle public spaces and very private ones, at least in terms of access.

Experience of Royalty. If benches are an indicator, then royals chose not to spend their time in high control value spaces, meaning that the actual responsibility of controlling movement through spaces was a delegated one. Royals instead occupied low control value areas going so far as to utilize antechambers to shift this controlling theme away from the spaces they occupied. Of course, by being dependent on a high control value space for access means that their spaces were private.

Experience of Non-Royalty. Since spaces with high control values were not the ones occupied for the longest durations by royals (e.g. rooms with benches) it is likely that these spaces were watched through some system of guardianship by others. By having guards at these locations, access to wide areas of the palace would be controlled. This was especially true with courts and courtyards. Whether there were guards is debatable, though there are depictions of what were at the very least retainers such as on the north wall of Room 1 and east wall of Room 3 of the Bonampak murals.

Hypothesis B5: Access was also controlled in a different sense, requiring a higher degree of exertion to reach more important areas of the palace. Through the design of architecture, the bodies of palace visitors were forced into specific movements and positions which reinforced the social hierarchy.

This section explores what types of bodily movements were required to successfully gain entry to a palace's throne room. The architecture dictated these movements and were therefore the direct result of design decisions. Also noted in this section are areas of note in the palaces under analysis where movement was seemingly purposefully affected.

Holmul. Within the Holmul palace were few options for movement, all of which were highly restricted and controlled. Entering the palace involved climbing a stair (one flanked by outward-facing rooms), crossing westward through an archway where one was framed for viewing by the ruler on his throne, and descending into the main palace courtyard (see Figure 6.2). From there, there were at least two choices. Climbing a stair on the opposite side of the courtyard would have led to the antechamber of the palace's throne room, where one would have been flanked by benches. Combined with the previously described architectural features, this stair created a very formalized, almost processional entrance to the palace throne room from the outside. The pattern just described has been identified by Runggaldier (2009:307) as occurring in other Maya palaces as a formal entrance sequence. Veering to the left at the base of this stair would have led instead to the opening to a Z-shaped tunnel that went back to what may have

been the royal quarters (see Figure 4.36, south of Room B4). This tunnel was narrow and not straight, hence both movement and vision were severely restricted.

Tikal. In the sprawling Tikal palace, one moved through sequences of royal courtyards, conceivably under watchful eyes within each. Sequential courts within a palace context are reminiscent of the Ninomaru Goten, or Palace of the Second Compound, in Nijō Castle, Japan, which was built early in the Tokugawa era (AD 1600-1868), though this example concerns sequential buildings not courts. As one progressed from one building to the next, access became more and more restricted in terms of who was allowed entry, finally culminating with the shogun's chamber (Coaldrake 1996:155).

However, Tikal's rulers did not sit within its historically most important and potentially most restricted court, Court 5D-6, the one which contained the "clan house" (Harrison 1999:76) of ruler Toh-Chak-Ich'ak I, who ruled in the 4th century AD. We know that this ruler's throne building was preserved almost unchanged for over five hundred years (Schele and Mathews 1998:94), and that new courts and throne buildings were constructed for later rulers. When analyzing a plan of the palace, it is evident that there were multiple entrances to this hallowed court. A formal, almost processional, path through the later courts, likely under heavy observation, would be analogous to the Japanese example. Using a less formal, but more direct path from the east or south would have been physically possible, but perhaps only allowable at certain times or to certain personages. As for the later courts, Harrison (2001:91) has identified baffles in the palace that he believes were in place to restrict movement between them.

Uaxactun. To enter Structure A-V, one first climbed a stairway. After passing through a gateway building, one had to cross a courtyard and descend another stairway. One then had to pass through Construction G or by it, and cross the Main Court. You were then confronted by the stairs up to the main throne building, Construction L. These stairways could not be climbed directly as they had a large platform at their center. At the top, a final step led into the building, more specifically, the antechamber of the throne room.

From the Main Court, there were a number of restricted paths that led to other areas of the palace. These are denoted on Figures 5.4a and 5.4b with the “P” designation which stands for passage. Most of these passages would have required walking single file. For example, Room 72 of Construction S, could only be reached from the Main Court by taking Passages 2 and 9.

San Jose. While the entrance to the San Jose palace is not clear, the movements that were required to enter the main throne building are. Structure C-4 contained the thrones and entry required climbing a set of steps and then stepping into the building. Using the main entrance, would have brought one directly to the low throne on the first floor, that is very similar to Holmul’s 3rd phase throne. Otherwise, one would climb the spiral staircase found in Room C up to the second floor. One could have then turned towards the antechamber portion of the throne-bearing Room K.

There was one other feature of note within the San Jose palace in terms of forced movement. Both Structures C-4 and C-5 had walls attached to their fronts that appear to have impacted the way specific rooms were entered. In both cases, the walls were associated with the room farthest to the left when facing the building. Room A of

Structure C-4 has an addition creating a southern entrance. Room C of Structure C-5 has a baffle that seems to indicate that the preferred entry was via climbing the stairs on their western side.

Aguateca. At Aguateca, the effects on movement began long before one reached the Palace Group, as the Causeway ran in stepped tiers that rose as one went in that direction. After passing by the potential gate structures (M7-35, M7-29, M-30), one descended steps to reach the central court of the Palace Group. Entering any of the structures first required climbing the stairs of their substructures. Once one stepped up into Structure M7-22 one was in a throne room antechamber, where, similar to the Holmul palace, one was flanked by benches.

Palenque. Using Greene Robertson's proposed access route, an entrant would have climbed stairs and entered an outer corridor turning left, followed by either: a) descending a stair and crossing the East Court and climbing a stair to enter House C or b) turning right walking along the inner corridor, making two lefts, then descending a stair to cross the East Court and climb the stair into House B. Interestingly, the entrance to House E, thought to be K'inich Janaab' Pakal's throne room, sat to the right of House B, requiring a less formal entrance sequence. Perhaps House B was the public face to House E.

Similar to Structure A-V at Aguateca, the Palace at Palenque had many restricted passages. Most of these are due to the proximity in which the houses were placed in to

one another. Navigating the southeastern and southern areas of the Palace required many turns and walking in the narrow spaces between buildings.

Copan. Interestingly, both the East and West Courts were sunken. Perhaps, this helps to explain the two restriction points in the approach to the East Court from the west. To reach Structure 10L-22, one climbed the northern steps and reached the platform that supported all of the structures of the court. A final stair sat in front of the building and needed to be climbed before stepping up into the building's antechamber.

One could reach the East Court from its upper platform by walking over from the Court of the Hieroglyphic Stairway. To reach it from this court one had to either climb the side stairs in front of Structure 10L-11 or take the curiously narrow steps in front of Structure 10L-230. While both of these paths were possible, neither seem likely as the main way to reach the East Court.

At El Cementerio, the climbing of three stairways was required to reach Structure 10L-32. The first was at the northern end of the courtyard. After climbing the stair, and crossing the courtyard, one had to climb the substructure stair. Five additional steps stood in front of the final step up into the entrance of the throne building. There were no other architecturally dictated movements of note.

Interpretations

Walking some distance was the first requirement in interacting with the ruler. If he was seated on his throne, a somewhat long walk from the nearest public space was necessary. Climbing and descending steps was clearly an aspect of approaching a ruler.

All but the Copan palaces in this study required an initial climbing of stairs, or in the case of Aguateca the ascent of tiered platforms. Holmul, Tikal, Uaxactun, Palenque, El Cementerio, and likely San Jose had descents as well, before another climb. Throne buildings were always immediately preceded by stairs. Throne rooms often had an antechamber, and it was here that the final bodily actions would be conducted.

Experience of Royalty. As non-royals and other visitors engaged in the various ascensions and descents required to reach a throne room, royals were granted views of these submissive acts through the doorways of their throne rooms. At Holmul, a visitor was framed in an archway, before being forced down, then back up to enter the throne building. The ruler would have a chance to identify the entrant and decide whether or not to grant an audience. If this chance were granted, the final steps taken would have been in a manner most appropriate to approach the ruler, perhaps with tribute held out and aloft.

Experience of Non-Royalty. As was discussed in Chapter 3, Stuart has traced the meaning of the “step” verb and related it to the giving of tribute. That climbing steps was alluded to in the pictorial aspect of the glyph is not surprising given the evidence presented here. The procession-like approach to throne rooms must have become synonymous with the stairs that needed to be climbed to enter a throne room. The very act of climbing then, became an act of deference and fealty. Climbing was required at the entrances to palaces and again before throne buildings. This act was repeated throughout the navigation of a palace.

Conclusions

As has been shown, palaces were designed to affect behavior. Palace architecture was designed to facilitate the observance of behavior around a palace especially as one approached its entrance. Palaces, in this regard, had an almost panoptic presence within city centers. Additionally, outward facing rooms around entrances likely acted as access control areas and observed and affected the behavior of possible entrants. Sounds emanating from the palace and more specifically rulers likely had great influences on behavior. While not produced by the architecture, these sounds were contextualized by the architecture, and it was the two in conjunction that caused the sounds to be responded to in the ways that they were.

Access was not only controlled, but the movements of the body that would grant access were dictated by the palace architecture. Certain spaces within the palaces were key in controlling the flow of movement through the palace. These spaces were separate from known activity areas of royalty indicating perhaps a delegation of this control. Movements through the palace were determined by its morphology. The particular movements dictated, especially the repeated climbing of stairs, forced bodies to into symbolic acts of deference.

Chapter 8. Analyses: Emotional Responses to the Built Environment

In Chapter 2, I suggested that individual emotional experiences are elusive if not impossible to track down. However, built environments become emotionally charged. Lefebvre believes it is the symbolic content encoded in them that helps emotion become tied to a place. Through the same strategies of affecting the conceptual and behavioral responses to the built environment, emotional states were also impacted.

Four hypotheses are advanced to explore how the architecture of a Maya palace may have evoked heightened emotional states. Hypothesis E1 is concerned with the unique morphology of Maya palaces and how it necessitated constant shifts from inside to outside. Hypothesis E2 explores the impact of an acoustical phenomenon known as the cut out effect. Hypothesis E3 looks at the evidence that incense was used in Maya palaces and the possibility that it engendered emotional responses. Hypothesis E4 analyzes the social distances through which the ruler interacted with others, and whether these particular distances held a certain power.

Hypothesis E1: Since Maya palaces were courtyard based, and buildings had few rooms, there was a constant shifting from inside to outside space, which had tangible consequences.

Before the next analyses are described, I thought it important to first relate a phenomenon that is ubiquitous to Maya palaces. When interacting with a Maya palace, one was constantly shifting from inside space to outside space. The small room size of

Maya palaces created an intricate and shifting set of stimuli to the senses as an individual moved through the various spaces. While direct room-to-room movement occurred, an exploration of the plans of the palaces under study shows it almost never occurred through more than suites of three rooms. Therefore, there was constant movement between inside and outside spaces in order to interact with and within palace architecture.

A consistent shift between inside and outside spaces would have resulted in effects on vision, hearing, smell, and cutaneous sensations. During the day, palace rooms would have only been lit by ambient light from their doorways and an occasional window. Movement outside would have resulted in a much brighter environment and consequent restriction in pupil dilation. In terms of hearing, this movement resulted in shifting between closed and open sound environments. Smells would have been more acute indoors and less so outside, though this is dependent, to a degree, on the origin of the odor. Because rooms tended to be darker, they were also cooler than outside. Upon a shift to outside the skin would sense heat, both of the type held by the high humidity of the region and from direct contact with sunlight. Occasional breezes would have produced heightened sensations as the skin would be wet with sweat after little time outside.

Experience of Royalty. The sensations produced by this type of living would not have seemed novel or unusual as royals would have lived in this type of architecture since birth and known nothing different. Instead, there would have been individual strategies of how best to make use of the morphology, when to be inside or outside, or when to be in shade or under the sun. It is the intimate knowledge of the built environment,

combined with sequences of experiences, that lead to topophilia. So, this particular morphology would be one of the characteristics that allowed for an affective tie.

Experience of Non-Royalty. Non-royals would not have experienced the level of morphological complexity found in Maya palaces anywhere else. A simple house would not have required the amount of shifting, not even if it was part of a courtyard group. This shifting would have been a unique sensation. Presumably, initially it would have been disquieting or at least novel on an emotional level. Even if the visitor were an elite, or visiting royal, the particular morphology of an individual palace would have been unique.

Hypothesis E2: An acoustical phenomenon known as a cut out was present in ancient Maya palaces and it served to augment visual cues that prompted changes in concept and behavior.

The constant movement from inside to outside spaces caused an acoustical effect known as the cut out. This effect is a sudden drop in intensity of sound associated with an abrupt change in the spectral envelope of the sound or a modification of reverberation (Augoyard and Torgue 2006:29). This effect occurs because either the sound or the listener is in motion or because the sound environment is changed. Because of the change in space, the acoustics are altered, bringing a sound suddenly to the fore or ending it suddenly. Opening a window would produce this effect, as would passing by the open

door of a busy nightclub. Cut out effects can mark transitions between spaces, for example entering a room or crossing a courtyard (Augoyard and Torgue 2006:32).

Our bodies are sensitive to the change in sound produced by a cut out. Augoyard and Torgue (2006:35) also argue that it is possible to emphasize the events initially following a cut out. In other words, at that initial change in the sound environment a person is more aware as he or she tries to understand it. Because of the nature of ancient Maya elite architectural morphology, a high number of cut outs are present. Outdoor courtyards are as common as indoor hallways, if not more common, in linking rooms together. Of course, crossing an indoor/outdoor threshold produces a cut out effect. Instead the only doorway cut outs noted in this initial study were those that acted as the main entrance of a palace or those that entered into main throne buildings. However, it is of interest to consider what effects people would experience when crossing from inside to outside to inside spaces.

Holmul. The Holmul palace cut outs are mostly distinguishing what I termed transition zones earlier in the chapter that mark the function or meaning of spaces (see Figure 6.4). An arch creates a pair of cut outs upon entering the palace. A turned corner and another arch create cut outs at each end of the northern hallway, Room 23. Perhaps the most severe cut outs, at least in terms of the amount of change produced in the sound environment, are located on either end of the tunnel that leads to the western precinct of the palace. There is another cut out along the northern side, one created by the lookout in the Western Precinct.

Tikal. At Tikal, cut out effects are similarly in place at transition zones. In this case, they help differentiate one court from another and help communicate whatever the differences were between them. The main entrance to the palace necessitated crossing through a building, while transitions between Courts 5D-2 through 5D-5 were accompanied by cut outs created by the buildup of architecture. The other cut outs are all produced in or around Court 5D-6; one related to the throne building there and the others related to an entrance from outside the palace from the south.

Uaxactun. At Uaxactun, the two gateway structures, Constructions G and M would have created cut out effects at their entrances and exits. Similar effects may have occurred at the ends of Passages 6 and 8. Passage 8 was the clearer example with a very restricted entrance to the south.

San Jose. I did not observe any morphological data that would signal the presence of cut out effects at the San Jose palace.

Aguateca. I did not observe any morphological data that would signal the presence of cut out effects at the Aguateca palace.

Palenque. The clearest example of cut out effects at the Palace at Palenque were the entrances to the subterranean chambers. The chambers would have been the most closed sound environments outside of any local caves. Exiting them would have brought one into a very different sound environment. Another pair of cut outs could have been found on the east side of House E where it was adjacent to House B. This small corridor was

likely restricted enough to have produced the effects at its ends especially given House E's overhanging eaves.

Copan. Depending on their height, the two masonry gateways on the path to the East Court may have caused cut out effects. They appear on the site plan to be at least four meters deep so one cut out would have been caused by entering the gateway and one by exiting it. There are no observable cut outs in El Cementerio.

Interpretations

Cut out effects were often the result of architectural decisions made at the border between segmented spaces or transition zones. While they may not have been intentional, they would have augmented the conceptual changes already occurring. The abrupt change in sound environments would have made an individual more aware, and more likely to heed the architectural cues. That these cues were coupled with the effect, producing a multi-sensory consequence, would have heightened any emotional experiences a person was having.

Experience of Royalty. It is not clear in the literature if constant exposure to cut out effects limits their effectiveness. On one level certainly not: Augoyard and Torgue (2006:30) argue that the effect plays a key role in differentiating locations and sequences from one another. So, royals would have, in part, defined their environment due to these effects. Whether or not they always produced the effect of heightened awareness is debatable.

Experience of Non-Royalty. Being unfamiliar with palace environments, non-royals would have been particularly prone to cut out effects. Awareness would have been heightened with each abrupt change in sound environment. In three of the cases, a cut out effect was present at the very entrance of the palace. In other examples, it occurred when one was entering a conceptually different space, though its uses must have varied widely. Consider the subterranean rooms at the Palace at Palenque. Obviously, neither throne rooms nor residences, their functions were paired with a unique sensory environment that was begun with a cut out effect.

Hypothesis E3: The use of smell, particularly the smell of incense, was used in Maya palaces in order to enhance experience.

Smells can be a marker of territory in a similar way to the symbolic architectural cues mentioned in the preceding section. Additionally, they can be powerful tools strongly influencing human experience. Classen et al. (1994:ii) state “odours form the building blocks of cosmologies, class hierarchies and political orders; they can enforce social structures or transgress them.” Scents help tie experiences and environments to memory in a very real way.

For the ancient Maya, one clear way in which they employed scent was with the burning of incense, specifically copal. This was done primarily in religious contexts as part of ritual. Given that the features of palaces consistently synthesized political and religious ideas about power, it is reasonable to suggest that the burning of incense may

have been incorporated into some palace activities or spaces. Other functions of the burning may have been to have smoke which could turn into rain clouds (Cline 1944:113; Ishihara 2007:331) and to keep away mosquitoes (Karl Taube, personal communication 2011).

Due to the relatively clean nature of ancient Maya sites, that is, they were abandoned slowly and do not have many artifacts in primary contexts, recovering the specific locations of incense use can prove difficult. The remains of an incensario in a tumble context would not necessarily be indicative of its use in that space. The structures along the Causeway at Aguateca are a notable exception. These were abandoned rapidly and artifacts were left directly on the floor or fell there from rotting roof deposits. Because these artifacts are in primary contexts it is much more likely that they are in their location of usage. The possibility also exists that they were recovered instead in their storage location, but one would think that their use location would not have been in a vastly different space.

For the other palaces, instead of artifactual evidence, the search was instead turned to residual evidence of burning which would still be in its primary context. Possible examples of incense burning were burn marks that were clearly localized (e.g. small circles) or ones that were associated with architectural features, making it more likely that it was the burning of incense and not some other activity. Admittedly, this evidence is somewhat tenuous as the burning could have occurred at any time, from a single episode and for many different reasons.

When evidence of burning was identified, either at Holmul first-hand or at other palaces through their published literature, the contextual location was first noted. Subsequently, a smell zone was created originating from the burned area. The size of the zones are based on the work of Ciolek (1980) whose study showed that the human senses are effective in smaller and smaller concentric rings. For example, human sight is effective at about 91 meters and hearing at about 30 meters. The sense of smell is most effective within 9.1 meters. Each smell zone has an area, therefore, of 9.1 meters. This work of Ciolek was employed most successfully on archaeological data by Sanders (1990) and his work on the site of Myrtos on Crete.

Holmul. Room B1 of Structure 43 had a niche in each of its doorjambs. Both of these exhibited signs of burning. Room 1, Structure 59 exhibited signs of burning in the southwest corner of the room when Merwin excavated it. Room 7 of Structure 61 had one niche which may have been used for incense burning since it was low to the ground, like the doorjamb niches of Room B1. A circular hole, further up the wall exhibited signs of burning. Room 25 of Structure 65 had a burned patch in the southeastern corner. One other feature of interest was the doorway of Room 19, Structure 64 which had been sealed to waist height and was full of an ash deposit.

Tikal. There was no evidence of burning mentioned in the published Tikal material on the Central Acropolis.

Uaxactun. The floor of Room 29 in Construction L was burned, but this occurred before the room's bench had been installed, presumably indicative of a change in function. The floors of Rooms 30 and 31 were also burned in places. In Construction M, the face of the bench in Room 33 exhibited signs of burning. Smith (1950:31) writes it was "possibly of copal, which must have been placed in a container as there were no traces of burning on the floor." The southeast corner of Room 36 showed signs of burning, as did both ends of Room 39. Room 38 had signs of burning on both the lower bench and in the southwest corner of the room. In Construction Q, a firepit was recovered along the west wall of Room 57.

San Jose. There was no evidence of burning mentioned in the San Jose site report.

Aguateca. Unlike all of the other structures under study, the buildings along the Causeway at Aguateca were rapidly abandoned. Because of this, it is possible to consider artifacts to have been recovered in their primary contexts. For example, two incense burners were recovered near the back bench of the center room of Structure M8-4. Therefore, the burners were either stored or used in this room. Additionally, a censer with an old-man face was recovered from the north room of Structure M7-34, the function of which has been tentatively asserted as a communal house (Inomata et al. 2010b:137). Finally, the western portion of Structure M8-17, which is thought to be a shrine (Inomata and Shriver 1998:443), produced another incense burner.

Palenque. There was no evidence of burning mentioned in the published Palenque material.

Copan. The west room of Structure 10L-22a was covered in a layer of ash. Burned stones and the condition of the floor indicated to Trik (1939:103) that numerous fires had been built on a dais in the north end of the room. Interestingly, there was a niche in the west wall that had a narrow channel which extended all the way to outside of the building. There was no evidence of burning mentioned for El Cementerio.

Interpretations

The first observation of note about smell zones is that none of them occurred near throne rooms. The evidence available would seem to indicate that interacting with the royal on the throne was not enhanced with the use of incense. The one exception was Room 30 at Uaxactun, which was the antechamber to the main throne room. Another exception might be Structure 10L-22a, as the scent from the west room may have permeated to the central rooms.

The second observation is that the use of scent, at least with the available evidence, was not widely employed in Maya palaces. Smell zones are not numerous within any palace. Uaxactun had the most examples, with nine, but this is not a high amount considering the number of rooms within that palace. Aguateca is particularly telling, I believe, as the structures along the Causeway would have had clear signatures of frequent incense burning. Of course, the rapidly abandoned structures are in essence a

snapshot of a short span of history and quite a tumultuous one at that. Incense burning may have not been undertaken with frequency at that bitter end.

The third important observation is that when smell zones do appear they are localized within particular rooms and their entrances. This would seem to argue for segmentation on a room-by-room level for the activities that necessitated incense. The burned areas of the Holmul palace were not clustered in any way. The evidence from Aguatemala was similar. An exception might be the cluster of rooms of Construction M that exhibited burning. Interestingly, this was the gateway structure that was the main entrance to the palace.

Experience of Royalty. It appears as though royals had specific spaces in which incense was used to augment experience. These locations were not often central, though Uaxactun exhibited interesting counter examples. The dispersed nature of the usage would seem to indicate that small private areas were reserved for the rituals that used incense. Given that these burn marks are found within rooms, the number of participants was small: the number of people that could fit on a bench and in front of it. These rituals would not have been for public consumption and may have not been witnessed by any non-participant.

Experience of Non-Royalty. The smell of incense may have emanated from the front doors of the Uaxactun palace. This scent would have reached the nearby public space, affecting passersby's experience of the palace without interacting with it directly. As for all of the other burning episodes, other than non-royal retainers, it is presumed that no

one had knowledge of them. Perhaps these rituals mimicked non-royals' own domestic rituals and that is why they were held from view.

Hypothesis E4: Differences in height, as well as the use of specific social distances, were used by royalty when speaking and orating to enhance the power of these communicative acts.

As delineated in the introduction to Hypothesis C3, differences in the use of the vertical dimension in ancient Maya art were clearly utilized to symbolize inequality in the social hierarchy. As explored in the body of that hypothesis, the general morphology of palaces also used the vertical dimension to communicate the same information by being constructed at a scale commensurate with other monumental architecture. The following hypothesis explores the use of the vertical dimension in terms of interpersonal communication between the ruler and others. The nature of the social distance, the physical space between speaker and listener, is also brought under analysis using a proxemic approach.

Holmul. Within the Holmul palace are three seemingly obvious places from which the ruler could have communicated, falling into two categories: pronouncement stages and throne rooms. Two of them are what I am terming pronouncement stages, where the ruler would have spoken to a group of people, something perhaps approximating the royal court. This concept echoes recent work by Inomata (2006) who focuses on the royal performances that were mass spectacles that both integrated the community and re-

affirmed a contested social hierarchy. However, Inomata (2006:203) also acknowledges royal performances at smaller scales, tied to palace architecture, and hence smaller audiences. To qualify as a pronouncement stage, a space needed to be elevated, have room to stand, and face a relatively open space with the potential for an audience.

Both of the Holmul pronouncement stages occur at the top of stairs, one looking down into the central inner courtyard of the palace (Figure 4.34), and the other looking down on the area just outside of the main entrance of the palace (see Figure 4.27). The initial stage measured about ten meters from the center of the courtyard. In the former case the ruler would have been framed by his throne building, and in the latter by a stone arch spanning overhead. The third communication stage is the main throne room of the palace. The main throne is flanked by two L-shaped benches, which left a limited amount of floor space allowing for fewer visitors, and creating a more intimate venue. The distance from the throne to the center of the remaining floor space measured 1.2 meters.

Tikal. Each court of the Central Acropolis had a possible pronouncement stage. Court 5D-1 had one that faced out from the palace at the top of the stairs that led to Structure 5D-71. The stairs had an inset platform possibly for this purpose. Inside the court, the top of the stairs belonging to Structure 5D-67 would have been another stage. Court 5D-2 had the top of the stairs of Structure 5D-65, while Court 5D-3 had the same with Structure 5D-58, and Court 5D-4 had the same with Structure 5D-122. Court 5D-5 had the top of stairs in front of Structure 5D-56. There were two possible stages in Court 5D-6: the tops of the stairs belonging to both Structures 5D-46 and 5D-49, respectively.

These stages measured roughly from 8 to 20 meters to the centers of their respective courts.

Harrison (2001) has identified four structures in the Central Acropolis whose sole function was as throne room: Structures 5D-59, 5D-62, 5D-118, and 5D-123. None of these rooms would have had more than two meters of space in front of the throne before one was past the doorway and outside.

Uaxactun. Both the stairway on front of the main throne building (Construction L) and the one found in front of the palace entrance (Construction M) contained platforms that jutted out from them. These platforms would have been perfect as pronouncement stages. The palace entrance pronouncement stage was about three meters over the area below, while the Construction L pronouncement stage was only two meters over the Main Court. The latter stage measured about ten meters to the middle of the Main Court.

From the throne in Room 93, it was over three meters to the antechamber, Room 30. There was room for someone to sit closer to the throne by sitting in the doorway between the two rooms. Interestingly, Construction P on the west side of the Main Court, had a similar pronouncement stage and more room directly in front of its throne for visitors.

San Jose. There were no clear pronouncement stages in the San Jose palace. However, there were two throne rooms of note: Rooms B and K of Structure C-4. The throne in Room B is similar to the one discussed at Uaxactun in that it is most likely that visitors would have sat in the doorway or antechamber. Both of these areas were within two

meters. The throne in Room K had about 1.5 meters of space in front of it and an additional meter in one included the doorway.

Aguateca. Presumably, there would have been room for pronouncement stages in front of both Structures M7-22 and M7-32. However, the published data do not provide profiles from the structures to the court below. The distance was roughly ten meters but the height is unknown.

There was more space to be found in the doorway of the throne room of Structure M7-32 than directly in front of the throne. To the middle of the doorway from the throne measured about two meters. The same held true for the distance between the bench in the main room of Structure M7-22 and its doorway.

Palenque. The most open space in the Palace at Palenque is the East Court. Conceivably, the tops of the stairs leading to both Houses B and C could have acted as pronouncement stages. Their height appears to have been about two meters, and they were about 10 meters from the center of the court. Other pronouncement stages would have been at the tops of the stairs that led up to Houses A-D and D. The A-D stair had a small platform, though this may have just been for a censer. The House D stair had both a small platform and a landing. The landing was about three-quarters of the way up.

A throne sat in front of the Oval Palace Tablet in House E of the Palace at Palenque. The tablet was attached to the west side of the medial wall across from the central doorway on that side. There is about two meters of space in the room between the doorway and the throne. Interestingly, the throne recovered is not the throne depicted on

the Oval Palace Tablet. This jaguar throne appears to have been movable and may have at one time sat in the location, but may have changed locations.

Copan. There was one clear area in front of Structure 10L-22 that could have acted as a pronouncement stage. The first is at the top of the structure's main stair. From here one would have been flanked by the jaws of the earth monster sculpted into the façade of the building and framed by the building's doorway. There was also a landing at the base of this stair before another wider stairway led to the court below, which could have been used as a similar stage. These stages measured from 10 to 20 meters away from the East Court.

What is of interest in terms of the rear room of Structure 10L-22 acting as a throne room is that its doorway was fairly restricted measuring just over a meter wide. If this space is discounted as a possible seating area, the room for visitors would have been reduced to the antechamber. Sitting here would have provided an unusual view to the ruler on a throne because of the restricted doorway. However, this doorway was also heavily decorated.

One possible pronouncement stage at El Cementerio would have been just outside the main doorway of Structure 10L-32. The distance in front of this stage measured about five meters to just in front of the structure and about 15 meters to the center of the court. As for the throne room, there were about two meters of space between the throne and the room's doorway.

Interpretations

Sound Stages (Reverse Proxemics). Inomata and Coben (2006:30) state that “it is essential in the analysis of theatrical space to place the human body as the point of action and sensory perception. We need to see such spaces not only from the position of ‘God’s eyes’ (plan views) but also from those of performers and spectators.” Hall coined the term proxemics, for distinguishing social interactions that occurred at different spatial distances. Hall (1990) separates these interactions into four separate spatial distances: intimate, personal, social, public; each of which are further subdivided into a close and a far phase. One of the bases of his research is the range of sensory effects and how they change from very close spatial distances to very distant ones.

What is of interest here is that with these two types of sound environments, pronouncement stages and throne rooms, the architecture dictates what the spatial distance was. Instead of, like Hall, directly observing the social interaction and noting the spatial distance, in Maya palace cases the architecture bounds the social interaction and determines the spatial distance. The pronouncement stages ranged from the Public Distance – Close Phase to the Public Distance – Far Phase of interaction. At the Close Phase, Hall (1990:123) observed that the speaker’s voice is loud, word choices are careful, and grammatical and syntactic shifts occur. Visually, focus would have been on the speaker’s face, while 60-degree scanning would have filled the vision with the speaker’s whole body (Hall 1990:124). The Far Phase was the distance Hall (1990:124) observed set around important public figures. Hall (1990:124) states:

Not only the voice but everything else must be exaggerated or amplified. Much of the nonverbal part of the communication shifts to gestures and body stance. In addition, the tempo of the voice drops, words are enunciated more clearly, and there are stylistic changes as well.

The ruler, at this point, would have been in observer's smallest, and sharpest circle of foveal vision, while peripheral vision would have drawn in the background of the building to the rear.

Maya throne rooms would have caused interactions at the Personal Distance – Far Phase of interaction. These interactions would have been very intense. This distance occurs around arm's reach, which Hall (1990:120) describes as the limit of literal physical domination. In terms of viewing the ruler, fine details such as dental decoration and small jewelry such as labrets would have been visible. The 15-degree scope of clear vision a person has would have allowed concentration on only the upper or lower face at one time (Hall 1990:120).

Experience of Royalty. These spaces of evocation would have been very powerful for royalty. They were granted a high vertical position in both throne rooms and pronouncement stages and would have consistently looked down on those they were addressing. Pronouncement stages forced rulers into a type of performance, changing their speech patterns and gestures to ensure effective communication. Their level of oratorical skill in this manner may have determined their ability to affect groups of people, presumably one of the keys to good governance.

Interacting with a ruler on his throne was even more powerful. Through a study of the depiction of gaze between ancient Maya courtly personages on pictorial ceramic vessels Jackson (2009:74) recognizes the power of these interactions stating,

the privilege of direct or connective gaze not only suggests one element of a codified set of performed behaviors that defines elite identities, and differentiates among ranked elite identities, but also signals the ways in which ordinary actions and nonmaterialized patterns (not directly recoverable through the archaeological record) structured social interaction and marked difference in a lived context.

Interestingly, vocalizations that Hall (1990:120) observed at this range cross-culturally were often below what he termed a normal speaking voice. History tells us that on August 5th AD 695, the ruler of Tikal, Jasaw Chan K'awiil I, led a defeat over the rival city of Calakmul (Martin and Grube 2000:44). The decision to go to war may have been communicated with not much more than a whisper.

Experience of Non-Royalty. Non-royals were more likely to experience the royal opposite one of the pronouncement stages, especially those that faced away from the palace. They would have viewed the royal framed by palace architecture in its colored splendor. The ruler would be speaking loudly and gesturing emphatically creating a powerful figure to be taken in by the senses.

For those elites granted an audience with the ruler, the experience had to be even more intense. Looking up into the eyes of someone not that far away, as they communicated in ways that could range from loud to quite subtle. When the ruler reached out his arm, he could almost touch you. The experience was not only intense

because of the proximity to power and authority, but the fact that it presented itself as living, breathing, and in exquisite detail.

Conclusions

While it can be daunting to try and recover the emotional aspects of an ancient built environment, there is room to explore some of the more general emotional impacts of a place. The key has been to relate characteristics of palaces that were unique or at least not often repeated. In having a potential experiencer unfamiliar with the particular experience, positing an emotional reaction is not irresponsible. The emotional responses related here are likely conservative in terms of what people actually felt at times within ancient Maya palace walls. Yet, without a better understanding of ancient Maya concepts of things like nostalgia, fear, and wonder reconstructions need to be conservative.

Conclusions to Chapters 6, 7, and 8

It is clear that there were phenomena in place within Maya palaces that heightened the emotional intensity of the experiences held there. While it is not possible to argue that all of the phenomena were intentional, their presence is undeniable. And while we do not know exactly what words the ancient Maya would use to describe the particular emotions evoked, given the conclusions of the preceding section and the theme of augmentation found here, that we might describe the frequent emotional state as something akin to awe.

Non-royals were required to literally look up at their ruler. This occurred without a doubt at a very intimate distance as the ruler sat upon his throne. It likely also occurred as the ruler made pronouncements to groups of people. Interacting with the ruler on the throne was prefaced by unique palace morphology and its aural cut outs, which led to heightened awareness. If burned patches are a sign of incense use, then access to palace rituals involving the substance was controlled, given the location of such events.

Of course, for royals, palaces would not evoke these same feelings due to their constant exposure to the phenomena. Instead, these features would allow for the conditions for topophilia to form, and , action, experience, and memory were every bit as required. Additionally, royals were granted access to, emotionally speaking, preferred spaces. Certain zones in palaces were dominated by the smell of incense. These areas were not central nor numerous. In social exchanges, rulers were granted high positions, but in face-to-face interactions, these positions were also intimate, thus granting royals further feelings of power and legitimacy.

