

# BEYOND MEANING

AN ARTEFACT APPROACH TO THE NEOLITHIC FIGURINES FROM TELL SABİ ABYAD  
(SYRIA) AND ÇATALHÖYÜK (TURKEY)

Monique Arntz

Trinity College



January 2022

This thesis is submitted for the degree of Doctor of Philosophy

This thesis is the result of my own work and includes nothing which is the outcome of work done in collaboration except as declared in the Preface and specified in the text. I further state that no substantial part of my thesis has already been submitted, or, is being concurrently submitted for any such degree, diploma or other qualification at the University of Cambridge or any other University or similar institution except as declared in the Preface and specified in the text. It does not exceed the prescribed word limit for the relevant Degree Committee.

# BEYOND MEANING

AN ARTEFACT APPROACH TO THE NEOLITHIC FIGURINES FROM TELL SABİ ABYAD (SYRIA) AND  
ÇATALHÖYÜK (TURKEY)

## Abstract

For the Neolithic in the Near East figurines are our primary, at times only, source of visual representations of humans and animals at many sites. More than purely utilitarian objects, figurines are thought to provide insight into the more intangible aspects of past life such as ritual, cosmology, identity and social processes. In most approaches, there has often been a focus on figurines as static images. However, placing prime importance on representation ignores the importance of interactions between people and materials.

In this thesis it is argued that through an artefact and life biography approach we can more productively analyse figurines as a process; from production, use, to final deposition. Better insight into these aspects will allow us to more fully comprehend how figurines operated in their respective social contexts. Any statement on figurine practices needs to incorporate all types of figurines and furthermore a nuanced view on differences in figurine practices needs to be substantiated by analysis of different sites. Therefore, this thesis features the corpora of two Neolithic sites: Tell Sabi Abyad (Syria) and Çatalhöyük (Turkey) both inhabited through the 8<sup>th</sup> to 6<sup>th</sup> millennia. The different social settings at these sites make them an interesting case study to analyse differences in figurine practices.

The result is a comprehensive overview of the complete life biographies of all clay figurines found at both sites, looking at material properties, production, use-wear traces and depositional contexts which are then compared between figurine types and analysed through time. Synthesising these findings yielded a detailed insight into figurine practices at the two case study sites, showing some common practices but also marked differences potentially linked to more household practices at Çatalhöyük and community practices at Tell Sabi Abyad. Furthermore, life biographies of figurines at the two sites are variable and changes through time are observed at both sites. This thesis not only offers a detailed and nuanced picture of figurine practices at these two sites, but it also exemplifies that generalised statements about figurine practices in the Near East need to be reassessed through intra-site, artefact approach studies.

## Preface

This thesis evolved from a long interest in Neolithic figurines, which I developed during my BA studies. My initial ideas on figurines were greatly inspired by Dr Olivier Nieuwenhuys, who died far too young and is greatly missed as an amazing teacher and scholar. I owe him a debt of gratitude. I also want to thank Sander Paap, who both encouraged and facilitated me in fulfilling my dream of pursuing a degree in Archaeology.

I would further like to thank Prof. Peter Akkermans, who allowed me to write on the Tell Sabi Abyad figurines and has been a motivation and continual support in my academic career. I also thank Merel Brüning who, with her endless knowledge of the Tell Sabi Abyad stratigraphy and chronology, has been a great help to me. After eight years spent on fieldwork in the eastern desert in Jordan, I am also very happy that I can call them my friends.

I am very grateful for Prof. Ian Hodder who allowed me to come to Çatalhöyük to work with the figurine team on the site in 2016 and 2017. I was graciously hosted there and Prof. Lynn Meskell took time to teach me the recording system and get me started in my research. Dr Carolyn Nakamura also took the time to answer my questions and I greatly appreciate their help. Of course, I am also very grateful for the Çatalhöyük Research Project for allowing me to incorporate the amazing figurine dataset in this thesis.

I reserve special thanks to my supervisor and advisor, Prof. Augusta McMahon and Prof. John Robb for their guidance and insights in how to shape both my ideas and this thesis.

I want to thank my family and friends for their support and encouragement. Last but not least, my gratitude and love go to my partner Rients for his continual support throughout the years of writing this thesis. Your dedication and passion for the field of Assyriology is a great inspiration to me in my work.

This research would not have been possible without the funding package awarded by the Arts and Humanities Research Council (AHRC) and Trinity College, Cambridge for which I am extremely grateful.

# TABLE OF CONTENTS

ABSTRACT	iii
PREFACE	iv
TABLE OF CONTENTS	v
LIST OF FIGURES	x
LIST OF TABLES	xx
<b>CHAPTER 1: INTRODUCTION</b>	
1.1 Research Context	1
1.2 Figurines: Definitions	3
1.3 Gender Issues: the Mother Goddess	4
1.4 New Directions in Figurine Studies	7
1.5 Research Aims and Research Questions	8
1.6 Structure of Thesis	9
<b>CHAPTER 2: THEORETICAL UNDERPINNINGS AND METHODOLOGY</b>	
2.1 Figurines as Art	10
2.2 Figurines as Symbolic Representations	13
2.2.1 Symbols	13
2.2.2 Meaning	15
2.2.3 Representation	15
2.3 Figurines as Ritual Objects	18
2.4 An Artefact Approach to Figurines	20
<b>CHAPTER 3: RESEARCH BACKGROUNDS</b>	
3.1 Overview of Figurines in the Near East from the Epipalaeolithic to the Halaf	26
3.1.1 Late Epipalaeolithic–Natufian Period	27
3.1.2 The Pre-Pottery Neolithic A Period (PPNA)	30
3.1.3 The Pre-Pottery Neolithic B Period (PNNB)	32
3.1.4 The Pottery Neolithic Period	38
3.1.5 Figurine Overview: Conclusions	42
3.2 The Sites in Context: Regional Definitions and Landscapes	43
3.3 Site Overview: Çatalhöyük	44
3.3.1 Landscape Setting	45
3.3.2 Excavation History	46
3.3.3 Occupational Sequence	48
3.3.4 Site Layout and Architecture	49
3.3.5 General Remarks on Subsistence	52
3.3.6 General Remarks on Material Culture	52

3.4 Site Overview: Tell Sabi Abyad	54
3.4.1 <i>Landscape Setting</i>	55
3.4.2 <i>Excavation History</i>	56
3.4.3 <i>Occupational Sequence</i>	57
3.4.4 <i>Site Layout and Architecture</i>	58
3.4.5 <i>General Remarks on Subsistence</i>	62
3.4.6 <i>General Remarks on Material Culture</i>	62
3.5 Selected Research Themes	63
3.5.1 <i>History Houses And ‘Mega Sites’ Versus Shifting Settlements</i>	63
3.5.2 <i>Early Seals and Evidence for Communal Storage and Personal Property</i>	64
3.5.3 <i>Change In The Later Levels: The 8.2 KYA Event</i>	67
3.6 Conclusions	69
<b>CHAPTER 4: THE DATASET</b>	
4.1 Recording the Dataset: Çatalhöyük	72
4.1.1 <i>Recording Basic Information</i>	72
4.1.2 <i>Recording Contextual Information</i>	73
4.1.3 <i>Recording Chronological Information</i>	74
4.1.4 <i>Recording Information on Clay Compositions</i>	74
4.2 Recording the Dataset: Tell Sabi Abyad	76
4.2.1 <i>Recording Basic Information</i>	77
4.2.2 <i>Recording Contextual Information</i>	77
4.2.3 <i>Recording Chronological Information</i>	78
4.2.4 <i>Recording Information on Clay Compositions</i>	78
4.3 Compiling The Dataset: Çatalhöyük	79
4.4 Compiling The Dataset: Tell Sabi Abyad	81
4.5 Databases	82
4.6 Comparing The Datasets	86
4.7 Figurine Typology and Terminology	86
4.8 Çatalhöyük: Figurine Corpus and Typology	89
4.8.1 <i>Zoomorphic Figurines</i>	89
4.8.2 <i>Abbreviated Figurines</i>	99
4.8.3 <i>Anthropomorphic Figurines</i>	103
4.8.4 <i>Phallomorphic Figurines</i>	115
4.8.5 <i>Geometric Objects</i>	116
4.8.6 <i>Indeterminate and Unclear Objects</i>	117
4.9 Tell Sabi Abyad: Figurine Corpus and Typology	119
4.9.1 <i>Zoomorphic Figurines</i>	119
4.9.2 <i>Abbreviated and Anthropomorphic Figurines</i>	126
4.9.3 <i>Geometric Objects</i>	137

4.9.4 Indeterminate and Unclear Objects	137
4.10 Figurine Datasets: Conclusions	139
<b>CHAPTER 5: ANALYSIS</b>	
5.1 Material Analysis Çatalhöyük: Introduction	142
5.1.1 Zoomorphic Figurines: Material Properties	144
5.1.2 Abbreviated Figurines: Material Properties	146
5.1.3 Anthropomorphic Figurines: Material Properties	147
5.1.4 Phallomorphic Figurines: Material Properties	148
5.1.5 Geometric Objects: Material Properties	149
5.1.6 Indeterminate Objects: Material Properties	150
5.1.7 Unclear Objects: Material Properties	150
5.2 Çatalhöyük Figurine Corpus: Conclusions Material Properties	152
5.3 Analysis Figurine Production Çatalhöyük: Introduction	153
5.3.1 Zoomorphic Figurines: Production	154
5.3.2 Abbreviated Figurines: Production	160
5.3.3 Anthropomorphic Figurines: Production	164
5.3.4 Phallomorphic Figurines: Production	169
5.3.5 Geometric Objects: Production	169
5.3.6 Indeterminate Objects: Production	170
5.3.7 Unclear Objects: Production	172
5.4 Analysis Figurine Production Çatalhöyük: Conclusions	173
5.5 Analysis Figurine Use-wear Çatalhöyük: Introduction	174
5.5.1 Zoomorphic Figurines: Use-wear	174
5.5.2 Abbreviated Figurines: Use-wear	179
5.5.3 Anthropomorphic Figurines: Use-wear	183
5.5.4 Phallomorphic Figurines: Use-wear	185
5.5.5 Geometric Objects: Use-wear	185
5.5.6 Indeterminate Objects: Use-wear	186
5.5.7 Unclear Objects: Use-wear	186
5.6 Analysis Figurine Use-wear Çatalhöyük: Conclusions	188
5.7 Çatalhöyük Figurines Contextual Information: Introduction	188
5.7.1 Context Locations	188
5.7.2 Context Types	190
5.7.3 Stone Figurines Related to Contexts	194
5.7.4 Clay Types Related to Contexts	194
5.7.5 Heat Exposure Related to Contexts	196
5.7.6 Use Wear Related to Contexts	197
5.8 Contexts: Conclusions	197
5.9 Patterns through Time: Introduction	197

5.9.1 Zoomorphic Figurines through Time	198
5.9.2 Abbreviated Figurines through Time	199
5.9.3 Anthropomorphic Figurines through Time	199
5.9.4 Phallomorphic Figurines through Time	200
5.9.5 Geometric, Indeterminate and Unclear Objects through Time	200
5.10 Spatial Distribution	200
5.11 Temporal and Spatial Patterns: Conclusions	202
5.12 Material Analysis Tell Sabi Abyad: Introduction	202
5.12.1 Zoomorphic Figurines: Material Properties	203
5.12.2 Anthropomorphic and Abbreviated Figurines: Material Properties	203
5.12.3 Geometric Objects: Material Properties	204
5.12.4 Indeterminate and Unclear Objects: Material Properties	204
5.13 Tell Sabi Abyad Figurine Corpus: Conclusions Material Properties	205
5.14 Analysis Figurine Production Tell Sabi Abyad: Introduction	205
5.14.1 Zoomorphic Figurines: Production	206
5.14.2 Anthropomorphic and Abbreviated Figurines: Production	210
5.14.3 Geometric Objects: Production	215
5.14.4 Indeterminate Objects: Production	216
5.14.5 Unclear Objects: Production	216
5.15 Analysis Figurine Production Tell Sabi Abyad: Conclusions	217
5.16 Analysis Figurines Use-wear Tell Sabi Abyad: Introduction	218
5.16.1 Zoomorphic Figurines: Use-wear	218
5.16.2 Anthropomorphic and Abbreviated Figurines: Use-wear	222
5.16.3 Geometric Objects: Use-wear	224
5.16.4 Indeterminate Objects: Use-wear	224
5.16.5 Unclear Objects: Use-wear	225
5.17 Tell Sabi Abyad Figurines Use-wear: Conclusions	226
5.18 Tell Sabi Abyad Figurines Contextual Information: Introduction	226
5.18.1 Context Locations	226
5.18.2 Context Types	228
5.18.3 Non-clay Figurines Related to Contexts	236
5.18.4 Heat Exposure Related to Contexts	237
5.18.5 Intentional Damage and Contexts	237
5.19 Patterns through Time	237
5.19.1 Zoomorphic Figurines through Time	238
5.19.2 Anthropomorphic and Abbreviated Figurines through Time	238
5.20 Spatial Distribution	238
5.21 Conclusions	240

<b>CHAPTER 6: SYNTHESIS AND CONCLUSIONS</b>	
6.1 Figurine Life Biographies	242
6.1.1 Making Figurines	242
6.1.2 Using Figurines	244
6.1.3 Depositing Figurines	246
6.1.4 Heat Exposure	246
6.1.5 Examples of Object Biographies	247
6.1.6 Figurine Life Biographies: conclusions	251
6.2 What Properties Make Figurines Socially Efficacious Objects?	252
6.3 Beyond Visual Categories	252
6.4 Figurine Making as a Craft	253
6.5 Social Settings: Household Versus Community and its Influence on Figurine Practices	253
6.6 Future Research and Final considerations	255
<b>BIBLIOGRAPHY</b>	258
<b>APPENDIX A: TABLES CHAPTER 5</b>	276
<b>APPENDIX B: LEVEL MAPS</b>	354

# LIST OF FIGURES

- Figure 3.1** Comparative chronologies of Upper Mesopotamia, Anatolia and the Levant. In grey the periods from which the figurines from the two case study sites derive. Compiled after Akkermans and Schwartz 2003; Belcher and Croucher 2016 and Twiss 2007. 27
- Figure 3.2** Map showing the sites mentioned in the figurine overview. Sites are colour-coded by period. Map by author, base map courtesy of [https://commons.wikimedia.org/wiki/File:Near\\_East\\_topographic\\_map-blank.svg](https://commons.wikimedia.org/wiki/File:Near_East_topographic_map-blank.svg). 28
- Figure 3.3** Natufian figurines/figurative objects. Anthropomorphic figurine from ‘Ain Sakhri (1); haftings for knives from Mount Carmel (2-4); bone figurine from Nahal Oren (5); stone figurine from Umm ez-Zouteina (6). Insert (not to scale): figurines from Gilgal. Limestone bird figurine (7); clay anthropomorphic figurines (8, 10-11); limestone anthropomorphic figurine (9). Adapted from Boyd and Cook 1993, 400; Cauvin 2000a, 18 and Noy 1989, 15. 29
- Figure 3.4** Figurines from Wadi Hammeh. Limestone zoomorphic figurines (1, 2, 4); basalt pestle with zoomorphic terminal (3) and bone bird pendant (5). Adapted from Edwards 2013, 313-315. 30
- Figure 3.5** Figurines from Mureybet in stone (1 and 4) and baked clay (2, 3, 5, 6). Adapted from Cauvin 2000a, 27-28. 31
- Figure 3.6** PPNA stone figurines in order from 1 to 5: Salabiyah IX; Nahal Oren; El Khiam; Gilgal and Mureybet. Adapted from Cauvin 2000a, 26. 32
- Figure 3.7** Seated PPNB figurines from Tell Seker al-Aheimar (1); Cayönü (2-4); Cafer Höyük (5); Beidha (6) and Jarmo (7-10). Adapted from Broman Morales 1983, plate 153; 1990, plate 23; Cauvin 2000a, 90; Kuijt and Chesson 2005, 165; Nishiaki 2007, 122. 33
- Figure 3.8** Clay figurines from Neval Çori. Anthropomorphic female (?) figurines (1-10), 1 and 2 interpreted as women holding a child, 2-5 interpreted as pregnant females; anthropomorphic male (?) figurines (11-14); abstract conical figurines (15-17); zoomorphic figurines (18-21). Adapted from Morsch 2002, 153-156. 34
- Figure 3.9** Zoomorphic figurines from Tell Aswad. Adapted from de Contenson 1995, 187. 35
- Figure 3.10** Anthropomorphic figurines from Tell Aswad. Abstracted conical and cylindrical shapes (1-12); seated figurines (13-19); torso fragments (20-22) and heads (23-34). Adapted from de Contenson 1995, 189-190. 36
- Figure 3.11** Figurines from ‘Ain Ghazal. Zoomorphic figurines: sheep/goat (1-2), boar (3); quadruped with inserted flint bladelets (4) and a selection of horn fragments (5). Anthropomorphic figurines: ‘busts’ and head fragments (6-9). Insert (not to scale): Abstract standing anthropomorphic figurines (10-11). Adapted from Schmandt-Besserat 2013a, 2013b. 38
- Figure 3.12** Limestone figurines from Mezraa Teleilat (1-3). Insert (not to scale): Clay figurines from Höyücek (4-6); clay figurine from Hacilar (7 (not to scale) 8); Umm Dabaghiyah clay figurine (black dots represent paint, 9); bone anthropomorphic heads from Höyücek (10); clay figurines from Yarim Tepe II (11-12), calcite figurines from Tell es-Sawwan (13-14), Halaf figurine from Chagar Bazar (15). After Belcher 2014, 260; Brami 2014, 20; Campbell and Daems 2017, 576; Can Geminici 2018, 192; Duru and Umurtak 2005, 132 and 176; Hansen 2014, 271; Helwing 2016, 131; Merpert and Munchaev 1987, 26. 40
- Figure 3.13** Stone head and clay figurine (pig?) from Domuztepe (1-2); clay figurines from Sha’ar Hagolan (3-5); clay figurines from Höyücek (not to scale, 6-7), clay figurine from Damisliyya (not to scale, 8). After Akkermans 1988, 53; Carter 2012, 114; Duru and Umurtak 2005, 132 and 176; Streit and Garfinkel 2015, 40. 41
- Figure 3.14** Areas of excavation on the East and West mound. Courtesy of the Çatalhöyük Research Project. 47
- Figure 3.15** Densely clustered buildings in the North Area, level Ga, dated to the middle period, ca. 6700-6500 BC. Courtesy of the Çatalhöyük Research Project. 50
- Figure 3.16** Phases of occupation in Building 5, dated to the middle period ca. 6700-6500. After Hodder and Cessford 2004, 23. 51
- Figure 3.17** Tell Sabi Abyad I through IV. Courtesy of the Tell Sabi Abyad Research Project. 55
- Figure 3.18** Tell Sabi Abyad showing the various Operations. Courtesy of the Tell Sabi Abyad Research Project. 57

<b>Figure 3.19</b>	Tripartite building in square H8 at Tell Sabi Abyad III, ca. 6900 BC. The platform below the building is clearly visible along the edges of the structure. Photograph courtesy of the Tell Sabi Abyad Research Project.	60
<b>Figure 3.20</b>	The level 6 settlement or 'Burnt Village'. Map courtesy of the Tell Sabi Abyad Research Project.	61
<b>Figure 4.1</b>	Main table Çatalhöyük (top) and Tell Sabi Abyad (bottom) databases.	83
<b>Figure 4.2</b>	Material properties table Çatalhöyük (top) and Tell Sabi Abyad (bottom) databases.	84
<b>Figure 4.3</b>	Markings table Çatalhöyük (top) and Tell Sabi Abyad (bottom) databases.	84
<b>Figure 4.4</b>	Typology structure at Çatalhöyük (top) and at Tell Sabi Abyad (bottom).	87
<b>Figure 4.5</b>	8864.H1, a fish tail? Image by author, original photographs courtesy of the Çatalhöyük Research Project.	90
<b>Figure 4.6</b>	19385.X3, zoomorphic head. Image by author, original photographs courtesy of the Çatalhöyük Research Project.	90
<b>Figure 4.7</b>	Zoomorphic non-clay figurines. 1: 4900.X1; 2: 19101.H3; 3: 12519.X11; 4: 7770.X1; 5: 999999.H13 (not to scale). Image by author, original photographs courtesy of the Çatalhöyük Research Project.	91
<b>Figure 4.8</b>	Examples of figurine postures. 1: 12946.H12; standing with straight back; 2: 19205.X1, standing with saddleback; 3: 13103.X11, standing with arched back; 4: 12648.X6, walking; 5: 14186.X6, sitting; 6: 999999.H269, lying down and 7: 12524.X8, pinched up back. Image by author, original photographs courtesy of the Çatalhöyük Research Project.	92
<b>Figure 4.9</b>	Examples of leg shapes. 1: 5575.H3, pronounced triangular legs; 2: 23465.H1, flat triangular legs; 3: 12946.H12, short cone-shape legs; 4: 999999.H88 (not to scale), unusually long legs; 5: 999999.H221, irregular (deformed?) legs; 6: 15587.X1, front and hind legs moulded as one piece; 7: 18154.X3, no legs indicated; 8: 10396.H16, most likely leg fragment; 9: 12988.H10, most likely leg with foot indicated. Image by author, original photographs courtesy of the Çatalhöyük Research Project.	93
<b>Figure 4.10</b>	Examples of tail shapes. 1: 12648.X2, large triangular tail, possibly a fox or reptile; 2: 12648.X8, small, pinched-out tail; 3: 32133.H2, flap folded against body; 4: 12988.H1, cone-shaped tail on flat backside; 5: 19342.X16, pointed tail; 6: 19390.X3, little, scraped-up tail; 7: 23426.H1, curved tail. Image by author, original photographs courtesy of the Çatalhöyük Research Project.	94
<b>Figure 4.11</b>	Examples of different head shapes. 1: 32128.H15; 2: 10238.X5; 3: 16407.X1; 4: 12502.H4 (equid?); 5: 12980.H1 (pig/boar); 6: 19347.H15; 7: 12988.H1; 8: 14183.H5; 9: 30005.H1. Image by author, original photographs courtesy of the Çatalhöyük Research Project.	95
<b>Figure 4.12</b>	Facial features. 1: 19342.X25, 'mouth' created with fingernail; 2: 999999.H229, mouth indicated by incision; 3: 999999.H188 (not to scale), mouth with clear upper and lower lip; 4: 7555.X1, with possible indication of separate lower jaw. Image by author, original photographs courtesy of the Çatalhöyük Research Project.	95
<b>Figure 4.13</b>	Examples of horn and ear shapes. 1: 10396.X2, curving forward; 2: 16995.X11, curving back; 3: 1059.H1, short and flat straight horns; 4: 8432.X2 (not to scale), horn bases going horizontally out, likely originally curved; 5-6: 12946.H12 and 15675.H5, flat ears placed under horns; 7-8: 18164.X3 and 23160.H1, detailed ears (no horns represented); 9: 999999.H227, ears placed under horns (clearly attached as separate pieces); 10-11: 1184.H1 and 10396.H2, curved horns; 12: 1216.H1, straight horn; 13: 5294.H1, 23084.H10: spiralling horns. Image by author, original photographs courtesy of the Çatalhöyük Research Project.	96
<b>Figure 4.14</b>	Examples of different animal types. 1-6: 1059.H1, 2250.X1, 30005.H1, 32693.H1, 17490.H1, 999998.H60, goat; 7-8: 12502.H4, 19205.X1, equid; 9: 12394.H1, deer; 10: 19390.X3; 11-13: 12980.H1, 13103.X11, 22354.X2, pig/boar; 14-15: 10396.X2, 999999.H229, bovine; 16: 18164.X3, dog/fox; 17: 12980.H8, fox/reptile. Image by author, original photographs courtesy of the Çatalhöyük Research Project.	98
<b>Figure 4.15</b>	Examples of bucrania. 1: 12514.X3; 2: 20467.H2; 3: 3502.X1; 4: 6151.X1. Image by author, original photographs courtesy of the Çatalhöyük Research Project.	99
<b>Figure 4.16</b>	Zoomorphic figurine sizes. 1: 7760.X2; 2: 23227.H3, largest and smallest quadrupeds; 3: 14186.H1, largest horn fragment. Image by author, original photographs courtesy of the Çatalhöyük Research Project.	99
<b>Figure 4.17</b>	Stone abbreviated figurines. 1: 7905.H1 and 2: 999999.H164. Image by author, original photographs courtesy of the Çatalhöyük Research Project.	99

- Figure 4.18** Overview of range of head on base figurines. 1-4: 12524.X4, 12524.X5, 12524.X11, 12511.X1, figurines with very long, slender bodies. At times a slight indication of a nose and/or head element; 5: 18192.X4, figurine with a very rounded base (a 'belly?'); 6-10: 5478.H1; 999999.H255; 22332.H1; 13144.H10; 18625.H1; 11-13: 18194.H5, 18194.H2, 18550.H2, objects with a pinched, foot-like base and nondescript body with no clear indication of a head; 14: 32114.H34; 15: 4102.D2. Image by author, original photographs courtesy of the Çatalhöyük Research Project. 100
- Figure 4.19** 18523.X1, abbreviated-zoomorphic cross-over? Image by author, original photographs courtesy of the Çatalhöyük Research Project. 101
- Figure 4.20** Head on base with more elaboration. 1: 12526.H7: zoomorphic-abbr. cross-over; 2-5: 11015.X1, 19304.X13, 20365.H1, 22635.H3: more elaboration to the head; 6-7: 13115.X1, 6596.H1: more elaboration to the body; 8-10: 8686.H1, 14120.X1, 19305.X7: more elaboration to head and body. Image by author, original photographs courtesy of the Çatalhöyük Research Project. 101
- Figure 4.21** Overview of range of head on divided base figurines. 1-5: 12946.H1, 12945.H11, 4709.H2, 1055.H1, 5505.H6, squat figurines; 6-9: 5576.X1, 15427.X1, 23137.H3, 19304.x12; elongated figurines; 10-12: 16497.X1, 1832.X6, 19215.X2; legs pressed together or incised in base; 13-14: 2077.H1, 15437.X2; legs placed far apart; 15-16: 5489.H1, 14931.H1; round base. Image by author, original photographs courtesy of the Çatalhöyük Research Project. 102
- Figure 4.22** Head on divided base with more elaboration. 1-2: 1073.x1, 23143.H27; figurines with possible beards; 3: 4321.D2; figurine with unusually large nose; 4: 2198.H1; figurine with small punctures on top of head; 5-9: 4121.D3, 999999.H150, 14126.X1, 5446.X1, 7207.H1; anthropomorphic-abbreviated cross-over; 10-11: 10298.H1, 4121.D5 (not to scale); zoomorphic-abbreviated cross-over. Image by author, original photographs courtesy of the Çatalhöyük Research Project. 103
- Figure 4.23** Examples of Mellaart clay divided-base figurines. 1: 999999.H68; 2: 999999.H59; 3: 999999.H65 (images not to scale). Image by author, original photographs courtesy of the Çatalhöyük Research Project. 104
- Figure 4.24** Examples of Mellaart clay divided-base figurines. 1: 999999.H179 and 2: 999999.H286. Image by author, original photographs courtesy of the Çatalhöyük Research Project. 105
- Figure 4.25** Examples of Mellaart clay divided-base standing figurines. 1: 999999.H66; 2: 999999.H70; 3: 999999.H71; 4: 999999.H149 (images not to scale). Image by author, original photographs courtesy of the Çatalhöyük Research Project. 105
- Figure 4.26** Examples of Hodder clay divided-base figurines. 1: 14183.X17; 3: 12420.H1; 3-4: 12401.X7 (not to scale), 20215.X1, skeletal elements indicated; 5: 23634.H6; 6: 13700.X1; 7: 30806.H1; 8: 17609.H1. Image by author, original photos courtesy of the Çatalhöyük Research Project. 106
- Figure 4.27** Examples of Hodder clay divided-base standing figurines. 1: 13161.H3; 2: 5842.X2; 3: 20171.X1 (not to scale); 4: 11324.X3; 5: 118542.X2; 6: 5043.X1, 14902.X1. Image by author, original photographs courtesy of the Çatalhöyük Research Project. 107
- Figure 4.28** Examples of Mellaart stone divided-base figurines (not to scale). 1: 999999.H36; 2: 999999.H40; 3: 999999.H166; 4: 999999.H206; 5: 999999.H41; 6: 999999.H159; 7: 999999.H48. Image by author, original photographs courtesy of the Çatalhöyük Research. 107
- Figure 4.29** Examples of Hodder stone divided-base figurines. 1-2: 10475.X2, 20736.X1 (not to scale) 3: 20736.X3; 4: 32806.X2; 5-7: 31852.X3, 15839.X10, 7814.X1 (not to scale); 8: 18523.X1; 9: 32806.X1. Image by author, original photographs courtesy of the Çatalhöyük Research Project. 108
- Figure 4.30** Examples of Mellaart clay undivided-base figurines. 1-3: 999999.H19, 999999.H72, 999999.H53 (not to scale); 4: 999999.H2; 5: 999999.H241; 6: 999999.H258; 7: 999999.H282. Image by author, original photographs courtesy of the Çatalhöyük Research Project. 109
- Figure 4.31** Examples of Hodder clay undivided-base figurines. 1: 13167.X10; 2: 13103.X19; 3: 13167.X7; 4: 14183.X11; 5: 12394.H2 6: 8749.X1 7: 14126.X2; 8: 15538.H1; 9: 22641.X1; 10: 7358.X1; 11: 14182.X2. Image by author, original photographs courtesy of the Çatalhöyük Research Project. 110
- Figure 4.32** Mellaart and Hodder undivided-base figurines. 1: 999999.H154; 2: 999999.H155; 3: 999999.H189; 4: 999999.H159; 5: 999999.H31; 6: 999999.H24; 7: 999999.H38; 8: 999999.H74; 9: 10264.X1; 10: 12102.X1. Only 9-10 are to scale. Image by author, original photographs courtesy of the Çatalhöyük Research Project. 111

- Figure 4.33** Mellaart and Hodder stone and clay composite figurines. 1-4: 999999.H161, 999999.H163, 999999.H35, 999999.H29, figures riding animals; 5-6: 999999.H18, 999999.H32, multiple people; 7-8: 999999.H30, 999999.H37, human figure with animal; 9: 18545.X1, chair with animal?; 10: 999999.H67, figure on chair with animal heads (images not to scale). Image by author, original photographs courtesy of the Çatalhöyük Research Project. 112
- Figure 4.34** Examples of Hodder clay heads. 1: 1006.H1, dowel hole?; 2: 1056.H1, dowel hole; 3: 13139.H9, modelled on finger; 4: 12501.H1, dowel hole? 5-6: 23704.X7, 2661.H1, dowel hole. Image by author, original photographs courtesy of the Çatalhöyük Research Project. 113
- Figure 4.35** Examples of Hodder clay heads 1: 17804.H1; 2: 22314.H1; 3: 2739.H2 4: 5505.H7. Image by author, original photographs courtesy of the Çatalhöyük Research Project. 113
- Figure 4.36** Mellaart indeterminate fragments. 1-2: 999999.H33, 999999.H157, stone; 3: 999999.H204, clay (images not to scale). Image by author, original photographs courtesy of the Çatalhöyük Research Project 114
- Figure 4.37** Hodder clay head fragments. 1: 13143.X4; 2: 13701.X1; 3-4 4839.H2, 4921.H1, small punctures in possible ears; 5: 13142.X3; 6: 3773.X1. Image by author, original photographs courtesy of the Çatalhöyük Research Project. 114
- Figure 4.38** Hodder clay indeterminate fragments. 1: 6260.X1; 2: 10500.H2; 3: 3584.H2; 4: 3632.H3; 5: 5466.H; 6-9: 10663.X1, 11663.H1, 13140.H1, 13140.X20, fragment of more 'realistic' objects; 10-11: 16258.H1, 7582.X1, folded arms; 12: 23251.H4; 13: 13129.X1, 14: 16806.H1.; 15: 14900.H1, arm fragment. Image by author, original photographs courtesy of the Çatalhöyük Research Project. 115
- Figure 4.39** Phallomorphic objects. 1: 1505.X1, stone; 2-4: 2910.X1, 3053.X1, 31210.X2; 5: 4116.D1, stone; 6-8: 13103.H9, 18592.X5, 14183.H2. Image by author, original photographs courtesy of the Çatalhöyük Research Project. 115
- Figure 4.40** Examples of geometric, conical objects. 1-12: 2559.H1, 5290.H1, 8297.H1, 17374.H2, 3021.H28, 6625.H1, 5417.H12, 12946.H2, 15828.H1, 16469.H6, 8882.H2, 3552.H3, objects with (rounded) base; 13-27: 12128.H1, 18152.X1, 12524.X3, 12524.X6, 12552.X1, 14186.H7. 12238.H1, 12541.H1, 13103.H6, 13103.H12, 14183.H9, 16901.H1, 12648.H1, 12988.H16, 12988.H8, objects with slight indication of base. Image by author, original photographs courtesy of the Çatalhöyük Research Project. 116
- Figure 4.41** Examples of cylindrical objects. 1-6: 10324.H3, 14183.H3, 12988.H7, 10324.H4, 12971.H15, 13522.H2, large cylindrical objects; 7-10: 13570.H2, 13143.H8, 18928.H1, 19101.H5, very thin rolled pieces; 11: 19139.H15, cylinder with zigzag line. Image by author, original photographs courtesy of the Çatalhöyük Research Project. 117
- Figure 4.42** Indeterminate fragments. 1-4: 1: 1011.X1, 5497.H7, 12971.H1, 12971.H4, anthropomorphic; 5-7: 11370.X6 (not to scale), 6550.H2, 19102.H1, abbreviated; 8-13: 1059.H2, 1620.H1, 3021.H8, 5417.H4, 8859.H1, 13139.H8, limbs and horns, zoomorphic/abbreviated; 14-15: 2201.H1, 12988.H19, abbreviated or zoomorphic; 16: 5381.H1, anthropomorphic or abbreviated. Image by author, original photographs courtesy of the Çatalhöyük Research Project. 118
- Figure 4.43** Unclear fragments. 1: 6556.H2; 2: 7571.H1, 15160.X23, 8675.H1. Image by author, original photographs courtesy of the Çatalhöyük Research Project. 119
- Figure 4.44** Non-clay figurines (not to scale). 1-2: F04\_039, F05\_024, stone figurine heads; 3: F07\_023, stone bucranium; 4: F08\_014, bone clasps. Image by author, original photographs courtesy of the Tell Sabi Abyad Research Project. 120
- Figure 4.45** F96\_001, bird figurine (not to scale). Courtesy of the Tell Sabi Abyad Project. 121
- Figure 4.46** Examples of different postures and body shapes (not to scale). 1: F08\_032; 2: F04\_062; 3: F05\_129. Image by author, original photographs courtesy of the Tell Sabi Abyad Project. 121
- Figure 4.47** Examples of different zoomorphic leg and tail shapes (not to scale). 1: F04\_013; 2: F04\_017; 3: F04\_050; 4: F04\_015; 5: F07\_011; 6: F04\_068; 7: F05\_035; 8: F07\_014; 9: F98\_008; 10: F05\_029; 11: F05\_049; 12: F93\_019. Image by author, original photographs courtesy of the Tell Sabi Abyad Research Project. 122
- Figure 4.48** Examples of different head shapes (not to scale). 1: F04\_013; 2: F04\_017; 3: F04\_050; 4: F04\_015; 5: F07\_011; 6: F98\_008; 7: F05\_023; 8: F05\_145; 9: IIIF05\_037; 10: IIIF10\_007; 11: IIIF10\_126; 12: F91\_018; 13: F93\_003; 14: F97\_029. Image by author, original photographs and drawings courtesy of the Tell Sabi Abyad Research Project. 124

- Figure 4.49** (not to scale). 1: F07\_018, figurine with applied strips of clay; 2: F03\_014, pig/boar; 3: F02\_020, goat. Image by author, original photographs courtesy of the Tell Sabi Abyad Research Project. **125**
- Figure 4.50** IIIF05\_002, bucranium. Image by author, original photographs courtesy of the Tell Sabi Abyad Research Project. **125**
- Figure 4.51** Horn fragments (not to scale). 1-3: F05\_052, F05\_018, F05\_083, examples of curved horns; 4-6; F05\_038, F05\_053, F08\_007, examples of straight horns; 7-8: F05\_118 and IIIF05\_095, examples of curved and spiralling horns. Image by author, original photographs courtesy of the Tell Sabi Abyad Research Project. **126**
- Figure 4.52** Non-clay anthropomorphic/abbreviated figurines (not to scale). 1: F01\_005, stone, 2: F92\_013, shell; 3: F93\_014, stone: figurines or pendants; 4-5: F04\_009 and F04\_023; bone fragments with facial features; 6-7: F93\_011 and IIF01\_010, stone heads; 8: IIF01\_011; stone human-divided base. Image by author, original photographs and drawings courtesy of the Tell Sabi Abyad Research Project Project. **127**
- Figure 4.53** Head on base figurines (photographs not to scale). 1-4: F02\_026, F04\_033, IIIF10\_122 and F07\_007, head on base figurines, 1-3 are examples with a head and facial features; 4: conical shape; 5-6: F04\_006 and O04\_430, head on base type; 7-11: F02\_010, F08\_015, O08-195, O08-222, O09\_270, round base figurines, 8 is the only example with clear buttocks. Image by author, drawings by author after original pencil drawings. Original photographs and drawings courtesy of the Tell Sabi Abyad Research Project. **129**
- Figure 4.54** Round base figurines (photographs not to scale). 1: F04\_052; 2: F04\_056; 3: O09\_193; 4-5: O07\_492, O04\_297, covered in fingernail impressions; 6: O03\_075; 7: O09\_038; 8: O08\_178. Image by author, drawings by author after original pencil drawings. Original photographs and drawings courtesy of the Tell Sabi Abyad Research Project. **130**
- Figure 4.55** Head on divided base figurines (photographs not to scale). 1: F04\_030; 2: F04\_031; 3: F04\_048; 4: F05\_112; 5-10: F07\_028-F07\_030, F07-032-F07\_034, the larger type with crudely modelled nose; 11: F04\_029; 12: F08\_052, applied elements; 13: IIF01\_009, only example with head flap. Image by author, drawings by author after original pencil drawings. Original photographs and drawings courtesy of the Tell Sabi Abyad Research Project. **131**
- Figure 4.56** Decorated type (not to scale).. 1: F01\_003; 2: F93\_008; 3: F93\_017; 4: F97\_009; 5: F91\_011; 6: F99\_016; 7: F91\_004; 8: F97\_019; 9: F92\_010; 10-11: F91\_001, 11: F91\_002, impressions on back; 12: F91\_005, fingernail impressions on back; 13: F91\_017; 14: F92\_003. Image by author, original drawings courtesy of the Tell Sabi Abyad Research Project. **132**
- Figure 4.57** Selection of labrets. Adapted by author. Original image courtesy of the Tell Sabi Abyad Project. **133**
- Figure 4.58** Pillar shapes (photographs not to scale). 1: F04\_070; 2: F05\_080; 3: F05\_103; 4: F05\_100; 5: IIIF10\_003; 6: F08\_008; 7: F05\_176; 8: IIIF05\_090; 9: IIIF10\_130; 10: IIIO10\_189; 11: F05\_125; 12: F08\_022. Image by author, drawing by author after original pencil drawing. Original drawing and photographs courtesy of the Tell Sabi Abyad Research Project. **134**
- Figure 4.59** Violin shapes (not to scale). 1: H86\_001; 2: F08\_001; 3: F09\_109; 4: F91\_009; 5: F92\_015; 6: F97\_008; 7: F92\_014; 8: F97\_014; 9: F97\_017; 10: F91\_003; 11: F92\_006; 12: F97\_005; 13: F97\_018. Image by author. Original drawing and photographs courtesy of the Tell Sabi Abyad Project. **135**
- Figure 4.60** Human-undivided base. 1: F04\_035, clear dowel hole; 2: F08\_026; 3: F09\_117; 4: F96\_008; 5: F97\_010; 6: F92\_001; 7: F97\_006; 8: F98\_001; 9: F97\_013; 10: O88\_089a; 11: O88\_089c; 12: O88\_089g; 13: F99-004. Image by author, original drawing and photographs courtesy of the Tell Sabi Abyad Research Project. **136**
- Figure 4.61** Indeterminate objects (not to scale). 1: F02\_016; 2: F04\_060; 3: F08\_53; 4: F93\_020; 5: F96\_010. Image by author, original drawing and photographs courtesy of the Tell Sabi Abyad Project. **137**
- Figure 4.62** Geometric pieces (not to scale). 1-12: F03\_030, F04\_044, F05\_010, F05\_060, F05\_074, O04\_189, IIIO05\_023, IIIO05\_070, O04\_207, O04\_423, O04\_456, O04\_496, conical objects; 13-19: IIIF05\_101, IIIF05\_123, F05\_062, F05\_065, F05\_093, F05\_142, F05\_152, cylindrical objects. Image by author, original photographs courtesy of the Tell Sabi Abyad Research Project. **138**
- Figure 4.63** Indeterminate pieces (not to scale). 1-3: O04\_407, O05\_165, IIIF05\_155, possible torso/base fragments; 3-7: F04\_065, F05-011, F05\_085, F05\_096, F05\_147, F08\_010, F09\_027, F09\_075, F09\_083, possible horn/arm fragments. Image by author, original photographs courtesy of the Tell Sabi Abyad Research Project. **139**
- Figure 4.64** Visualisation of the figurine types for Çatalhöyük and Tell Sabi Abyad **140**

<b>Figure 5.1</b>	Large inclusions seen in zoomorphic figurines (not to scale): 1-2: 17697.H3, 1396.H15, horn fragments with pebble inclusion. 3-4: 23160.H1, 21140.H1, quadrupeds with pebble inclusion; 5: 18154.X3, quadruped with charcoal inclusions; 6: 30232.H1, quadruped with calcite/marl inclusion; 7: 999999.H243, quadruped with bone inclusion. Image by author, original photographs courtesy of the Çatalhöyük Research Project.	145
<b>Figure 5.2</b>	Colours of zoomorphic figurines divided in different hues.	146
<b>Figure 5.3</b>	Colours of abbreviated figurines divided in different hues.	147
<b>Figure 5.4</b>	Colours of geometric objects divided in different hues.	148
<b>Figure 5.5</b>	Colours of anthropomorphic figurines divided in different hues.	149
<b>Figure 5.6</b>	Colours of indeterminate objects divided in different hues.	151
<b>Figure 5.7</b>	Colours of unclear objects divided in different hues.	151
<b>Figure 5.8</b>	Examples of different ways of shaping elements: 1: 13723.X4, legs shaped as one and then separated; 2: 13174.X10, leg pulled out and then folded; 3-5: 16233.X1, 3740.X3, 13161.H2; applied legs; 6: 10311.X1, applied horn evidenced by flat fracture with slight rim; 7: 17084.H5, possibly horns made as one and applied on top of head; 8-9: 18154.H11, 19342.X16, applied ear, note the folded clay on hind leg on no. 9. Image by author, original photographs courtesy of the Çatalhöyük Research Project.	155
<b>Figure 5.9</b>	Examples of tool use on zoomorphic figurines. 1-2: 1055.H2, 19390.X3, possible tool use to shape tail; 3: 12394.H4, holes to insert objects?; 4: 22130.X1; hole above tail; 5-6: 12648.X2, 19205.X1, muzzle shaped around implement; 7: 5021.D1 creating facial features and holes. Image by author, original photographs courtesy of the Çatalhöyük Research Project.	157
<b>Figure 5.10</b>	Placement of fingernail impressions likely related to shaping.	158
<b>Figure 5.11</b>	Additional surface treatment zoomorphic figurines. 1: 12945.H17, possible sandy marl self-slip; 2: 15605.H1, marl slip; 3: 4121.D4, lighter slip; 4-6: 13103.X11, 14183.H8, 20698.X2, possible paint or staining; 7: 5292.H1, slip and possible paint stripe. Image by author, original photographs courtesy of the Çatalhöyük Research Project.	159
<b>Figure 5.12</b>	Heat exposure quadrupeds and horn fragments. Percentages based on totals per type with recorded heat exposure (n=213 and n=392).	160
<b>Figure 5.13</b>	Different ways of shaping legs as seen on abbreviated figurines. 1-3: 22300.X1, 15437.X2, 1073.H2, figurines with legs shaped from main piece; 4-7: 19215.X2, 1832.X6, 8775.H1, 16497.X1, figurines with base pinched/incised to create legs or 'feet'; 8-12: 12946.H8, 16756.H1, 21122.H1, 21645.H2, 999999.H182, figurines with clay pushed up in the middle with ridge of clay visible. Image by author, original photographs courtesy of the Çatalhöyük Research Project.	161
<b>Figure 5.14</b>	Abbreviated figurines with additional surface treatment. 1: 12524.H4, paint and slip; 2: 22635.H1, red and cream paint dots; 3: 22635.H2, red paint dots; 4: 23634.H4, red paint on top of head; 5: 999999.H232, red paint dots; 6: 8154.H5, possible paint stripe on bottom. Image by author, original photographs courtesy of the Çatalhöyük Research Project.	163
<b>Figure 5.15</b>	Uneven heat exposure on abbreviated figurines. Percentages based on totals with heat exposure: Head on base n=73, Head on divided base n=172, Indeterminate n=36.	164
<b>Figure 5.16</b>	Anthropomorphic figurines, tool use and composite pieces. 1: 11324.X3, delineating arms, legs, navel; 2: 15160.X2, elaboration on body; 3: 13167.X10; dowel hole; 4: 11848.X1, delineating legs and buttocks; 5: 999999.H64, incising fingers, delineating arms and legs; 6: 12401.X7: incising ribs and vertebrae; 7: 13167.X7: incision to indicate buttocks and possibly scrape marks on back; 8: 5043.X1: facial features and holes on top and sides of head; 9: 999999.H66, indication of clothing; 10-11: 13142.X3, 23704.X7, facial features and 11 possibly applied eyes; 12: 5512.X1, applied breasts; 13: 11874.X1, applied arms; 14: 13103.X19, applied breasts and belly. Image by author, original photos courtesy of the Çatalhöyük Research Project.	166
<b>Figure 5.17</b>	Anthropomorphic figurines with additional surface treatment. 1-4: 14902.X1, 12652.H1, 13167.X10, 999999.H72, figurines with slip layer; 5-9: 999999.H179, 22641.X1, 13129.X1, 4839.H2, 4921.H1, figurines with paint; 10-11: 12401.X7, 999999.H68 (not to scale), figurines with slip and paint. Image by author, original photographs courtesy of the Çatalhöyük Research Project.	168
<b>Figure 5.18</b>	Anthropomorphic figurines showing uneven heat exposure.	168

<b>Figure 5.19</b>	Tool use seen on geometric objects. 1: 12988.H8, perforation; 2: 13139.H5, incisions; 3: 14183.H3, possible smoothing marks. Image by author, original photos courtesy of the Çatalhöyük Research Project.	<b>169</b>
<b>Figure 5.20</b>	Geometric objects showing uneven heat exposure.	<b>170</b>
<b>Figure 5.21</b>	Composite pieces, tool use and additional surface treatment on indeterminate objects. 1-2: 18152.H5, 5497.H7: composite pieces and punctures on 2; 3-5: 3366.H1, 5049.H1, 5321.H3, punctures, likely slip layer on 3; 6: 12980.H7, grooves as elaboration; 7: 13103.H10, possibly indication of foot and lower leg; 8: 12971.H4, paint; 9: 18152.X2, paint or staining. Image by author, original photos courtesy of the Çatalhöyük Research Project.	<b>171</b>
<b>Figure 5.22</b>	Tool use and additional surface treatment on unclear objects. 1: 18326.H1, punctures; 2: 18628.H1, impressions and perforation; 3: 123971.H1, paint; 4: 999999.H245, possible self-slip. Image by author, original photos courtesy of the Çatalhöyük Research Project.	<b>172</b>
<b>Figure 5.23</b>	Amount and placement of punctures and gouges on quadrupeds.	<b>175</b>
<b>Figure 5.24</b>	Intentional damage on zoomorphic figurines. 1: 10238.X1; 2: 14559.H1; 3: 16995.X11; 4: 23037.H1; 5: 16741.H1; 6: 15400.X14; 7: 18377.X9; 8: 32128.H1; 9: 999999.H27; 10: 20489.H3; 11: 4121.D4. Image by author, original photographs courtesy of the Çatalhöyük Research Project.	<b>176</b>
<b>Figure 5.25</b>	Amount and placement fingernail impressions on quadrupeds.	<b>178</b>
<b>Figure 5.26</b>	Examples of impressions (not to scale). 1-2: 13159.X8, 16534.H4, grain kernel/seed impressions; 3-4: 14839.H1, 12946.H1 (plant/grass impressions); 5-6: 14186.X15, 11626.H1 (possible textile impressions), 7: 32125.H5, possible matting impressions. Image by author, original photographs of the Çatalhöyük Research Project.	<b>179</b>
<b>Figure 5.27</b>	Placement punctures on abbreviated figurines.	<b>180</b>
<b>Figure 5.28</b>	Intentional breakage. 1-2: 4465.H3, 18508.X1, clean cut through head; 3-4: 1037.H1, 32123.H1, head pinched off; 5: 12540.X2, gouge through base; 6: 19347.X4, part of base/leg sheared off. Image by author, original images courtesy of the Çatalhöyük Research Project.	<b>180</b>
<b>Figure 5.29</b>	Placement of fingernail impressions on abbreviated figurines.	<b>182</b>
<b>Figure 5.30</b>	Plant impressions and impressions abbreviated figurines (not to scale). 1-3: 12540.X2, 17253.X1, 32114.H13, grain kernel impressions; 4-6: 1832.X6, 18508.X1, 23143.H42, plant impressions; 7: 22332.H1, possible impression of matting; 8-9: 19346.X2, 8699.H7, possible impression of string. Image by author, original photographs courtesy of the Çatalhöyük Research Project.	<b>182</b>
<b>Figure 5.31</b>	Plant impressions and impressions anthropomorphic figurines (not to scale). 1-3: 13142.H3, 13161.H3, 10663.X1, grain kernel impression; 4-6: 30868.H1, 12466.H1, 16806.H1 (plant impressions); 7: 1873.H1, possible impression of matting; 8: 999999.H63, possible impression of textile. Image by author, original photographs courtesy of the Çatalhöyük Research Project.	<b>184</b>
<b>Figure 5.32</b>	Plant impressions and impressions geometric objects. 1-2: 30823.X1, 12988.H7, plant impressions and no 1 possibly a string; 3: 12526.H3, possible textile impression. Image by author, original photographs courtesy of the Çatalhöyük Research Project.	<b>185</b>
<b>Figure 5.33</b>	Plant impressions and impressions indeterminate objects (not to scale). 1: 5417.H4, seed/grain kernel impression, 2: 13127.H2, plant impression; 3: 999999.H223, plant impression; 4: 999999.H220, plant or string impression; 5: 13139.H4, impression of matting; 6: 12988.H19, impressions or incisions. Image by author, original photographs courtesy of the Çatalhöyük Research Project.	<b>187</b>
<b>Figure 5.34</b>	Plant impressions and impressions unclear objects (not to scale). 1: 15755.H9, cloth impression; 2: 16898.H2, parallel impressions; related to smoothing?. Image by author, original photographs courtesy of the Çatalhöyük Research Project.	<b>187</b>
<b>Figure 5.35</b>	Location of different figurine types. Phallomorphic is not shown (25%, n=2 were found in a building and 75% (n=6) were found in external areas.	<b>189</b>
<b>Figure 5.36</b>	Context types zoomorphic figurines combined.	<b>192</b>
<b>Figure 5.37</b>	Context types abbreviated figurines combined.	<b>192</b>
<b>Figure 5.38</b>	Context types anthropomorphic figurines combined.	<b>192</b>
<b>Figure 5.39</b>	Context types geometric objects combined.	<b>193</b>
<b>Figure 5.40</b>	Figurine cluster in unit 5417. 1-10: 5417.H1, H3, H7, H8, H12, .H11, H4, H6, H9, H10 (top) and approximate location of figurine cluster (bottom). Image by author, original images and map courtesy of the Çatalhöyük Research Project.	<b>195</b>

<b>Figure 5.41</b>	Figure 5.41: Figurine cluster in unit 7958. 1-7: 7958.X1-X3-7 (top) and approximate location of figurine cluster in building 49 (bottom). Image by author, original images and map courtesy of the Çatalhöyük Research Project.	<b>196</b>
<b>Figure 5.42</b>	Size of (nearly) complete quadrupeds through time. Note the similar distribution of sizes in the middle period and the overall increase in size in the later phase.	<b>198</b>
<b>Figure 5.43</b>	Anthropomorphic figurines found in building 150 (no 1 and 4 not to scale). 1: 23704.X7; 2-3: 32806.X1-X2; 4-5: 20736.X1-X3. Image by author, original photographs courtesy of the Çatalhöyük Research Project.	<b>201</b>
<b>Figure 5.44</b>	Quadrupeds with similarly shaped tail. 1: 12988.H1; 2: 13124.H1; 3: 13142.H4; 4: 13174.X10. Image by author, original photos courtesy of the Çatalhöyük Research Project.	<b>201</b>
<b>Figure 5.45</b>	Possible equids: 12502.H4, 12508.H3, 13440.X3. Image by author, original photographs courtesy of the Çatalhöyük Research Project.	<b>202</b>
<b>Figure 5.46</b>	Composite and possible composite pieces (not to scale). 1-3: F05_049, F04_013, F96_006, possibly attached legs; 4: F09_112, possibly applied tail. Image by author, original photographs courtesy of the Tell Sabi Abyad Research Project.	<b>207</b>
<b>Figure 5.47</b>	Seams seen as evidence of shaping (not to scale). 1: IIIF10_114; 2: F04_062; 3: F07_011; 4: F05_008. Image by author, original photographs courtesy of the Tell Sabi Abyad Research Project.	<b>208</b>
<b>Figure 5.48</b>	Tool use on zoomorphic figurines (not to scale). 1-2: O05_136, O04_470, possible smoothing marks; 3-4: F04_017, F08_032, implements used to create facial features. Image by author, original photos courtesy of the Tell Sabi Abyad Research Project.	<b>209</b>
<b>Figure 5.49</b>	Composite pieces (not to scale). 1-2: F02_026, F04_033, applied eyes; 3: F08_052, applied eyes, arms and foot; 4: F05_089, possible applied arm; 5: F08_026, applied head; 6: F09_117, applied arm; 7-8: F08_001, F09_109, applied breasts. Image by author, original photographs courtesy of the Tell Sabi Abyad Research Project.	<b>211</b>
<b>Figure 5.50</b>	Figurines covered with fingernail impressions (not to scale). 1: F91_015; 2: F98_001; 3: F91_008; 4: F91_005; 5: O07_492; 6: O04_297. Image by author, original photographs courtesy of the Tell Sabi Abyad Research Project.	<b>214</b>
<b>Figure 5.51</b>	Figurines with intentional damage (not to scale). 1: F02_002, flattened, head removed?; 2-7: F05_004, F05_008, F05_005, F05_129, F05_131, F05_017, intentional breakage?; 8-9: O05_015, F05_059, gouges; 10: F05_028, punctures, gouge and incisions; 11: IIIO05_036, gouge in neck; 12: F98_008, deformed, gouge and incisions; 13-14: F04_069, F07_014, punctures. Image by author, original photographs courtesy of the Tell Sabi Abyad Research Project.	<b>219</b>
<b>Figure 5.52</b>	F93_018 (not to scale). Figurine with inserted stone and possibly deformed left front leg. Image by author, original photographs courtesy of the Tell Sabi Abyad Research Project.	<b>220</b>
<b>Figure 5.53</b>	Fingernail impressions seen on IIIF05_039 and IIIF05_065 (not to scale). Image by author, original photographs courtesy of the Tell Sabi Abyad Research Project.	<b>221</b>
<b>Figure 5.54</b>	Examples of possible intentional damage (not to scale). 1: IIIO10_177; 2: O04_354; 3: F04_048; 4: IIIF05_097. Image by author, original photographs courtesy of the Tell Sabi Abyad project.	<b>222</b>
<b>Figure 5.55</b>	Examples of markings related to use (not to scale). 1: F96_008; 2: F04_057; 3: F04_070. Image by author, original photographs courtesy of the Tell Sabi Abyad Research Project.	<b>223</b>
<b>Figure 5.56</b>	F07_003, three fingernail impressions placed in a row (not to scale). Image by author, original photograph courtesy of the Tell Sabi Abyad Research Project.	<b>224</b>
<b>Figure 5.57</b>	Objects with punctures (not to scale). 1: O05_093, also has incisions; 2: IIIF05_022; 3: IIIO05_094; 4: IIIO10_179. Image by author, original photograph courtesy of the Tell Sabi Abyad project.	<b>225</b>
<b>Figure 5.58</b>	Unclear objects with gouges, incisions and punctures (not to scale). 1: O04_525; 2: O04_293. Image by author, original photograph courtesy of the Tell Sabi Abyad Research Project.	<b>225</b>
<b>Figure 5.59</b>	Location of figurines.	<b>227</b>
<b>Figure 5.60</b>	Context types zoomorphic figurines combined.	<b>229</b>
<b>Figure 5.61</b>	Context types Anthropomorphic and abbreviated figurines combined.	<b>230</b>
<b>Figure 5.62</b>	Context types Geometric objects combined.	<b>230</b>
<b>Figure 5.63</b>	Above: F08_026 and F08_032, part of the figurine cluster. Below: Bin GE in building 4.4, Operation III. Object cluster in situ. Photographs courtesy of the Tell Sabi Abyad Research Project.	<b>231</b>

<b>Figure 5.64</b>	Figurines from oven AL in Operation I (not to scale). 1-2: F98_007, F98_008; 3-5: F98_008-010; 6-7: F98_012, F98_013. Image by author, original photographs courtesy of the Tell Sabi Abyad Research Project.	<b>232</b>
<b>Figure 5.65</b>	Part of the figurine cluster from fire pit MO in Operation III (not to scale). 1-5: F09_125-129. Image by author, original photographs courtesy of the Tell Sabi Abyad Research Project.	<b>233</b>
<b>Figure 5.66</b>	Part of the figurine cluster building 6.14 (not to scale). 1-3: F97_008-010; 4-6: F97_012-014. Image by author, original photographs courtesy of the Tell Sabi Abyad Research Project.	<b>233</b>
<b>Figure 5.67</b>	Part of the figurine cluster in the large pit in square H08, Tell Sabi Abyad III (not to scale). 1-15, quadrupeds: IIIF05_032, 034, 038, 039, 042, 049, 051, 065, 074, 120, 124a, 131, IIIO05_037, 065, IIIF05_037; 16-24, horn fragments: IIIF05_010, 047, 054, 055, 057b, 067, 069, 092, 124b; 25-31, Pillar shapes: IIIF05_036, 081, 090, 116, 119, 133, 135. Image by author, original photographs courtesy of the Tell Sabi Abyad Research Project.	<b>235</b>
<b>Figure 5.68</b>	Part of the figurine cluster in an ash deposit in square I06, Tell Sabi Abyad III (not to scale). 1-2: IIIF10_131, IIIO10_226, quadruped and indeterminate zoomorphic; 3-5: IIIF10_127-129, horn fragments; 6-8: IIIF10_130, IIIO10_231, 238, pillar shapes. Image by author, original photographs courtesy of the Tell Sabi Abyad Research Project.	<b>236</b>
<b>Figure 5.69</b>	Location of figurines securely dated to level A4c. Image by author, original map courtesy of the Tell Sabi Abyad Research Project.	<b>239</b>