Chapter 9. Conclusions

This final chapter first will describe the synthesized experiences of ancient Maya palaces examined in detail in the last chapter. Subsequently, an assessment is made as to the viability of the archaeology of experience as a framework for understanding the built environment, followed by comments on how this approach allows archaeologists to learn more about Maya palaces. Finally, I highlight the importance of the phenomenological approach utilized in this research, as well as the archaeology of the body and the senses, and suggest possible new directions for this type of research to expand our understanding of ancient architecture.

Experiencing Maya Palaces: The Royal Experience

Royals were consistently granted spatial positions through palace morphology that offered sensorial dominance. This dominance was often tied to the rhetoric of rulership, which in this study is considered to be claims of power based on status, legitimacy, and authority. Palaces were decorated with colors and in stucco elements that evoked concepts of ancestors and deities. Paths to them were beset on both sides by temples, making the same exact ties. Some buildings within palaces were preserved for centuries, in some cases virtually unaltered. This historical preservation also made ties to the past. All of this would have resulted in a sense of topophilia for royalty.

Some of the aforementioned spatial positions were centrally located, for example the location of palaces within sites. A far more prevalent spatial position was one of

vertical superiority. Palaces were tall groups of buildings, which were lifted up from plaza level on large platforms. Within palaces, buildings were raised from their courtyards putting another level of verticality at work. Pronouncement stages and throne rooms also made use of differences in vertical space, the strongest example being that of rulers being seated on thrones while their listeners were seated on the floor.

Since throne rooms were within raised buildings they possessed a view of all incomers before they themselves could be viewed. Rulers also possessed an extended panoptic eye, since palaces had outward facing rooms. This ability to observe would have had an effect in the vicinity of palaces, and especially at their entrances. It is clear that palaces augmented the sensory apparatus of the royals in a myriad of ways.

Royalty also potentially elevated themselves through sound while in the palace through the use of tinklers or musical accompaniment. Also, the aforementioned pronouncement stages and throne rooms allowed rulers to engage in different communication styles to assert dominance over an audience. In the former, oratorical and performance skills would have come to the fore. In the latter more intimate communication skills were necessary. While their ability to observe was increased, the abilities of others to do the same was hampered. Privacy was afforded royalty so that a knowledge base would exist that held them apart from the rest of society. Closed and obscuring filters were in place to control sound. Walls and cord holders (indicative of curtains) were in place to control the vision of non-royals. Access, while perhaps not directly controlled by royals, was controlled at certain spaces within a palace. A private

activity seems to have been the burning of incense. The internment of their children may have been another.

Familiarity with palace architecture, how to navigate it, and how to behave within it all were cued by the architecture itself. Spaces were segmented and there were morphological features at the borders of these spaces to mark the separation. Aural cut out effects, at times, also marked these borders. The constant shifting from inside to outside within palaces would have been a common and unremarkable occurrence for its occupants.

Experiencing Maya Palaces: The Non-Royal Experience

The non-royal experience was essentially the opposite side of the same coin. Many of the elements of the palace were in place to reaffirm the social hierarchy. To do so, non-royals had to be reminded of their position. This was done by controlling their bodies and its senses, which in turn controlled knowledge.

Maya palaces were associated with their monumental neighbors: temples and ballcourts, through their own monumentality and, for all intents and purposes, timelessness; the three together creating a religious-political program written in stone. This program was decorated in the same paints and iconography among the three elements as well. While color and image worked at different layers of symbolism, all three evoked images of divine rulership couched in terms of lineage and military prowess.

Those non-royals who were granted access to the palace were sent through an almost procession-like journey on their way to it. Causeways brought potential entrants by the buildings of ancestors, the proof of authority. The public spaces near palaces were observable from their edges. A panoptic presence like this would have greatly affected the mindsets and behavior of passersby. This surveillance was especially true at palace entrances, so that potential entrants had to engage in appropriate social behavior and be of appropriate statuses to gain entry.

Entering the palace and navigating its internal structure forced bodies and their senses to be impacted in a myriad of ways, all of which highlighted difference. Difference in that the palace was different in almost every way from whatever home they came from and difference in that its inhabitants were just as different. This began with the necessity of climbing multiple sets of stairs to enter and navigate a palace. The ancient Maya conceptualized this movement as symbolizing the giving of tribute, the ultimate act of fealty. At this point, the internal structure of the palace would be unknown to a first-time visitor, serving to unsettle them.

As one navigated the palace, one shifted constantly from inside to outside space and back again. This phenomenon was unique to palaces in the ancient Maya world. Cut out effects increased the awareness of difference. Behavioral cues at the borders of segmented spaces would have marked each passing as one moved deeper and deeper in. They also marked the unknowable things: areas and activities that were private. Closed and obscuring sound filters, along with cord holders, helped to ensure this. Sounds

associated with the ruler may have caused behavioral changes that kept the ruler out of the realm of perception of the other senses.

Certain spaces within the palace controlled access to many of the other spaces. If these were manned in any way, then there were further assurances that only what was desired to be seen and heard was seen and heard, and that entrants did not deviate from proscribed paths. Evidence of burning tells us that the use of incense may have been one of the activities held from public consumption.

Gaining an audience with the ruler, immediately put one at a disadvantage at two fronts. First, the entrant was forced into a lower physical position than the ruler, which as mentioned above, reinforced the social hierarchy. Second, in the case of throne rooms, an entrant was put in very close spatial proximity to the ruler. This intimate distance is not one that promoted familiarity; it instead brought an intensity to the encounter that could not be avoided.

The Archaeology of Experience: An Assessment

Overall, I believe the archaeology of experience serves quite well in understanding complex built environments in terms of how they were perceived. Having a better understanding of ancient Maya architectural aesthetics and design principles would have helped, but I think instead some of them were uncovered here. I think working from the standpoint of the body and its senses helped immensely. It meant there was always something concrete in the analysis, and there was no danger of slipping into an ephemeral (and speculative) phenomenological narrative. As I speculated before I

began, attempting to recover emotional responses and the impetuses for them proved most difficult. However, I still do not believe that one can ignore the ability of a place to cause such reactions. On the whole, I think the archaeology of experience is a viable tool for understanding the built environment, especially because it endeavors to humanize it.

Advancing the Definition of Maya Palaces

One seemingly obvious observation that nonetheless needs recognition is the proximity palaces have to temples and ballcourts. This association due to being close together is important, but is not the only aspect. When considering the approach to a palace, then these structures acted as a narrative as one passed by them, relaying historical, political, and religious information that imbued meaning to the palace and its inhabitants. Lending credence to this idea, that the palace was the end of a story, is the fact that they often sat at causeway heads.

Ancient Maya palaces are marked by outward facing buildings and rooms, though their functions are not entirely clear. Perhaps they held those who controlled access. What is apparent is that these outward facing structures created opportunities for surveillance of the surrounding area, especially near the palace entrances. Another morphological distinction of palaces is that they were broken into precincts, which were separated by transitional zones. The precincts were likely functionally different and the transition zones signaled these differences. Some buildings within a palace were intentionally preserved for long periods of time, sometimes hundreds of years.

The most frequent location for interacting with the ruler was designed in a very specific way, which had strong socio-spatial implications. The paths to throne rooms were long and required the climbing of multiple stairways, an act the Maya considered one of fealty. The path was also marked by cut out effects, which would have caused increased awareness in entrants. Throne rooms were set up so that rulers were seated above their audience, but almost within arm's reach. A person could only concentrate on the upper or lower face of the ruler at one time, and fine details of costuming would have been clearly visible. Another possible interaction space, the pronouncement stage, would have caused the ruler to shift into an oratorical performance for his audience.

Privacy measures were also present in palaces, though it is difficult to assess the degree of intention behind some of them. This is not the case with the use of cord holders, which were clearly put in place to enable rooms and buildings to be closed off. Another seemingly inarguable point is that palaces were constructed around closed courtyards, which were invisible from the outside. Closed and obscuring sound filters occur, the latter more frequently than the former, but it is not clear if they were built specifically to affect the travel of sound. Palaces also possessed "lynchpin" spaces that controlled access to surrounding spaces. Courtyards and antechambers were spaces that held sway over the rooms found in their vicinity. However, there is not direct evidence that the ancient Maya took advantage of this in the ways one would imagine.

Strides Forward in Phenomenology

Utilizing social inequality as a fundamental principle informed every analysis in this dissertation. The weight it has been given is justified in that palaces are at their core a political entity. This relationship of dominance, between ruler and ruled, was never more at play than within a palace's walls. To ignore it would have been to fail to incorporate the overarching social relationship at work. These analyses are successful precisely because they were designed cognizant of the class hierarchy.

It was this structural inequality that allowed for multiple experiences to be drawn from a single type of built environment. While the experiences put forth here are dichotomous, and therefore missing nuances present even within the social hierarchy, this work is a step in the right direction. First, it allows the possibility of multiple experiences, and secondly, it uncovers them even if in a somewhat rudimentary form.

By using a total of eight palaces for study, each of the analyses could be replicated. While not every palace had the data to participate in every analysis, each analysis had at least half of the palaces as its dataset. Since there was more than one palace under study, the experiences reconstructed are really of Maya palaces as a phenomenon in the culture as opposed to an idiosyncratic narrative of a single place.

Advancements in the Archaeology of the Body and Sensory Archaeology

One of the important aspects of this study is the placement of the ancient body in a spatial context. The ancient Maya body has been studied before, but always in how it

was adorned or positioned. By placing the body into space, it ceases being inert and much more is learned because it is now a body in motion. Movement is the link between the body and the built environment and should receive greater emphasis studying archaeological studies.

The same can be said for working with the human senses. Important work has been done in gaining an understanding of ancient Maya conceptions of the senses, but often it is not brought into the spatial and material contexts. Using the senses to analyze the built environment provides a deeper understanding of those senses as they are seen in a three-dimensional framework. Subsequently, a much deeper understanding is gained of the particular built environment. For the first time, not only do the color schemes and iconography of palaces seem Maya, but so do the morphology and the design principles behind it.

Possible New Directions

As mentioned above the experiences brought forth here relate a simple dichotomy that belies what was much more complex in actuality. Drawing forth more refined experiences would strengthen this type of exploration. I think some experiences that are ripe for study are those of royal women, visiting dignitaries, and perhaps royal children though the last would be very difficult.

I would have liked to have done more with the other human senses, especially smell. An examination of touch would be interesting to do as well, given the intimate nature of throne interactions. Cylinder vase depictions show that there were many

activities where the ancient Maya engaged in touching each other, and it would be interesting to try and tie these activities to the built environment. It would be fascinating to think of ways to incorporate the textures of the palace into the analysis. The Holmul palace plaster floors were impressively smooth when walked upon by bare feet.

I think shifting to a different set of ancient Maya architecture would be an important next step. For example, do elite households engage in the same or similar architectural maneuverings as palaces to demonstrate their superiority over some segment of the population? Does it matter if their “eliteness” is driven by economic means as opposed to political ones?

Comparing Maya palaces, through the archaeology of experience, to the palaces of other cultures, I think would also prove fruitful. By doing a cross-cultural study, it could be learned if the principles of architectural domination at play in the ancient Maya realm were used in a more universal manner. I do not believe this to be the case, yet I think contrasting the strategies would be just as elucidating.

Final Thoughts

Ancient Maya palaces were places where rulership enacted their strategies of self-preservation. Demonstrations of divine power, the exhibition of blood ties to important ancestors, and exhibitions of military prowess were constantly enacted. Yet, palaces were more than a setting for these activities. They were designed to facilitate these behaviors, but more than that they were created in ways that communicated the same themes of qualitative difference, legitimacy, strength, and authority in completely

different ways. By affecting human sensory perception and bodily movement, palaces contributed to the social claims of the ruler. Palaces were a rhetoric made material, but one that worked subtly and symbolically on both the brain, body, and heart.

This work is relevant because it increases our depth of knowledge of the ancient Maya and their built environment. It serves as a reminder that, even after the attention Maya palaces have received by the discipline of archaeology historically, there is still important work to be done. This is especially true of the built environment and attempts to make archaeological reconstructions of it closer to the social entity it actually was. More specifically, this is especially true about ancient Maya architecture where our understanding still is quite limited. And finally, this is particularly true about a responsible phenomenological approach to the past.

FIGURES



Figure 3.1: Piedras Negras Lintel 3 (after Authentic Maya 2005)

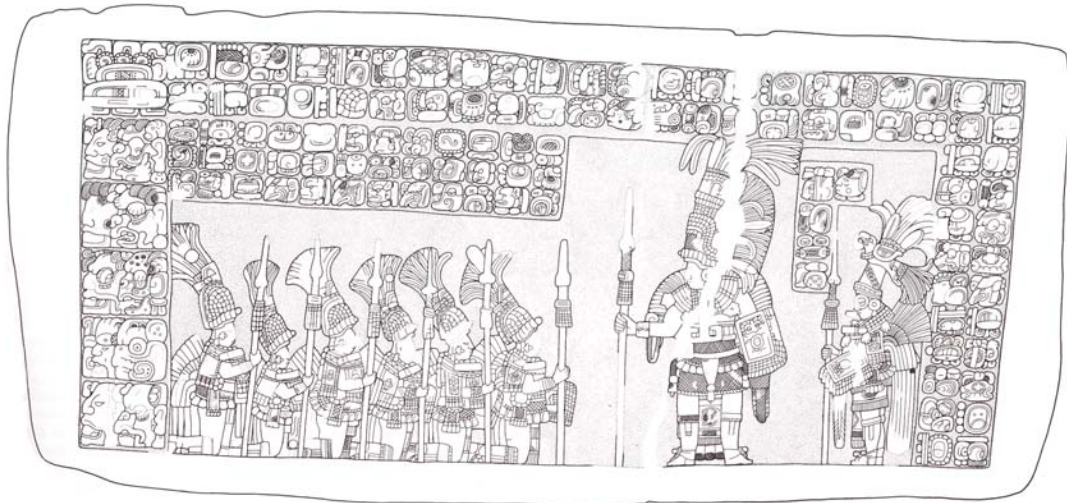
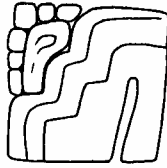


Figure 3.2: Piedras Negras Lintel 2 (after Schele and Miller 1986)

The “step” verb
 (“ascend, go up”?) in its
 early (a) and late (b)
 variants.



a



b

Figure 3.3: Maya Hieroglyphs for Tribute (after Stuart 1998)

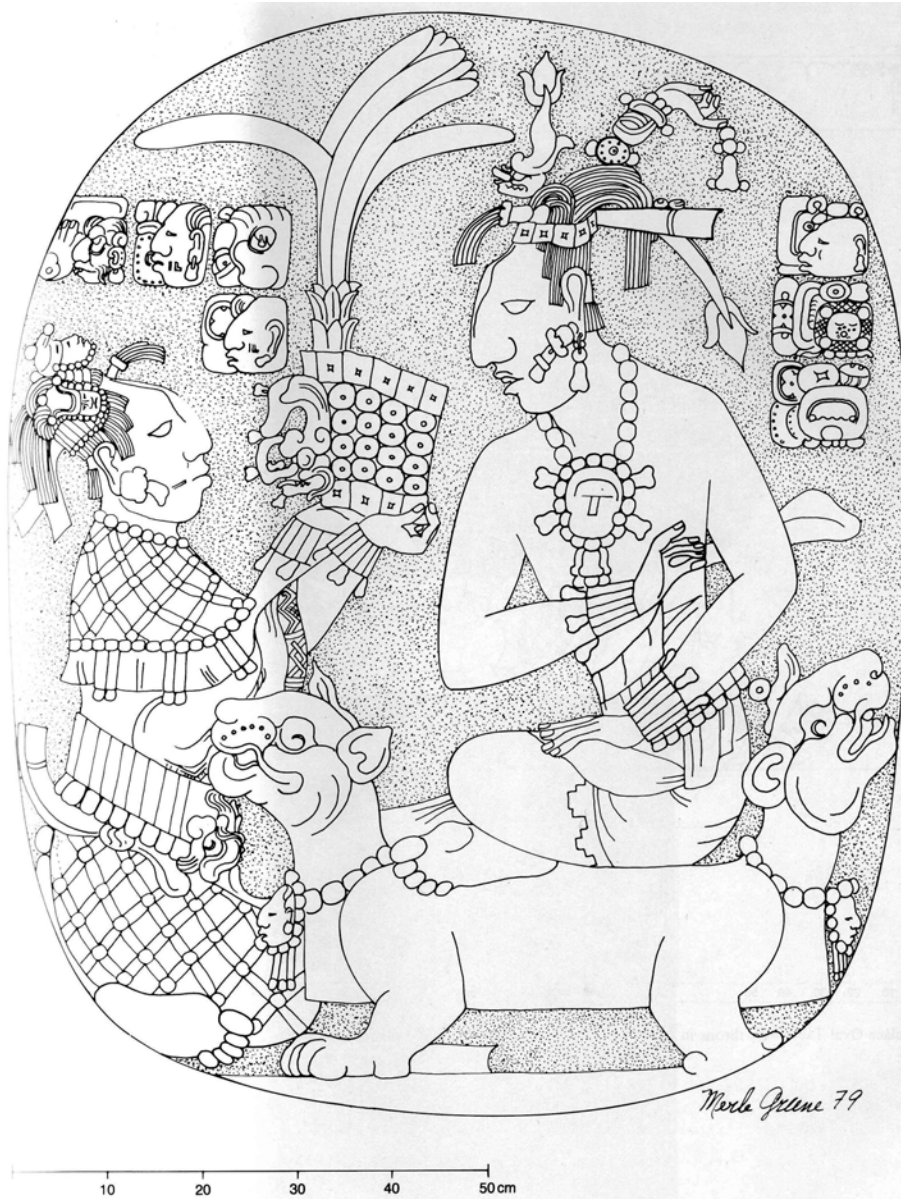


Figure 3.4: Oval Palace Tablet, Palenque (after Greene Robertson 1985a)

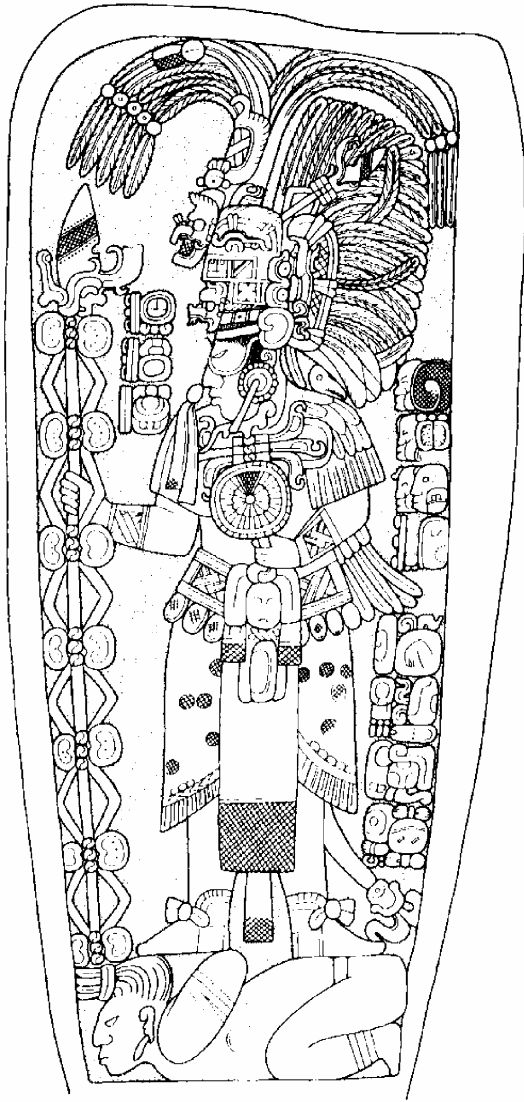


Figure 3.5: Naranjo Stela 8 (after Graham 1975)

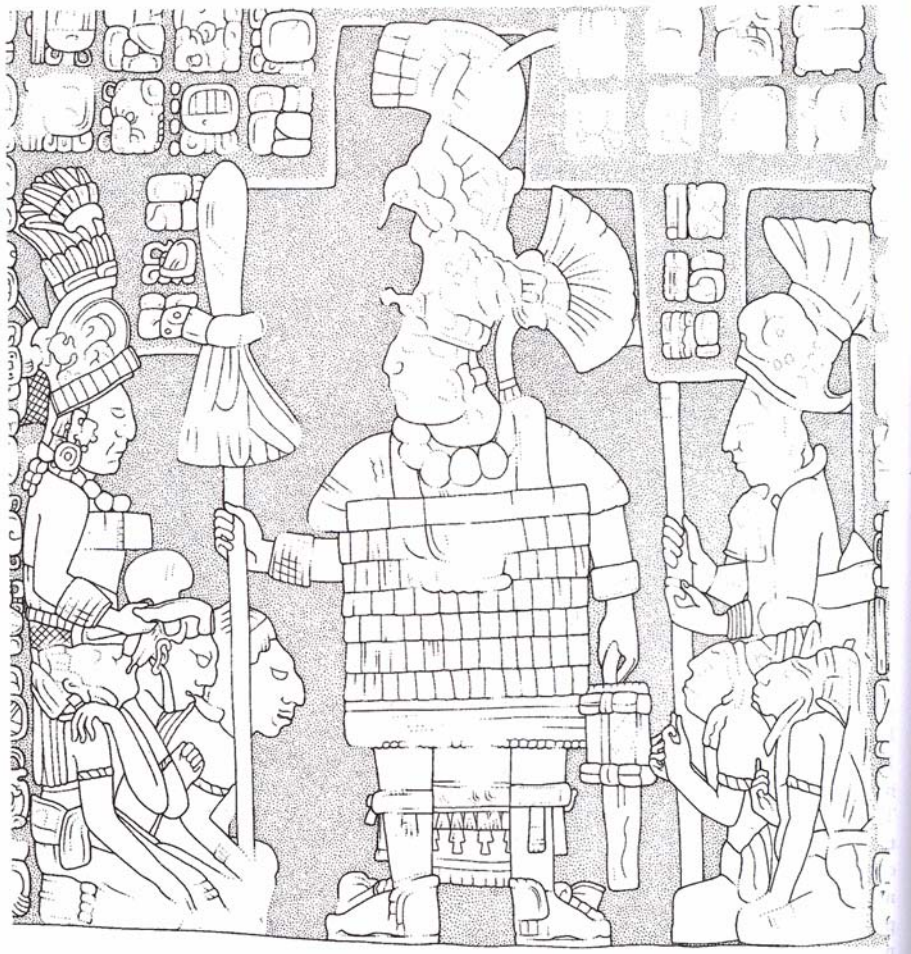


Figure 3.6: Piedras Negras Panel 15 (after Houston et al. 2006)

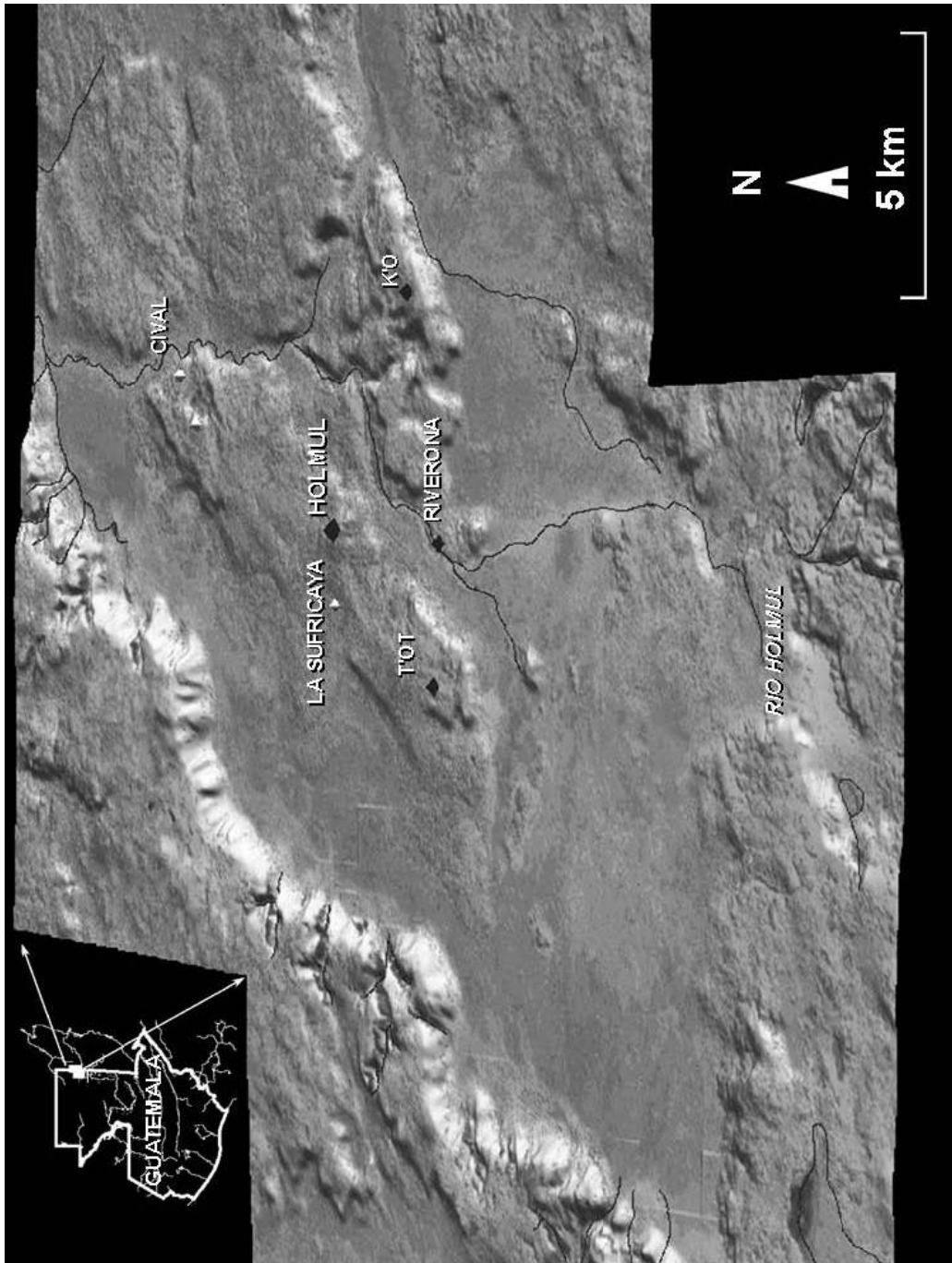


Figure 4.1: Landsat Image of the Holmul Area (Image Courtesy of the Holmul Archaeological Project)

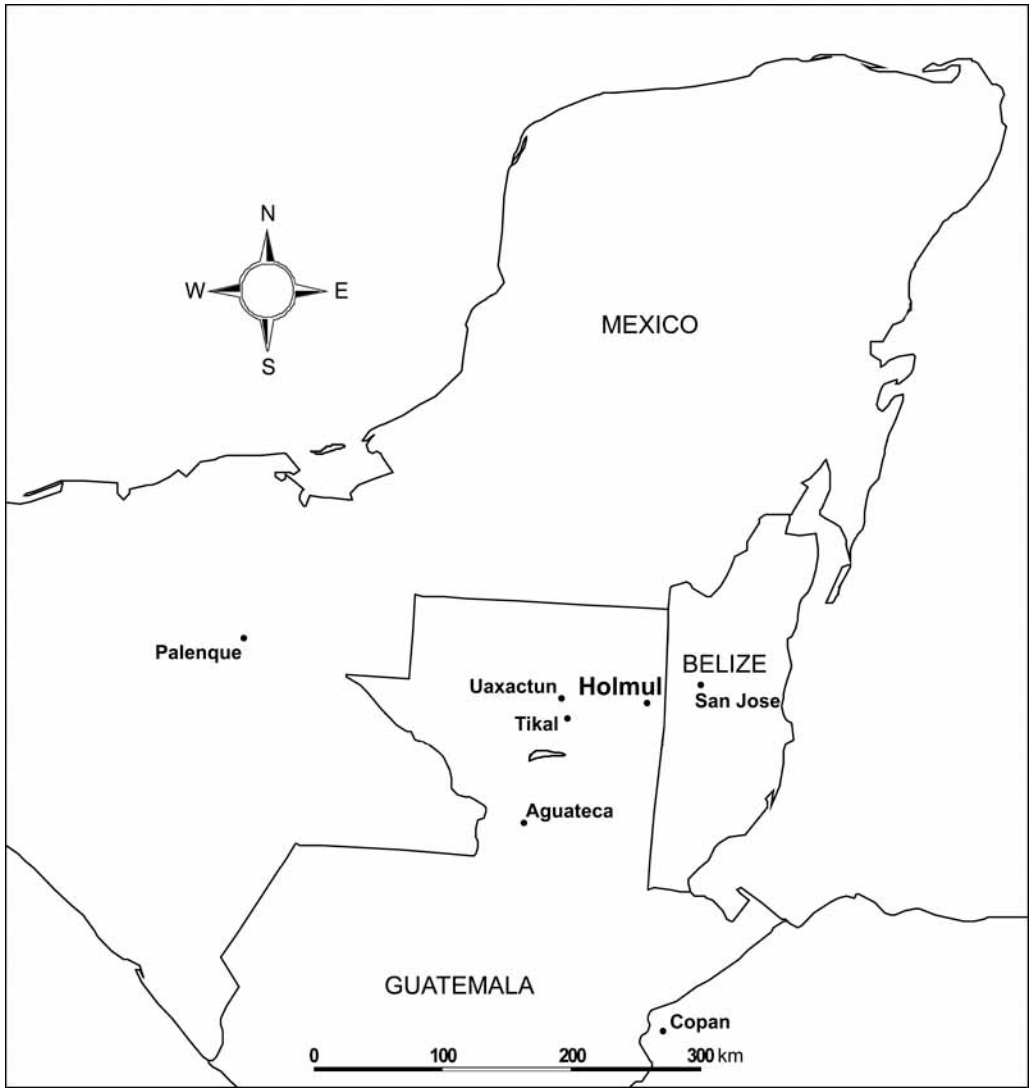


Figure 4.2: Maya Regional Map with Sites from the Text

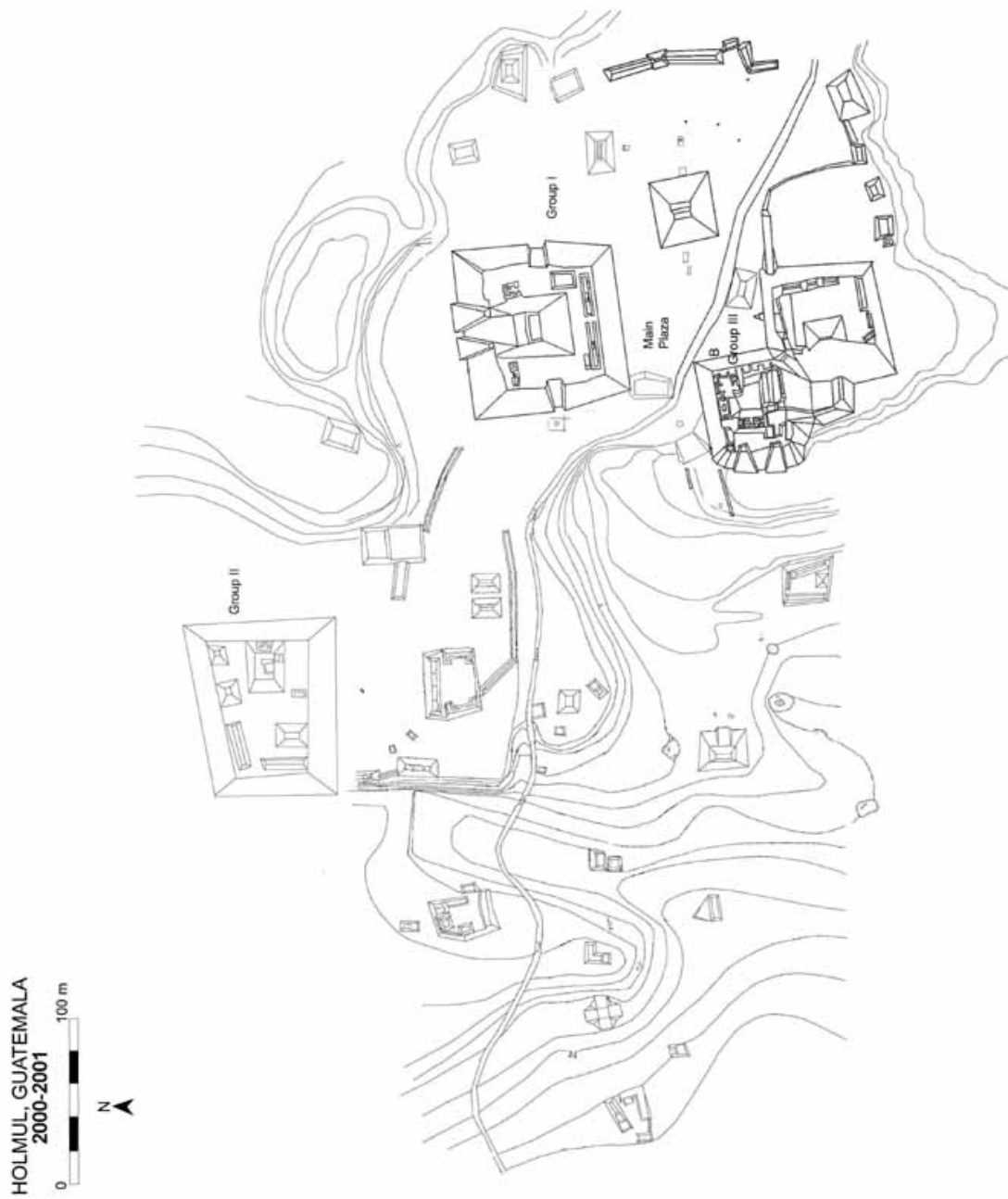


Figure 4.3: Holmul Site Map (Image Courtesy of the Holmul Archaeological Project)