### Appendix B: Level maps with figurine distributions

<b>Map 1</b>	Level South. G: Early Phase.	<b>355</b>
<b>Map 2</b>	Level South. H: Early Phase.	<b>356</b>
<b>Map 3</b>	Level South. J: Early Phase.	<b>257</b>
<b>Map 4</b>	Level South. I: Early Phase.	<b>358</b>
<b>Map 5</b>	Level South. K: Early Phase.	<b>359</b>
<b>Map 6</b>	Level South. L: Early Phase.	<b>360</b>
<b>Map 7</b>	Level South. M: Middle Phase.	<b>361</b>
<b>Map 8</b>	Level South. N: Middle Phase.	<b>362</b>
<b>Map 9</b>	Level South. O: Middle Phase.	<b>363</b>
<b>Map 10</b>	Level South. Pa: Late Phase.	<b>364</b>
<b>Map 11</b>	Level South. Pb: Late Phase.	<b>365</b>
<b>Map 12</b>	Level South. Q: Late Phase.	<b>366</b>
<b>Map 13</b>	Level South. R and TP.L: Late Phase.	<b>367</b>
<b>Map 14</b>	Level South. S and TP.M: Late Phase.	<b>368</b>
<b>Map 15</b>	Level South. T and TP.N: Late Phase.	<b>369</b>
<b>Map 16</b>	Level North. F: Middle Phase.	<b>370</b>
<b>Map 17</b>	Level North. Ga: Middle Phase.	<b>371</b>
<b>Map 18</b>	Level North. Gb: Middle Phase.	<b>372</b>
<b>Map 19</b>	Level North. H: Late Phase.	<b>373</b>
<b>Map 20</b>	Level North. I: Late Phase.	<b>374</b>
<b>Map 21</b>	Level North. J: Late Phase.	<b>375</b>
<b>Map 22</b>	Operation III, Level A12b: Initial Pottery Neolithic, 6865-6770 BC.	<b>376</b>
<b>Map 23</b>	Operation III, Level A12a: Initial Pottery Neolithic, 6865-6770 BC.	<b>377</b>
<b>Map 24</b>	Operation III, Level A11b: Initial Pottery Neolithic, 6825-6740 BC.	<b>378</b>
<b>Map 25</b>	Operation III, Level A11a: Initial Pottery Neolithic, 6825-6740 BC.	<b>379</b>
<b>Map 26</b>	Operation III, Level A10c: Initial Pottery Neolithic, 6750-6675 BC.	<b>380</b>
<b>Map 27</b>	Operation III, Level A10b: Initial Pottery Neolithic, 6750-6675 BC.	<b>381</b>
<b>Map 28</b>	Operation III, Level A10a: Initial Pottery Neolithic, 6750-6675 BC.	<b>382</b>
<b>Map 29</b>	Operation III, Level A09a: Early Pottery Neolithic, 6650-6625 BC.	<b>383</b>
<b>Map 30</b>	Operation III, Level A08: Early Pottery Neolithic, 6630-6590 BC.	<b>384</b>
<b>Map 31</b>	Operation III, Level A07b: Early Pottery Neolithic, 6590-6550 BC.	<b>385</b>
<b>Map 32</b>	Operation III, Level A07a: Early Pottery Neolithic, 6550-6495 BC.	<b>386</b>
<b>Map 33</b>	Operation III, Level A06b: Early Pottery Neolithic, 6505-6485 BC.	<b>387</b>

<b>Map 34</b>	Operation III, Level A06a: Early Pottery Neolithic, 6505-6485 BC.	<b>388</b>
<b>Map 35</b>	Operation III, Level A05b: Early Pottery Neolithic, 6495-6470 BC.	<b>389</b>
<b>Map 36</b>	Operation III, Level A05a: Early Pottery Neolithic, 6495-6470 BC.	<b>390</b>
<b>Map 37</b>	Operation III, Level A04c: Early Pottery Neolithic, 6455-6425 BC.	<b>391</b>
<b>Map 38</b>	Operation III, Level A04b: Early Pottery Neolithic, 6430-6395 BC.	<b>392</b>
<b>Map 39</b>	Operation III, Level A04a: Early Pottery Neolithic, 6405-6385 BC.	<b>393</b>
<b>Map 40</b>	Operation III, Level A03b: Early Pottery Neolithic, 6395-6375 BC.	<b>394</b>
<b>Map 41</b>	Operation III, Level A03b: Early Pottery Neolithic, 6395-6375 BC. Figurines dated to Level 03a/b.	<b>395</b>
<b>Map 42</b>	Operation III, Level A02b: Early Pottery Neolithic, 6365-6335 BC.	<b>396</b>
<b>Map 43</b>	Operation III, Level A02b: Early Pottery Neolithic, 6365-6335 BC. Figurines dated to A02a/b.	<b>397</b>
<b>Map 44</b>	Operation III, Level A02a: Early Pottery Neolithic, 66370-6340 BC.	<b>398</b>
<b>Map 45</b>	Operation III, Level A01d: Early Pottery Neolithic, 6340-6260 BC.	<b>399</b>
<b>Map 46</b>	Operation III, Level A01c: Early Pottery Neolithic, 6330-6250 BC.	<b>400</b>
<b>Map 47</b>	Operation III, Level A01b: Early Pottery Neolithic, 6305-6235 BC.	<b>401</b>
<b>Map 48</b>	Operation III, C-Sequence: Early Halaf.	<b>402</b>
<b>Map 49</b>	Operation I, Level 8b: Pre-Halaf.	<b>403</b>
<b>Map 50</b>	Operation I, Level 8a: Pre-Halaf, 6125-6075 BC.	<b>404</b>
<b>Map 51</b>	Operation I, Level 7b: Transitional, 6020-6005 BC.	<b>405</b>
<b>Map 52</b>	Operation I, Level 7a: Transitional, 6015-5995 BC.	<b>406</b>
<b>Map 53</b>	Operation I, Level 6: Transitional, 6010-5995 BC.	<b>407</b>
<b>Map 54</b>	Operation I, Level 5b: Transitional, 6000-5985 BC.	<b>408</b>
<b>Map 55</b>	Operation I, Level 3b/c: Early Halaf, 5940-5905 BC.	<b>409</b>
<b>Map 56</b>	Operation II, Level 4: Transitional, 6050-6020 BC.	<b>410</b>
<b>Map 57</b>	Operation V, Middle Phase: Pre-Halaf to Transitional, ca. 6300-6200 BC.	<b>411</b>
<b>Map 58</b>	Tell Sabi Abyad II, Level 3a-c, PPNB.	<b>412</b>

## LIST OF TABLES

<b>Table 3.1</b>	Hodder phasing system with cal BC dates. Courtesy of Çatalhöyük Research Project.	<b>48</b>
<b>Table 3.2</b>	Chronological phasing on Tell Sabi Abyad I, II and III. Courtesy of the Tell Sabi Abyad Digital Archive, adapted by author.	<b>59</b>
<b>Table 4.1</b>	Clay fabrics summarised. After Avis 2010.	<b>75</b>
<b>Table 4.2</b>	Inclusions recorded in clay figurines. After Doherty 2008.	<b>76</b>
<b>Table 4.3</b>	Clay fabric groups recognised in Neolithic ceramics. After Nilhamn <i>et al.</i> 2018, 234.	<b>79</b>
<b>Table 4.4</b>	Clay types analysed from thin slides. Summarised from Nilhamn <i>et al.</i> 2018, 237-238.	<b>80</b>
<b>Table 4.5</b>	Çatalhöyük figurine corpus absolute numbers and percentages.	<b>89</b>
<b>Table 4.6</b>	Zoomorphic corpus absolute numbers and percentages.	<b>90</b>
<b>Table 4.7</b>	Presence/absence of horns and ears. Percentages based on number of objects for which presence of horns/ears could be ascertained.	<b>94</b>
<b>Table 4.8</b>	Animal types and amounts, partly based on Martin and Meskell 2012.	<b>97</b>
<b>Table 4.9</b>	Abbreviated corpus absolute numbers and percentages.	<b>99</b>
<b>Table 4.10</b>	Anthropomorphic corpus absolute numbers and percentages.	<b>104</b>
<b>Table 4.11</b>	Indeterminate corpus absolute numbers and percentages.	<b>118</b>
<b>Table 4.12</b>	Tell Sabi Abyad figurine corpus absolute numbers and percentages.	<b>119</b>
<b>Table 4.13</b>	Zoomorphic corpus absolute numbers and percentages.	<b>120</b>
<b>Table 4.14</b>	The presence/absence of horns and ears on quadrupeds.	<b>123</b>
<b>Table 4.15</b>	Anthropomorphic/abbreviated corpus absolute numbers and percentages.	<b>126</b>
<b>Table 4.16</b>	Indeterminate corpus absolute numbers and percentages.	<b>137</b>
<b>Table 4.17</b>	Figurine corpora Çatalhöyük and Tell Sabi Abyad, absolute and relative numbers.	<b>140</b>

### Appendix A: Tables Chapter 5

<b>Table 5.1</b>	Zoomorphic figurines: certain clay type assignments.	<b>276</b>
<b>Table 5.2</b>	Zoomorphic figurines: certain and possible clay type assignments.	<b>276</b>
<b>Table 5.3</b>	Fabrics compared to zoomorphic figurines.	<b>276</b>
<b>Table 5.4</b>	Fabrics compared to clay types zoomorphic figurines.	<b>276</b>
<b>Table 5.5</b>	Presence inclusions compared to zoomorphic figurines.	<b>277</b>
<b>Table 5.6</b>	Presence inclusions compared to clay type zoomorphic figurines.	<b>277</b>
<b>Table 5.7</b>	Amount inclusions compared to zoomorphic figurines.	<b>277</b>
<b>Table 5.8</b>	Amount inclusions compared to clay type zoomorphic figurines.	<b>277</b>
<b>Table 5.9</b>	Size inclusions compared to zoomorphic figurines.	<b>277</b>
<b>Table 5.10</b>	Size inclusions compared to clay type zoomorphic figurines.	<b>278</b>
<b>Table 5.11</b>	Type inclusions compared to zoomorphic figurines.	<b>278</b>
<b>Table 5.12</b>	Type inclusions compared to clay type zoomorphic figurines.	<b>278</b>
<b>Table 5.13</b>	Zoomorphic colours.	<b>279</b>
<b>Table 5.14</b>	Abbreviated figurines: certain clay type assignments.	<b>280</b>
<b>Table 5.15</b>	Abbreviated figurines: certain and possible clay type assignments.	<b>280</b>
<b>Table 5.16</b>	Fabrics compared to abbreviated figurines.	<b>280</b>
<b>Table 5.17</b>	Fabrics compared to clay types abbreviated figurines.	<b>280</b>
<b>Table 5.18</b>	Presence inclusions compared to abbreviated figurines.	<b>281</b>
<b>Table 5.19</b>	Presence inclusions compared to clay type abbreviated figurines.	<b>281</b>
<b>Table 5.20</b>	Amount inclusions compared to abbreviated figurines.	<b>281</b>
<b>Table 5.21</b>	Amount inclusions compared to clay type abbreviated figurines.	<b>281</b>
<b>Table 5.22</b>	Size inclusions compared to abbreviated figurines.	<b>281</b>
<b>Table 5.23</b>	Size inclusions compared to clay type abbreviated figurines.	<b>282</b>
<b>Table 5.24</b>	Type inclusions compared to abbreviated figurines.	<b>282</b>
<b>Table 5.25</b>	Type inclusions compared to clay type abbreviated figurines.	<b>282</b>
<b>Table 5.26</b>	Abbreviated colours.	<b>283</b>
<b>Table 5.27</b>	Anthropomorphic figurines: certain clay type assignments.	<b>283</b>

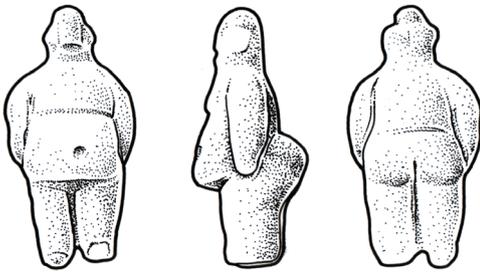
<b>Table 5.28</b>	Anthropomorphic figurines: certain and possible clay type assignments.	283
<b>Table 5.29</b>	Fabrics compared to anthropomorphic figurines.	284
<b>Table 5.30</b>	Fabrics compared to clay type anthropomorphic figurines.	284
<b>Table 5.31</b>	Presence inclusions compared to anthropomorphic figurines.	284
<b>Table 5.32</b>	Presence inclusions compared to clay type anthropomorphic figurines.	284
<b>Table 5.33</b>	Amount inclusions compared to anthropomorphic figurines.	284
<b>Table 5.34</b>	Amount inclusions compared to clay type anthropomorphic figurines.	285
<b>Table 5.35</b>	Size inclusions compared to anthropomorphic figurines.	285
<b>Table 5.36</b>	Size inclusions compared to clay type anthropomorphic figurines.	285
<b>Table 5.37</b>	Inclusion types compared to anthropomorphic figurines.	285
<b>Table 5.38</b>	Inclusion types compared to clay type anthropomorphic figurines.	286
<b>Table 5.39</b>	Colours anthropomorphic figurines.	287
<b>Table 5.40</b>	Clay fabrics compared to clay types phallomorphic objects.	288
<b>Table 5.41</b>	Inclusion presence compared to clay types phallomorphic objects.	288
<b>Table 5.42</b>	Inclusion amount compared to clay types phallomorphic objects.	288
<b>Table 5.43</b>	Inclusion size compared to clay types phallomorphic objects.	288
<b>Table 5.44</b>	Inclusion type compared to clay types phallomorphic objects.	288
<b>Table 5.45</b>	Geometric objects: certain clay type assignments.	289
<b>Table 5.46</b>	Geometric objects, certain and possible clay type assignments.	289
<b>Table 5.47</b>	Clay fabric compared to geometric objects.	289
<b>Table 5.48</b>	Clay fabric compared to clay type geometric objects.	289
<b>Table 5.49</b>	Presence inclusions compared to geometric objects.	289
<b>Table 5.50</b>	Presence inclusions compared to clay type geometric objects.	290
<b>Table 5.51</b>	Inclusion amount compared to geometric objects.	290
<b>Table 5.52</b>	Inclusion amount compared to clay type geometric objects.	290
<b>Table 5.53</b>	Inclusion size compared to geometric objects.	290
<b>Table 5.54</b>	Inclusion size compared to clay type geometric objects.	290
<b>Table 5.55</b>	Inclusion type compared to geometric objects.	291
<b>Table 5.56</b>	Inclusion type compared to clay type geometric objects.	291
<b>Table 5.57</b>	Colours geometric objects.	292
<b>Table 5.58</b>	Indeterminate objects: certain clay type assignments.	292
<b>Table 5.59</b>	Indeterminate objects, certain and possible clay type assignments.	293
<b>Table 5.60</b>	Clay fabric compared to possible types within indeterminate objects.	293
<b>Table 5.61</b>	Clay fabric compared to clay type indeterminate objects.	293
<b>Table 5.62</b>	Presence inclusions compared to possible types within indeterminate objects.	294
<b>Table 5.63</b>	Presence inclusions compared to clay type indeterminate objects.	294
<b>Table 5.64</b>	Inclusion amount compared to possible types within indeterminate objects.	294
<b>Table 5.65</b>	Inclusion amount compared to clay type indeterminate objects.	294
<b>Table 5.66</b>	Inclusion size compared to possible types within indeterminate objects.	295
<b>Table 5.67</b>	Inclusion size compared to clay type indeterminate figurines.	295
<b>Table 5.68</b>	Inclusion type compared to possible types within indeterminate objects.	295
<b>Table 5.69</b>	Inclusion type compared to clay type indeterminate figurines.	296
<b>Table 5.70</b>	Colours indeterminate objects.	296
<b>Table 5.71</b>	Unclear objects: certain (left) and certain and possible (right) clay type assignments.	297
<b>Table 5.72</b>	Clay fabrics compared to clay types unclear objects.	297
<b>Table 5.73</b>	Presence inclusions unclear objects.	297
<b>Table 5.74</b>	Amount inclusions unclear objects.	297
<b>Table 5.75</b>	Size inclusions unclear objects.	297
<b>Table 5.76</b>	Inclusion types unclear objects.	298
<b>Table 5.77</b>	Colours unclear objects.	298
<b>Table 5.78</b>	Presence of elements quadruped figurines. Percentages calculated from numbers of objects for which the presence/absence of elements could be established.	299
<b>Table 5.79</b>	Absence of elements quadruped figurines. Percentages calculated from numbers of objects for which the presence/absence of elements could be established.	299

<b>Table 5.80</b>	Quadrupeds that have been identified as composite pieces. Percentages calculated from the objects (per clay type) where these elements were clearly present.	<b>299</b>
<b>Table 5.81</b>	Quadrupeds that have been identified as composite and possible composite pieces. Percentages calculated from the objects (per clay type) where these elements were clearly present.	<b>299</b>
<b>Table 5.82</b>	Horn shapes across quadruped clay types.	<b>299</b>
<b>Table 5.83</b>	Ear shapes across quadruped clay types.	<b>300</b>
<b>Table 5.84</b>	Leg shapes across quadruped clay types.	<b>300</b>
<b>Table 5.85</b>	Tail shapes across quadruped clay types.	<b>300</b>
<b>Table 5.86</b>	Tool use compared to zoomorphic figurines.	<b>300</b>
<b>Table 5.87</b>	Tool use compared to clay types zoomorphic figurines.	<b>301</b>
<b>Table 5.88</b>	Level of smoothing compared to zoomorphic figurines.	<b>301</b>
<b>Table 5.89</b>	Level of smoothing compared to clay types zoomorphic figurines.	<b>301</b>
<b>Table 5.90</b>	Fingernail markings and fingerprints compared to zoomorphic figurines.	<b>301</b>
<b>Table 5.91</b>	Fingernail markings and fingerprints compared to clay types zoomorphic figurines.	<b>301</b>
<b>Table 5.92</b>	Fingernail markings and fingerprints compared to smoothing levels zoomorphic figurines.	<b>301</b>
<b>Table 5.93</b>	Fingernail markings and fingerprints compared to heat exposure zoomorphic figurines.	<b>302</b>
<b>Table 5.94</b>	Heat exposure compared to zoomorphic figurines.	<b>302</b>
<b>Table 5.95</b>	Heat exposure compared to clay types zoomorphic figurines.	<b>302</b>
<b>Table 5.96</b>	Leg shapes compared to clay types divided base figurines.	<b>303</b>
<b>Table 5.97</b>	Presence and absence of head element and nose compared to figurine types. Percentages are calculated based on examples where presence or absence could be ascertained.	<b>303</b>
<b>Table 5.98</b>	Presence and absence of head element and nose compared to clay types abbreviated figurines. Percentages are calculated based on examples where presence or absence could be ascertained.	<b>303</b>
<b>Table 5.99</b>	Tool use compared to abbreviated figurines.	<b>303</b>
<b>Table 5.100</b>	Tool use compared to clay types abbreviated figurines.	<b>303</b>
<b>Table 5.101</b>	Smoothing levels compared to abbreviated figurines.	<b>304</b>
<b>Table 5.102</b>	Smoothing levels compared to clay types abbreviated figurines.	<b>304</b>
<b>Table 5.103</b>	Fingernail impressions and fingerprints compared to abbreviated figurines.	<b>304</b>
<b>Table 5.104</b>	Fingernail impressions and fingerprints compared to clay types abbreviated figurines.	<b>304</b>
<b>Table 5.105</b>	Fingernail impressions and fingerprints compared to smoothing level abbreviated figurines.	<b>304</b>
<b>Table 5.106</b>	Fingernail impressions and fingerprints compared to heat exposure abbreviated figurines.	<b>304</b>
<b>Table 5.107</b>	Additional surface treatment compared to abbreviated figurines.	<b>305</b>
<b>Table 5.108</b>	Additional surface treatment compared to clay types abbreviated figurines.	<b>305</b>
<b>Table 5.109</b>	Heat exposure compared to abbreviated figurines.	<b>305</b>
<b>Table 5.110</b>	Heat exposure compared to clay types abbreviated figurines.	<b>306</b>
<b>Table 5.111</b>	Leg shapes human-divided base figurines.	<b>306</b>
<b>Table 5.112</b>	Composite anthropomorphic figurines. Percentages calculated from numbers of objects for which the presence/absence of elements could be established.	<b>306</b>
<b>Table 5.113</b>	Possible composite anthropomorphic figurines. Percentages calculated from numbers of objects for which the presence/absence of elements could be established.	<b>307</b>
<b>Table 5.114</b>	Tool use anthropomorphic figurines.	<b>307</b>
<b>Table 5.115</b>	Smoothing level compared to anthropomorphic figurines.	<b>307</b>
<b>Table 5.116</b>	Smoothing level compared to clay type anthropomorphic figurines.	<b>308</b>
<b>Table 5.117</b>	Additional surface treatment anthropomorphic figurines.	<b>308</b>
<b>Table 5.118</b>	Additional surface treatment compared to clay types anthropomorphic figurines.	<b>308</b>
<b>Table 5.119</b>	Heat exposure compared to anthropomorphic figurines.	<b>308</b>
<b>Table 5.120</b>	Heat exposure clay types across anthropomorphic figurines.	<b>309</b>
<b>Table 5.121</b>	Heat exposure clay types across phallomorphic figurines.	<b>309</b>
<b>Table 5.122</b>	Level of smoothing compared to geometric objects.	<b>309</b>
<b>Table 5.123</b>	Level of smoothing compared to clay types geometric objects.	<b>309</b>
<b>Table 5.124</b>	Heat exposure compared to geometric objects.	<b>310</b>
<b>Table 5.125</b>	Heat exposure compared to clay types geometric objects.	<b>310</b>
<b>Table 5.126</b>	Level of smoothing compared to indeterminate objects.	<b>311</b>
<b>Table 5.127</b>	Level of smoothing compared to clay types indeterminate objects.	<b>311</b>

<b>Table 5.128</b>	Heat exposure compared to indeterminate objects.	<b>311</b>
<b>Table 5.129</b>	Heat exposure compared to clay types indeterminate objects	<b>312</b>
<b>Table 5.130</b>	Smoothing levels compared to unclear objects.	<b>312</b>
<b>Table 5.131</b>	Heat exposure compared to unclear objects.	<b>312</b>
<b>Table 5.132</b>	Puncture and gouges compared to clay types zoomorphic figurines.	<b>313</b>
<b>Table 5.133</b>	Puncture and gouges compared to smoothing levels zoomorphic figurines.	<b>313</b>
<b>Table 5.134</b>	Puncture and gouges compared to heat exposure zoomorphic figurines.	<b>313</b>
<b>Table 5.135</b>	Breakage and deformation compared to clay types zoomorphic figurines.	<b>313</b>
<b>Table 5.136</b>	Breakage and deformation compared to smoothing levels zoomorphic figurines.	<b>313</b>
<b>Table 5.137</b>	Breakage and deformation compared to heat exposure zoomorphic figurines.	<b>313</b>
<b>Table 5.138</b>	Punctures and gouges compared to abbreviated figurines.	<b>314</b>
<b>Table 5.139</b>	Punctures and gouges compared to clay types abbreviated figurines.	<b>314</b>
<b>Table 5.140</b>	Punctures and gouges compared to smoothing levels abbreviated figurines.	<b>314</b>
<b>Table 5.141</b>	Punctures and gouges compared to heat exposure abbreviated figurines.	<b>314</b>
<b>Table 5.142</b>	Deformation and breakage compared to smoothing levels abbreviated figurines.	<b>314</b>
<b>Table 5.143</b>	Deformation and breakage compared to heat exposure abbreviated figurines.	<b>314</b>
<b>Table 5.144</b>	Impressions compared to abbreviated figurines.	<b>314</b>
<b>Table 5.145</b>	Impressions compared to clay types abbreviated figurines.	<b>314</b>
<b>Table 5.146</b>	Impression compared to smoothing levels abbreviated figurines.	<b>314</b>
<b>Table 5.147</b>	Impression compared to heat exposure abbreviated figurines.	<b>314</b>
<b>Table 5.148</b>	Punctures and gouges compared to anthropomorphic figurines.	<b>314</b>
<b>Table 5.149</b>	Intentional damage compared to possible types within indeterminate objects.	<b>314</b>
<b>Table 5.150</b>	Location figurines per area.	<b>316</b>
<b>Table 5.151</b>	Figurines per building.	<b>317</b>
<b>Table 5.152</b>	Context types zoomorphic figurines.	<b>318</b>
<b>Table 5.153</b>	Context types abbreviated figurines.	<b>318</b>
<b>Table 5.154</b>	Context types anthropomorphic and phallomorphic figurines.	<b>318</b>
<b>Table 5.155</b>	Context types geometric objects.	<b>318</b>
<b>Table 5.156</b>	Context types indeterminate and unclear objects.	<b>318</b>
<b>Table 5.157</b>	Figurines in storage features.	<b>319</b>
<b>Table 5.158</b>	Figurines in fire installations.	<b>320</b>
<b>Table 5.159</b>	Figurines in platforms.	<b>321</b>
<b>Table 5.160</b>	Figurines in object clusters.	<b>322</b>
<b>Table 5.161</b>	Zoomorphic clay types through time.	<b>323</b>
<b>Table 5.162</b>	Intentional damage on quadruped figurines through time.	<b>325</b>
<b>Table 5.163</b>	Abbreviated clay types through time.	<b>326</b>
<b>Table 5.164</b>	Anthropomorphic clay types through time.	<b>327</b>
<b>Table 5.165</b>	Geometric, indeterminate and unclear objects clay types through time.	<b>330</b>
<b>Table 5.166</b>	All figurines through time.	<b>332</b>
<b>Table 5.167</b>	All figurines clay types through time.	<b>334</b>
<b>Table 5.168</b>	Inclusion types zoomorphic figurines.	<b>336</b>
<b>Table 5.169</b>	Colours zoomorphic figurines.	<b>336</b>
<b>Table 5.170</b>	Inclusion types anthropomorphic and abbreviated figurines.	<b>337</b>
<b>Table 5.171</b>	Colours anthropomorphic and abbreviated figurines.	<b>337</b>
<b>Table 5.172</b>	Colours geometric objects.	<b>338</b>
<b>Table 5.173</b>	Inclusion types indeterminate and unclear objects.	<b>339</b>
<b>Table 5.174</b>	Colours indeterminate and unclear objects.	<b>339</b>
<b>Table 5.175</b>	Smoothing levels compared to zoomorphic figurines.	<b>340</b>
<b>Table 5.176</b>	Heat exposure compared to zoomorphic figurines.	<b>340</b>
<b>Table 5.177</b>	Tool use compared to anthropomorphic and abbreviated figurines.	<b>340</b>
<b>Table 5.178</b>	Smoothing levels compared to anthropomorphic and abbreviated figurines.	<b>340</b>
<b>Table 5.179</b>	Heat exposure compared to anthropomorphic and abbreviated figurines.	<b>340</b>
<b>Table 5.180</b>	Smoothing levels compared to geometric objects.	<b>341</b>
<b>Table 5.181</b>	Heat exposure compared to geometric objects.	<b>341</b>
<b>Table 5.182</b>	Smoothing levels compared to possible types within indeterminate objects.	<b>341</b>

<b>Table 5.183</b>	Heat exposure compared to possible types within indeterminate objects.	<b>341</b>
<b>Table 5.184</b>	Smoothing levels compared to unclear objects.	<b>342</b>
<b>Table 5.185</b>	Heat exposure compared to unclear objects.	<b>342</b>
<b>Table 5.186</b>	Intentional damage compared to smoothing levels zoomorphic figurines.	<b>342</b>
<b>Table 5.187</b>	Intentional damage compared to heat exposure zoomorphic figurines.	<b>342</b>
<b>Table 5.188</b>	Operations I and III, amount of figurines per building.	<b>343</b>
<b>Table 5.189</b>	Context types zoomorphic figurines.	<b>343</b>
<b>Table 5.190</b>	Context types anthropomorphic and abbreviated figurines.	<b>344</b>
<b>Table 5.191</b>	Context types geometric objects.	<b>344</b>
<b>Table 5.192</b>	Context types indeterminate and unclear objects.	<b>344</b>
<b>Table 5.193</b>	Figurines related to storage features.	<b>344</b>
<b>Table 5.194</b>	Figurines related to fire-related contexts.	<b>345</b>
<b>Table 5.195</b>	Figurines related to floor contexts.	<b>346</b>
<b>Table 5.196</b>	Figurines related to object clusters.	<b>347</b>
<b>Table 5.197</b>	Contexts non-clay figurines.	<b>348</b>
<b>Table 5.198</b>	Heat exposure figurines related to contexts.	<b>348</b>
<b>Table 5.199</b>	Figurines through time Operation I.	<b>349</b>
<b>Table 5.200</b>	Figurines through time Operation III.	<b>350</b>
<b>Table 5.201</b>	All figurines through time in all areas.	<b>351</b>
<b>Table 5.202</b>	Zoomorphic through time in all areas.	<b>351</b>
<b>Table 5.203</b>	Anthropomorphic through time in all areas.	<b>352</b>
<b>Table 5.204</b>	Context types through time.	<b>353</b>





# CHAPTER 1: INTRODUCTION

## 1.1 RESEARCH CONTEXT

The Neolithic period in the Near East is one of extreme importance in defining the course of (pre)history, and its influence reaches far beyond this region (Perlès 2001; Thomas 1999, 2013). It is a period of key innovations and radically new ways of living. The advent of sedentary life and agriculture, and later increasingly pronounced social inequality, private property and economic specialisation, paved the way for the development of later urban societies (see Akkermans and Schwartz 2003).

For this important period, spanning several millennia, figurines are our primary, at times only, source of visual representations of humans and animals. More than purely utilitarian objects, figurines are thought to provide insight into the more intangible aspects of past life such as ritual, cosmology, identity and social processes (Garfinkel and Miller 2002; Knapp 2009; Lesure 2002). However, whilst figurines are a ubiquitous find on many Neolithic sites, many technological, social and cultural aspects of figurines are still poorly understood.

Since their first discovery in the early 20<sup>th</sup> century, when excavations in the Near East began on a large scale, figurines have been the topic of much archaeological research. The focus has predominantly been on anthropomorphic figurines and their perceived femaleness. Over the years a grand narrative has developed around these 'female' figurines. First seen as sexual objects, or 'concubines' for the dead (Hamilton 1996, 283), through feminist interpretations they later became expressions of a universal 'mother-goddess' religion and a symbol of peaceful matriarchal societies (e.g. Gimbutas 1974, 1982, 1989).

Figurine research gained new momentum when archaeologists began to focus on the question of the so-called 'Neolithisation processes' behind one of the major 'revolutions' that happened first in the Ancient Near Eastern Fertile Crescent. Some researchers regarded figurines as a material expression of peoples' attempts to cope with their changing world. Figurines thus became a crucial element in interpreting early agricultural societies (Kuijt and Chesson 2005, 152-153). The work by Cauvin (2000a, 2000b) has been particularly influential in this debate. Arguing that the Neolithic revolution was preceded by a 'revolution in symbols', it is in this period we can trace the 'birth of the gods', made manifest in figurines, where anthropomorphic (female) figurines and zoomorphic (bull) figurines represent the female and male aspects of divinity.

The majority of figurine studies have regarded figurines as art, ritual or cult objects, or symbolic messages in need of decoding. These approaches all have their positive aspects, but also difficulties and

implications regarding the ways past scholarly research has emphasised certain aspects of figurines and disregarded others. The main drawback of these more traditional interpretative frameworks is that they fail to analyse and interpret figurines as artefacts. Instead, figurines are treated primarily, or even exclusively, as images or texts (Weismantel and Meskell 2014).

Figurine imagery can certainly hold symbolic significance. However, one of the main assumptions in this thesis is that fully understanding the symbolic meaning of figurines, especially in prehistoric contexts, is extremely difficult. Furthermore, it is insufficient to research meaning as being solely constituted by what an object represents. Visual studies ignore the importance of the process of making, using, and depositing figurines and instead treat them as static images.

Furthermore, the continued focus on anthropomorphic figurines means that a large and important corpus of zoomorphic, more ambiguous as well as fragmented objects has been largely ignored. Disregarding contextual settings, visual approaches have offered overarching interpretations which tend to neglect variability: objects spanning several millennia, a large geographical area and vastly different social contexts are treated synchronically.

In contrast, this thesis proposes that we need to engage with figurine materiality to understand how figurines worked socially or why they held compelling effective power (Robb 2017, 589). To achieve this objective this project employs an artefact approach and posits that in order to better understand figurines we need to analyse figurines as a process; from production, use, to deposition. Importantly, these processes were directed, managed and performed by people and reflect intentionality in all the actions forming the life biographies of figurines.

In this respect, this project builds upon earlier studies focussing on figurines as processes embedded in a particular social world (Nakamura and Meskell 2013, 202-203; see also Belcher 2014; Gaydarska *et al.* 2007). Where this research differs from the earlier work is the scope of the analyses, as it includes the entire corpus of figurines, as opposed to preferential treatment of certain types of figurines (e.g. anthropomorphic or zoomorphic).

To further emphasise the importance of different social settings, two corpora of figurines are analysed here. By juxtaposing these sites we can analyse to what extent different social settings affected figurine practices. The research presented here includes the corpus of figurines from Tell Sabi Abyad (Syria) and Çatalhöyük (Turkey). This thesis aims to demonstrate that there is variability in how figurines were made and used, both on an inter- and intra-site level. If such variability can already be identified at two comparable sites, previous generalising statements about figurine practices during the entire Neolithic period cannot be maintained.

## 1.2 FIGURINES: DEFINITIONS

The word figurine derives from French with an Italian origin: ‘figurina’ (being the diminutive of ‘figura’), or figure (from the Latin ‘figūra’). The definition of figūra reads: “a small carved or moulded figure”, with figure defined as: “a model of a bodily form (especially of a person)”, “a small ornamental figure of pottery, metal, plastic, etc.; statuette” and “a miniature figure” (www.oxforddictionary.com). From these definitions we can distil the following characteristics to describe modern figurines: they are small objects, made from a variety of materials employed in different production methods. The term ‘figurine’ most commonly refers to human representations but can refer to other forms as well.

Within archaeology, ‘figurine’ is the term used mostly to denote three-dimensional, representational objects. Also based on size, figurine is the term used for small, portable items (as opposed to larger statuettes/statues, see Insoll 2017, 4). Figurines are mostly made of clay, but also of stone, bone, tooth/ivory and likely other organic materials now lost to us. They represent animals and humans in various degrees of schematisation; indeed some shapes are too ambiguous for us to identify and are often categorised as ‘abbreviated’ or ‘abstracted’ (Lesure 2002; Meskell and Nakamura 2006).

Figurine making is a global practice with deep (pre)historic roots, the oldest figurines found thus far dating back some 35,000 years ago, to the European Palaeolithic (Conard 2009; Farbstein 2017 and references therein). Arguably, figurines are one the most enduring artefacts created by *Homo sapiens sapiens*. They are still very much a part of modern societies, evidenced by our use of dolls and action figures as toys and porcelain figurines displayed in our homes as decorative items, to name but a few examples. Perhaps this longevity is part of their allure, as Hamilton (1996, 281) describes it: “*figurines illustrate self-awareness, which is a unique human characteristic*”.

Although the notion that self-awareness is unique to *Homo sapiens sapiens* is debatable, it undoubtedly contributed to the continuous scholarly attention figurines have enjoyed. More importantly, figurines are forms of artistic expression, and linked with this is the cognitive ability to think in abstract ways and the capability of symbolic thought. Until quite recently this was seen as a definite unique feature of our species. Recently, however, this notion has also been put into question by the finds of cave art likely produced by *Homo sapiens neanderthalensis* (see for example Hoffmann *et al.* 2018; Rodríguez-Vidal *et al.* 2014). Much of the debate still focuses on identifying and dating the first evidence of figurative art as the origin of modern behaviour. The question: ‘why did people start creating art?’ remains a salient one and continuous research is focused on trying to answer this question from a wide variety of perspectives (see for example Davies 2012; De Smedt and Cruz 2011; Moro-Abadía and Palacio-Pérez).

### 1.3 GENDER ISSUES: THE MOTHER GODDESS

A thesis on Near Eastern figurines cannot do without a discussion on female figurines, as so much of past research focussed on female—or the perceived femaleness of—figurines. This point becomes even more salient when one of the sites under study is Çatalhöyük; a site where some of the most famous of these female figurines, or ‘mother goddesses’, have been found.

Meskill (2017, 21) expresses optimism in noting that the discussions of the Mother Goddess theory are becoming briefer or are omitted altogether. However, here it is argued that we have not yet reached the point where we can discuss Ancient Near Eastern figurines without first dealing with this, rather plump, spectre still hovering over figurine research. That being said, keeping in line with this perceived sign of scholarly progress, the discussion will be kept as brief as possible.

Through iconographic and structural or semiotic approaches, researchers have attempted to decipher the meaning of figurines through visual approaches focusing on their iconography and symbolic meaning. Predominantly concerned with human figurines, these have often been interpreted as cult figures or ‘Mother Goddesses’, and have been linked to concepts of fertility and prosperity (Cauvin 2000a; Garfinkel 1999; Gimbutas 1989). The historical preoccupation with female figurines was rooted in the wider theoretical framework of post-enlightenment theories in the 18<sup>th</sup> and 19<sup>th</sup> centuries that influenced early figurine research at the beginning of the 20<sup>th</sup> century. Furthermore, the concept of evolution was applied to the development of societies, most notably by Bachofen (1861). Thought to be linear and supposedly starting with matrilineal and matriarchal societies, the original but also lowest form of social organisation, and evolving into patriarchal societies over time (Hamilton 1996, 282; Talalay 1994, 172).

This evolutionary idea with the combined belief in the existence of biological and mental differences between the sexes and that the control of sexuality was one of the key elements resulting in ‘the rise of civilisation’ informed explanations for the (supposedly) predominately female figurines found at excavated prehistoric sites. These figurines of—often naked—‘women’ found in the oldest prehistoric layers seemed to fit nicely with the idea of early matrilineal and matriarchal societies. They were widely considered to be evidence for this type of social organisation and/or for a female-oriented religion based on concepts like fertility, sexuality, birth and motherhood (Hamilton 1996, 283). These theories were extremely universalist, explaining the phenomenon of female figurines over large periods and geographical areas. The assumption underlying this interpretative framework was the belief in the existence of a common psychology in primitive man which caused this deep-rooted belief in a ‘life-giving goddess’ (Lesure 2011, 10; Talalay 1994, 166).

The idea of figurines as goddesses received new impetus in the 1960s with the rise of feminism, which impacted archaeology – and the sciences in general – in a profound way. The most famous protagonist of this movement within archaeology, Marija Gimbutas, also used figurines as evidence of a prehistoric European past filled with matrilineal and matriarchal societies (see for example Gimbutas 1982, 1989). However, instead of viewing them as a primitive form of social organisation, she saw them as the ideal type and viewed

prehistory in Europe as a time of peace and prosperity. This ‘golden age of ancient Europe’ supposedly ended after repeated invasions by Kurgans from Eastern Europe (Meskell 1998, 127; Rountree 2001, 7; Talalay 1994, 169-170).

However one wants to explain the enduring popularity of this concept, be it an enduring male-centred ‘Victorian’ mindset in western academia (Morris 2017, 662), or a staunch refusal by feminists to let go of this politicised and romanticised idea of a prehistoric past when women ruled (Talalay 1994, 165), it is undeniable that the concept of a mother goddess, or more broadly speaking, the idea that many (or most) anthropomorphic figurines are female and can be used as a proxy to infer social and political relations and/or to a cult based on fertility, childbirth and so on, is very ingrained in figurine theory.

In recent decades, both the goddess movement and Gimbutas’ work have received much criticism, both from within and outside of feminist circles. This criticism focuses on two main aspects. Firstly, she is accused of deliberately misusing archaeology by wrongly reconstructing and exploiting the past to support contemporary feminist struggles (Rountree 2001, 5). Secondly, she is accused of practising ‘bad archaeology’ by cherry-picking evidence to fit her narrative as opposed to building a reasoned argument supported by all the archaeological evidence (Brown 1993, 255).

Whatever the shortcomings of Gimbutas’ work, she did address the important issue of male-centred narratives created by a male-dominated (western) academic establishment. Unfortunately, her methodological and analytic weaknesses have negatively impacted more current attempts of feminist archaeologists trying to employ new approaches in considering gender within archaeological context (Conkey and Tringham 1995; Talalay 1994, 172).

Within the context of Near Eastern figurine studies, the before-mentioned Cauvin perpetuated the mother goddess narrative and gave it new impetus. His work focused on perceived changes in imagery, specifically on the purported duality of zoomorphic and anthropomorphic figurines in the advent of the Neolithic. He envisioned the male and female aspects in visual culture as part of the same interregional symbolic system (Kuijt 2017, 556). Importantly, Cauvin interpreted the Neolithic revolution as primarily a symbolic revolution. In this framework, figurines were seen as the material manifestation of symbolic activities brought about by this intellectual transformation (Cauvin 2000a, 2000b; Cauvin *et al.* 2001).

Cauvin’s interpretation of the Neolithic ‘revolution’ as primarily a symbolic one raises interesting points that fit well with post-processual thought which rejects environmental determinism and favours cultural explanations over natural ones. However, his work is criticised on the same grounds as that of Gimbutas, because he indiscriminately used material from large regions and long periods, de-contextualising archaeological materials. Furthermore, Cauvin too ignored archaeological evidence that did not fit his theory and misinterpreted other evidence to make it fit said theories (Kuijt 2017, 554).

How is the Mother Goddess faring in contemporary archaeology? Despite Meskell’s optimism the mother goddess, in one form or the other, is still present in many figurine studies. New work still focuses on female

figurines, be it to give critical reviews of the Mother Goddess phenomenon (see, among others, Bailey 1997; Haaland and Haaland 1995, Meskell 1995, 1998; Tringham and Conkey 1998), argue against the perceived femaleness of many figurines (Meskell 2017) or formulate new interpretations of female figurines (Belcher 2016, Lesure 2002, 2011). Although it is now commonly acknowledged that a majority of prehistoric figurines are in fact not sexed, there are still those that do believe that most anthropomorphic figurines from the Near East depict women and continue in their attempts to explain this phenomenon (see for example Lesure 2002, 2011).

There is a clear shift in current studies where figurines are no longer defined in simplistic, binary male and female terms, instead, the focus is now on aspects of gender. It is now acknowledged that supposed sexual characteristics can be misleading combined with the realisation that there might be subtle markers of gender that we are unable to recognise (Belcher and Croucher 2017, 451; Croucher 2008; Daems 2008; Insoll 2017, 8). There is also a consensus that we have to be open to the possibility that representing either a male or female form might not have been the goal of figurine makers and that many figurines have no clear markings of gender (Insoll 2017, 8; Belcher 2016; Belcher and Croucher 2017, 445). Coupled with these insights is the important realisation that gender as being fixed and binary is in itself a modern, western construct (Belcher 2016; Meskell 2017; Talalay 1994, 175).

However, despite these admonitions and disclaimers, many publications still focus on the femaleness, or lack thereof, of figurines. In the 2017 *Oxford Handbook of Prehistoric Figurines*, the chapters dealing with figurines from the Near East all primarily focussed on anthropomorphic figurines, the representation of primary or secondary sexual characteristics and how to interpret them (Belcher and Croucher 2017; Campbell and Daems 2017, Daems 2017; Kuijt 2017). In the chapter on Mesopotamian figurines, the definition of figurines only included representations of the human form, a “*conscious bias*” as the authors admit, following many of the previous studies and excavation reports (Campbell and Daems 2017, 569). While that may be true, it would seem that a modern handbook of prehistoric figurines would be an ideal forum to at least attempt to rectify this past bias through which a large corpus of more ambiguous shapes and animal figurines was largely omitted.

However, it speaks much to the influence past research continues to have on current studies when an overview chapter of Mesopotamian figurines has to omit zoomorphic figurines simply because there is not enough literature and data to review. The corpus of (nearly) complete anthropomorphic figurines has traditionally received the most scholarly attention. The hand-picking of archaeological evidence to support the mother goddess theory has greatly skewed how figurines have been visualised in scholarly and public discourse. A handful of remarkable figurines have come to serve as proxies, representing a general figurine style and type for all of Anatolia and Mesopotamia when in reality these are isolated and rare examples (Belcher and Croucher 2017, 445). The range of research has been limited. The focus has been on unique figurines, worthy of individual attention. Mostly the aim is to describe figurines and create typologies which are then sometimes used to explain figurines as a cross-cultural phenomenon (Campbell and Daems 2017, 567).

## 1.4 NEW DIRECTIONS IN FIGURINE STUDIES

In 1968 Peter Ucko published the first full-length monograph on Aegean figurines. It is generally considered to be a milestone in the field of figurine research (Belcher and Croucher 2017; Daems 2017; Morris 2017; Talalay 1994). Unconvinced by the Mother Goddess explanation, Ucko took a dramatically new approach to the interpretation of prehistoric figurines. He proposed that figurines were not only multifunctional but may have served purposes comparable to those of similar objects observed in modern ethnographic case studies. Through these ethnographic analogues, Ucko theorised that Neolithic figures could have been used in a variety of ritual contexts such as curing rites, initiation ceremonies, marriage rituals as well as being used as part of oral narratives (Talalay 1994, 169).

Ucko did not provide a lengthy criticism of the Mother Goddess interpretation. However, through scrutinising all the available archaeological evidence he effectively deconstructed this narrative and universalistic explanations in general. For example, Ucko pointed out that the Mother Goddess interpretation did not account for the variety of figurines in the Neolithic, the existence of many sexless and a few male images, and the variability of archaeological contexts figurines are recovered from (Talalay 1994, 169).

A second major shift in thinking about figurines, and material culture in general, came with the exploration of the concept of agency, more specific the agency asserted by objects. For figurine studies, the influence of Gell's 1998 *Art and Agency* cannot be understated. As Gell (1998, 6) asserts, artefacts can evoke a plethora of emotions in people, from fascination to terror, and these responses cannot be encompassed or reduced to aesthetic feelings without generalising to such an extent that the term becomes meaningless. In other words, artefacts *do something*, and this cannot be reduced to a symbolic message they might or might not convey, but it is achieved through their very being and their materiality: their colour, texture, size, smell and so on. Gell's view that artefacts form a world with its own logic, somewhat independent of human intentions, has been vital in demonstrating that there might be many cases in which forms of abstract thought and mental representation take the shape suggested by objects, rather than objects simply manifesting pre-existing forms of thought (Gosden 2004, 196).

Tying into this, there has been a paradigm shift that can be described as "*a return to things*" (Hodder 2014b, 19), there are a variety of approaches within this object-centred approach, from Actor-Network Theory (Latour 2005) to anthropological accounts of materiality (Insoll 2013), and the idea that subject and object, mind and matter, human and thing co-constitute each other and are relationally produced (Hodder 2014b, 2016). In archaeology, the material culture turn came about to refocus the archaeological endeavour back to its 'core business', namely artefacts and their materiality. Although some argue there is still a focus on solving questions related to the relationships between the social/cultural and 'the material' (Hicks 2012; Ingold 2007).

In figurine studies this material turn is also evidenced by an increased focus on figurine materiality and, although still rare, the archaeological sciences are now employed in technical studies of materiality and

production with very interesting results (see, for example, Farbstein 2011; Gheorghui 2010; Kaimaris, Hourmouziadis and Patias 2011; Kreiter *et al.* 2014; Morris, Peatfield and O'Neill 2018; Pizzeghello *et al.* 2015; Scott 1996; Zimmermann and Özen 2016).

Combining this technological study of figurines with an emphasis on the importance of making (see, for example, Broman Morales 1990; Ingold 2007, 2013; Martin and Meskell 2012) offer interesting new avenues of research in figurine studies. We need to move away from seeing figurines as art, symbols or ritual objects. Instead, the focus should be on figurines as objects made with a purpose that resides not only in their form but also in shaping the objects, recognising that choices in the manufacture and the materials used most likely were both functional and symbolic in some way.

## 1.5 RESEARCH AIMS AND RESEARCH QUESTIONS

As has become clear both from the preceding paragraphs and from the title of this thesis the research presented here aims to not search for meaning residing in figurines as symbols or images but to study figurines as functional items. It is not intended here to attempt to ascertain specific functions for figurines. Rather, the assertion is that figurines were made with a function in mind and were made to perform their function effectively. Furthermore, figurine production, use and deposition are parts of a process embedded in a particular social world (Nakamura and Meskell 2013). Thus, aiming to counter generalising statements about figurine 'meaning' this thesis will reconstruct these aspects of production, use and deposition, e.g. the life biographies for two figurine corpora. Subsequently, the differences and commonalities observed in figurine practises can be compared and set against the different social settings at both sites. The main research question has been formulated as follows: How are observed differences in the social settings at Çatalhöyük and Tell Sabi Abyad reflected in figurine life biographies?

To answer how figurines operated we need to better understand what properties/qualities they have which might have been important to the people making and using them. By analysing not just some figurines, but instead looking for patterns in a large corpus we might be able to see recurring traits within and between types that will allow us to assess what these properties/qualities are. The second research question therefore reads: What characteristics and qualities of figurines can we identify as being important for them to be socially efficacious objects?

Furthermore, researchers tend to put all figural types together under the heading of figurines. However, modern conceptual categories might not reflect those employed in the past. Potentially, figurines made in certain ways or from certain materials were, in actuality, different categories of 'things' (see Nakamura and Meskell 2013). Different depositional contexts might also inform us on how figurines were conceptualised in the past. These considerations informed the third research question: What characteristics are useful for comparing similarities in life biographies beyond visual typologies?

Finally, we might be able to use the patterns we observe in figurine production to inform us about figurine production as a craft. For example, how can we interpret a wide variety of styles and different production

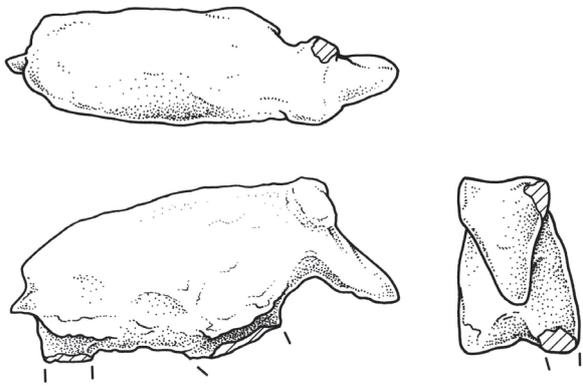
methods? Can we interpret this as evidence for different crafting traditions? Are these different in different parts of the settlement and, if so, how do they change through time? In this way, we can also make informed statements on how different craft traditions are transmitted. Furthermore, we can also see how figurine making relates to other crafts at a site. The last research question therefore is: What can the patterns observed in figurine production tell us about figurine production as a craft?

## 1.6 STRUCTURE OF THESIS

The following chapter will discuss the theoretical and methodological framework employed in this project. The three main ways in which figurines have been researched—figurines as ritual objects, figurines as art and figurines as symbols— will be discussed using case studies and a critical assessment of their inherent biases and problems. This discussion serves as a preamble to the following section that sets out the methodological framework employed in this thesis.

Chapter 3 discusses the research backgrounds. To provide an overview of the range and types of figurines in the Neolithic, this chapter focuses first on discussing figurines in the Near East from their earliest, evidenced use in the Natufian to the Halaf period. Second, the sites of Çatalhöyük and Tell Sabi Abyad will be discussed. Here the focus is on describing them, contextualising the sites in the wider regional setting and comparing the two sites through the three selected themes.

Chapter 4 describes the figurine corpora from the two sites. First, the excavation methodology and terminology employed will be explained. Subsequently, the figurine typology is presented. This is followed by the analysis in chapter 5. This analysis will discuss both sites in turn and will follow the 'life biography' of figurines and focus in turn on material properties, production, use and the depositional contexts in which figurines were recovered. This is followed by a discussion of observed patterns and changes through time. Finally, the synthesis and conclusions will be presented in chapter 6. Here the results from the analysis will be tied back to the formulated research questions.



# CHAPTER 2: THEORETICAL UNDERPINNINGS AND METHODOLOGY

## Introduction

This chapter aims to discuss three ways in which figurines have been studied, namely as art, as symbolic objects and as ritual objects, juxtaposing them against the approach taken in this thesis.<sup>1</sup> After the discussion, the methodology will be set forth.

The primary focus here will be on case studies from the prehistoric Near East, but it will also reference figurine research from other periods and regions. A large corpus of work not referenced in this text has to be acknowledged, with much interesting research being carried out for example in the Americas (f.e. DeMarrais 2007; Halperin *et al.* 2009; Joyce 2007; Lesure 1999; Rice 2015), South-Eastern Europe (f.e. Bailey 1994, 2000, 2007, 2010; Biehl 1996; Budin 2009; Ursu and Țerna 2014) and Cyprus (f.e. A Campo 1994; Goring 1999; Knapp 2009; Knapp and Meskell 1997; Knox 2012; Orphanides 1999).

## 2.1 FIGURINES AS ART

Using the term 'art' for archaeological artefacts is contentious. The word art as we understand it now is a very modern invention. Only in the 18<sup>th</sup> century did art acquire its meaning as referring to the 'fine arts' of painting, sculpture, architecture, music and gardening (Corbey, Layton and Tanner 2004, 357; Ingold 2001, 18; Morphy 2010). Before that time the term 'art' was used in a much wider context, describing the 'liberal' arts (grammar, logic, rhetoric, arithmetic, geometry, music and astronomy) and it was also applied to describe any skilled person (Tomášková 1997, 268). Furthermore, it moved away from the original *ars* which integrated the domains that we now distinguish as art and *savoir-faire* (Ingold 2001, 17; White 1997, 93). The word *ars* was closely linked to the concept of *tekhne* (from which the word technology originates) which refers to skill or a skilled person and was used in the Greek and Roman world to denote any person who had as his/her profession "*any activity which culminated in the creation of a durable object*" (Ingold 2001, 17).

This modern idea of art implied removing it from any specific contextual setting. Art, or artistic expressions, were seen as autonomous objects devoid of any clear and specific function besides their perceived

---

1 This discussion is a rewritten version of a chapter that formed part of my unpublished MA thesis (Arntz 2017)

aesthetic qualities (Corbey, Layton and Tanner 2004, 357; Soffer and Conkey 1997, 2). Moreover, art became lifted out of mundane life. The capability to produce art became the privilege of those gifted few representing a superior state of mind, spirit and creativity that was unlike that of the common masses (Tomášková 1997, 268).

Often the problems associated with using the term 'art' in archaeological contexts are verbalised, but it is assumed that these problems are recognised and accepted. Thus, the use of the word art simply becomes a matter of semantics. This is a false representation, as it is impossible to separate the term from its modern connotations and cultural baggage; they are always implicitly there. This is also evident in the methods subsequently used to research objects that are classified as art. These approaches are akin, or indeed identical, to those used to study more contemporary art: the art historical approaches. There are a plethora of theoretical frameworks within art history, often not compatible with archaeological approaches. This incompatibility is exemplified by the problems encountered with the terminology in both fields, where the same concept means very different things in both disciplines, for example 'context' and 'style'.

Context is used in art-history to denote the production and consumption of art (the artist and the audience) and the political/cultural and geographic background that influence the production of art. In archaeology, especially prehistoric periods, this can be very difficult, or impossible to ascertain (Tomášková 1997, 269). This does not cover the meaning of contexts in archaeology where the importance of the actual find locations are of prime importance.

The focus on style is another shared methodology and interpretative scheme in both disciplines. In art-history there is a sharp distinction between style as the basic facts about an object; how was it made, from what materials, where was it placed, and style as the expression of cultural freedom of the human mind (Corbey, Layton and Jones 2004, 371; Petty 2004, 66-67). Style is either seen as an individualistic expression (assertive) or as shaped by the cultural attitude towards the world and people as expressed in images (emblematic). Style can thus be linked to broader cultural aspects, like group mentality or attitudes (Corbey, Layton and Jones 2004, 371).

In culture-historical archaeology, where societies were divided into distinct ethnic and cultural groupings according to their material culture, style was also seen as an expression of group identity and used as a diagnostic trait to identify cultures and to establish chronologies, for example using different pottery styles. Figurines have been viewed in a similar way, for example, the 'typical' seated anthropomorphic Halaf figurines which have become emblematic for the 'Halaf culture'. However, this way of approaching style has changed in archaeological thinking under the influence of post-processualism and style is now seen as being socially constituted—as an outcome of social structure as well as being consciously manipulated by social actors (Corbey, Layton and Jones 2004, 371; Domingo Sanz and Fiore 2014, 7105; Wiesner 1989).

Within archaeological research, there are widely varying viewpoints on studying figurines as art objects. On one side of the divide, we find, for example, Verpoorte (2001, 16) who states: "*The recognition and iden-*

tification of specific objects as art take place within our modern, what I shall call aesthetic theory and practice of art". Unfortunately, he does not offer a better alternative for the term art, he just states that any alternative that we might have to offer is equally ethnocentric: which might be true, but is rather unhelpful.

On the other end of the divide, we can find Garfinkel and Miller (2002, 32; see also Freikman and Garfinkel 2009, 5) who, in their analysis of Yarmukian figurines, assert Sha'ar Hagolan to be the largest "*prehistoric art centre in Israel*". In the same volume Garfinkel, Korn and Miller (2002, 188) state: "*In using the term 'art' we are deliberately choosing a word that we believe to be the most understandable and inclusive to the largest audience. In doing so, apparently we are making a provocative statement to other colleagues in the field*". They go on to say that the apparent consensus of the problematic nature of art is a fictitious one. To them rejecting that early societies had art is a: "*narrow-minded approach that implies that only western civilisations have 'art' while other human societies have 'imagery' and has been rightly rejected by many archaeologists and anthropologists*". Furthermore, they claim that there is no point in developing more than one theory for 'our' art and that of different cultures. If western (aesthetic) theories of art apply to 'our' art, then they apply to everybody's art and should be so applied (Garfinkel, Korn and Miller 2002, 189).

Many authors are found on the spectrum between these two opposing views. Langin-Hooper (2014, vii), for example, states that some figurines seem to clearly have been made with aesthetics in mind. Moreover, even figurines that are not particularly "*visually appealing can evoke art-like responses in their viewers*". Naturally, the question then of course becomes: 'what is an art-like response?'. How could we hope to substantiate that our 'art-like responses' (which arguably also vary between individuals) can be projected back to archaeological contexts? We might wonder if people in prehistory had such a thing as an art-like response to visual representations at all. Notwithstanding this criticism, I agree with Langin-Hooper that aesthetic considerations were at play when making figurines and, certainly, people had aesthetic sensibilities.

We should keep in mind Gell's urge for 'methodological philistinism' which advocates "*an attitude of resolute indifference towards the aesthetic values of works of art*" (Gell 1992, 42). He advocates neutrality and to not judge archaeological materials as being aesthetically pleasing or not and, subsequently, imposing these judgements on the communities under study. The subject of aesthetics and what exactly is meant by 'visually appealing' is a complex topic and cannot be fully explored here (but see Taylor 1994 for a comprehensive overview). Here it is emphasised that aesthetic considerations have greatly influenced past archaeological research, where some figurines, that are pleasing to our modern eye, have been raised up as art objects and extensively studied and published, whilst leaving a far greater number of figurines to languish in archaeological obscurity. Furthermore, the 'logical' assumption to equate aesthetics with skill is another interpretative leap that is too often made in figurine studies.

Langin-Hooper (2014, vii) raises another important point concerning the problems inherent in art-historical research as it causes us to research figurines in isolation. This, however, is not the archaeological reality as single figurines are most often part of a larger corpus. They are often found in relatively large numbers and as such lend themselves to be studied more as, for example, potsherds than as singular objects.

This mode of study, as Langin-Hooper states, has led to figurines being mostly just extensively catalogued and put into typologies instead of studied and interpreted in contextual settings as part of a larger set of material culture and assemblages. Although arguable, this point could be made of more, if not all, types of material culture (e.g. pottery, lithics etc. are usually studied by specialists in their respective fields). In the end, Langin-Hooper (2014, vii) finds figurines to be a problematic category of artefacts that occupies a grey area between the disciplines of art history and archaeology and “*yet out of the full interpretive sweep of either discipline*”. This statement again boils down to a matter of understanding the question: *what do figurines do?* It is only because we do not understand how figurines operated in their contextual settings that we find them to be out of the scope of archaeological research. However, I argue again that if we want to understand figurines it can be better achieved by researching them as we would any other archaeological artefact.

To summarise, there are three main concerns when studying figurines as art. Firstly, there is the tendency to set figurines apart from other types of material culture. Figurines are ‘special’, they are ‘artistic expressions’ and this separates them from other functional objects which are seen as ‘technology’. As we have established, this divide between art and technology only evolved in the 18<sup>th</sup> century. Figurines are not seen as technology, they are not functional, and as such do not have to be studied as other archaeological artefacts. This classification of figurines as art hampers research in a practical way as well, as technical studies on figurines can be problematic to undertake. Secondly, by classifying objects as art, we are using categorisations that likely had no meaning for the societies under study. The unwillingness to designate figurines as art does not stem from a superiority complex, as Garfinkel implies. Nor does it imply an underlying assumption that these ‘primitive’ early societies did not have a concept of aesthetics. It is simply unproductive to study objects using modern, western concepts and inferring, through these objects, aspects about the societies who made and used these objects. Thirdly, a major problem is the lack of contextualisation in the interpretation of figurines as art. This makes interpretations concerning the effects figurines have on their viewers, e.g. how they are ‘consumed’, universalistic and generalising.

## 2.2 FIGURINES AS SYMBOLIC REPRESENTATIONS

This last point brings us to a very closely related subject, namely the interpretation of what figurines mean. Meaning is sought in their appearance. As such research focuses on the questions: ‘what do figurines *represent* and what does this mean?’ Figurines are taken to be symbolic representations and visual communication.

### 2.2.1 SYMBOLS

A symbol is “*something that represents something else by association, resemblance or convention*” (www.ahdictionary.com). A commonly used methodology to decipher symbols stems from structuralism which is based on the principles of the study of linguistics. The roots of structuralism can be found in anthropology. Durkheim’s (1912) early influenced linguist De Saussure (1959), who developed a general theory of commu-

nication through signs (Corbey, Layton and Tanner. 2004, 368). De Saussure made an essential distinction between language as it is spoken by any individual speaker (*parole*), and the underlying codes, rules and norms which structure the system of signs that make up language (*langue*). It was anthropologist Claude Lévi-Strauss who adopted Durkheim's and De Saussure's work and with it created his structuralist approach in the 1950s and 1960s. Structuralism focuses on the systems of signs, *langue*, making a further distinction within the sign between the signifier (for example, a word) and the signified (that which the sign refers to) (Corbey, Layton and Tanner 2004, 368; Tilley 1989, 185). This *langue* has no basis in reality; the relation between the signifier and the signified is arbitrary and is based on conventions. Furthermore, in *langue*, it is the relationship between signs where meaning resides, not in individual signs (Tilley 1989, 185-186).

This semiology/structuralism has subsequently been applied to analyse many other parts of culture outside of language. Lévi-Strauss asserted that this underlying structure of language was also valid regarding certain aspects of society such as mythology, ritual and art. These to him were simply different media in which this same structure manifests itself. They are transformations of each other, all based on the same set of rules (Lévi-Strauss 1969 in Tilley 1989, 186-187; Verpoorte 2001, 19).

A major contribution in the field of structuralist approaches was Hodder's 1982 volume: *Symbolic and structural archaeology*. Hodder's intended to take the already extant structuralist methodologies and apply them to the analysis of societies. Thereby he meant to go beyond mere functionalist analyses as advocated by New Archaeology and attempt to explore the meaning of material culture within specific cultural contexts. As Hodder (1982b, 7) states:

*"The concern must be to examine the role of material culture in the ideological representation of social relations. Excavated artefacts are immediately cultural, not social, and they can inform on society only through an adequate understanding of cultural context. Material symbolization is not a passive process, because objects and activities actively represent and act upon society.... It resides also in the ambiguous meanings of material items. Unlike spoken language, the meanings of material symbols can remain undiscussed and implicit. Their meanings can be reinterpreted and manipulated covertly".*

As this statement verbalises, there are many issues with viewing material culture as '*langue*' or texts to be decoded. Foremost, linking the identified symbols to the idea/concept they relate to can be extremely problematic. Meanings are diverse and often seem arbitrary. The diversity and often seemingly arbitrary nature of symbols is to some extent related to the diversity of culture; meaning is created within a cultural framework (A Campo 1994, 4, see also Clark 2007). Therefore, one needs to be part of or intimately familiar with the cultural system to be able to interpret them. When writing texts (be they actual texts or spatial patterning or material culture as texts), we can say that specific rules are followed, and structuring principles are present. Furthermore, signs have meaning by their relation, specifically by being placed in an abstract and internally structured code of presences and absences, similarities and differences. Outside this structure, they lose their original meaning.

### 2.2.2 MEANING

Two very important aspects in Hodder's analysis are now commonplace in archaeological thinking. First, because the creation of material culture is an active process, meaning is often non-discursive and subconscious. People do not always consciously set about creating meaning, it is sometimes a secondary outcome of the process of creation (Hodder 1989, 73). Second, even within a single culture, meanings can be multiple and variable. As indeed the earlier quote from Hodder reiterates; symbols can be used and manipulated. There is no single correct way to 'read a text'. A further complicating matter is the existence of multiple layers of meaning. For example, red stands for blood, blood is related to danger, and so on. Symbols can also represent many different concepts at once, the correct meaning being inferred through their context (Hodder, 1989, 68-69). So how can we hope to understand symbols, especially those left behind in early prehistoric contexts?

In his work on Palaeolithic figurines, Verpoorte (2001) questions the validity of the concept of representational symbolism in figurines. According to him, there are two methodologies to approach the meaning of figurines. The first posits that the object is a depiction of its meaning. The object refers to, stands for, is a symbol for, or an image of its meaning, i.e., some ideal concept or a real thing. The second method suggests that the meaning of an object is found in its use and in the material relations in which it functions. What an object depicts, if it depicts anything at all, is one of any number of relations in which the object stands. Interpreting meaning through the first method, by seeing objects as texts, is impossible in prehistoric contexts because we know too little about a given culture and our informants are gone. If, however, we interpret meaning as existing in the relation of things, then archaeologists can reveal something through an investigation of these relations. Contextual analyses of material remains reveal meanings that participants may or may not have been able to articulate (following Hodder, see above). Our interpretation, in this way, is never an *emic* account, because we cannot hope to understand meaning as it existed in the heads of participants.

### 2.2.3 REPRESENTATION

Verpoorte raises another very relevant point about representation in general and figurines in particular when he highlights the underlying assumptions in our very terminology. If we name something an anthropomorphic figurine, there is a strong suggestion that the figurine in fact is a representation of a human being. This assertion is always accompanied by a further qualification, namely that the figurines are not just representations of human beings, they are representations of human beings in a specific style. So, if an anthropomorphic figurine is deemed predominantly realistic, they refer to real people. If they are not realistic, then a symbolic interpretation seems more appropriate (Verpoorte 2001, 103, cf. A Campo 1994, 15).<sup>2</sup> The problem with this mode of inquiry is that this relation of similarity is already implied in the definition and criteria by which anthropomorphic figurines are identified. However, it is circular reasoning to

---

<sup>2</sup> In Near Eastern figurine studies the realistic, albeit at time exaggerated, human (female) figurines have in the past been more commonly interpreted as representations of the divine than 'real people'.

identify representations of humans by the similarity to a human body shape and subsequently describe how human beings are represented by that same criterion. Because figurines resemble human beings, they are representations of human beings and because the figurines do not resemble human beings, they are non-realistic representations of human beings. But why then would they be representations of human beings in the first place (Verpoorte 2001, 103)?

However much two things resemble each other, Verpoorte argues similarity in appearance is not sufficient for one to be a representation of the other. To say that: ‘representation is a matter of imitation and that realistic representation is copying an object the way it is’, we have to ask ourselves: ‘but what is the way a human is’? The crucial aspect is that it is copying only one of the ways it is: to be a realistic representation, it must be seen under aseptic conditions. However, as Verpoorte argues: viewers are never neutral, nothing is seen nakedly as it is (Verpoorte 2001, 104). Goodman (1976 in Verpoorte 2001, 104) argues that realism is relative to the system of representation standard for a culture or person at a given time. Realism then is not a matter of a constant relation between a picture and its object, but a matter of habit and familiarity with both objects and representational conventions.

Research focussing on representational objects is haunted by figurative thinking. There is a powerful urge to identify forms and patterns as depicting something, however abstracted they are. Every representation is assumed to have some meaning and figurative, realistic and naturalistic are all synonymous adjectives for objects we can recognise and identify, whereas abstract, geometric, and schematic are adjectives for objects we cannot. However, in this approach geometric systems are viewed not as abstractions, but as an encoded system of representation—a symbol system. The outcome is the same: if we are not familiar with the code, we cannot read the pattern (Verpoorte 2001, 106).

Within Near Eastern figurine studies there are multiple examples to be found for this focus on figurative thinking. For example, Lesure (2011), in his work on Near Eastern figurines, created the so-called ‘seated anthropomorph complex’. In this framework naturalistic to highly schematic forms are interpreted as being centred around a single theme, namely seated anthropomorphic figures: “*schematized humanness and seated posture are core themes, embellished on occasion first by obese thighs, then by female breasts, and finally by additional anthropomorphic attributes that remain sufficiently subtle to not distract from the main theme*” (Lesure 2011, 161). Some items are classified by Lesure as being so abstract that they look like geometric tokens—so why should they then be interpreted as seated anthropomorphic figures?

Another example is the aforementioned Yarmukian figurines. At this site clay figurines were found alongside ‘pebble figurines’, which are incised pebbles thought to represent anthropomorphic figures in various levels of schematisation, some having only a few incised lines. However, both the clay and pebble figurines are interpreted as variations on the same theme where the most schematic patterns on pebbles represent the ones in which only “*the most important symbolic details are retained*” (Garfinkel, Korn and Miller 2002, 206). All the figurines are seen to convey the same religious-symbolic-ideological message creating a circular relationship between the clay and pebble figurines; the detailed clay figurines help to interpret the carvings

on pebbles. In turn the pebbles, by only showing the most important features, help to identify which details on clay figurines are most important (Garfinkel, Korn, Miller 2002, 206). This is a prime example of circular reasoning: anthropomorphic figurines are used to interpret an abstracted pattern as being anthropomorphic. Subsequently, based on that interpretation of abstract patterns as being human representations, it is used to interpret the anthropomorphic figurines.

At this point, it is important to realise that the discussion has focussed exclusively on anthropomorphic figurines. Verpoorte (2001, 109) remarks that zoomorphic figurines are mostly interpreted separately (if at all). According to him, this can be explained by the realistic style of animal representations which leads archaeologists to often favour an ecological interpretation for these figurines. In contrast, supported by a non-naturalistic style, anthropomorphic figurines are interpreted as reflections of complex social issues. More examples in figurine research can be found detailing how processes of abstraction, exaggeration and so on, are conscious choices aimed at highlighting the most important symbolic elements in anthropomorphic figurines (as exemplified by Garfinkel, Korn and Miller 2002, see also Bailey 2005, 2007).

Returning to Lesure's (2011) 'seated anthropomorph complex', zoomorphic figurines are classified as being naturalistic in style. It is also mentioned that on quite a few of the sites under study they (greatly) outnumber the seated anthropomorphic figurines, but nothing more is said of them. Garfinkel, Korn and Miller (2010) never mention the animal figurines found at the site except as a side note. They are reported as being *ad-hoc* items of inferior quality and certainly not 'art' like the anthropomorphic figurines (Freikman and Garfinkel 2009, 13; Garfinkel, Korn and Miller 2010, 259-260). Tellingly, in a 1999 catalogue for an exposition on Yarmukian culture, only one example of a zoomorphic figurine is shown in a chapter dealing with the economy of Yarmukian society supporting Verpoorte's claim (Garfinkel 1999, 41; see also Freikman and Garfinkel 2009, a paper that deals with the Yarmukian zoomorphic figurines as 'hunting magic').

To summarise, interpreting figurines as symbolic messages is extremely difficult. The creation of material culture is a dynamic process and people did not always consciously 'create' meaning. Furthermore, meaning is not static, not even within one culture is meaning uncontentious and for us to get to what any given figurine meant is an unattainable goal. As researchers, we are also very eager for material culture to represent 'something' as the discussion of Verpoorte shows. In figurine studies this has led to a further division between anthropomorphic and zoomorphic. Furthermore, for figurines, the implication regarding function is often the same. As soon as an object is considered to represent 'something', it is a figurine, and the function of that object seems sufficiently explained. Consider Lesure's very abstracted 'seated anthropomorphic' figurines: if these geometric clay objects were interpreted differently, for example as tokens, we might postulate a very different story for these objects: gaming pieces, tokens or counting devices—objects to which we give a clear function without much hesitation.

### 2.3 FIGURINES AS RITUAL OBJECTS

The issue of how figurines function beyond ‘representing something’ brings us to the final common strand in research; figurines as being ritual objects (see f.e. Kuijt 2008; Niculescu 2011; Twiss 2001; Wilburn 2019). It is fair to say that in archaeology ritual has often been viewed as the opposite of causal functionality and rationality. Ritual is the label we put on those material remains that are not easily explained in these terms. In anthropology definitions of ritual often stress their symbolic, non-technical and formal nature, and archaeology largely follows this scheme of explanation (Brück 1999, 314-315; see also Bell 1992 and references therein, see also Kyriakidis 2007; Rappaport 1999; Renfrew 2007).

There are many problems with the notion of ritual and how to identify it in the archaeological record without the category of ritual losing its analytical value (Brück 1999, 315). The term ritual is not recognised in all societies presently and most likely this also holds for past societies. Furthermore, the idea of a ritual/secular dichotomy between forms of action is fallacious, because through archaeological materials we are likely researching a spectrum of activities that can all be ritualised in varying degrees (see Bell 1992).

In anthropology, the notion of efficacy and rationality are widely discussed and remain highly contentious topics. This contentiousness centres mostly on issues of mental structures and cognition and whether these are similar or different in the cultures under study. Mauss (1935) already asserted that technology, or technique, should include ‘body techniques’ (e.g. movements like walking and swimming). Taking this argument even further he classified magic (it is posited here that this holds for ritual as well) as being technology, as they are all “*technical acts with tangible effects that can be assessed and described*” (Mauss 1935 in Warnier 2009, 460). Accepting Mauss’ approach to technology as a scale of techniques; from the purely technical act to techniques of magic and ritual, how can we evaluate rationality and efficacy in these types of technologies?

It is essential to keep in mind the categories of *emic* and *etic* explanations because it is easy to see how efficacy becomes a problematic topic when dealing with ritual and magic as technology. Rituals and magic do not adhere to our western concepts of rationality and causality which follow empirical, scientific principles. Ritual acts, as seen by us, are thought to function very differently. They do not follow a mechanical link between cause and effect, in essence, they do not seem to do anything in a material sense. The efficacy of magic or ritual is seen as operating in a contrary manner. Mauss (1950, 12) described it as the actions in themselves not bringing about the effect. In other words, it is not the actual beating of the drum or stirring the water that brings about the desired effect. There is no observable cause and effect, magic (ritual) is ‘symbolic’ (Brück 1999, 318; Gell 1988, 7).

Rituals and magic from an *emic* perspective, however, are believed to be efficacious in a very material sense. To the communities under study, they are intended to affect the outside world in a real way. To deny this would be to deny and refute their reality, their way of life and their ‘technology’ as well (Gell 1992). As Coupaye (2009, 450) states: “*all anthropological (and archaeological) methodology is etic in its nature and purpose*” (see also Gell 1992, 41). So, as anthropologists/archaeologists we might assume, *a priori*, that ritu-

al and magic techniques have no actual efficacy on the material world, they are not 'real'. How do we deal with the 'technology' of ritual and magic then? How do we factor in these seemingly irrational acts? Hence the key question arises; who's reason and who's logic? Technology always needs to be contextualised in the right frame of reference (Lewis 1986, 419). We term some things magic or ritual because we do not believe in their material effectiveness. They are based on different assumptions than the ones we use to understand the world. To quote Lewis (1986, 421): "*If magic were true, we would not call it magic, but science*".

More recent research focuses on studying ritual and magical acts and associated material culture as part of a technological system. An eloquent definition of technology is given by Coupaye (2009, 436): "*The study of interactions between people and the physical world, whether it is one's own body or that of others, leading to a real or supposed transformation*". This definition is appealing because it is holistic and inclusive, acknowledging that technology is about *interactions* and affects both *people* and *materials*. It is important to realise that all people try to make sense of the world by making observations and by manipulating their material surroundings; all peoples have systems of technology (Stein Frankle and Stein 2005, 138-139). By analysing magical technology in terms of our scientific epistemology, we are only reproducing the logic of our system and fail to appreciate the possibility of an alternative (Brück 1999; Sax 2004, 301).

Another important aspect to consider when considering actions as being materially efficacious is that the division of object and subject might be a modern dichotomy much in the same way the distinction between ritual and secular is. Warnier (2009) discusses ritual and magic as technology and argues them to be technology efficacious on the subject and the object (cf. Coupaye: affecting both materials/objects and people). Taking the argument further, Warnier does not see how we can look at human actors as being separate from the material world as they are "*immersed in material culture and language*" and these elements are essential parts of the subject (Warnier 2009, 465). Ritual acts are sensorimotor actions performed in the world and by acting on it. In the process, subjects are transformed and thus Warnier sees ritual and magic as acts that are efficacious on the subject foremost, even if they are intended to be efficacious in a material sense (Warnier 2009, 465-466).

If we accept that the distinction between subject and object is not universal, it is harder to make the subject/object distinction when it comes to the notion of efficacy. This makes Warnier's approach very interesting in an attempt to bridge the gap between epistemological opposites: object/subject, material culture/body and technology/magic (Warnier 2009, 466). For example, if the breaking of a figurine is an act intending to bring about an effect in the outside world, we might find it hard to see the causal relationship. However, if we see people as an inseparable part of the world, actions that affect the subject, do affect the world as well.

Gell (1988, 1992) introduces a further interesting aspect to the discussion, namely that magic/ritual and technology can be securely interwoven. He refutes magical acts as being opposed to knowledge, as knowledge removes uncertainty and thus the need for magic. Rather: "*Technological acts can have uncertain outcomes, and we will try to secure the most favourable one by following techniques which we believe will be most efficacious*" (Gell 1992, 57).

As has become clear when dealing with notions of efficacy in ritual, the tension between the *emic* and the *etic* is ever-present. Efficacy from an *emic* point of view can be very literal, we are the ones who interpret it as symbolic. It is unproductive to refer to technologies as being rational or irrational according to our western understanding, as it does not get us any closer to understanding the how and why of the people under study. As *etic* outsiders, it is hard to deal with technologies that we do not understand. Paradoxically, it is precisely because we do not understand these technologies that we have to engage with the *emic* account of why things are done in a certain way. Therefore, we must adhere to Mauss' premise which interprets acts as efficacious as understood by the actor. Only then can we move beyond judging technology to our standards of logic and causality. Therefore, in studying ritual it is important to realise that ritual as a category is a modern analytical construct that likely did not have any meaning for people in the past. People have a particular way of seeing and being in the world which, through beliefs and values, are materialised in behaviours and materials. All actions are performed through this set of beliefs and values. In this sense, all aspects of society are part of this system of a symbolic value system, which is not an abstract concept that resides 'in people's heads' but is acted out daily in all aspects of society (Brück 1999, 326, see also Nanoglou 2008).

An important implication of seeing ritual as not being technological is that the artefacts used in perceived ritual acts—in our case figurines—are not studied as efficacious, functional objects as, for example, flint tools or cooking pots. Instead, figurines are seen as symbolic objects, e.g. non-utilitarian symbolic artefacts (cf. A Campo 1994, 3). If we accept that ritual acts, as seen from the *emic* perspective, were indeed efficacious and logical we also have to accept that ritual material culture served a 'real' function. As such, they were made in such a way to best perform this function and we need to engage with their materiality and technological properties as an essential part of our analysis.

## 2.4 AN ARTEFACT APPROACH TO FIGURINES

The three modes of researching figurines as discussed above have a shared implication, namely that the importance of figurines is not thought to reside in their material properties and the conditions of their production and use. Instead, priority is given to their visual characteristics: their form, style and possible symbolism. It is not reputed here that figurines could not have been symbolic items, art (or made with aesthetic considerations in mind) or ritual items. Indeed, they could have been all these things and more besides. The problem lies, and this is especially true for prehistoric contexts, in the difficulty of interpreting meaning using these modes of research.

There is a tension within figurines studies: there is difficulty in trying to get to the meaning of figurines through a non-discursive epistemology. However, there is also a lack of rigorous, scientific methodologies in figurine studies. Figurine studies have to move beyond being descriptive and incorporate the archaeological sciences to a far greater extent than they have thus far (Jones 2004, 329).

We need to return to figurines as artefacts. Within the material culture turn came about as an attempt to close this gap, intended to refocus the archaeological endeavour back to its 'core business', namely artefacts

and their materiality. However, some argue the material culture turn has not been a resounding success as the material culture studies continued to be focused on solving questions related to the relationships between the social/cultural and ‘the material’ (Hicks 2012). It has thus always remained anthropogenic and it never truly focussed on the material aspects of objects. This has led some to revolt against material culture studies and the seemingly indiscriminate use of the term ‘materiality’ when, in fact, researchers hardly ever deal with the actual material properties of objects (cf. Ingold 2007; Robb 2020).

Approaches subsumed under ‘new materialism’, such as assemblage theory (Fox and Alldred 2019; Buchanan 2021; Hamilakis and Jones 2017), entanglement theory (Hodder 2011, 2012a) and actor network theory (Olsen 2010, 2012) go further in decentralising humans and redefining archaeology as a discipline of ‘things’ (Whitmore 2014, 203; cf. Gamble, Hanan and Nail 2019; Shanks, Webmoor and Witmore 2012).

Whilst these approaches offer interesting ways to rethink ‘things’. However, I feel within figurine research there is a dearth of studies that actually engage with the basics of materiality, production, use and deposition. The aim of this thesis is to establish a usable methodology to do so through an artefact approach: which I understand to be a systematic analysis of all the stages of an object’s life biography. One might object that aiming to understand how figurines were made, used and disposed of, is not very ambitious compared to the approaches described above. One can argue that it would be a mistake to reduce figurine studies to a ‘technical’ study of material properties and *chaîne opératoires*. However, as said, this is something that I find to be missing in many figurine studies.

At this point, it is good to justify the continued use of the term ‘figurine’ after problematising the nature and interpretation of these objects. Whilst I acknowledge the issues with the term figurine, the term is maintained here. I find it unwise to change it here as the term ‘figurine’ is commonly known and understood. Moreover, to subsume all artefacts under the same header of material culture would mean losing much of their analytical value. Categorisations are needed, as long as we bear in mind that they are modern constructs.

The artefact approach here employs the *chaîne opératoire* which serves to analyse the production process of figurines. Mauss, with his concept of ‘total social phenomenon’, founded this approach with his assertion that technology is informed by a social and historical context. He also posited that in the process of creation, people are themselves transformed (Martinón-Torres 2002, 30). Therefore, an investigation of technical actions, provides information on the social background which these actions take place (Martinón-Torres 2002, 30). Leroi-Gourhan described the *chaîne opératoire* as “*the sequential technical operations by which natural resources were transformed into culturally meaningful and functional objects*” which is an important innovation as it focuses on the process of production and, furthermore, that each step in the sequence is relevant (Dobres 1999, 125, cf. Martinón-Torres 2002, 31). The *chaîne opératoire* is now often considered more broadly and incorporates not just the production of objects but their entire life history (Martinón-Torres 2002, 33).

The technological study of figurines is combined with an emphasis on the importance of making (see, for example, Ingold 2007, 2011), focussing on figurines as objects made with a function that resides not only in form but also in shaping the objects, recognising that choices in the manufacture and the materials used most likely were both functional and symbolic in some way (see, for example, Broman Morales 1990; Martin and Meskell 2012; Verpoorte 2001). This approach builds upon more recent trends in figurine studies, where attention is firstly on figurine materiality such as the early, influential work of Bailey (1996, 2005, 2013) asserting that figurines are objects in their own right, with material properties that need to be taken into account. Importantly, within figurine studies, he was influential with his ideas on interacting with figurines as a sensuous experience and linked to this the important realisation that figurines are objects with agency (see also Gell 1998).

The notion that (material) properties are important to understand the efficaciousness of figurines of course means we need to better understand the properties of these materials. This can be achieved by employing technological studies combined with an anthropological approach to production. Whilst it is commonly accepted that choices in what materials are used and how objects are made were both informed by technical and social considerations, the difficulty is how we can assess these aspects in respective case studies in a way that goes beyond mere description and generalisations.

Within figurine studies we are often at a disadvantage as historically there has been little emphasis on recording information on these aspects and without basic information on the technical aspects of materials and production, we cannot get to the second step of interpreting any potential meaningfulness within the selection of materials and process of making. Unfortunately, for many figurines, any type of invasive scientific analyses are not allowed and thus we have to rely on non-invasive methodologies. Within these constraints, Catalhöyük is a prime example of how we can still gain a good level of detail on material properties.

However, even for this well-recorded dataset, reconstructing a complete *chaîne opératoire* is very difficult. In the absence of a reductive productive strategy for figurines (contra stone technologies), the main difference in the figurine's *chaîne opératoire* consists of the markings left on the object through each stage in its life history. Whilst the approach aims to identify the complete sequence of modifications that form a figurine's life history, we excavate the final stage—its eventual deposition or discard. The only evidence we have to reconstruct the mid-life stages of the biography is the markings left on the figurines (see Gaydarska *et al.* 2007). These markings are not always there, due to post-depositional conditions, or even because production ended with smoothing away signs of how an object was made. The challenge is then to find a way to systematically record the information available for each object, but still enable comparison between objects, object categories and a complete corpus.

There is an added difficulty as a detailed recording of material properties and aspects of production have not been recorded for the figurines from Tell Sabi Abyad. Therefore, there is a need for a methodology that enables a meaningful comparison between the two sites. The intent here is not to present a complete *chaîne opératoire*, instead, the focus will be on those aspects of material properties, choices within production and

use-wear for which information is available for both datasets. The approach followed here is what Kuijpers (2014, 2017) terms the ‘sensory *chaîne opératoire*’. In his work on Bronze Age swords in Europe, Kuijpers distinguishes between discursive and non-discursive knowledge. He argues that the skill involved in making objects includes both: it is learned and experienced behaviour that involves motor skills, but also a knowledge of the materials. This includes knowing their affordances and restraints, coupled with knowledge concerning the appropriate way to do things (cf. the ‘ritual’ or symbolic aspects of technology; Kuijpers 2014, 137). He argues for a more *emic* approach where we do analyse objects only through our modern scientific analyses. He incorporates other aspects in his analysis, such as the malleability, hardness/softness of materials, their texture, feel, smell and colour. It is through these senses the makers (and users) of an object appreciated and understood the world around them (Kuijpers 2014, 143).

In this analysis perceptive categories have been formulated, or those aspects of the material(s) that are recognisable and (possibly) relevant to craftspeople and elements that reflect choices made during the production process. For material properties, these are the presence and type of inclusions for both sites and clay type for Çatalhöyük. With information on these aspects, the aim is to discern intentionality within clay selection and preparation. A further qualification is clay colours, a characteristic not only inherent to the material but also one that can be altered through heat exposure. Therefore, potential patterns in colour and intentional heat exposure will also be discussed.

Within production, in addition to clay selection, the perceptive categories have been identified as clay selection, are objects composite or not, tool use, the level of smoothing and any additional surface treatment (slip and paint). Furthermore, the shape and different shaping methods for figurines and specific elements, such as legs and horns, will be discussed when possible.

As highlighted before, figurines are not static images and instead should be researched as a process (see for example Gaydarska *et al.* 2007; Insoll 2017; Meskell *et al.* 2008). Therefore, the *chaîne opératoire* is embedded within a larger aim of creating object biographies for figurines. This is relevant because, at times, there is no clear line separating production from use in object life histories. As Hurcombe (2007, 536) reminds us: “*The patina of long use, seen as shine but also felt, may itself convey meaning as part of the object narrative. Breakage signals the end of one part of the object biography, however, it can signal that the object entered another phase in its life history*”. This is especially relevant for figurines, which show many signs of use, such as being punctured, broken, exposed to fire and (intentionally) broken.

In this thesis the types of use-wear that will be discussed are intentional damage of figurines (recognised as the puncturing, gouging and breaking of objects), handling polish and, finally, markings likely not related to figurine production which are predominantly fingernail impressions and impressions of (organic) materials.

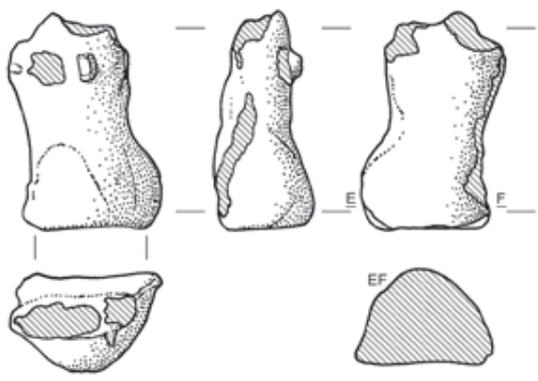
Finally, depositional contexts will be discussed in terms of being external or related to buildings and/or features such as bins, hearths etc. The aim is to examine patterning in these different contexts and to dis-

tinguish between secondary discard and primary, intentional, deposition of objects. Furthermore, spatial patterning in settlement levels will be analysed.

The resulting *chaîne opératoires* and broader life biographies will not be a complete reconstruction of object biographies but a reflection of certain choices and ascertainable aspects of production, use and deposition. While this collective visualisation of all figurines does not allow us to 'follow' individual figurines, it grants an insight into the most common application of techniques, and the common links between techniques, patterns in figurine use and deposition. The intent is not to provide a thick description of a selection of figurines, instead, the focus is on the complete corpora of clay figurines at both sites including fragmented objects that cannot be assigned to a type. Such an approach will allow for statements about patterns within and between types of figurines and between sites.

Whilst, it is beyond the scope of this thesis to explore the links between figurines and other forms of material culture in terms of similar *chaîne opératoires* and life biographies in great detail. However, the importance of understanding figurines as part of, and functioning within, a wider network of material culture or a 'socio-material ritual habitus' (Antczak and Antczak 2017) cannot be understated. There will therefore be some discussion on other forms of material culture which is essential in answering the question of how to think differently about figurine categorisations.





# CHAPTER 3: RESEARCH BACKGROUNDS

## Introduction

This chapter sets out the research backgrounds, beginning with a general overview of figurine production in Mesopotamia and Anatolia from its earliest Natufian beginnings up to the Halaf period.

Subsequently, Çatalhöyük and Tell Sabi Abyad will be discussed in turn, focussing on their excavation history, general site overview and general remarks on subsistence and material culture as well as discussing the various ways in which both sites fit into the larger Neolithic ‘world’ of Upper Mesopotamia and Central Anatolia. It is impossible to do complete justice to the intricacies and many particularities of either site. These overviews are therefore not exhaustive, and references are given throughout the text for further reading.

This chapter will conclude with an in-depth discussion that focuses on selected research themes, comparing Çatalhöyük and Tell Sabi Abyad and highlighting the unique social settings at both sites. Three themes have been selected: 1) mega-sites and history houses vs. shifting settlements; 2) sealing practices and personal property; and 3) changes in the later levels likely influenced by the 8.2 KYA event.

## 3.1 OVERVIEW OF FIGURINES IN THE NEAR EAST FROM THE EPIPALAEOLITHIC TO THE HALAF

This section offers an overview of figurines in the Near East from their earliest occurrence in the Natufian up to the Halaf period. The practice of figurine-making continues beyond the Halaf and into the Ubaid and later periods, but Halaf is chosen here as a cut-off point, as both the terminus of Tell Sabi Abyad and Çatalhöyük are dated pre-Ubaid (see fig. 3.1 for comparative chronologies of Upper Mesopotamia, Anatolia and the Levant and fig. 3.2 for a map showing the sites mentioned in this overview). The inclusion of Natufian and early PPNA figurines is deliberate as it is important to understand the emergence of figurines from their earliest beginnings—they do not ‘appear’ out of nowhere. This section relies heavily on syntheses offered by other authors, especially the work by Rollefson (2008) and Campbell and Daems (2017). Where possible these syntheses are supplemented by either referring to other, unmentioned, sites or elaborating more on the finds of sites in the core area of Central Anatolia and Upper Mesopotamia where Çatalhöyük and Tell Sabi Abyad are located.

The term Halaf is used here, following terminology still commonly employed in chronologies including the one employed at Tell Sabi Abyad (see, for example, Akkermans and Nieuwenhuyse 2019; Nieuwenhuyse *et al.* 2013). However, it is by no means used here with the past ideas of the ‘Halaf’ as a bounded

cultural identity (Bernbeck and Nieuwenhuys 2013; Nieuwenhuys 2017, 840). Moreover, Tell Sabi Abyad has been an important site in recent research, highlighting local developments of constituent elements of the Halaf that have roots in times long before the introduction of Halaf pottery and as such highlighted the complex interactions on local and hyper-local scales (Bernbeck and Nieuwenhuys 2013, 21).

### 3.1.1 LATE EPIPALEOLITHIC–NATUFIAN PERIOD

The earliest figurines in the Near East come from the Late Epipaleolithic and represent both animals and humans. Summarising from Rollefson (2008), the following can be observed. First, it has to be stressed that any form of imagery is very rare in this period. Anthropomorphic figurines are primarily carved out of soft stones, mostly calcite and limestone. Two well-known examples were found in Israel: a human head from el-Wad and a pair of intertwined figures from 'Ain Sakhri (Boyd and Cook 1993; Garrod 1957; Garrod and Bate 1937, fig. 3.3: 1). Other finds include a human head and a human torso and two engraved pebbles showing, arguably, stylised faces at 'Ain Mallaha (Israel; Perrot 1966; Valla *et al.* 2001). Gilgal (Israel; fig. 3.3: 8-11), dated to the Natufian and PPNA, yielded both clay and stone anthropomorphic figurines.

Animals are more commonly incorporated as visual motives on utilitarian objects. Very often these are bone sickle hafts (fig. 3.3: 2-4). El-Wad yielded a sickle haft with a deer or gazelle (Garrod and Bate 1937; Valla 1995). At Kebara Cave (Israel) two complete sickle hafts were found as well as carved bone fragments that were possibly part of sickle hafts (Garrod 1957). At Hallan Çemi (Turkey) animals were depicted on stone bowls and pestles, depicting a variety of animals interpreted to include goats, gazelle, possibly bovines and pigs and boars (Rosenberg 1999; Rosenberg *et al.* 1998).

Cal BC dates	Upper Mesopotamia	Anatolia	Levant	
5000			Early Chalcolithic	
5500	Halaf	Early Chalcolithic	Pottery Neolithic, Yarmoukian	
6000	"Transitional" Samarra			8.2 KYA Event
6500	Pre-Halaf	Ceramic Neolithic	PPNC	
7000	Early PN, Final PPNB		Late PPNB	
7500	Late PPNB	Late Aceramic Neolithic	Middle PPNB	
8000	Middle PPNB		Early PPNB	
8500	Early PPNB			
9000	PPNA	Early Aceramic Neolithic	PPNA	
9500	Khamian			
10,000	Natufian		Natufian	
10,500				

Figure 3.1: Comparative chronologies of Upper Mesopotamia, Anatolia and the Levant. In grey the periods from which the figurines from the two case study sites derive. Compiled after Akkermans and Schwartz 2003; Belcher and Croucher 2016 and Twiss 2007

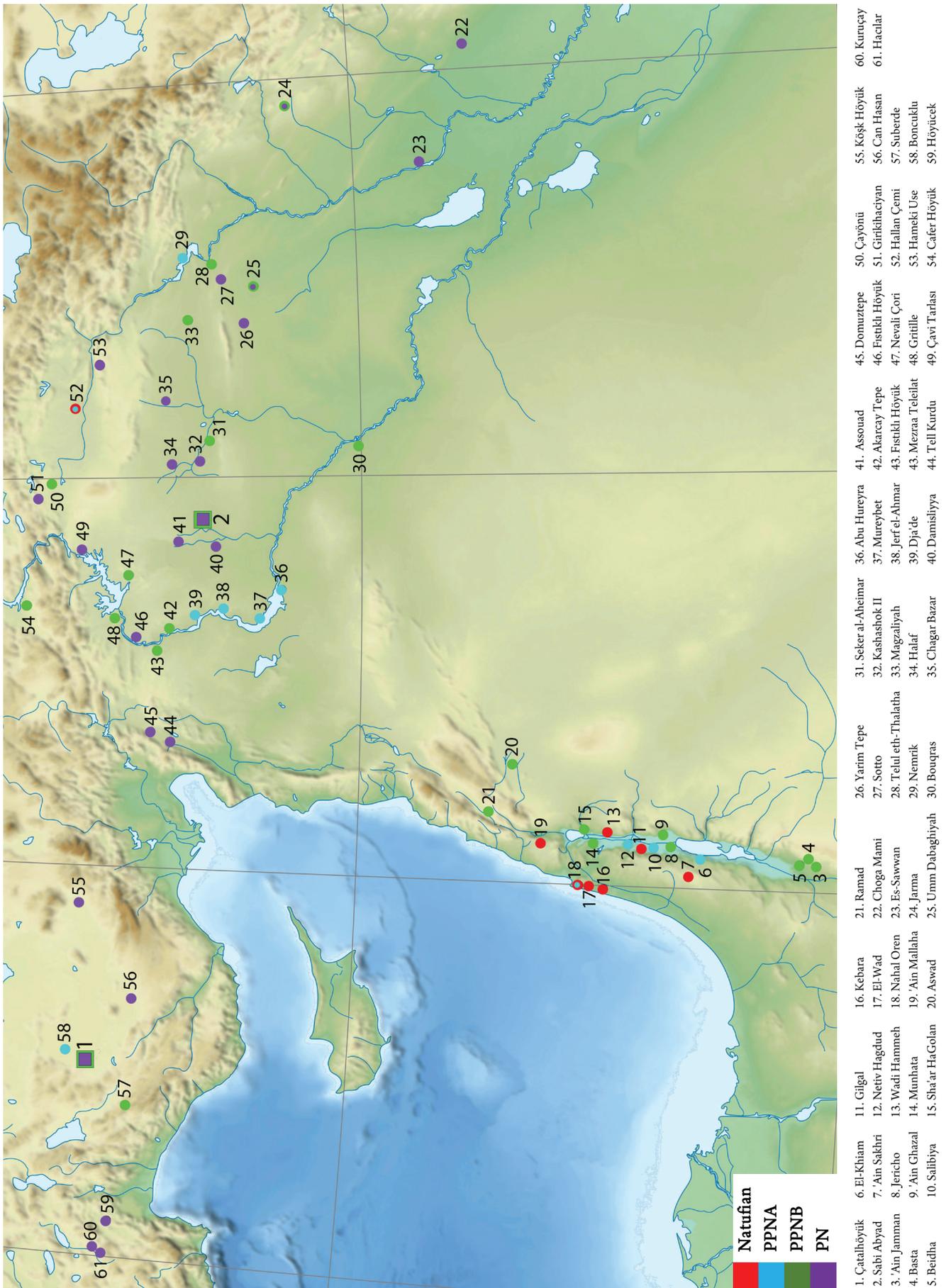


Figure 3.2: Map showing the sites mentioned in the figurine overview. Sites are colour-coded by period. Map by author, base map courtesy of [https://commons.wikimedia.org/wiki/File:Near\\_East\\_topographic\\_map-blank.svg](https://commons.wikimedia.org/wiki/File:Near_East_topographic_map-blank.svg)

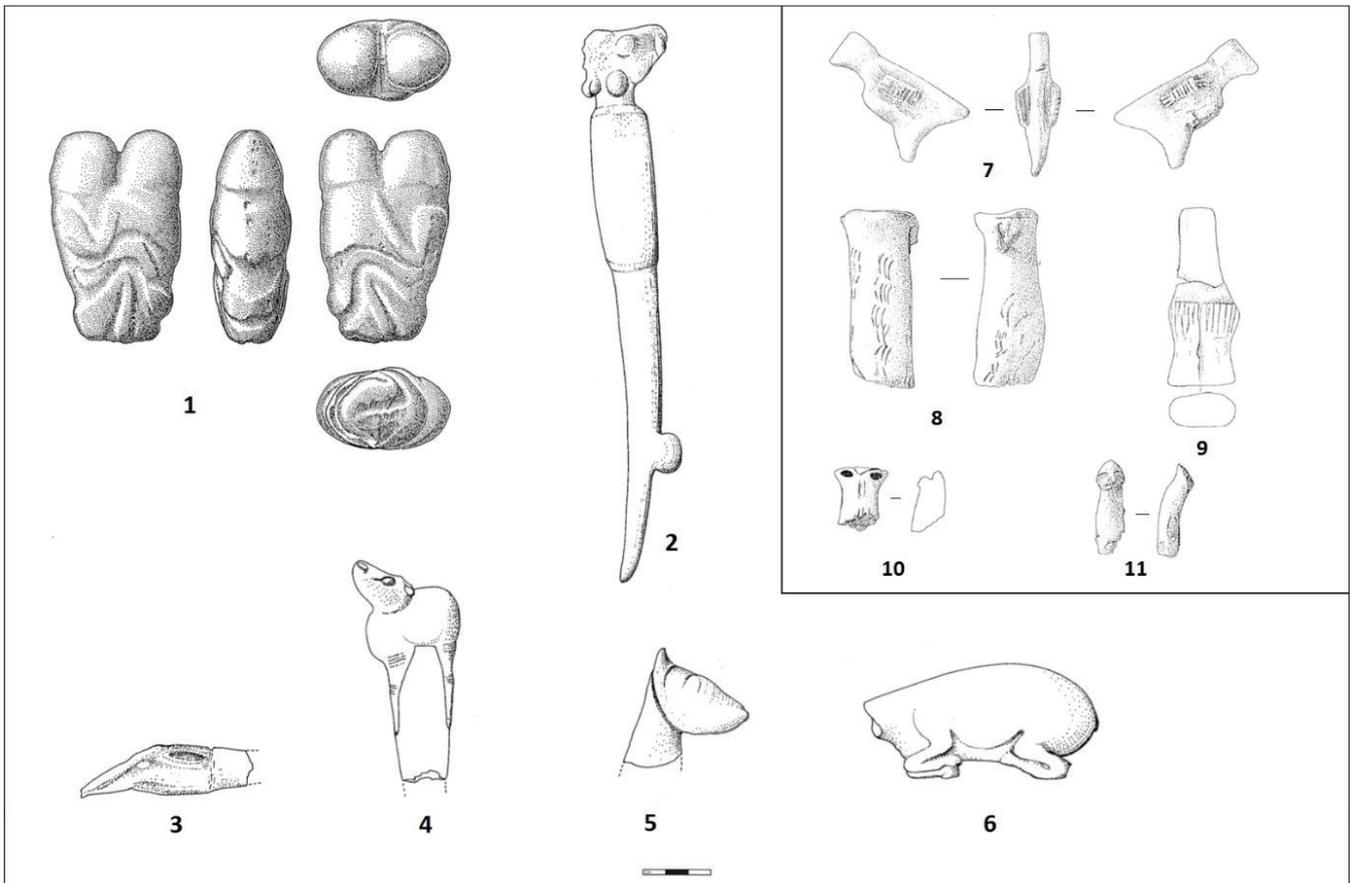


Figure 3.3: Natufian figurines/figurative objects. Anthropomorphic figurine from 'Ain Sakhri (1); haftings for knives from Mount Carmel (2-4); bone figurine from Nahal Oren (5); stone figurine from Umm ez-Zouteina (6). Insert (not to scale): figurines from Gilgal. Limestone bird figurine (7); clay anthropomorphic figurines (8, 10-11); limestone anthropomorphic figurine (9). Adapted from Boyd and Cook 1993, 400; Cauvin 2000a, 18 and Noy 1989, 15

Stone zoomorphic figurines come from Nahal Oren (Israel): a dog (?) head (fig. 3.3: 5), a possible unfinished animal and another animal (owl?) figurine (Noy 1991). The site of Wadi Hammeh (Jordan) yielded numerous stone and bone figurines (fig. 3.4: 1, 2 and 4). Three limestone animal figurines were found, of which two also have incised motives; a pestle with a zoomorphic figure at the terminal and a bone pendant depicting a stylised bird (Edwards 2013; fig. 3.4: 3 and 5). A phallic pestle and an anthropomorphic bone pendant were also found, although these identifications are very tentative (Edwards 2013, 316). A final example comes from Gilgal, a limestone bird figurine (fig. 3.3: 7).

Whilst some (e.g. Cauvin 2000a, 2000b) hold that imagery was essentially zoomorphic in this period, this is not the case, although it is true that anthropomorphic imagery is even rarer than zoomorphic imagery. Or, arguably, as Edwards (2013) argues: the imagery is essentially non-figurative, as by far the most common motives are geometric ones, incised on a range of portable items; plaquettes, pebbles, ground stone implements, bone etc. (see also Edwards *et al.* 2019, 610). Whilst the quantification of Palaeolithic 'art' is often uncertain due to differing excavation techniques and publications, an estimated 69% of the known corpus of Natufian motives are geometric patterns incised on this range of portable items (Major 2018).

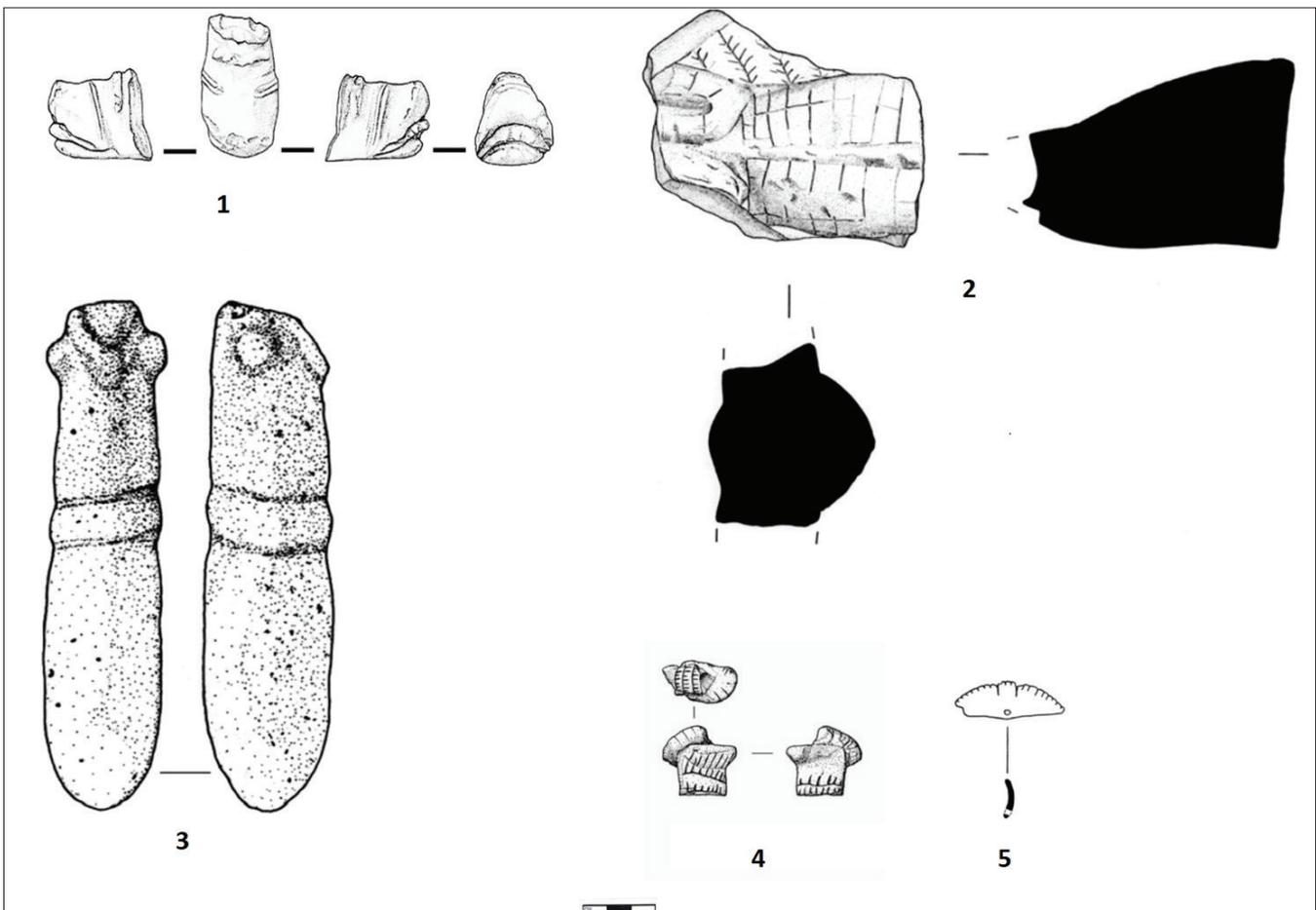


Figure 3.4: Figurines from Wadi Hammeh. Limestone zoomorphic figurines (1, 2, 4); basalt pestle with zoomorphic terminal (3) and bone bird pendant (5). Adapted from Edwards 2013, 313-315

### 3.1.2 THE PRE-POTTERY NEOLITHIC A PERIOD (PPNA)

In the PPNA regional differences in figurine practices start to become apparent. Animals tend to play an important role in the iconography of northern Mesopotamia, while they appear only very rarely in the southern Levant (Rollefson 2008, 394). Examples from northern Mesopotamia include figurines from the site of Nemrik (northern Iraq) where 29 elongated cylindrical objects—likely pestles—were found. These objects with animal heads at one terminus were all carved out of limestone. The animals have been interpreted as being vultures, eagles, bovids and indeterminate bird and animal species. One possible human head was found as well. Similar objects have been found at Hallan Çemi, Abu Hureyra, Jerf al-Ahmar and Dja'de (Rollefson 2008, 390). Clay figurines were also found, identified as pigs, boars, sheep and auroch. Five figurines could not be identified as being either animal or human (Kozłowski 2002).

In Mureybet (northern Syria) both stone and clay figurines were found, including six anthropomorphic figurines, of which four were made of baked clay and two of stone. Interpreted by Cauvin to be exclusively female, some are not clearly sexed (fig. 3.5: 1-3). These figurines are among the earliest PPNA clay figurines found to date (Campbell and Daems 2017, 571). A zoomorphic figurine of a bird was also found, carved from limestone and interpreted as an owl with possibly anthropomorphic characteristics (Pichon 1985).

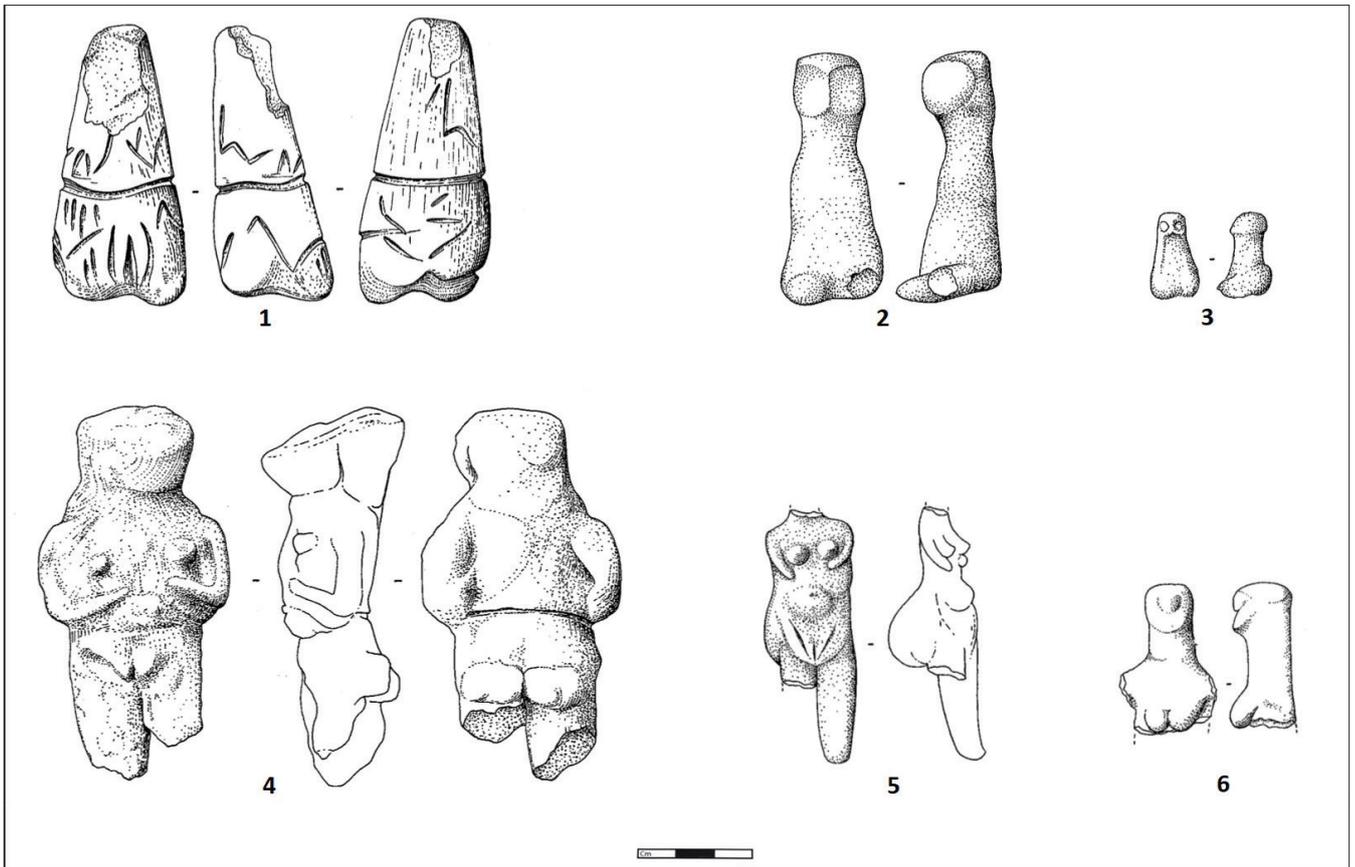


Figure 3.5: Figurines from Mureybet in stone (1 and 4) and baked clay (2, 3, 5, 6). Adapted from Cauvin 2000a, 27-28

Also in Syria, 22 bone figurines carved of *equid* phalanges have been found at Dja'de el Mughara. They show modification by carving and incising to emphasise aspects of the natural bone and render the lower body focussing on the stomach, pelvis and feet (Campbell and Daems 2017, 572-573; Christidou *et al.* 2009). Similar artefacts have also come from Tell Mureybet in the same region (Gourichon 2004: 222).

In the southern Levant stylised anthropomorphic figurines are the most common finds. Examples are known from Netiv Hagdud (Bar-Yosef and Gopher 1997), stone statuettes from Salibiya IX (Bar-Yosef 1980: 195; fig. 3.6: 1) and Gilgal (fig. 3.6: 4), Nahal Oren (fig. 3.6: 2), Mureybet (fig. 3.6: 5) and El Khiam (fig. 3.6: 3; see Rollefson 2008 and references therein)

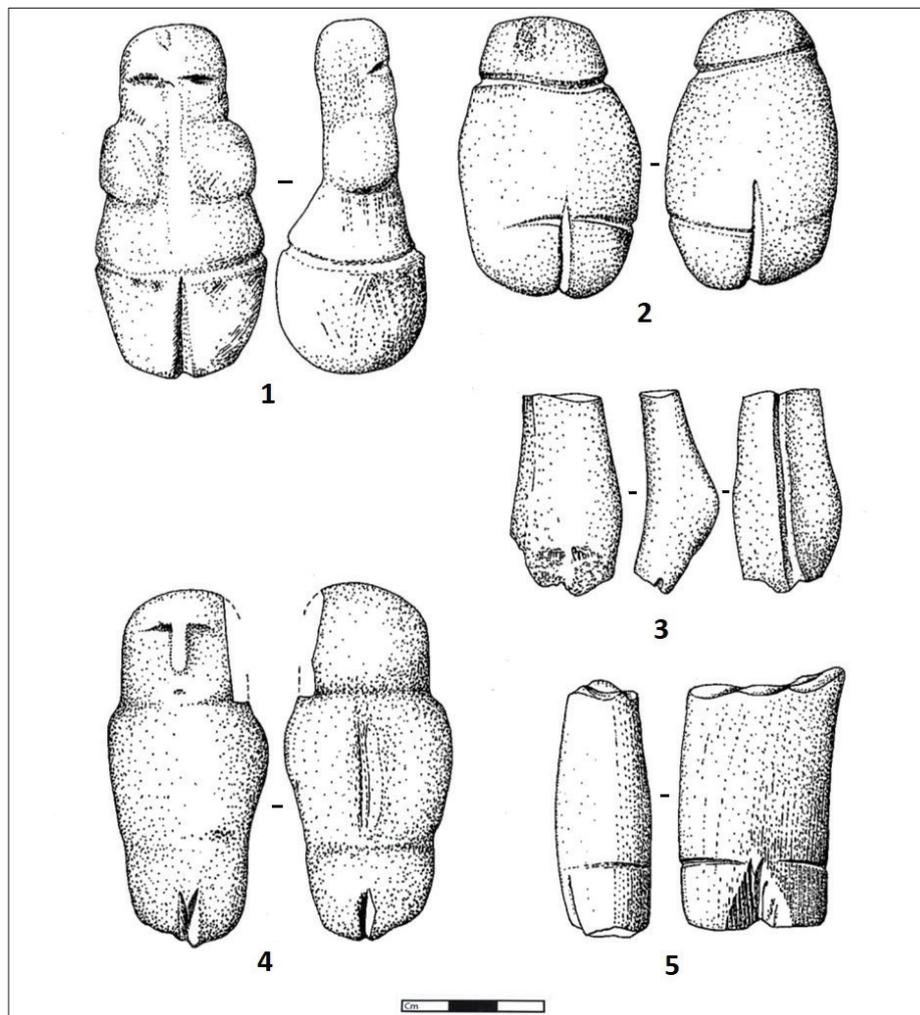


Figure 3.6: PPNA stone figurines in order from 1 to 5: Salabiyah IX; Nahal Oren; El Khiam; Gilgal and Mureybet. Adapted from Cauvin 2000a, 26

### 3.1.3 THE PRE-POTTERY NEOLITHIC B PERIOD (PPNB)

Figurine numbers proliferate during the PPNB and both animal and human figurines are a common find at many sites throughout the Near East.<sup>1</sup> By this time clay has become the most commonly used material; indeed stone figurines are a rare find. The ‘seated’ figurine is a new type that first appears in this period (fig. 3.7). These are known from many sites, including Tell Seker al-Aheimar, and Bouqras in Syria, Tell Magzaliyah, Umm Dabaghiyah and Thalathat in Iraq, and Gritille and Çayönü in southeast Turkey. Seated figurines have accentuated buttocks and in many cases breasts, which have led to their interpretation as female (see Campbell and Daems 2017, 573 and references therein).