Group III, Courts A and B

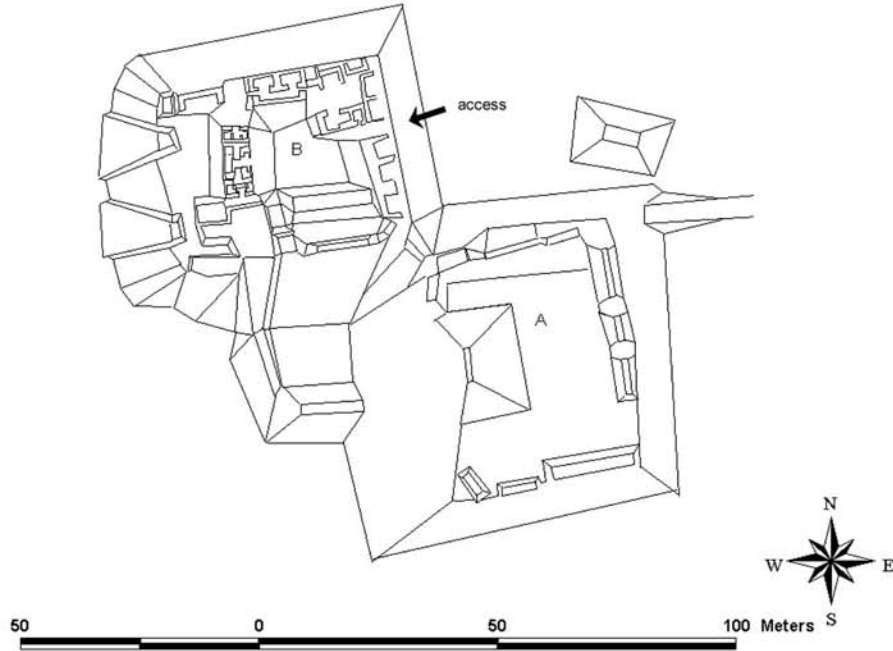


Figure 4.4: Plan of Holmul Group III, Courts A and B (Image Courtesy of the Holmul Archaeological Project)

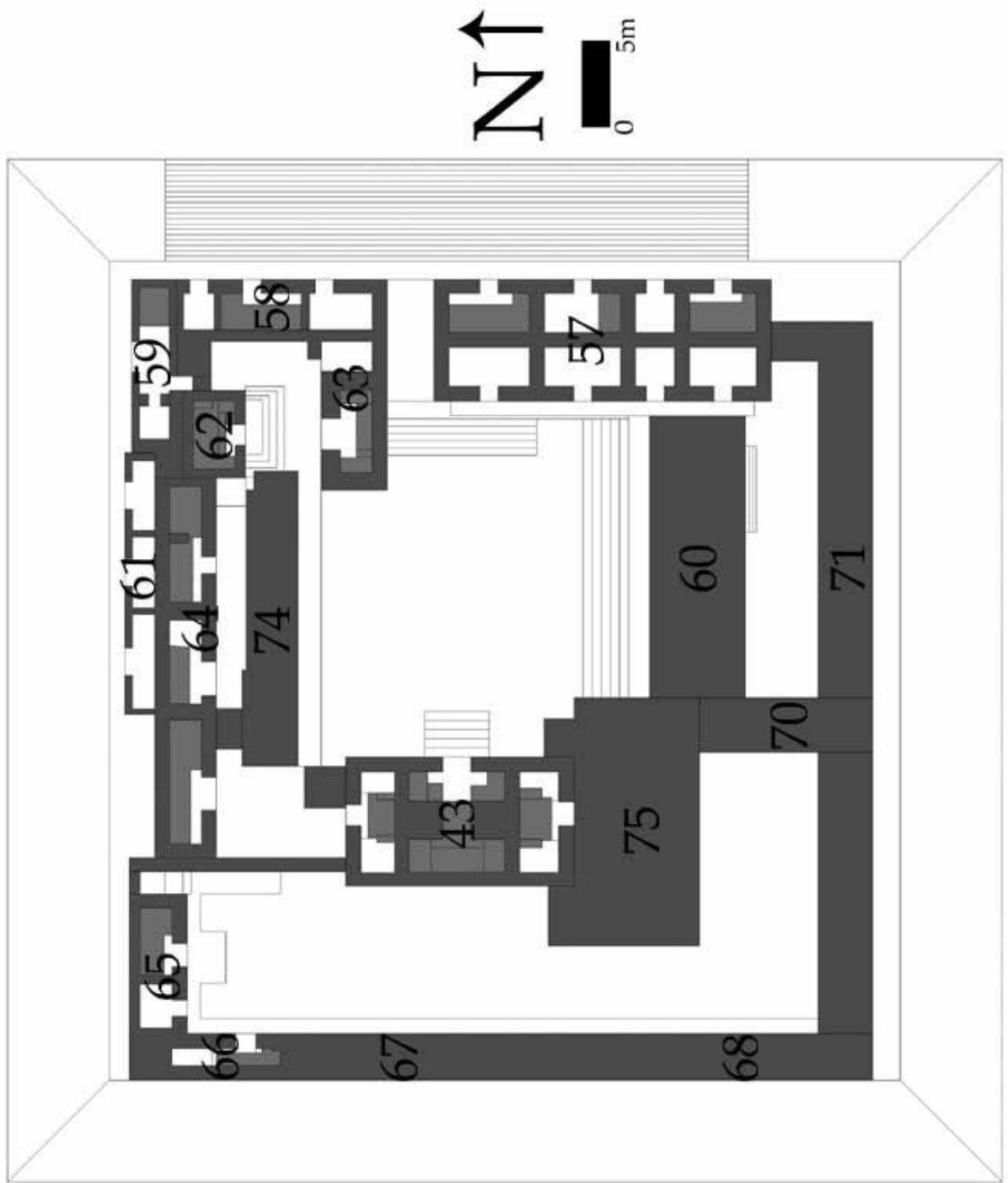


Figure 4.5: Structures within the Holmul Palace

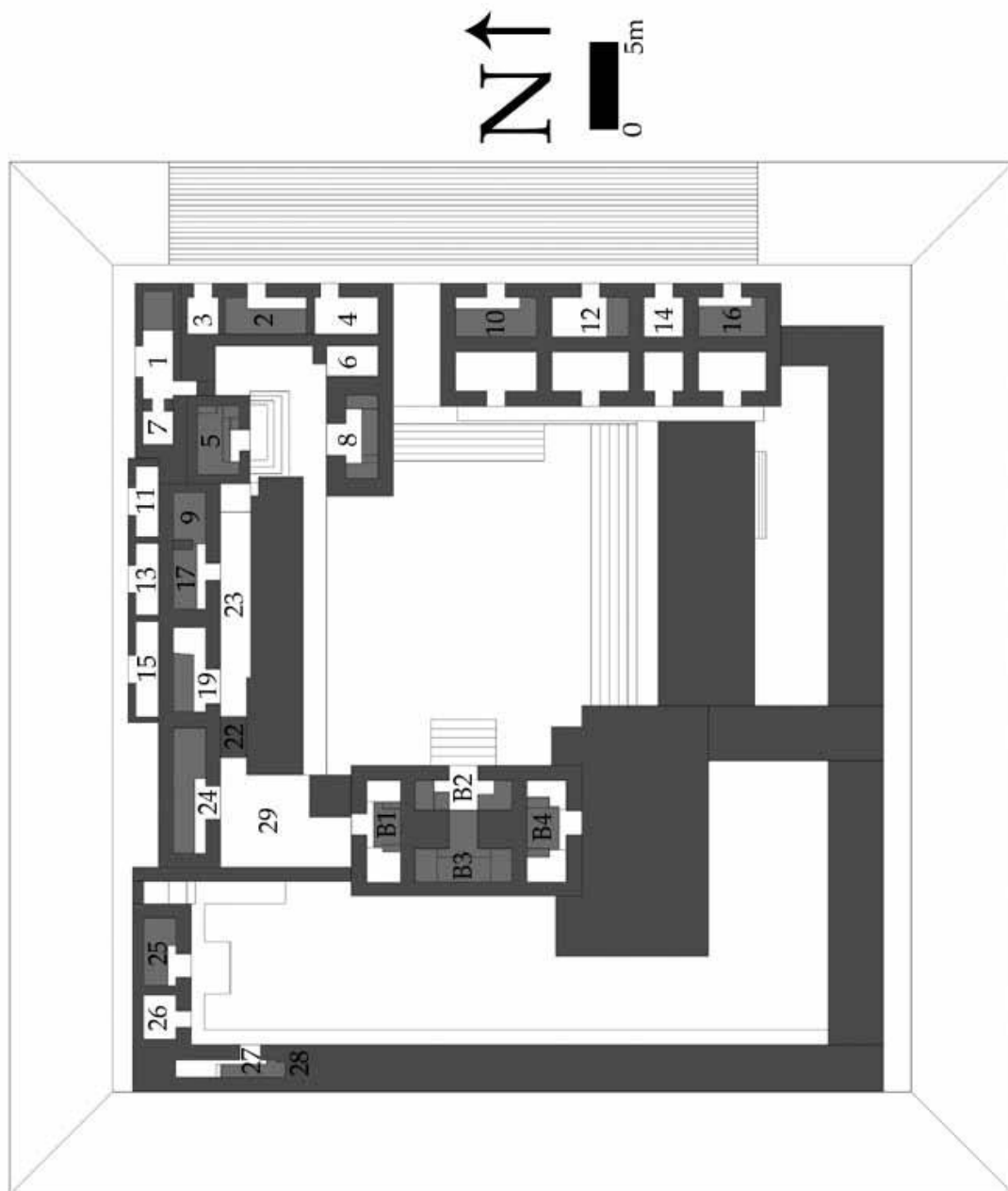


Figure 4.6: Rooms within the Holmul Palace

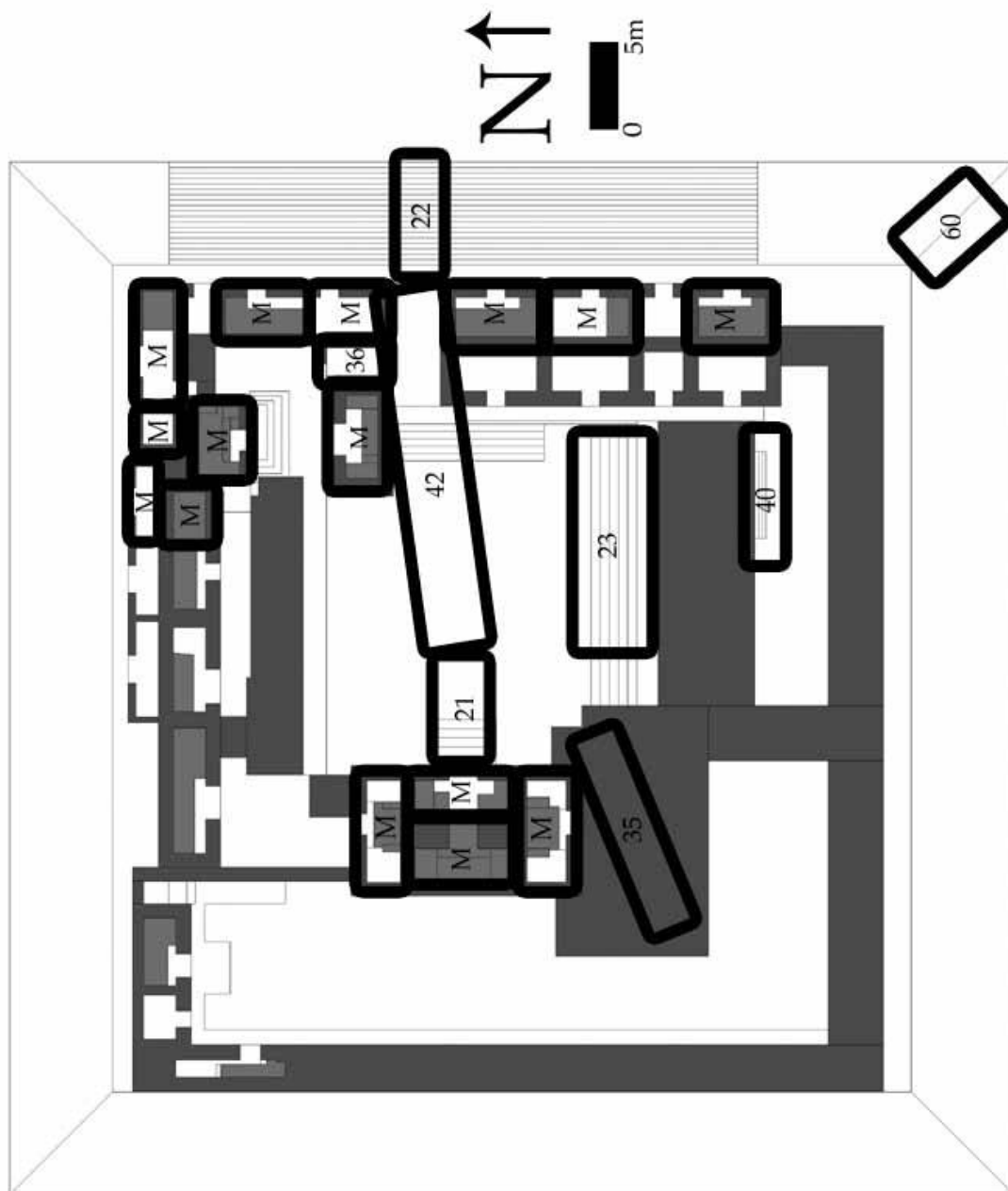


Figure 4.7: Others' Trenches

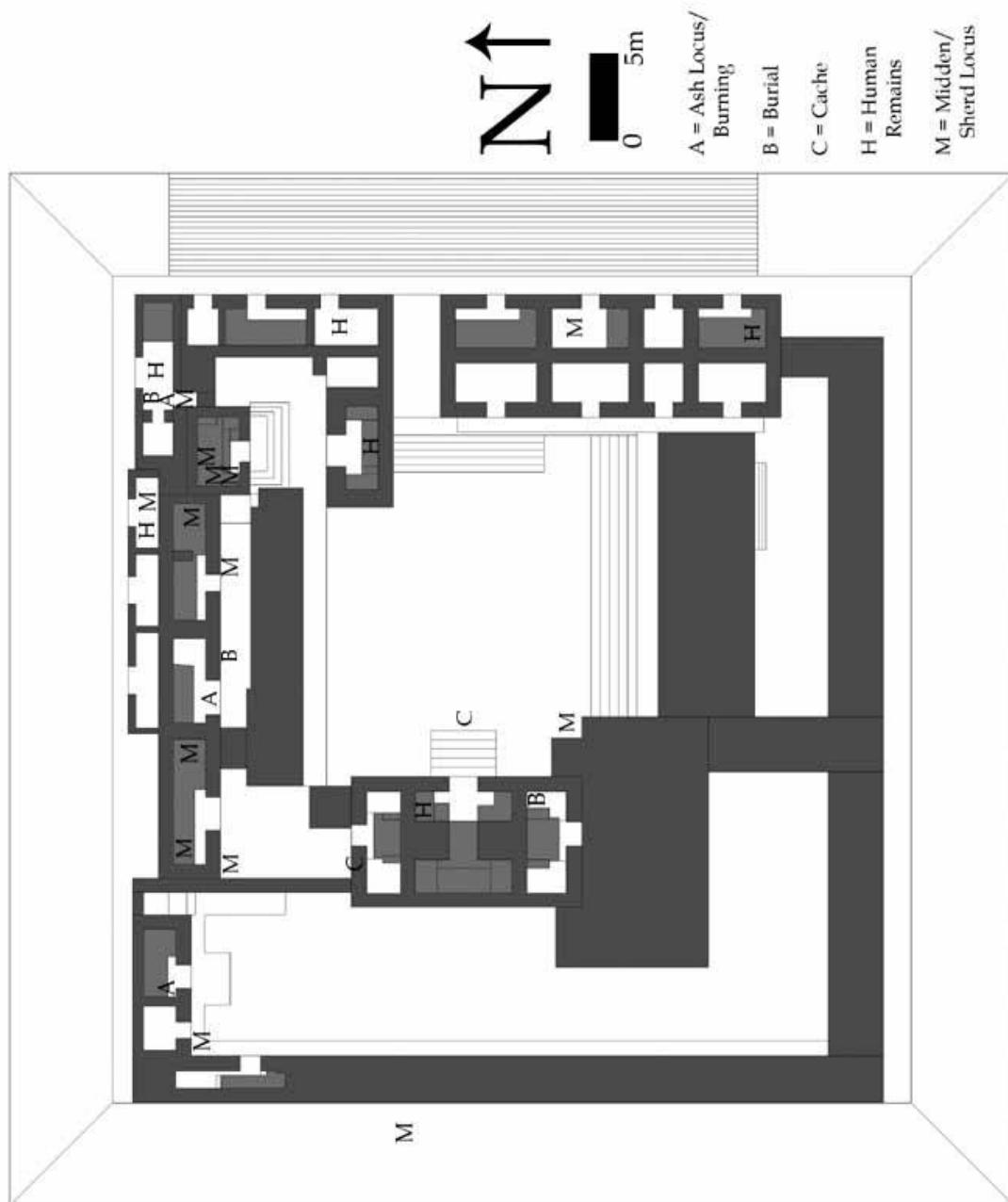


Figure 4.8: Burials, Noted Small Finds, and Middens within the Palace

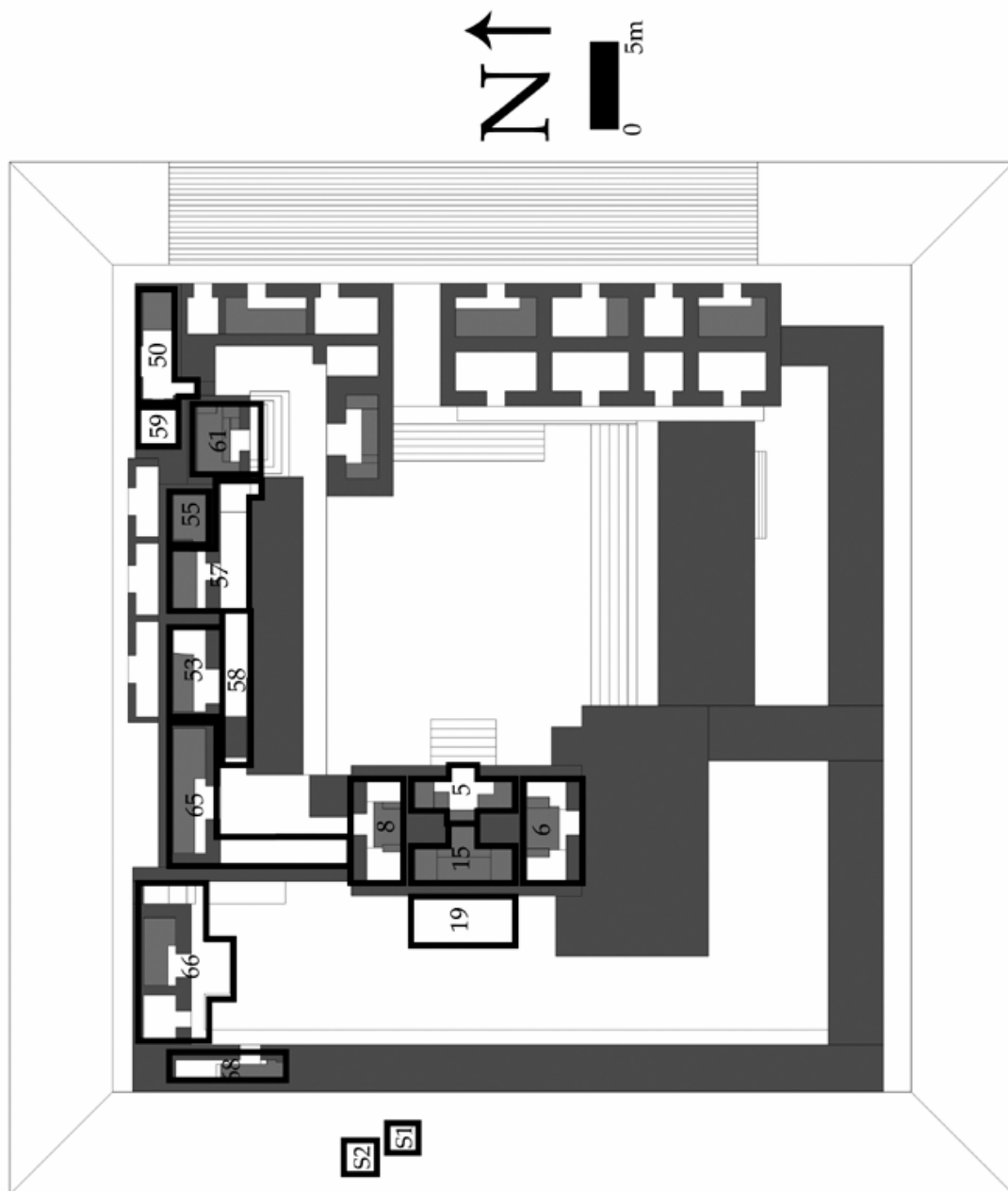


Figure 4.9: Trenches placed with the Holmul Palace



Figure 4.10: Photo of Burial 1, Room B4 *In Situ* (Image Courtesy of the Holmul Archaeological Project)

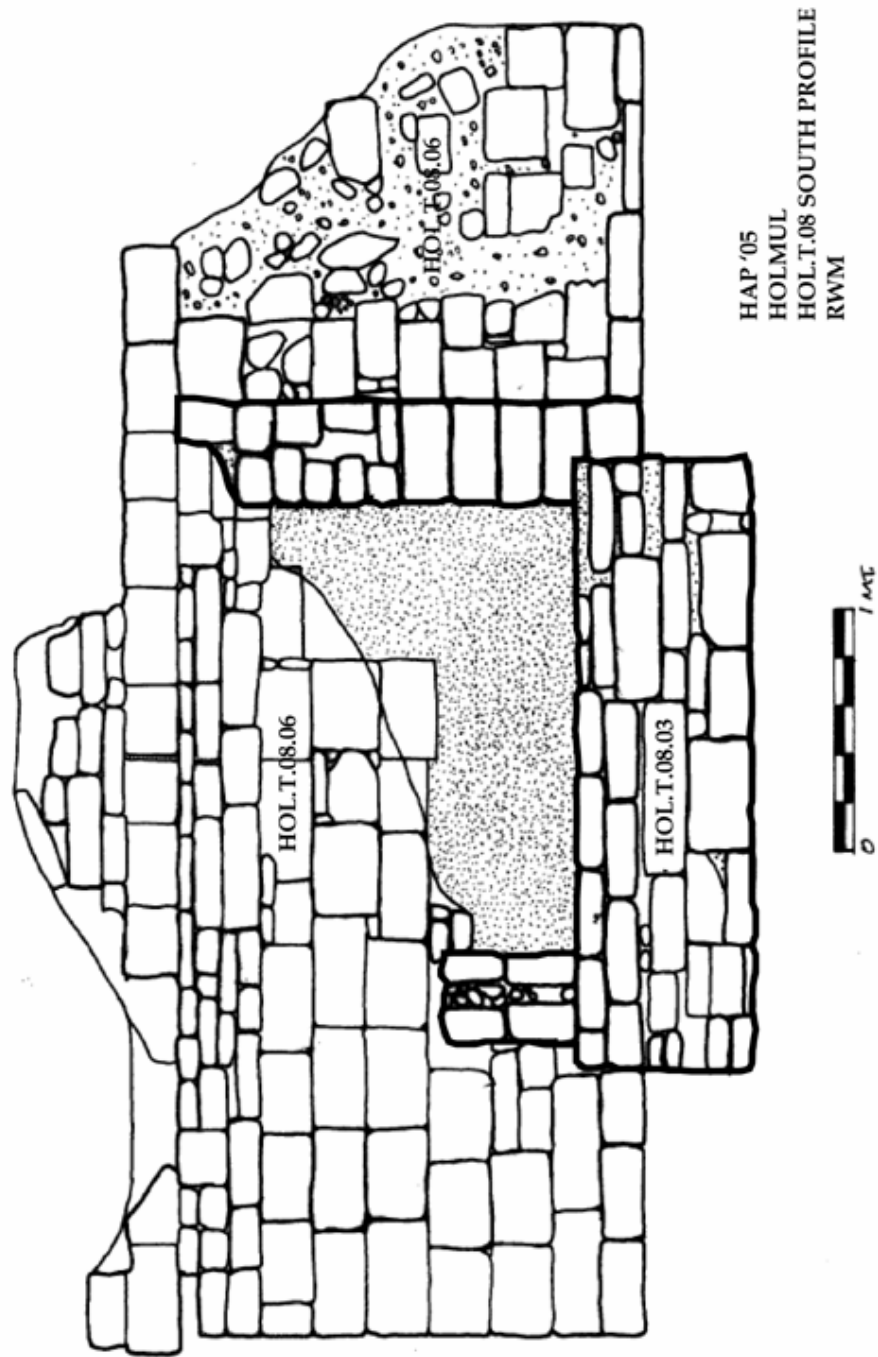


Figure 4.11: South Profile of HOL.T.08, Structure 43, Room B1 (Image Courtesy of the Holmul Archaeological Project)



Figure 4.12: East Profile of HOL.T.50, Room 1 (Image Courtesy of the Holmul Archaeological Project)

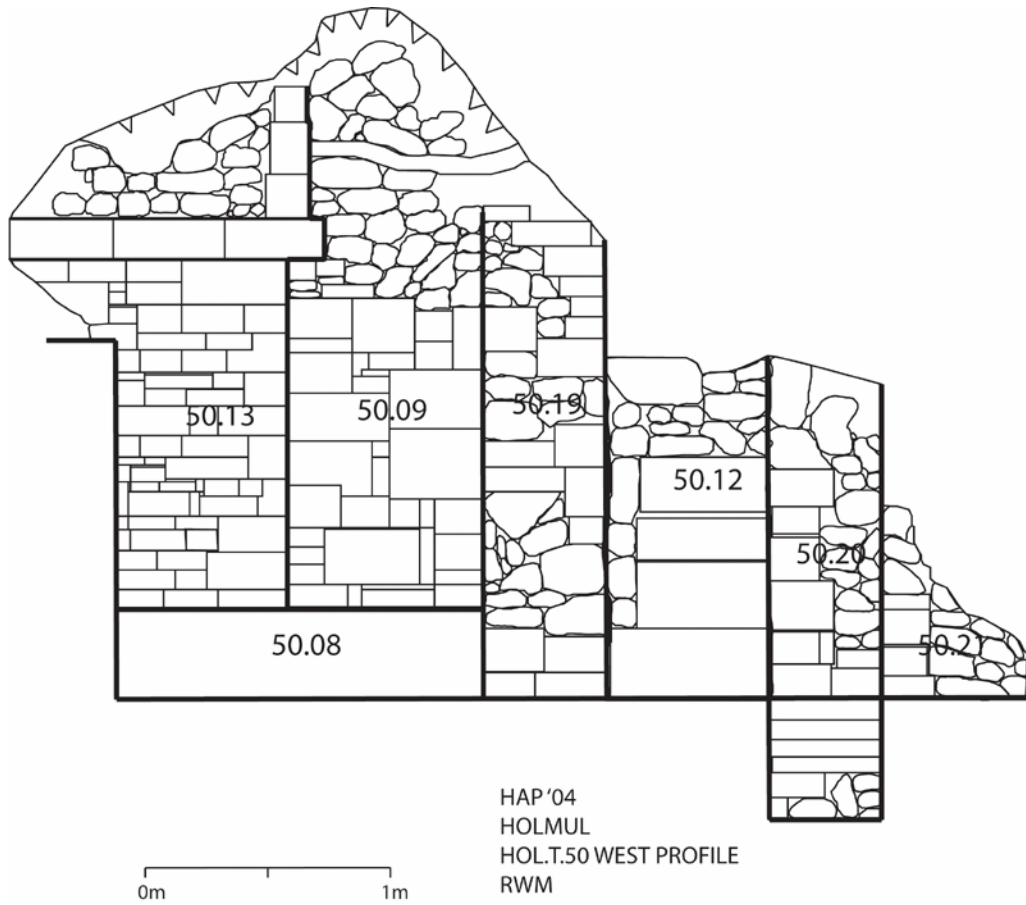


Figure 4.13: West Profile of HOL.T.50, Room 1 (Image Courtesy of the Holmul Archaeological Project)

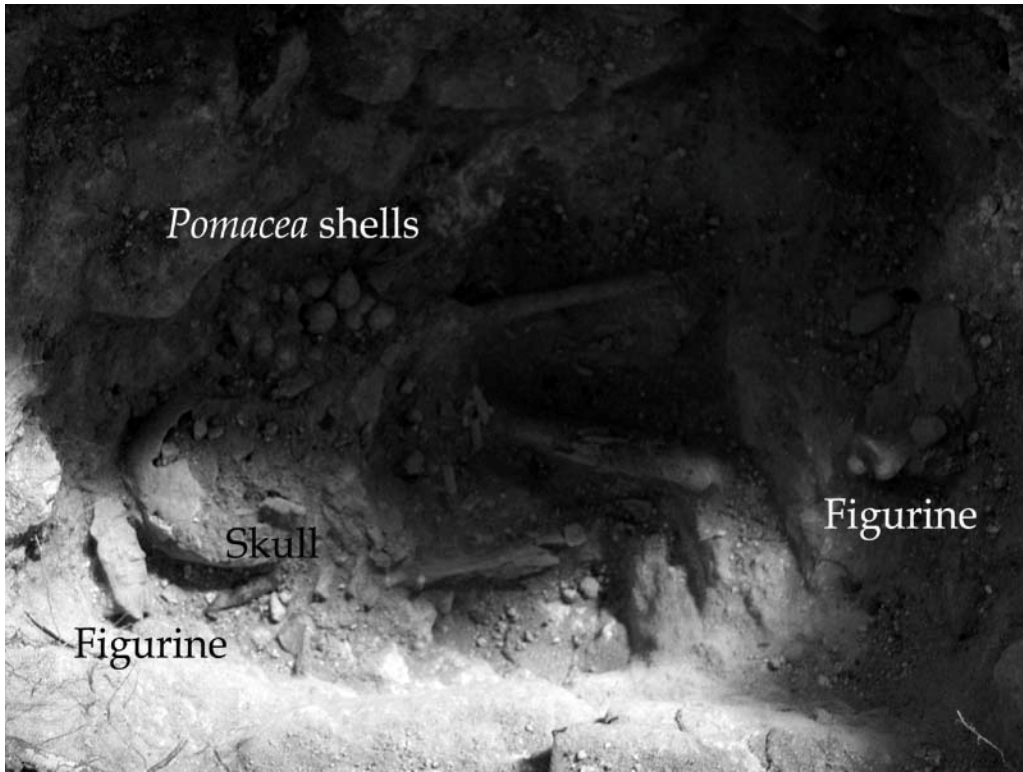


Figure 4.14: Photo of Burial 23, Room 1 *In Situ* (Image Courtesy of the Holmul Archaeological Project)



Figure 4.15: Photo of Figurine from Burial 23 (Image Courtesy of the Holmul Archaeological Project)



Figure 4.16. Bark-beater Recovered from Room 9 (Image Courtesy of the Holmul Archaeological Project)

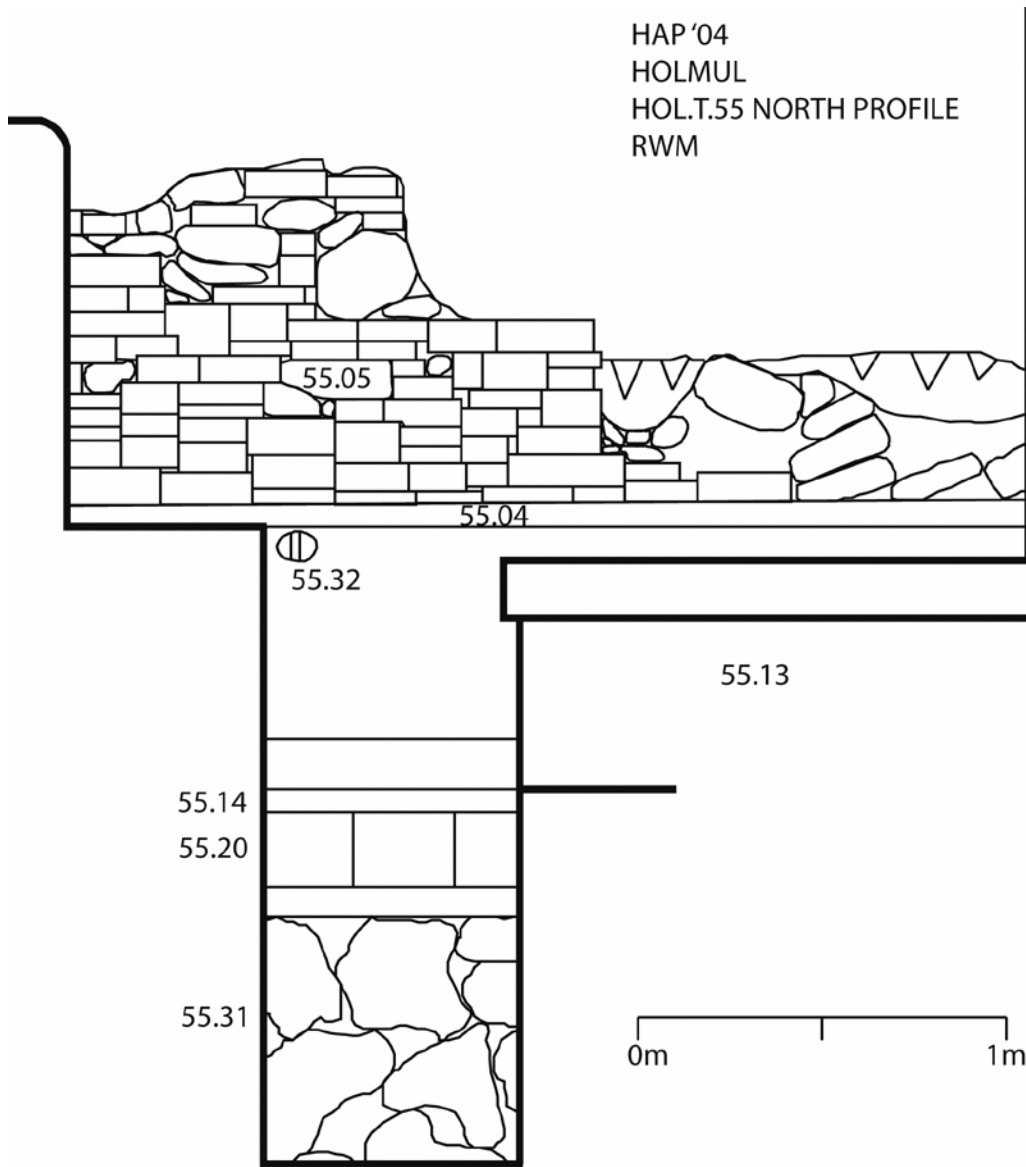


Figure 4.17: North Profile of HOL.T.55, Room 9 (Image Courtesy of the Holmul Archaeological Project)