A noteworthy site in the PPNB is Nevali Çori (Turkey) which has a substantial corpus of anthropomorphic and a few zoomorphic figurines numbering 665 in total (Hansen 2014, Morsch 2002; Rollefson, see fig. 3.8). The anthropomorphic figurines are subdivided into seated ‘female’ figurines, based on the presence of

<sup>1</sup> It has to be emphasised that absolute quantification is not possible and, importantly, there are more known and excavated PPNB sites—as well as larger excavated areas—than there are PPNA sites (see, for example, Akkermans and Schwartz 2003). This contributes to larger absolute numbers of figurines in the PPNB. Nonetheless, there is a relative increase in figurines per level/context in the PPNB and this period we have substantial assemblages of figurines, at times numbering hundreds of objects.

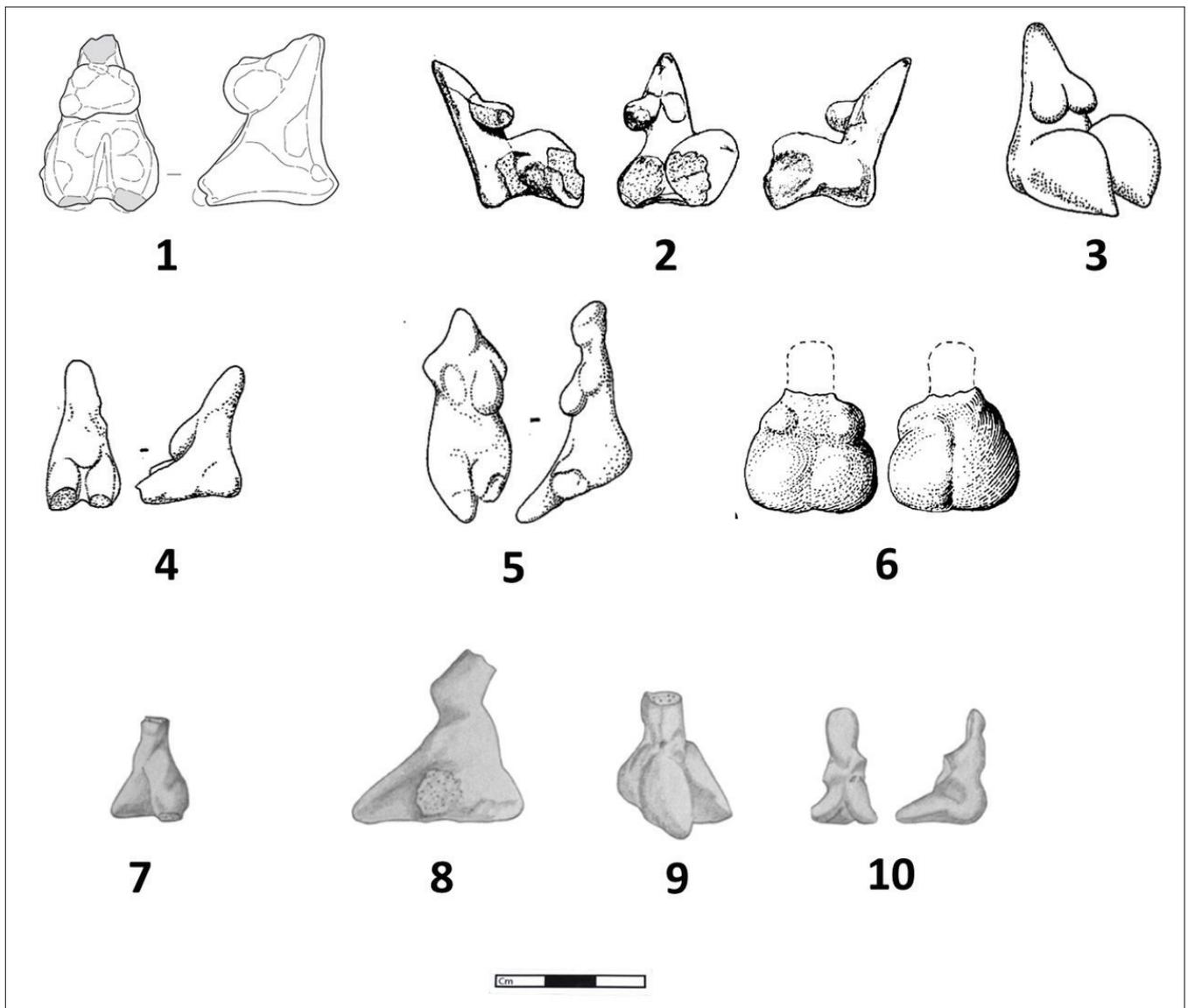


Figure 3.7: Seated PPNB figurines from Tell Seker al-Aheimar (1); Çayönü (2-4); Cafer Höyük (5); Beidha (6) and Jarmo (7-10). Adapted from Broman Morales 1983, plate 153; 1990, plate 23; Cauvin 2000a, 90; Kuijt and Chesson 2005, 165; Nishiaki 2007, 122

breasts and wide hips, but this classification is often far from certain. No less than 179 standing figurines were discovered. These are all identified as male but do not all show male genitals. Moreover, figurines with male genitals occur only rarely, they have been reported from Cafer Höyük (Turkey) and Tell Aswad (Syria) (Morsch 2002, 149; Rollefson 2008, 397). There are a further 39 abstracted, conical figurines from Nevalı Çori. They are so abstracted that possibly they are not figurative but instead should be called geometric pieces. Only six fragments could be securely identified as zoomorphic (Morsch 2002).

Besides the male figurine mentioned above, Cafer Höyük also yielded three more anthropomorphic figurines from the same context deemed female (see Cauvin *et al.* 1999). At Çayönü, researchers have noted an increase in animal figurines, absent in the earlier layers, which come to dominate the figurine corpus by the middle PPNB. The zoomorphic corpus, up to and including the 1987 excavation season, numbers 41 examples. The figurines are all quadrupeds representing a range of species: sheep/goat, bovine and possible dogs. The anthropomorphic figurines are stylised seated figures and stalk-like standing figures numbering 14 and

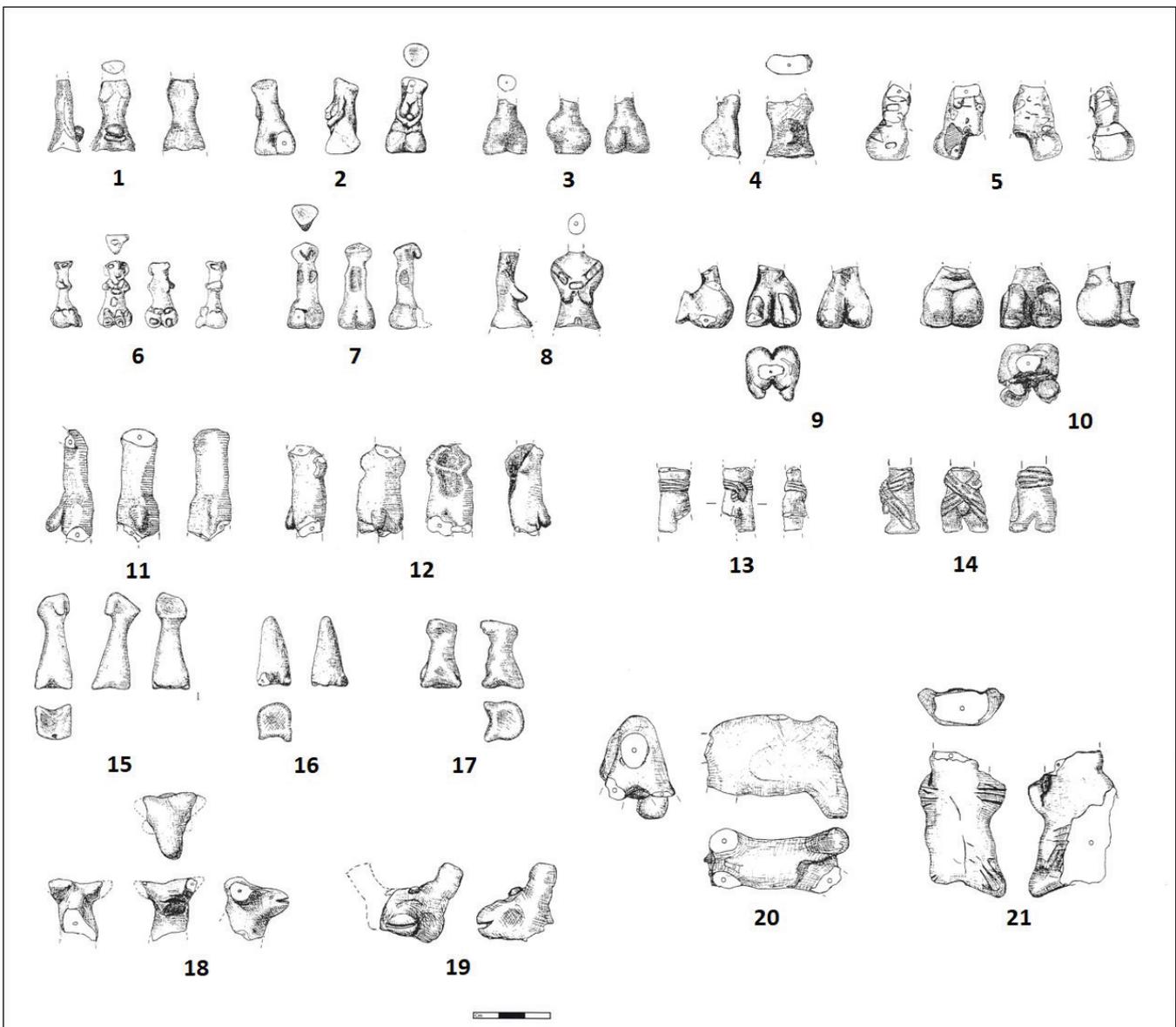


Figure 3.8: Clay figurines from Neval Çori. Anthropomorphic female (?) figurines (1-10), 1 and 2 interpreted as women holding a child, 2-5 interpreted as pregnant females; anthropomorphic male (?) figurines (11-14); abstract conical figurines (15-17); zoomorphic figurines (18-21). Adapted from Morsch 2002, 153-156

20 respectively (Broman Morales 1990, 57-64). Akarçay Tepe, dating to the PPNB and PN, yielded a small number of figurines in the initial excavations: 10 from the PPNB and 11 from the PN. Most of them represent animals (sheep/goat, wild boar and/or cattle?) and very stylistic female figurines, one of these is reported as being similar to examples from Çayönü (Arimura *et al.* 2000, 251; cf. Hansen 2014).

Mezraa Teleilat yielded an interesting set of stone figurines dated to the transitional stage between PPNB and the PN. These limestone figurines are predominantly seated (n=29), a further two standing examples were found as well as 94 phallic objects (Özdoğan 2003).

Rescue excavations at Gritille (Turkey) have not been extensively published but reports do mention the find of 'many' figurines. The zoomorphic figurines are all quadrupeds, many of them are horned. Anthropomorphic figurines from Gritille are stylised and often seated, with legs extended or crossed. An anomalous find is that of a seated figure with plump legs, applied pellets with a linear impression and a snake-like

torso. Markings on the chest and legs indicate that something was attached here originally. Two fragmentary chalk or limestone anthropomorphic figurines were also recovered (Voigt 1985, 16-17). Another interesting corpus of figurines comes from Suberde, located in southwest Turkey. The site has not been extensively excavated and can only be roughly dated to the PPNB and the early PN (ca. 7400-6800 BC; see Düring 2016, 17). The preliminary report mentions 21 figurines. Five of these could be identified; one is a fragment of an anthropomorphic figurine and four are zoomorphic figurines. The anthropomorphic figurine has evidence of a peg hole in the neck and cross-hatching on the body. Interestingly, all four zoomorphic figurines represent wild boar, a rather uncommon figurine type (Bordaz 1991, 51).

In Syria, the PPNB site of Tell Aswad yielded at least 60 zoomorphic figurines, all quadrupeds (fig. 3.9). There are representations of boar as well as horned animals (also attested by the find of single horns), some interpreted as bovine. However, most cannot be identified to species-level (de Contenson 1995, 181).

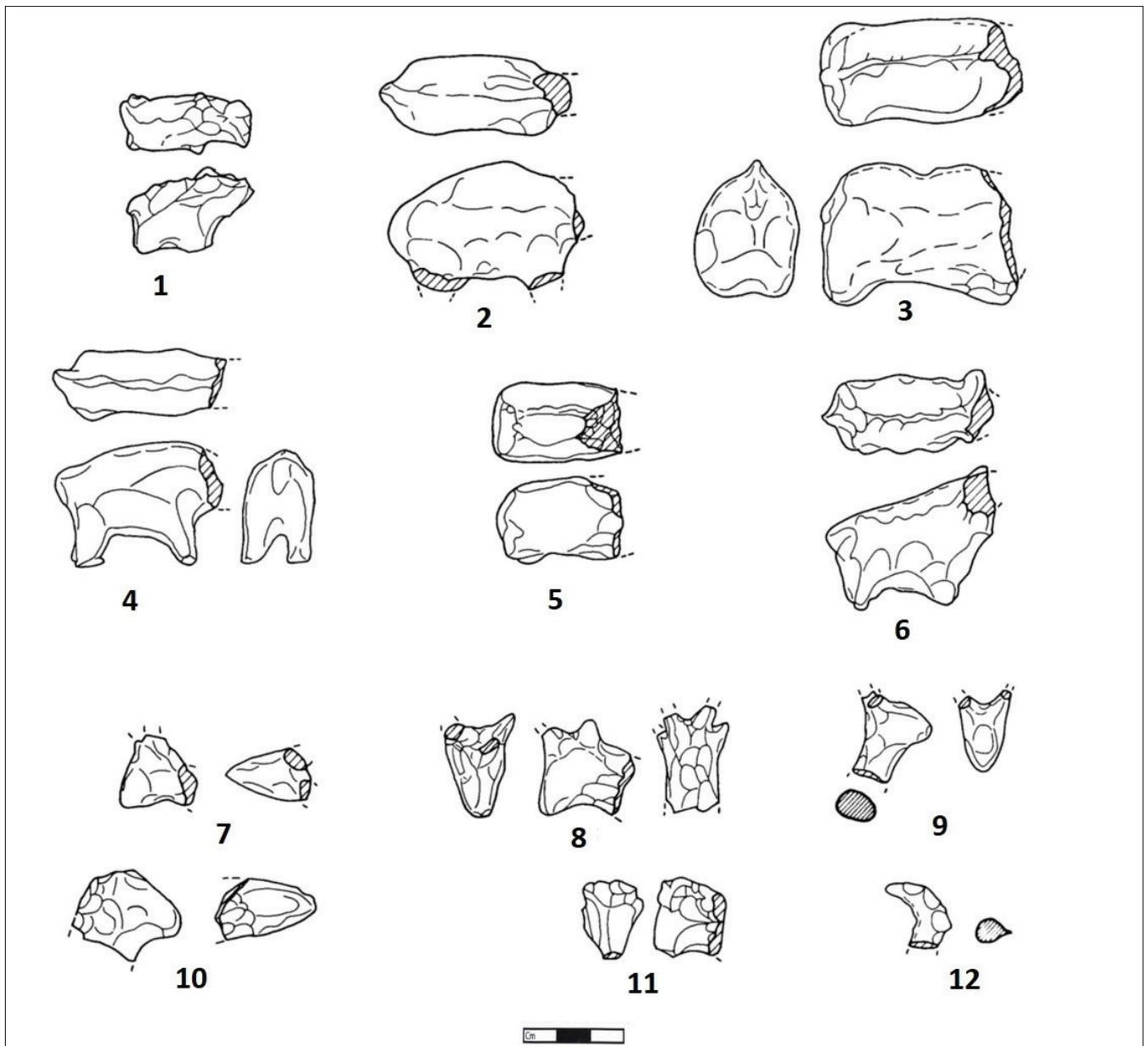


Figure 3.9: Zoomorphic figurines from Tell Aswad. Adapted from de Contenson 1995, 187

Anthropomorphic figurines are more numerous, at minimum 132 examples have been found (fig. 3.10). They are mostly quite abstracted conical or cylindrical shapes. A rounded head is often indicated with no facial features except a pinched-out nose (de Contenson 1995, 182).

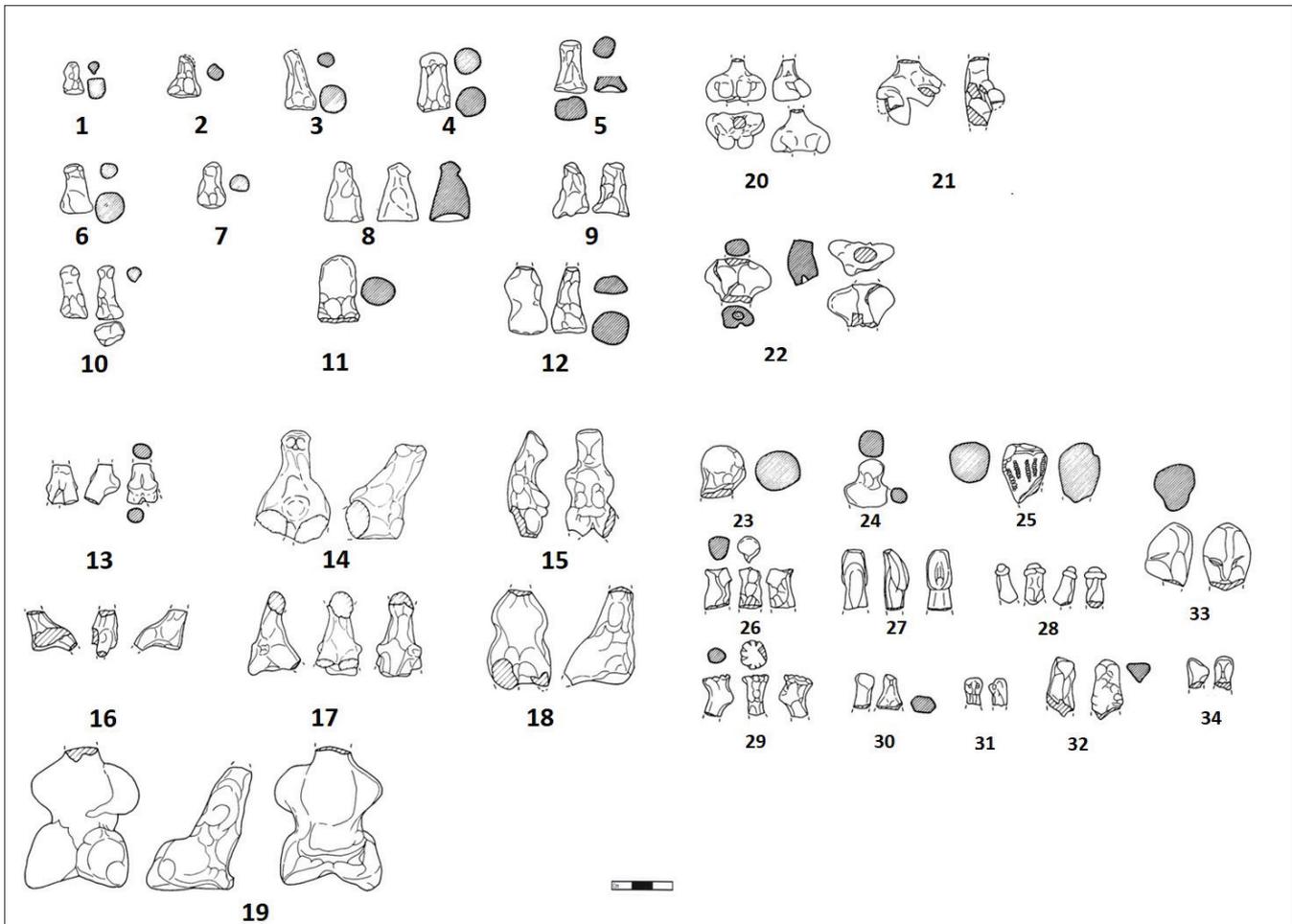


Figure 3.10: Anthropomorphic figurines from Tell Aswad. Abstracted conical and cylindrical shapes (1-12); seated figurines (13-19); torso fragments (20-22) and heads (23-34). Adapted from de Contenson 1995, 189-190

Another common type is a seated figurine, with legs indicated and stylised heads. These seated figurines sometimes have breasts and are interpreted as female (de Contenson 1995, 183). In later excavations, a new type of anthropomorphic figurine was discovered with 'cowrie shell' eyes similar to those found in the Levant (e.g. Munhata and Sha'ar HaGolan; Stordeur 2003, 12, cf. Garfinkel 1995; Rollefson 2008). Tell Seker al-Aheimar in northeast Syria is dated to the transitional phase of the PPNB through the early PN. Figurines are reported there, both zoomorphic and anthropomorphic, but numbers are not specified (Nishiaki and Le Mière 2005). Nishiaki (2007) reports 'at least a dozen' seated anthropomorphic figurines as well as a unique find of a PPNB clay seated anthropomorphic figurine that is noteworthy because of its large size, the fact that it is painted and has detailed facial features. Nearby Tell Ramad, also excavated by de Contenson, yielded a similar corpus with seated anthropomorphic figurines, cylindrical or 'stalk' anthropomorphic figurines as well as a small number of quadrupeds. Figurine numbers were low in general, with 100 fragments of which 62 were too damaged to be identified (de Contenson 2000, 179).

In Jordan, 'Ain Ghazal, a site famous for its large plaster anthropomorphic statuettes, is rich in zoomorphic figurines (McAdam 1997; Schmandt-Besserat 1997; 2013a, 2013b, see fig. 3.9: 1-5) with 151 examples depicting a range of animals: bovines seem to dominate the assemblage, but there are also sheep/goat, pigs and long-tailed animals interpreted as possible lizards (Rollefson 2008; Schmandt-Besserat 2013a, 63). Interestingly, two zoomorphic figurines had flint bladelets inserted into them, as well as more figurines with 'stab' and cut marks (fig. 3.11: 4). Anthropomorphic figurines are rarer, 49 examples have been found. So-called busts are rendered more realistically with some facial features and arms represented, whilst there are also much more abstract standing figurines (fig. 3.11: 6-11). Figurines from Jericho, one of the PPNB 'mega-sites', are surprisingly rare: there were three 'human types' from PPNA layers and 14 from PPNB contexts, all of them in very fragmentary conditions. Animal figurines are likewise scarce, with only six reported from the PPNB period (Holland 1982, 551-554; Rollefson 2008).

In northern Iraq, Tell Maghzaliyah has produced sexless and stylised figurines, some of which were seated (Bader 1993, 19; Campbell and Daems 2017, 574). Jarmo and other sites in eastern Iraq have yielded more naturalistically rendered anthropomorphic figurines, predominantly seated, often with large breasts or exaggerated broad and fat hips, thighs, and legs (Campbell and Daems 2017, 574). However, there are also more stylised figurines as exemplified by the finds from Jarmo. Dated to the PPNB and early PN, this site yielded an extremely large corpus of figurines: around 1100 zoomorphic figurines, all quadrupeds, were recovered. They were subdivided into 14 types, not so much based on zoological taxonomy as on body types and posture, although some types were linked to specific animals, namely boar, sheep/goat and dog (Broman-Morales 1983, 371-372). Anthropomorphic figurines (exact numbers not given) are reported as being the more realistic, seated 'females' as mentioned above, but there are also slimmer, more abstracted standing figurines—sometimes interpreted as female and in 314 instances just called 'stalk' figurines (Broman-Morales 1983, 385). Some standing figurines are described as male, as they are more broad-shouldered. However, genitalia, both male and female, are never depicted (Broman-Morales 1983, 377). By the late PPNB, figurine production (especially that of zoomorphic figurines) seems to have declined in some areas, notably the southern Levant, as evidenced by a lack of finds at 'Ain Ghazal, Basta and 'Ain Jammam (see Rollefson 2008 and references therein).

Summarising, we can say that with the onset of the PPNB, animal figurines become ubiquitous in the Near East, although anthropomorphic figurines are also a common find, occasionally far outnumbering zoomorphic figurines. However, the variability of these figurine corpora must be stressed. Among the animal figurines, most are often thought to represent cattle, although at some sites sheep/goat and birds are almost as frequent. There is a perceived focus on female figurines, but more ambiguous anthropomorphic figurines also continue to be made. All in all, the absolute numbers of figurines remain relatively low (Rollefson 2008, 404-405).

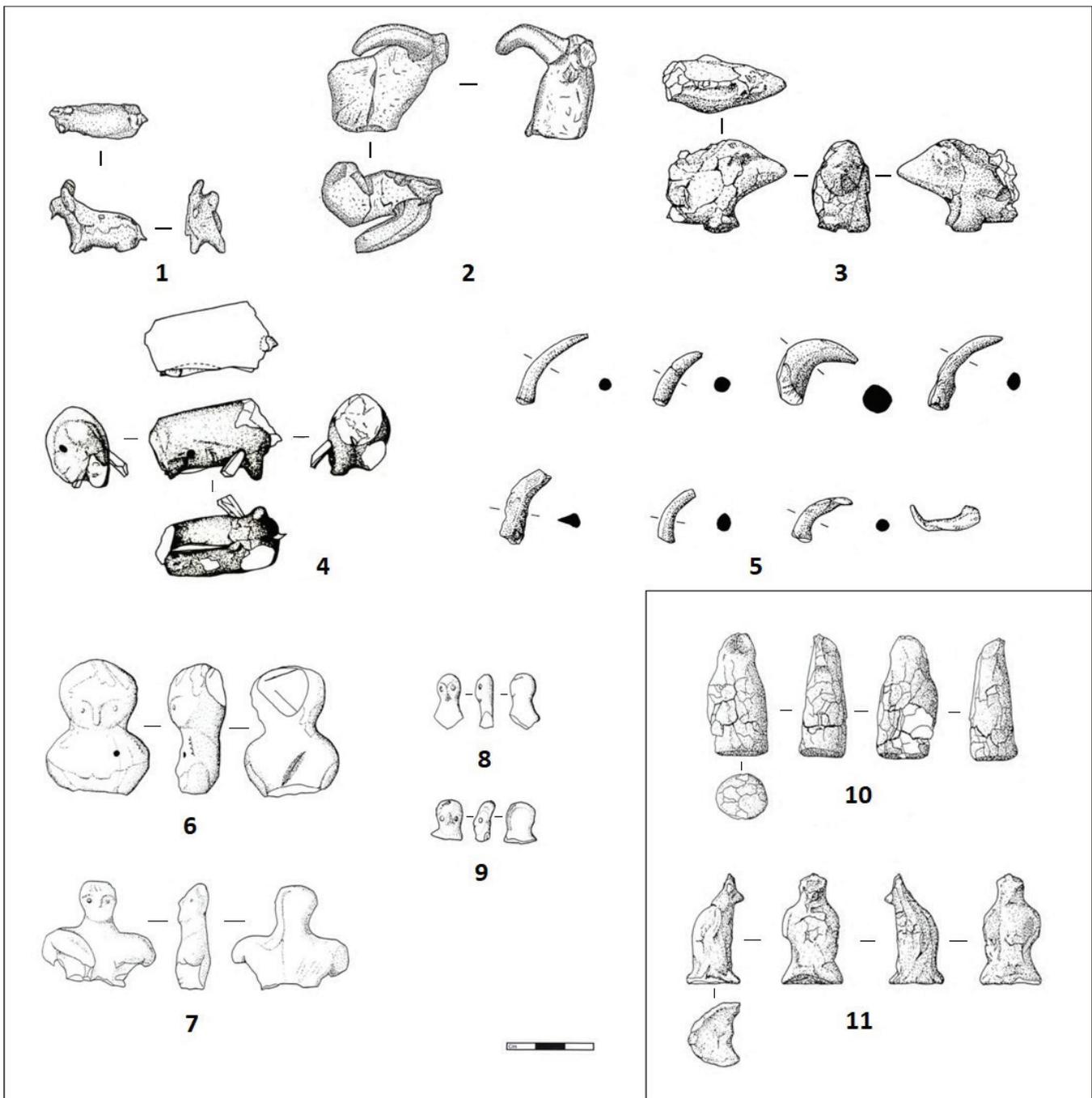


Figure 3.11: Figurines from 'Ain Ghazal. Zoomorphic figurines: sheep/goat (1-2), boar (3); quadruped with inserted flint bladelets (4) and a selection of horn fragments (5). Anthropomorphic figurines: 'busts' and head fragments (6-9). Insert (not to scale): Abstract standing anthropomorphic figurines (10-11). Adapted from Schmandt-Besserat 2013a, 2013b

### 3.1.4 THE POTTERY NEOLITHIC PERIOD

In the Pottery Neolithic (PN) there are some perceived regional differences in the material used, with more stone figurines found in central Mesopotamia. Throughout the PN towards the Ubaid, figurines at some sites tend to become more detailed. At Jarmo (Iraq), for example, figurines become more complex and composite, with wider use of added details. Sometimes facial features are portrayed such as eyes, nose and mouth and eventually eyebrows and hairstyles (Campbell and Daems 2017, 574). More detail is also found at Samarran sites in central Iraq, with more detailed bodily decoration using paint and incising. On two examples from Umm Dabaghiyah, a red wash had been applied separately from painted dots that cover the fronts of the legs

(fig 3.12: 8-9). Several head fragments from clay figurines have been found at Choga Mami (eastern Iraq) dating to the Samarran period (Campbell and Daems 2017, 577 cf. Oates 1969). These have elaborate hairstyles and applied facial features highlighted with dark paint. Eyes are made from applied clay in a shape similar to coffee beans, a recurrent form for many figurines in central and southern Mesopotamia during the Ubaid period (Campbell and Daems 2017, 579).

In northeastern Syria and northern Iraq, figurines have been found at many sites, including Tell Sotto, Telul eth-Thalathat and Tell Kashkashok II (all dated to the proto-Hassuna). The figurines are not well-published, but summarising from Campbell and Daems (2017, 574 and references therein); most are seated female figurines, again with fat legs that are either slightly spread or rendered as one solid base. Heads are devoid of facial features and arms are modelled with hands placed on hips, underneath breasts or on the stomach. However, more abstracted anthropomorphic figurines also occur, both seated and standing examples are known. These are more often interpreted as sexless, whilst some are male (Campbell and Daems 2017, 576). Moreover, there is variety within sites, as seen at the site of Yarim Tepe where both naturalistic seated figurines, as well as more abstract base fragments, have been found (Merpert and Munchaev 1987, fig. 3.12: 11-12). Sites in the Balikh, such as Tell Damishliyya have yielded very few figurines. From this site (not extensively excavated) two stylised, cylindrical 'stud' figurines (also numerous at nearby Tell Assouad) as well as an animal figurine made from bone, are recorded in strata 2-4 (dated as Pre-Halaf, Akkermans 1988, 28). No figurines from the later Halaf levels are reported.

Tell es-Sawwan (northern Iraq) is unusual for its stone anthropomorphic figurines carved mostly from soft calcite (fig. 3.12: 13-14). Not only are stone figurines rarer than clay ones, the fact that they were recovered in grave contexts is also unusual. Exact numbers are unknown, but working with the old excavation data, Helwing (2016, 136) was able to surmise that a group of at least 243 figurines was recovered. Some are 'clearly' male or female, but most are quite abstract. They are rendered in different poses and facial features are either carved or rendered with bitumen. Some are reminiscent of the seated figurines found at Umm-Dabaghiyah (see below).

Although stone figurines are rare, they are known from other sites, including Dja'de el-Mughara and Bouqras (Syria) and Hakemi Use (Turkey) (see Helwing 2016 and references therein). The site also yielded clay anthropomorphic figurines. Some seated clay figurines from Tell es-Sawwan show elaboration on the bodies through applied round pellets or bands of clay that have been thought to indicate necklaces, bracelets and anklets (Campbell and Daems 2017, 577-578). No reference to zoomorphic figurines is made, however, it is unclear if they were absent, or simply not a focus of the field researchers.

Further north and west in southern Turkey, different influences can be seen in the figurines at sites such as Çavı Tarlası (Wickede 1984), Fıstıklı Höyük (Bernbeck and Pollock 2003) and Girikihacıyan (Hansen 2014; Watson and LeBlanc 1990). In particular, there may be links to central Anatolian figurines, with more two dimensional and less curvaceous forms (Belcher 2014; Campbell and Daems 2017, 580).

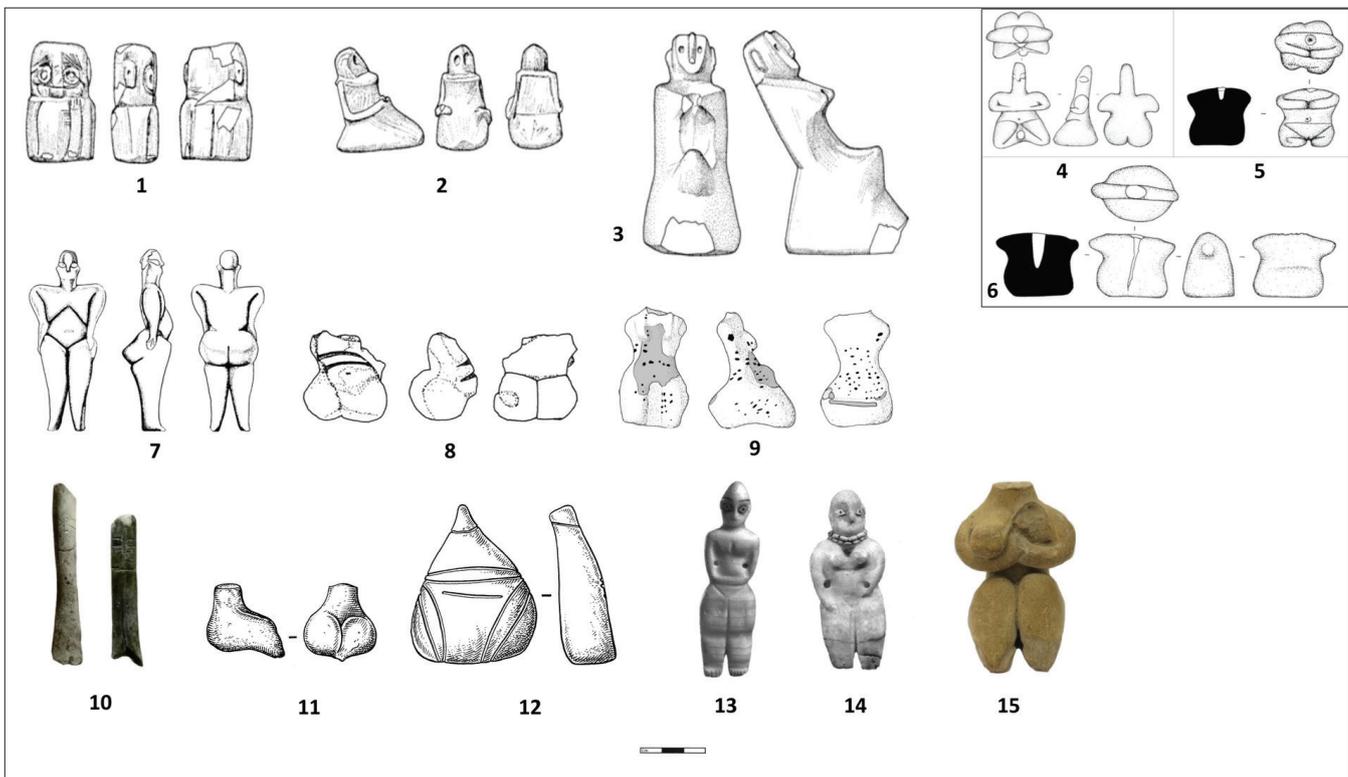


Figure 3.12: Limestone figurines from Mezraa Teleilat (1-3). Insert (not to scale): Clay figurines from Höyücek (4-6); clay figurine from Hacilar (7 (not to scale) 8); Umm Dabaghiyah clay figurine (black dots represent paint, 9); bone anthropomorphic heads from Höyücek (10); clay figurines from Yarim Tepe II (11,-12), calcite figurines from Tell es-Sawwan (13-14), Halaf figurine from Chagar Bazar (15). After Belcher 2014, 260; Brami 2014, 20; Campbell and Daems 2017, 576; Can Geminici 2018, 192; Duru and Umurtak 2005, 132 and 176; Hansen 2014, 271; Helwing 2016, 131; Merpert and Munchaev 1987, 26

Other sites in Turkey where figurines have been found include Höyücek Höyük, Hacılar, Kuruçay Höyük, Köşk Höyük, Çavı Tarlası, Canhasan I, Mezraa-Teleilat, Domuztepe, and Tell Kurdu (see fig. 3.12, Belcher and Croucher 2017, 444; cf. Belcher and Croucher 2016; Hansen 2014). Hacılar is well-known for its Late Neolithic to Early Chalcolithic clay anthropomorphic figurines, some of which are substantial in size—up to 24 cm (Hansen 2014, 274). These figurines are seated and some are quite similar in postures as the examples found at Çatalhöyük. Others are standing with hands placed under the breasts or alongside the body (fig. 3.12: 7). They range from more schematic to quite naturalistic with much attention paid to shaping individual body parts and facial features, in addition, these figurines are often slipped and/or painted (Hansen 2014, 274). Mellaart recorded them as ‘statuettes’ recovered all from houses and numbering some 45 (Mellaart 1970, 166). Not as well-published, more schematic anthropomorphic figurines and zoomorphic figurines were also recovered at the site (Mellaart 1970).

The anthropomorphic figurines from Höyücek Höyük are more schematic and many of them have dowel holes for inserting heads; interestingly, some of these have a bone head (Duru and Umurtak 2005, 200, see fig. 3.12: 4-6 and 10). There are also zoomorphic figurines, these are not well-published and overall exact numbers are not known.

Hakemi Use yielded at least 30 anthropomorphic figurines in standing or sitting poses. All interpreted as females, with undifferentiated legs and the lower body formed like a ‘bell-shaped’ skirt with fingernail impressions and sometimes red painted lines (Tekin 2012, 498). At Girikhacian in southeastern Turkey,

dated to the Halaf period, a total of 12 anthropomorphic figurines were found. All very fragmented, the base fragments as well as arm and leg fragments show that both naturalistic and more abstracted figurines were in use at the site. Four zoomorphic fragments all belong to quadrupeds without any clear species determination (Watson and LeBlanc 1990, 104-105).

The Halaf is known for a particular type of figurine which is regional to northeastern Syria and northern Iraq (Belcher 2014). As with earlier female figurines in this region, they generally portray seated individuals with fat, often bent knees, and legs that are slightly spread. The head is always pinched from the central body and can have facial features such as eyes. Arms are held underneath the breasts. Often they have painted details on the shoulders, arms and legs (Campbell and Daems 2017, 580). Sites, where this type of figurine have been found, include Yarim Tepe II-III, Arpachiyah and Tepe Gawra. These figurines are very standardised and very similar ones are also known from the Syrian Khabur area at sites like Tell Halaf and Chagar Bazar amongst others (Campbell and Daems 2017, 580; fig. 3.12: 15).

There are also Halaf sites where there is little to no evidence for figurine use (Belcher 2008, 234) and there are also sites—more to the south—that have yielded figurines that are not clearly female and instead are slim standing figures (Campbell and Daemer 2017, 580).

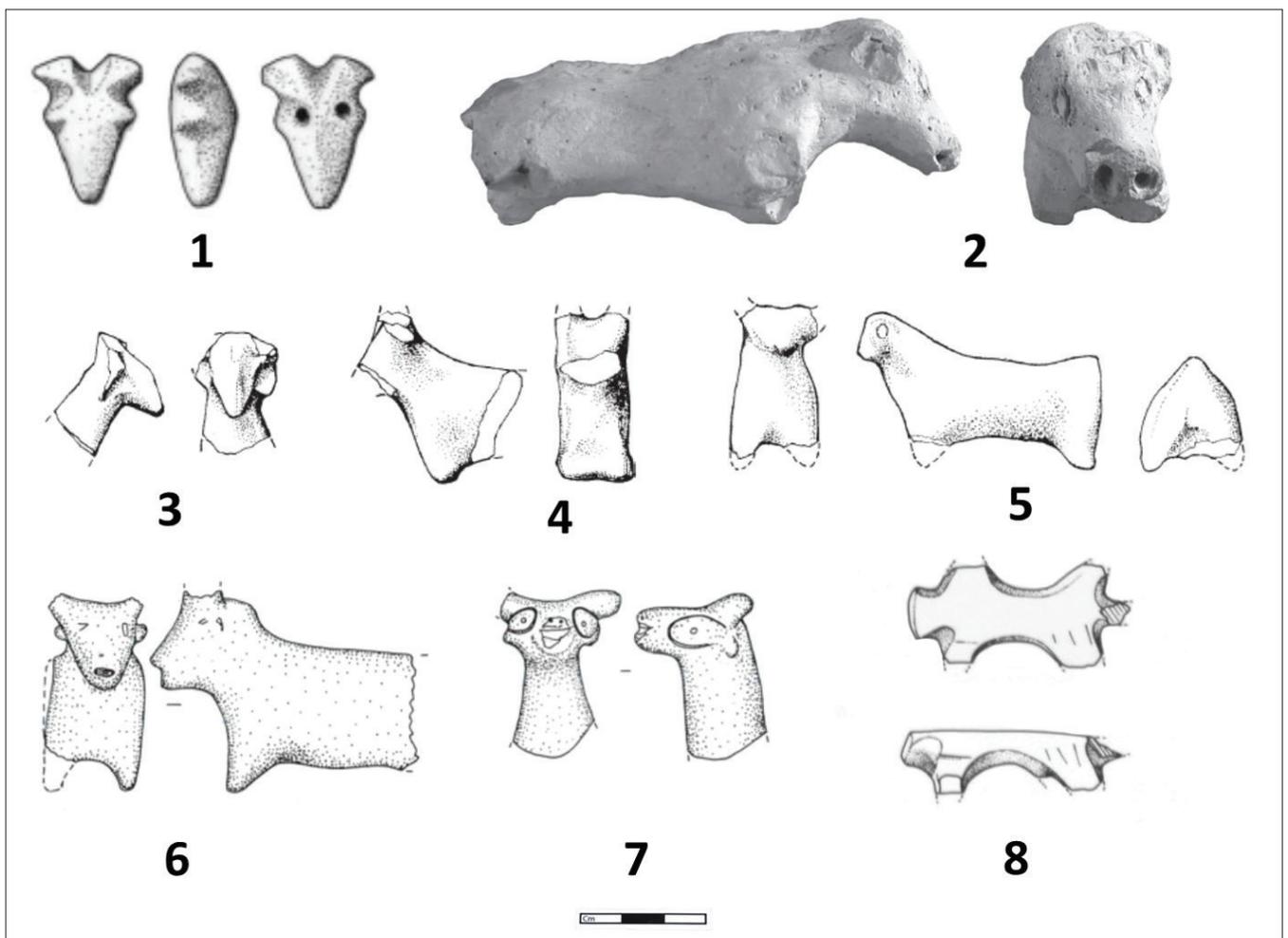


Figure 3.13: Stone head and clay figurine (pig?) from Domuztepe (1-2); clay figurines from Sha'ar Hagolan (3-5); clay figurines from Höyücek (not to scale, 6-7), clay figurine from Damisliyya (not to scale, 8). After Akkermans 1988, 53; Carter 2012, 114; Duru and Umurtak 2005, 132 and 176; Streit and Garfinkel 2015, 40

Not much has been written about the zoomorphic figurines from this period, but they persist into the Halaf at both case-study sites and are the largest category throughout the PN. Some examples that could be found here are Levantine and southern Anatolian stone figurines and bucrania of caprids dated to the 6<sup>th</sup> and 5<sup>th</sup> millennium published by Streit and Garfinkel in 2015. Sites include Tell Kurdu, Ras Shamra and Domuztepe. At least one other zoomorphic figurine is known from Domuztepe, a clay example of perhaps a boar (Carter 2012; fig. 3.13: 2). At Sha'ar Hagolan 38 zoomorphic figurines from the PN are known, two of these are head fragments of perhaps birds, the others are all (horned) quadrupeds and horn fragments (Freikman and Garfinkel 2009).

### 3.1.5 FIGURINE OVERVIEW: CONCLUSIONS

This general overview shows the great variety in figurine corpora throughout Upper Mesopotamia and Anatolia during the Neolithic. Whilst, arguably, figurines are part of the 'Neolithic' package, not all sites have yielded figurines. For example, Tell Kosak Shamili, dated to the late pottery Neolithic (pre-Halaf) and Ubaid period, is not too far removed from Tell Sabi Abyad. It shows similar material culture, especially the pottery (Nishiaki 2001, 232) but no figurines were found there. In fairness, it should be noted this site was only excavated to a limited extent as part of a rescue operation for the construction of a dam.

Similarly, at Boncuklu, very close to Çatalhöyük but dated earlier to about c. 8300-7500 BC (Baird 2006), few figurines were found. The only clear reference to a figurine was one of an abbreviated 'bear' figurine (Baird 2016) and a mention several fragments of both zoomorphic and anthropomorphic figurines and two nearly complete zoomorphic and two nearly complete female figurines (Bennison-Chapman 2014, 199). Interestingly, in many other ways, the sites show similarities, most notable ritual and symbolic elaboration of the houses (e.g. wall paintings, incorporation of animal skulls and sub-floor burials) and as such the site is seen as a pre-cursor to Çatalhöyük (Baird *et al.* 2012).

As a final example, at the Halaf site of Kharabeh Shattan (Iraq), no figurines were found, apart from one zoomorphic fragment (Baird *et al.* 1995, 189). The same holds for other Halaf sites along the Syrian Euphrates (Belcher 2008, 234).

This overview also aims to highlight the considerable bias in figurine literature, with a strong focus on the anthropomorphic (female) figurine corpus and tracing its developments through time (e.g. Hansen 2014 on Anatolian figurines). Even though original site reports have been referenced where possible, the bias towards anthropomorphic figurines could not be avoided.

Finding figurine illustrations is also problematic with many publications reproducing the same few examples (most notable are the many illustrations taken from Cauvin 2000a). This reproduction of known images could not be avoided completely here, however, the illustrations added from original site reports do much to more accurately display the variety of figurines. This is important because the continuous re-using of the same few images only helps to perpetuate the image of an illusionary, homogenous figurine corpus.

### 3.2 THE SITES IN CONTEXT: REGIONAL DEFINITIONS AND LANDSCAPES

Anatolia occupies a unique geographical area situated between Europe and the Near East. Commonly the term 'Anatolia' is used to refer to the Asian part of Turkey whilst regions east of the Amanos/Nur Mountains are seen to belong to the broader north Levantine and Upper Mesopotamian cultural sphere during most of prehistory (Brami 2017, 14). Chronological terminology reflects these different positions Anatolia holds in larger contexts with an Anatolian sequence used alongside a Levantine/Mesopotamian Neolithic chronology. The position of Anatolia also means research focusses on Anatolia within the larger area of the Levant and Upper Mesopotamia as well as Europe, often discussing the spread of agriculture from Anatolia to Greece and mainland Europe (Brami 2017; c.f. Düring 2006; Fort *et al.* 2012; Gangal, Sarson and Shukorow 2014; Merve Kılınç *et al.* 2016; Özbaşaran 2011; Özdoğan 2002).

Central Anatolia designates the inland plateau bordered to the north by the Pontus Mountains, and to the south by the Taurus Range. These two mountain ranges merge in eastern Anatolia and define the limit of central Anatolia in that direction, although there are no clear geographical boundaries in this area. Finally, in the west, the plateau is cut by river valleys with an east-west orientation that run to the Aegean (Düring 2006, 4). The region is not a coherent geographical entity but consists of a very diverse series of landscapes. These include two large arid basins in the southern part of the region: the Konya Plain and the 'Tüz Gölü' (Salt Lake) Basin. Apart from these basins and river valleys, the Anatolian Plateau is characterised primarily by relief, consisting of both hilly terrain and mountains (Düring 2006, 4).

Upper Mesopotamia as a region has been defined using different criteria. Commonly it is still defined by employing the cultural-historical framework which equates Upper Mesopotamia with the pottery cultures that were found there, as first attested at the respective eponymous sites: the Hassuna, Samarra and Halaf cultures (Bernbeck and Nieuwenhuys 2013, 19). Geographically, Upper Mesopotamia can be roughly delimited by the Taurus arc in the north, the northwestern Zagros in the east, the Euphrates below the Tabqa bend in the south and the Mediterranean coast in the west as well as the northern Levant and the Jazirah in Iraq. Furthermore, as stated above, it also incorporates the eastern part of modern Turkey; roughly the plains from Kahramanmaraş (Domuztepe) in the south to the Upper Tigris region and the northernmost parts of the Jazirah and the Amuq region. The Jazirah also makes up the largest part of Syrian Upper Mesopotamia, including also the plains west of the Euphrates around Aleppo and Hama (Bernbeck and Nieuwenhuys 2013, 19).

Upper Mesopotamia is also characterised by great geological and ecological diversity. Incorporating the arid steppes of the Jazirah, empty desert, mountain ranges to alluvial lowlands and the extremely fertile *terra rossa* soils of the Mediterranean littoral (Bernbeck and Nieuwenhuys 2013, 19). The Balikh Valley is located in the plain of the Jazirah, which extends into northern Iraq and southeastern Turkey. This plain is a flat, semi-arid steppe traversed by the Tigris and Euphrates rivers, as well as the Euphrates' tributary rivers the Balikh and Khabur (Akkermans and Schwartz 2003, 5). Generally, the Balikh plain is only about four

to six kilometres wide although in two areas located in the north (the region east of the modern village of Hammam et-Turkman), and in the south (at the confluence of old and recent Balikh) the valley widens into a broad plain measuring over 12 kilometres. Except in the latter areas, the valley is generally bordered by steep gravel terraces rising 10 to 30 metres above the plain (Akkermans 1989, 122).

### 3.3 SITE OVERVIEW: ÇATALHÖYÜK

The site of Çatalhöyük has currently been dated to between 7100-5950 Cal BC<sup>2</sup> (Bayliss *et al.* 2015; Orton *et al.* 2018). The founding of the site, therefore, falls into the Anatolian Late Ceramic period or the Levantine/Mesopotamian PPNB sequence (see Hodder 2005; Özbaşaran and Buitenhuis 2002). Although there tends to be an emphasis on Çatalhöyük as a PPNB site, the earliest pottery at the site has been dated to ca. 7000 BC (Bayliss *et al.* 2015). So, throughout most of its existence, Çatalhöyük is a Pottery Neolithic site (although virgin soil was never reached). However, Çatalhöyük is typically characterised as one of the PPNB ‘mega-sites’. The population at Çatalhöyük has been estimated to range between 3500 and 8000 people at any one time (see Cessford 2005). Authors adhering to this idea of very large sites early in the Neolithic see a trend in the PPNB towards larger, more densely populated ‘mega sites’ (over 10 hectares) with a capacity to support a population of several thousand (Kuijt 2000) and references are often made to other mega-sites in Upper Mesopotamia and the Levant in explaining the size of Çatalhöyük. Although it should be noted that in recent research these population estimates have been lowered considerably (see Plug, Hodder and Akkermans 2021).

The Çatalhöyük sequence is considerably later than the first evidence for sedentary communities in the region. The earlier sites, such as Boncuklu Höyük (ca. 8500-7500 BC) tended to be smaller, up to a maximum of several hundred people, with small, loosely distributed, oval or semi-circular structures (see Baird 2006). Boncuklu, only 9.5 kilometres north-east of Çatalhöyük is seen as a site that closely parallels Çatalhöyük in terms of the elaboration of houses. However, there is a 400-year gap between the two sites and sometimes population movement from the Levant and Upper Mesopotamia is seen as an explanation for the founding of Çatalhöyük (see Bayliss *et al.* 2015 and references therein).

The Konya Plain sequence points to a regional Neolithic development that is distinctive in its focus on particular forms of symbolic and ritual elaboration as seen in the Pınarbaşı–Boncuklu–Çatalhöyük sequence from the Epipalaeolithic through to the 7<sup>th</sup> and 6<sup>th</sup> millennia BC (Baird 2005, 2007, 2008; Baird *et al.* 2011). We now know many other sites (partly) contemporaneous with Çatalhöyük in central Anatolia and the adjacent Burdur-Lakes region (Duru 1999; Gérard and Thissen 2002). In central Anatolia, Aşıklı Höyük (see Cutting 2006; Düring 2006; Esin and Harmanakaya 1999) has densely packed housing through the millennium prior to Çatalhöyük (Hodder 2010, 3). Furthermore, the layout of this settlement—in clustered neighbourhoods—and morphology of the houses is very reminiscent of Çatalhöyük (Düring 2006, 2).

---

2 All dates are Cal BC, unless otherwise stated.

Within the wider setting of Anatolia, recent research has shown that there are local sequences that already demonstrate many of the characteristics that would come to define Çatalhöyük (Baird 2007, 2008; Gérard and Thissen 2002; Özdoğan 2002). In southeast Turkey, the earlier villages of Çayönü (Özdoğan and Özdoğan 1998) and Göbekli Tepe (Schmidt 2001) already show substantial agglomeration of people and elaborate symbolism.

So, whilst Çatalhöyük is unique in some respects, there is clear evidence for precursors in earlier sites. Importantly, with more sites being discovered in the environs of Çatalhöyük the idea of the site as an isolated settlement in an otherwise 'empty' landscape is changing (see Düring 2006). Although the Konya plain was not densely settled, there are contemporary settlements that might have had links to Çatalhöyük. For example, the Pınarbaşı rock shelter has been interpreted as a specialised hunter-herder camp supplying meat for Çatalhöyük (Baird *et al.* 2011).

What sets Çatalhöyük apart from any settlements, earlier and contemporaneous, is its scale and the changes in house morphology. Houses were generally larger, rectangular in plan, and contained more internal divisions. There was also an increased capacity for internal house-based storage. These changes in architecture have been interpreted as a reflection of the increasing autonomy of single households, which ties in with the decline of larger 'public' buildings and more community-based rituals and symbolism. Perhaps, as some argue, this can be linked to changes in social organisation as a reaction to the move towards a more sedentary lifestyle (Byrd 1994, 642; cf. Hodder 2014a; Hodder and Doherty 2014; Taylor 2016, 20).

Hodder also points to the absence of any obvious large, public building at Çatalhöyük. Whereas there are examples of earlier Neolithic sites with large public architecture, for example at Göbekli Tepe, Jericho and Jerf el Ahmar, Çatalhöyük has yielded no evidence of large public buildings, ceremonial centres, specialised areas of production or cemeteries (Hodder 2012b, 304). It seems that at Çatalhöyük the house/household takes over many of the roles that were earlier associated with the larger community. Evidence for this is seen in the strong association of burials with houses, much more than seen at earlier sites in Anatolia and the Near East in general. Symbolism and ritual are also taken from public buildings (for example at Aşıklı Höyük, Çayönü, Göbekli Tepe and elsewhere) and centred in the house at Çatalhöyük. Finally, food preparation and many productive activities that earlier had often taken place in public, open areas, all become concentrated in the Çatalhöyük house (Hodder 2012b, 305).

### **3.3.1 LANDSCAPE SETTING**

Çatalhöyük is situated on the alluvial Konya plain in south-central Turkey. The Konya plain is a large area of inland drainage at the southern end of the Anatolian Plateau at approximately 1000 metres above sea level. Geologically the south and south-western end of the plain is characterised by large alluvial fans, upon one of which (associated with the Çarşamba River) Çatalhöyük is situated (Baird 1996; Doherty 2017, see fig. 3.2).

The site consists of two distinct mounds (East and West), separated by the relict course of the Çarşamba River, which probably formed an ancient focus for the settlement. Today the 'East Mound' (see fig. 3.14) rises

approximately 21 metres above the ground surface and is roughly oval, covering an area of approximately 13 hectares (Bayliss *et al.* 2015, Hodder 1996a). The 'West Mound' is considerably smaller, roughly circular with a diameter of ca. 400 metres, covering an area of around 1.27 hectares, rising approximately 7.5 metres above the surrounding landscape (Taylor 2016, 14).

Originally thought to be located on a rise in a wetland environment, newer extensive coring programmes have shown that Çatalhöyük is situated in a marl hollow and that the landscape was slightly undulating and interspersed with connecting water channels. Within this diverse environment both wetland and dryland resources could be exploited (Doherty 2017 and references therein). The proxy-data on vegetation records in the Holocene indicate that the upland zone in the periphery of the Konya Plain was dominated by oak-juniper-*Rosaceae/Maloideae* woodland vegetation sustained by rainfall levels in the range of 400–600mm p.a. This is higher than modern levels of rainfall and well above the minimum requirement for rainfed agriculture (Charles *et al.* 2014, 73).

### 3.3.2 EXCAVATION HISTORY

In the four seasons of Mellaart's excavation from 1961 to 1965 about 4% of the total site was excavated (Hodder, Cessford and Farid 2007, 6). These excavations were mainly focused on the southwestern side of the East Mound exposing areas with maximum dimensions of ca. 80 metres east-west and north-south (Matthews and Farid 1996, 271). Mellaart also created a deep sounding, located in what is now the South Area, see below, this section), to investigate whether there was evidence for older occupation below the lowest excavated level. Mellaart never reached virgin soil during his excavations (Mellaart 1964, 73; cf. Matthews and Farid 1996).

Excavations were resumed under Hodder from 1993 until 2017. The first two seasons were mostly concerned with evaluating the site using non-intrusive techniques, including a topographic survey of the mounds, geophysical survey, and surface scraping and recording of areas of the mound that might be viable for further excavation (Hodder 1996a; Taylor 2016, 16). After this phase of evaluation, full excavation began in 1995. At first, the focus was on areas already investigated by Mellaart, opening a 20 by 20-metre trench spanning the southeast portion of Mellaart's excavation, which subsequently became an area known as '20:20' or 'South Area'. Subsequently, attention turned to a second low impact surface scrape 'strip and record' exercise on the lower summit of the mound, this 40 by 40-metre area became known as the '40:40', or 'North Area' (fig. 3.14). Although a large part of the site remains unexcavated, the whole mound has been sampled using surface survey, surface pickup, geophysical prospection and surface scraping (see reports in Hodder 1996a).

These North and South Areas investigated by Hodder had different research foci. The North Area excavations were focused on horizontal exposure aimed at bringing a large area of the settlement into phase enabling the examination of a single, contemporaneous 'neighbourhood'. Excavations in the South Area were aimed at re-examining the stratigraphic sequence to refine the site's chronology (Bayliss *et al.* 2015).

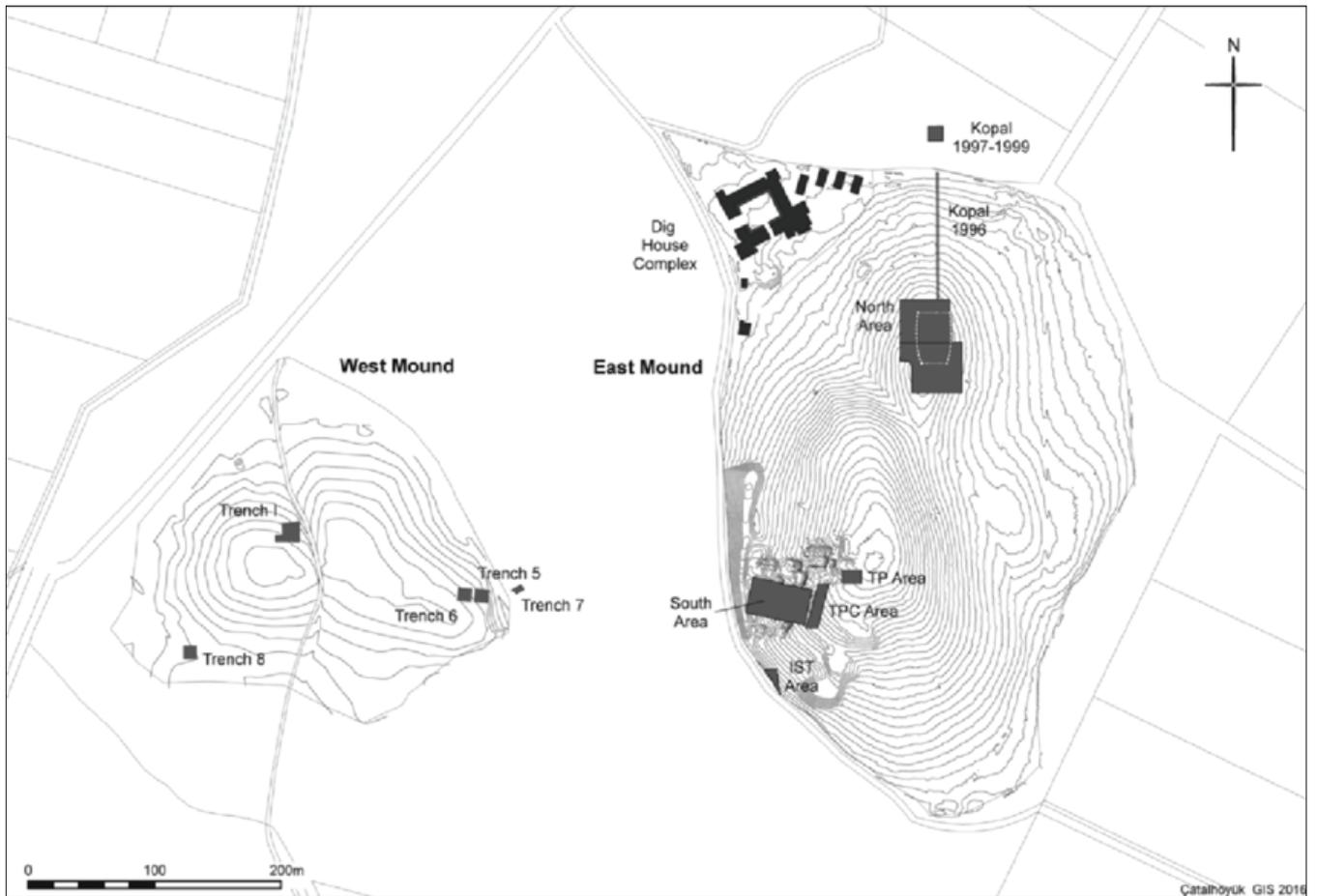


Figure 3.14: Areas of excavation on the East and West mound. Courtesy of the Çatalhöyük Research Project

Various other research projects related to Hodder's main project operated at the site throughout the years led by international academic teams. Whilst semi-independent, they all use a unified excavation and recording methodology and worked within the flexible research framework set out by the Çatalhöyük Research Project. These teams worked in separate areas, BACK, TP and TCP and IST (see. fig. 3.14). Additional work has been carried out on the West Mound by teams from Cambridge University and Selçuk University (Hodder 1997, 2000b). The project has been run alongside a regional survey conducted by the University of Liverpool called the Konya Plain Paleoenvironmental Project (KOPAL) which ran between 1999 and 2001 and sought to reconstruct the broader settlement history of the Konya Plain (Taylor 2016, 17).

The excavations in the TP Area revealed the latest Neolithic deposits on the summit of the East Mound. To the south, the IST Area trenches demonstrated that later Neolithic occupation extended to the edge of the mound (Özbaşaran and Duru 2013). In the northern area, multiple trenches have been excavated, often focussing on single houses or groups of houses (Hodder 2007a, 2007b, 2013a; Tringham and Stevanović 2012). Finally, the trenches in the KOPAL Area provided information on the character of the deposits from the northern area northwards beyond the edge of the mound (Bayliss *et al.* 2015; Roberts, Boyer and Merrick 2007).

Much of the recent work has continued to focus upon the North and South Areas. Thematic work at the site also focussed on wider questions regarding the social geography of the settlement and the places of property, power, and religion in early settled life (Hodder 2006, 2007b, 2010, 2013a).

### 3.3.3 OCCUPATIONAL SEQUENCE

In his 1960s excavations, Mellaart set up a general site phasing/stratification system based on 'levels'. As each superimposed building was excavated it was linked to a level. These levels were numbered with Roman numerals starting with 'O', most recent, and 'XIII' being the earliest level exposed in the deep sounding of the South Area (Mellaart 1962, 44; 1967, 49). So, a level V building would be the fifth building down in the identified building phases. Mellaart identified a total of 15 levels, with level VI separated into sub-phases A and B. During Hodder's excavations it became evident that Mellaart's phasing could not be maintained as stratigraphy in other areas of the site differed from that in the South Area and levels in different areas thus could not be linked (see Farid 2008, 2014).

Furthermore, no evidence for buildings under level XII was found. Currently, the site has been divided into 18 broad occupation levels, this might change as the project is still engaged in a programme of Bayesian Chronological Modelling (Bayliss, Farid and Higham 2014, Bayliss *et al.* 2015). The matrices for the different areas (e.g. South, IST, TP and North) were not linked, so separate sequences of levels for each area were developed (Cessford 2001). A new phasing system was introduced in 2008 (Farid 2008) linking the South and North areas and is continuously expanded upon to link all the areas excavated at the site. Table 3.1 shows the Hodder phasing system with the latest available carbon dates.

Table 3.1: Hodder phasing system with Cal BC dates. Courtesy of Çatalhöyük Research Project

Temporal groupings of levels	South	North	Cal BC
<b>Final</b>	TP.O-R and TPC Trenches 1 and 2 (B109 and 115)		6300-5950 BC
<b>Late</b>	GDN	North H, I, J and IST	6500-6300 BC
	South T, TP.N, TPC B110 and B150		
	South S, TP.M, TPC B150 and B122		
	South R		
	South Q		
<b>Middle</b>	South P	North F, G	6700-6500 BC
	South O		
	South N		
<b>Early</b>	South M		7100-6700 BC
	South L		
	South K		
	South J		
	South I		
	South H		
	South G		

The chronology of the site is still being brought into sharper focus and current Bayesian modelling is giving a much more detailed picture of the use sequences of houses on the East Mound (see Plug, Hodder and Akkermans 2021), unfortunately, full results are as yet unpublished at the time of writing this dissertation. Recent research also showed that the earlier assumed temporal gap between occupation on the two mounds does not exist and the sequences on the East and West Mound actually overlap (Orton *et al.* 2018; see ahead).

### 3.3.4 SITE LAYOUT AND ARCHITECTURE

The site is broadly comprised of densely clustered groups of mostly rectangular mudbrick structures, interspersed by open external areas (see fig. 3.15). The East Mound can be divided into smaller units on three levels. First, there is a division on tell-level, created by a large dip or trough across the middle of the mound, effectively dividing it into two hills. These two mounds do seem to have developed as two distinct halves to some degree and the southern part continued to be occupied after the general abandonment of the northern hill. Further evidence for the separation of these two halves of the tell was discovered by research that showed some differences in the genetic make-up of the people buried in the two halves as well as observable differences in consumption and sheep herding behaviour (Hodder 2012b, 304).

A second division is found in clear groupings of houses that have been identified. Hodder's excavations have revealed alleyways or boundaries between so-called 'sectors' or 'neighbourhoods' of the mound, each of these containing anywhere from 10 up to 50 houses. Within these neighbourhoods, most of the structures were clustered into blocks. At times the buildings are placed so close to one another that adjacent contiguous walls were often 'agglutinated' to one another (Farid 2005, 41). The way the structures were generally so tightly packed together, abutting neighbouring buildings, means that there is no evidence for conventional windows or doors situated in the external bounding walls and houses were generally accessed via a ladder, usually situated in the south-west corner, through an opening in the roof (Hodder 2012b, 304). This tight clustering persisted until the upper levels when open spaces began to appear and houses were less densely packed (Marciniak *et al.* 2015).

A final division can be made within neighbourhoods, where smaller groupings of houses, perhaps three to six, seem to exist possibly tied together with social and economic links. These ties are evidenced by their use of a common main house used for burial. This 'main house' could perhaps be interpreted as corresponding to Mellaart's 'shrines', now dubbed 'history houses' (Hodder 2012b, 304).

Buildings are quite standardised. They mostly had one main room and one to three side rooms used for storage and food preparation (Hodder 2012b, 305). This main room always had several internal features such as ovens, hearths, scoops and pits, as well as raised floors, benches and platforms. The layout of the features is quite similar in all buildings, with platforms and benches generally located along the eastern and northern walls and often containing multiple burials. However, neonate and child burials sometimes occur near the ovens and hearths in the southern part of the main rooms (Hodder 2012b, 305; Taylor 2016, 22). The north area of houses is associated with higher levels of elaboration such as paintings, plaster installa-

Level North G-a

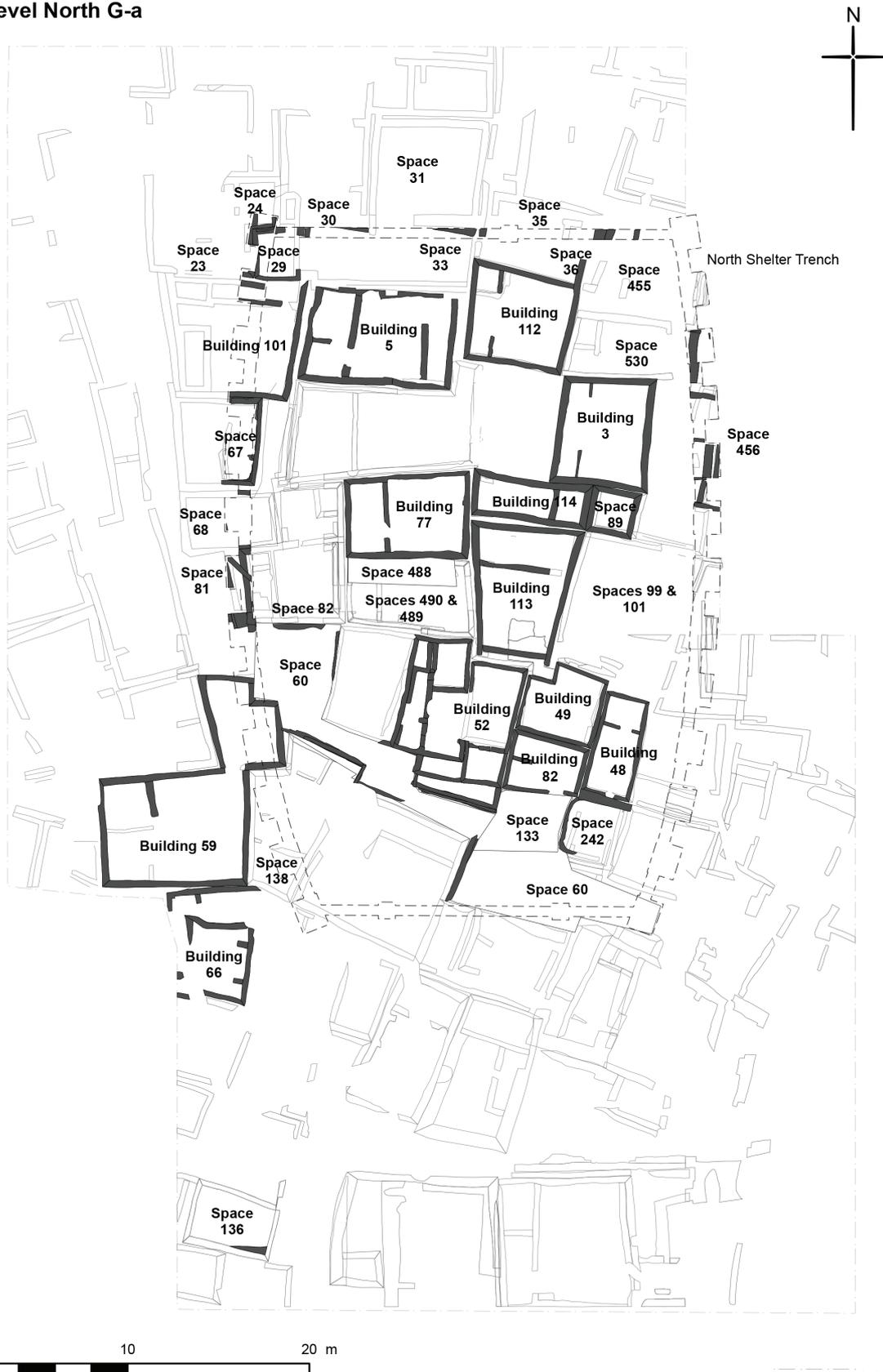


Figure 3.15: Densely clustered buildings in the North Area, level Ga, dated to the middle period, ca. 6700-6500 BC. Courtesy of the Catalhöyük Research Project

tions and 'bucrania' (cattle skulls with horns) which are most commonly found on the east and west walls. This area of the house and its features were often re-plastered, re-modelled and occasionally decorated numerous times throughout the lifespan of the structure and the floors tended to be higher, whiter and cleaner (Hodder 2012b, 305). Where present, adjoining spaces or rooms were accessed by small rectangular or oval doorways or 'crawl-holes' (Hodder and Cessford 2004, 2; see fig. 3.16).

Despite the overall similarity between most of the structures on the site, some buildings have more internal elaboration than others. Historically Mellaart saw buildings either as houses or as 'shrines' concentrated in a so-called 'priestly' quarter (Mellaart 1967, 77-78). However, this use of the term shrine and the distinct 'ritual/religious' overtones implied by such a term is problematic. Moreover, the activities carried out in these buildings have since been found to be similar to those in other buildings at the site. Irrespective of how much more symbolism and/or burials houses contain, they all seem to have served as domestic buildings (Hodder and Pels 2010, 163). In an attempt to steer away from loaded terminology, Hodder instead based the categorisation of structures upon the more neutral concept of building complexity (Hodder 1996b; Hodder 2012b; see also Richie 1996). As such, Hodder refined the interpretation of these more elaborate structures on the site by defining what he calls 'history houses' (Hodder 2012b; Hodder and Pels 2010, cf. Düring 2007), based upon evidence of the history of use, burial and ritual and symbolic elaboration as measured by numbers of platforms, pillars, installations and so on.

Beyond elaborate surviving decoration, the history house designation also implies continued reuse and re-building of a structure over what may amount to hundreds of years, resulting in the accumulation of artefacts and often very complex burial sequences (Taylor 2016, 24). History houses tend to be in use and rebuilt for

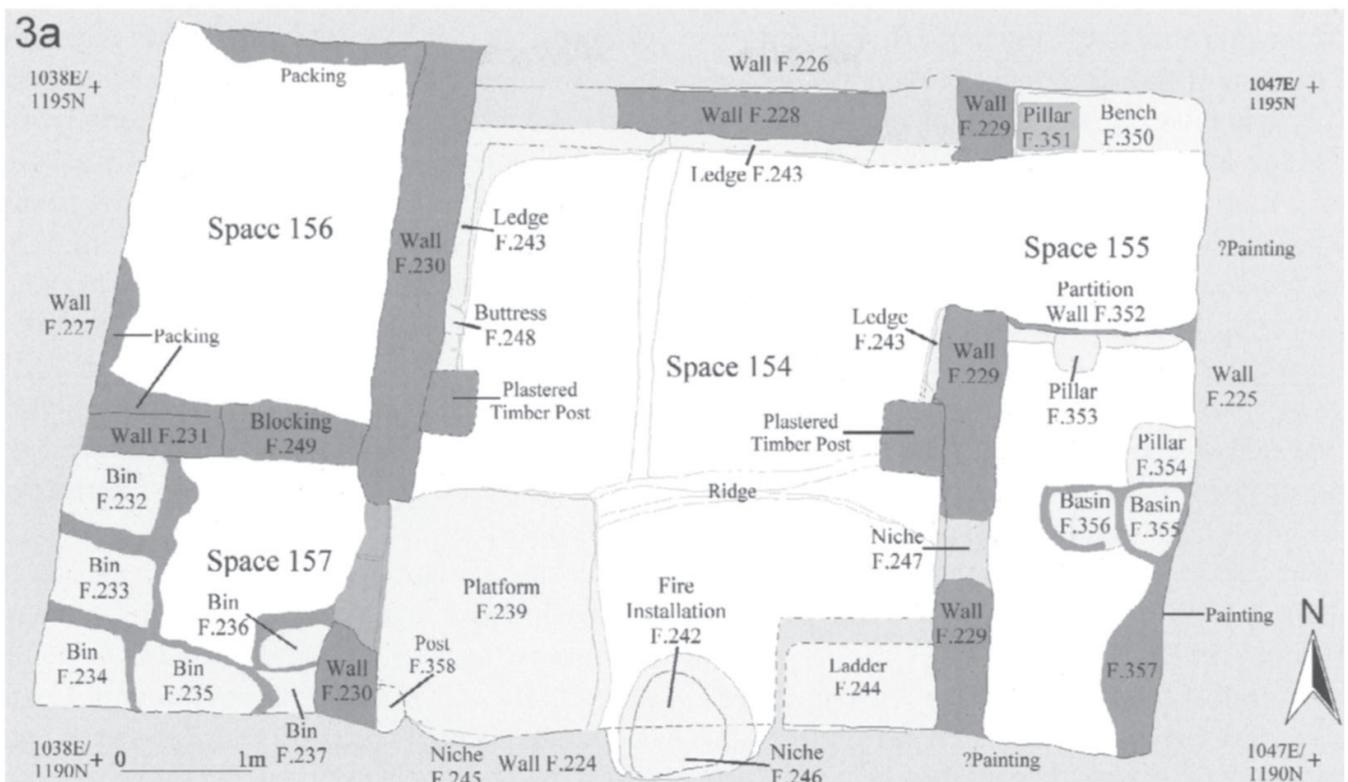


Figure 3.16: Phases of occupation in Building 5, dated to the middle period ca. 6700-6500. After Hodder and Cessford 2004, 23

longer periods than other houses, however, they do not control production or storage nor do they contain wealthier burials. Any evidence for social differentiation between history houses and non-history houses is very slight (Hodder 2012b, 304). The definition of a history house emphasises temporal depth (or longevity) and elaboration. So, if houses are long-lived, but have little to no ‘elaboration’ and a limited burial sequence they do not qualify as history houses (Taylor 2016, 25). Some so-called history houses are very small and have a simple building plan, however, they do evidence long histories of use and elaboration (Hodder 2007, 4).

At the end of the use-life of a building, structures were generally demolished and a new structure was rebuilt directly on top of its predecessor. On abandonment, paintings were covered over and internal features were sometimes carefully filled with earth (Hodder 2012b, 304). The upper walls were demolished, and the lower half of the house was often carefully filled in with fairly clean soil. A new house was constructed built on top and the internal layout of the earlier building was at times echoed almost exactly by its replacement (Hodder 1996a, 2012).

### **3.3.5 GENERAL REMARKS ON SUBSISTENCE**

Çatalhöyük has a mixed subsistence based on cereals (wheat and barley) and pulses (peas and lentils) whilst also having a component of gathered plants such as fruits and nuts (Bogaard *et al.* 2017, 18). The domesticates occur from the earliest levels of the site’s occupation (Larsen *et al.* 2015, 32).

During the 7<sup>th</sup> millennium domestic sheep and goats are present at the site, domestic cattle are first identified around ca. 6500 BC (Larsen *et al.* 2015, 32 cf. Bogaard *et al.* 2013; Fairbairn, Near and Marinioli 2005; Russell and Martin 2005; Russell *et al.* 2013). The great majority of animal remains consists of domesticated *caprine*, especially sheep. In addition, various wild plants, deer, birds, and non-domesticated pigs and aurochs were also consumed. There is also evidence for fish consumption, although this comprised a minor part of the diet based on the finds (cf. Bogaard *et al.* 2013; Russell and Martin 2005; Russell *et al.* 2013; Van Neer *et al.* 2013).

The sequence on the East Mound reveals a diachronic trend of switching to less labour-intensive crops over time, for example, turning from hulled to free-threshing wheat and a decrease in bitter vetch in favour of less toxic pulses. Interestingly, these changes were observed to take place in certain households and not others (Bogaard *et al.* 2017, 22) reaffirming the idea of the existence of clusters of buildings or ‘neighbourhoods’ cooperating as social units. This shift is accompanied by other changes in activities and material culture possibly linked to the 8.2 KYA event (Bogaard *et al.* 2017, 22).

### **3.3.6 GENERAL REMARKS ON MATERIAL CULTURE**

A range of clay material culture is evidenced Çatalhöyük. Pottery appears very early in the sequence, ca. 7000 BC, making it some of the earliest in Anatolia (Doherty 2017, 41; see also Bayliss *et al.* 2015). From about level South. M (6700-6500 BC), the fabrics change and a gritty fabric becomes predominant (Doherty

2017; cf. Last 2005). The source of this clay has been identified to originate some 25 to 50 kilometres away from the site (Doherty 2017, 44). This clay remains in use throughout the sequence, continuing on the West Mound. The question concerning how pottery production was organised remains unclear; either clay was brought to the site, pots made further afield, formed part of an exchange network, or a combination of the three (Doherty 2017, 44).

Small geometric objects, so-called tokens, are found in all levels at the site. Some of them might have functioned as tools, these objects were baked and they show percussion marks. Likely, these geometric shapes served a range of purposes (Doherty 2017, 49). Clay balls are found in large numbers at the site (Bennison-Chapman 2014, 220) but go largely out of use with the introduction of the grit-tempered cooking ware. They were likely used for cooking also evidenced by the fact they are mostly found burnt (Doherty 2017, 45). A category within clay balls, the so-called 'mini balls' were not used for cooking. They are found unfired, sometimes in large clusters perhaps as 'blanks' to be used in figurine or token production (Doherty 2017, 46).

Stamp seals have been studied in detail by Türkcan (2005, 2013). They are present from level South. M/ North. F onward and represent some of the earliest examples in Anatolia (Doherty 2017, 49). Currently, no impressions of these stamp seals in clay have been recovered, perhaps they were used to stamp surfaces such as fabrics, leathers, walls or possibly even human skin (Bennison-Chapman 2014, 220).

Naturally, a range of technologies in other materials was recovered at the site. Stone objects include a range of flint and obsidian tools, as well as rare finds of obsidian mirrors. Obsidian use has been extensively published by Carter (see, for example, Carter 2011; Carter and Milic 2013; Carter and Schackley 2007). A range of ground stone implements provides evidence for cooking and food processing activities (Baysal and Wright 2005, Wright 2013, Wright and Baysal 2012).

Bone was used for a range of tools, for example, polishers, pins, awls and belt hooks (Russell and Griffiths 2013) as well as decorative items. Beads are found in a range of materials: bone, clay and a variety of stone and shell types (Hamilton 2005). The excellent preservation conditions have enabled the recovery of wooden objects such as vessels and containers (Mellaart 1967: 105-108) as well as providing evidence for other organic materials, such as basketry, matting and clothing (Rosen 2005: 206; Wendrich 2005).

Not all materials used at the site were locally available. Most notably, concerning figurines, there are no stone resources near the site and stone items either came to the site as raw material or finished products. The distances materials crossed is substantial, for example, the obsidian comes from Cappadocia some 190 kilometres away (Carter and Schackley 2007; Ostaptchouk 2014; Sadvari *et al.* 2015). Sources of other stone types are less well-known, however likely the limestone hills located some 15 to 20 kilometres away were exploited. Research into the bead technology has demonstrated a shift to stone types such as calcite, carnelian and hematite that come from sources further away, some as far removed as Cappadocia or Antalya (Sadvari *et al.* 2015, 174).

### 3.4 SITE OVERVIEW: TELL SABİ ABYAD

Tell Sabi Abyad is dated to ca. 7100 to 5300/5200 BC, founded in the PPNB and occupied up to the Halaf. The Late Neolithic is divided into an early and late period. The early period, or Balikh IIA, in the local chronological sequence, is mostly defined by the first occurrence of pottery. The late period is subdivided into three phases: Balikh IIC (or Pre-Halaf), Balikh IIIA (Transitional) and Balikh IIIB (Early Halaf) (Akkermans *et al.* 2006, 125).

In the past, the Late Neolithic in Upper Mesopotamia has been conceptualised as a time of ‘settled village farming communities’ (Bernbeck and Nieuwenhuys 2013, 31). As the common opinion stands now it should be seen as a period of great regional differentiation in chronology, settlement sizes and duration as well as material culture (Akkermans *et al.* 2006, 123). As such, the picture has changed to that of a patchwork of sites in regional networks including smaller short-lived settlements, seasonal occupation, in addition to large, permanent sites. Settlements were sometimes isolated in the landscape, but often we see settlement clustering, with mounds located a few dozen to a few hundred meters apart (Akkermans 1993, 147, 163-165; Akkermans 2013, 65). Tell Sabi Abyad seems to fit in a broader pattern of ‘shifting settlements’. Surveys in the Balikh valley revealed many other paired or merged sites with evidence of restricted, shifting occupation (Akkermans 1993). Such site clusters also occur elsewhere in Syria, for example at El Kerkh in the Idlib area, at El Kowm in the central desert, and Kashkashok and Seker al-Aheimar in the Khabur headwaters (e.g. Dornemann 1986; Tsuneki *et al.* 1998; Nishiaki 2001a). These were extensive foci of settlement over the ages, although occupation did not always cover the sites in their entirety but commonly moved from one mound to another over time (Akkermans and Van der Plicht 2014, 20; cf. Akkermans 1993).

Some of the larger sites had very long chronologies extending over centuries such as Tell Sabi Abyad (Akkermans *et al.* 2006, 123; Akkermans and Van der Plicht 2014, 22). It is important to remember, however, that these larger sites do not necessarily equate to there being large settlements (Akkermans 2013, 71) as findings from Tell Sabi Abyad have shown. The idea of these larger sites acting as regional centres cannot be substantiated; whether small or large sites, settlements look alike and do not seem to be organised differently (Akkermans 1993, 2013, 72; Akkermans and Schwartz 2003, 152). Nevertheless, Akkermans does emphasise that Tell Sabi Abyad, as one of the few long-lived large sites in the Balikh (although never ‘large’ population-wise), was likely a focal point in the landscape. The lengthy use of localities, as evidenced at Tell Sabi Abyad may have added to a developing sense of place and descent, giving more importance to some sites and creating pre-eminent landmarks full of history and memories for local populations. These sites may easily have become regional foci of social and economic interaction, providing food, shelter, security and storage, as well as opportunities for marriages, festivities, rituals and political decisions (Akkermans and Van der Plicht 2014, 24; cf. Akkermans and Schwartz 2003; Akkermans *et al.* 2006).

The ‘collapse’ of PPNB societies in the early 6<sup>th</sup> millennium seems to have ushered in an era of substantial change in the Levant and inland Syria. In areas long inhabited, a large number of Neolithic village communities

were abandoned, perhaps due to increasing aridity or degradation of the environment. For the remaining sites, these challenges likely initiated considerable socio-economic changes and changes in settlement organisation (Akkermans and Verhoeven 1995, 6).

Recent archaeological research in the Balikh valley indicates an ongoing trend toward decreased settlement area and density of population in the 6<sup>th</sup> millennium. Whereas a postulated 1000 individuals permanently inhabited the region around 6000 BC, some six or seven centuries later the population density in the area appears to have been reduced only around 300 or 400 people (Akkermans and Verhoeven 1995, 7). Only five settlements seem to have existed in the Balikh region at this time. These were all small sites, less than 2 to 3 hectares, and all located in the northern, rainfed part of the valley. However, of these sites only Tell Sabi Abyad and Mounbatah have provided evidence of durable, long-term occupation. The others are thought to have been newly founded in the late 6<sup>th</sup> millennium and have been interpreted as possible consisting of the ancestral communities from Tell Sabi Abyad and Mounbatah (Akkermans and Le Mière 1992, 21-22; Akkermans and Verhoeven 1995, 7). Because of this sparse occupation of the region, there is little evidence of hierarchical ordering, both at intra- and intersite levels. This notion is supported by the fact that indicators of ‘status’, as visible in the archaeological research, are rare (if not absent), that full-time craft specialisation seems to have been absent or only weakly developed, and that there is no clear evidence for ‘public’ institutions (Akkermans and Le Mière 1992, 21-22).

### 3.4.1 LANDSCAPE SETTING

Tell Sabi Abyad (or Khirbet Sabi Abyad) is located in the northern part of the Balikh Valley at an elevation of 321 metres above sea level, approximately 30 kilometres from the Syro-Turkish border (Akkermans and Van der Plicht 2014, 19-20; fig. 3.2).

The Balikh river is a perennial tributary of the Euphrates. It now flows about five kilometres west of the mounds, but originally the Nahr Turkman—a branch of the Balikh—likely flowed beside the mounds (Akkermans and Schwartz 2003, 47; Akkermans and Van der Plicht 2014, 19). Now characterised by expansive dry steppes, in the past the Balikh basin was characterised by a very diffuse river pattern, creating many meandering streams, riverine forests dominated by poplar, elm and ash and marshy areas (Akkermans and Van der Plicht 2014, 19; Russell 2010, 30).

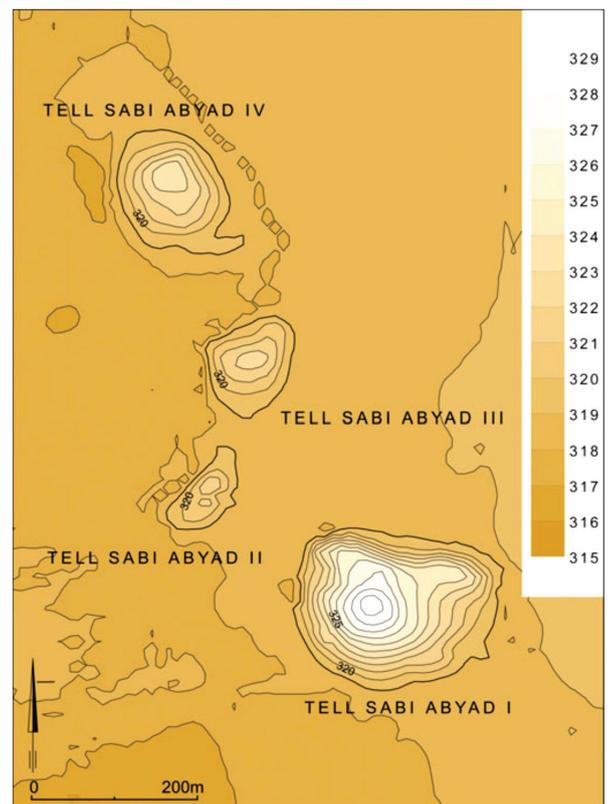


Figure 3.17: Tell Sabi Abyad I through IV. Courtesy of the Tell Sabi Abyad Digital Archive

It is located on the edge of what would be suitable conditions for rain-fed agriculture with a current annual rainfall of around 250mm p.a. In the Holocene it was equally arid, punctuated by periods of more favourable precipitation as well as periods of extreme aridity. This means that sites tend to be located close to permanent water sources in the Jazirah and Tell Sabi Abyad is no exception (Russell 2010, 28; Wilkinson 1996, 1).

The site consists of four tells named Tells Sabi Abyad I to IV measuring between ca. one to five hectares each (see fig. 3.17). The four mounds are located in a roughly linear orientation, north to south, no more than a few hundred metres apart. The largest of these is Tell Sabi Abyad I, measuring roughly 4.1 hectares and rises between 5 and 10 metres above current ground level, with part of the mound deeply buried below post-Neolithic sediments (Akkermans and Van der Plicht 2014, 19). Although this largest tell currently looks like a single mound, it consists of four smaller mounds. Erosion layers and heavy Bronze Age overburdens obscure the early deposits and fill the saddles between the four mounds, creating the appearance of a single tell (Akkermans 2013, 29).

### 3.4.2 EXCAVATION HISTORY

Excavations directed by Peter Akkermans started in 1986 and continued up to 2010. Excavations have been carried out at three of the mounds: Tells Sabi Abyad I, II and III. The fourth mound has been surveyed only and is not available for excavation, since it is used as a cemetery for the inhabitants of the nearby village of Hammam et-Turkman (Akkermans and Van der Plicht 2014, 19).

Initially, the project was part of a larger regional survey and excavation programme aimed at better understanding the chronology, settlement organisation and ecology of Halaf society in the Balikh valley (Akkermans and Van der Plicht 2014, 23; cf. Akkermans and Le Mière 1992; Akkermans 1993). In the large-scale excavations carried out between 1986 and 2010, the aim was to collect extensive settlement data through broad horizontal exposures as well as explore changes in settlement patterns and material culture through time. Because these research questions focussed on chronological developments, precise chronological control has been a priority in the excavations (Akkermans and Verhoeven 1995; Akkermans and Van der Plicht 2014).

Tell Sabi Abyad I has been most extensively excavated. The first campaigns were undertaken on the relatively low southeastern part of the site between 1986 and 1999: Operation I (see fig. 3.18). Archaeological work concentrated on occupation levels of the Early Halaf period. In total, an area measuring 1400 m<sup>2</sup> was opened in 9 by 9-metre squares. Earlier strata of the settlement were sampled on a limited scale in various stepped-trench operations. Deposits from a selected number of floors, rooms, hearths, etc., were sieved and/or flotated (Akkermans *et al.* 2006, 124).

To establish whether the finds from Operation I were representative for the entire site, new operations were opened up. These smaller Operations II to V each yielded impressive stratified deposits of Late Neolithic date spanning the entire 7<sup>th</sup> and early 6<sup>th</sup> millennia BC (Akkermans *et al.* 2006, 124; Van der Plicht *et al.* 2011). Work in the northeastern area began as a small sounding in 1986 to investigate the 6<sup>th</sup>-millennium

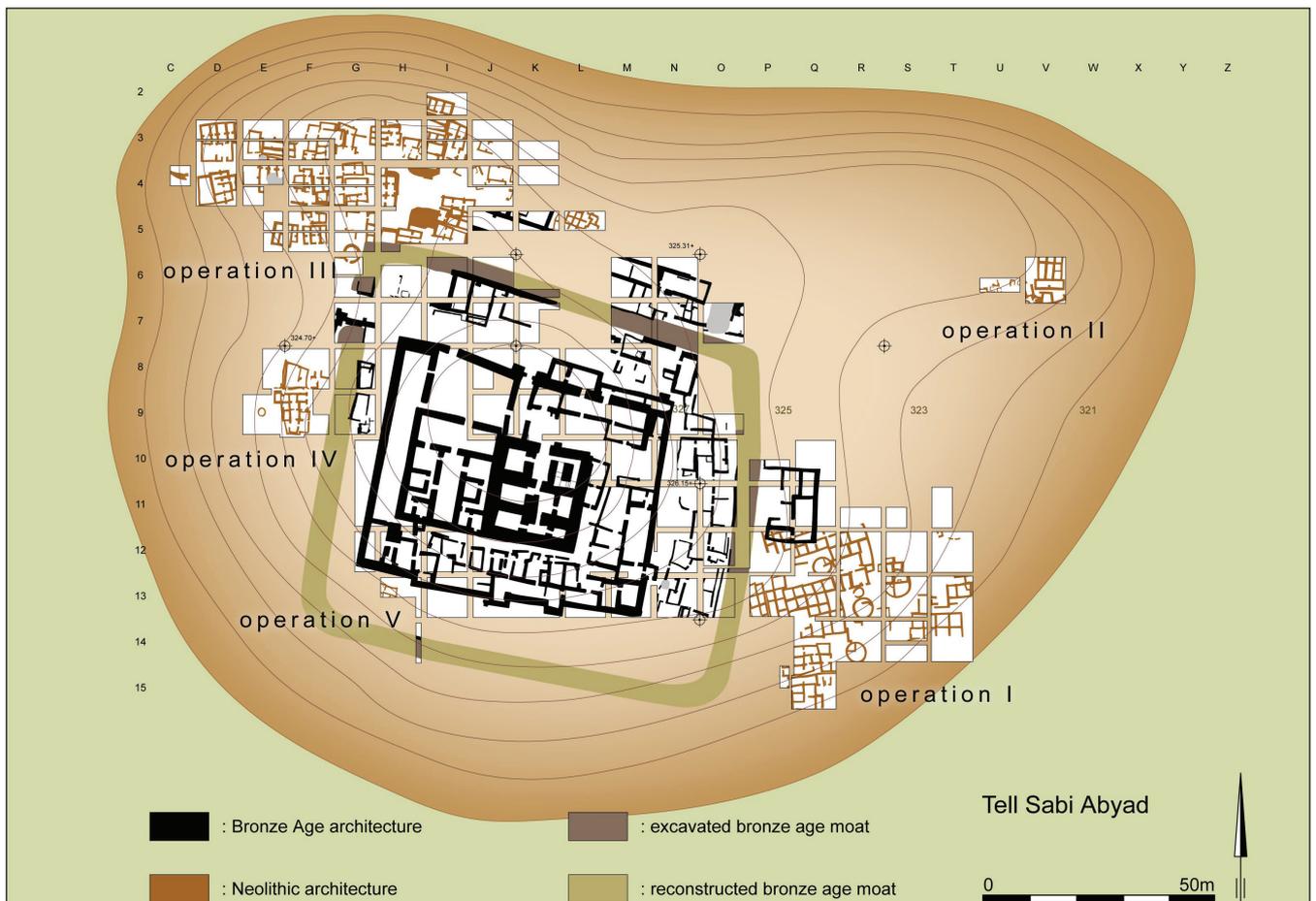


Figure 3.18: Tell Sabi Abyad showing the various Operations. Courtesy of the Tell Sabi Abyad Digital Archive

occupational remains in an area characterised by a concentration of Halaf-period ceramics on the surface. Research was resumed in 2002 and 2003 over an area of about 100 m<sup>2</sup> (Akkermans *et al.* 2006, 129).

In addition to the trenches at Tell Sabi Abyad I, excavations have also been carried out at the small neighbouring mound of Tell Sabi Abyad II between 1993 and 2001 and at Tell Sabi Abyad III in both 2005 and 2010. Both Tell Sabi Abyad II and III contained extensive occupational levels from the late 8<sup>th</sup> and early 7<sup>th</sup> millennium BC (Akkermans and Van der Plicht 2014, 21; cf. Akkermans 2013).

### 3.4.3 OCCUPATIONAL SEQUENCE

Occupation at the site spans the PPNB up to the Halaf (table 3.2). The oldest levels have been uncovered on Tell Sabi Abyad II, initially thought to be dated exclusively to the PPNB (cf. Verhoeven and Akkermans 2000; Verhoeven 2004), this view was later amended as the architecture and the (very) small numbers of ceramics in the upper two or three layers at the site are comparable with the finds at neighbouring Tell Sabi Abyad III, indicative of a date in the very early 7<sup>th</sup> millennium or Initial Pottery Neolithic<sup>3</sup> (Nieuwenhuyse *et al.* 2010). The excavations on Tell Sabi Abyad III revealed occupations dated to the Initial Pottery Neolithic, dated to the very beginning of the 7<sup>th</sup> millennium, ca. 7000–6700 BC. However, earlier strata of settlement of the PPN

<sup>3</sup> The single radiocarbon sample (UtC-4907, 7950 ± 50 BP) from the upper level 3A/4C is in accord with this conclusion, suggesting a date at about 7030–6710 BC (one sigma) or 7050 – 6690 BC (two sigma).

have not been excavated. Contemporary levels were also exposed in the deep soundings in the northwestern part of the main mound of Tell Sabi Abyad I (Nieuwenhuys *et al.* 2010). The various Operations on Tell Sabi Abyad I are dated to different periods. Operation I has eight levels dated to ca. 6200-5854 BC (Akkermans 2013, 34; Akkermans and Van der Plicht 2014, 23). Four similarly dated levels have been found in Operation II (ca. 6000-5800/5700 BC, Akkermans *et al.* 2006, 134).

The longest sequence comes from Operation III, dating to the beginning of the 7<sup>th</sup> millennium and likely earlier because virgin soil was never reached. A series of settlements remained in use until about 6200 BC, with even later deposits dated to the Early Halaf (Sequence C) and the Middle Halaf (Sequence D) periods (Van der Plicht *et al.* 2011, 230-231; cf. Akkermans *et al.* 2006).

The small excavations in Operation IV revealed remains similar to those of operation III with a slightly younger date of ca. 6300-6200 BC (Akkermans *et al.* 2006, 134). Finally, Operation V revealed deposits belonging to the late 7<sup>th</sup> and early 6<sup>th</sup> millennia, ca. 6300-5900 BC. In contrast to the other operations, each of which yielded remains from a single, discrete period, the exposure in Operation V falls into three distinct occupational episodes separated by hiatuses lasting a century or longer (Akkermans *et al.* 2006, 145).

#### **3.4.4 SITE LAYOUT AND ARCHITECTURE**

As also apparent from the previous section, the four tells that comprise Tell Sabi Abyad were not all always used contemporaneously: settlement continually shifted back and forth, not only between, but also on the four mounds. Whereas some parts of the settlements were in use almost continuously others were abandoned, either for good or to be reoccupied after sometimes long periods. In short, there was a continuous cycle of intra- and intersite movement of people, as well as localised abandonments and new foundations of buildings and communities (Akkermans and Van der Plicht 2014, 19-20; cf. Akkermans *et al.* 2006).

The architecture of Tell Sabi Abyad is very diverse and changes considerably over time. The oldest occupation on Tell Sabi Abyad II shows parallels with the early finds on Tell Sabi Abyad III, the architecture seems to be entirely rectilinear, with free-standing buildings set within close distance of each other. Some buildings appear to have had a symmetrical, tripartite layout with many small rooms (Akkermans 2013, 39-40). Another feature of this early architecture at tells II and III is the evidence for the use of large mud-brick platforms, sometimes partially lined with gypsum boulders (Akkermans 2013, 40; cf. Verhoeven 1999, 2004; Verhoeven and Akkermans 2000; see figure 3.19).

The very early Pottery Neolithic strata uncovered in Operation III revealed a series of (very) small settlements, comprising only a small portion of the site, leaving large areas open and unused. The upper building levels A4 to A1, dated to about 6450-6220 BC, have been excavated virtually in their entirety. These settlements covered roughly between 1200 m<sup>2</sup> (level A1) to 2000 m<sup>2</sup> (level A4). Building level A4 had as many as 14 free-standing, rectilinear, mud-brick structures, ranging from small, single-roomed buildings covering about 15 m<sup>2</sup> to large, multi-roomed, and often tripartite houses up to 64 m<sup>2</sup> in extent (Akkermans *et al.* 2014). The settlements had large open yards at their outskirts, which were used for the construction of

Table 3.2: Chronological phasing on Tell Sabi Abyad I, II and III. Courtesy of the Tell Sabi Abyad Digital Archive, adapted by author

Date cal. BC	Period	Tell Sabi Abyad I - Operations					Tell Sabi Abyad II	Tell Sabi Abyad III
		I	II	III	IV	V		
5700	Middle Halaf			D-seq.				
5800	Early Halaf			C-seq.				
		Level 1	Level 1					
5900		Level 2						
	Transitional	Level 3	Level 2			Phase III		
6000		Level 4	Level 3	Level B1				
		Level 5A/B		Level B2				
	Pre-Halaf	Level 6		Level B3				
6100		Level 7A	Level 4	Level B4				
		Level 7B		Level B5				
		Level 8A		Level B6				
		Level 8B		Level B7				
		Level 9		Level B8				
6200		Level 10		Level B9		Phase II		
	Early Pottery Neolithic				Level A1			
6300				Level A2		Phase I		
					Level 1			
6400				Level A3				
				Level A4	Level 2			
				Level A5				
6500				Level A6				
				Level A7				
6600				Level A8				
6700				Level A9			Level 1	Trench H7
6800	Initial Pottery Neolithic			Level A10				
				Level A11				
6900				Level A12		Level 2		
				Level A13			Trench H8	
				Level A14				
7000	PPNB			Level A15		Level 3	Trench H9	
				Level A16				
7100						Level 4		

fireplaces and other installations, as well as for the disposal of domestic waste. The buildings were all made of both large, irregularly shaped clay slabs and small, handmade mud bricks. The walls and floors in these structures were often covered by thick white gypsum plaster. Movement through the buildings was through small doorways, usually in the form of low and narrow portholes of such restricted size (50–60 cm across) that one would have to crawl through them (Akkermans 2013, 37).



Figure 3.19: Tripartite building in square H8 at Tell Sabi Abyad III, ca. 6900 BC. The platform below the building is clearly visible along the edges of the structure. Photograph courtesy of the Tell Sabi Abyad Research Project

## The Burnt Village

The architecture in the Transitional levels (ca. 6100-5900 BC) consists of large rectangular buildings with many tiny rooms surrounded by small circular structures (*tholoi*). The most impressive of these villages is the Burnt Village (level 6) destroyed by a large fire at about 6000 BC (Akkermans *et al.* 2006, 127; cf. Akkermans 2013). The Burnt Village comprised large rectangular architecture, smaller circular buildings, as well as extensive open yards on the outskirts of the settlement, which were filled with fireplaces, pits, and refuse dumps (fig. 3.20). In the centre of the village, there were large buildings often divided into three rows and consisting of up to 15 or more very small cubicles. Occasionally there was no passage at floor level and these rooms must have been accessed from openings high in the wall or from the roof (Akkermans and Verhoeven 1995).

The *tholoi* vary in shape and size. They measured up to four metres in diameter and were sometimes subdivided into smaller compartments. They stood in the walled courtyards or the clearances between the rectangular buildings. They may have served a variety of purposes, from living and reception in the case of the larger *tholoi* to the preparation and storage of food and the stabling of domestic animals in the case of the smaller ones. While some of these *tholoi* probably had a beehive shape, others were equipped with flat or pitched roofs. These round buildings were each used for a rather short period and were often rapidly replaced by new ones, set upon the lower, levelled remains (Akkermans 2013, 34).

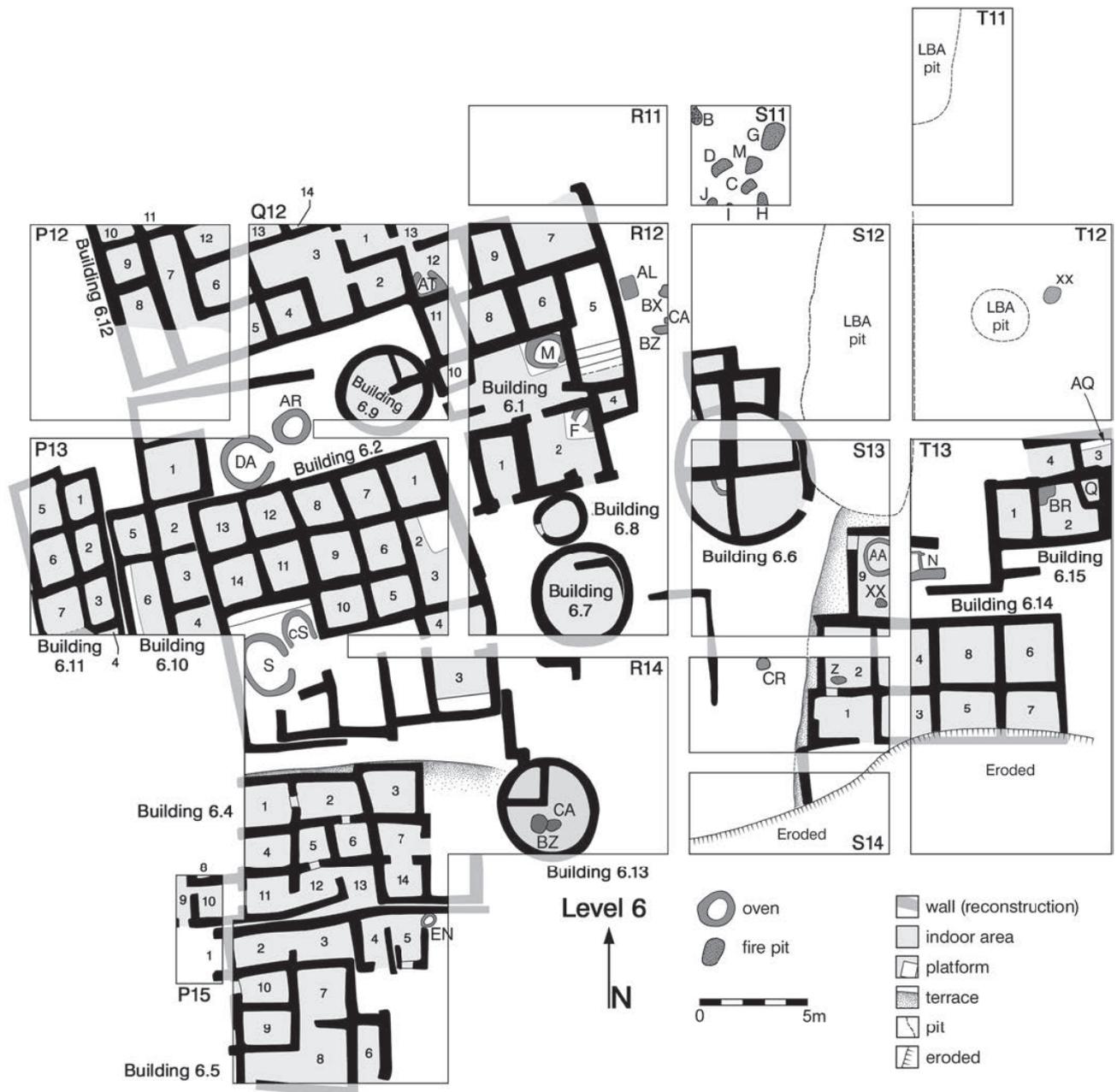


Figure 3.20: The level 6 settlement or 'Burnt Village'. Map courtesy of the Tell Sabi Abyad Research Project

The burning of the level 6 settlement was intentional and has been linked to prominent, ritual acts of burial and abandonment (see Verhoeven 1999). Another example of an intentionally burnt building was found in Operation II dated to ca. 6050 BC (Akkermans 2013, 35). This building was T-shaped in plan and consisted of three parallel rows of small rooms with a long but narrow room at a right angle in front of them. The walls were partly still standing to a height of 1.6 metres and again had no evidence of entrances at floor level. It is not excluded that the building originally had an upper storey (Akkermans 2013, 35).

### 3.4.5 GENERAL REMARKS ON SUBSISTENCE

Cereals are represented by two-row barley, emmer wheat, einkorn and bread or hard wheat. Einkorn wheat is evidenced from the late PPNB (Tell Sabi Abyad II) and the Pottery Neolithic levels (Tell Sabi Abyad I, Cappers 2014, 239). Food legumes are represented by the standard package of Neolithic ‘founder crops’, comprising lentil, pea, bitter vetch, chickpea and grass pea. These have only been recovered in small quantities, therefore it is unknown what proportion of the diet they constituted (Cappers 2014, 240).

In the PPNB ovicaprids are dominate the faunal assemblage as evidenced by the finds from Tell Sabi Abyad II. Cattle and pigs occur only in small numbers and it is unclear if they were wild or domesticated. Other wild taxa were found also in small numbers: gazelle, fox, badger and some bird remains (Russell 2010, 43). In the later levels on Tell Sabi Abyad, ovicaprids continue to dominate the assemblage. The amount of other exploited species changes through time, with more pigs, gazelle and equids in the earlier levels and an increased importance of cattle and decline of pigs in the later levels (Russell 2010, 75). Wild taxa are still represented in the later levels: equids, gazelle as well as smaller game and birds but never in very large numbers (Russell 2010, 78-79).

### 3.4.6 GENERAL REMARKS ON MATERIAL CULTURE

Pottery occurs early in the sequence, ca. 7000-6700 BC, and is different from pottery in later levels being minerally tempered, finely executed and occasionally decorated. Very likely this pottery was not locally produced (Nieuwenhuysse 2006, 116). In contrast, the later pottery is organically tempered and coarsely made (the so-called coarse ware). From the Transitional phase onward, at times richly decorated pottery has been found (Standard Fine Ware) at times in ‘typical’ Halaf shapes (Akkermans *et al.* 2006, 131; Nieuwenhuysse 1997). A non-local component in the later ceramic assemblage is attested by Dark-faced Burnished Ware which may have come from the northern Levant of southeastern Anatolia (Nieuwenhuysse *et al.* 2015, 57-58; cf. Nieuwenhuysse 2007). Seen as perhaps a precursor to pottery, so-called white ware vessels, a composite of lime/gypsum or ash, were in use at the site from very early on (Akkermans *et al.* 2006, 139; Verhoeven 1995).

Geometric clay objects (at times stone as well) are found throughout the levels at the site in a range of shapes (Verhoeven 1995, 194; cf. Bennison-Chapman 2014). Seals are a rare find, but the many seal impressions found on clay evidence their presence. Furthermore, impressions left on clay also evidence a range of organic containers, matting and the like (Akkermans *et al.* 2006, 131). Labrets, a type of body piercings, are found from the transition from EPN to Pre-Halaf period onward and are made from (lightly fired) clay and stone (Brüning *et al.* 2014, 178-180). Sling bolts are also a common find, sometimes found in large concentrations (Akkermans *et al.* 2006, 141, 149; cf. Brüning *et al.* 2014). Spindle whorls, mostly of baked clay, are attested in the later levels as are (perforated) discs, made of clay, re-used sherds and stone, are perhaps spindle whorls but their function is currently unknown (Brüning *et al.* 2014, 168).

A range of bone tools and implements was in use: spatula's, awls, burnishers and needles are attested throughout the occupational history (Brüning *et al.* 2014, 170; cf. Akkermans *et al.* 2006; Verhoeven 2004)

Trade and exchange of exotic materials is evidenced mostly by a range of stone types such as obsidian and basalt from Anatolia and serpentine, chlorite and steatite from the Euphrates valley (Akkermans and Verhoeven 1995, 20-21, 26-28). A range of stone ornaments, stone vessels, lithics and ground stone implements were found at the site (Verhoeven 2004, 193; cf. Collet and Spoor 1997; Huigens *et al.* 2014).

### 3.5 SELECTED RESEARCH THEMES

There are two main reasons why Tell Sabi Abyad and Çatalhöyük make for an interesting case study comparing figurine practices. The first reason is a practical one: any research into aspects of figurine production, use and deposition need well-documented, complete datasets. The two case-study sites are two such examples where all figurine fragments have been recorded with good contextual and chronological information.

Second, both sites have similarities as has become apparent. They are nearly contemporaneous and continuously inhabited sites with similar subsistence patterns, exploiting domesticated plants and animals, supplemented by wild resources. There are also similarities in material culture with an early appearance of pottery, the exploitation of nearby resources and evidence of trade in exotic materials, notably a variety of non-local stone types. Importantly, of course, both sites have large figurine assemblages. A final interesting point of comparison is observed change in the later levels, potentially linked to the 8.2 KYA climate event.

It is crucial to have this baseline of comparison. However, it is the particularities of the two sites that make for an interesting comparison. The themes set forth below are aimed to elucidate the different social settings at both sites and set the scene for the analysis and interpretation of the figurine corpora at both sites.

#### 3.5.1 HISTORY HOUSES AND 'MEGA-SITES' VERSUS SHIFTING SETTLEMENTS

Looking at the two sites, two distinct Neolithic trajectories appear: that of an Anatolian sequence starting with smaller sites exhibiting some of the traits that later seem to culminate in the 'mega-site' of Çatalhöyük, versus a patchwork of different types of sites in Upper Mesopotamia, where even the large sites are never densely populated and certainly not mega-sites by any stretch of the imagination. Interestingly, therefore, the two case study sites at first glance seem to be opposites on the Neolithic spectrum when it comes to the debate surrounding the idea of PPNB mega-sites.

In recent times the existence of large population centres has frequently come into question. It is too easy to assume that large sites, sometimes up to 10-15 ha, were settlements inhabited by many hundreds or even thousands of people (Akkermans *et al.* 2006, 151) and as such display the significant degree of social complexity that would be in keeping with their population. As Akkermans sees it, many of what we consider to be large sites probably were in fact either the outcome of continuously shifting occupation over a restricted area or simply extended, aggregated versions of the many small villages and hamlets rather than prehistoric urban centres (Akkermans *et al.* 2006, 152).

Within the research group working at Çatalhöyük, there has also been a change in the way the site is perceived; recent work by Kay (2020) shows that the individual house biographies show considerable variability. Poignant for this thesis, a recent publication by Plug, Hodder and Akkermans (2021), compares the two sites' differences and commonalities and adds nuance to both the ideas of continuity of built space at Çatalhöyük and lack thereof at Tell Sabi Abyad. Furthermore, a continuing programme of Bayesian modelling is changing the notions of Çatalhöyük as a very densely built-up site, as the ever more detailed absolute dating makes it possible to date the occupation of houses with much more accuracy. Therefore, although certainly different, the idea of Çatalhöyük and Tell Sabi Abyad as opposites on a spectrum is misleading.

These differences do not only impact the population numbers at the site with all of its implications. The dynamic nature of the settlement at Tell Sabi Abyad is in stark contrast to the idea of the 'history house' at Çatalhöyük. The house is also the primary medium for symbolic expression, expressed through the elaboration of houses with wall paintings, plastered wall features and the incorporation of auroch bucrania. A final strong link between people and the house, as well as between people and their predecessors, is the fact that the house is the primary place where the dead were interred.

Interestingly, it has been shown that the dead buried in a house were not necessarily biologically related. As discussed above it has been postulated that there might be groupings of houses, possibly tied together with social and economic links (Hodder 2012b, 304). There might thus be other structuring principles involved in the constitution of a 'household' or what it means to be 'related'. But it seems that we could classify Çatalhöyük as a society focused on the house and the household.

At Tell Sabi Abyad the opposite might be true and the society seems to be focused more on the community as a whole. Likely, this is also because the population numbers were low, estimated to be a few dozen at any given time (see f.e. Akkermans and Van der Plicht 2014, 21). People could therefore know everybody living at the site at any one time and likely had regular, if not daily, close personal interactions with everybody in the community. All of the aspects discussed above for Çatalhöyük's continuity and focus on the house(hold) are almost complete opposites from what we see at Tell Sabi Abyad. Architecture is much more 'dynamic', shifting around on the site and changing shape and layout frequently. There is no clear symbolic elaboration of houses, only one instance of wall paintings is known (Plug 2021, pers. comm.). Not all houses had internal storage (see below) and cooking facilities, instead the large open areas between buildings were used for preparing food. Interring the dead in houses is very rare, only a few infant burials have been found in houses, instead, large communal cemeteries were used (Plug, Hodder and Akkermans 2021, 5).

### ***3.5.2 EARLY SEALS AND EVIDENCE FOR COMMUNAL STORAGE AND PERSONAL PROPERTY***

Sealings are pieces of clay placed on the closure of containers and impressed with a seal intended to protect the container from unauthorised opening. As such sealings and seals are associated with concepts of property, of individuals or groups, and the administration of this property (Duistermaat and Schneider 1998, 90). Sealings are known from very early contexts at Tell Sabi Abyad associated with communal storage. In con-

trast, at Çatalhöyük no evidence has been recovered that indicates the clear existence of communal storage, administrative tools, or notions related to concepts of personal property (Bennison-Chapman 2014, 2020).