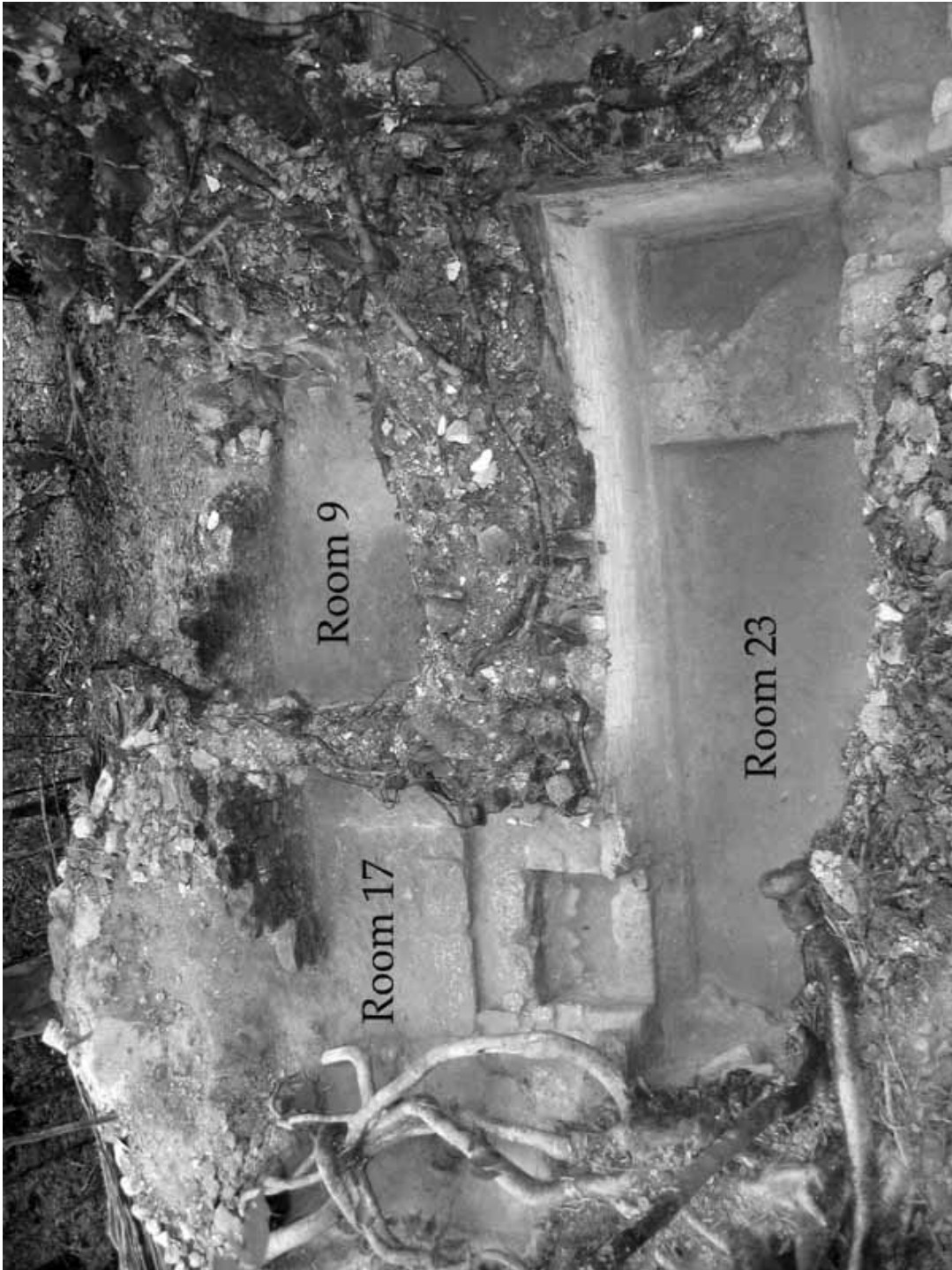


Figure 4.18: Photo of HOL.T.57, Rooms 17 and 23 (Image Courtesy of the Holmul Archaeological Project)

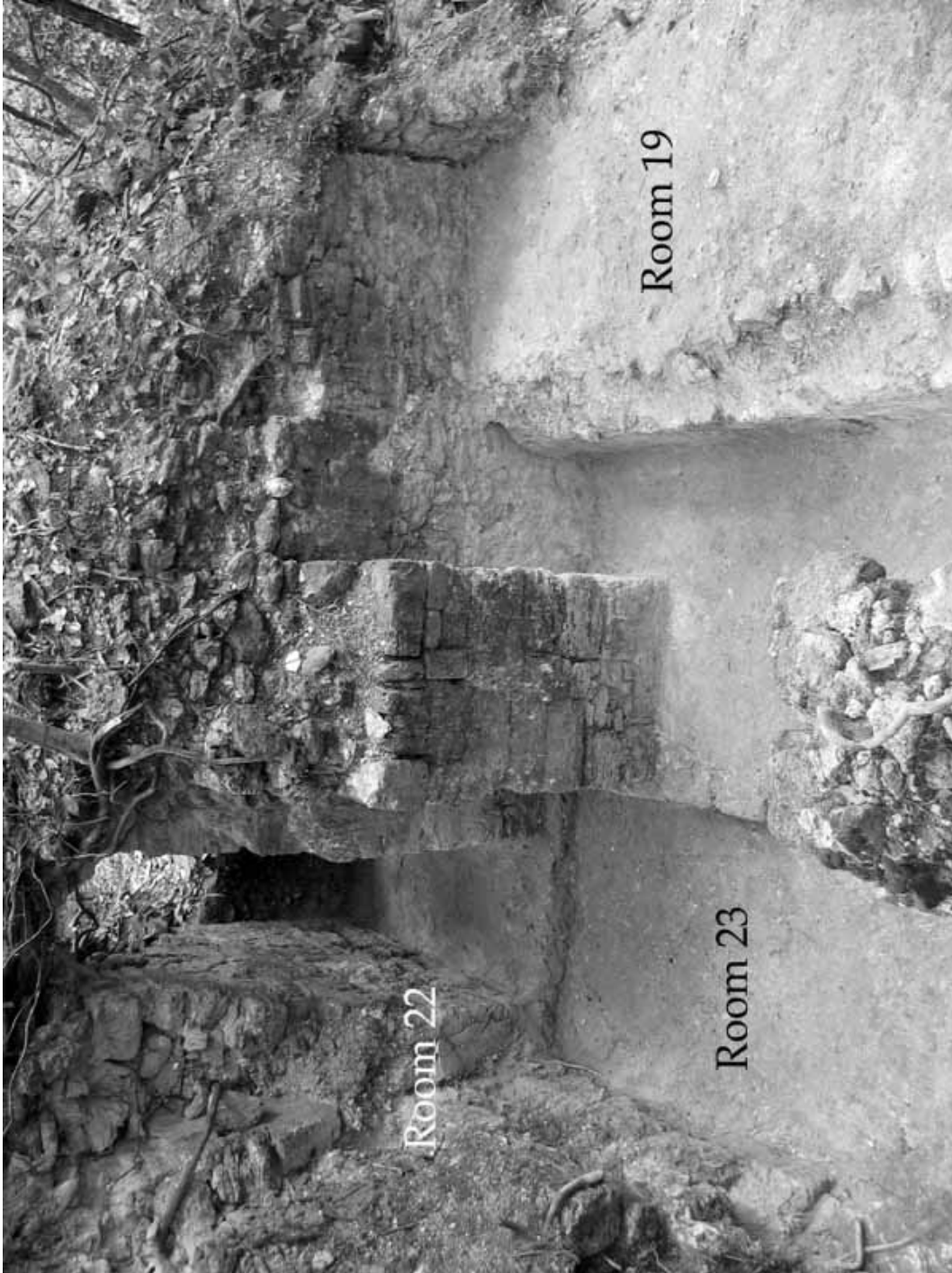


Figure 4.19: Photo of HOL.T.57 and 58, Rooms 19, 22, and 23 (Image Courtesy of the Holmul Archaeological Project)



Figure 4.20: Photo of Burial 22, Room 23 *In Situ* (Image Courtesy of the Holmul Archaeological Project)



Figure 4.21: Photo of Shell Pendant from Burial 22 (Image Courtesy of the Holmul Archaeological Project)



Figure 4.22: Photo of HOL.T.59, Room 7 (Image Courtesy of the Holmul Archaeological Project)

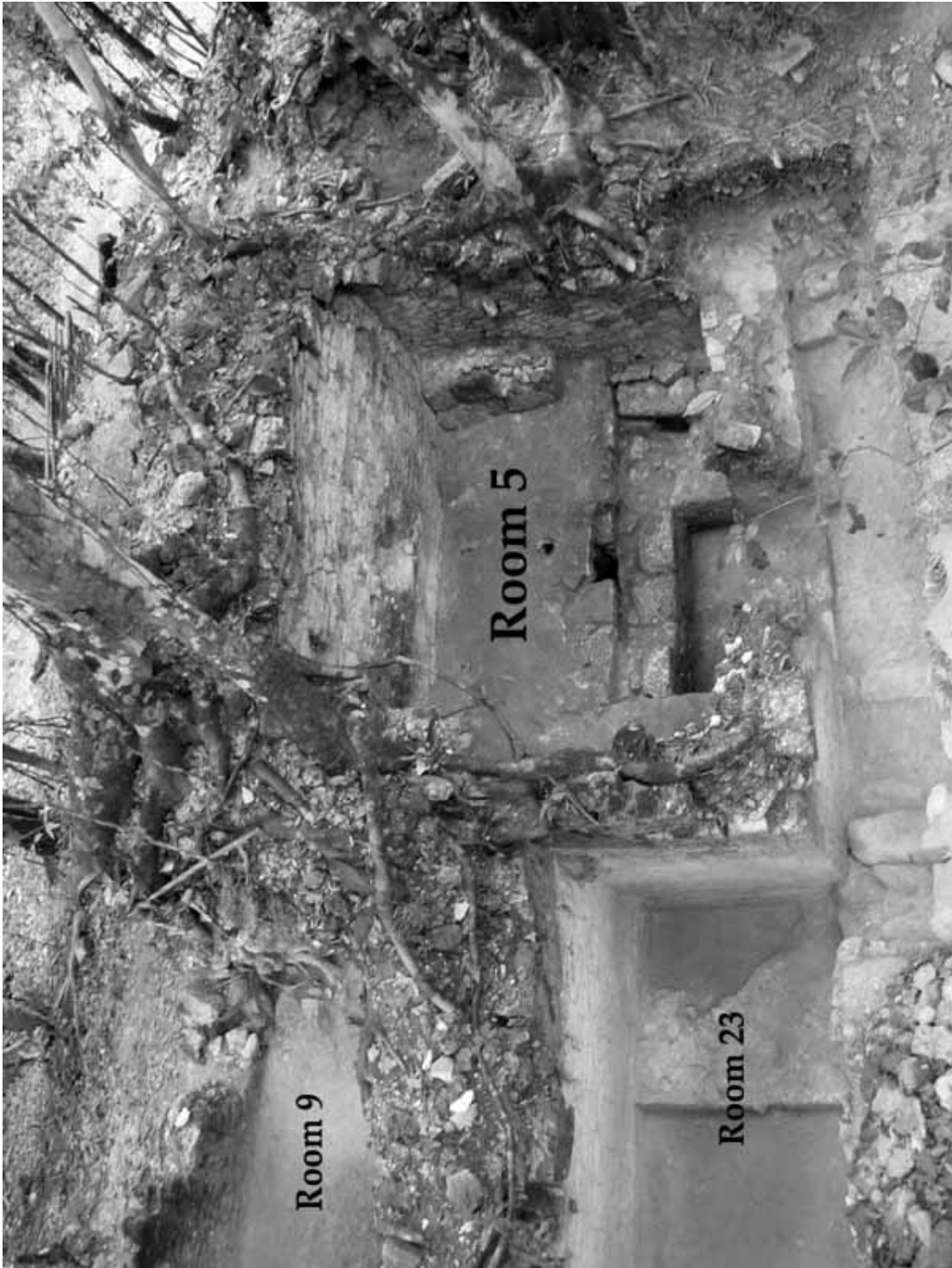


Figure 4.23: Photo of HOL.T.61, Room 5 (Image Courtesy of the Holmul Archaeological Project)

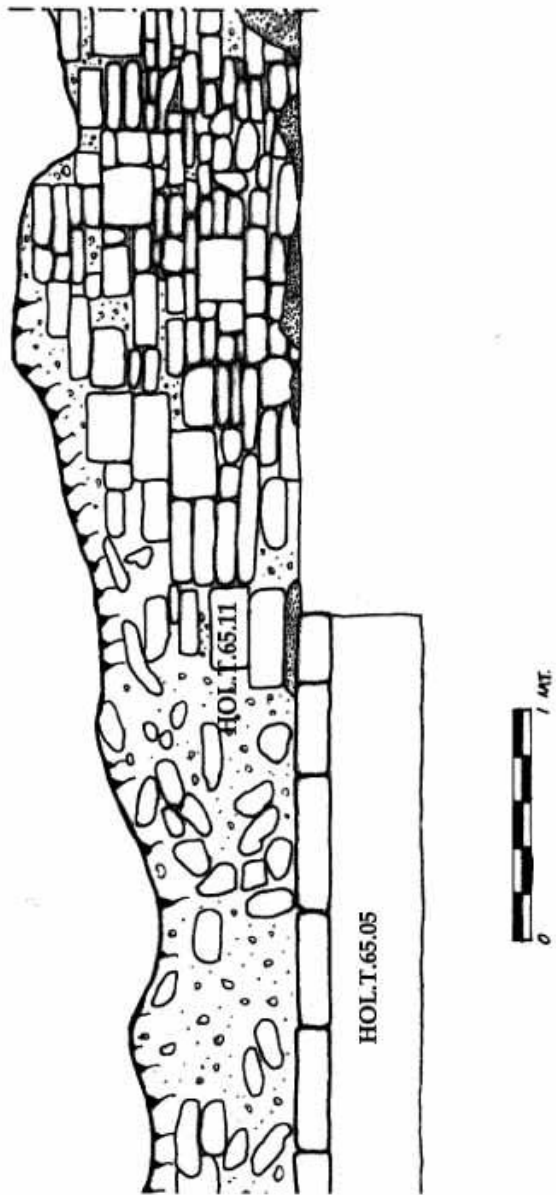


Figure 4.24: North Profile of HOL.T.65, Room 24 (Image Courtesy of the Holmul Archaeological Project)

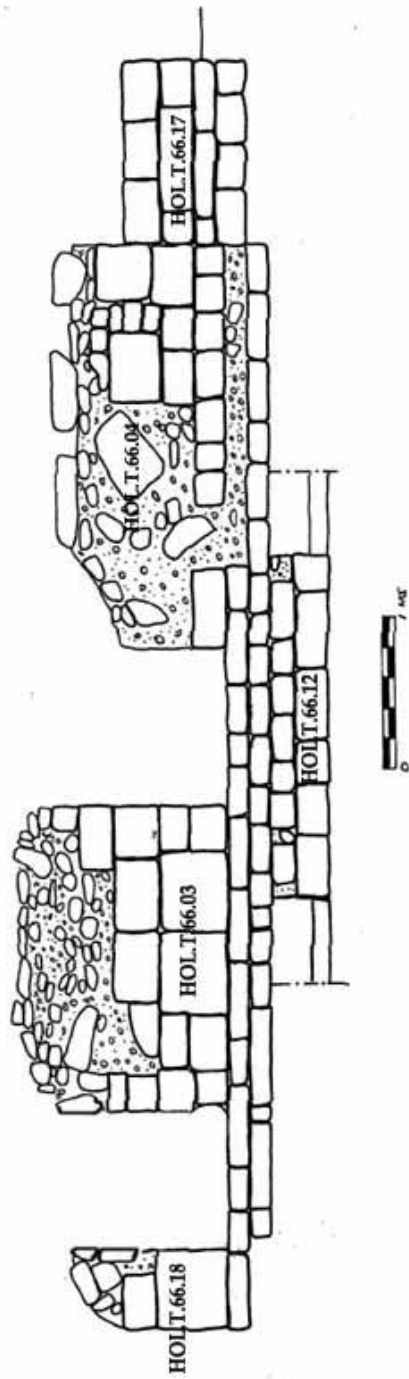


Figure 4.25: North Profile of South Walls of HOL.T.66, Rooms 25 and 26 (Image Courtesy of the Holmul Archaeological Project)

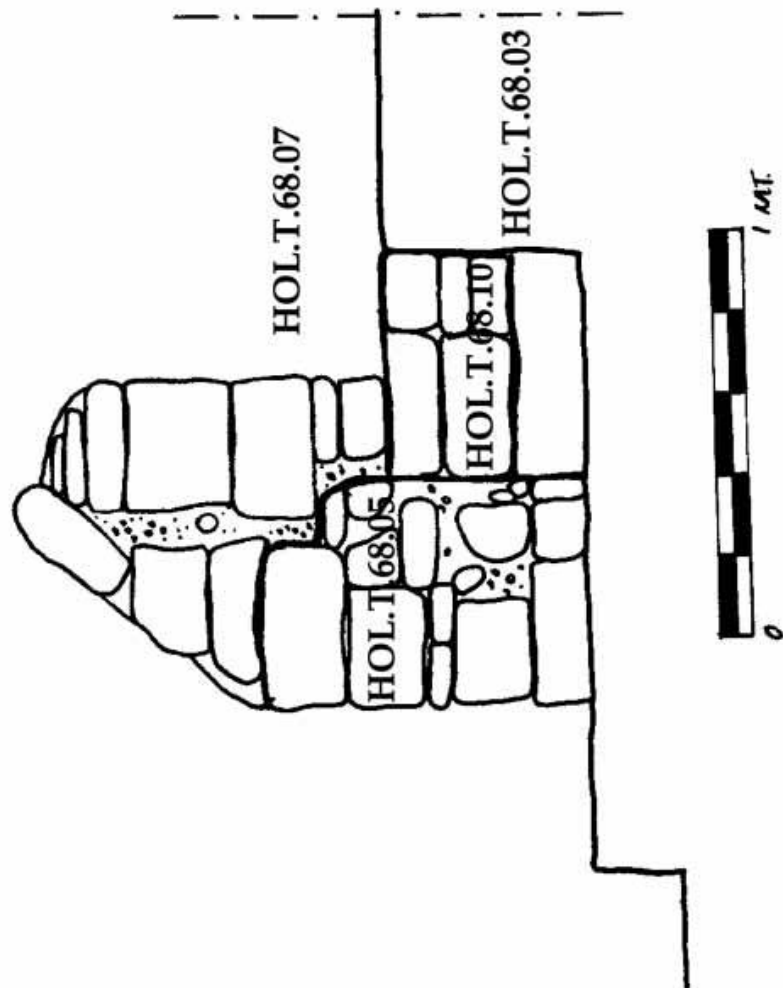
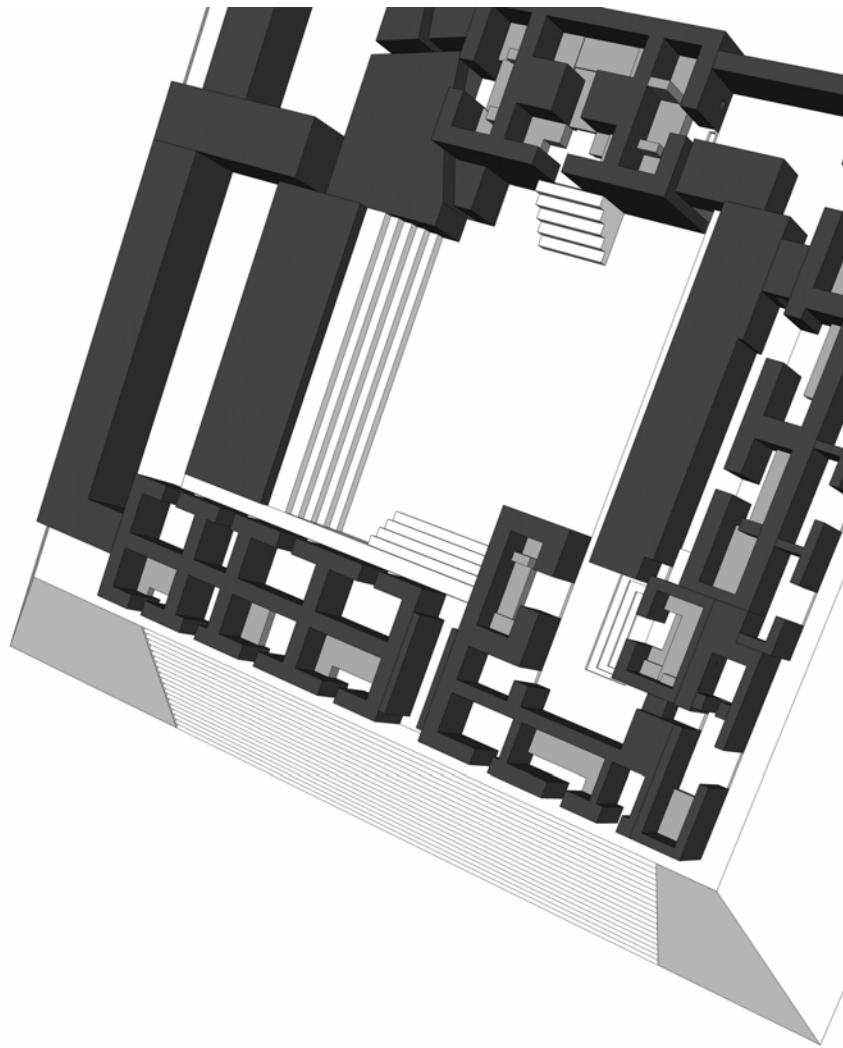


Figure 4.26: North Profile of South Wall and Steps of HOL.T.68, Room 27 (Image Courtesy of the Holmul Archaeological Project)



The Eastern Approach

Isometric View.
North is to the Bottom.
Throne and Bench Features
are in Light Gray.

Figure 4.27: The Eastern Approach. 3-D Reconstruction

The Central Palace Courtyard

Isometric View.
North is to the Top.
Throne and Bench features
are in Light Gray.

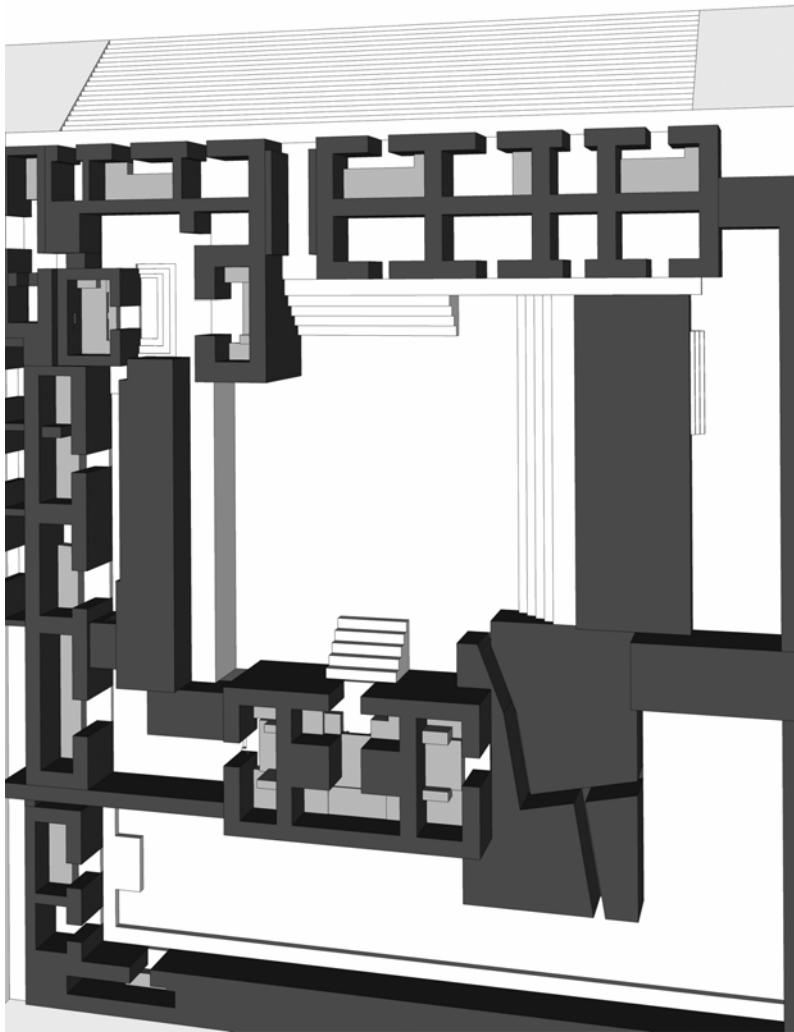


Figure 4.28: The Central Palace Court. 3-D Reconstruction

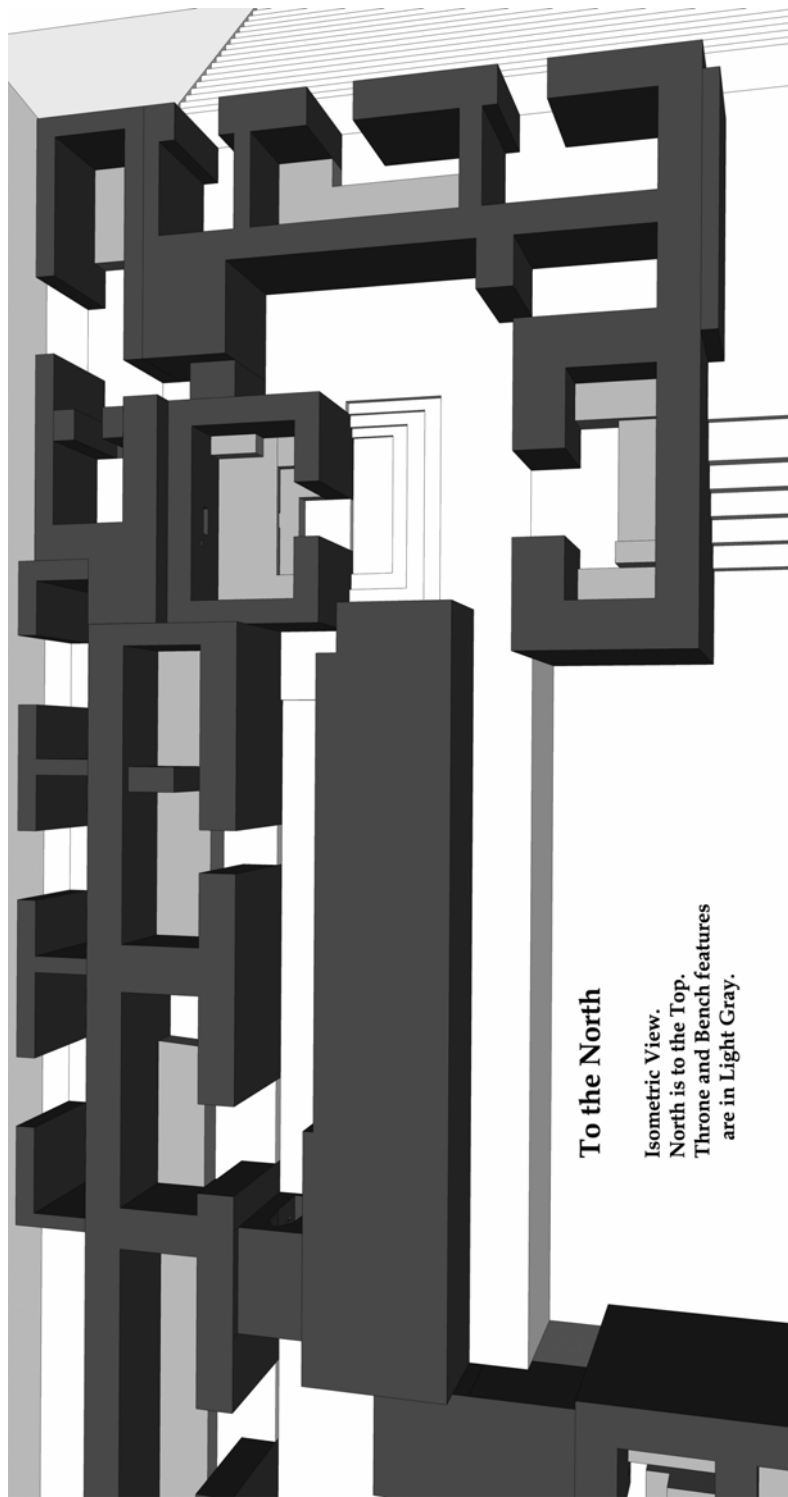


Figure 4.29: Northeast Courtyard. 3-D Reconstruction

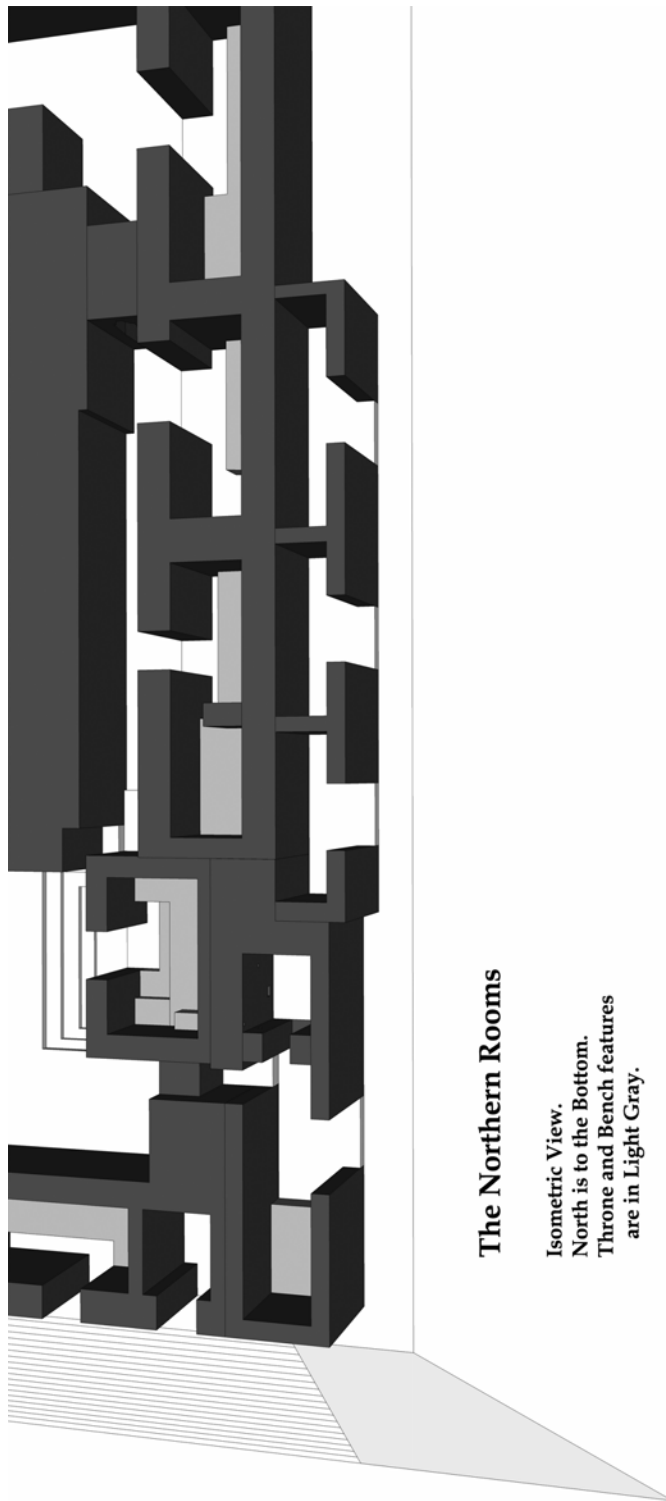


Figure 4.30: The Northern Rooms. 3-D Reconstruction

The Northern Hallway

Isometric View.
North is to the Top.
Throne and Bench features
are in Light Gray.

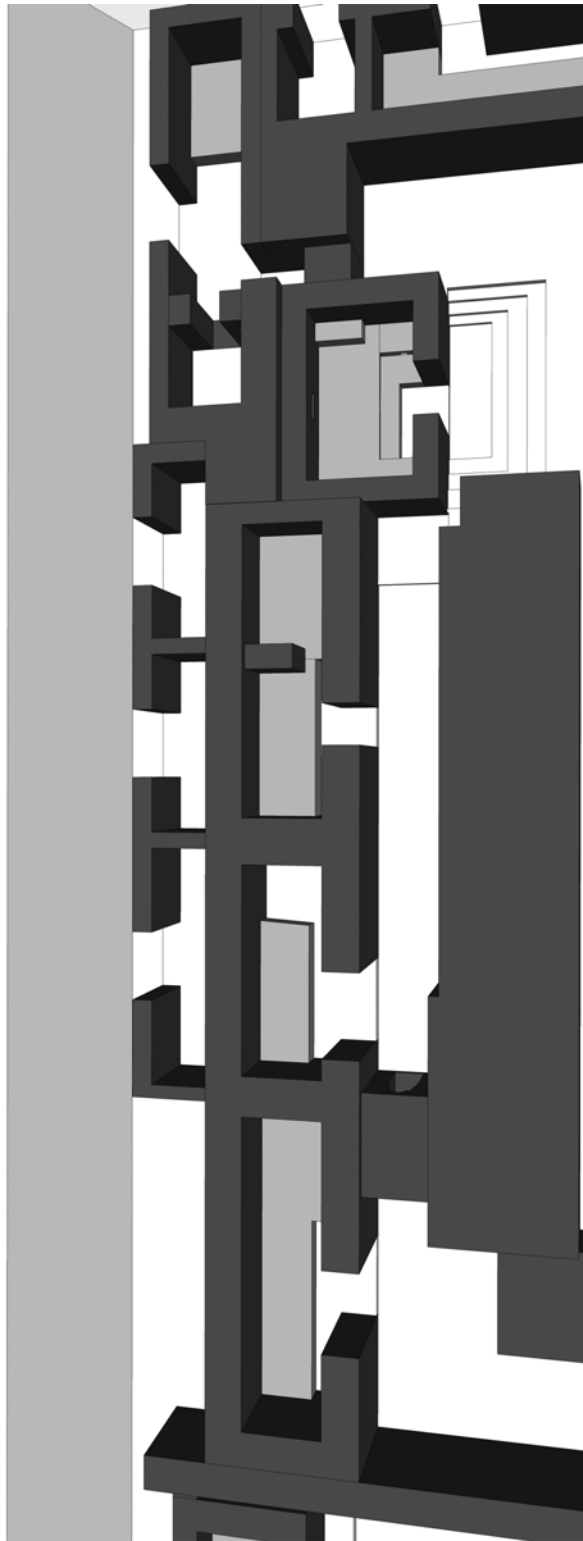
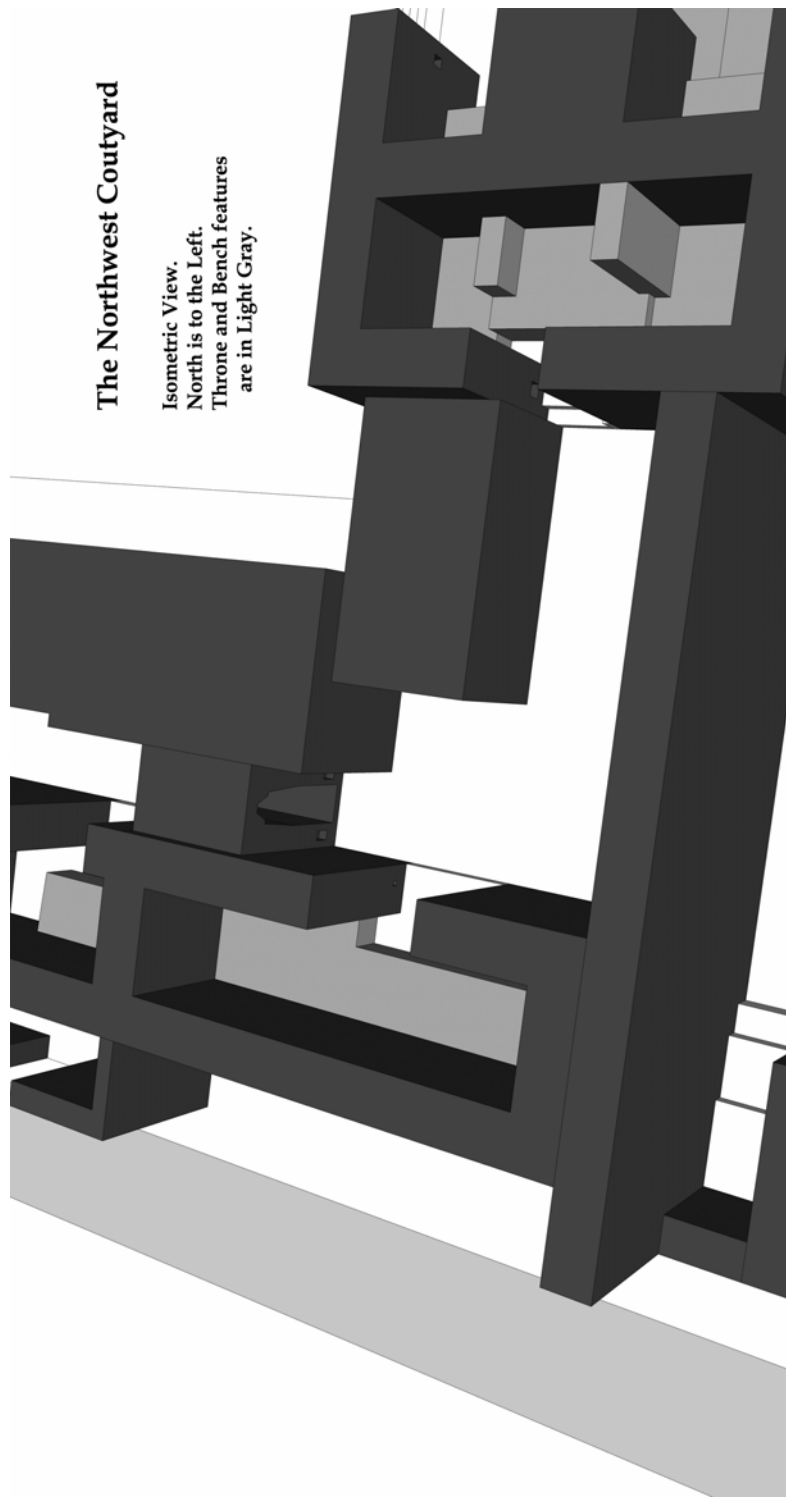


Figure 4.31: The Northern Hallway. 3-D Reconstruction



The Northwest Courtyard

Isometric View.
North is to the Left.
Throne and Bench features
are in Light Gray.

Figure 4.32: The Northwest Courtyard. 3-D Reconstruction

**Structure 60 and the
Southern Courtyard**

Isometric View.
North is to the Top.
Throne and Bench features
are in Light Gray.

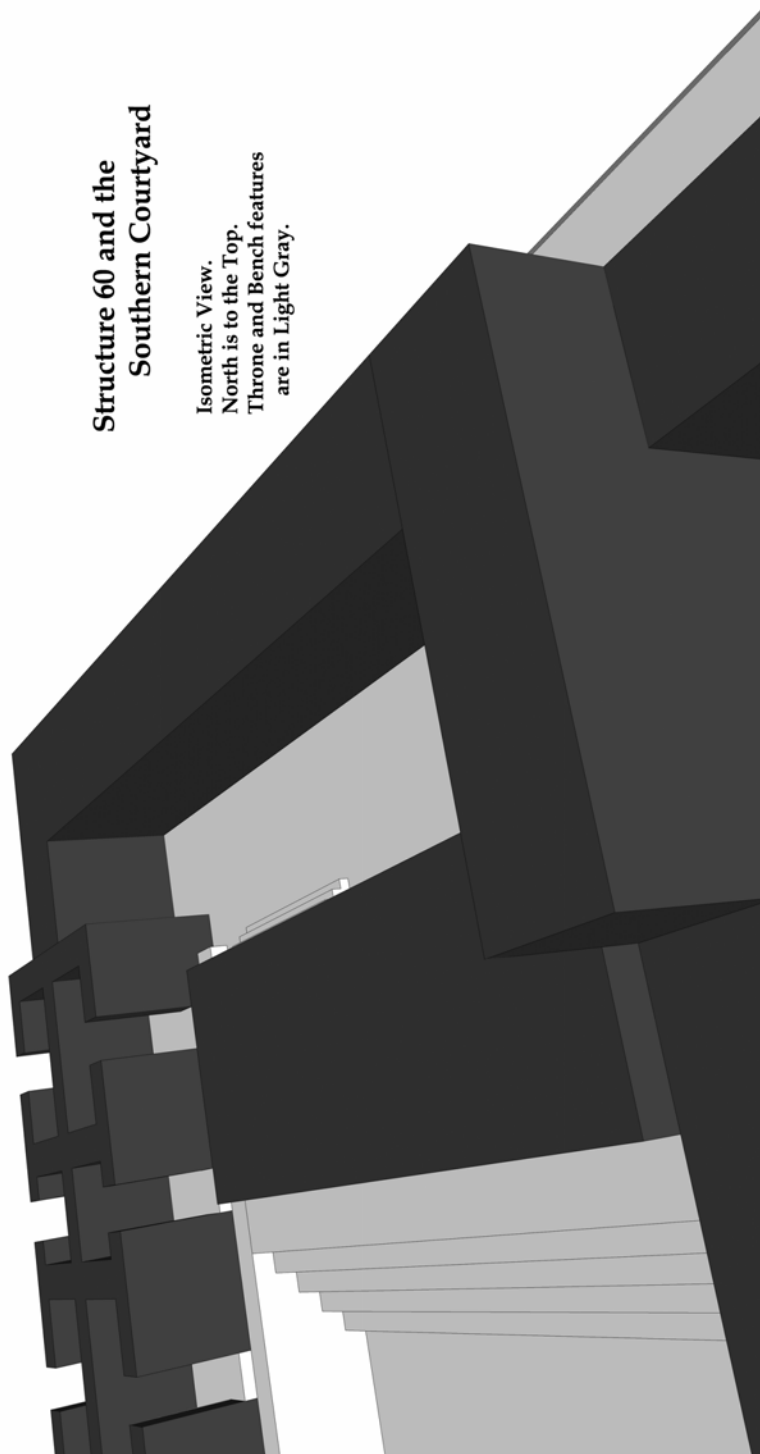


Figure 4.33: Structure 60 and the Southern Courtyard. 3-D Reconstruction

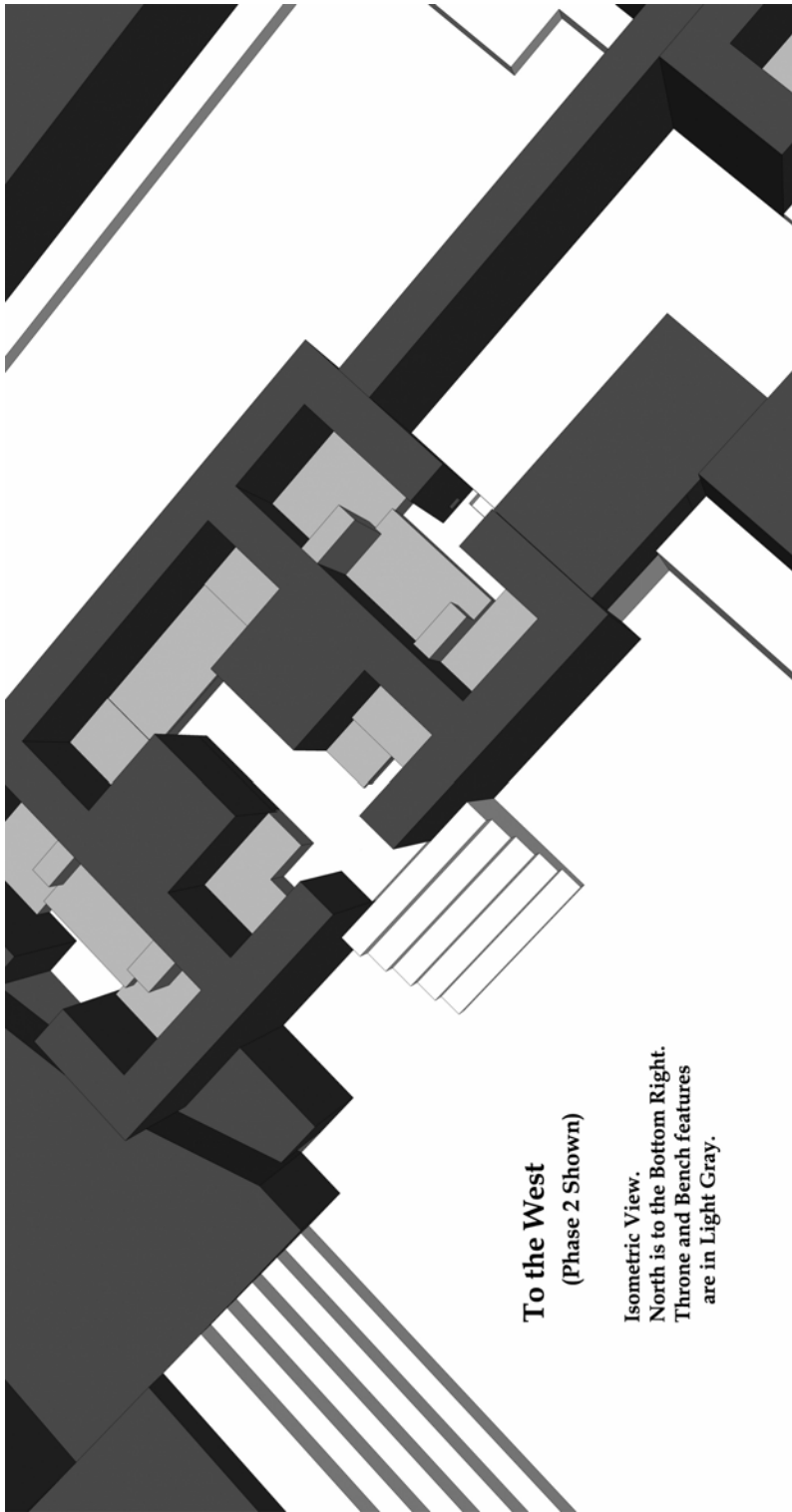


Figure 4.34: The Approach to Structure 43. 3-D Reconstruction



Figure 4.35: Room B2 of Structure 43. 3-D Reconstruction

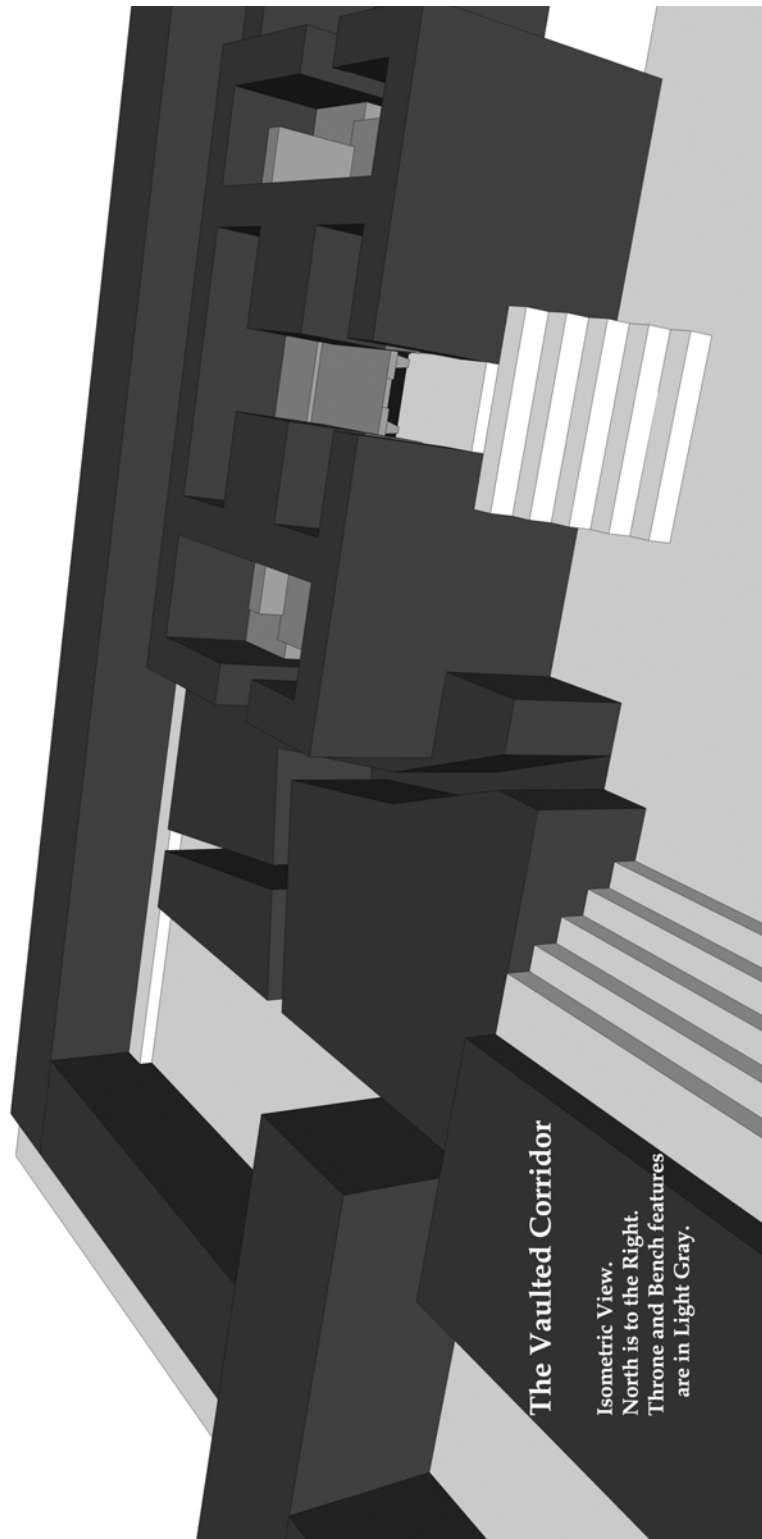


Figure 4.36: Vaulted Corridor Entrance. 3-D Reconstruction

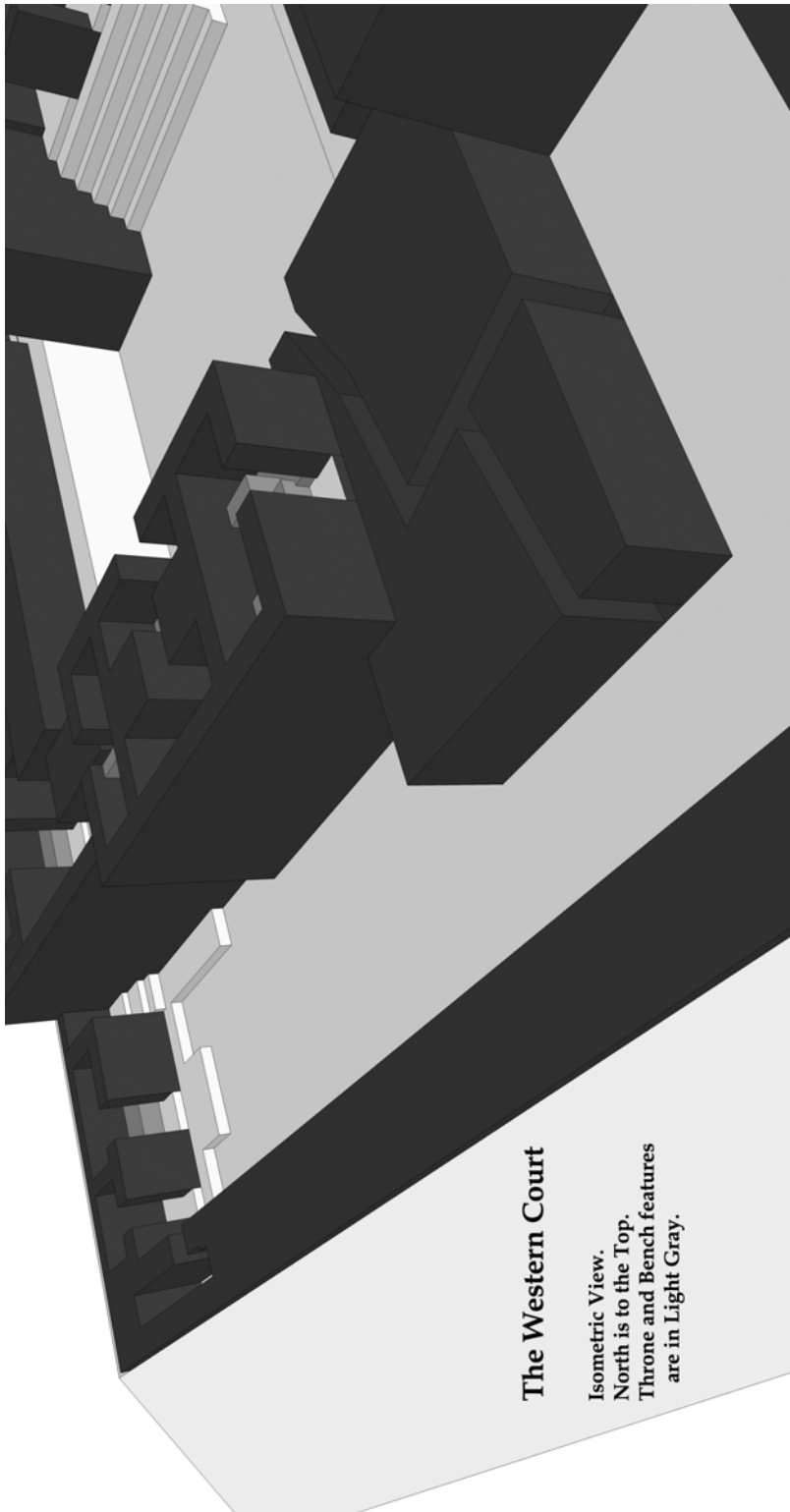


Figure 4.37: The Western Court. 3-D Reconstruction

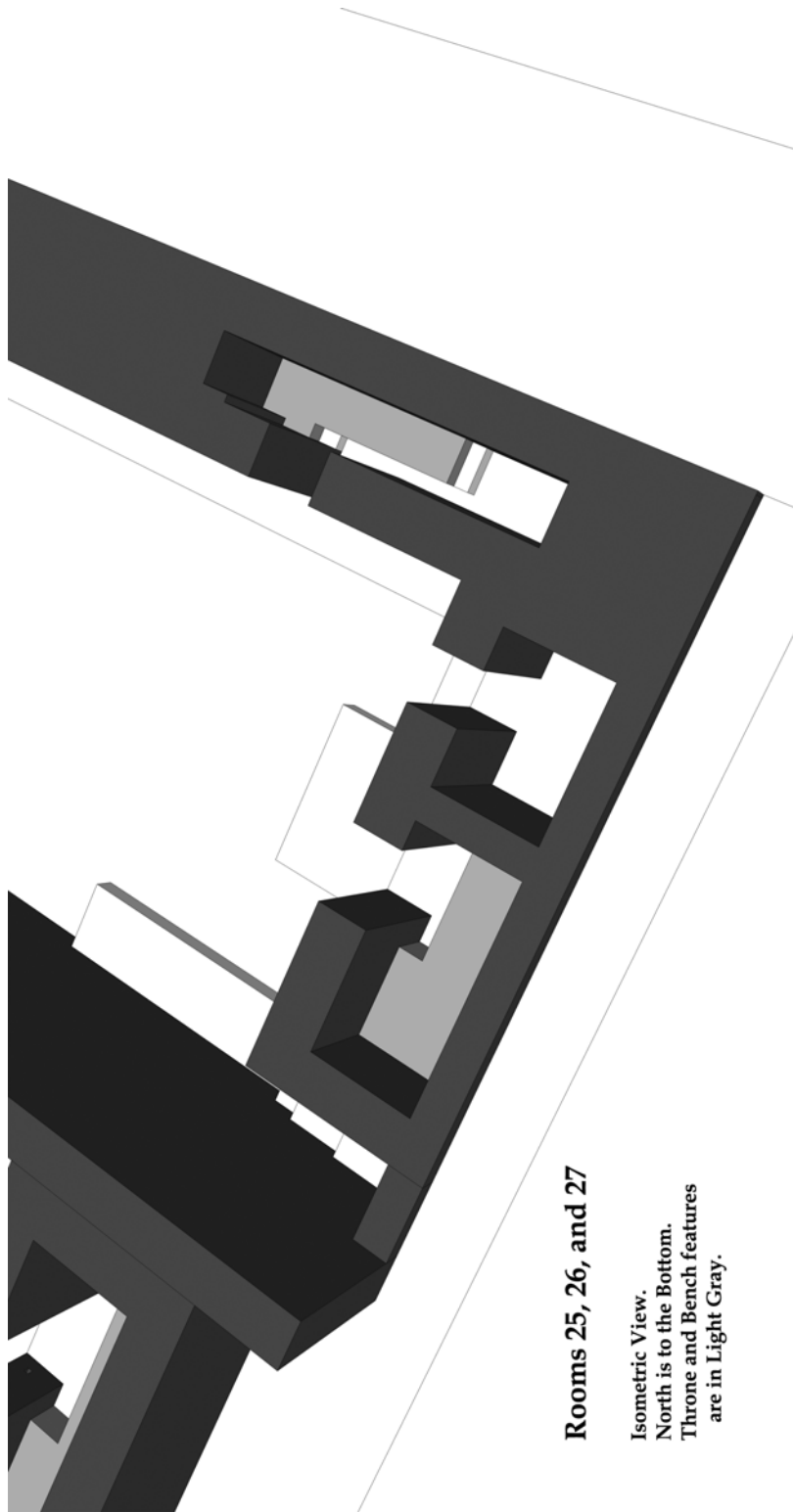


Figure 4.38: Close-Up of Northern Side of Western Court. 3-D Reconstruction

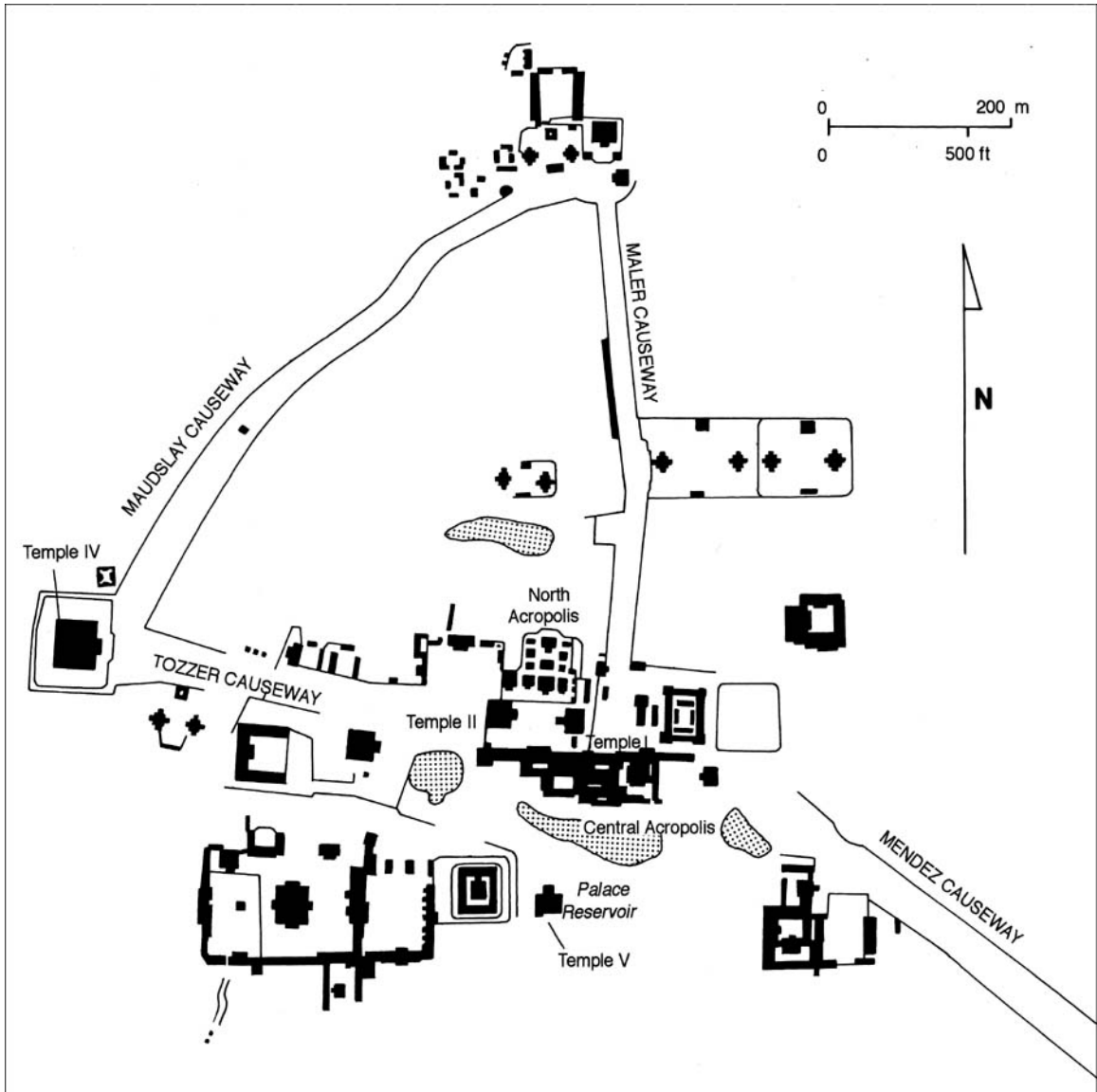


Figure 5.1: Tikal Site Map (after Harrison 1999)

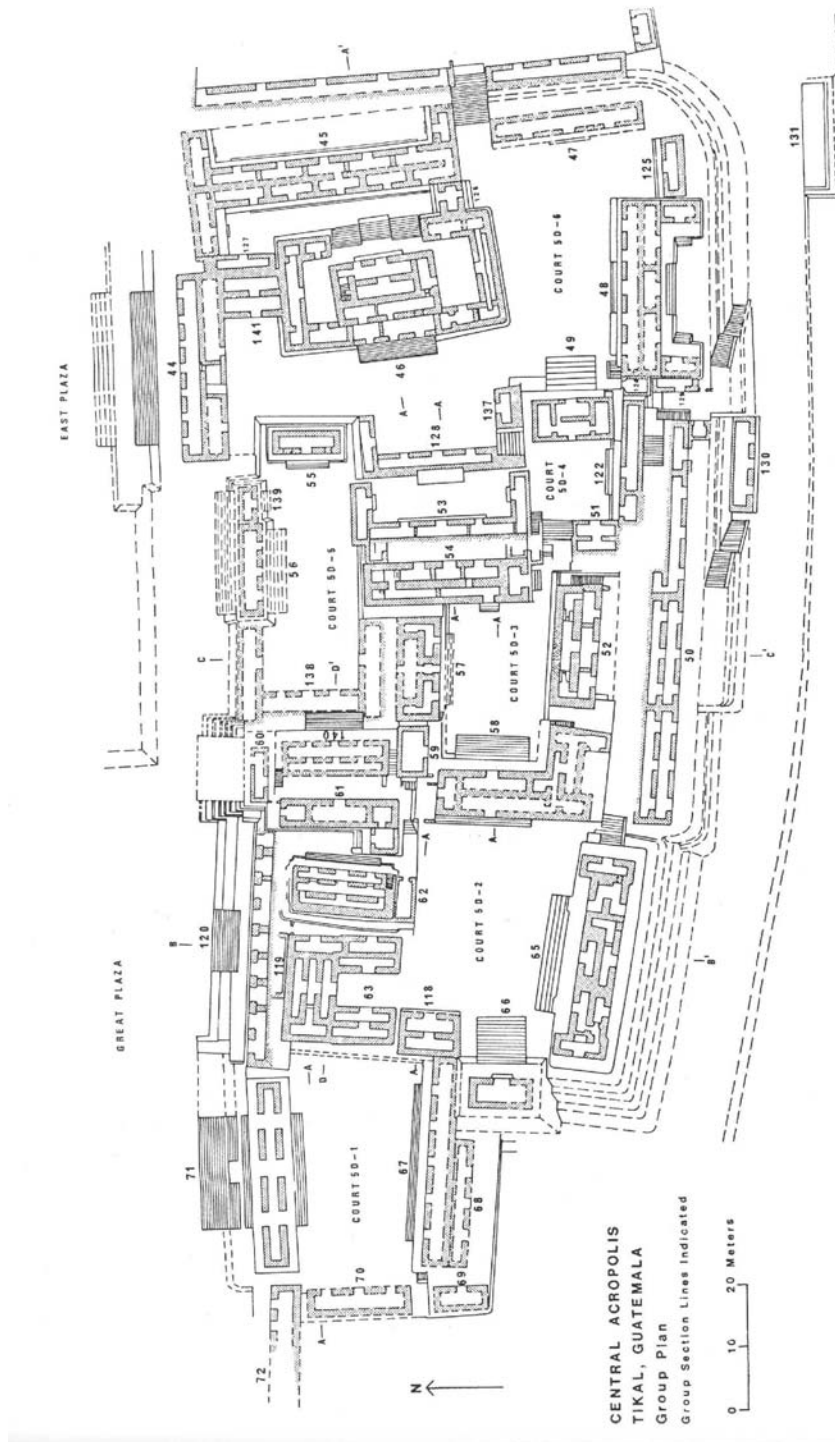


Figure 5.2: Tikal Central Acropolis Plan (after Harrison 1999)

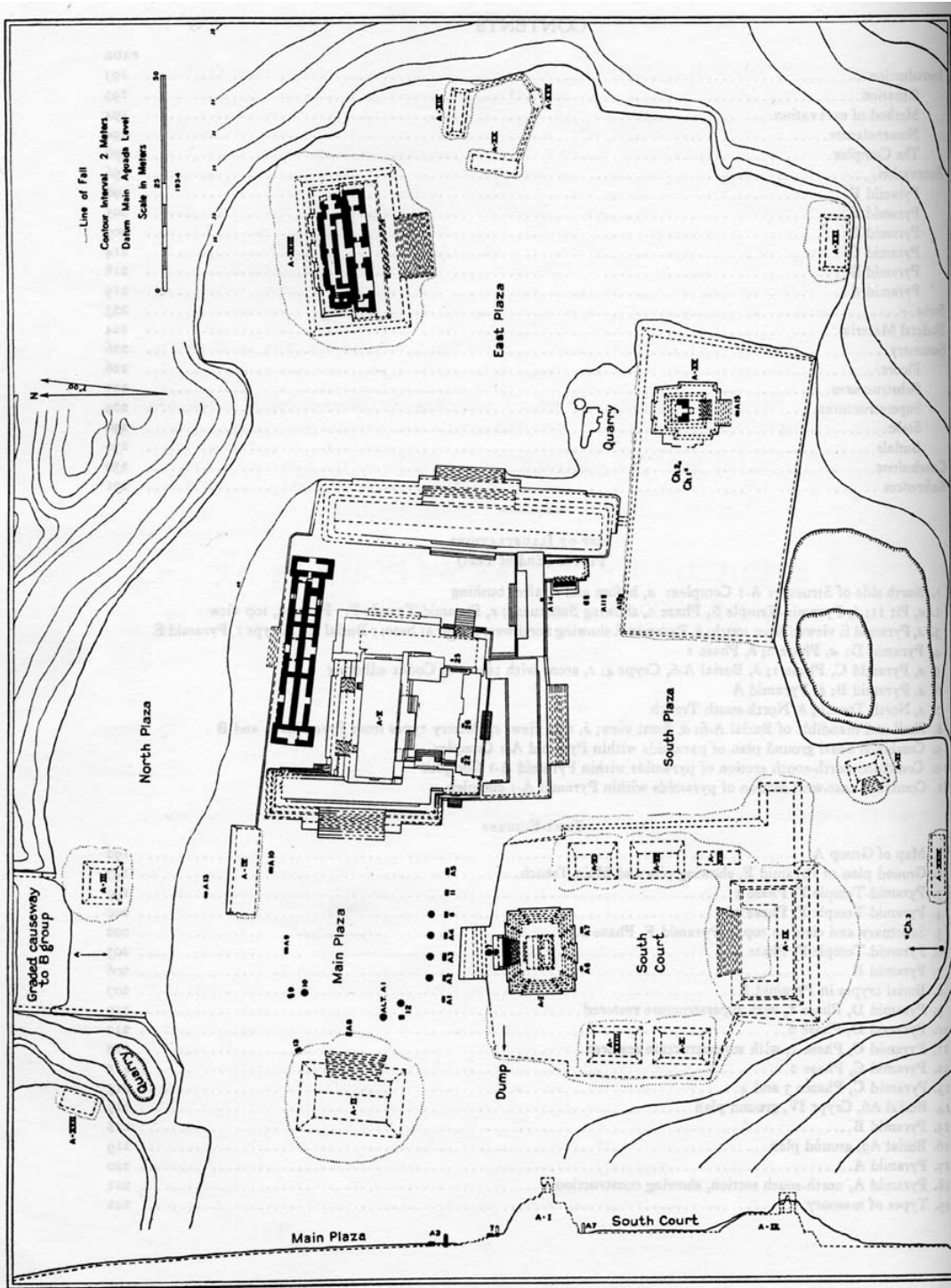


Figure 5.3: Uaxactun Site Map (after Smith 1950)