Many hundreds of sealings have been found at Tell Sabi Abyad, the vast majority of which were recovered in the Burnt Village (Akkermans and Duistermaat 2004; Duistermaat 2010). There have also been finds of clay sealings in the burnt building in Operation II. Furthermore, some earlier examples have also been found in levels 8-7 dating to ca. 6200-6020 BC (see Akkermans *et al.* 2006, 2013). The large amount of sealings is certainly one of the most interesting finds from the site, providing some of the earliest evidence of the use of stamp seals for administration (see Akkermans and Duistermaat 1997: 18-19; Duistermaat 2012, 8).<sup>4</sup> There are a number of sites in Syria where clay seals and/or sealings have now been found, some slightly older than those found at Tell Sabi Abyad, although the dating of some of the finds is at times tenuous (see Duistermaat 2010 and references therein).

The sealings show a wide variety of seal shapes and designs, including zoomorphic images, zigzags, s-shaped and concentric patterns (Duistermaat 2010, 173). Many of the seal designs are varieties on the same theme, possibly this can be interpreted as seals being an expression of, and an emphasis on, social identities and group affiliations (Duistermaat 1996, 364). The recovered seal impressions indicate that at least 77 different stamp seals must have been in use. This large variety seems to indicate that seals were not in the hands of a few, privileged individuals, instead, numerous people were involved in the process of sealing (Akkermans and Duistermaat 2013, 114; Duistermaat 1996, 364).

Curiously, the actual number of stamp seals discovered at the site is very low. For example, only one stamp seal was found in the Burnt Village. Another, as yet unexplained, observation (cf. Duistermaat 2010) is that the recovered stamp seals do not match any of the known sealings from the site. Several alternatives were proposed to explain this: perhaps the seals were made of perishable materials (although some stone seals were found at the site), or they were precious items carried by their owners who at some point left the site (cf. Duistermaat 1996, 339; Akkermans and Duistermaat 2014, 115).

Sealings were used to seal a range of objects: basketry, pottery, plaited mats, stone bowls, bags and ceramic vessels (Verhoeven 1999, 137). Together with concentrations of other objects, including miniature vessels, tokens, discs and figurines, the sealings were deposited in a clustered manner in buildings (Akkermans and Duistermaat 2004, 1; 2013). In these buildings some rooms have been interpreted as a sort of 'archive' based on a spatial analysis by Verhoeven of the Burnt Village, taking into account the find assemblages and building features to assign functions to the specific buildings (and rooms) and open areas.<sup>5</sup> In his analysis,

4 Early stamps, occur from the PPNB period onwards and take a variety of shapes and forms. Larger stamps, or '*pintaderas*', which have geometrical patterns, are found in large numbers on many sites. They are generally thought to have been used to stamp a variety of (organic) surfaces (see Duistermaat 2012 and references therein).

5 Verhoeven took into account two scenarios. In both the complete objects were regarded as *in-situ* artefacts, i.e. as primary *de facto* refuse. Both scenario's only take into account floor/surface deposits. In scenario 1, all artefacts, broken and complete, are taken into account. The broken artefacts are regarded as provisional or abandonment stage refuse which can still inform us on the function of a space. In scenario 2, only the complete artefacts are taken into account and broken objects are regarded as secondary refuse with no relationship to the find spot (see Verhoeven 1999: 60-61).

some rooms are distinguished from ‘normal’ storage areas based on the presence of administrative objects; sealings, tokens, figurines (possibly related to administration in this analysis) and large amounts of small finds. These archives have been located in building 6.2, rooms 1, 6 and 7 and building 6.5, in rooms 6 and 7 (Verhoeven 1999: 136, 152, cf. Akkermans and Duistermaat 1997, 2012).

In all cases, the sealings seem related to buildings with a specific function, namely communal storage. They are large multi-roomed rectangular buildings with a carefully planned layout. Besides storing sealed containers of various kinds, the buildings were also used for storing grain in bulk. This claim is based on the large quantity of charred grain found in these rooms, in addition, only a few small finds were recovered, indicating they were used primarily for storing grain (Verhoeven 1999, 136).

The reason behind sealing objects has been hypothesised in several ways. It was first believed that the sealed goods were part of an exchange network (Akkermans and Verhoeven 1995). However, interpretation quickly changed to that of a more local nature where sealing practices are related to two groups of people linked to the site; one of permanent inhabitants and one of pastoralists visiting the site only occasionally (cf. Akkermans and Duistermaat 1997; Duistermaat 2010; Verhoeven 1999). In this scenario, the community relied upon a subsistence strategy that included flexible forms of long and short term mobility and an increasing reliance on pastoralism around the time of the 8.2 KYA event (Akkermans and Duistermaat 2013, 116; cf. Akkermans and Schwartz 2003; Duistermaat 2010, 2013). Goods were thus potentially stored for people who were away from the site for longer periods of time.

It is hypothesised that each different seal was owned and used by an individual or a household and used to define and protect private property. The seals and sealings seem to have been used to preserve independence or individuality in a communal setting. The large variety of seal designs and shapes speak against sealing practices as being an expression of any sort of hierarchy at the site. Rather the use of seals was available to many, if not all, individuals or family groups. Sealings likely served to solidify the claim of a person or group on the sealed goods which were then put in communal storage buildings (Duistermaat 2010, 170).

At Çatalhöyük there is no evidence for storage of foodstuffs or objects beyond the household level nor of sealing technology (Bogaard, Charles and Twiss 2010, 314, but see Kay 2020 for an alternative view on household storage). Furthermore, whilst geometric clay objects—tokens—have been discovered at Çatalhöyük, Bennison-Chapman (2020, 109) puts forth a convincing argument that these objects never functioned as tokens, which, as she defines them, are: “*small tools acting as mnemonic aids, used to hold and transmit information. Utilised within the sphere of administration, to store and communicate information*”. Instead, she posits that these clay objects did not hold intrinsic value and did not have any single role across transcending households, occupational areas or levels of settlement. According to her, they were likely utilised as simple counting tools, gaming pieces or used in ritual activities (Bennison-Chapman 2020, 107).

Concluding, we have no clear evidence that there was any type of administration surrounding the storage and distribution of foodstuffs and objects at the site. In Bennison-Chapman’s research on the tokens from

Tell Sabi Abyad, she reaches an opposite conclusion. She posits that there is clear evidence of widespread utilisation of clay objects in counting or accounting activities in Operation I's level 6 and both phases of operation II based on the large quantities of clay objects with a distinct contextual distribution as well as the range of shapes of tokens (Bennison-Chapman 2018, 251; cf. Bennison-Chapman 2019).

One can speculate about the precise nature of this storing of goods on a communal level, however, the point to emphasise is that the image that emerges is of two very different communities structured along different principles which we can perhaps describe a 'household economy' at Çatalhöyük and a 'village economy' at Tell Sabi Abyad as stated by Verhoeven (1999, 231). It has to be noted that Verhoeven (1999, 231) postulates both a household economy at Tell Sabi abyad, related to the residents on the site, and a village economy to indicate the production and storage of grain and goods for the nomadic pastoralists who were away from the site for long periods.

Furthermore, with the system of sealing goods comes clear differentiation in architecture offering evidence for different activity areas within buildings at Tell Sabi Abyad. The large rectangular, multi-roomed buildings with their cubical rooms have clear storage purposes. These very large and regularly built structures contrast with other structures at the site which do not often follow a clear layout. In addition, the round *tholoi* also add to the clear differentiation in the architecture at the site (Akkermans 2006, 2010).

This contrasts with the largely uniform character of the buildings at Çatalhöyük. As stated earlier in this chapter the buildings are remarkably standardised. There are no clear indications of different activities taking place in different buildings and there are no buildings that have been identified as being solely related to the storage of goods. Instead, production, exchange, and consumption at Çatalhöyük seem to be largely organised at the domestic scale (Hodder and Cessford 2004, 22).

### 3.5.3 CHANGE IN THE LATER LEVELS: THE 8.2 KYA EVENT

At both sites, there is evidence for major changes in the later levels possibly linked to the 8.2 KYA abrupt aridification event. Much has been written about this abrupt and pronounced climatic downturn which, through a variety of proxy data, indicates colder and more arid conditions throughout the northern hemisphere (Alley and Augstodt; Flohr *et al.* 2016). Of course, we have to be careful to avoid environmental determinism, however, the changes at both sites around this date are striking and largely comparable.

Starting with Çatalhöyük, on the East Mound, there are indications for a major shift in the social organisation at around 6500 BC (Düring 2001; Hodder 2014a). Population numbers at the site decrease over time to the point where at ca. 6000 BC only the TP area seems to be inhabited (Orton *et al.* 2018, 622). The more densely built-up settlement is replaced by one which is less agglomerated, with house clusters interspersed with large open areas (Düring 2006). Another new phenomenon is the frequent burning of houses before re-use seen from level VI onward (Hodder 2012b, 308). Arguably as Hodder (2014, 11) has concluded this indicates that the previously egalitarian social organisation was being undermined by an increasing social differentiation, competition and economic specialisation after 6500 BC.

Furthermore, Hodder argues that the social organisation revolving around the history house system breaks down in the upper levels. This is evidenced by a reduced focus on elaborately plastered houses with bucrania, reliefs and paintings. Some use of bucrania continues, however, these are often made of plaster rather than incorporating real horns. Bucrania instead become a motive found in pottery as 3D elements on pottery handles, and paintings show the teasing and baiting of wild animals. Hodder notes that through changes in visual culture we might be discerning a change from the actual presence of wild animals to only their representation (Hodder 2012b, 307-308).

Another change is seen in burial practices as no underfloor burials have been found after ca. 6300 BC. Potentially, burials now occurred off-site, perhaps in cemeteries. This shift to communal burial practices can be interpreted as a measure of promoting group cohesion. In the TP area changes in mortuary practices are evidenced by, amongst others, collective burials in a decorated 'tomb', and associations of animal and human bones, which is not found in earlier levels (Orton *et al.* 2018, 622, cf. Düring and Marciniak 2005; Marciniak and Czerniak 2007; Marciniak *et al.* 2015).

Changes in subsistence patterns are evidenced by the first appearance of hulled barley (Bogaard *et al.* 2017). Animal exploitation also changes with a sharp decline in the hunting of aurochs and equids. Coupled with this decrease is an increase of domesticated goats and sheep, as well as the first clear indications of domesticated cattle (Russell *et al.* 2013). Herding practices change as well: there seems to be a shift to more household-level management of smaller flocks based on herd mortality profiles. Stable isotope analyses of animal bones seem to indicate increased mobility, suggesting that potentially herds were being grazed further afield (Orton *et al.* 2018, 622).

These changes at Çatalhöyük have been linked to the 8.2 KYA event in many studies throughout the years. Proxies, for example, from environmental studies and coring around the site show a weakly developed buried soil, dated to ca. 6200-5800 BC, marking the end of alluvial deposition and flooding and the establishment of a stable ground surface around the site (see Clare *et al.* 2008; Roberts and Rosen 2009).

The move to the West Mound has been discussed in relation to these changes in the later levels. As discussed earlier, recent work has revealed overlap in occupation on the East and West Mound which has been dated to at least 6000 BC and likely much earlier (Orton *et al.* 2018, 633). There is continuity between the mounds, for example in architecture, with the find of large buildings being interpreted by some as further expansion of household autonomy (Orton *et al.* 2018, 623, cf. Anvari *et al.* 2017). They also discuss continuity in subsistence data and link this with research by Baird (2005), who notes the appearance of additional smaller settlements on the plain after ca. 6000 BC, indicating acceleration of the Late Neolithic trend of greater mobility and more extensive landscape use.

These observed changes at Çatalhöyük have previously been compared to changes seen at Tell Sabi Abyad, noting similarities in settlement shifts, changes in subsistence patterns, as well as the appearance of painted pottery at both sites (Biehl *et al.* 2012, 61). Furthermore, changes are seen in wider Upper Mesopotamia:

changes in subsistence such as the introduction of pastoralism, milk processing and evidence for communal feasting, together with the proliferation of Halaf pottery, the “*Painted Pottery Revolution*” (Nieuwenhuys 2009 in Biehl *et al.* 2012, 61). The changes in Central Anatolia are interpreted as being part of the same ‘revolution’ and suggests that they could be perhaps partly explained by new people moving in from elsewhere (Biehl *et al.* 2012, 61-62 and references therein). The introduction and rapid increase of painted pottery has been mentioned before in relation to Çatalhöyük and as mentioned by Biehl *et al.* 2012 is also seen in a wider perspective by Van der Plicht *et al.* (2012, 231), as he states the wider spread of similarly decorated pottery over vast geographic distances points to significantly increased social networking.

This proposed larger ‘revolution’ is a good segue into the discussion of the changes observed at Tell Sabi Abyad. As at Çatalhöyük, between 6300-6200 BC the area of settlement began to decline substantially. Based on carbon dates and developments in ceramic assemblages the sequence of abandonment is postulated to have happened first in the northwestern part of the site (Operation III), shortly afterwards in the western area (Operation IV), and finally in the southwestern area (Operation V). The site was not abandoned as two separate occupations seem to have existed: one partly founded on virgin soil and another partly on slope wash at the foot of the original mounds at ca. 6200 BC (Akkermans *et al.* 2006, 150-151). Of course, we need to mention the new architectural forms found in the Burnt Village: the *tholoi* (known earlier in the 7<sup>th</sup> millennium but only sporadically), the large storage buildings and the appearance of the sealing system with its implications for changing concepts of personal property in this period (Van der Plicht *et al.* 2011, 231, cf. Akkermans 2010).

In her research on faunal data Russell (2010) notes substantial changes in animal husbandry practices. Summarised by Van der Plicht *et al.* 2011, there is a shift to a much more diversified population that included both mobile pastoralists and sedentary agriculturalists. There is a (temporary) reduction in pig husbandry in favour of a more intensified use of cattle as well as a continued decrease in the importance of hunted fauna and a decrease in the number of wild species exploited (cf. Russell 2010, 280-281). There is also evidence for an increase in the use of secondary animal products. Increased fibre production is implied as spindle whorls increase in numbers significantly after 6200 BC (see Rooijackers 2012) and, finally, there is evidence for animals being exploited for their milk based on lipids found on pottery (Evershed *et al.* 2008; Nieuwenhuys *et al.* 2015).

### 3.6 CONCLUSIONS

The site discussions and selected research themes were aimed to give the social settings behind figurine practices at both sites. The picture has emerged of two sites with similarities, but also striking differences.

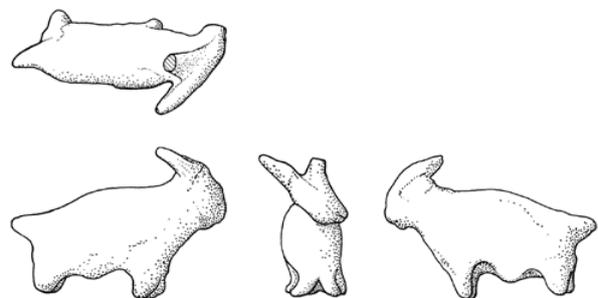
At Çatalhöyük there is a much more pronounced continuation of place focussed around the house, whereas the picture at Tell Sabi Abyad is that of continuous shifts and changes. At Çatalhöyük each house had its own storage facilities, oven and hearth (but, as stated earlier, see Kay 2020 for an alternative view). At Tell Sabi Abyad we see large communal storage buildings from the late 7<sup>th</sup> millennium, but there is also earlier

evidence for shared storage for groups of houses and internal cooking and storage facilities are very rare. The open areas between the building clusters were the primary location for cooking activities and the other socialisation that might have come from groups of people using communal space (Akkermans *et al.* 2006).

At Çatalhöyük, the house was the focus for much symbolic and ritual elaboration. The strong ties to the house were further strengthened by the burial of people in houses for most of the site's occupational history. In contrast, Tell Sabi Abyad yielded no evidence for the elaboration of houses and most of the burials occurred in communal cemeteries (cf. Plug *et al.* 2014). As Plug, Hodder and Akkermans 2021 postulate, perhaps this household versus communal focus is related to differences in population size at both sites. Even at its most conservative estimates, the population numbers at Çatalhöyük are many times that of Tell Sabi Abyad, and perhaps a degree of anonymity comes with living in a larger community. Potentially, the continuity in built space and relatively 'static' architecture is a result of this as well: a means to create and sustain group cohesion. Conversely, this was not needed at Tell Sabi Abyad, as the group living at the site was of such a small size that everybody knew each other and engaged on a regular (even daily) basis in close face-to-face contact and exchange.

These different communities both engaged with figurines and the question arises how these different social settings incorporated figurines into their daily practice and how figurine engagement formed part of their social *habitus*. Importantly, both sites underwent considerable changes in their later levels. These changes are comparable to a large degree at both sites and seemingly impact upon all aspects of daily life. Therefore, the question arises is how do these changing social settings impact figurine practices? Thus far, this question has not been answered and this makes these two sites an extraordinarily interesting case study.





# CHAPTER 4:

## THE DATASET

In this chapter, the datasets of both sites will be described. The focus will be on how the datasets were compiled and recorded. Subsequently, setting forth the figurine typology for both sites will be the main aim of this chapter. This figurine typology will form the starting point for analysis in chapter 5.

### 4.1 RECORDING THE DATASET: ÇATALHÖYÜK

The figurines were recorded in a purpose-built database, which was initially designed as an extensive database to accommodate a broad range of shaped objects including tokens and clay balls (Meskell and Nakamura 2005, 161). The aim was to create a recording system that would be able to encompass a range of clay technologies found at the site (Nakamura and Meskell 2006, 228).

It soon became clear that the process of making figurines was sufficiently distinct and unique to warrant a separate recording system from other clay objects, and a new database was built. The figurine team decided to employ a tiered recording methodology. This entailed fully recording all diagnostic figurines and figurine fragments while recording only information on fabrics and the weight of the non-diagnostic pieces. Basic descriptive and contextual information for all objects was recorded where possible (Meskell and Nakamura 2005, 161; Nakamura and Meskell 2006, 228).

#### 4.1.1 RECORDING BASIC INFORMATION

Figurines were given a unique number that consists of the unit number in which the figurine was found and 'X' or 'H' with an ascending number. Figurines were given an 'X' when they were recovered in-situ, so for example an X-find from unit 5400 will be numbered 5400.X1, X2 etc.

The figurine forms used by the Çatalhöyük team consist of three main parts: 1) typology, information on breakage/level of completeness and measurements and weight; 2) information on clay types and fabrics, inclusions, information on heat exposure, environmental wear, colour and surface treatments such as paint or slip; 3) notes on manufacture, including an assessment of the overall quality of modelling and the level of smoothing.

Information on clay types, fabric and inclusion was added for 191 objects whilst on-site in conference with a member of the figurine team. Detailed notes on the shaping of objects were recorded by personal observation for 49 abbreviated, 38 anthropomorphic and 120 zoomorphic figurines. Further notes were made by examining photographs. Therefore, most of the analysis is based on original information

with the exception of the discussion on the shaping of objects which is primarily based my own observations.

#### 4.1.2 RECORDING CONTEXTUAL INFORMATION

The separate object databases employed at the site are integrated into the central excavation database, which automatically links objects to the contextual information for the unit in which it was recovered.

Every object was recorded in a unit number, given to every deposit or event. When a figurine was found in a building the number of the building was recorded. A structure was assigned a building number when more than one internal space could be assigned to one structure. Unit information was recorded in detailed 'unit sheets' in the Çatalhöyük excavation database. There are seven data categories to describe units: 1) fill; 2) floors (use); 3) construction/make up/packing; 4) activity; 5) midden; 6) arbitrary and 7) natural. These in conjunction with the excavators' interpretation provides the contextual information.

These interpretations were not always standardised, for example, a room fill is at times described as a midden in a(n) (abandoned) building or a pit fill is described as a midden when it is recorded as being related to a pit feature. Here the contexts have been standardised as much as possible. At times this was difficult because information for units is at times not completely recorded. For example, the unit is described as being a room fill but not linked to a building. Through the excavation database, the archive reports (available online: <http://catalhoyuk.ege.edu.tr/research>) and "Hatch" (<https://hatch.e-archaeology.org/hatc/list>), a website with descriptions and plans of many of the buildings, units have been linked to buildings as much as possible.

A feature number was allocated to any group of related units that needed to be described as a whole. For instance, a burial cut, associated fill(s) and skeleton (each of these is a 'unit') were grouped under a feature number.

A final contextual distinction is the area of excavation. These areas (4040, South, TP, IST, North)<sup>1</sup> represent different areas on the East Mound and 'West' for the West Mound. There are some issues with figurine densities as areas on the East Mound have been excavated using different excavation techniques complicating analysis. For example, the BACH team spent several seasons excavating a single house whilst in other areas teams excavated a few houses in one season. Furthermore, the TP area near the top of the East mound had to deal with more disturbances than other excavation areas; most notably later burials and animal burrows and these issues have to be taken into consideration (Nakamura and Meskell 2006).

The figurines excavated by Mellaart lack contextual information and there is a further group of figurines that were collected from Mellaart's spoil heaps in a training and educational excavation named 'TEMPER', initiated to re-evaluate Mellaart's figurine corpus. These Mellaart and TEMPER finds have been given object numbers consisting of five or six digits, all starting with '999' followed by 'H1, H2 etc.

---

1 The BACH, 4040 and surface scrape areas have been incorporated into the North area.

### 4.1.3 RECORDING CHRONOLOGICAL INFORMATION

As the figurine database was linked to contextual information in the central database, so too is it linked to the phasing database. This information consists of the Hodder levels, which can be then linked to the <sup>14</sup>C dates. Here, figurines will be subdivided into the phasing scheme applied at the site dividing the corpus as belonging to the 'early', 'middle', 'late' and 'final' phase. In this way, it will be possible to observe general trends over time.

As has been discussed in chapter two the dating for the West Mound has recently been reassessed and is now known to partly overlap with that of the East Mound. However, here the figurines recovered from the West Mound are still recorded as being Chalcolithic, as no exact dates for the figurines exist at the time this thesis was written.

### 4.1.4 RECORDING INFORMATION ON CLAY COMPOSITIONS

There has been extensive work done on surveying the environs of Çatalhöyük in particular and the Konya basin in general (see Doherty 2017 and references therein). Within Hodder's project, clay sourcing has been an ongoing research topic and a coring project was initiated in 2007 to build a comprehensive environmental picture and to provide information on local soils/sediments in terms of their suitability for construction/fabrication materials, cultivation and other aspects of land use (Doherty *et al.* 2007).

Doherty also worked on clay analysis of the figurine corpus, creating an overview of the different types of clay used in figurines production. The description of the different clay types is summarised in Table 4.1 taken from the 2010 archive report where Aviss, building on the work done by Doherty, macroscopically and microscopically analysed 404 figurines. Using the descriptions of clay as formulated by Aviss a further 516 figurines have been assigned a clay type by the various members of the figurine team at the site. These assignments have been made sparingly, as only macroscopic analyses were performed (the author used a triplet magnifying glass 15x18mm). Furthermore, clays used for figurines were often mixed, likely as they were sourced, so they often do not fit neatly into any single category.

Another aim of the 2010 campaign was to design a database structure to specify the presence/absence of inclusions. They are recorded as being visible on the surface and/or in the cross-section, or not visible. The type of inclusions is recorded, as with clay type the exact type of inclusions is not always easily ascertained; for example, marl and plaster are very similar (see table. 4.2).

Inclusion amounts were recorded as ranging from small, medium to large and their amount rare, sparse to common and clay fabric texture has been recorded as fine, medium to coarse. Although the recording of this information for the figurines not microscopically analysed is to a degree subjective, it does give a good general overview when analysed as a large corpus.

The goals of Aviss' project do not necessarily align with the goals of this thesis. Of course, knowing if there was a deliberate choice in particular clay types and preparation of clays when looking at different figurine

Table 4.1: Clay fabrics summarised. After Avis 2010

Clay types	Colour	Composition, structure and inclusions
Upper Alluvial	Reddish brown	<ul style="list-style-type: none"> <li>* Very sandy, silty brown</li> <li>* Lacks coarse inclusions</li> <li>* Significant amount of sand, some organic inclusions but limited</li> <li>* Moderate frequency of inclusions, mainly sandy type and minerals</li> </ul>
Upper Lower Alluvial	Light-grey	<ul style="list-style-type: none"> <li>* Very fine, few inclusions</li> <li>* High silt/sand content</li> <li>* Sporadic colouring</li> </ul>
Middle Lower Alluvial	Medium-grey	<ul style="list-style-type: none"> <li>* Usuallyt fine inclusions, some rare finds of marl/plaster</li> <li>* Moderate silt/sand, high clay content make figurines strong and dense</li> <li>* Marl/plaster can cause shrinkage and fracturing as well as greenish lime tint clay</li> <li>* Low frequency of inclusions</li> </ul>
Low Lower Alluvial	Dark-grey/brown	<ul style="list-style-type: none"> <li>* Fine silty clay</li> <li>* Increase in organic/plant material</li> <li>* Strong smectic clay allows for high plasticity and elasticity</li> <li>* Low frequency of inclusions</li> </ul>
Black Organic	Dark-brown/black	<ul style="list-style-type: none"> <li>* High clay content</li> <li>* Coarse inclusions, sometimes attributes to shrinkage and fracturing</li> <li>* Coarse, crumbling and lumpy clay; lack of sand/silt</li> <li>* Not more organic material than Lower Lower Alluvial</li> <li>* Fairly high frequency of inclusions</li> </ul>
Pure Marl	White	* No coarse inclusions, very few inclusions; pure source
Sandy Marl	Brownish/reddish white	* High frequency of sandy inclusions

types, production and use is a primary goal here. However, determining whether or not clay was processed (adding temper, refining clay) was not a primary goal for Avis. Instead, the aim was to provide information on clay properties such as structure, strength, sand/silt contents and inclusion types and frequency. Although fields were created to record inclusions as being naturally present or added, this information was subsequently not recorded because it proved difficult to determine the context of the material and overall composition because of dirt and secondary build-up on figurines surfaces (Avis 2010, 95). This is an even larger problem for the figurine team in subsequent years who did not use microscopic observations.

Clay colours were recorded using a Munsell soil colour chart. The colours were taken from the surface and (where possible) the cross-section. As the colours on a single figurine can vary at times multiple colours were recorded.

A further category is that of environmental wear, the types of which have been identified as accretion, worn, chipped, cracked, discolouring, accretion, friable and staining.

Finally, the terms unbaked, baked and burnt are used to record heat exposure. Extra information was at times added on the level of heat exposure; sundried, lightly or well-baked and completely burnt. Information on uneven or even heat exposure was also recorded. One of the goals of Avis' project was to assess the heat exposure of the figurines. However, this has proven exceptionally difficult to do in the following years and therefore heat exposure for the majority of figurines is recorded as 'indeterminate'.

Table 4.2: Inclusions recorded in clay figurines. After Doherty 2008

<b>White-grey/Colourless Inclusions</b>	<b>Description</b>
Quartz	Usually clear and colourless but may be milky-white. Quartz is a relatively hard mineral, and can be distinguished from all other white or colourless types as it cannot be scratched using a steel needle.
Calcite	Calcite is the calcium carbonate mineral which forms limestone and marl. Calcite is usually milky white, very rarely colourless. It can be easily scratched or broken using a steel needle, and so is readily distinguished from quartz.
Volcanic minerals	The volcanic rocks in the catchment of the May and Carsamba rivers supply large quantities of volcanic minerals to the local clays. After quartz, the most common is feldspar. This is a milky-white mineral, although some varieties are pinkish. Feldspar is a bit softer than quartz and will take a slight scratch with a steel point, but will not scratch as easily as calcite.
Shell	Looks like shell.
Marl	Marl is a limestone-clay mixture. Normally this is a soft material but it may have become hardened through firing. White or off-white/grey, marl inclusions will not appear as single crystals or grains, but as fine aggregates.
Plaster	As plaster is made of marl, the two cannot be reliably distinguished.
Mica	Shiny, plate-like grains which often show a hexagonal outline. They are best seen on the outside of objects. Local clays are dominated by the brown-gold variety (biotite), but the white type (muscovite) is sometimes present.
Bone	Unburnt bone may be present where colluvium/midden clay is used.
Phytoliths	Where not carbonised, larger plant elements may appear as white fibrous inclusions. The white colour is due to the siliceous phytolith skeleton of plant material.
Gypsum	White or colour fibres which are the result of post-depositional processes. Gypsum is very soft, the fibrous crystals being readily disrupted by pressure from a steel needle.
Volcanic rock	Certain fabrics contain fragments of light-grey coloured volcanic rock (andesite and dacite). Often these are relatively large ( a few mm) angular grains, which may contain small dark volcanic crystals. Usually they are only present fabric which also have a high proportion of mica and ferromagnesian minerals.
<b>Red, Orange &amp; Brown Inclusions</b>	<b>Description</b>
Chert-radiolarite	A hard, flint-like material. Cannot be scratched with a steel point.
Feldspar	See above.
Mica (biotite)	Brown or gold biotite mica is by far the most common type, being derived from the extensive areas of volcanic rock in the Carsamba-May catchment. Seen as flat, soft and commonly hexagonal inclusions. Seen mostly on surfaces.
Marl and plaster	Marl and plaster exist in a variety of shades, most of which are not pure white but discoloured (brown) by a variable component of clay. Identification as for marl (white).
Ferromagnesian (volcanic) minerals	The dark-coloured volcanic minerals are not easily differentiated by eye of binocular microscope, and are given their group name 'ferromagnesian minerals', rather than identified individually. Usually these are shiny dark-green or black, but many are also brown. Again these relatively hard minerals can be distinguished from charcoal by use of steel needle.
<b>Black Inclusions</b>	<b>Description</b>
Charcoal - carbonised organic matter	Usually easy to recognise, either as black carbonised remains with some plant structure, or as distinctively shaped holes.
Ferromagnesian (black volcanic) minerals	As described above, these are more commonly black.

## 4.2 RECORDING THE DATASET: TELL SABI ABYAD

Figurines were all recorded on individual day forms. No separate database was created for figurines, instead, they were recorded in a central database that contained all object categories found at the site.

### **4.2.1 RECORDING BASIC INFORMATION**

The final recording system for objects developed over the earliest years of excavation and finally crystallised in the early nineties. In this system, objects were recorded with a unique identifying number. Figurines were recorded as 'F' (figurines) and sometimes as 'O' (other clay objects) when identification was unclear. This letter is followed by the last two digits of the year of excavation, a dash and an ascending number starting from 001, so for example a figurine excavated in 2001, would be numbered F01\_001 and so on. Later excavations at Tell Sabi Abyad II and III necessitated an adjustment in the numbering system. The identifying numbers for finds from Tell Sabi Abyad II and III begin with 'II' or 'III' respectively, so a figurine excavated in 2005 on Tell Sabi Abyad III would be numbered IIIF05\_001 and so on.

All the information available for the figurines was recorded on paper object forms, noting find locations, measurements and a description, this information was then copied into the database. Originally no separate fields were created to record different aspects of figurines, as is the case at Çatalhöyük. The custom database created for this thesis follows the three-tier recording system as employed at Çatalhöyük, more on this will be said below.

Whilst from 1990 onwards all figurine fragments have their own object form, the figurines recovered in the 1986 to 1989 seasons are sometimes recorded in lots. In general, the information on these earlier forms is much less comprehensive than that in later years. Often all that is known is the basic form (zoomorphic or anthropomorphic) and a count of the fragments.

The analysis for the Tell Sabi Abyad dataset is primarily based on original information: original notes on the object forms and the available visual references. This information was not systematically recorded as it was originally only recorded as notes and remarks. In contrast, the analysis of shaping objects is primarily my observations created by distilling information from the object forms and photographs and drawings.

### **4.2.2 RECORDING CONTEXTUAL INFORMATION**

Contextual information for finds has been recorded first by the square number in which the find has been found. These 9 by 9-metre squares have been designated from west to east with capital letters and from north to south with cardinal numbers (this cardinal system is shown on the site map, fig. 3.19 in the previous chapter).

Within each square, all deposits were excavated stratigraphically and each feature and find was recorded by its stratigraphic association. Areas were divided into either real or arbitrary spatial units (*loci*). Within these *loci*, different lots could be recognised based on recognised different strata or fills, comparable to Çatalhöyük's space-unit system.

Artefacts were all measured three-dimensionally from fixed datum points except when they were recovered in the sieve. Contrary to the recording system from Çatalhöyük, the Masterfile numbers for figurines are the same regardless of their discovery in-situ or through sieving. This information was recorded in the con-

text descriptions instead. There was no systematic sieving of all soil. Only a selection of deposits from rooms, floor, hearths, pits and so on was screened through sieving and/or flotation. As such, the number of figurines that have been recovered through sieving is substantially lower than those at Çatalhöyük. This means that potentially more figurine fragments were not recovered, however, it also means that contextual information for this dataset is more detailed and secure.

#### **4.2.3 RECORDING CHRONOLOGICAL INFORMATION**

The various Operations on Tell Sabi Abyad have been subdivided into levels, which in themselves are at times divided into sub-levels or strata. These levels have very secure and refined <sup>14</sup>C dates. The locus/lot combinations are assigned to levels and through this locus/lot combination objects are linked to carbon dates through a query in the original database. These carbon dates have been added to the basic information table in the database used in this thesis.

The absolute dates for Operations I and III are most secure, except for some figurines excavated in 2009 in Operation III. The squares I03 through to K04 have not been analysed and no levels have yet been assigned. Fewer carbon dates are known for Operation II and IV, making the dating for these figurines less fine-grained. For Tell Sabi Abyad II and III there are only a few carbon dates and they are not (yet) linked to the stratigraphic database.

Furthermore, several figurines are clearly Neolithic but were recovered in the much later Late Bronze Age occupation at the site. To align the exploration of chronological trends with that of Çatalhöyük, figurines will be assessed per phase which at Tell Sabi Abyad are: Late PPNB, Initial PN, Early PN, Pre-Halaf, Transitional, Early Halaf and Middle Halaf.

#### **4.2.4 RECORDING INFORMATION ON CLAY COMPOSITIONS**

Information on clay material properties was not systematically recorded at Tell Sabi Abyad. No information is recorded on clay types and there are only occasional mentions of the presence of inclusions and fabric texture. To provide some information on clays, findings from ceramic studies performed at the site are presented below.

Based on microscopic observations focussing on the type, amount, shape and size of inclusions, 11 groups were identified (see table 4.3). These are assumed to represent the combined result of mixing different clay sources and different clay preparation strategies (Nilhamn, Jacobs and Van As 2018, 233). These 11 were grouped into three main categories: 1 and 3 together are represented by a very dense amount of inclusions, all mineral, consisting of basalt (added) and limestone. Group 2 and 4 are distinguished by high percentages of plant fibres and small amounts of mineral inclusions, including fine sand, some limestone and some basalt. These minerals are likely naturally occurring in the clay. In group 4 the amount of organic inclusions is much higher, and likely organic temper (perhaps chaff) was added.

Table 4.3: Clay fabric groups recognised in Neolithic ceramics. After Nilhamn *et al.* 2018, 234

Clay fabrics	Main non-plastic inclusions
Group 1	Non-organic: basalt and limestone Organic: -
Group 2:	Non-organic: limestone grains, some basalt Organic: fibres
Group 3:	Non-organic: basalt, some limestone Organic: fibres
Group 4:	Non-organic: fine sand or limestone, natural to the clay Organic: fibres
Group 5:	Non-organic: limestone, some crystalline calcite, incidentally quartz, sporadically basalt Organic: incidentally fibres
Group 6:	Non-organic: limestone and some basalt Organic: -
Group 7:	Non-organic: limestone, basalt, some quartz Organic: -
Group 8:	Non-organic: grog (added), limestone, sporadically basalt Organic: -
Group 9:	Non-organic: basalt and some limestone (calcite) Organic: -
Group 10:	Non-organic: basalt (probably added) Organic: -
Group 11:	Non-organic: basalt (probably added), some limestone Organic: some fibres

Finally, groups 5-11 are heterogeneous. What sets them apart is the lower percentages of mineral inclusions, which are also less coarse. Organic fibres are largely absent and, when present, are likely naturally occurring (Nilhamn, Jacobs and Van As 2018, 233-235).

With the use of thin sections, five types of fabrics were established (see table 4.4). From these types, we can surmise some elements that are relevant for the analysis of figurines. It is clear that natural clay colours vary and are variable in the natural clays. Organic inclusions are present in the natural clays, but when present in large amounts are likely added as temper. Basalt can occur in trace amounts, but more often the larger inclusions are added as temper. Basalt is not naturally present in the mostly calcareous clays (Le Mière *et al.* 2018, see also Duistermaat 2008) and represents non-local clays.

### 4.3 COMPILING THE DATASET: ÇATALHÖYÜK

The starting point for the dataset used in this thesis is the corpus as it existed in the Çatalhöyük database. During two site visits in 2016 and 2017, data was at times adjusted and complemented. This means that for some figurines the typology assignments have been changed and data relating to clay types, inclusions, heat exposure as well as markings related to use and production have been added by the author.

High-quality photographs are available for many figurines and at times the amendments as described above have been made for figurines that have not been studied in the field. However, as observations from

Table 4.4: Clay types analysed from thin slides. Summarised form Nilhamn et al. 2018, 237-238

Type	Colour	Fabric	Temper	Voids
<b>Type 1</b>	Medium-tanned colour	The silt (<5%) includes mainly feldspar but also minor quantities of quartz, calcite, micas, and iron oxides 1a: matrix is medium coarse and unevenly distributed 1b: matrix is very fine and evenly distributed within group. Mineral temper is more unevenly distributed and distinctively larger, while displaying some elongated voids.	The temper is fairly well distributed but poorly sorted (in 1a more than in 1b). Rounded quartz grains are occasionally observed. Iron oxides are present as semi-translucent red stains to brownish to opaque (the latter perhaps magnetite and haematite), and are well distributed (5–10%). A few grains of rounded micrite (seen as sub-translucent greyish or brownish) are present as is some sparite (coarsely crystalline mosaic calcite crystals). The main temper (30–45%) is derived from basic igneous rocks (spilitic basalt and micro-gabbro with the minerals). Lime speckles are also present. The calcite elements show in most cases no signs of alteration at all and may be derived from spilitic.	A rather low volume percentage of voids. The few voids present are mainly rounded, and show no alignment
<b>Type 2</b>	Dark brownish to greyish tan	The distribution of the samples is even in a rather fine matrix. The calcite clay matrix (15–20%) has fine silt quartz and incidental grains of feldspar, pyroxene, and mica as well as some iron oxide.	The temper is fairly well distributed but poorly sorted. The elongated voids filled with charred material are good indicators of plant temper (10–20%). Some altered carbonates (calcite and dolomite) are also present. The main mineral temper is limestone (10–35%), which may occur as fossiliferous fragments (one sample) or angular calcite crystals, but mostly occurs as rounded dark micrite and lighter sparite. Ferruginous clay inclusions with rather sharp boundaries with a size up to 0.5 mm are found in the material as impurities of the clay.	Approximately 10–20% by volume of voids. Most are elongated with sharp boundaries that identifies the original plant material as straw or grass. Cracks are also frequent but there is no clear direction visible. The surfaces are medium dense.
<b>Type 3</b>	Light brownish tan	The surfaces are medium dense while the rest of the silty calcite matrix (5%) is rather fine to medium coarse. The silt displays very fine grains of epidote, feldspar and possibly pyroxene.	Temper is poorly sorted and unevenly distributed. Plant fibres compose 5–10% of the temper, carbonized remains are visible in the voids. A few dispersed quartz grains (rounded and angular) are seen in addition to altered calcite; however, in some cases only the edges of the calcite grains are decomposed. The main temper (20–30%) is different varieties of limestone, from angular monocrySTALLINE calcite, fossiliferous limestone to microcrystalline sparite and micrite. There are also 5–10% of crushed igneous rocks (spilitic basalt or micro-gabbro). A few ferruginous clay inclusions are also present as well as occasional chunks of both round and angular grog.	Approximately 10–20% of 0.5–1 mm large irregular voids but also a fair amount of cracks. Gypsum and anhydrite are seen as secondary material in some voids.
<b>Type 4</b>	Varying from dark brown to an ochre, orange tan	The natural calcareous clay also displays some silt grains of calcite (up to 20%) but also quartz and in some cases grains of mica, epidote and iron oxides. The distribution, both of the silt of the matrix and the inclusions, varies from even to uneven depending on the sample.	Most of the larger inclusions (ca. 1%) are quartz, calcite, dolomite, pyroxenes and alkali-feldspar, and are seen as monocrySTALLINE most likely present as impurities in the natural clay. The same is also the case with some fragments of sparite and micritic limestone. Other impurities are ferruginous clay inclusions that occur in nearly every sample (1–3%). Organic plant temper is by far the most obvious added material (25%). For some of the samples the plant material was distinctively identified as being straw. Often the plant material is seen only as a negative fibre shape, in some cases with carbonized remains in the void. Most samples show a combination of both unaltered calcite and a light reaction of calcite alteration. One sample contained a significantly higher proportion of limestone (10–20%) and therefore represents a distinct subtype (4b).	The very coarse material with larger voids (up to 30% by volume) distinguishes this type. Some of the elongated voids have sharp boundaries after the now vanished plant material. In addition elongated and irregular voids, round voids also occur. Most of the samples show alignment of the voids. Cracks occur but are not abundant. Some of the voids are filled up with secondary material such as quartz sand, gypsum, or anhydrite.
<b>Type 5</b>	Light-brownish tan	Mainly medium-course matrix. The calcite matrix shows an even distribution of mainly silt and quartz.	Temper is evenly distributed but not always well sorted. One sample has a few organic inclusions, which are most likely natural impurities. Ferruginous aggregates such as red translucent spots (most likely iron oxides from pigment) and opaques (magnetite and haematite) are found in all samples (3–5%). A few rounded grog fragments are present in several of the samples too. Gypsum and some anhydrite are also common (3–5%), but may be secondary as they often fill voids. The main temper added is different varieties of limestone, from crystalline calcite or limestone with or without fossils present, to sparite and micrite. Other ancillary minerals are micas (biotite and sericite), hornblende and feldspar.	Mainly have medium-course matrix with a few mostly rounded voids of an average size of 0.1–0.5 mm. Cracks are common but the surfaces show a denser texture.

photographs are more tentative than those made first-hand, information has been sparingly added and/or changed.

Figurines have been removed from the original dataset for three reasons. First, as stated above the database was originally designed as being a recording system for 'shaped clay' objects. There were several objects recorded in earlier years that were deemed 'non-diagnostic'. In practice, these are mostly pieces of clay that were not figurine fragments. Some were natural fragments, others were just little lumps of clay and small rolled pieces of clay that at times do not even clearly show any signs of human manipulation. Along with these objects, some non-diagnostic pieces do show signs of being worked, but they cannot be identified as being part of figurines.

Secondly, figurines were removed because there was no information or photographs, and they were not studied in the field. Mostly these are Mellaart and TEMPER finds. Many of them have no (or very poor) photographs and even the most basic information is missing. Those examples for which the typological designation could be verified, have been added to the dataset. However, they can only be used quantitatively, no qualitative information exists.

Finally, a small number of figurines have been removed because they are intrusive material from later post-Neolithic occupations at the site.

Conversely, several unrecorded figurines were discovered in the various storage crates during the two site visits. These figurines have been recorded on-site by the author and have been added to this dataset.

#### **4.4 COMPILING THE DATASET: TELL SABİ ABYAD**

The dataset consists of all the objects classified as figurines in the field, with those exceptions where they were deemed non-diagnostic. Subsequently, all the recording forms for the 'O' objects were assessed and objects that were deemed to (very likely) be figurines were added as well. Good photographs exist for only a small part of the dataset and often the only visual reference is the drawing made on the recording form. This sometimes makes identification problematic and means that at times one has to rely on the original interpretation without being able to verify its correctness. However, original interpretations have been altered in some cases. Sometimes conflicting views are given on a single object form. In these cases, the most likely identification was kept. It does mean, however, that interpretations for the Tell Sabi Abyad figurines are often more tentative than for the figurines from Çatalhöyük.

As stated above the figurines excavated from 1986 to 1989 have at times been recorded in lots with no further information and no visual references. It was chosen to not add those objects that were only mentioned as counts. For example, the form for O88\_086 records 18 pieces, one is a clear zoomorphic figurine that is described and measurements and notes on production and use wear are given. There is no information given for the other 17 objects under this number. These objects thus do not form part of the dataset, because their designation cannot be verified. Conversely, when information was recorded for different objects recor-

ded under one object number, they were added as separate objects by adding letters to the MF-number, for example, O88\_086a, b etc.

## 4.5 DATABASES

For this project, two new databases have been created (one for each site) using Microsoft Access. These databases separate into three tables following the structure of the Çatalhöyük database with some adjustments. Although the databases have been made to be as similar as possible, they are of course made to accommodate the different recording systems employed at both sites.

The main table contains general information. For both sites, this information includes typological designation, measurements, contextual and chronological information. The fields vary according to the recording systems at both sites (see fig. 4.1). Extra fields have been added to record the contexts as being in an open area or building. Furthermore, for the Tell Sabi Abyad database, the context descriptions have been condensed into a field to create categories of contexts instead of lengthy descriptions.

At Çatalhöyük, contexts are recorded as being external or in buildings and primary and secondary. These fields have been maintained. An existing field called ‘interpretative category’ was already present which resembles the context categories created for the Tell Sabi Abyad database. As stated above, originally figurines were linked to the space they were found in, not the unit. As a unit description is much more detailed than a space description, the unit information was added to the main table.<sup>2</sup> All the information for units, spaces and features were added to the Çatalhöyük database for cross-reference.

The second table records the material properties of the objects. This includes all available information on the type of clay used, nature of the inclusions, texture and fabric, heat exposure, any post-depositional influences on the object and Munsell colours (see figure 4.2). The information on material properties is much more detailed for the Çatalhöyük dataset, however, a similar—if not as detailed—table was created for the Tell Sabi Abyad figurines to record this information where available. As said, the Tell Sabi Abyad object forms recorded all information as notes in one text entry in the original database. By recording the information in separate fields it becomes quantifiable and easily searchable.

The final table records all the information about markings on figurines. This table notes the manner of shaping (hand-modelled and/or tool use), the level of smoothing and markings on figurines (fig. 4.3). Again this table is much more detailed for the Çatalhöyük corpus. It partly follows the recording system as used at Çatalhöyük, however, some fields were added. Separate fields were created for all the different types of markings, recording them as present or absent again assuring that they are easily quantifiable. For the Çatalhöyük database fields were added to detail the shape and possible shaping method of separate elements of figurines and also added to this table is a field to record detailed information about how the figurine was

---

<sup>2</sup> For example, figurine 18400.H1 was excavated in space 137 (building 76) in unit 18400. The original database gives the description of this large space with 190 associated units. The specific information for this unit is more useful, in this case it reads: “*Building infill - loose grey brick crushed - contained moderate quantities of burnt animal bone*”.

### Figurines Main Table Çatalhöyük

MF-NR	<input type="text"/>	Object form	<input type="text"/>	Context type	<input type="text"/>
YEAR	<input type="text"/>	Form	<input type="text"/>	Sub category context	<input type="text"/>
Unit	<input type="text"/>	Type	<input type="text"/>	Context category	<input type="text"/>
AREA	<input type="text"/>	Designation	<input type="text"/>	Context location	<input type="text"/>
SPACE	<input type="text"/>	Designation notes	<input type="text"/>	Discussion	<input type="text"/>
Building	<input type="text"/>	Material	<input type="text"/>		
<b>Anthropomorphic/Abbreviated</b>		Complete	<input type="text"/>	Free stand	<input type="checkbox"/>
Head Element	<input type="text"/>	Fragmentation	<input type="text"/>		
HEAD	<input type="text"/>	Notes on fragm	<input type="text"/>		
BASE	<input type="text"/>	Condition	<input type="text"/>		
LEGS	<input type="text"/>	HEIGHT	<input type="text"/>	Hodder level	<input type="text"/>
TORSO	<input type="text"/>	WIDTH	<input type="text"/>	C-14 Date	<input type="text"/>
ARMS	<input type="text"/>	THICKNESS	<input type="text"/>	Period	<input type="text"/>
<b>Zoomorphic</b>		LENGTH	<input type="text"/>	Notes on object	<input type="text"/>
ANIMAL HEAD	<input type="text"/>	DIAMETER	<input type="text"/>		
BODY	<input type="text"/>	WEIGHT	<input type="text"/>		
FRONT LEGS	<input type="text"/>				
HIND LEGS	<input type="text"/>				
TAIL	<input type="text"/>				
HORNS	<input type="text"/>				
EARS	<input type="text"/>				
Drawing?	<input type="checkbox"/>				
Photo?	<input type="checkbox"/>				

### Figurines Main Table Tell Sabi Abyad

MF-NR	<input type="text"/>	Object form	<input type="text"/>	Location	<input type="text"/>
YEAR	<input type="text"/>	Form	<input type="text"/>	Context	<input type="text"/>
SQUARE	<input type="text"/>	Type	<input type="text"/>	C-14 Date	<input type="text"/>
LOCUS	<input type="text"/>	Designation	<input type="text"/>	Level	<input type="text"/>
LOT	<input type="text"/>	Notes	<input type="text"/>	Strata	<input type="text"/>
OBJECT NO	<input type="text"/>	Material	<input type="text"/>	Building	<input type="text"/>
<b>Anthropomorphic/Abbreviated</b>		Complete	<input type="text"/>	Room	<input type="text"/>
HEAD	<input type="text"/>	Free standing	<input type="text"/>	Features	<input type="text"/>
BASE	<input type="text"/>	LENGTH	<input type="text"/>	Context description	<input type="text"/>
TORSO	<input type="text"/>	WIDTH	<input type="text"/>		
ARMS	<input type="text"/>	HEIGHT	<input type="text"/>		
LEGS	<input type="text"/>	THICKNESS	<input type="text"/>		
<b>Zoomorphic</b>		DIAMETER	<input type="text"/>		
ANIMAL HEAD	<input type="text"/>	NOTES	<input type="text"/>		
BODY	<input type="text"/>				
FRONT LEGS	<input type="text"/>				
HIND LEGS	<input type="text"/>				
TAIL	<input type="text"/>				
HORNS	<input type="text"/>				
EARS	<input type="text"/>				
Drawing?	<input type="checkbox"/>			Found with	<input type="text"/>
Photo?	<input type="checkbox"/>			Elevation	<input type="text"/>

Figure 4.1: Main table Çatalhöyük (top) and Tell Sabi Abyad (bottom) databases

shaped. These fields have been partly filled with information from the original database and added upon by studying photographs and first-hand examination during two site visits.

Material properties Çatalhöyük			
MF-number	<input type="text"/>	Fabric texture	<input type="text"/>
Object form	<input type="text"/>	Inclusions	<input type="text"/>
Form	<input type="text"/>	Inclusions type	<input type="text"/>
Primary material	<input type="text"/>	Inclusions size	<input type="text"/>
Clay type	<input type="text"/>	Inclusions amount	<input type="text"/>
Stone type	<input type="text"/>	Notes inclusions	<input type="text"/>
Heat exposure	<input type="text"/>	Inclusions according to Aviss	<input type="text"/>
Notes Heat exposure	<input type="text"/>	Inclusion notes according to Aviss	<input type="text"/>
Notes material	<input type="text"/>	Clay composition notes by Aviss	<input type="text"/>
Environmental wear	<input type="text"/>		
			Colour outside 1 Munsell
			Colour outside 1 description
			Colour outside 2 Munsell
			Colour outside 2 description
			Colour core Munsell
			Colour core description
			Accrustation
			Notes accrustation
			Remarks

Material properties Tell Sabi Abyad			
MF-number	<input type="text"/>	Notes inclusions	<input type="text"/>
Primary material	<input type="text"/>	Accrustation	<input type="text"/>
Notes material	<input type="text"/>	Notes accrustation	<input type="text"/>
Heat exposure	<input type="text"/>	Colour outside	<input type="text"/>
Notes Heat exposure	<input type="text"/>	Colour outside 2	<input type="text"/>
Fabric	<input type="text"/>	Colour core	<input type="text"/>
Inclusions	<input type="text"/>	Environmental wear	<input type="text"/>
Inclusions amount	<input type="text"/>	Remarks	<input type="text"/>
Inclusions type	<input type="text"/>		

Figure 4.2: Material properties table Çatalhöyük (top) and Tell Sabi Abyad (bottom) databases

### Markings Çatalhöyük

MF-NUMBER	<input type="text"/>	OTHER	<input type="text"/>
Object form	<input type="text"/>	REMARKS	<input type="text"/>
Form	<input type="text"/>		<input type="text"/>
Type	<input type="text"/>		<input type="text"/>
Designation	<input type="text"/>		<input type="text"/>
DESIGNATION_NOTES	<input type="text"/>	Remarks on shaping	<input type="text"/>
Manner of production	<input type="text"/>	Composite	<input type="text"/>
Quality	<input type="text"/>	Tool use	<input type="text"/>
Surface treatment	<input type="text"/>	Composite element	<input type="text"/>
MARKINGS PRESENT	<input type="checkbox"/>	Type of tool use	<input type="text"/>
Tool use	<input type="checkbox"/>	Shaping legs	<input type="text"/>
Fingernail impr.	<input type="checkbox"/>	Shape legs	<input type="text"/>
Fingerprints	<input type="text"/>	Feet	<input type="text"/>
Scratches	<input type="checkbox"/>	Shaping arms	<input type="text"/>
(Dowel) hole	<input type="checkbox"/>	Shape arms	<input type="text"/>
Punctures	<input type="checkbox"/>	Hands	<input type="text"/>
Perforation	<input type="checkbox"/>	Shaping tail	<input type="text"/>
Incisions	<input type="checkbox"/>	Horn location	<input type="text"/>
Grooves	<input type="checkbox"/>	Horn shape	<input type="text"/>
Gouges	<input type="checkbox"/>	Snout shape	<input type="text"/>
Polish	<input type="checkbox"/>		
Appliqués	<input type="checkbox"/>		
Plant impressions	<input type="checkbox"/>		
Impressions (other)	<input type="checkbox"/>		
Paint	<input type="checkbox"/>		

Facial features

Eyes

Nose

Mouth

Ears

Hair/cap

### Markings Tell Sabi Abyad

MF-NUMBER	<input type="text"/>	Other	<input type="text"/>
Markings present?	<input type="checkbox"/>		
Tool use	<input type="checkbox"/>	Smoothing	<input type="text"/>
Fingernail impr.	<input type="checkbox"/>	Remarks on shaping	<input type="text"/>
Fingerprints	<input type="checkbox"/>		
Scratches	<input type="checkbox"/>	Composite elements	<input type="text"/>
Holes	<input type="checkbox"/>	Type of tool use	<input type="text"/>
Punctures	<input type="checkbox"/>		
Incisions	<input type="checkbox"/>		
Gouges	<input type="checkbox"/>		
Grooves	<input type="checkbox"/>		
Polish	<input type="checkbox"/>		
Appliqués	<input type="checkbox"/>		
Impressions other	<input type="checkbox"/>		
Plant impressions	<input type="checkbox"/>		

Figure 4.3: Markings table Çatalhöyük (top) and Tell Sabi Abyad (bottom) databases

## 4.6 COMPARING THE DATASETS

The database structure and recording methodology have been equalised as much as possible to enable comparison between the two datasets. However, there is an issue with data resolution that cannot easily be resolved. The available information for the figurines from Tell Sabi Abyad only consists of the written documentation with the addition of photographs and detailed drawings which are available for only a limited number of the figurines. Most of the objects have not been photographed or drawn except for a sketch on the object form. Unfortunately, the identification of possible figurine fragments is hampered by this lack of first-hand visual reference. Furthermore, information on material properties, markings and shaping are largely lacking.

However, contextual information and <sup>14</sup>C dates are very secure for the Tell Sabi Abyad dataset. As nearly all were recovered in situ there is detailed contextual information for most of the figurines and the majority can be securely dated. For the Çatalhöyük figurines, which were more often recovered during dry-sieving and flotation, contextual information is less detailed and more of them are unstratified.

These inherent differences in the datasets necessitate different levels of detail in their analysis. The aim is to utilise the datasets to their fullest potential and the focus will therefore be slightly different for both sites; much more detailed information on the material properties and markings means the analysis for the Çatalhöyük dataset will be more substantive. Conversely, the Tell Sabi Abyad dataset allows for a more fine-grained analysis of context and changes through time. Taken together, however, these two sites will allow for an unprecedented detailed overview of figurine practices in the PPNB and PN periods.

## 4.7 FIGURINE TYPOLOGY AND TERMINOLOGY

At Çatalhöyük figurines were recorded as being one of two types: non-diagnostic or figural. Although non-diagnostic has been removed as a category, the term figural has been maintained and also employed for the Tell Sabi Abyad figurines. It is important to highlight that this terminology was deliberately employed. As Meskell and Nakamura (2006) state, they wanted to avoid using the word ‘representation’ as this term implies a removal from a real object and they do not wish to study the figurines only as visual proxies.

Next to ‘figural’ objects, there are also ‘geometric’ objects. This term was originally used for shaped clay objects that were interpreted as being possible tokens rather than figurines. Any object interpreted as a token has not been added to this dataset. However, there are geometric fragments that could be (part of) figurines. Mostly these are fragments that could be part of abbreviated forms. When only torso fragments are preserved, the pieces are roughly cylindrical or conical and without the presence of legs and/or head these fragments are very difficult to identify. Moreover, some complete abbreviated figurines can be extremely schematic and identification, at times, becomes difficult. The purely conical shapes could be interpreted as being in the spectrum of abbreviated figurines which ranges from those that do have an indication of a head and nose, to those that have only the slightest indication of a head, to purely conical forms. To exclude them

all together is problematic, but to call them ‘abbreviated’ figural shapes is also not desirable. Labelling them geometric shapes was deemed to be the best solution in this instance. And indeed, at Tell Sabi Abyad many pieces are also geometric and potentially figurine fragments. As will be discussed in the figurine typologies the presence of geometric objects termed ‘labrets’ (functioning as lip and/or ear piercings) adds a further difficulty to identify figurines that are very abbreviated.

## Object form

The next level of the database is ‘object form’. Objects designated as figural are divided into the categories of anthropomorphic, zoomorphic, abbreviated, phallic (absent at Tell Sabi Abyad), indeterminate and unclear. Geometric objects are subdivided into cylindrical and conical (see figure 4.4).

Çatalhöyük corpus	OBJECT FORM	FIGURAL			GEOMETRIC			
	FORM	Zoomorphic	Abbreviated and anthropomorphic		Indeterminate & Unclear	Cylindrical	Conical	
	TYPE	<i>Quadruped Bucranium Bird Horn</i>	<i>Head on base Head on divided base</i>	<i>Decorated type Pillar shape Violin type Human-undivided base Head</i>				
Tell Sabi Abyad corpus	OBJECT FORM	FIGURAL				GEOMETRIC		
	FORM	Zoomorphic	Abbreviated	Anthropomorphic	Phallic	Indeterminate & Unclear	Cylindrical	Conical
	TYPE	<i>Quadruped Bucranium Horns Ear</i>	<i>Head on base Head on divided base</i>	<i>Human on base Human on divided base Composite Head</i>				

Figure 4.4: Typology structure at Çatalhöyük (top) and at Tell Sabi Abyad (bottom)

Zoomorphic is the term used for figurines that are animal shapes or parts thereof. The term extends to small fragments that are interpreted as part of animals; mostly horns but also legs. Anthropomorphic figurines are human shapes that have a high degree of naturalistic rendering. That is to say: there has been an effort to create a ‘realistic’ human shape, with legs, arms and head. Abbreviated forms, in contrast, are not ‘realistic’ but are nonetheless interpreted as anthropomorphic. Several of the abbreviated objects could be zoomorphic in shape and so the category is now considered more broadly. At times objects are thus labelled ‘cross-over’: abbreviated/zoomorphic, abbreviated/anthropomorphic and tentatively phallic in one instance. However, the majority of abbreviated figurines can be classified as anthropomorphic and to avoid a proliferation of object forms in this dataset all these figurines are classified as abbreviated and these further subdivisions have been recorded as a comment.