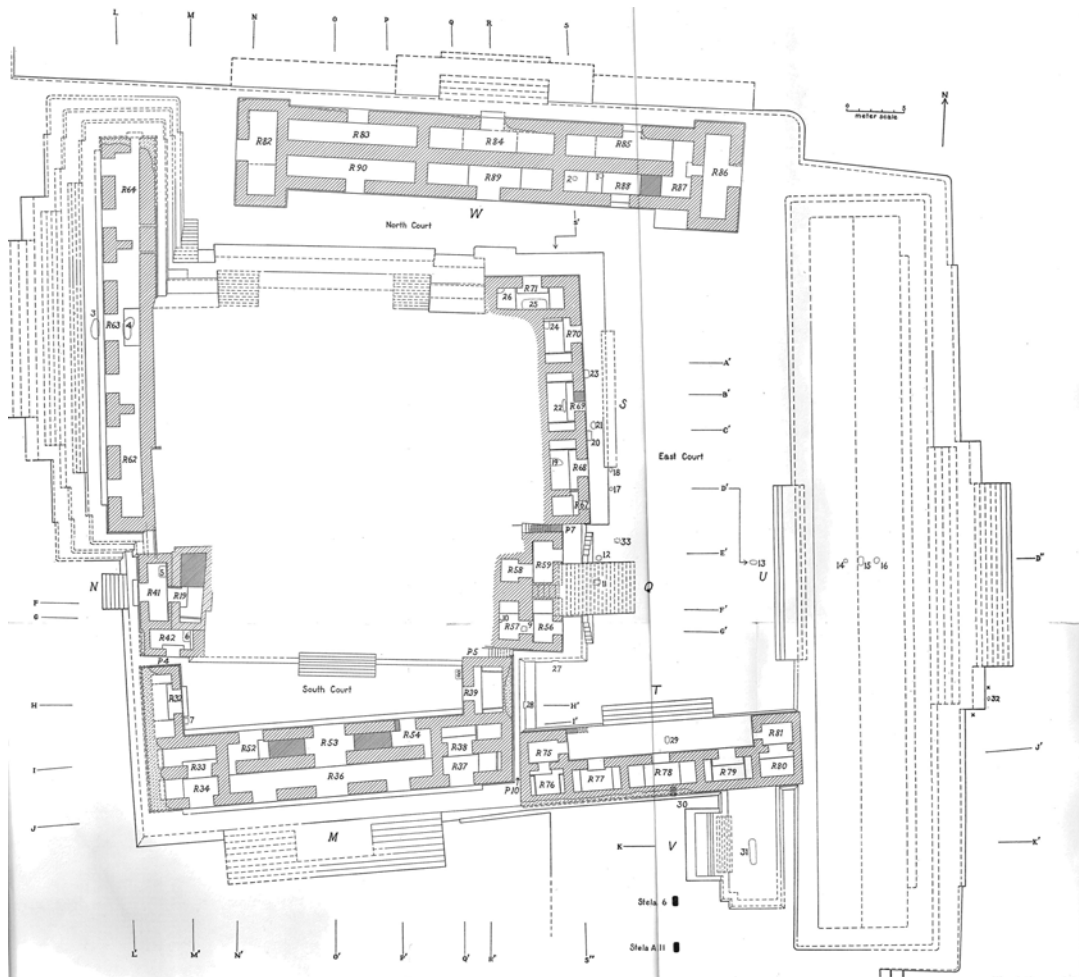


Figure 5.4a: Uaxactun A-V Plan, Outer Area (after Smith 1950)

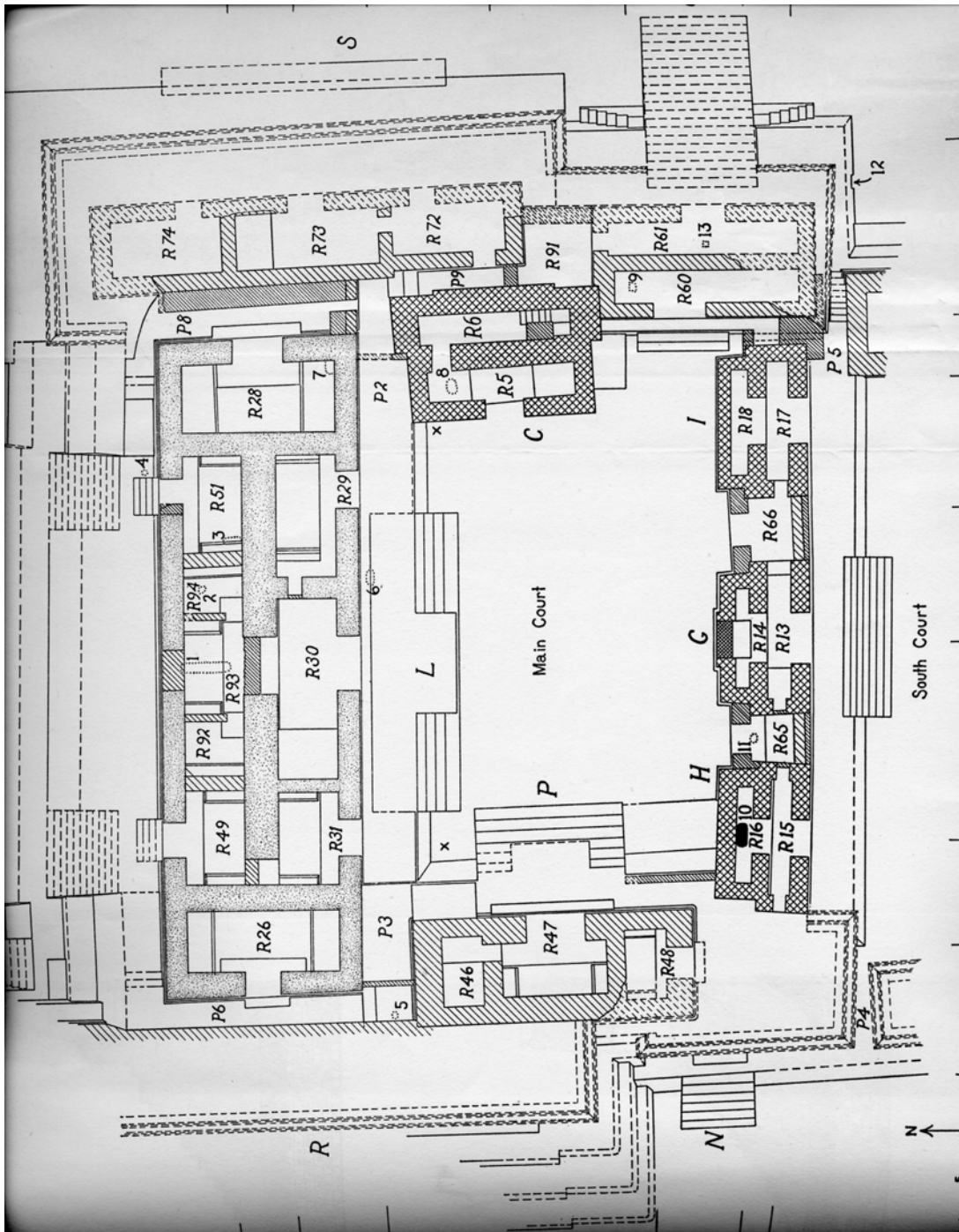


Figure 5.4b: Uaxactun A-V Plan, Inner Area (after Smith 1950)

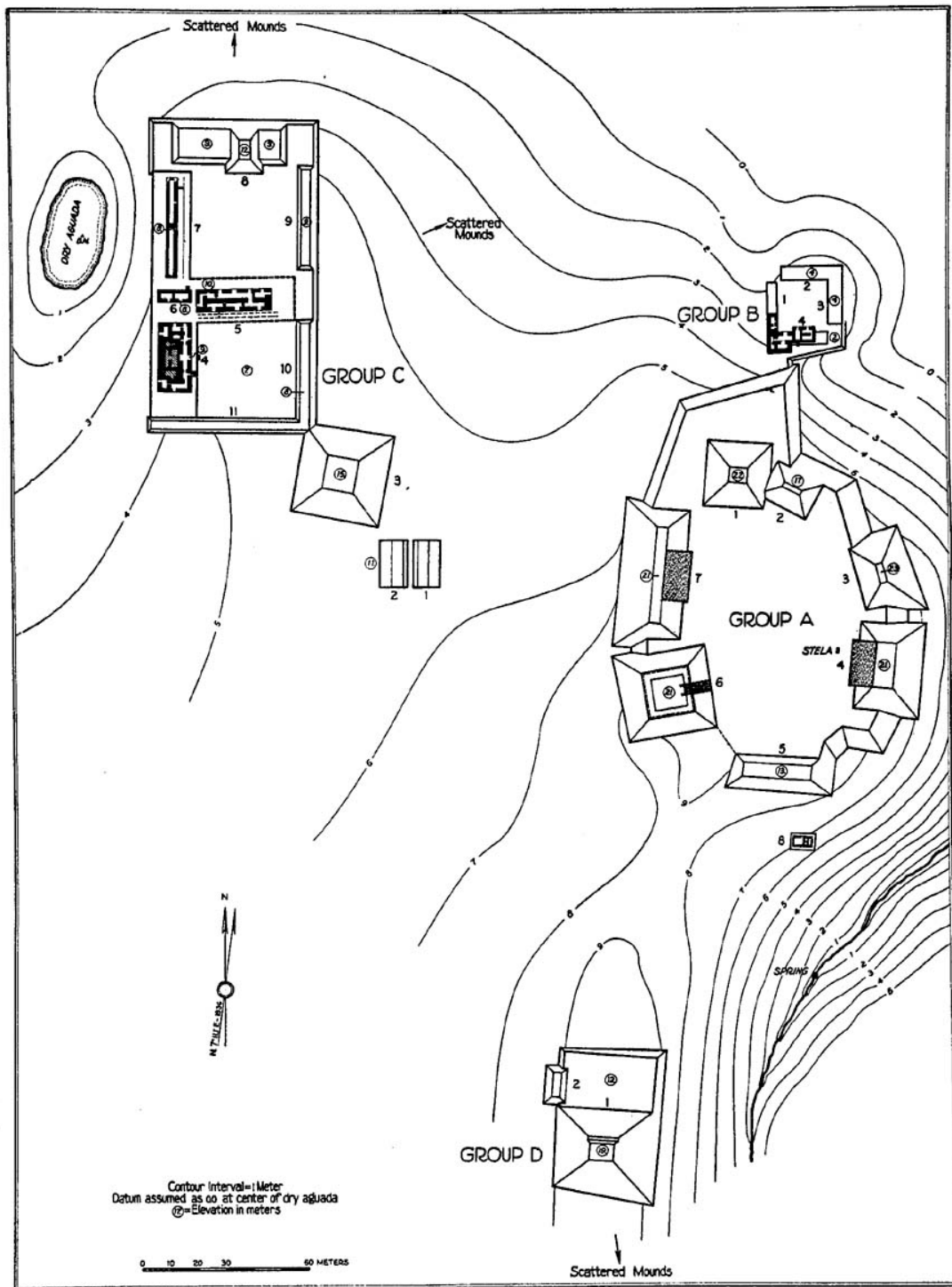


Figure 5.5: San Jose Site Map (after Thompson 1939)

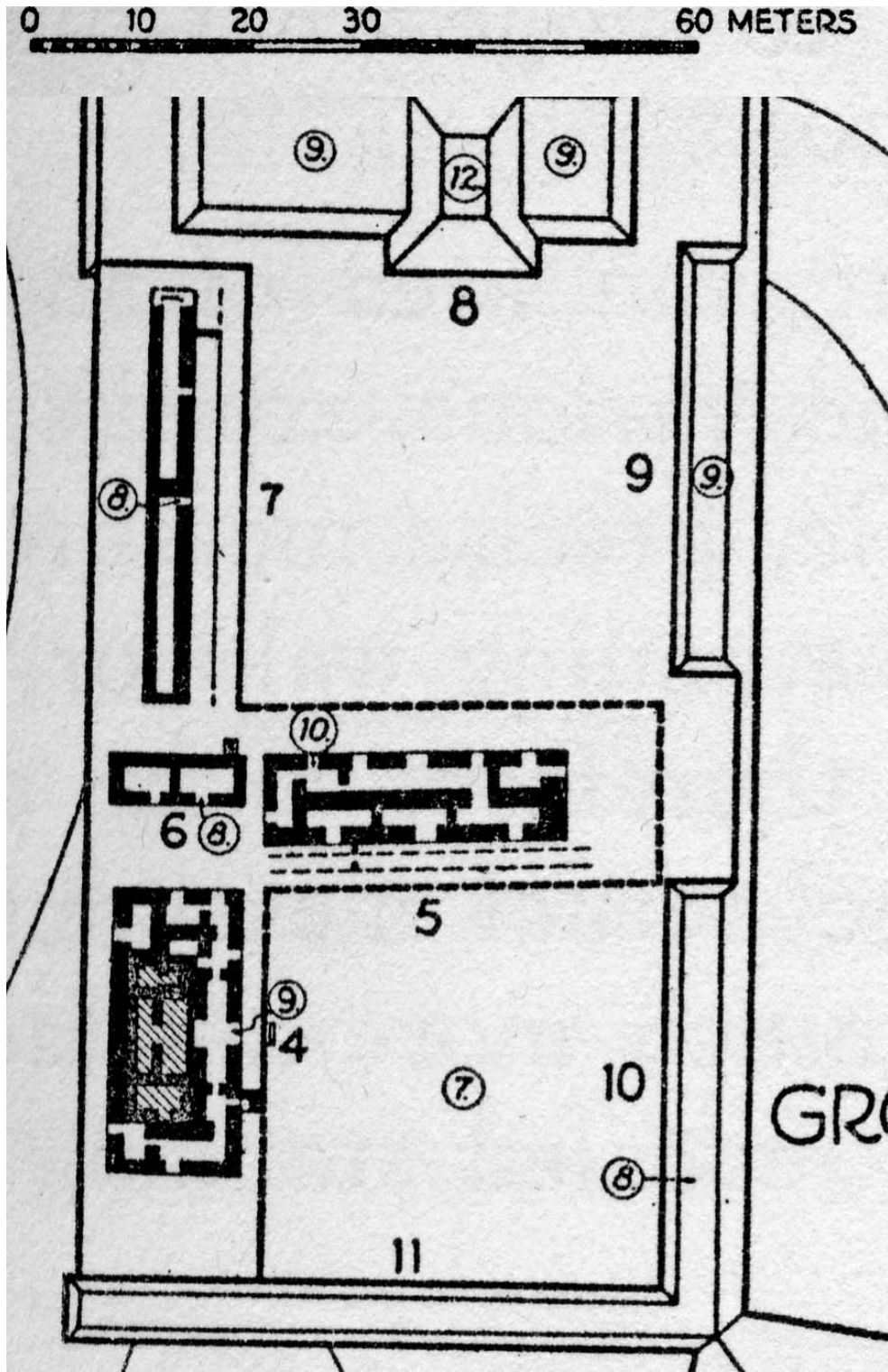


Figure 5.6: San Jose Palace Plan (after Thompson 1939)

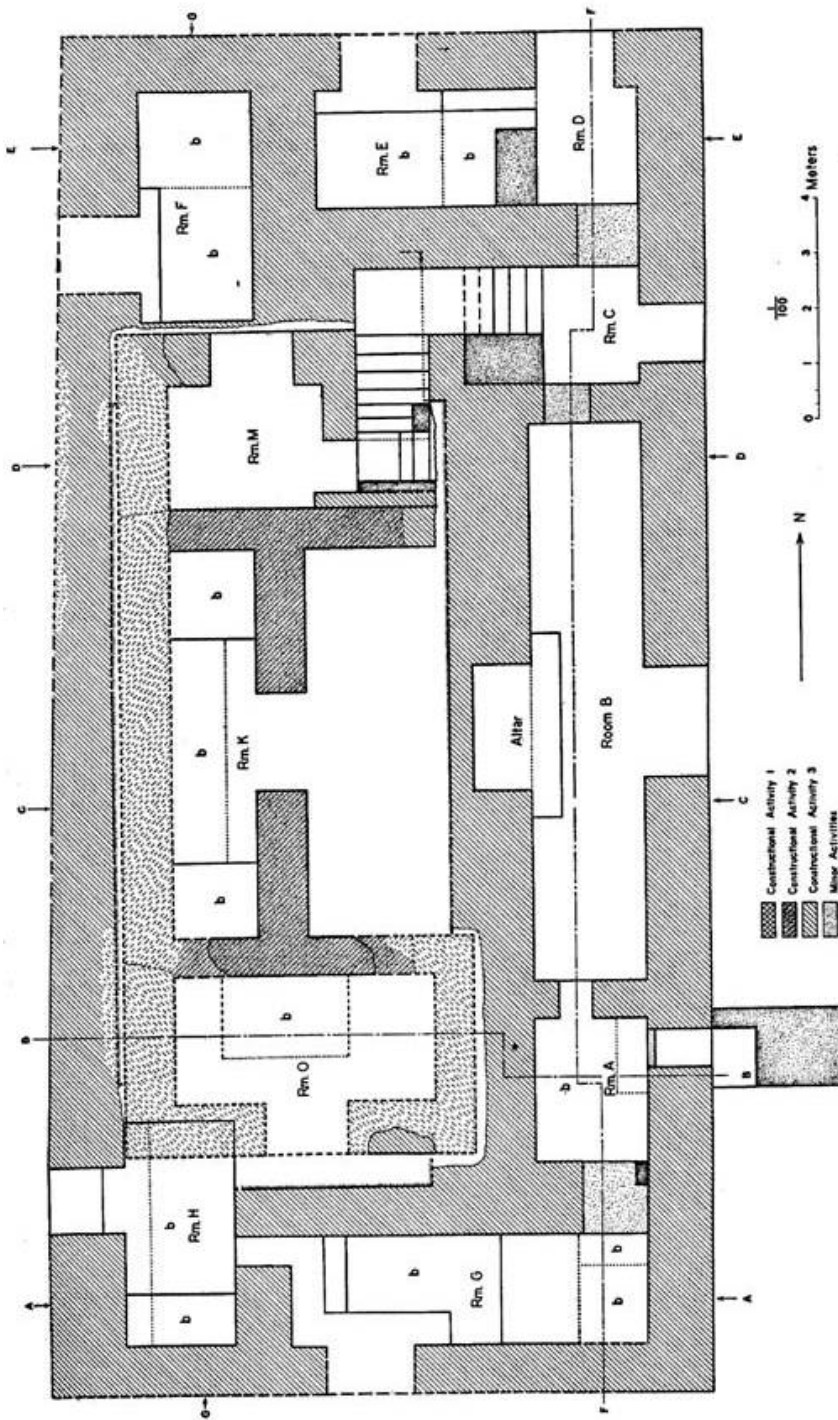


Figure 5.7: San Jose Structure C-4 Plan (after Thompson 1939)

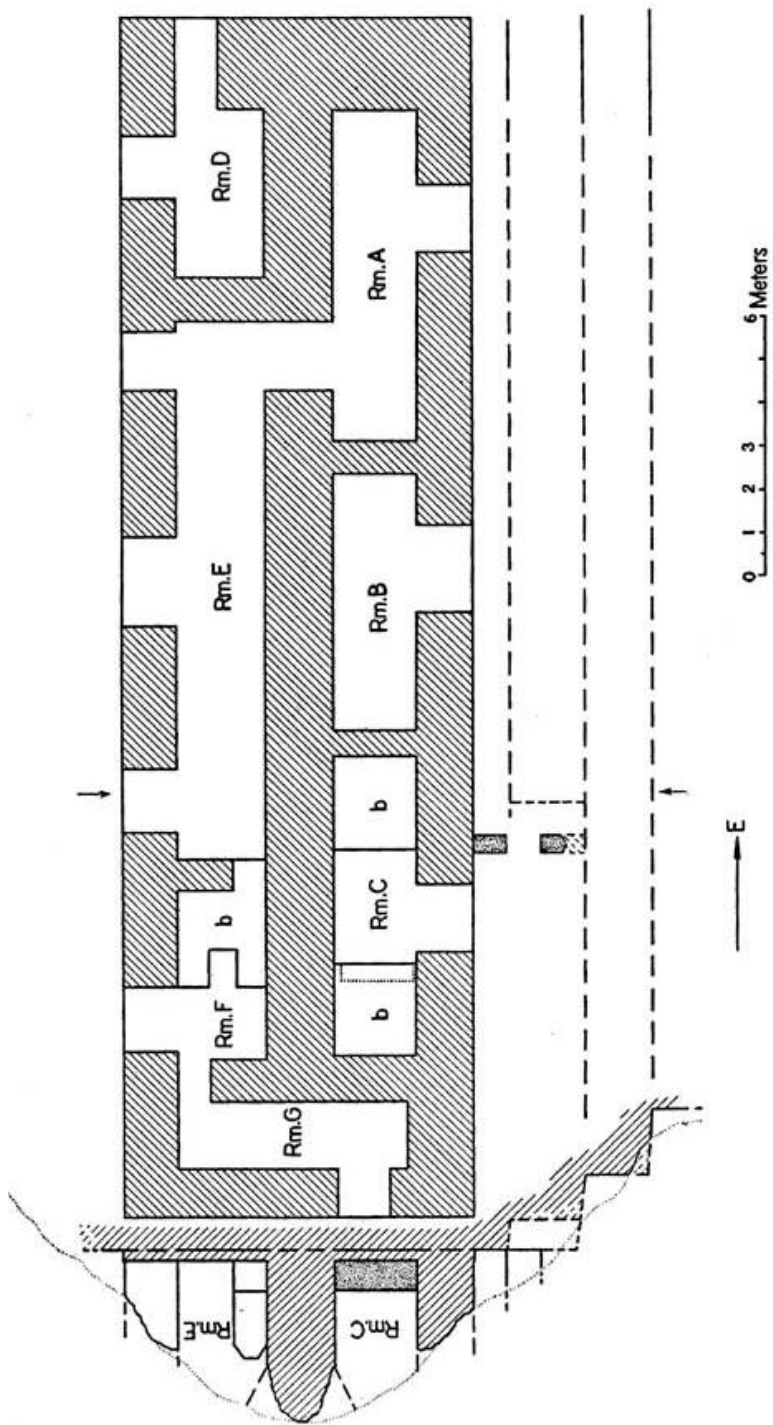


Figure 5.8: San Jose Structure C-5 Plan (after Thompson 1939)

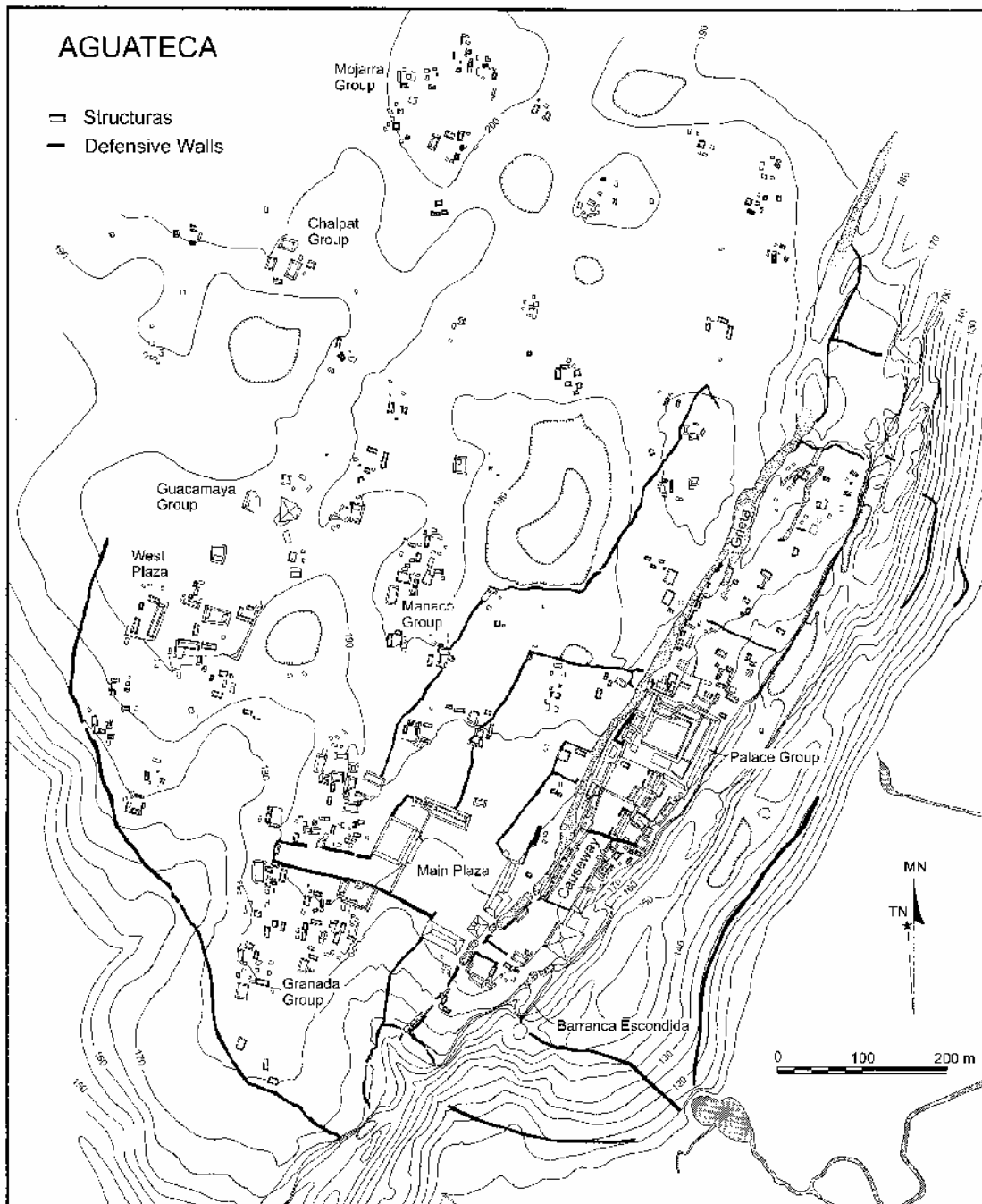


Figure 5.9: Aguateca Site Map (after Inomata and Ponciano 2010)

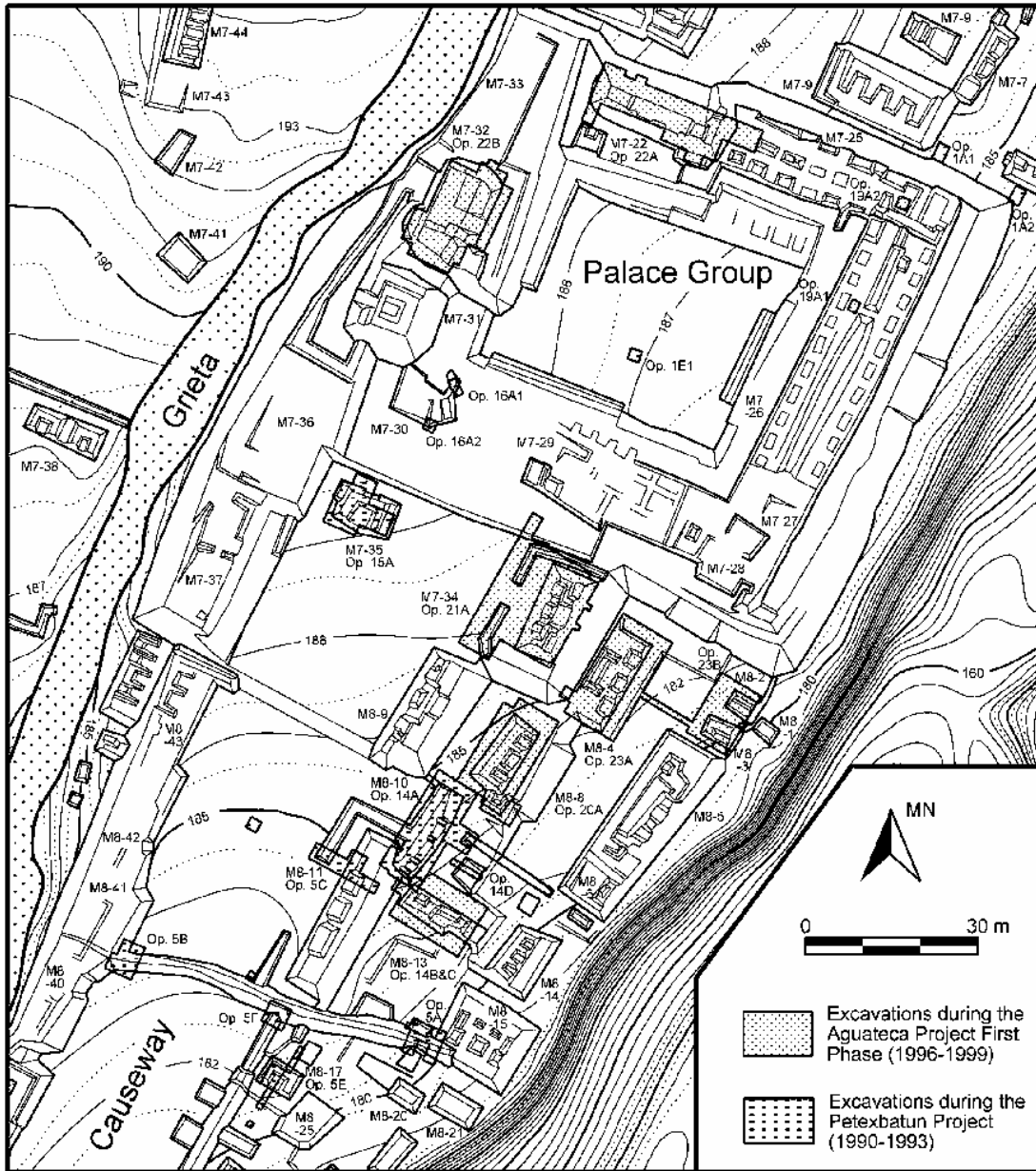


Figure 5.10: Aguateca Palace Plan (after Inomata and Ponciano 2010)

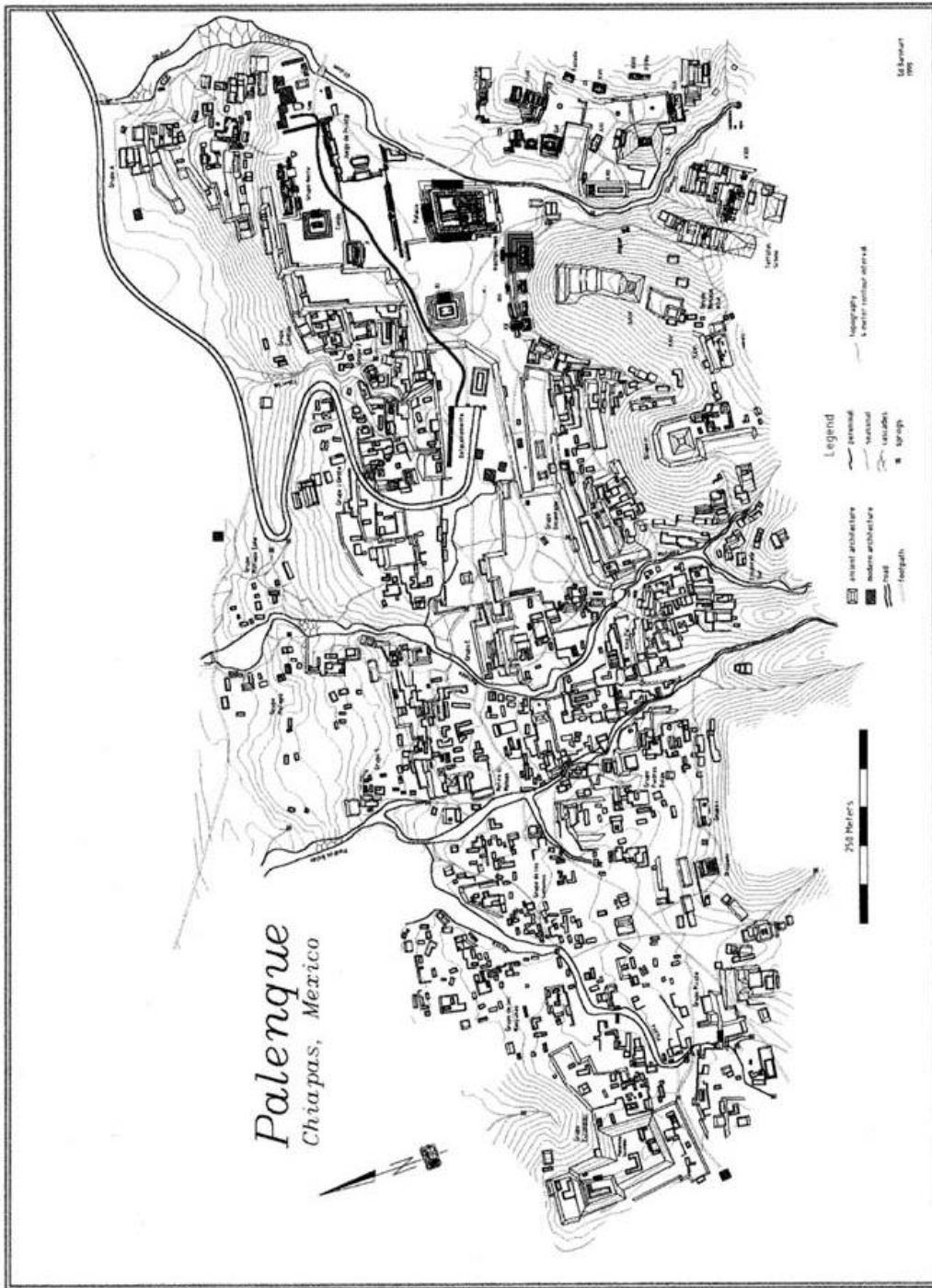


Figure 5.11: Palenque Site Map (after Stuart and Stuart 2008)