For the figurines that are more phallic than abbreviated the form ‘phallic’ has been created, together with these this type also includes some objects that are shaped purely as a phallus.

A final note on the subdivision of abbreviated and anthropomorphic must be made. Some figurines were cross-over between abbreviated/anthropomorphic that are recorded as anthropomorphic. These objects have more detailed facial features, but very abbreviated bodies. At Tell Sabi Abyad, the distinction between

anthropomorphic and abbreviated figurines are much less pronounced and many objects are cross-over objects, therefore the anthropomorphic and abbreviated will be discussed as one category.

Finally, indeterminate and unclear seem to be very similar terms, however, there is an important difference between them. Indeterminate is the term used for fragments that are clear figurine fragments, the question is what type or element the piece represents. Often this term is used for fragments that could be either horns or limbs. The unclear category, in contrast, contains objects that are perhaps figurine fragments because they are reminiscent of figurine forms. Of course, it is not desirable to have many objects in this category, and it forms a collection of fragments with less analytical value. However, as the intent here is to analyse the complete corpora of figurines it is unwise to discard objects that potentially could be figurine fragments.

### **Object type**

The next level of identification is 'type'. Whilst 'form' and 'object form' are always indicated, type cannot always be assigned. For both anthropomorphic and abbreviated figurines the types are based on the presence or absence of legs. The types, therefore, are: 'human on divided base' and 'human on undivided base'. Similarly, abbreviated figurines are divided into: 'head on base' and 'head on divided base'. When the base is missing type cannot be assigned. Instead, the object is recorded as 'indeterminate' being a head or a head and torso fragment only.

For the Çatalhöyük anthropomorphic figurines, a third type has been created 'composite' to denote figurines that are compositions of animals and people or multiple people. This last category only consists of a few objects found in Mellaart's excavations. Originally, 'head' was not a type within the anthropomorphic figurines. It has been added here because several objects were clearly modelled as separate heads. Conversely, for the Tell Sabi Abyad figurines, there are three sub-types within the 'human on undivided base' that have been identified: decorated type, pillar shape and violin type. These are discussed as separate types, with the remainder recorded as 'human-undivided base' when they do not fit these three types but are also not true abbreviated forms. Again 'indeterminate' is used for objects that cannot be assigned a type within the anthropomorphic corpus.

Zoomorphic figurines are divided into quadrupeds, bucrania, horns and indeterminate. The group of quadrupeds include all fragments of body and heads as well as leg fragments. Bucrania are figurines shaped only as a zoomorphic head with horns and sometimes ears. The horn fragments were originally recorded based on their shape: straight, curved, flat or simply as horns when the object did not clearly fit this typology. This subdivision was made to facilitate the study done by Martin and Meskell (2012; see ahead). Here all horn fragments have been grouped together because there is no added analytical value in subdividing them and often they do not clearly fit into a single category. As with the other categories, indeterminate objects are clearly zoomorphic but cannot be identified as belonging to a type.

## Typology: Conclusions

Admittedly, the subdivision as outlined above is not perfect. There are other criteria that one could use to create types. To give a few examples, some of the Çatalhöyük abbreviated figurines have a so-called ‘head element’—a folded piece of clay on top of the head. The presence or absence of this certain element could also be a valid criterion to create a type. The subdivision based solely on the presence of legs also masks a wide variety within abbreviated and anthropomorphic forms. Anthropomorphic figurines are sometimes intentionally headless which could also be a criterion for creating a type. One could also think of different criteria to subdivide quadrupeds, for example when they can be quite securely identified as being a type of animal such as bovine or caprine.

However, this main typology with the current subdivision into object form, form and type is generalised enough to encompass the figurines from both sites and compare the two datasets, whilst it is detailed enough to enable quantification and make sensible statements about patterns observed in and between figurine types. In the following detailed discussions of figurine typologies, the variety within types will be discussed and in the next chapter’s analysis, the different sub-types will also be considered.

### 4.8 ÇATALHÖYÜK FIGURINE CORPUS AND TYPOLOGY

The corpus of figurines from Çatalhöyük consists of 2866 objects (see table 4.5). The different types will be discussed in turn, focussing both on the clay figurines and those made from other materials. The variety within types is considerable, here it is aimed to give a good overview of this observed variety without getting bogged down in overly detailed descriptions.

Table 4.5: Çatalhöyük figurine corpus absolute numbers and percentages

Figurine corpus Çatalhöyük		
Zoomorphic	1505	52.5%
Abbreviated	611	21.3%
Anthropomorphic	205	7.2%
Phallic	8	0.3%
Geometric	148	5.2%
Indeterminate and unclear	389	13.6%
<b>Totals</b>	<b>2866</b>	<b>100%</b>

#### 4.8.1 ZOOMORPHIC FIGURINES

The zoomorphic figurine corpus consists of 1505 figurines, 1500 of which are clay objects (see table 4.6). Of these, 428 are quadrupeds. Zoomorphic leg fragments have been added to the quadruped type bringing the total of objects to 490.

Bucrania are very rare; only 24 examples are found in this dataset. The largest category (n=916) within zoomorphic figurines consists of horn fragments. It sometimes appears as if horns were made as stand-alone pieces; there is no clear evidence that they fractured off of a quadruped or bucranium. The last group consists of clear ear fragments. Most fragments could be assigned to these categories, ‘only’ 67 fragments are labelled indeterminate. These are most likely zoomorphic, but it is not entirely certain where they fit within the typology.

Table 4.6: Zoomorphic corpus absolute numbers and percentages

Zoomorphic Corpus		
<b>Quadruped</b>	<b>490</b>	<b>32.6%</b>
Body and head	166	10.8%
Body	157	10.7%
Head	105	7%
Legs	62	4.1%
<b>Bucrania</b>	<b>24</b>	<b>1.6%</b>
Horns	916	60.9%
Ears	8	0.5%
Indeterminate	67	4.5%
<b>Totals</b>	<b>1505</b>	<b>100%</b>

Before giving a detailed discussion of the categories of quadrupeds, bucrania and horns, first, a few outliers must be discussed. As the discussion will show, there is a wide variety within zoomorphic figurines. These objects below, however, are very unusual within the zoomorphic corpus.

Classified as 'indeterminate', object 8864.H1 resembles a fishtail (see figure 4.5). This would make this the only example of a zoomorphic figurine that is not (part of) a quadruped or bucranium. The object is very badly damaged and therefore the designation is tentatively given.

Two other unusual examples are 5021.D1 (no visual reference available) and 19385.X3 (fig. 4.6), the first is a separately modelled head. There are parallels with this object in the abbreviated category and the puncturing of the sides and the top of the head also has parallels with some anthropomorphic figurines. This particular example is very animal-like in appearance (originally interpreted as bear-like) and is therefore categorised as being zoomorphic. Object 19385.X3 is similar in shape to 5021.D1 but does not have the incised and punctured facial features. Furthermore, this piece looks like it was originally attached to a body. Both are unusually large; 4 cm and 3.5 cm respectively.



Figure 4.5: 8864.H1, a fish tail? Image by author, original photographs courtesy of the Çatalhöyük Research Project

Figure 4.6: 19385.X3, zoomorphic head. Image by author, original photographs courtesy of the Çatalhöyük Research Project

A final unique example is 14900.X1, which is a rare example of a figurine made of carved bone. It is most likely a head fragment with a muzzle with nostrils indicated. It is badly fractured, originally there might have been a body attached (see fig. 4.7: 1). These four objects are categorised as zoomorphic, however, they are distinctly different from the remainder of the zoomorphic corpus.

There are four other non-clay objects. First, 19101.H3 (fig. 4.7: 2) is a small quadruped made from quartzite, it does not seem to be modified, however, the overall shape is very reminiscent of an animal. Object 12519.X11, shaped as a curved horn, is made from (boar?) tooth (fig. 4.7: 3). Another possible horn, object 7770.X2 is made from a greyish stone of unknown type (fig. 4.7: 4). This small straight horn, was likely selected for its shape and subsequently modified slightly and smoothed. The final stone example, 999999.H13 (fig 4.7: 5), in contrast, is clearly modified. It appears to be an animal head, with two small ears nicely modelled on top. Although the orientation of the piece is uncertain, its head appears to be fractured. The body then does not have any clear features, there might be an indication of small hind legs. The piece is serrated at the bottom of what would be the back of the body. When you view the piece from the bottom these serrations look teeth-like which would mean the body is in fact an elongated head.

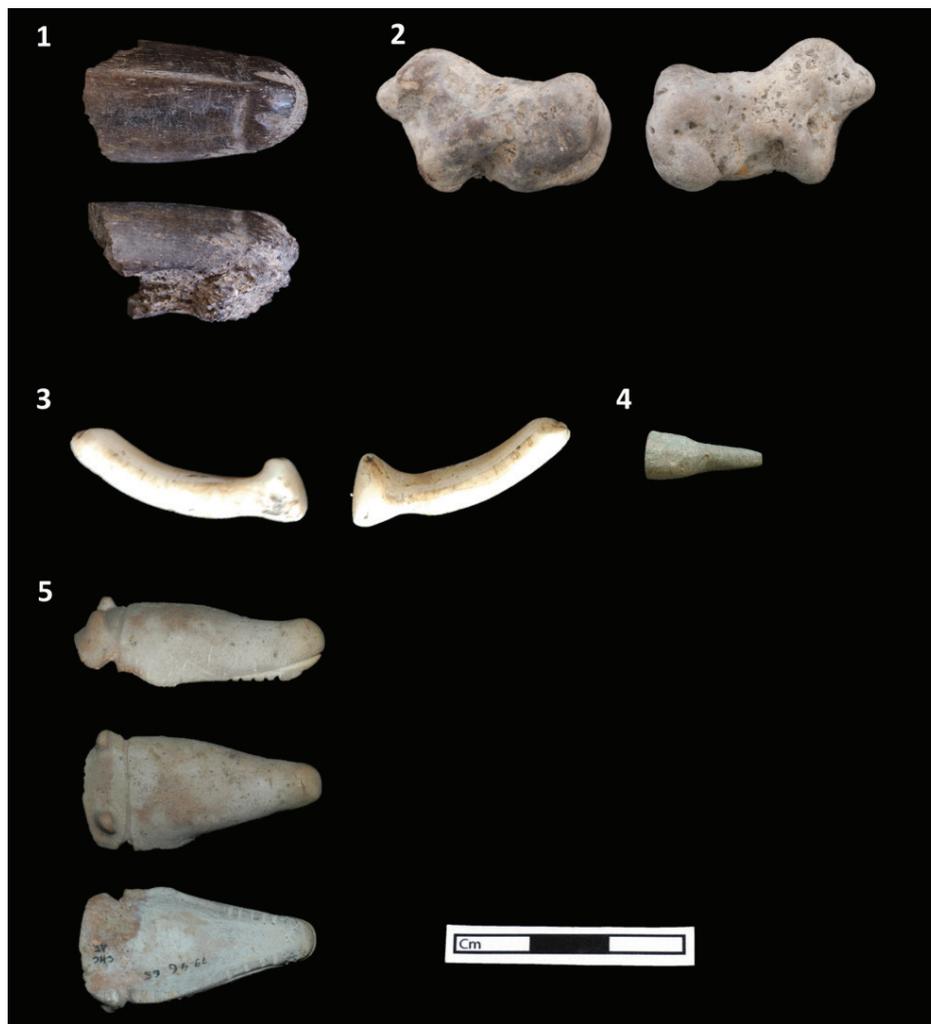


Figure 4.7: Zoomorphic non-clay figurines. 1: 4900.X1; 2: 19101.H3; 3: 12519.X11 and 4: 7770.X1. no 5: 999999.H13 (not to scale). Image by author, original photographs courtesy of the Çatalhöyük Research Project

### Quadrupeds: Body shapes

In general, the shape of quadruped figurines is quite distinct. Their bodies are round to oval in section and the backs are often rounded on top, although sometimes bodies are more triangular in section and occasionally the back is pinched up (n=24).

Backs are often straight (n=118), at times the back has a distinct saddle shape (n=34) or are more arched (n=18). Some have a diagonal or sloping back (n=56), this is either caused by a difference in length between the front and hind legs of standing animals, the animal is depicted as sitting on its haunches (n=26) or lying down (n=14). Most animals are rendered as standing (n=182). In eight instances the position of the legs seems to indicate the animal is walking (see fig. 4.8 for some examples). The posture is sometimes difficult to ascertain as being purposefully created because the objects seem to have been (intentionally) deformed. Either the figurines were shaped and then squashed/pressed into the desired posture, or it is the unintentional outcome of the process of said squashing.



Figure 4.8: Examples of figurine postures. 1: 12946.H12; standing with straight back; 2: 19205.X1, standing with saddleback; 3: 13103.X11, standing with arched back; 4: 12648.X6, walking; 5: 14186.X6, sitting; 6: 999999.H269, lying down and 7: 12524.X8, pinched up back. Image by author, original photographs courtesy of the Çatalhöyük Research Project

### Quadrupeds: Leg shapes

Legs (when present) are often short and rounded, sometimes no more than stumps. In some instances, legs are longer and more pronounced. Legs are most often cone-shaped or flat triangular shapes. There is a lot

of variety in leg shape and size and at times they can be quite irregular which makes it difficult at times to recognise fractured legs. Very rarely legs are not indicated (n=5) or the hind legs and front legs are modelled as one element (n=4) or the back legs were made as one whilst the front legs were made separately (n=2; for example 15587.X1 fig. 4.9: 6). Legs are mostly non-descript with paws or hooves never indicated. There is one exception, 12988.H10, a leg fragment with a 'foot' (fig. 4.9: 9).

### Quadrupeds: Tail shapes

Tails are quite often depicted. When preservation allows identification (n=226) 186 had a tail and 40 did not. The tail shapes vary from short, stubby tails, flaps folded against the back of the body to upward-pointing tails (see fig. 4.10). A few figurines have very large tails in proportion to their bodies, leading to their identification of foxes or lizards (for example 12648.X2, fig. 4.10: 1).



Figure 4.9: Examples of leg shapes. 1: 5575.H3, pronounced triangular legs; 2: 23465.H1, flat triangular legs; 3: 12946.H12, short cone-shape legs; 4: 999999.H88 (not to scale), unusually long legs; 5: 999999.H221, irregular (deformed?) legs; 6: 15587.X1, front and hind legs moulded as one piece; 7: 18154.X3, no legs indicated; 8: 10396.H16, most likely leg fragment; 9: 12988.H10, most likely leg with foot indicated. Image by author, original photographs courtesy of the Çatalhöyük Research Project



Figure 4.10: Examples of tail shapes. 1: 12648.X2, large triangular tail, possibly a fox or reptile; 2: 12648.X8, small, pinched-out tail; 3: 32133.H2, flap folded against body; 4: 12988.H1, cone-shaped tail on flat backside; 5: 19342.X16, pointed tail; 6: 19390.X3, little, scraped-up tail; 7: 23426.H1, curved tail. Image by author, original photographs courtesy of the Çatalhöyük Research Project

### Quadrupeds: Head shapes

Head shapes vary considerably, most often snouts are short and rounded (see fig. 4.11). In some instances, they are thinner and longer and at times they can be very thin indeed and end in a pointy tip which, at times, has a downward curve (for example 12502.H4, fig 4.11: 4). Another observed snout shape is squarish, with four clear facets which have been made flat (cf. 12988.H and 14183.H5; fig. 4.11: 7 and 8). Some head shapes allow for species determination, for example, there are pig/boar such as 12980.H1 (fig. 4.11: 5) and goat figurines (fig. 4.11: 9, 30005.H1). Any facial features (e.g. eyes, nostrils and mouth) are rarely represented. There are four examples (see fig. 4.12) that have a clear mouth.

Table 4.7: Presence/absence of horns and ears. Percentages based on number of objects for which presence of horns/ears could be ascertained

Quadruped presence horns/ears		
Horns yes; ears yes	56	20.8%
Horns yes; ears no	51	18.6%
Horns no; ears yes	52	17.8%
Horns no; ears no	2	0.7%
Horns unclear; ears yes	18	10.4%
Horns unclear; ears no	5	2.2%
Ears unclear; horns yes	35	10.8%
Ears unclear; horns no	7	2.6%
Ears unclear; horns unclear	43	18.6%

Horns and/or ears are most often only indicated by fractures. Horns are represented more often than ears and horns are also found frequently as separate pieces. It is sometimes hard to ascertain whether horns or ears were originally present when only fractured surfaces remain. Only two instances are recorded where quadrupeds are intentionally both earless and hornless. (see table 4.7).

Horns are placed at the side or top of the head. They are usually round in section and have a curve;



Figure 4.11: Examples of different head shapes. 1: 32128.H15; 2: 10238.X5; 3: 16407.X1; 4: 12502.H4 (equid?); 5: 12980.H1 (pig/boar); 6: 19347.H15; 7: 12988.H1; 8: 14183.H5; 9: 30005.H1. Image by author, original photographs courtesy of the Çatalhöyük Research Project

going out and up. Some curve backwards or forward in which case they give either a goat-like or bovine appearance. However, because they are often fractured it is unclear exactly what the original shape was. Ears are usually just little flaps placed under the horns. A few are more defined and given a bit more shape and detail (see fig. 4.13).

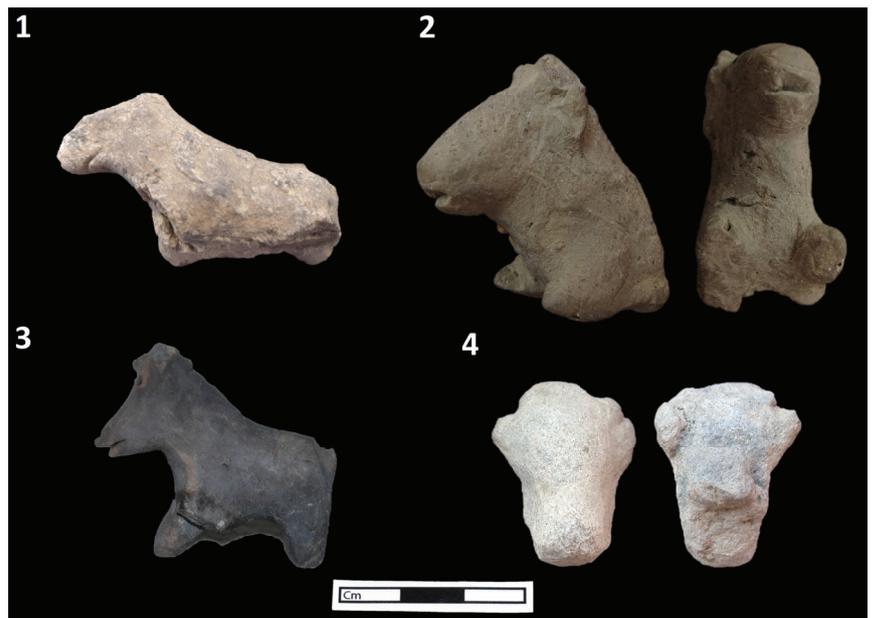


Figure 4.12: Facial features. 1: 19342.X25, 'mouth' created with fingernail; 2: 999999.H229, mouth indicated by incision; 3: 999999.H188 (not to scale), mouth with clear upper and lower lip; 4: 7555.X1, with possible indication of separate lower jaw. Image by author, original photographs courtesy of the Çatalhöyük Research Project

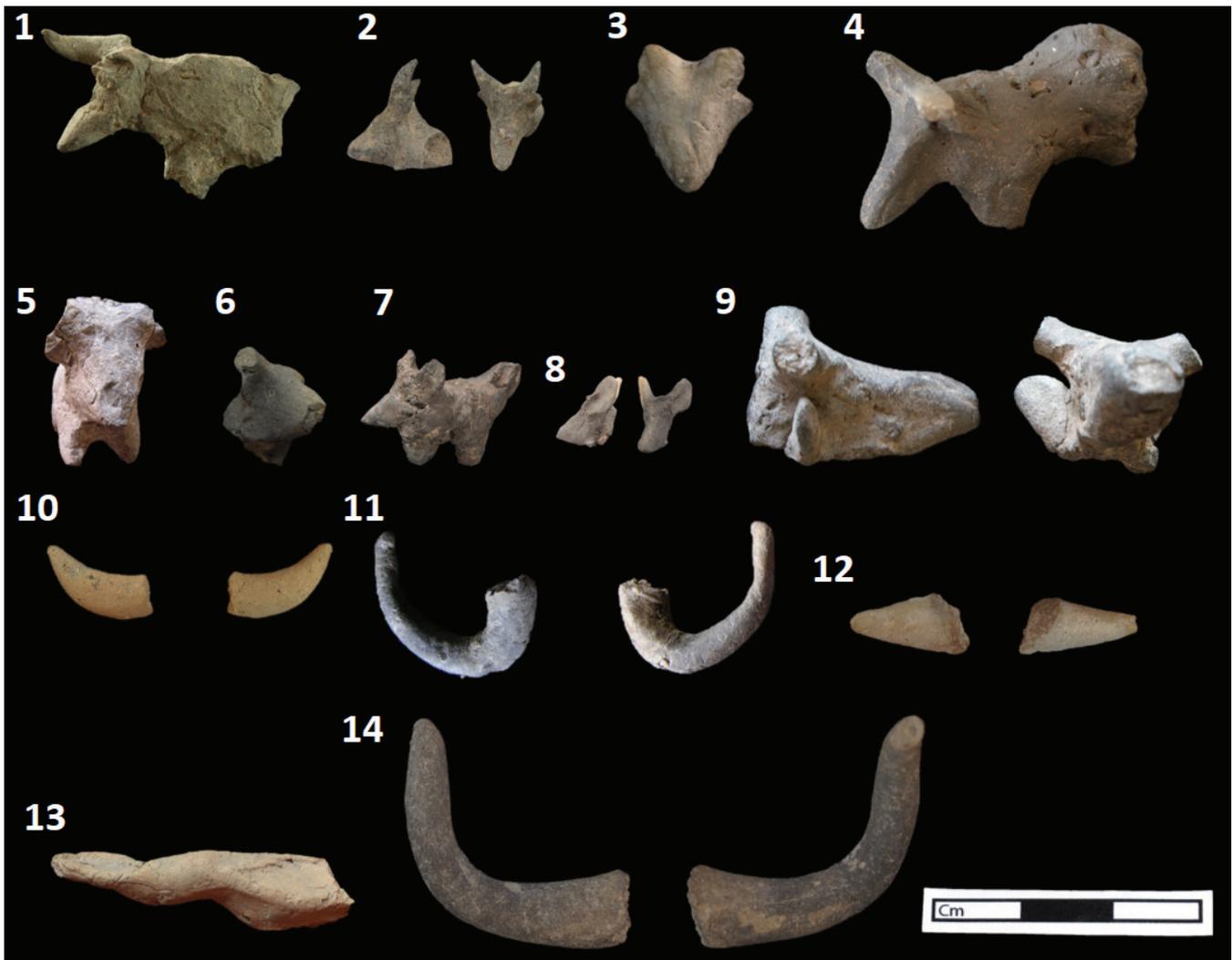


Figure 4.13: Examples of horn and ear shapes. 1: 10396.X2, curving forward; 2: 16995.X11, curving back; 3: 1059.H1, short and flat straight horns; 4: 8432.X2 (not to scale), horn bases going horizontally out, likely originally curved; 5-6: 12946.H12 and 15675.H5, flat ears placed under horns; 7-8: 18164.X3 and 23160.H1, detailed ears (no horns represented); 9: 999999.H227, ears placed under horns (clearly attached as separate pieces); 10-11: 1184.H1 and 10396.H2, curved horns; 12: 1216.H1, straight horn; 13: 5294.H1, 23084.H10: spiralling horns. Image by author, original photographs courtesy of the Çatalhöyük Research Project

### Quadruped figurines as real animals

For the greatest part, zoomorphic figurines cannot be classified as any particular species, but there are some exceptions. Work has been done at Çatalhöyük comparing faunal assemblages with the zoomorphic figurine corpus. Working closely with a zoo-archaeologist, 391 zoomorphic figurines were analysed and, when possible, assigned a species based on the morphology of discrete body parts (Martin and Meskell 2012, 406).

Signifiers of species are seen as a focus on horn morphology and placement. For cattle, the shape of the head, placement of horns, followed by the bulk of the neck and shoulders were the critical signifiers. The rest of the figural body could be robust and nondescript, the legs non-specific with hoofs never depicted. For hornless animals, other features are telling, such as the boar's ridge-back, or the long face and defined shape of the equid body. When these characteristic areas are absent in a figurine, classification becomes ambiguous (Martin and Meskell 2012, 417).

The classifications from this paper were not all added to the figurine database. So, the numbers that they were able to assign to particular animal species are higher than the classifications available here. These available species designations as identified by Martin and Meskell have been maintained, with the remark that identifications are often tentative (as also stated by Martin and Meskell). Types of animals that were identified are cattle, bovid, sheep/goat, equid, deer and boar. More tentatively identified were canid, fox, felid and bear (Martin and Meskell 2012, 407; table 4.8 and fig. 4.14).

It is not the aim of this thesis to explore the topic of animal figurines in relation to the presence and exploitation of animals at the site, for the full analysis of the different types of animals and the characteristics used to define them the reader is referred to the paper by Martin and Meskell 2012. Here it is highlighted that it is clear that there was, in some cases, intention to model a certain animal whilst in other cases, only a 'generic' (to our eyes) quadruped was created. The question of how this might relate to aspects of materiality, production, use and deposition will be explored in the next chapter.

However, it should also be noted that there is a wealth of literature within archaeology, anthropology and history on the relationship between animals and humans (Human-Animal Studies (HAS); see Wolfe 2009; DeMello 2012) far beyond purely economical and exploitation (see f.e. Mullin 1999; Russell 2012; Gittins 2013; Hill 2013; Armstrong-Oma and Goldhahn 2020). As well as animals as social agents in their own right and moving beyond anthropocentrism (Russell 2010; Overton and Hamilakis 2013; Boyd 2017; Harrison-Buck and Hendon 2018; Pilaar Birch 2018; Fernández-Götz *et al.* 2020; Jennbert 2021).

There is a definite need for more studies focusing on how we can explore these aspects through figurines (see f.e. Bánffy 2001; Valera *et al.* 2014). Interesting avenues of research are, for example, the presence of actual animals compared to species reflected through figurines and how this compares between sites as well as the differing emphasis on zoomorphic figurines between sites. For Çatalhöyük specifically the occurrence (albeit rare) of hybrid figurine with seemingly both animal and human characteristics invites questions on how people related to animals, questions of identity and animals as social agents.

## Horns

Many horn fragments are recovered as separate pieces, which is to be expected as these small pieces are weak points and easily fractured. There are three main horn shapes: curved horns (sometimes also spiralling), straight horns and flat horns (fig. 4.13). Whereas sometimes it is clearly visible that horns were once part of larger objects, other horns seem to have been stand-alone pieces, with smooth, unfractured surfaces. Horn fragments can be difficult to identify as many are non-descript, thinly rolled pieces of clay. It is clear they have been handled by people, but they are not clearly horn-shaped. Alternatively, these horns were made to be attached to a quadruped figurine but for some reason they never were.

Table 4.8: Animal types and amounts. Partly based on Martin and Meskell 2012

Types	Amount
Cattle	44
Equid	10
Deer	8
Boar	15
Sheep/goat	3
Sheep	1
Goat	7
Bovid	3
Bear?	2
Canid?	6
Fox?	5
Felid?	1

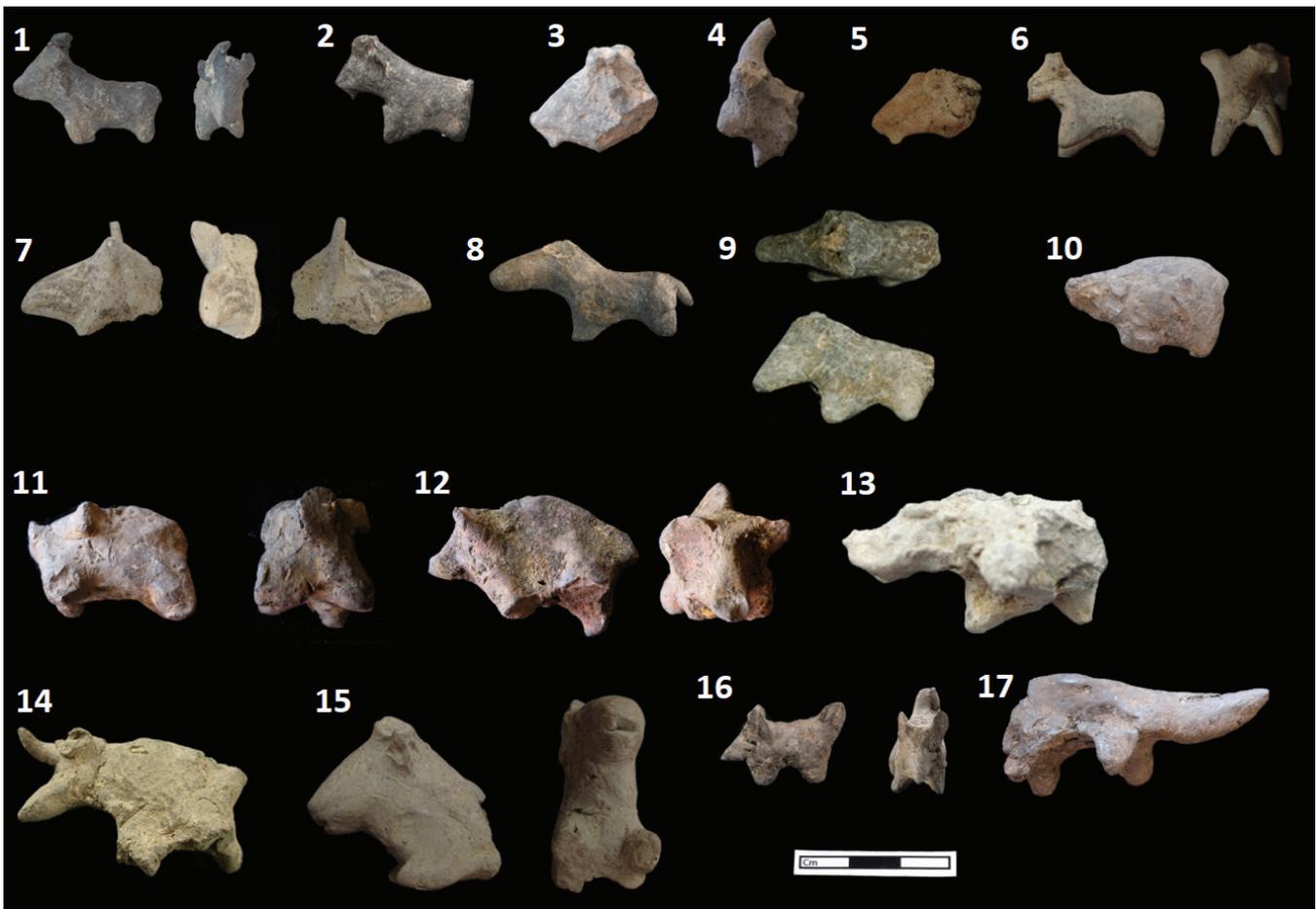


Figure 4.14: Examples of different animal types. 1-6: 1059.H1, 2250.X1, 30005.H1, 32693.H1, 17490.H1, 999998.H60, goat; 7-8: 12502.H4, 19205.X1, equid; 9: 12394.H1, deer; 10: 19390.X3; 11-13: 12980.H1, 13103.X11, 22354.X2, pig/boar; 14-15: 10396.X2, 999999.H229, bovine; 16: 18164.X3, dog/fox; 17: 12980.H8, fox/reptile. Image by author, original photographs courtesy of the Çatalhöyük Research Project

## Bucrania

There are 25 examples of bucrania in this dataset. These figurines depict only the heads of animals with horns, and sometimes ears, represented. Often these are interpreted as being bovine with curved horns that are well-modelled (see fig. 4.15).

Potentially there could be more bucrania in the dataset. However, when there is damage on the bottom of the head, it is not easy to ascertain if this is just a damaged area or indeed a fracture from where it detached from the neck and body.

## Sizes of zoomorphic figurines

The size range of zoomorphic figurines is very considerable. The smallest, complete example measures just 2.27 cm, whilst the largest example (head missing) measures 12.2 cm in length (fig. 4.16: 1-2). Furthermore, there are very large horn fragments. Although at times horns were not clearly attached, some do seem to have fractured from a larger object. The largest example measures 5 cm in length (fig. 4.16: 3).

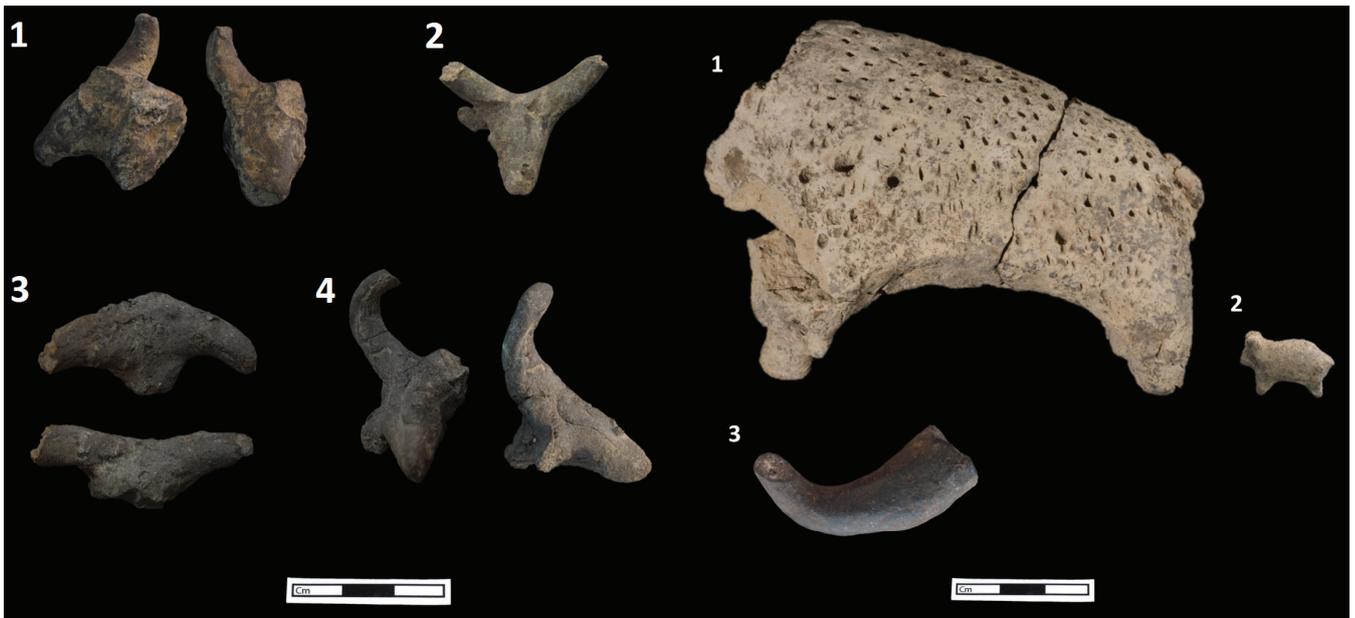


Figure 4.15: Examples of bucrania. 1: 12514.X3; 2: 20467.H2; 3: 3502.X1; 4: 6151.X1. Image by author, original photographs courtesy of the Çatalhöyük Research Project

Figure 4.16: Zoomorphic figurine sizes. 1: 7760.X2; 2: 23227.H3, largest and smallest quadrupeds; 3: 14186.H1, largest horn fragment. Image by author, original photographs courtesy of the Çatalhöyük Research Project

### 4.8.2 ABBREVIATED FIGURINES

Abbreviated figurines are divided into two categories; head on base and head on divided base. The signifying element is the presence/absence of legs. There are a total of 609 clay objects within this category, 86 of which are termed indeterminate fragments (see table 4.9).

There are a further two examples made from stone, one of which (999999.H164; fig. 4.17: 2) is a Mellaart find. It resembles some of the Mellaart anthropomorphic stone figurines (see ahead). However, the complete lack of any features, except for a small nose, means it has been classified as abbreviated. The other, 7905.H1, was likely selected for its shape without any further modification (fig. 4.17: 1).

Abbreviated figurines consist of a base (with or without legs) a ‘torso’ and head. Arms are almost never indicated, nor are facial features except for an—often exaggerated—nose. Furthermore, at times a ‘flap’ is created and folded back. Head elements are defined as an elaboration to, otherwise, mostly generic heads and have been interpreted as perhaps an indication of a cap/hat or

Table 4.9: Abbreviated corpus absolute numbers and percentages

Abbreviated Corpus		
Head on base	166	27.2%
Head on divided base	359	58.8%
Indeterminate	86	14.1%
<b>Totals</b>	<b>611</b>	<b>100%</b>



Figure 4.17: Stone abbreviated figurines. 1: 7905.H1 and 2: 999999.H164. Image by author, original photographs courtesy of the Çatalhöyük Research Project

hair (see Hamilton 1998). These head elements are usually flat flaps pressed against the back of the heads. At times they can be quite thin and long, pressed against the back of the torso.

The subdivision as originally made has been maintained, however as said, there are potentially other classifiers within the typology. Firstly, the presence/absence of head elements, secondly the degree of abbreviation and thirdly 'cross-over' objects which straddle the categories of abbreviated/anthropomorphic and abbreviated/zoomorphic

### Head on base

Although not further subdivided there is clear variety within this group, ranging from very thin and slender (fig. 4.18: 1-4) to quite squat and bent forwards. Some are very conical whilst others stand on round to oval bases, at times shaped like a 'foot'. Heads and bodies can be very abstract, at times the heads are no more than a tip (fig. 4.18: 11-13). The head on base corpus has 27 objects with head elements (it could be ascertained for 98 objects).

Two objects could be categorised as a cross-over between abbreviated and zoomorphic. First, 12526.H7 (fig. 4.20: 1), potentially has horns; however, it could also be an unusually shaped head element. The head was shaped by flattening clay, folding it forward then pressing down forming 'horns'. The second example, 18523.X1 (fig. 4.19), was interpreted as perhaps being a cross-over. However, it is a very abbreviated piece



Figure 4.18: Overview of range of head on base figurines. 1-4: 12524.X4, 12524.X5, 12524.X11, 12511.X1, figurines with very long, slender bodies. At times a slight indication of a nose and/or head element; 5: 18192.X4, figurine with a very rounded base (a 'belly?'); 6-10: 5478.H1; 999999.H255; 22332.H1; 13144.H10; 18625.H1; 11-13: 18194.H5, 18194.H2, 18550.H2, objects with a pinched, foot-like base and non-descript body with no clear indication of a head; 14: 32114.H34; 15: 4102.D2. Image by author, original photographs courtesy of the Çatalhöyük Research Project

and is most noteworthy for its size. A further 10 are classified as crossovers between abbreviated and anthropomorphic. These objects have either more elaboration on the head: 11015.X1, 19304.X13, 20365.H1 and 22635.H3 (fig. 4.20: 2-5), more elaboration on the body: 13115.X1, 6596.H1 (fig. 4.20: 6-7) and 7905.H1 (no clear photo), or both: 8686.H1, 14120.X1, 19305.X7 (fig. 4.20: 8-10).

This elaboration of heads is seen in the indication of facial features through incising. Elaboration of bodies is expressed mostly in the indication of buttocks and stomachs. Arms are never present, although 8686.H1 has a slight indication of arms stubs.



Figure 4.19: 18523.X1, abbreviated-zoomorphic cross-over? Image by author, original photographs courtesy of the Çatalhöyük Research Project



Figure 4.20: Head on base with more elaboration. 1: 12526.H7: zoomorphic-abbr. cross-over; 2-5: 11015.X1, 19304.X13, 20365.H1, 22635.H3: more elaboration to the head; 6-7: 13115.X1, 6596.H1: more elaboration to the body; 8-10: 8686.H1, 14120.X1, 19305.X7: more elaboration to head and body. Image by author, original photographs courtesy of the Çatalhöyük Research Project

## Head on divided base

As stated, legs are the distinguishing feature of the head on divided base type. These legs are predominantly conical, to more flat triangular shapes. When they are more flattened they are mostly placed slightly diagonally with the tops facing inward. Legs can be placed apart with a clear space between them, at times they seem to be pushed together. In a few instances, the legs are not pronounced; it seems a head on base was created and then legs were created by ‘cutting’ the base and sometimes the legs were accentuated slightly more by pinching them out a bit, for example objects 16497.X1, 1832.X6, 19215.X2, 2077.H1 and 15437.X2 (fig. 4.21: 10-14). As with the head on base, the shapes range from very squat figurines such as 12946.H1, 12945.H11, 4709.H2, 1055.H1 and 5505.H6 (fig. 4.21: 1-5) to long, slender figurines such as 5576.X1, 15427.X1, 23137.H3, 19304.X12 (fig. 4.21: 6-9) and some have a very rounded base, for example 5489.H1 and 14931.H1 (fig. 4.21: 15-16). Of the 160 objects for which it could be ascertained, 66 objects had a head element.

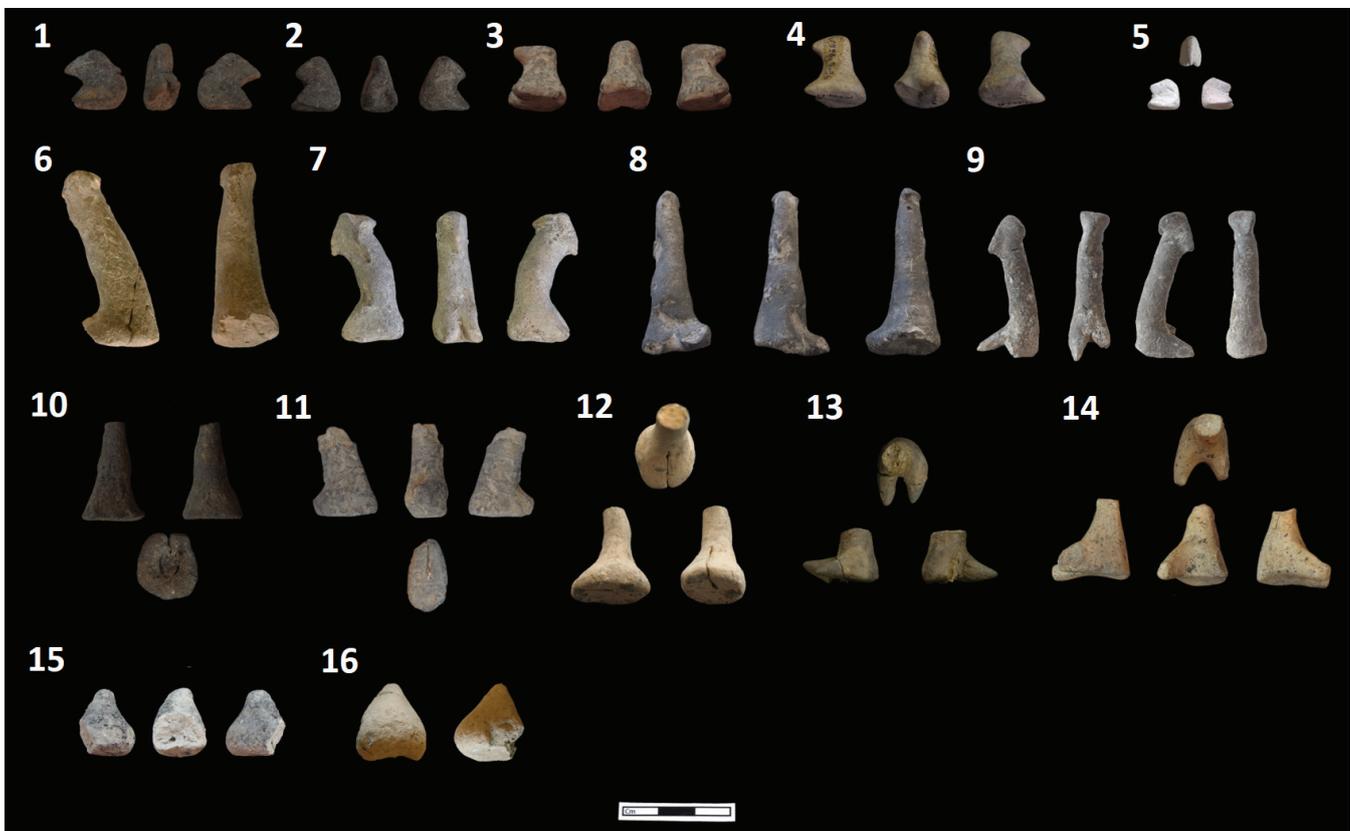


Figure 4.21: Overview of range of head on divided base figurines. 1-5: 12946.H1, 12945.H11, 4709.H2, 1055.H1, 5505.H6, squat figurines; 6-9: 5576.X1, 15427.X1, 23137.H3, 19304.X12; elongated figurines; 10-12: 16497.X1, 1832.X6, 19215.X2; legs pressed together or incised in base; 13-14: 2077.H1, 15437.X2; legs placed far apart; 15-16: 5489.H1, 14931.H1; round base. Image by author, original photographs courtesy of the Çatalhöyük Research Project

Some unusual examples are 1073.X1 and 23143.H27 (fig. 4.22: 1-2) which appear to have a beard. Object 4321.D2 (fig. 4.22: 3) is very unusual for its extremely large nose and 2198.H1 (fig. 4.22: 4) is the only example with small punctures on top of the head. There are two examples of abbreviated-zoomorphic cross-over objects: 10298.H1 and 4121.D5 (fig. 4.22: 10-11). A further five objects are classified as abbreviated-anthropomorphic: 4121.D3, 999999.H150, 14126.X1, 5446.X1, 7207.H1 (fig. 4.22: 5-9).



Figure 4.22: Head on divided base with more elaboration. 1-2: 1073.x1, 23143.H27; figurines with possible beards; 3: 4321.D2; figurine with unusually large nose; 4: 2198.H1; figurine with small punctures on top of head; 5-9: 4121.D3, 999999.H150, 14126.X1, 5446.X1, 7207.H1; anthropomorphic-abbreviated cross-over; 10-11: 10298.H1, 4121.D5 (not to scale); zoomorphic-abbreviated cross-over. Image by author, original photographs courtesy of the Çatalhöyük Research Project

### Abbreviated sizes

The largest object in the abbreviated dataset is 18523.X1 (fig. 4.19), the cross-over head on base, measuring 7.8 cm in height whilst the smallest one, 5505.H6 (fig. 4.22: 5) measures only 0.85 cm.

#### 4.8.3 ANTHROPOMORPHIC FIGURINES

A total of 162 clay and 43 stone anthropomorphic figurines have been recovered (table 4.10). Many of these are Mellaart finds; either from his spoil heaps or found by Mellaart himself. Of the clay objects, 44 are Mellaart finds and as far as could be gathered at least 32 were excavated by him. Of the stone objects, no less than 31 were found by Mellaart in the 1960s. These Mellaart finds, especially the stone ones, often have no parallels to objects found during Hodder's excavations.

Four main types are distinguished: human-divided base, human-undivided base, composite and heads. The fifth category of 'indeterminate' is used for those fragments that cannot be identified as one of these sub-types. Composite is an anomalous category created to deal primarily with Mellaart finds of objects that depict both animals and humans or two humans.

The Mellaart finds will be discussed here, as far as possible with the available photographs and information. Because the Mellaart and Hodder finds are so different they will be discussed in turn per type, focussing first on the clay figurines and subsequently on the stone ones.

Table 4.10: Anthropomorphic corpus absolute numbers and percentages

Anthropomorphic Corpus	Hodder				Mellaart				Totals			
	Stone		Clay		Stone		Clay		Stone		Clay	
Human-undivided base	2	1%	41	20%	10	4.9%	14	6.8%	12	5.9%	55	26.8%
Human-divided base	9	4.4%	38	18.5%	9	4.4%	24	11.7%	18	8.8%	62	30%
Composite	1	0.5%			8	3.9%	1	0.5%	9	4.4%	1	0.5%
Heads			14	6.8%					0		14	6.8%
Indeterminate			27	13.2%	4	2%	3	1.5%	4	2%	30	14.6%
<b>Totals</b>	<b>12</b>	<b>5.9%</b>	<b>120</b>	<b>58.5%</b>	<b>31</b>	<b>15.1%</b>	<b>42</b>	<b>20.5%</b>	<b>43</b>	<b>21%</b>	<b>162</b>	<b>79%</b>

### Human-Divided Base: Mellaart clay figurines

The Mellaart figurines designated as human-divided base number 24, most of the clay figurines are seated figures (N=16), five are standing and for four it is unclear. In general, these objects are modelled more ‘naturalistic’ (albeit exaggerated) than most of the anthropomorphic figurines found in the Hodder excavations—with some notable exceptions (see ahead). There is variability in the category, but there is a set of figurines that are quite similar to each other. The position of the legs and arms is quite standardised: the legs are raised with the hands placed on the legs (for example 999999.H68; fig. 4.23: 1); crossed-legs with hands on the belly or legs (for example 999999.H59; fig. 4.23: 2) and the legs folded under the body to the left with the left hand placed on the leg and the right hand placed on the breast (for example 999999.H65; fig. 4.23: 3).



Figure 4.23: Examples of Mellaart clay divided-base figurines. 1: 999999.H68; 2: 999999.H59; 3: 999999.H65 (not to scale). Image by author, original photographs courtesy of the Çatalhöyük Research Project

Two of the figurines (999999.H61 and 999999.H63, not clearly visible on photographs) have a dowel hole in the neck. This dowel hole is thought to enable the placement of interchangeable heads, and indeed there are some separate heads with dowel holes to support this idea.

Only 999999.H65 survives with a head. Facial features have been finely modelled, bodily features are equally finely modelled, with attention paid to delineate hands (often with fingers), feet and belly buttons. The figures are invariable rotund, with protruding stomachs, fat legs and pronounced buttocks.

There are two figurines within the seated category that are quite different from the others: 999999.H179 (fig. 4.24: 1) is an example that is classified as an anthropomorphic-abbreviated cross-over. A slight indication of legs and arms exist, the head has broken. 999999.H286 (fig. 4.24: 2) has pronounced buttocks, however, the rest of the objects are very schematic.

The five standing figurines are all quite distinct from each other. Objects 999999.H70 and 999999.H71 (fig. 4.25: 2-3) are quite similar to each other and the seated ones with the focus on belly and belly button

and the placement of hands. Figurines 999999.H60 and 999999.H149 (fig 4.25: 1 and 4) are very distinct. The first is distinct for the modelling of possible clothing and the way it is made with applied and impressed elements. The latter is quite abstract compared to the other figurines. It is not clearly sexed and the facial features are practically non-existent. Although, there might also be some damage to the face.

The objects range from 2.31 cm in height for object 999999.H179 (with the head missing) to 10.2 cm for 999999.H65, the only object with the head still present.



Figure 4.24: Examples of Mellaart clay divided-base figurines. 1: 999999.H179 and 2: 999999.H286. Image by author, original photographs courtesy of the Çatalhöyük Research Project



Figure 4.25: Examples of Mellaart clay divided-base standing figurines. 1: 999999.H66; 2: 999999.H70; 3: 999999.H71; 4: 999999.H149 (images not to scale). Image by author, original photographs courtesy of the Çatalhöyük Research Project

### Human-Divided Base: Hodder clay figurines

Of the 38 figurines discovered during Hodder's excavations, 25 are seated figures. Compared to the Mellaart finds they are predominantly more abbreviated. Some have an emphasis on modelling the buttocks and stomachs and breasts of which 14183.X17 (fig. 4.26: 1) is a prime example. The legs and arms are modelled without hands and feet, with arms often placed on the stomach. Legs usually stick out straight. There is one example that is modelled with legs crossed: 12420.H1 (fig. 4.26: 2).

There are two unique examples (12401.X7 and 20215.X1; fig. 4.26: 3-4) which are modelled with skeletal elements visible on the back, the ribs and pelvis are visible. Another unique example (23634.H6; fig. 4.26: 5) has incised and punctured features. Only two objects survive with a head, which in both cases are very rudimentary with no clear facial features (13700.X1 and 30806.H1; fig. 4.26: 6-7), six objects have a dowel hole in the neck.

There is one object (17609.H1; fig. 4.26: 8), unfortunately very fragmented, that is very reminiscent of the Mellaart finds. It seems to depict a fleshy leg with a detailed hand placed on it. All objects are small in size, the smallest measuring just 1.84 cm (without head) and the largest—also headless—measuring 6.51 cm.

The remaining 12 standing figures consist of three lower-body fragments, showing only legs. Six of the more complete figurines range from more stylised to more naturalistic (compare 13161.H3 and 5842.X2; fig 4.27: 1-2), two are modelled with breasts and all have a pronounced stomach and buttocks. Four survive with the head intact, two of these have facial features (20171.X1 and 11324.X3; fig. 4.27: 3-4), the other two heads are mere stubs.



Figure 4.26: Examples of Hodder clay divided-base figurines. 1: 14183.X17; 3: 12420.H1; 3-4: 12401.X7 (not to scale), 20215.X1, skeletal elements indicated; 5: 23634.H6; 6: 13700.X1; 7: 30806.H1; 8: 17609.H1. Image by author, original photographs courtesy of the Çatalhöyük Research Project

There is one more stylised object (11854.X2; fig. 4.27: 5) and could be labelled as an anthropomorphic/abbreviated cross-over. The final example, 5043.X1 (fig. 4.27: 6) is a very unusual one. Labelled also as a cross-over object it is very reminiscent of 5021.D1 that is classified as zoomorphic.

Again the objects are all small, ranging from 2.3 to 5.9 cm in height. The three leg fragments would originally have been part of large objects. For example, the largest one 14902.X1 (fig. 4.27: 7) which only preserved feet and part of the legs measures 3.2 cm and would have been a substantial object in its complete form.

### Human-Divided Base: Mellaart stone figurines

There are nine stone examples of human-divided base figurines. Four of these are seated figures, two of which are possibly seated on a chair, with legs raised and hands resting on the knees (999999.H36 and 999999.H40; fig. 4.28: 1-2). Two appear to be crossed-legged, although one is quite weathered (999999.H166 and 999999.H206; fig. 4.28: 3-4). These two show the detailing of fat legs and bellies, whilst the other two are much more slender. None of them is clear sexed. Three survive with their heads, facial features are modelled and one seems to have modelled hair or a cap/hat (for example 999999.H41; fig. 4.28: 5). The four

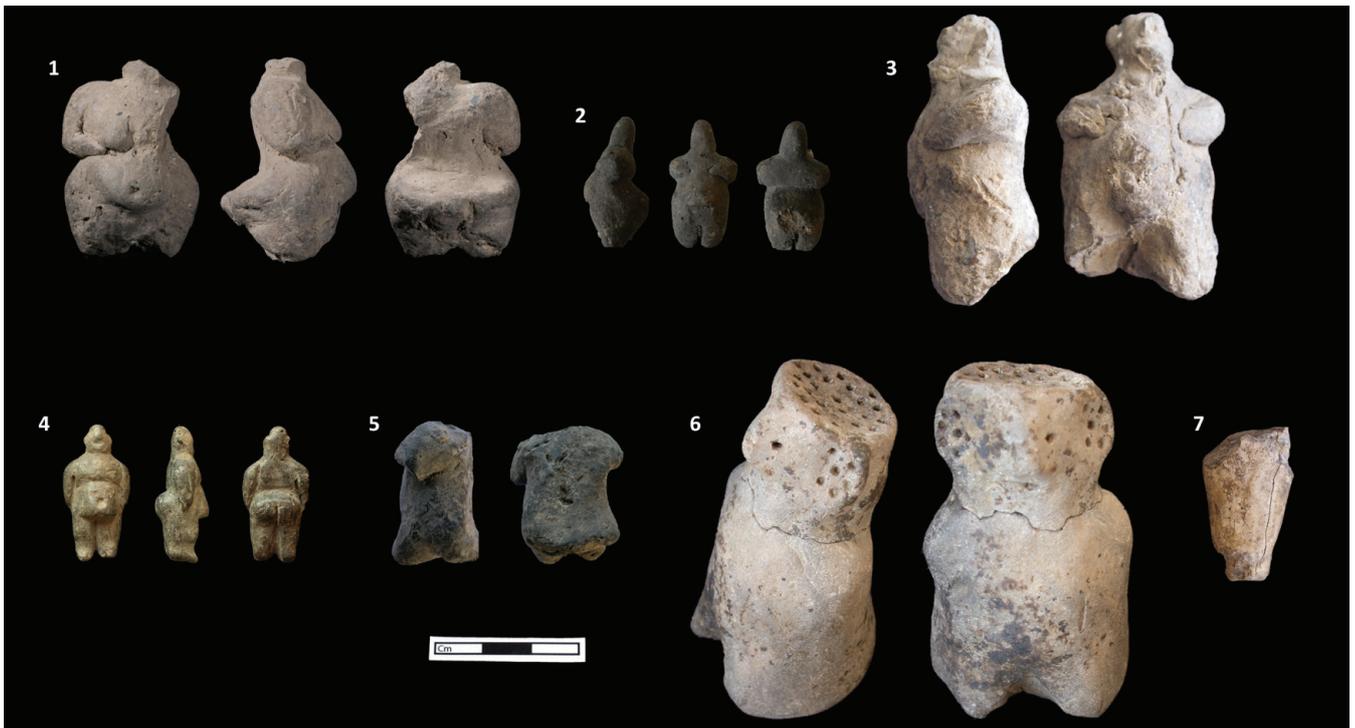


Figure 4.27: Examples of Hodder clay divided-base standing figurines. 1: 13161.H3; 2: 5842.X2; 3: 20171.X1 (not to scale); 4: 11324.X3; 5: 118542.X2; 6: 5043.X1, 14902.X1. Image by author, original photographs courtesy of the Çatalhöyük Research Project



Figure 4.28: Examples of Mellaart stone divided-base figurines (not to scale). 1: 999999.H36; 2: 999999.H40; 3: 999999.H166; 4: 999999.H206; 5: 999999.H41; 6: 999999.H159; 7: 999999.H48. Image by author, original photographs courtesy of the Çatalhöyük Research

standing figurines also have this feature with clear facial features. These three are again plump figures. Two of them have quite schematic bodies, whilst 999999.H48 has detailed hands and feet depicted (fig. 4.28: 7). Two of the seated figurines 999999.H36 and 999999.H206 also have these details in the body features (fig. 4.28: 1 and 4). The final example, 999999.H73 (no clear picture), is a triangular pebble, carved and incised pebble showing a large stomach, legs with feet and arms.

## Human-Divided Base: Hodder stone figurines

The stone figurines found by Hodder number nine examples. Of these two are seated, one is designated as male (18523.X1; fig. 4.29: 8) as it seems to have a beard, although in the pictures it is not very clearly visible. The second, 32806.X1, is perhaps modelled with legs crossed, the facial features are very stylised (fig. 4.29: 9). The other seven are standing figures, there are two which are quite abbreviated (15839.X10 and 7814.X1; fig. 4.28: 6-7). The others are modelled more naturalistically, as with clay examples they have hands and feet modelled and again show the focus on buttocks, breasts and large stomachs. Facial features are modelled on all, although 10475.X2 (fig. 4.29: 1) is very weathered and the facial features are no longer clearly visible. Interestingly, 20736.X3 (fig. 4.29: 3) has a perforation through the head. This perforation goes from the top of the head to the back.