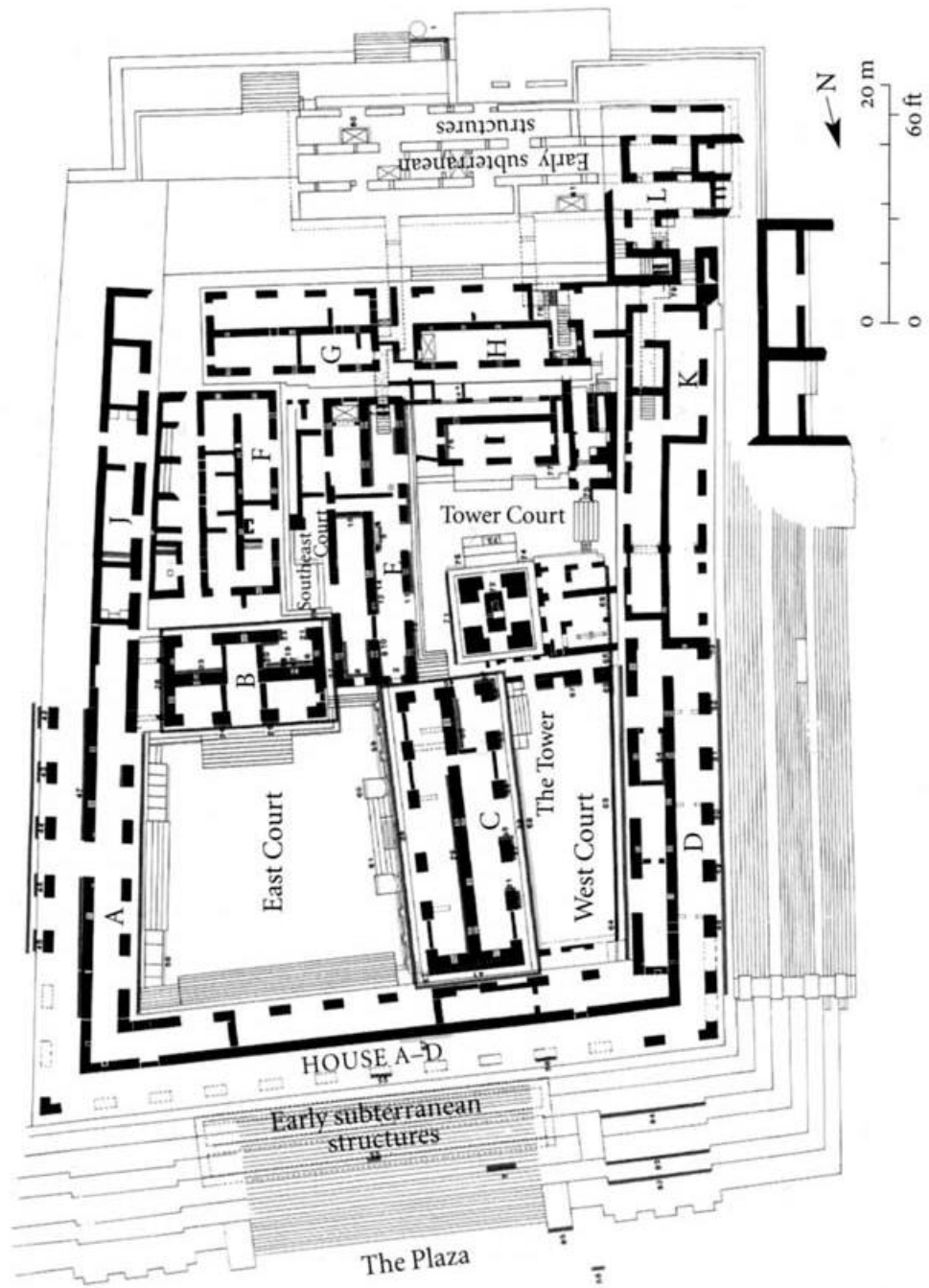


Figure 5.12: Palenque Palace Plan (after Greene Robertson 1985a)

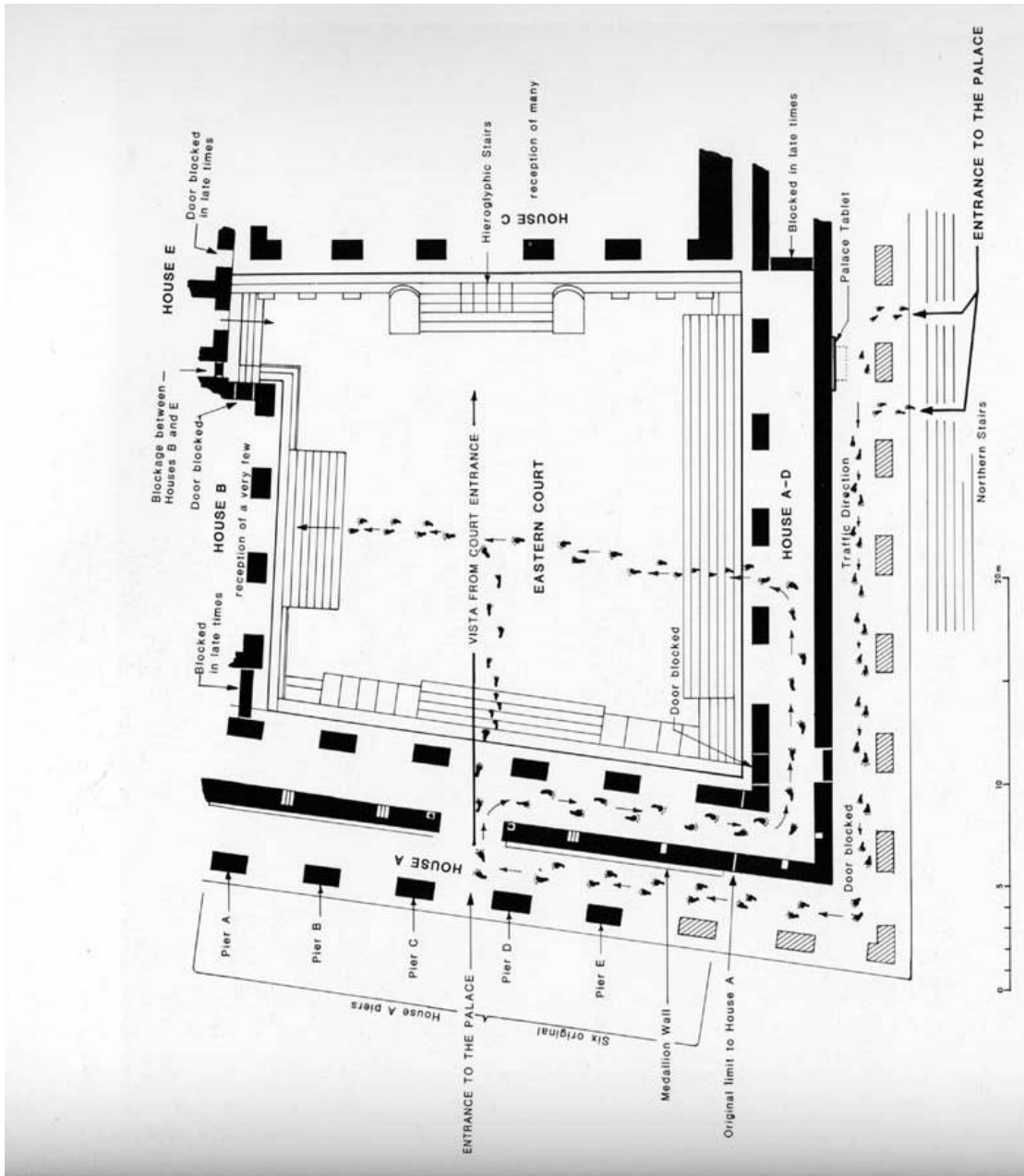


Figure 5.13: Palenque Palace Access Route (after Greene Robertson 1985b)

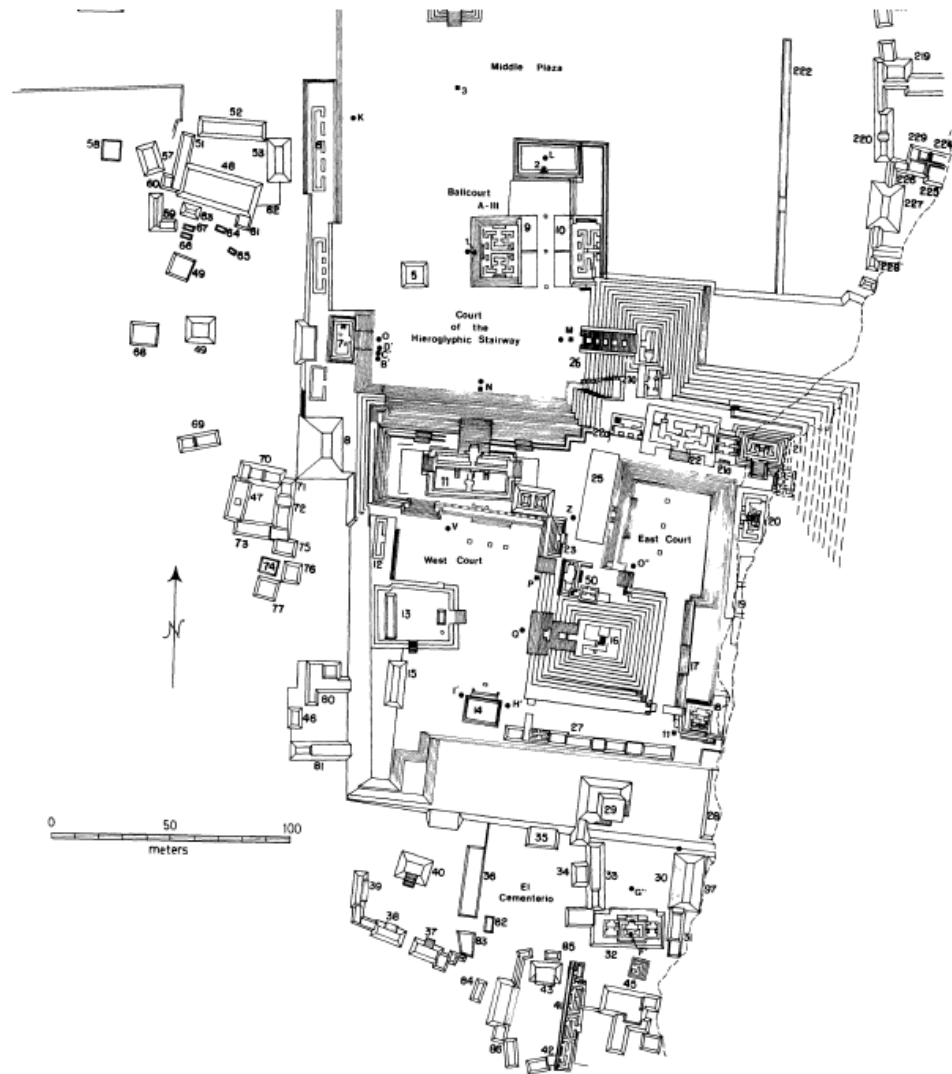


Figure 5.14: Copan Site Map (after Fash 2001)

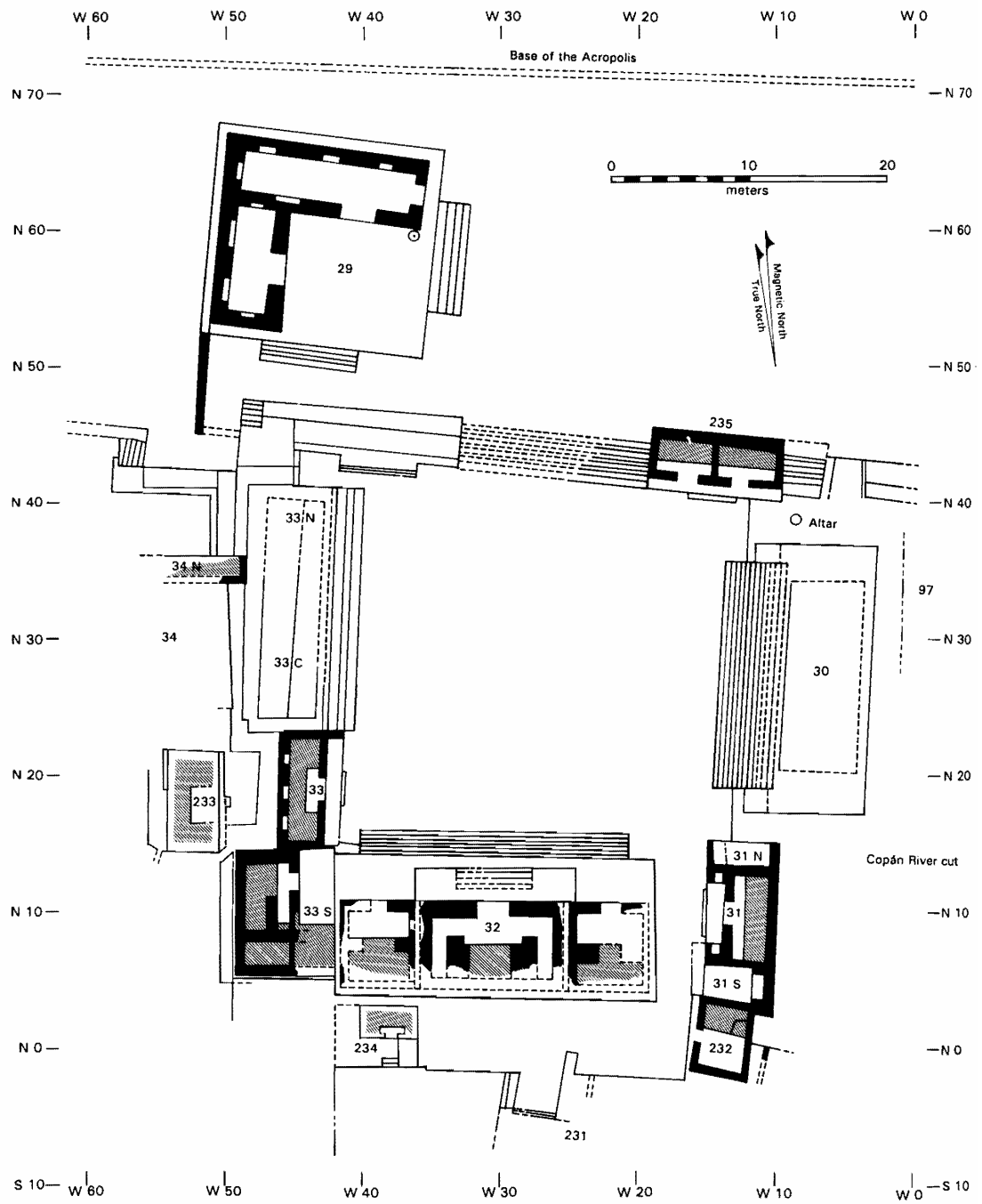


Figure 5.15: Map of the Structure 10L-32 Courtyard in El Cementerio (after Andrews and Fash 1992)

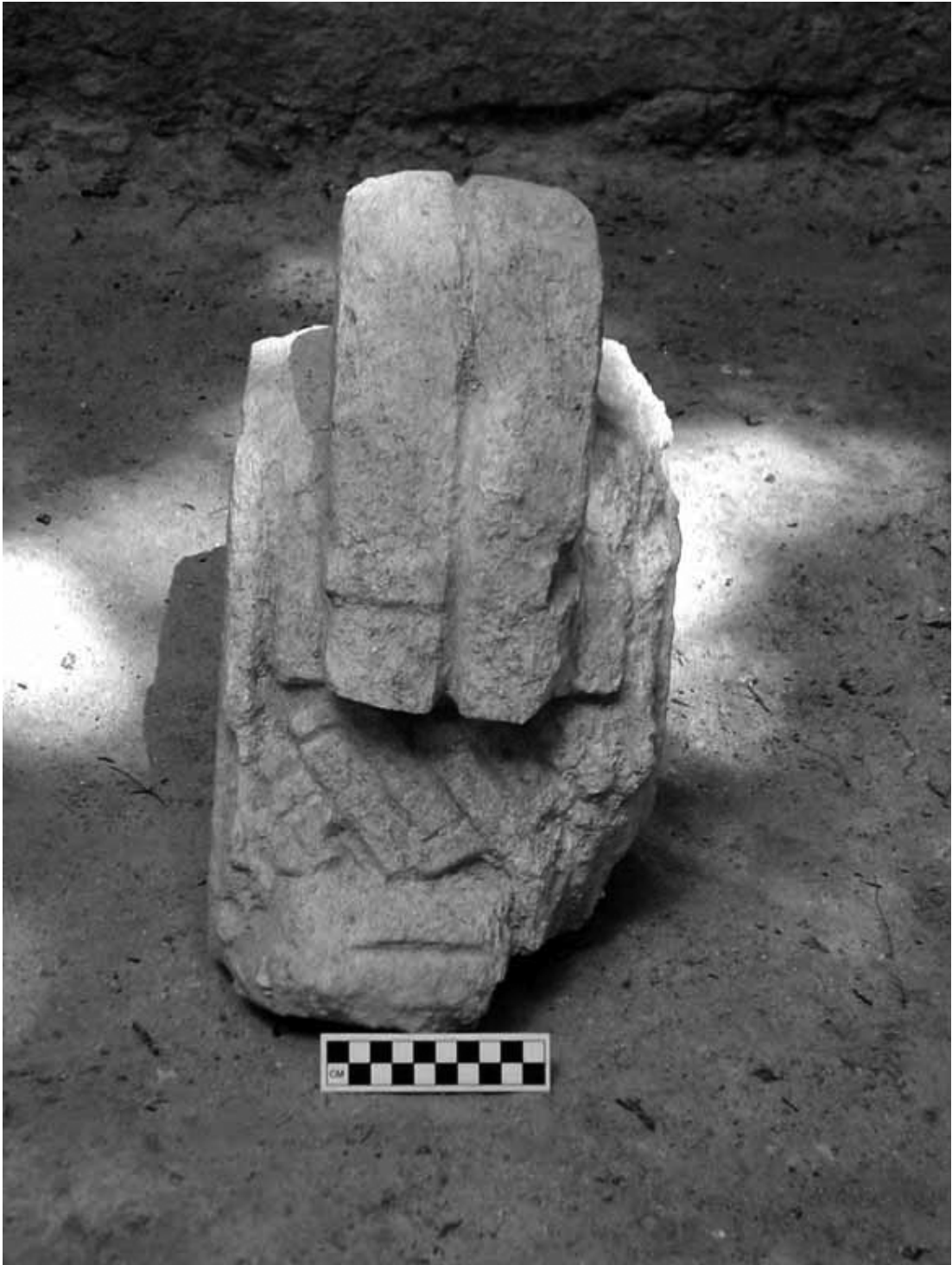


Figure 6.1: Tenoned Stucco Element from Holmul (Image Courtesy of the Holmul Archaeological Project)

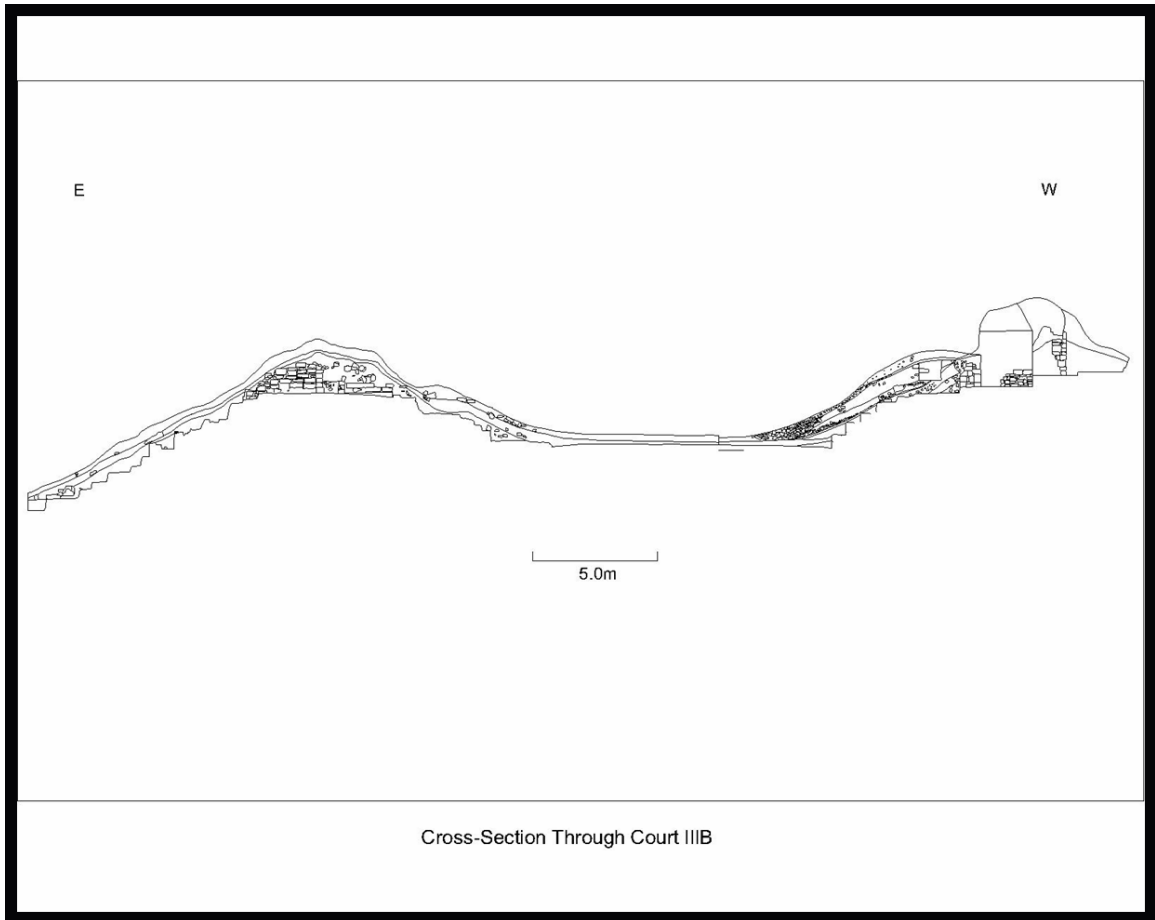


Figure 6.2: Cross-Section of Group III at Holmul Showing Overall Height (Image Courtesy of the Holmul Archaeological Project)



Figure 6.3: Close-Up of North Wall of Room 5. Note Small Brickwork (Image Courtesy of the Holmul Archaeological Project)

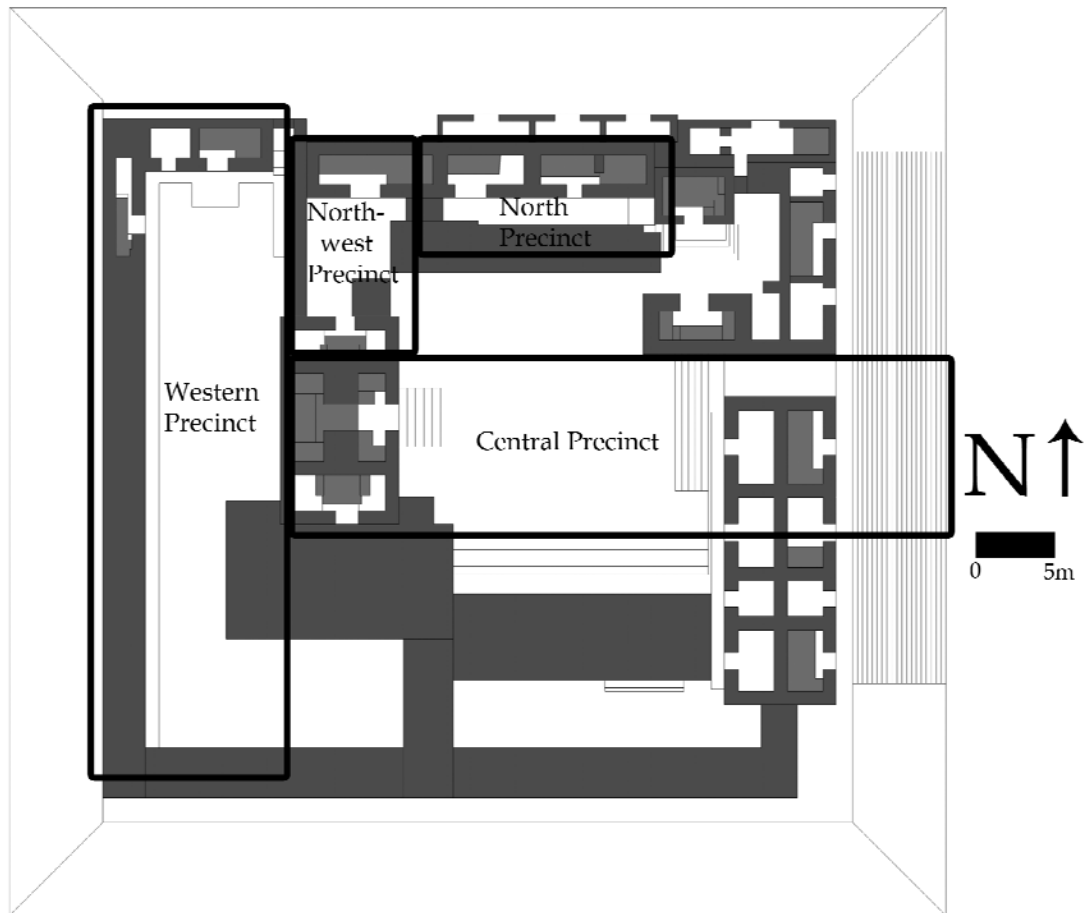


Figure 6.4: The Precincts in the Excavated Areas of Holmul

References Cited

- Altman, Irwin
1975 *The Environment and Social Behavior. Privacy. Personal Space. Territory. Crowding.* Brooks/Cole Publishing Company, Monterey.
- Anderson, Michael
1985 Curtain Holes in the Standing Architecture of Palenque. In *Fourth Palenque Round Table, 1980*, edited by Elizabeth P. Benson, pp. 21-27, Merle Greene Robertson, general editor. Pre-Columbian Art Institute, San Francisco.
- Andrews, E. Wyllys and Barbara W. Fash
1992 Continuity and Change in a Royal Maya Residential Complex at Copan. *Ancient Mesoamerica* 3:63-88.
- Andrews, E. Wyllys, Jodi L. Johnson, William F. Doonan, Gloria F. Everson, Gloria E. Sampeck and Harold E. Starratt
2003 A Multipurpose Structure in the Late Classic Palace at Copan. In *Maya Palaces and Elite Residences: An Interdisciplinary Approach*, edited by Jessica Joyce Christie, pp. 69-97. University of Texas Press, Austin.
- Augoyard, Jean-Francois and Henry Torgue
2006 *Sonic Experience: A Guide to Everyday Experience.* McGill-Queen's University Press, Montreal.
- Authentic Maya
2005 Guatemala: Cradle of Mayan Civilization. Electronic document, <http://www.authenticmaya.com/images/piedras%20negras%20dintel3.jpg>, accessed June 6, 2011.
- Bachand, Holly, Rosemary A. Joyce and Julia A. Hendon
2003 Bodies Moving in Space: Ancient Mesoamerican Human Sculpture and Embodiment. *Cambridge Archaeological Journal* 13(2):238-247.
- Ball, Joseph W. and Jennifer T. Taschek
2001 The Buenavista-Cahal Pech Royal Court: Multi-Palace Court Mobility and Usage in a Petty Lowland Maya Kingdom. In *Royal Courts of the Ancient Maya, vol. 2: Data and Case Studies*, edited by Takeshi Inomata and Stephen D. Houston, pp. 165-200, Boulder.
- Barrett, John C. and Ilhong Ko
2009 A Phenomenology of Landscape: A Crisis in British Landscape Archaeology? *Journal of Social Archaeology* 9:275-294.

- Baudez, Claude-François
2000 The Maya King's Body, Mirror of the Universe. *RES: Anthropology and Aesthetics* 38:134-143.
- Beeman, William O.
1993 The Anthropology of Theater and Spectacle. *Annual Review of Anthropology* 22:369-393.
- Beidler, Lloyd M.
1978 Biophysics and Chemistry of Taste. In *Handbook of Perception, Volume VIa: Tasting and Smelling*, edited by Edward C. Carterette and Morton P. Friedman, pp. 21-49. Academic Press, New York.
- Beliaev, Dmitri, Albert Davletshin and Alexandre Tokovinine
2009 Sweet Cacao and Sour Atole: Mixed Drinks on Classic Maya Ceramic Vases. In *Pre-columbian Foodways: Interdisciplinary Approaches to Food, Culture, and Markets in Ancient Mesoamerica*, edited by John Edward Staller and Michael D. Carrasco, pp. 257-272. Springer, New York.
- Bell, E.E., Robert J. Sharer, Loa P. Traxler, David W. Sedat, C.W. Carrelli and L.A. Grant
2004 Tombs and Burials in the Early Acropolis at Copan. In *Understanding Early Classic Copan*, edited by E.E. Bell, Marcelo A. Canuto and Robert J. Sharer, pp. 131-157. University of Pennsylvania Museum of Anthropology and Archaeology, Philadelphia.
- Bell, E.E., Loa P. Traxler, David W. Sedat and Robert J. Sharer
1999 Uncovering Copan's Earliest Royal Tombs. *Expedition* 41:29-35.
- Blessner, Barry and Linda-Ruth Salter
2007 *Spaces Speak, Are You Listening? Experiencing Aural Architecture*. Massachusetts Institute of Technology, Cambridge.
- Boas, Franz
1920 The Methods of Ethnology. *American Anthropologist* 22(4):311-321.
- Bourdieu, Pierre
1977 *Outline of a Theory of Practice*. Cambridge University Press, Cambridge.
- Broudehoux, Anne-Marie
2010 Images of Power: Architectures of the Integrated Spectacle at the Beijing Olympics. *Journal of Architectural Education* 63(2):52-62.

- Brück, Joanna
 2005 Experiencing the Past? The Development of a Phenomenological Archaeology in British Prehistory. *Archaeological Dialogues* 12(1):45-72.
- Callaghan, Michael G.
 2008 *Technologies of Power: Ritual Economy and Ceramic Production in the Terminal Preclassic Period Holmul Region, Guatemala*, Vanderbilt University.
- Castells, Manuel
 1977 *The Urban Question: A Marxist Approach*. MIT Press, Cambridge.
- Chase, Arlen F. and Diane Z. Chase
 2001 The Royal Court of Caracol, Belize: Its Palaces and People. In *Royal Courts of the Ancient Maya, vol. 2: Data and Case Studies*, edited by Takeshi Inomata and Stephen D. Houston, pp. 102-137, Boulder.
- Christie, Jessica J.
 2003a Introduction. In *Maya Palaces and Elite Residences: An Interdisciplinary Approach*, edited by Jessica Joyce Christie, pp. 1-12. University of Texas Press, Austin.
 2003b *Maya Palaces and Elite Residences: An Interdisciplinary Approach*. University of Texas Press, Austin.
 2003c The Tripartite Layout of Rooms in Maya Elite Residences. In *Maya Palaces and Elite Residences: An Interdisciplinary Approach*, edited by Jessica Joyce Christie, pp. 291-314. University of Texas Press, Austin.
 2006 Houses of Political Power among the Ancient Maya and Inka. In *Palaces and Power in the Americas: From Peru to the Northwest Coast*, edited by Jessica Joyce Christie and Patricia Joan Sarro, pp. 353-396. University of Texas Press, Austin.
- Christie, Jessica Joyce and Patricia Joan Sarro (editors)
 2006 *Palaces and Power in the Americas: From Peru to the Northwest Coast*. University of Texas Press, Austin.
- Christman, R.J.
 1971 *Sensory Experience*. Intext Educational Publishers, Scranton.
- Ciolek, T. Matthew
 1980 Spatial Extent and Structure of the Field of Co-Presence: Summary of Findings. *Man-Environment Systems* 10(1):57-62.

- Clarke, David L.
1977 *Spatial Archaeology*. Academic Press, New York.
- Classen, Constance
1993 *Worlds of Sense: Exploring the Senses in History and across Cultures*. Routledge Press, New York.
- Classen, Constance, David Howes and Anthony Synnott
1994 *Aroma: The Cultural History of Smell*. Routledge, New York.
- Cline, Howard F.
1944 Lore and Deities of the Lacandon Indians. *Journal of American Folklore* 57:107-115.
- Coaldrake, William H.
1996 *Architecture and Authority in Japan*. Routledge Press, New York.
- Coe, Michael D.
1977 Supernatural Patrons of Maya Scribes and Artists. In *Social Process in Maya Prehistory*, edited by Norman Hammond, pp. 327-347. Academic Press, San Francisco.

1999 *The Maya*. Thames & Hudson, New York.
- Day, Jo
2010 Introduction: Making Senses of the Past. In *Making Senses of the Past: Toward a Sensory Archaeology*, edited by Jo Day. Occasional Paper No. 40. Center for Archaeological Investigations, Carbondale, in press.
- de Certeau, Michel
1984 *The Practice of Everyday Life*. University of California Press, Los Angeles.
- Demarest, Arthur
2006 Sacred and Profane Mountains of the Pasi3n: Contrasting Architectural Paths to Power. In *Palaces and Power in the Americas: From Peru to the Northwest Coast*, edited by Jessica Joyce Christie and Patricia Joan Sarro, pp. 117-140. University of Texas Press, Austin.
- Demarest, Arthur, Kim Morgan, Claudia Wolley and Hector Escobedo
2003 The Political Acquisition of Sacred Geography: The Murcielagos Complex at Dos Pilas. In *Maya Palaces and Elite Residences: An Interdisciplinary Approach*, edited by Jessica Joyce Christie, pp. 120-153. University of Texas Press, Austin.

- Descartes, René
2001 *Discourse on Method, Optics, Geometry, and Meteorology*. Hackett Publishing, Indianapolis.
- Dobres, Marcia-Anne and John E. Robb
2000 Agency in Archaeology: Paradigm or Platitute? In *Agency in Archaeology*, edited by Marcia-Anne Dobres and John E. Robb, pp. 3-17. Routledge Press, New York.
- Dornan, Jennifer L.
2004 Beyond Belief: Religious Experience, Ritual, and Cultural Neuro-phenomenology in the Interpretation of Past Religious Systems. *Cambridge Archaeological Journal* 14(1):25-36.
- Douglas, Mary
1970 Symbolic Orders in the Use of Domestic Space. In *Man, Settlement, and Urbanism*, edited by Peter J. Ucko, Ruth Tringham and G.W. Dimbleby, pp. 513-522. Duckworth Press, Hertfordshire.
- Durkheim, Emile and Marcel Mauss
1963 *Primitive Classification*. University of Chicago Press, Chicago.
- Eco, Umberto
1980 Function and Sign: The Semiotics of Architecture. In *Signs, Symbols, and Architecture*, edited by Geoffrey Broadbent, Richard Bunt and Charles Jencks, pp. 11-69. Wiley Press, Chichester.
- Edelman, Murray
1978 Politics and Design Symbolism. *JAE* 32(2):2-7.
- Egenter, Nold
1992 *The Present Relevance of the Primitive in Architecture*. Architectural Anthropology 1. Presses Centrales Lausanne SA, Lausanne.
- Estrada-Belli, Francisco
2000 *Archaeological Investigations at Holmul, Guatemala. Report of the First Field Season. May-June 2000*. Vanderbilt University, Nashville.
- Fash, Barbara and William Fash
1989 Copan Temple 20 and the House of Bats. In *Seventh Palenque Round Table*, edited by Virginia M. Fields, pp. 61-67. vol. IX, Merle Greene Robertson, general editor. University of Oklahoma Press, Norman.

Fash, Barbara, William Fash, Sheree Lane, Rudy Larios, Linda Schele, Jeffrey Stomper and David Stuart

1992 Investigations of a Classic Maya Council House at Copan, Honduras. *Journal of Field Archaeology* 19(4):419-442.

Fash, William

2001 *Scribes, Warriors and Kings: the City of Copan and the Ancient Maya*. Thames and Hudson, London.

Fash, William and Barbara Fash

1996 Building a World-View: Visual Communication in Classic Maya Architecture. *RES: Anthropology and Aesthetics* 29/30:127-147.

Fleming, Andrew

1999 Phenomenology and the Megaliths of Wales: A Dreaming Too Far? *Oxford Journal of Archaeology* 18(2):119-125.

2006 Post-processual Landscape Archaeology: a Critique. *Cambridge Archaeological Journal* 16(3):267-280.

Foucault, Michel

1970 *The Order of Things: An Archaeology of the Human Sciences*. Pantheon Books, New York.

1977 *Discipline and Punish: The Birth of the Prison*. Vintage Books, New York.

1978 *The History of Sexuality* 1. Vintage Books, New York.

1980 *Power/Knowledge: Selected Interviews and Other Writings 1972-1977*. Pantheon Books, New York.

Freidel, David A. and Linda Schele

1988 Kingship in the Late Preclassic Maya Lowlands: The Instruments and Places of Ritual Power. *American Anthropologist* 90(3):547-567.

Frieman, Catherine and Mark Gillings

2007 Seeing is Perceiving? *World Archaeology* 39(1):4-16.

Geller, Pamela L.

2004 *Transforming Bodies, Transforming Identities: A Consideration of Pre-Columbian Maya Corporeal Beliefs and Practices*, University of Pennsylvania.

- Goffman, Erving
1959 *The Presentation of Self in Everyday Life*. Anchor Books/Doubleday, New York.
- 1961 *Encounters: Two Studies in the Sociology of Interaction*. Bobbs-Merrill, Indianapolis.
- Goldstein, E. Bruce
2007 *Sensation and Perception*. 7th ed. Thomson Wadsworth Publishers, Belmont.
- Graham, Ian
1975 *Corpus of Maya Hieroglyphic Inscriptions* Volume 2, Part 1. Peabody Museum of Archaeology and Ethnology, Cambridge.
- Gramsci, Antonio
1971 *Selections from the Prison Notebooks*. International Publishers, New York.
- Gregory, Richard L.
1997 *Eye and Brain: the Psychology of Seeing*. Princeton University Press, Princeton.
- Grube, Nikolai
1992 Classic Maya Dance: Evidence from Hieroglyphs and Iconography. *Ancient Mesoamerica* 3:201-218.
- Grube, Nikolai and Simon Martin
2006 The Dynastic History of the Maya. In *Maya: Divine Kings of the Rain Forest*, edited by Nikolai Grube, pp. 148-171. H.F. Ullmann, Potsdam.
- Hamilakis, Yannis
2002 The Past as Oral History: Towards an Archaeology of the Senses. In *Thinking through the Body: Archaeologies of Corporeality*, edited by Yannis Hamilakis, Mark Pluciennik and Sarah Tarlow, pp. 121-136. Kluwer Academic/Plenum Publishers, New York.
- Hammond, Norman
1994 *Ancient Maya Civilization*. Rutgers University Press, New Brunswick.
- Hammond, Norman and Matthew R. Bobo
1994 Pilgrimage's Last Mile: Late Maya Monument Veneration at La Milpa, Belize. *World Archaeology* 26(1):19-34.

Harrison, Peter D.

1970 *The Central Acropolis, Tikal, Guatemala: A Preliminary Study of the Functions of Its Structural Components during the Late Preclassic Period*, University of Pennsylvania.

1999 *The Lords of Tikal: Rulers of an Ancient Maya City*. Thames and Hudson, New York.

2001 Thrones and Throne Structures in the Central Acropolis at Tikal as an Expression of the Royal Court. In *Royal Courts of the Ancient Maya. Volume 2: Data and Case Studies*, edited by Takeshi Inomata and Stephen D. Houston, pp. 74-101. Westview Press, Boulder.

2003 Palaces of the Royal Court at Tikal. In *Maya Palaces and Elite Residences: An Interdisciplinary Approach*, edited by Jessica Joyce Christie, pp. 98-119. University of Texas Press, Austin.

Harrison, Peter D. and E. Wyllys Andrews

2004 Palaces of Tikal and Copan. In *Palaces of the Ancient New World*, edited by Susan Toby Evans and Joanne Pillsbury, pp. 113-147. Dumbarton Oaks, Washington DC.

Harvey, David

1973 *Social Justice and the City*. Johns Hopkins University Press, Baltimore.

Heidegger, Martin

1962 *Being and Time*. Harper & Row, New York.

Hendon, Julia A.

1991 Status and Power in Classic Maya Society: An Archaeological Study. *American Anthropologist* 93(4):894-918.

Hewitson, Chris

2003 Excavations within Court III B, Holmul Site Center, 2003 Season. In *Archaeological Investigations in the Holmul Region, Peten. Results of the Fourth Season, 2003.*, edited by Francisco Estrada-Belli, pp. 61-86. Submitted to the IDAEH of Guatemala.

Hindness, Barry

1982 Power, Interests and the Outcomes of Struggles. *Sociology* 16(4):498-511.

- Hodder, Ian
 2000 Agency and Individuals in Long-Term Processes. In *Agency in Archaeology*, edited by Marcia-Anne Dobres and John E. Robb, pp. 21-33. Routledge Press, New York.
- Houston, Stephen D.
 1998 Classic Maya Depictions of the Built Environment. In *Function and Meaning in Classic Maya Architecture*, edited by Stephen D. Houston, pp. 333-372. Dumbarton Oaks, Washington DC.
- 2006 Impersonation, Dance, and the Problem of Spectacle among the Classic Maya. In *Archaeology of Performance: Theaters of Power, Community, and Politics*, edited by Takeshi Inomata and Lawrence S. Coben, pp. 135-155. Alta Mira Press, New York.
- Houston, Stephen D., Claudia Brittenham, Cassandra Mesick, Alexandre Tokovinine and Christina Warinner
 2009 *Veiled Brightness: A History of Ancient Maya Color*. University of Texas Press.
- Houston, Stephen D. and Tom Cummins
 2004 Body, Presence, and Space in Andean and Mesoamerican Rulership. In *Palaces of the Ancient New World*, edited by Susan Toby Evans and Joanne Pillsbury, pp. 359-398. Dumbarton Oaks, Washington DC.
- Houston, Stephen D. and David Stuart
 1996 Of Gods, Glyphs, and Kings: Divinity and Rulership among the Classic Maya. *Antiquity* 70:289-312.
- 1998 The Ancient Maya Self: Personhood and Portraiture in the Classic Period. *RES: Anthropology and Aesthetics* 33:73-101.
- 2001 Opening the Royal Maya Court. In *Royal Courts of the Ancient Maya. Volume 1: Theory, Comparison, Synthesis*, edited by Takeshi Inomata and Stephen D. Houston, pp. 54-83. Westview Press, Boulder.
- Houston, Stephen D., David Stuart and Karl Taube
 2006 *The Memory of Bones: Body, Being, and Experience among the Classic Maya*. University of Texas Press, Austin.
- Houston, Stephen D. and Karl Taube
 2000 An Archaeology of the Senses: Perception and Cultural Expression in Ancient Mesoamerica. *Cambridge Archaeological Journal* 10(2):261-294.

- Howes, David
 2006 Scent, Sound, and Synaesthesia: Intersensoriality and Material Culture Theory. In *Handbook of Material Culture*, edited by Christopher Tilley, Webb Keane, Susanne Kuchler, Michael Rowlands and Patricia Spyer, pp. 161-172. Sage Publications, London.
- Husserl, Edmund
 1982 Ideas Pertaining to a Pure Phenomenology and to a Phenomenological Philosophy, First Book. In *Collected Works*. vol. 2. The Hague.
- Hymes, Dell H.
 1975 Breakthrough into Performance. In *Performance and Communication*, edited by Dan Ben-Amos and Kenneth S. Goldstein, pp. 11-74. Mouton, The Hague.
- Inomata, Takeshi
 1995 *Archaeological Investigations at the Fortified Center of Aguateca, El Peten, Guatemala: Implications for the Study of the Classic Maya Collapse*, Vanderbilt University.
- 1997 The Last Day of a Fortified Classic Maya Center: Archaeological Investigations at Aguateca, Guatemala. *Ancient Mesoamerica* 8:337-351.
- 2001a King's People: Classic Maya Courtiers in a Comparative Perspective. In *Royal Courts of the Ancient Maya*, edited by Takeshi Inomata and Stephen Houston, pp. 27-53. vol. 1. Westview Press, Boulder.
- 2001b The Power and Ideology of Artistic Creation: Elite Craft Specialists in Classic Maya Society. *Current Anthropology* 42(3):321-349.
- Inomata, Takeshi and Lawrence S. Coben
 2006 Overture: An Invitation to the Archaeological Theater. In *Archaeology of Performance: Theaters of Power, Community, and Politics*, edited by Takeshi Inomata and Lawrence S. Coben, pp. 11-46. Alta Mira Press, New York.
- Inomata, Takeshi and Stephen D. Houston
 2001a Opening the Royal Maya Court. In *Royal Courts of the Ancient Maya. Volume 1: Theory, Comparison, Synthesis*, edited by Takeshi Inomata and Stephen D. Houston, pp. 3-26. Westview Press, Boulder.
- 2001b *Royal Courts of the Ancient Maya*. 2 vols. Westview Press, Boulder.

- Inomata, Takeshi and Erick Ponciano
 2010 The Palace Group. In *Burned Palaces and Elite Residences of Aguateca: Excavations and Ceramics*, edited by Takeshi Inomata and Daniela Triadan, pp. 23-52. Monographs of the Aguateca Project First Phase. vol. 1, Takeshi Inomata and Daniela Triadan, general editor. University of Utah Press, Salt Lake City.
- Inomata, Takeshi, Erick Ponciano, Oswaldo Chinchilla, Otto Roman, Veronique Breuil-Martinez and Oscar Santos
 2004 An Unfinished Temple at the Classic Maya Centre of Aguateca, Guatemala. *Antiquity* 78(302):798-811.
- Inomata, Takeshi and Laura R. Stiver
 1998 Floor Assemblages from Burned Structures at Aguateca, Guatemala: A Study of Classic Maya Households. *Journal of Field Archaeology* 25(4):431-452.
- Inomata, Takeshi and Daniela Triadan
 2003 Where Did Elites Live? Identifying Elite Residences at Aguateca, Guatemala. In *Maya Palaces and Elite Residences: An Interdisciplinary Approach*, edited by Jessica Joyce Christie, pp. 154-183. University of Texas Press, Austin.
- 2010 *Burned Palaces and Elite Residences of Aguateca: Excavations and Ceramics*. 1. University of Utah Press, Salt Lake City.
- Inomata, Takeshi, Daniela Triadan and Estela Pinto
 2010 Complete and Reconstructible Drums. In *Burned Palaces and Elite Residences of Aguateca: Excavations and Ceramics*, edited by Takeshi Inomata and Daniela Triadan, pp. 362-368. Monographs of the Aguateca Project First Phase. vol. 1, Takeshi Inomata and Daniela Triadan, general editor. University of Utah Press, Salt Lake City.
- Inomata, Takeshi, Daniela Triadan and Erick Ponciano
 2010 The Elite Residential Area. In *Burned Palaces and Elite Residences of Aguateca: Excavations and Ceramics*, edited by Takeshi Inomata and Daniela Triadan, pp. 53-137. Monographs of the Aguateca Project First Phase. vol. 1, Takeshi Inomata and Daniela Triadan, general editor. University of Utah Press, Salt Lake City.
- Inomata, Takeshi, Daniela Triadan, Erick Ponciano, Richard Terry and Harriet F. Beaubien
 2001 In the Palace of the Fallen King: The Royal Residential Complex at Aguateca, Guatemala. *Journal of Field Archaeology* 28(3/4):287-306.

- Ishihara, Reiko
2007 *Bridging the Chasm Between Religion and Politics: Archaeological Investigations of the Grietas at the Late Classic Maya Site of Aguateca, Peten, Guatemala*, University of California at Riverside.
- Jackson, Sarah E.
2009 Imagining Courtly Communities: An Exploration of Classic Maya Experiences of Status and Identity through Painted Ceramic Vessels. *Ancient Mesoamerica* 20:71-85.
- Jones, Christopher
1996 *Excavations in the East Plaza of Tikal*. Tikal Report 16. 2 vols. University Museum, University of Pennsylvania, Philadelphia.
- Joyce, Rosemary A.
2000 *Gender and Power in Prehispanic Mesoamerica*. University of Texas Press, Austin.
- Kant, Immanuel
1996 *Critique of Pure Reason*. Hackett Publishing, Indianapolis.
- Kehoe, Alice B.
2002 Theaters of Power. In *The Dynamics of Power*, edited by Maria O'Donovan, pp. 259-272. Occasional Paper No. 30. Center for Archaeological Investigations, Carbondale.
- Kent, Sue
1990 A Cross-Cultural Study of Segmentation, Architecture, and the Use of Space. In *Domestic Architecture and the Use of Space*, edited by Sue Kent, pp. 127-152. Cambridge University Press, Cambridge.
- Kepecs, Susan
2003 Salt Sources and Production. In *The Postclassic Mesoamerican World*, edited by Michael E. Smith and Frances F. Berdan, pp. 126-130. University of Utah Press, Salt Lake City.
- Knapp, A. Bernard and Wendy Ashmore
1999 Archaeological Landscapes: Constructed, Conceptualized, Ideational. In *Archaeologies of Landscape: Contemporary Perspectives*, edited by Wendy Ashmore and A. Bernard Knapp, pp. 1-32. Social Archaeology, Ian Hodder, general editor. Blackwell Publishing, Malden.

- Kus, Susan M.
1983 The Social Representation of Space: Dimensioning the Cosmological and the Quotidian. In *Archaeological Hammers and Theories*, edited by James A. Moore and Arthur S. Keene, pp. 277-298. Academic Press, New York.
- Lawrence, Denise L. and Setha M. Low
1990 The Built Environment and Spatial Form. *Annual Review of Anthropology* 19:453-505.
- Lefebvre, Henri
1991 *The Production of Space*. Blackwell Publishers, Malden.
- Li, Fei Fei, Rufin VanRullen, Christof Koch and Pietro Perona
2002 Rapid Natural Scene Categorization in the Near Absence of Attention. *Proceedings of the National Academy of Sciences* 99:9596-9601.
- Liendo Stuardo, Rodrigo
2003 Access Patterns in Maya Royal Precincts. In *Maya Palaces and Elite Residences: An Interdisciplinary Approach*, edited by Jessica Joyce Christie, pp. 184-203. University of Texas Press, Austin.
- Loten, Stanley and David M. Pendergast
1984 *A Lexicon for Maya Architecture*. ROM Archaeology Monograph 8. Royal Ontario Museum, Toronto.
- Lounsbury, Floyd G.
1974 The Inscription of the Sarcophagus Lid at Palenque. In *Primera Mesa Redonda de Palenque, Part 2*, edited by Merle Greene Robertson, pp. 5-20. Robert Louis Stevenson School, Pebble Beach, California.
- Love, Michael
2002 Domination, Resistance, and Political Cycling in Formative Period Pacific Guatemala. In *The Dynamics of Power*, edited by Maria O'Donovan, pp. 214-237. Occasional Paper No. 30. Center for Archaeological Investigations, Carbondale.
- Low, Setha M.
2000 *On the Plaza: the Politics of Space and Culture*. University of Texas Press, Austin.

Marcus, Joyce

1976 *Emblem and State in the Classic Maya Lowlands*. Dumbarton Oaks, Washington DC.

2003 Recent Advances in Maya Archaeology. *Journal of Archaeological Research* 11(2):71-148.

Martin, Simon

2001 Court and Realm: Architectural Signatures in the Classic Maya Southern Lowlands. In *Royal Courts of the Ancient Maya. Volume 1: Theory, Comparisons, and Synthesis*, edited by Takeshi Inomata and Stephen D. Houston, pp. 168-194. Westview Press, Boulder.

Martin, Simon and Nikolai Grube

1995 Maya Superstates. *Archaeology* 48(6):41-46.

2000 *Chronicles of the Maya Kings and Queens: Deciphering the Dynasties of the Ancient Maya*. Thames and Hudson, New York.

Marx, Karl

1963 *The Eighteenth Brumaire of Louis Bonaparte*. International Publishers, New York.

2010 *Capital* 1. Progress Publishers, Moscow.

Mathews, Peter

1975 The Lintels of Structure 12, Yaxchilán, Chiapas. Paper presented at the Annual Conference of the Northeastern Anthropological Association, Wesleyan University.

Mathews, Peter and John Justeson

1984 Patterns of Sign Substitution in Maya Hieroglyphic Writing: "The Affix Cluster". In *Phoneticism in Maya Hieroglyphic Writing*, edited by John Justeson and Lyle Campbell, pp. 185-231. vol. 9. Institute of Mesoamerican Studies, Albany.

Mauss, Marcel

2007 Techniques of the Body. In *Beyond the Body Proper: Reading the Anthropology of Material Life*, edited by Margaret Lock and Judith Farquhar, pp. 50-68. Duke University Press, Durham.

- McAnany, Patricia A.
1995 *Living with the Ancestors: Kinship and Kingship in Ancient Maya Society*. University of Texas Press, Austin.
- 1998 Ancestors and the Classic Maya Built Environment. In *Function and Meaning in Classic Maya Architecture*, edited by Stephen D. Houston, pp. 271-298. Dumbarton Oaks, Washington, DC.
- McAnany, Patricia A. and Shannon Plank
2001 Perspectives on Actors, Gender Roles, and Architecture at Classic Maya Courts. In *Royal Courts of the Ancient Maya. Volume 1: Theory, Comparison, Synthesis*, edited by Takeshi Inomata and Stephen D. Houston, pp. 84-129. Westview Press, Boulder.
- McGuire, Randall H. and Michael B. Schiffer
1983 A Theory of Architectural Design. *Journal of Anthropological Archaeology* 2(3):277-303.
- McKillop, Heather
2002 *Salt: White Gold of the Ancient Maya*. University Press of Florida, Gainesville.
- Merleau-Ponty, Maurice
1945 *Phenomenology of Perception*. Routledge Classics, New York.
- Merwin, Raymond E.
1911 Holmul Field Journal. Volume #3. 1910-1911. Peabody Museum.
- 1914 Holmul Field Journal. Volume #6. 1913-1914. Peabody Museum.
- Merwin, Raymond E. and George C. Vaillant
1932 *The Ruins of Holmul Guatemala*. Peabody Museum, Cambridge.
- Meskell, Lynn M. and Rosemary A. Joyce
2003 *Embodied Lives: Figuring Ancient Maya and Egyptian Experience*. Routledge Press, New York.
- 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.

Miller, Mary

1998 A Design for Meaning in Maya Architecture. In *Function and Meaning in Classic Maya Architecture*, edited by Stephen D. Houston, pp. 187-222. Dumbarton Oaks, Washington DC.

1999 *Maya Art and Architecture*. Thames and Hudson, London.

2001 Life at Court: The View from Bonampak. In *Royal Courts of the Ancient Maya. Volume 2: Data and Case Studies*, edited by Takeshi Inomata and Stephen D. Houston, pp. 201-222. Westview Press, Boulder.

Miller, Mary and Simon Martin

2004 *Courtly Art of the Ancient Maya*. Fine Arts Museums of San Francisco, San Francisco.

Mongelluzzo, Ryan

2005 Excavaciones en el Group III. In *Investigaciones Arqueológicas en la Región de Holmul, Petén, Guatemala. Informe Preliminar de la Temporada 2005*, edited by Francisco Estrada-Belli, pp. 28-43.

Noble, Sandra E.

1999 *Maya Seats and Seats-of-Authority*, University of British Columbia.

Novotny, Anna

2005 2005 Holmul Burial Report. In *Investigaciones Arqueológicas en la Región de Holmul, Petén Guatemala. Informe Preliminar de la Temporada 2005*, edited by Francisco Estrada-Belli. Submitted to the IDAEH of Guatemala.

Pinney, Christopher

2002 Visual Culture. In *The Material Culture Reader*, edited by Victor Buchli, pp. 81-104. Berg Publishers, Oxford.

Ponciano, Erick M. and Estela Pinto

2000 2000 Proyecto Arqueológico Aguateca, Sayaxche, Petén: Excavaciones de la Temporada de Campo de 1999. In *XIII Simposio de Investigaciones Arqueológicas en Guatemala, 1999*, edited by Juan Pedro Laporte, Hector Escobedo, Barbara Arroyo and Ana Claudia de Suasnívar, pp. 800-816.

Porter, James B.

1994 The Palace Intaglios: A Composite Stairway Throne at Palenque. In *Seventh Palenque Round Table, 1989*, edited by Virginia M. Fields, pp. 11-18, Merle Greene Robertson, general editor. The Pre-Columbian Art Research Institute, San Francisco.

- Poulantzas, Nicos
1978 *State, Power, Socialism*. Verso Press, London.
- Proskouriakoff, Tatiana
1963 Historical Data in the Inscriptions of Yaxchilan, Part I. In *Estudios de Cultura Maya*, pp. 147-167. vol. 3.
- Rabinow, Paul (editor)
1984 *The Foucault Reader*. Pantheon Books, New York.
- Reents-Budet, Dorie
1994 *Painting the Maya Universe: Royal Ceramics of the Classic Period*. Duke University Press, Durham.
- 2001 Classic Maya Concepts of the Royal Court: An Analysis of Renderings on Pictorial Ceramics. In *Royal Courts of the Ancient Maya. Volume 1: Theory, Comparison, and Synthesis*, edited by Takeshi Inomata and Stephen D. Houston, pp. 195-236. Westview Press, Boulder.
- Refshauge, Kathryn M.
1998 *Human Proprioception*, University of New South Wales.
- Richardson, Miles
1982 Being-in-the-Market versus Being-in-the-Plaza: Material Culture and the Construction of Social Reality in Spanish America. *American Ethnologist* 9(2):421-436.
- Robertson, Merle Greene
1985a *The Sculpture of Palenque Vol. II: The Early Buildings of the Palace and the Wall Paintings*. Princeton University Press, Princeton.
- 1985b *The Sculpture of Palenque Vol. III: The Late Buildings of the Palace*. Princeton University Press, Princeton.
- Rodman, Margaret C.
1992 Empowering Place: Multilocality and Multivocality. *American Anthropologist* 94(3):640-656.
- Runggaldier, Astrid
2009 *Memory and Materiality in Monumental Architecture: Construction and Reuse of a Late Preclassic Maya Palace at San Bartolo, Guatemala*. Ph.D. dissertation, Boston University.

Russell, Bertrand

1986 The Forms of Power. In *Power*, edited by Steven Lukes, pp. 19-27. New York University Press, New York.

Sanchez, Julia L.

2005 Ancient Maya Royal Strategies: Creating Power and Identity through Art. *Ancient Mesoamerica* 16:261-275.

Sanders, Donald

1990 Behavioral Conventions and Archaeology: Methods for the Analysis of Ancient Architecture. In *Domestic Architecture and the Use of Space: An Interdisciplinary Cross-Cultural Study*, edited by Susan Kent, pp. 43-72. Cambridge University Press, New York.

Sanders, William T.

1989 Household, Lineage, and State at Eighth-Century Copan, Honduras. In *The House of the Bacabs, Copan Honduras*, edited by David Webster, pp. 89-105. Dumbarton Oaks, Washington DC.

Satterthwaite, Linton

1958 Tikal Report No. 4: The Problem of Abnormal Stela Placements at Tikal and Elsewhere. In *Tikal Reports Numbers 1-4*, pp. 61-83. The University Museum, University of Pennsylvania, Philadelphia.

Saunders, Tom

1990 The Feudal Construction of Space: Power and Domination in the Nucleated Village. In *The Social Archaeology of Houses*, edited by Ross Samson, pp. 181-196. Edinburgh University Press, Edinburgh.

Schele, Linda

1981 Sacred Site and World-View at Palenque. In *Mesoamerican Sites and World-Views*, edited by E. P. Benson, pp. 87-117. Dumbarton Oaks, Washington, DC.

1985 Color on Classic Maya Architecture and Monumental Sculpture of the Southern Maya Lowlands. In *Painted Architecture and Polychrome Monumental Sculpture in Mesoamerica*, edited by Elizabeth Hill Boone, pp. 31-50. Dumbarton Oaks, Washington DC.

1986a The Demotion of Chac-Zutz': Lineage Compounds and Subsidiary Lords at Palenque. In *Sixth Palenque Round Table, 1986*, edited by Virginia M. Fields, pp. 6-11. vol. VIII, Merle Greene Robertson, general editor. University of Oklahoma Press, Norman.

1986b The Founders of Lineages at Copán and Other Maya Sites. In *Copán Note 8*. Copán Mosaics Project and the Instituto Hondureño de Antropología e Historia, Copán, Honduras.

1998 The Iconography of Maya Architectural Facades during the Late Classic Period. In *Function and Meaning in Classic Maya Architecture*, edited by Stephen D. Houston, pp. 479-518. Dumbarton Oaks, Washington DC.

Schele, Linda and David Freidel

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

Schele, Linda and Peter Mathews

1991 Royal Visits and Other Intersite Relationships among the Classic Maya. In *Classic Maya Political History: Hieroglyphic and Archaeological Evidence*, edited by T. Patrick Culbert, pp. 226-252. Cambridge University Press, Cambridge.

1998 *The Code of Kings: The Language of Seven Sacred Maya Temples and Tombs*. Simon & Schuster, New York.

Schele, Linda and Mary Miller

1986 *The Blood of Kings: Dynasty and Ritual in Maya Art*. George Braziller, Fort Worth, Texas.

Scherer, Andrew K., Lori E. Wright and Cassady J. Yoder

2007 Bioarchaeological Evidence for Social and Temporal Differences in Diet at Piedras Negras, Guatemala. *Latin American Antiquity* 18(1):85-104.

Sharer, Robert J.

1994 *The Ancient Maya*. Stanford University, Stanford.

Sharer, Robert J., William L. Fash, David W. Sedat, Loa P. Traxler and R. Williamson

1999 Continuities and Contrasts in Early Classic Architecture of Central Copan. In *Mesoamerican Architecture as a Cultural Symbol*, edited by J.K. Kowalski, pp. 220-249. Oxford University Press, New York.

Smith, A. Ledyard

1937 *Structure A-XVIII, Uaxactun*. Contributions to American Anthropology and History IV, No.20. Washington, DC vols. Carnegie Institution of Washington.

1950 *Uaxactun, Guatemala; Excavations of 1931-1937*, Washington.

- Smith, Adam T.
2003 *The Political Landscape: Constellations of Authority in Early Complex Polities*. University of California Press, Los Angeles.
- Smith, Mark M.
2007 *Sensing the Past: Seeing, Hearing, Smelling, Tasting, and Touching in History*. University of California Press, Berkeley.
- Soja, Edward W.
1980 The Socio-Spatial Dialectic. *Annals of the Association of American Geographers* 70(2):207-225.

1985 The Spatiality of Social Life. In *Social Relations and Spatial Structures*, edited by Derek Gregory and John Urry, pp. 90-127. St. Martin's Press, New York.

1989 *Postmodern Geographies: The Reassertion of Space in Critical Social Theory*. Verso Press, London.
- Steadman, Sharon R.
1996 Recent Research in the Archaeology of Architecture: Beyond the Foundations. *Journal of Archaeological Research* 4(1):51-92.
- Stoller, Paul
1989 *The Taste of Ethnographic Things: the Senses in Anthropology*. University of Pennsylvania Press, Philadelphia.
- Stuart, David
1984 Royal Auto-Sacrifice among the Maya: A Study of Image and Meaning. *RES: Anthropology and Aesthetics* 7/8:6-20.

1986 *The Step Inscription of Temple 22 at Copan*. Copan Note 16. The Copan Mosaics Project, Cambridge.

1996 Kings of Stone: A Consideration of Stelae in Ancient Maya Ritual and Representation. *RES: Anthropology and Aesthetics* 29/30:148-171.

1998 "The Fire Enters His House": Architecture and Ritual in Classic Maya Texts. In *Function and Meaning in Classic Maya Architecture*, edited by Stephen D. Houston, pp. 373-425. Dumbarton Oaks, Washington DC.

- 2005 *The Inscriptions from Temple XIX at Palenque*. The Pre Columbian Art Research Institute, San Francisco.
- Stuart, David and George Stuart
2008 *Palenque: Eternal City of the Maya*. Thames and Hudson, London.
- Takagi, Sadayuki F.
1978 Biophysics of Smell. In *Handbook of Perception, Volume VIa: Tasting and Smelling*, edited by Edward C. Carterette and Morton P. Friedman, pp. 233-243. Academic Press, New York.
- Tate, Carolyn E.
1992 *Yaxchilan: The Design of a Maya City*. University of Texas Press, Austin.
- Taube, Karl
1989 The Maize Tamale in Classic Maya Diet, Epigraphy, and Art. *American Antiquity* 54(1):31-51.
- 1998 The Jade Hearth: Centrality, Rulership, and the Classic Maya Temple. In *Function and Meaning in Classic Maya Architecture*, edited by Stephen D. Houston, pp. 427-478. Dumbarton Oaks, Washington, DC.
- 2004 Structure 10L-16 and Its Early Classic Antecedents: Fire and the Evocation and Resurrection of K'inich Yax K'uk Mo'. In *Understanding Early Classic Copan*, edited by Ellen E. Bell, Marcelo A. Canuto and Robert J. Sharer, pp. 265-295. University of Pennsylvania Museum of Archaeology and Anthropology, Philadelphia.
- 2005 The Symbolism of Jade in Classic Maya Religion. *Ancient Mesoamerica* 16:23-50.
- Thomas, Julian
2006 Phenomenology and Material Culture. In *Handbook of Material Culture*, edited by Christopher Tilley, Webb Keane, Susanne Kuchler, Michael Rowlands and Patricia Spyer, pp. 43-59. Sage Publications, Thousand Oaks.
- Thomas, Julian S.
2002 Taking Power Seriously. In *The Dynamics of Power*, edited by Maria O'Donovan, pp. 35-50. Occasional Paper No. 30. Center for Archaeological Investigations, Carbondale.
- Thompson, Andrea
2010 Ancient Mayan Rituals Revealed by Ordinary Objects.

- Thompson, John Eric Sidney
 1939 *Excavations at San Jose, British Honduras*. Carnegie Institution of Washington, Washington, D.C.
- Throop, C. Jason and Keith M. Murphy
 2002 Bourdieu and Phenomenology: a Critical Assessment. *Anthropological Theory* 2(2):185-207.
- Tilley, Christopher
 1994 *A Phenomenology of Landscape: Places, Paths, and Monuments*. Berg Publishers, Providence.
- Toby Evans, Susan and Joanne Pillsbury (editors)
 2004 *Palaces of the Ancient New World*. Dumbarton Oaks, Washington DC.
- Tozzer, Alfred M.
 1932 Raymond Edwin Merwin. In *The Ruins of Holmul Guatemala*, pp. iii-iv. Peabody Museum, Cambridge.
- Traxler, Loa P.
 2001 The Royal Court of Early Classic Copan. In *Royal Courts of the Ancient Maya. Volume 2: Data and Case Studies*, edited by Takeshi Inomata and Stephen D. Houston, pp. 46-73. Westview Press, Boulder.
- Trik, Aubrey S.
 1939 *Temple XXII at Copan*. Contributions to American Anthropology and History 27. Carnegie Institution, Washington DC.
- Tuan, Yi-Fu
 1974 *Topophilia: A Study of Environmental Perception, Attitude, and Values*. Prentice-Hall, Inc., Englewood Cliffs.
 1977 *Space and Place: The Perspective of Experience*. University of Minnesota Press, Minneapolis.
 1989 Traditional: What Does It Mean? In *Dwellings, Settlements, and Tradition: Cross-Cultural Perspectives*, edited by Jean-Paul Bourdier and Nezar Alsayyad, pp. 27-37. University Press of America, New York.
- Valdés, Juan Antonio
 2001 Palaces and Thrones Tied to the Destiny of the Royal Courts in the Maya Lowlands. In *Royal Courts of the Ancient Maya. Volume 2: Data and Case Studies*, edited by Takeshi Inomata and Stephen D. Houston, pp. 138-164. Westview Press, Boulder.

- Valle, Judith
 2003 Informe Preliminar de Las Excavaciones Realizadas en el Patio B Del Grupo III de Holmul, Temporada 2003. In *Archaeological Investigations in the Holmul Region, Peten. Results of the Fourth Season, 2003.*, edited by Francisco Estrada-Belli, pp. 49-60. Submitted to the IDAEH of Guatemala.
- Van Dyke, Ruth M. and Susan E. Alcock
 2003 Social Memory: An Introduction. In *Archaeologies of Memory*, edited by Ruth M. Van Dyke and Susan E. Alcock, pp. 1-13. Blackwell Publishing, Malden.
- Vogt, Evan Z.
 1969 *Tortillas for the Gods: A Symbolic Analysis of Zinacanteco Rituals.* Harvard University Press, Cambridge.
- Weber, Max
 1964 *The Theory of Social and Economic Organization.* The Free Press, New York.
- Webster, David (editor)
 1989 *The House of the Bacabs, Copan, Honduras.* Dumbarton Oaks, Washington DC.
- 1998 Classic Maya Architecture: Implications and Comparisons. In *Function and Meaning in Classic Maya Architecture*, edited by Stephen D. Houston, pp. 5-48. Dumbarton Oaks, Washington DC.
- 2001 Spatial Dimensions of Maya Courtly Life: Problems and Issues. In *Royal Courts of the Ancient Maya. Volume 1: Theory, Comparisons, and Synthesis*, edited by Takeshi Inomata and Stephen D. Houston, pp. 130-167. Westview Press, Boulder.
- Webster, David and Takeshi Inomata
 2004 Identifying Subroyal Elite Palaces at Copan and Aguateca. In *Palaces of the Ancient New World*, edited by Susan Toby Evans and Joanne Pillsbury, pp. 149-180. Dumbarton Oaks, Washington DC.
- Wilson, Peter J.
 1988 *The Domestication of the Human Species.* Yale University Press, New Haven.

Wolf, Eric R.

1999 *Envisioning Power: Ideologies of Dominance and Crisis*. University of California Press, Berkeley.