Figure 4.29: Examples of Hodder stone divided-base figurines. 1-2: 10475.X2, 20736.X1 (not to scale) 3: 20736.X3; 4: 32806.X2; 5-7: 31852.X3, 15839.X10, 7814.X1 (not to scale); 8: 18523.X1; 9: 32806.X1. Image by author, original photographs courtesy of the Çatalhöyük Research Project

The objects range considerably in size, the two more abstract items are very small measuring 1.61 cm and 1.56 cm in height. The largest object in this type is 20736.X1 (fig. 4.29: 2) which measures 17.2 cm in height, also making it one of the largest objects in the site's figurine corpus.

### Human-Undivided Base: Mellaart clay figurines

The 14 clay Mellaart figurines vary considerably: 999999.H19 and 999999.H72 (fig. 4.30: 1-2) are modelled with considerable attention to the upper body, whilst the lower body is featureless. To a lesser degree, this also holds for 999999.H241 (fig. 4.30: 5), although this figurine has a pronounced shelf-like bottom and the arms seem to have been just pinched out stubs. The remaining objects are much more abbreviated and could be seen as anthropomorphic-abbreviated cross-over objects (999999.H2, 999999.H258 and 999999.H282; see fig. 4.30: 4, 6-7).

Three figurines have a dowel hole in the neck. Of the five figurines with a head two have facial features: eyes, ears and nose indicated. One appears to have only a stub head with no features and for two no information was recorded.

The objects range in size from 6.6 cm for object 999999.H53 to only 2 cm in height for 999999.H282 (head is missing).

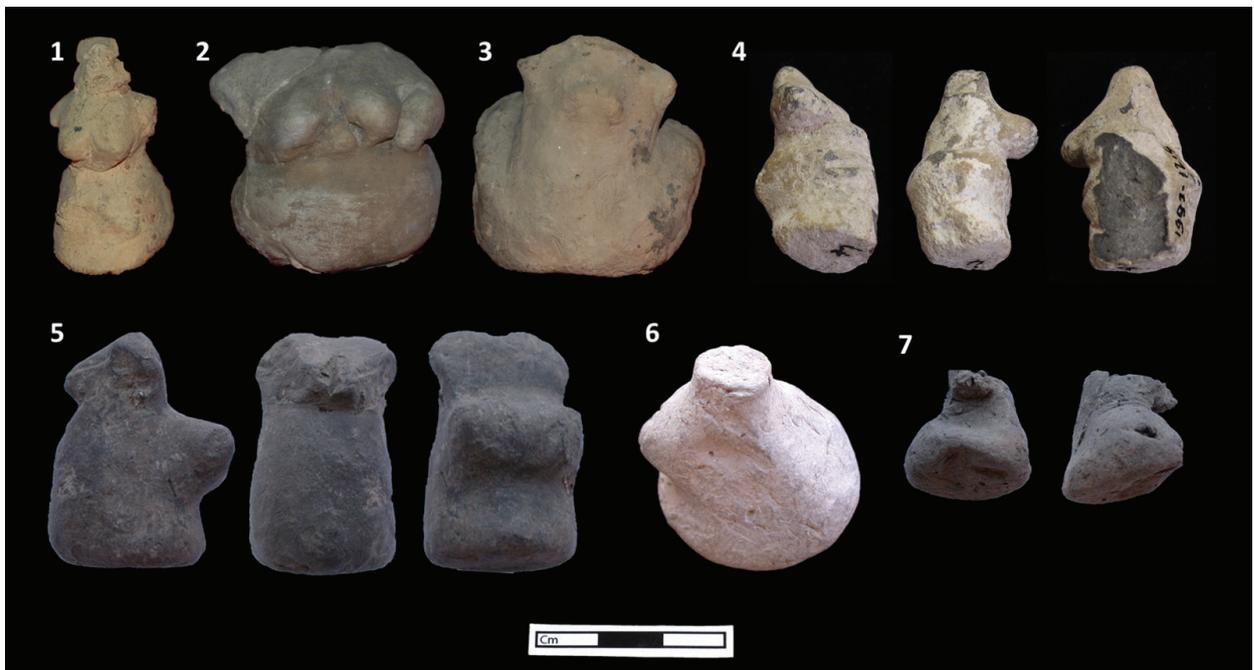


Figure 4.30: Examples of Mellaart clay undivided-base figurines. 1-3: 999999.H19, 999999.H72, 999999.H53 (not to scale); 4: 999999.H2; 5: 999999.H241; 6: 999999.H258; 7: 999999.H282. Image by author, original photographs courtesy of the Çatalhöyük Research Project

### Human-Undivided Base: Hodder clay figurines

The Hodder finds, numbering 41, show the same variability as the Mellaart ones. Some have the emphasis on the stomach and breasts, for example, 13167.X10 and 13103.X19 (fig. 4.31: 1-2). The lower portions of the figurines are mostly undifferentiated, however, some have an indication of buttocks or the shelf-like bottom, such as 13167.X7 and 14183.X11 (fig. 4.31: 3-4). There is a group that shows attention to the modelling of the torso without breasts: 8749.X1 and 132394.H2 (fig. 4.31: 5-6) are good examples of this. The others are very schematic, they are flat with the arms only delineated as triangular stubs. Nine of the objects have a

dowel hole in the neck. Some of these figurines are quite flat: 14126.X2; 8: 15538.H1; 9: 22641.X1 (fig. 4.31: 7-9). The figurines that survive with the heads intact show mostly just stubs, there is one object, 7358.X1, with an indication of a nose and two impressed eyes and one figurine, 14182.X2, seems to have had a large nose and potentially ears but it is very damaged (fig. 4.31: 10-11).

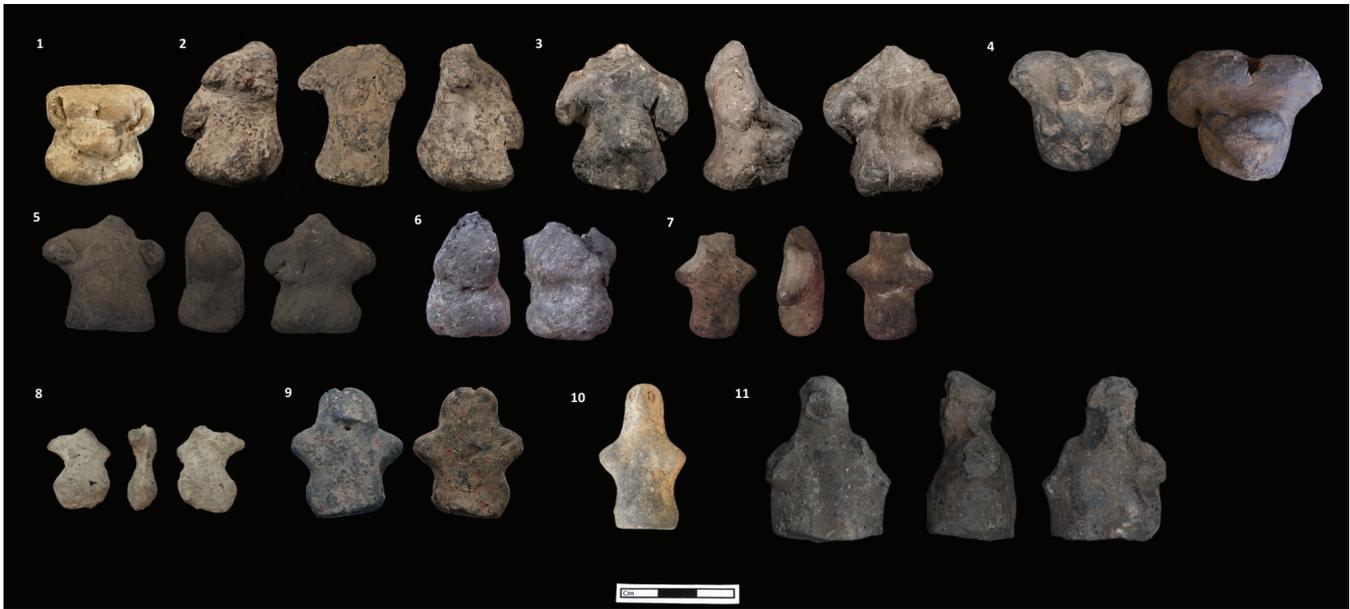


Figure 4.31: Examples of Hodder clay undivided-base figurines .1: 13167.X10; 2: 13103.X19; 3: 13167.X7; 4: 14183.X11; 5: 12394.H2 6: 8749.X1 7: 14126.X2; 8: 15538.H1; 9: 22641.X1; 10: 7358.X1; 11: 14182.X2. Image by author, original photographs courtesy of the Çatalhöyük Research Project

### Human-Undivided Base: Mellaart stone figurines

The 10 Mellaart figurines mostly do not have distinct body shapes, instead, the features are incised into a more or less cylindrical object (for example 999999.H154 and 999999.H31; fig. 4.32: 1 and 5). However, some objects like 999999.H189 (fig 4.32: 3), have a slight schematic rendering of legs. Object 999999.H159 (fig. 4.32: 4) might be a seated figurine (compare 18523.X1). Facial features are depicted when the heads survive except for 999999.H31 (fig 4.32: 5) which is very schematic in general. These stone figurines differ considerably in size, the smallest (999999.H31) measuring 5.1 cm and the largest (999999.H38) 19.4 cm in height.

### Human-Undivided Base: Hodder stone figurines

Only two Hodder finds have been recorded, objects 10264.X1 and 12102.X1 (fig. 4.32: 9-10). Both have a waist indicated and some incising to indicate arms placed on the torso. Object 10264.X1 survives with a head, with an indication of nose and eyes.

### Composite figurines

The composite type is very rare (10 objects) and only one example was found during the Hodder excavations, object 18545.X1. This object seems to be seated on a chair with an animal placed in front of the chair or seated on an animal (fig. 4.33: 9). This object is similar to some of the Mellaart finds: 999999.H161, 999999.



Figure 4.32: Mellaart and Hodder undivided-base figurines. 1: 999999.H154; 2: 999999.H155; 3: 999999.H189; 4: 999999.H159; 5: 999999.H31; 6: 999999.H24; 7: 999999.H38; 8: 999999.H74; 9: 10264.X1; 10: 12102.X1. Only 9-10 are to scale. Image by author, original photographs courtesy of the Çatalhöyük Research Project

H163, 999999.H35 and 999999.H29 (see fig. 4.33: 1-4).

There are two objects of two embracing human figures, 999999.H32, and the other shows two pairs of people, 999999.H18 (fig. 4.33: 5-6). Object 999999.H32 (fig. 4.33: 6) does not have separated bodies, however, the upper body widens and shows two pairs of schematic breasts, but only two arms are seen and the heads are placed next to each other. The other object shows the figures, clearly delineated, from a side view with arms extended embracing each other. This object is quite flat and perhaps more a plaque. This holds also for the final two stone objects 999999.H30, 999999.H37 (fig. 4.33: 7-8), they depict a human figure astride an animal. They cannot stand unaided and 999999.H30 has perforations indicating it was possibly suspended at some point. Both these objects are covered in shallow punctures and some incised features.

The final object is perhaps the most famous find from Çatalhöyük: the seated lady, in this dataset numbered as 999999.H67 (fig. 4.33: 10). It shows a figure seated on a chair with an animal head preserved on the right side. This animal head has been interpreted as representing a leopard, however, this identification is by no means certain. The figure itself compares in some ways to other anthropomorphic figurines as it depicts a very fleshy body with an emphasis on the stomach and breasts.

Paradoxically, as with many of the other Mellaart finds, there is little to no information on this object. Furthermore, it has been ‘restored’ which makes this object problematic to interpret in this dataset. The left animal head on the chair has been added, as the right one was preserved this is less of an issue compared to the fact that the head of the seated figure is also a modern addition. Of course, in the database the object is recorded as having no head.



Figure 4.33: Mellaart and Hodder stone and clay composite figurines. 1-4: 999999.H161, 999999.H163, 999999.H35, 999999.H29, figures riding animals; 5-6: 999999.H18, 999999.H32, multiple people; 7-8: 999999.H30, 999999.H37, human figure with animal; 9: 18545.X1, chair with animal?; 10: 999999.H67, figure on chair with animal heads (Images not to scale). Image by author, original photographs courtesy of the Çatalhöyük Research Project

### Heads: Hodder finds

The 14 heads were all found during Hodder’s excavations and they are all made of clay. Of these, three have a clear dowel hole: 1056.H1, 23704.X1 and 2661.H1 (fig. 4.34: 2, 5-6). A further two objects, 1006.H1 and 12501.H1 (fig. 4.34: 1 and 4), potentially have a hole in their neck, but these are not clear dowel holes, finally, 3139.H9 (fig. 4.34: 3) seems to have been modelled on a finger.

These heads range from being featureless, see again 1006.H1 and 23704.X7 (fig. 3.34: 1 and 5) to very finely modelled. Four examples are unusually large: 17804.H1 (fig. 4.35: 1) is a squarish shape with very schematic eyes and mouth, 22314.H1 (fig. 4.35: 2) has a large nose, pinched out ears and small incised eyes. The final two examples, 2739.H2 and 5505.H7 (fig. 4.35: 3-4) are very abbreviated with no clear facial features except for a nose. Furthermore, 2739.H2 has a row of holes along the top of the head and 5505.H7 has very shallow ‘pock marks’ concentrated on the right side of the face.



Figure 4.34: Examples of Hodder clay heads. 1: 1006.H1, dowel hole?; 2: 1056.H1, dowel hole; 3: 13139.H9, modelled on finger; 4: 12501.H1, dowel hole? 5-6: 23704.X7, 2661.H1, dowel hole. Image by author, original photographs courtesy of the Çatalhöyük Research Project

### Indeterminate objects: Mellaart finds

There are seven indeterminate fragments of which three are made of clay and four of stone. The three clay objects are head fragments. There is only a photograph of one: 999999.H204 (fig. 4.36: 3), this object appears to have been modelled as a stand-alone head, with very stylised features. The other two are equally abbreviated, and 999999.H76 (no photograph) possibly has a dowel hole, but it is reported as being very small. Another unique feature of this object is the fact its eyes are made from obsidian, one of which survived. Unfortunately, there is not any detailed information on how this piece of obsidian was shaped and how exactly it was placed onto the clay object.



Figure 4.35: Examples of Hodder clay heads 1: 17804.H1; 2: 22314.H1; 3: 2739.H2 4: 5505.H7. Image by author, original photographs courtesy of the Çatalhöyük Research Project

The four stone objects are of two heads and two head and torso fragments. The two head and torso fragments have quite featureless heads and are not clearly sexed, for example 999999.H33 (fig. 4.36: 1). The two heads, 999999.H157 (fig. 4.36: 2) and 999999.H191 (no photograph), do have facial features, although 999999.H191 might have been intentionally defaced and only an indication of one eye is now visible. Two holes are placed on top of the head, and potentially it might have been made as a separate head.

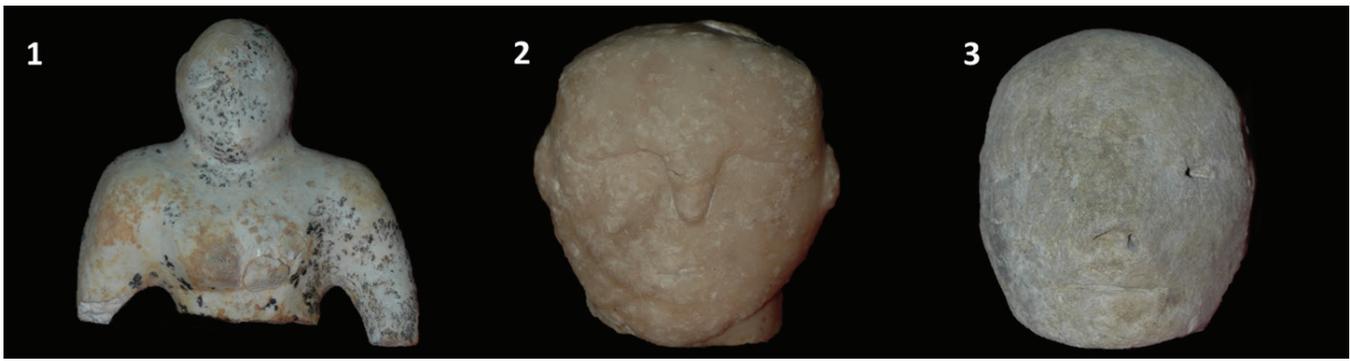


Figure 4.36: Mellaart indeterminate fragments. 1-2: 999999.H33, 999999.H157, stone; 3: 999999.H204; clay (images not to scale). Image by author, original photographs courtesy of the Çatalhöyük Research Project

### Indeterminate objects: Hodder finds

Within the category of indeterminate, there are 30 objects. There are 15 head fragments, three with a (partial) torso still intact.

As with the separately made heads, there is quite a lot of variety in the head shapes. One, object 13143.X2, is very nicely modelled with ears but no clear facial features (fig. 4.37: 1). Another two, 4839.H2 and 4921.H1, have abstract facial features and what seem to have pinched-out ears which have holes in them (fig. 4.37: 3-4).

The remaining objects are head and torso and torso fragments and one arm fragment (14900.H1, see fig. 4.38: 15). Some of these objects, for example 10663.X1, 11663.H1, 13140.H1 (fig. 4.38: 6-9) resemble the more complete examples with the emphasis on breasts, stomach and buttocks. Interestingly two objects are modelled with the arms crossed across the chest (16258.H1 and 7582.X1; fig. 4.38: 10-11), a posture that we do not see in the more complete items.



Figure 4.37: Hodder clay head fragments. 1: 13143.X4; 2: 13701.X1; 3-4 4839.H2, 4921.H1, small punctures in possible ears; 5: 13142.X3; 6: 3773.X1. Image by author, original photographs courtesy of the Çatalhöyük Research Project



Figure 4.38: Hodder clay indeterminate fragments. 1: 6260.X1; 2: 10500.H2; 3: 3584.H2; 4: 3632.H3; 5: 5466.H; 6-9: 10663.X1, 11663.H1, 13140.H1, 13140.X20, fragment of more 'realistic' objects; 10-11: 16258.H1, 7582.X1, folded arms; 12: 23251.H4; 13: 13129.X1, 14: 16806.H1.; 15: 14900.H1, arm fragment. Image by author, original photographs courtesy of the Çatalhöyük Research Project

#### 4.8.4 PHALLOMORPHIC FIGURINES

There are eight objects that are phallic, although very often the designation is tentative because the objects are very coarsely shaped. Two objects are made of limestone: 1505.X1 and 4116.D1 (fig. 4.39: 1 and 5). These two objects are also the most clearly phallic objects and object 4116.D1 is the only example that seems to have eyes when viewed from one side. However, especially viewed from above it is very phallic. Sizes range from 2.53 cm to 7.5 cm in length.



Figure 4.39: Phallic objects. 1: 1505.X1, stone; 2-4: 2910.X1, 3053.X1, 31210.X2; 5: 4116.D1, stone; 6-8: 13103.H9, 18592.X5, 14183.H2. Image by author, original photographs courtesy of the Çatalhöyük Research Project

#### 4.8.5 GEOMETRIC OBJECTS

There is a range of objects that are potentially figurine fragments, or perhaps on their way to being figurines. There are 79 objects that are more or less conical. There could perhaps be abbreviated figurines. Some of them have rounded bases (fig. 4.40: 1-12) whilst others have a slightly pinched-out base and thin, elongated 'bodies' (fig. 4.40: 13-27). Most of these objects are fractured, so it is unclear if there was any indication of a 'head' with a nose and/or head element as with the abbreviated corpus.

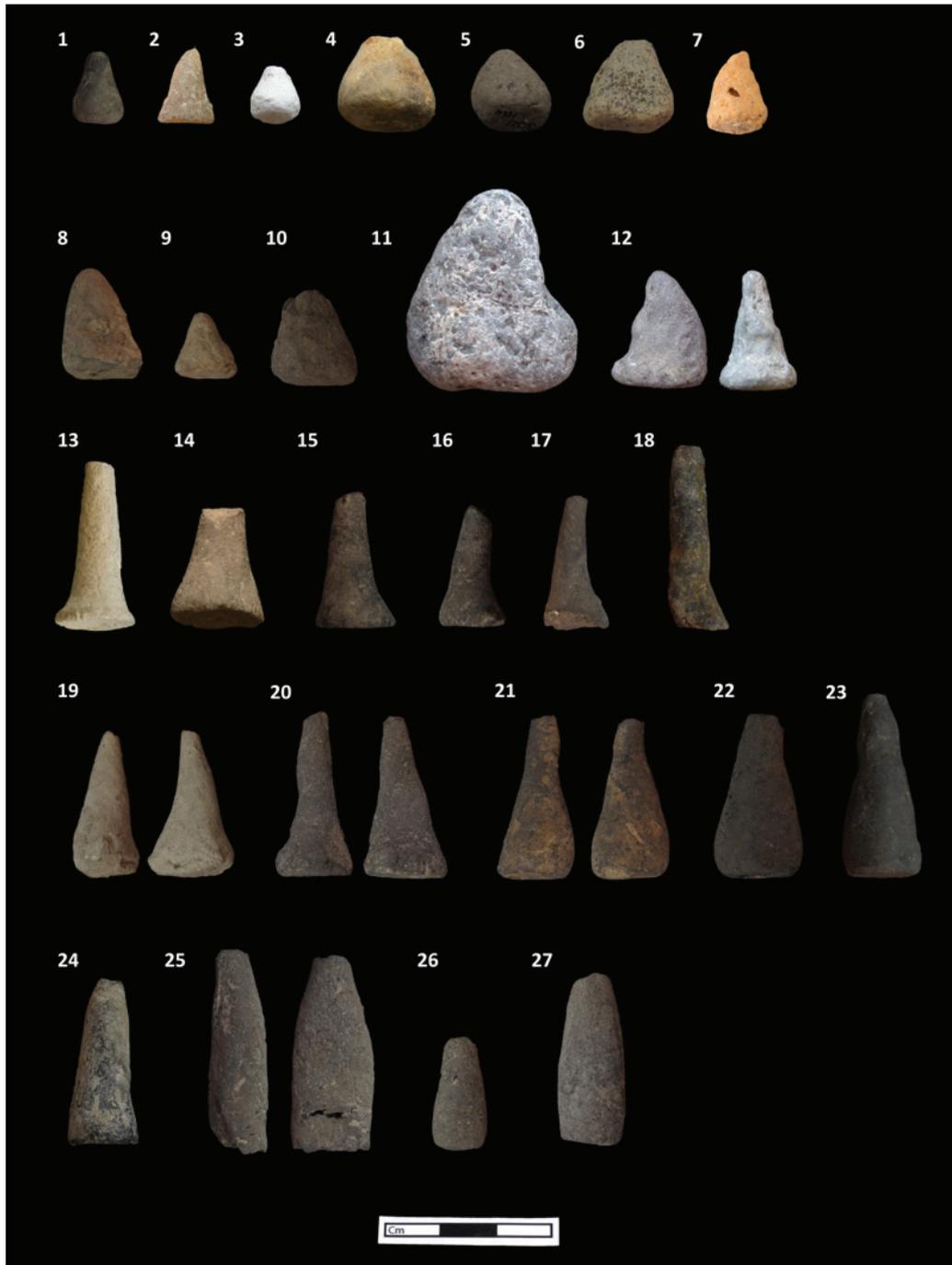


Figure 4.40: Examples of geometric, conical objects. 1-12: 2559.H1, 5290.H1, 8297.H1, 17374.H2, 3021.H28, 6625.H1, 5417.H12, 12946.H2, 15828.H1, 16469.H6, 8882.H2, 3552.H3, objects with (rounded) base; 13-27: 12128.H1, 18152.X1, 12524.X3, 12524.X6, 12552.X1, 14186.H7, 12238.H1, 12541.H1, 13103.H6, 13103.H12, 14183.H9, 16901.H1, 12648.H1, 12988.H16, 12988.H8, objects with slight indication of base. Image by author, original photographs courtesy of the Çatalhöyük Research Project

There are 69 cylindrical fragments (see fig. 4.41). These objects show human modification and perhaps they were on their way to being horns or arm fragments. There is one object that is very unusual within this group: 19139.H15 (fig. 4.41: 11), which has been incised with a zig-zag line. A partial perforation can be seen in the fracture. A choice was made to place it within the geometric objects, but it could also fit within the category of unclear.



Figure 4.41: Examples of cylindrical objects. 1-6: 10324.H3, 14183.H3, 12988.H7, 10324.H4, 12971.H15, 13522.H2, large cylindrical objects; 7-10: 13570.H2, 13143.H8, 18928.H1, 19101.H5, very thin rolled pieces; 11: 19139.H15, cylinder with zig-zag line. Image by author, original photographs courtesy of the Çatalhöyük Research Project

#### 4.8.6 INDETERMINATE AND UNCLEAR OBJECTS

As discussed the categories of indeterminate and unclear are separated by a degree of certainty in assignment. The indeterminate category consists of fragments that are (almost) certainly figurine fragments, it is just not clear of what type. Within the unclear category are those fragments that are perhaps figurine fragments.

For as much as possible fragments have been removed from the category of ‘unclear’ because from an analytical perspective, it is of limited value. However, it cannot be completely avoided to have a category of unclear fragments. These are clearly shaped clay fragments that also do not clearly belong to other clay object categories. Of course, in a corpus that is so diverse and full of idiosyncratic objects, there is every possibility that some of these objects could be recognisable if we have more complete examples and might even be part of yet unknown figurine (sub)types.

## Indeterminate

Table 4.11: Indeterminate corpus absolute numbers and percentages

Indeterminate Corpus		
Anthropomorphic	20	7%
Abbreviated	39	13.6%
Zoomorphic	134	46.7%
Anthropomorphic or abbreviated	4	1.4%
Anthropomorphic or zoomorphic	17	5.9%
Abbreviated or zoomorphic	68	24%
Anthropomorphic, abbreviated or zoomorphic	5	1.7%
<b>Totals</b>	<b>287</b>	<b>100%</b>

There are 287 objects within this category. Four of these are made of stone. The indeterminate objects have been assigned to possible types (see table 4.11), however, it has to be said that these assignments are tentative. Some of the objects that were originally designated as unclear have been added to the category of indeterminate. This was not necessarily based on shape, but on certain characteristics. For example, three

objects, 1011.X1, 5497.H7 and 12971.H1 (fig. 4.42: 1-3) are classified as possibly anthropomorphic because of the carefully made punctures and the paint which we know from more complete examples.

A large proportion of the fragments are limb and/or horn fragments: either legs from zoomorphic or abbreviated and arms of anthropomorphic figurines.



Figure 4.42: Indeterminate fragments. 1-4: 1: 1011.X1, 5497.H7, 12971.H1, 12971.H4, anthropomorphic; 5-7: 11370.X6 (not to scale), 6550.H2, 19102.H1, abbreviated; 8-13: 1059.H2, 1620.H1, 3021.H8, 5417.H4, 8859.H1, 13139.H8, limbs and horns, zoomorphic/abbreviated; 14-15: 2201.H1, 12988.H19, abbreviated or zoomorphic; 16: 5381.H1, anthropomorphic or abbreviated. Image by author, original photographs courtesy of the Çatalhöyük Research Project

## Unclear

There are 102 fragments categorised as ‘unclear’ one of which is made of stone (5189.X1, no clear photograph). Mostly they are too fragmented to make a clear identification such as 7571.H1 (fig.4.43: 2). However, some might represent unrecognised forms. For example, the ‘decoration’ of nail imprints on 6556.H2 (fig 4.43: 1) is something unknown from other object categories, so potentially it is part of a figurine. In the same way, the impressed and incised features of 8675.H1 (fig. 4.43: 4) likely make this a figurine. A final example of an interesting, unique shape is 15160.X23 (fig. 4.43: 3) which has been interpreted as perhaps an antler.



Figure 4.43: Unclear fragments. 1: 6556.H2; 2: 7571.H1, 15160.X23, 8675.H1. Image by author, original photographs courtesy of the Çatalhöyük Research Project

## 4.9 TELL SABI ABYAD: FIGURINE CORPUS AND TYPOLOGY

The corpus of figurines from Tell Sabi Abyad consists of 1605 objects. Table 4.12 shows the absolute and relative numbers of the different forms. The typology follows the Çatalhöyük to allow for comparison, however, the differences between the two corpora mean that there are differences in the typology, most notably the anthropomorphic and abbreviated figurines are grouped together.

Table 4.12: Tell Sabi Abyad figurine corpus absolute numbers and percentages

Figurine corpus Tell Sabi Abyad		
Zoomorphic	498	31%
Anthropomorphic and abbreviated	406	25.2%
Geometric	240	14.9%
Indeterminate and unclear	464	28.9%
<b>Totals</b>	<b>1608</b>	<b>100%</b>

### 4.9.1 ZOOMORPHIC FIGURINES

The corpus of zoomorphic figurines consists of 498 objects (see table 4.13). Six of these are made from stone, with one tentatively a quadruped although it is remarked the shape might be natural with perhaps a little smoothing. There are three nice examples of zoomorphic bucrania, for example F07\_023 (see fig. 4.44: 3). F97\_027 (no clear image) example has very nicely modelled, spiralling horns and probably represents a ram. This object is perforated, and could also be classified as a pendant. Two head fragments are made of marble (F04\_039) and a pinkish stone (F05\_024; see fig. 4.44: 1-2). One object, F08\_014, is recorded as a set of bone figurines but are in fact two sets of figurative clasps showing the head and bodies of animals, with finely drilled holes covering the bodies and finely carved facial features (fig. 4.44: 4). It is unclear which animals were represented; they have been interpreted to be either sheep, rabbit or dog. One has long ears

which are folded back against the head, the other has shorter ears and potentially horn stubs. These objects, the bone clasps and possible pendant have been kept as part of the figurine dataset. However, similar objects exist within the corpus that have been not been recorded as figurines.

Table 4.13: Zoomorphic corpus absolute numbers and percentages

Zoomorphic Corpus		
<b>Quadruped</b>	<b>349</b>	<b>70.1%</b>
Body and head	41	8.2%
Body	225	45.2%
Head	76	15.3%
Legs	7	1.4%
<b>Bucrania</b>	<b>8</b>	<b>1.6%</b>
<b>Bird</b>	<b>1</b>	<b>0.2%</b>
Horns	121	24.3%
Indeterminate	19	3.8%
<b>Totals</b>	<b>498</b>	<b>100%</b>

Of the 488 clay objects, 346 are quadrupeds, seven of these objects being leg fragments. There are five bucrania in the dataset, with seven more indeterminate pieces as possible bucrania (total number of indeterminate pieces numbers 19). Finally, there are 120 horn fragments (table 4.13).

Zoomorphic figurines are quite easily distinguishable providing they are not too fragmented. They depict quadrupeds with only three exceptions. There is one clear bird figurine with painted decoration (F96\_001) and two more possible bird figurines, classified as indeterminate. F93\_005, as it is drawn on the day form, looks very bird-like, although it might be the orientation the fragment was drawn. The final example, 007\_455, was originally designated as a possible bird, but the available sketch is unclear. No good visual references are available for these objects, but a rough drawing of object F96\_001 is shown in Figure 4.45.



Figure 4.44: Non-clay figurines (not to scale). 1-2: F04\_039, F05\_024, stone figurine heads; 3: F07\_023, stone bucranium; 4: F08\_014, bone clasps. Image by author, original photographs courtesy of the Tell Sabi Abyad Project

## Quadrupeds: Body shapes

As at Çatalhöyük, quadruped bodies are quite distinct. Bodies are round to oval and triangular in section and at times the profiles show a ridged back with pinch marks (n=11, for example F05\_129, fig. 4.46: 3). Backs are straight, at times they have a slope caused by differences in leg heights. There are 23 objects with a saddleback, such as F04\_062 (fig. 4.46: 2).

Figurines seem to be predominantly standing. There are some instances where quadrupeds seem to be lying down (n=7, for example F08\_032, fig. 4.46: 1), in these instances the legs are very small and in two instances are not indicated at all. Five figures that appear to be sitting, two of these stand on a flat base with a strongly sloping back. A further two are perhaps walking based on the position of the legs.

In 76 instances the presence of a tail could be ascertained. In most cases, this tail is only a stub tail, or a small conical tail sticking up or backwards. In five instances the tail is a bit flattened and pointing down, and in one instance a flap was pressed against the back of the body. There is one unusual example (F07\_008, no clear image) where clay was pulled out and folded over to create a large tail.

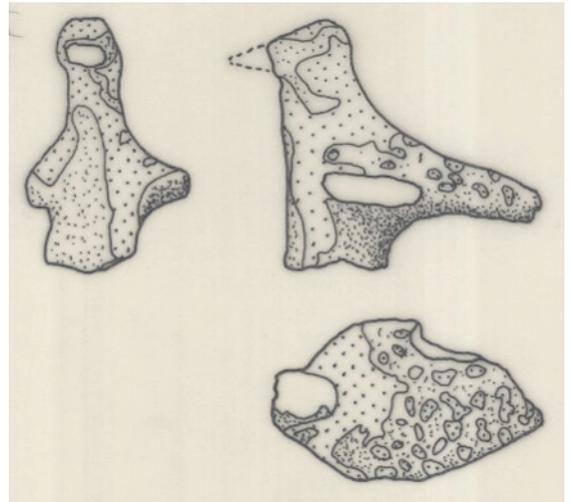


Figure 4.45: F96\_001, bird figurine. Courtesy of the Tell Sabi Abyad Project

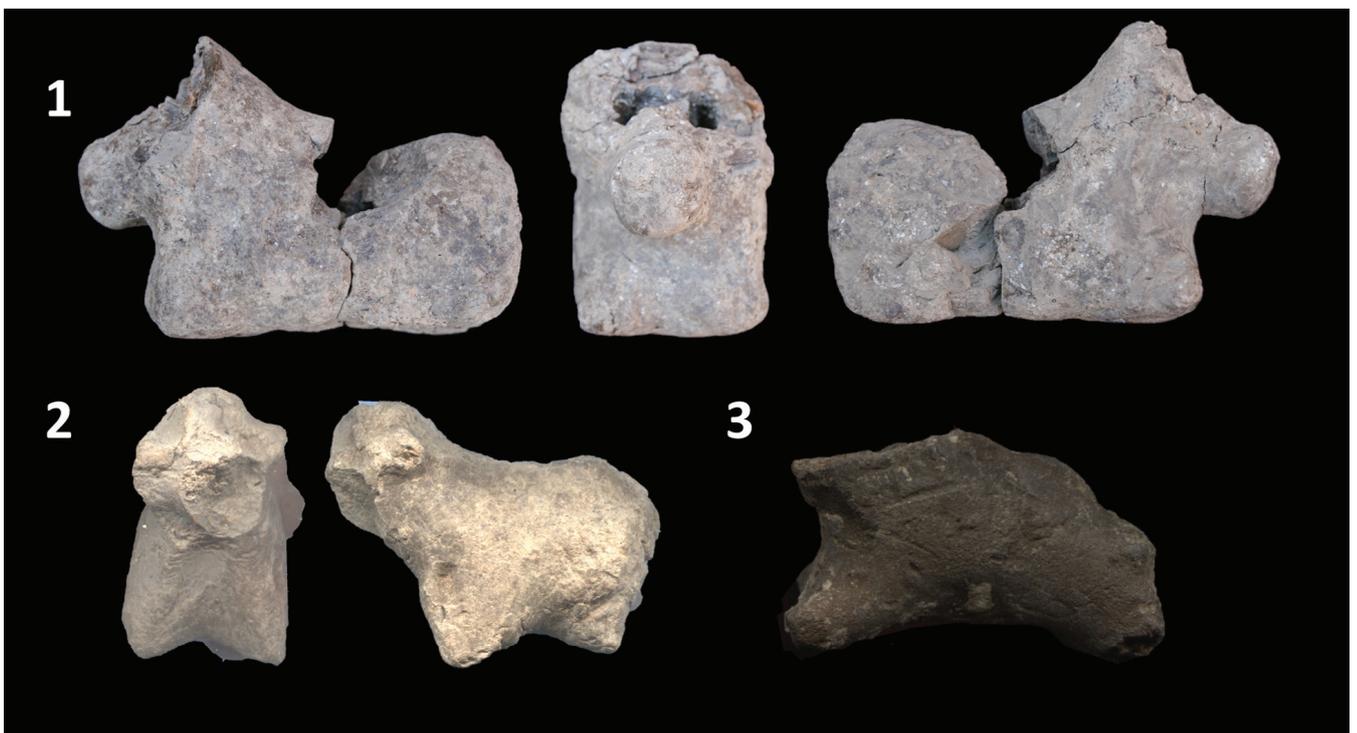


Figure 4.46: Examples of different postures and body shapes (not to scale). 1: F08\_032; 2: F04\_062; 3: F05\_129. Image by author, original photographs courtesy of the Tell Sabi Abyad Project

## Quadrupeds: Leg shapes

Legs (when present) are very short and rounded, sometimes no more than stumps. They are predominantly conical to flat triangular; it is not always clearly visible on the drawings. There are instances where they are splayed forward/backwards. In a few instances, legs are longer, but predominantly legs are relatively short and small (see fig. 4.47 for a range of body, tail and leg shapes).

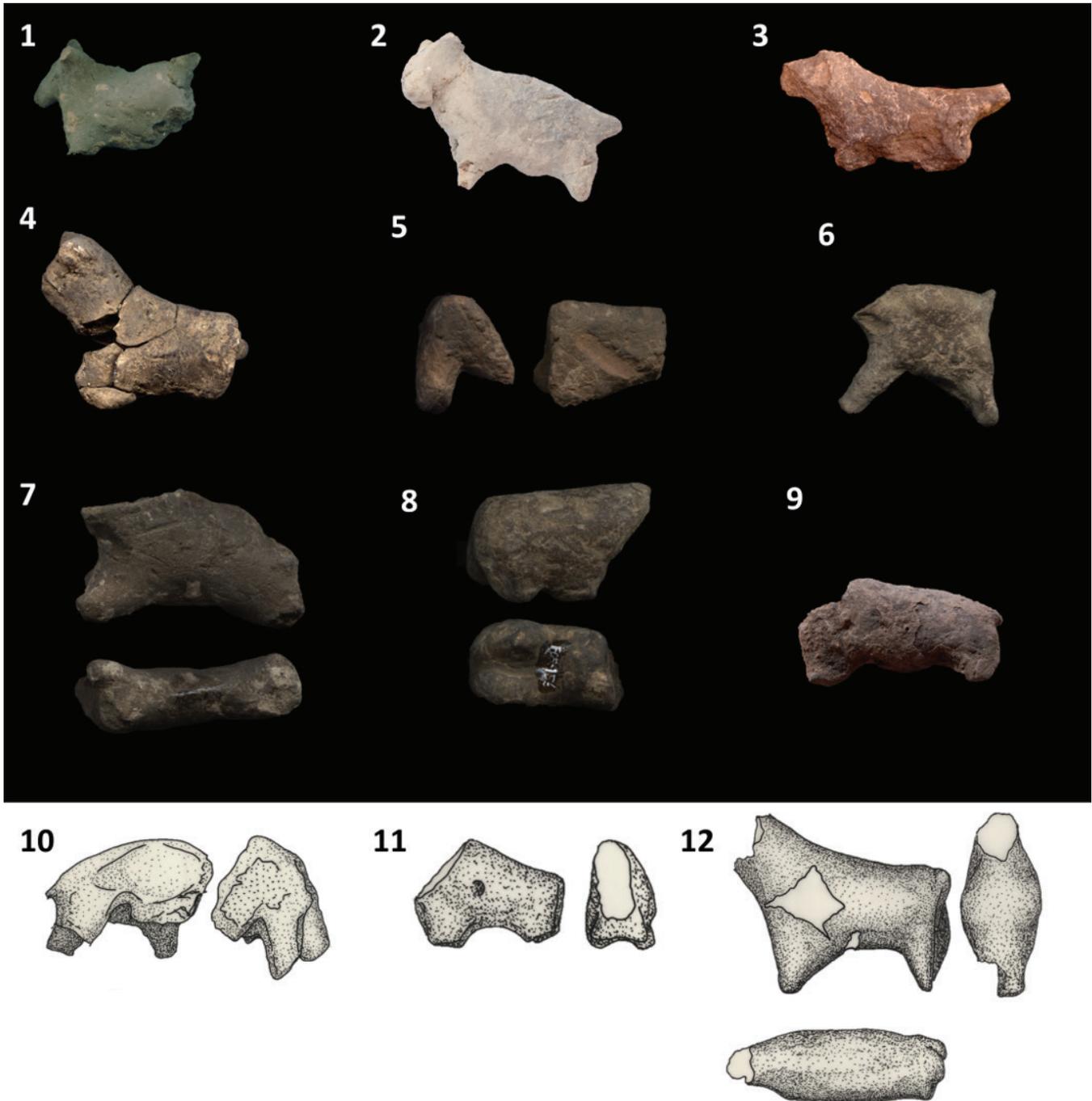


Figure 4.47: Examples of different zoomorphic leg and tail shapes (not to scale). 1: F04\_013; 2: F04\_017; 3: F04\_050; 4: F04\_015; 5: F07\_011; 6: F04\_068; 7: F05\_035; 8: F07\_014; 9: F98\_008; 10: F05\_029; 11: F05\_049; 12: F93\_019. Image by author, original photographs courtesy of the Tell Sabi Abyad Project

## Quadrupeds: Head shapes

As objects are mostly drawn from the sides and no top view is given, the shape of the heads is at times not clear. There are 114 objects with heads preserved. Snouts are often triangular in section and flat to more conical in shape.

Horns and/or ears are most often only indicated by fractures. Horns are represented far more often than ears (see table 4.14) are and they are also found as separate pieces. Horn shapes are varied, but most often they are round in section, curved and ending in a tip. They vary in size, position and orientation on the head. Some horns point forwards, others upwards. There are a few examples when horns are more or less straight, but these are exceptions. Ears are most often flat and rounded, placed under the horns, or when horns are absent, they are placed on top of the head and are at times more triangular in shape (see fig. 4.48 for an overview of different quadruped head shapes).

Facial features are very rare and recorded on only eight objects. In all instances, objects seem to have eyes, either holes or impressions, and in two instances small incisions. One object also potentially has nostrils and one other has a possible indication of a mouth (see F08\_032, fig. 4.46: 1 and F04\_017, fig. 4.48: 2). There is one unusual head fragment, F07\_018 (fig. 4.49: 1) with applied strips and bands of clay. There is one small cylindrical horn preserved and a fracture for the possible attachment for a body. The designation is tentative because it is such an unusual piece within the corpus.

## Quadruped figurines as real animals

As to any statement about species, the figurines are often too stylised to make any comments. Object forms do give possible species determinations. For example, figurines with horns pointing forward are often interpreted as being bovine. It is often difficult to see on the sketches and photographs and here all species designations are tentative, except for two. There are 21 figurines with a species designation: 11 are tentatively bovine, there are seven possible sheep and there is one possible dog. The two clear designations are F03\_014 (fig. 4.49: 2), representing a wild boar, based on the body shape and F02\_020 a complete figurine of a goat with backward curving horns and a goatee (fig. 4.49: 3).

There are some interesting remarks to make about the gender of quadrupeds. There are two objects (IIF01\_005 and IIIF05\_120, no clear images) that reportedly show male genitals. There is one object (F04\_036, no clear image) with a clear 'potbelly', remarked by the original recorder to possibly be pregnant. There are a further six objects with this pronounced potbelly (F04\_017 and F98\_008; fig 4.47: 2 and fig. 4.48: 6).

Table 4.14: The presence/absence of horns and ears on quadrupeds

Quadruped presence horns/ears		
Horns yes; ears yes	12	10.5%
Horns yes; ears no	55	48.2%
Horns no; ears yes	17	14.9%
Horns no; ears no	1	0.9%
Horns unclear; ears yes	2	1.8%
Horns unclear; ears no	1	0.9%
Ears unclear; horns yes	12	10.5%
Ears unclear; horns no	1	0.9%
Ears unclear; horns unclear	13	11.4%

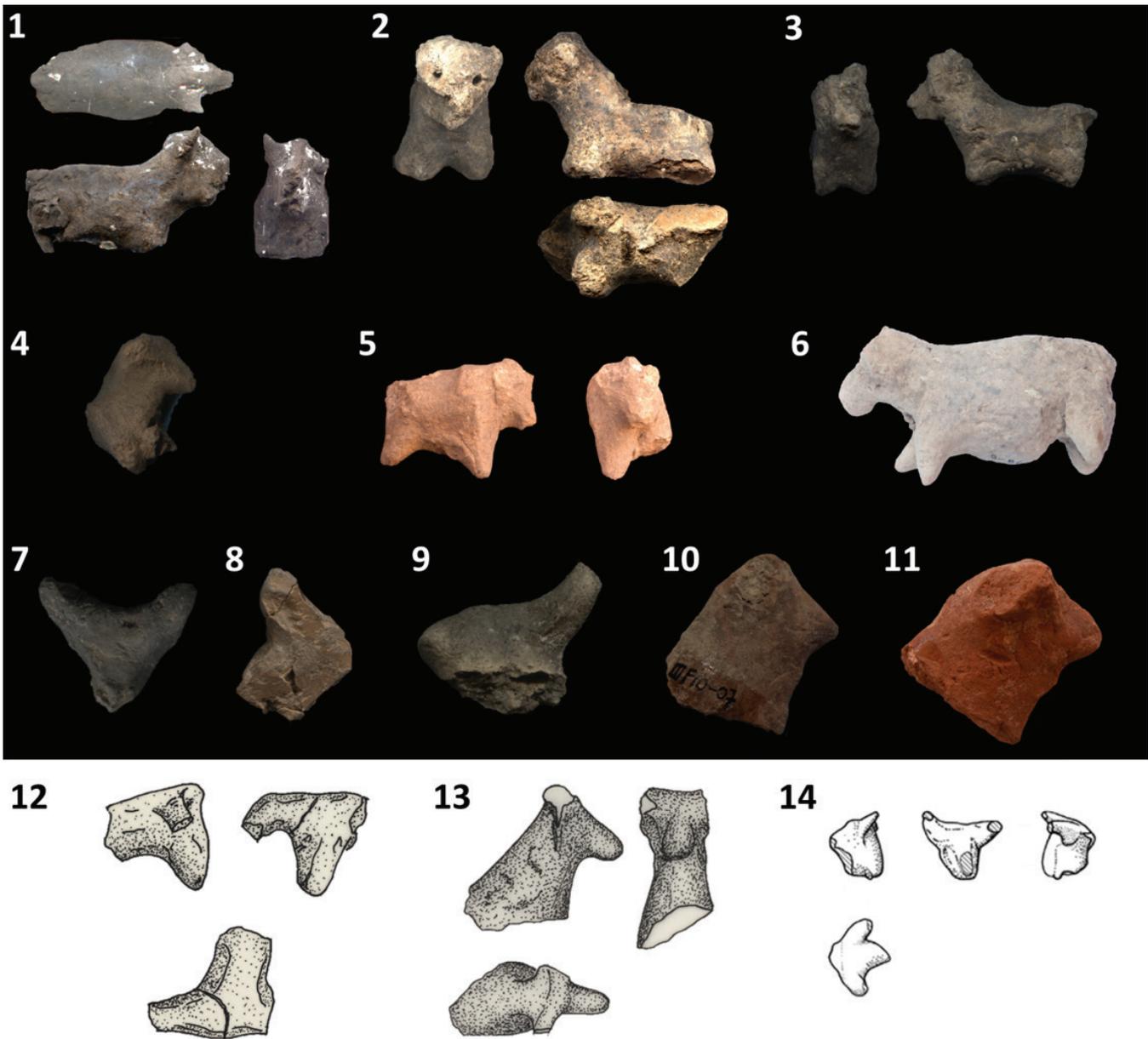


Figure 4.48: Examples of different head shapes (not to scale). 1: F04\_013; 2: F04\_017; 3: F04\_050; 4: F04\_015; 5: F07\_011; 6: F98\_008; 7: F05\_023; 8: F05\_145; 9: IIIIF05\_037; 10: IIIIF10\_007; 11: IIIIF10\_126; 12: F91\_018; 13: F93\_003; 14: F97\_029. Image by author, original photographs and drawings courtesy of the Tell Sabi Abyad Project

## Bucrania

The five bucrania survive only as horns, with the faces all (partly) fractured (see figure 4.50, showing IIIIF05\_002, the only photographed bucranium). Horns are all curving forward and rendered in varying degrees of schematisation.

## Horns

There is no clear indication of horns being made as separate pieces, as far as can be established all horn fragments were part of a larger object. Predominantly curved horn fragments were recovered (n=110, for example F05\_052, F05\_018, F05\_083 shown in fig. 4.51: 1-3), at times they also appear spiralled (for example, F05\_118 and IIIIF05\_095, see fig. 4.51: 7-8). Only six straight horn fragments were recorded, examples are F05\_038, F05\_053, F08\_007 (fig. 4.51: 4-6).



Figure 4.49: (not to scale) 1: F07\_018, figurine with applied strips of clay; 2: F03\_014, pig/boar; 3: F02\_020, goat. Image by author, original photographs courtesy of the Tell Sabi Abyad Project



Figure 4.50: (not to scale) IIIIF05\_002, bucranium. Image by author, original photographs courtesy of the Tell Sabi Abyad Project

### Sizes of zoomorphic figurines

Zoomorphic figurines range considerably in size. The smallest complete quadruped measuring only 2 cm in length and the largest 9.3 cm. Some head fragments indicate that they were originally part of substantial objects. Several head fragments measure from 4.5 and 5 cm in length. Similarly, the largest horn fragment measures 4.5 cm in length, and many fall in the 2 to 3 cm range; again these would have been part of large objects.



Figure 4.51: Horn fragments (not to scale). 1-3: F05\_052, F05\_018, F05\_083, examples of curved horns; 4-6; F05\_038, F05\_053, F08\_007, examples of straight horns; 7-8: F05\_118 and IIIIF05\_095, examples of curved and spiralling horns. Image by author, original photographs courtesy of the Tell Sabi Abyad Project

#### 4.9.2 ANTHROPOMORPHIC AND ABBREVIATED FIGURINES

Table 4.15: Anthropomorphic/abbreviated corpus absolute numbers and percentages

Anthropomorphic/ Abbreviated Corpus		
<b>Head on base</b>	<b>83</b>	<b>20.4%</b>
Rounded base	47	11.6%
<b>Head on divided base</b>	36	8.9%
<b>Pillar shape</b>	<b>145</b>	<b>36%</b>
Tentative	41	10%
<b>Decorated type</b>	22	5.4%
<b>Violin type</b>	13	3.2%
<b>Human-undivided base</b>	37	9.1%
<b>Heads</b>	<b>8</b>	<b>2%</b>
<b>Indeterminate</b>	61	15%
<b>Human-divided base</b>	1	0.2%
<b>Totals</b>	<b>406</b>	<b>100%</b>

The abbreviated and anthropomorphic corpus consists of 406 objects (see table 4.15). There are 11 objects made from different materials. Two are bone fragments with drilled facial features: objects F04\_009 and F04\_023 (see fig. 4.52: 3 and 4). These pieces are fractured under the heads, it is unclear if there was ever a body indicated. Both pieces are shaped and polished, however, their designation as a figurine is tentative. Similarly, three objects could perhaps also be classified as pendants due to their perforations. They are likely very schematic anthropomorphic figures: F01\_005, F92\_013 and F93\_014 (see fig. 4.52: 1-3).

Four stone objects are very schematic heads, one of which, F93\_011 (fig. 4.52: 6), has a very schematic conical torso. All the objects have flat, round to oval faces with only eyes indicated by drilled holes. One object is likely a head on base figurine, although it is badly fractured along the body there do not seem to have been legs. A fracture for the head is clearly visible.

A final object, IIF01\_011 (fig. 4.52: 8), is very interesting as it is the only example of a naturalistic anthropomorphic figure. It is very similar to objects from Çatalhöyük: it shows a fleshy, likely female, figure with legs folded under the body. The objects show the same emphasis on buttocks, belly (with a navel) and breasts. The hands are placed on the upper legs.

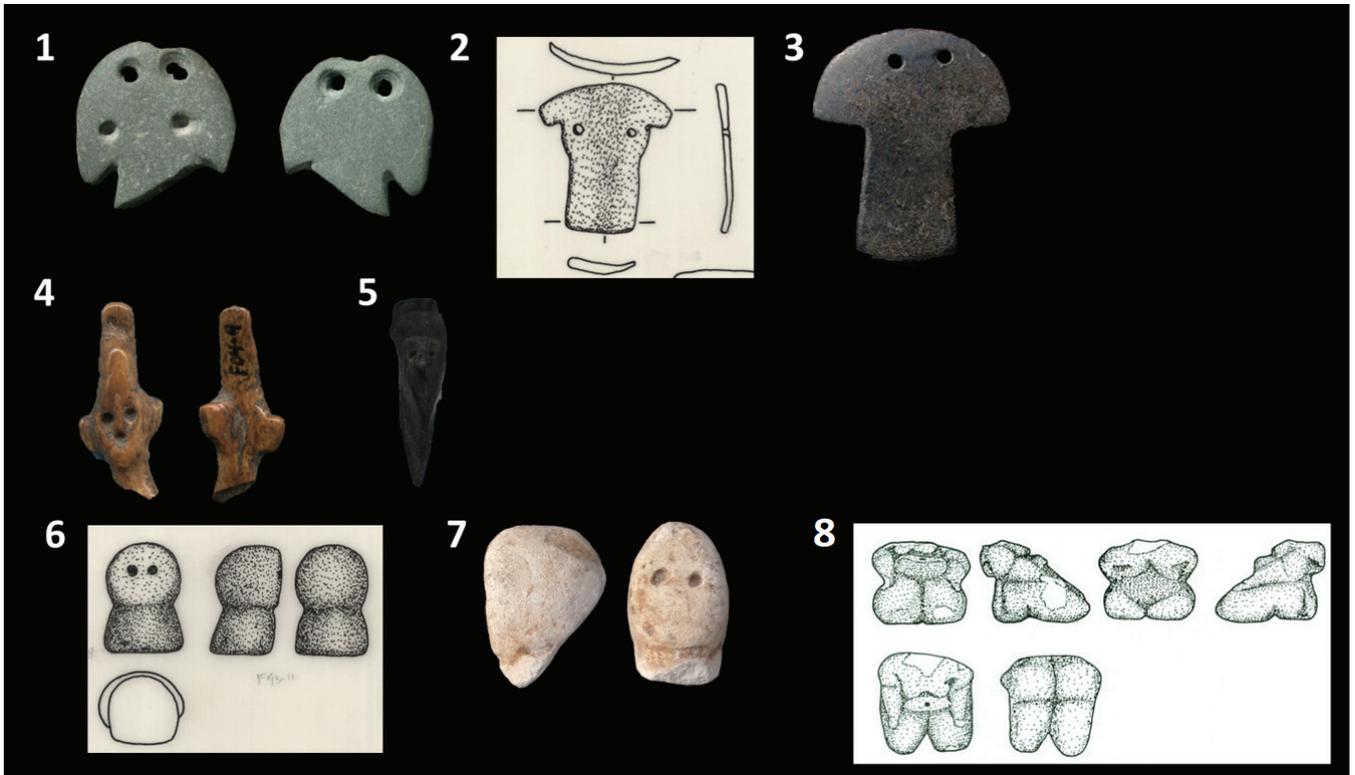


Figure 4.52: Non-clay anthropomorphic/abbreviated figurines (not to scale). 1: F01\_005, stone, 2: F92\_013, shell; 3: F93\_014, stone: figurines or pendants; 4-5: F04\_009 and F04\_023; bone fragments with facial features; 6-7: F93\_011 and IIF01\_010, stone heads; 8: IIF01\_011, stone human-divided base. Image by author, original photographs and drawings courtesy of the Tell Sabi Abyad Project

Because of the lack of more naturalistic rendering of figurines at Tell Sabi Abyad, the categories of abbreviated and anthropomorphic have not been employed. Originally all figurines were deemed anthropomorphic with the remark that they were at times abstracted. Abbreviated figurines (specifically what at Çatalhöyük would be called 'head on base') is sometimes termed as 'stud figurine' at Tell Sabi Abyad. Many of the objects would be classified as anthropomorphic-abbreviated cross-overs following the Çatalhöyük system of classification.

There are roughly comparable figurines at Tell Sabi Abyad within the abbreviated category. However, more often abbreviated figurines at Tell Sabi Abyad are often much more stylised; nothing more than a base ending in a tip. Added to this, is the difficulty in reconstructing original shapes due to fragmentation and lack of clear visual references. For example, base fragments could be part of the more abbreviated figurines or more elaborate 'anthropomorphic' ones. Because of these reasons, here abbreviated and anthropomorphic figurines will be discussed together.

There are clear sub-types within this group of figurines. The 'head on base' and 'head on divided base' will be employed here for the more abbreviated figurines, added to this is a sub-category within the 'head

on base' called 'the round base' type. Within anthropomorphic ones there are three clear subtypes: 1) the pillar-shaped figurines, 2) the decorated type and 3) the violin type. This leaves a category of human-undivided base which do not clearly fit these three subtypes. Mostly these are base and torso fragments. More naturalistic figurines with legs (divided base) are almost absent at Tell Sabi Abyad, but they will be discussed under 'head on divided base'.

Discussed with the pillar-shaped figurines is a subset of figurines that are tentatively pillar-shapes. When fractured under the arms, these shapes are at times very reminiscent of labrets, a type of bodily adornment worn as lip or ear piercings. The objects that were recorded as being likely either a figurine or a labret have been added to the dataset, however, the designation is very much in the eye of the original recorder. At times very similar-looking objects were securely identified as being figurines, at other times as being a labret. To add all the objects, including those not recorded as likely being figurines, would significantly raise the numbers of these pillar-shaped figurines. However, it could unjustly bolster figurine numbers and skew the relative distribution of figurine types. Therefore, it was decided to only add those with an original possible figurine designation. However, it has to be kept in mind that numbers could indeed be higher.

### **Head on base**

Within the corpus, many of the head on base type are indeed very abbreviated. The largest proportion of this category are round base figurines, originally at times called 'stud figurines'. These round base figurines have no clear torso or head, merely ending in a tip, examples are F02\_010, F08\_015, O08-195, O08-222 and O09\_270 (see fig. 4.53: 7-11). Most of them survive only as base fragments. There is one object, that has clear buttocks, F08\_015, indicated (see fig. 4.53: 8). There is variety within the remaining corpus, for example, there are a few examples that do have a head indicated with impressed pellets of clay to indicate eyes and a pinched-out nose, such as F02\_026, F04\_033 and IIIIF10\_122 (fig. 4.53: 1-3). There is one more or less conical piece, F07\_007, deemed to be a figurine because of the pinched out base (perhaps 'feet?'; fig. 4.53: 4). There are comparably abbreviated objects in the dataset which are also more or less conical, however, their 'torso' is curved and they stand on a clear base, examples are F04\_006 and O04\_430 (fig. 4.53: 5-6).

Within the round base, there is a sub-set of objects that have pellets of clay pressed onto the bases and have fingernail impressions in each of the pellets, for example F04\_052, F04\_056, O09\_193 O03\_075, O09\_038 and O08\_178 (see fig. 4.54: 1-3, 6-8). Two objects do not have these appliquéés but are covered in fingernail impressions, for example O07\_492 and O04\_297 (see fig. 4.54: 4-5).

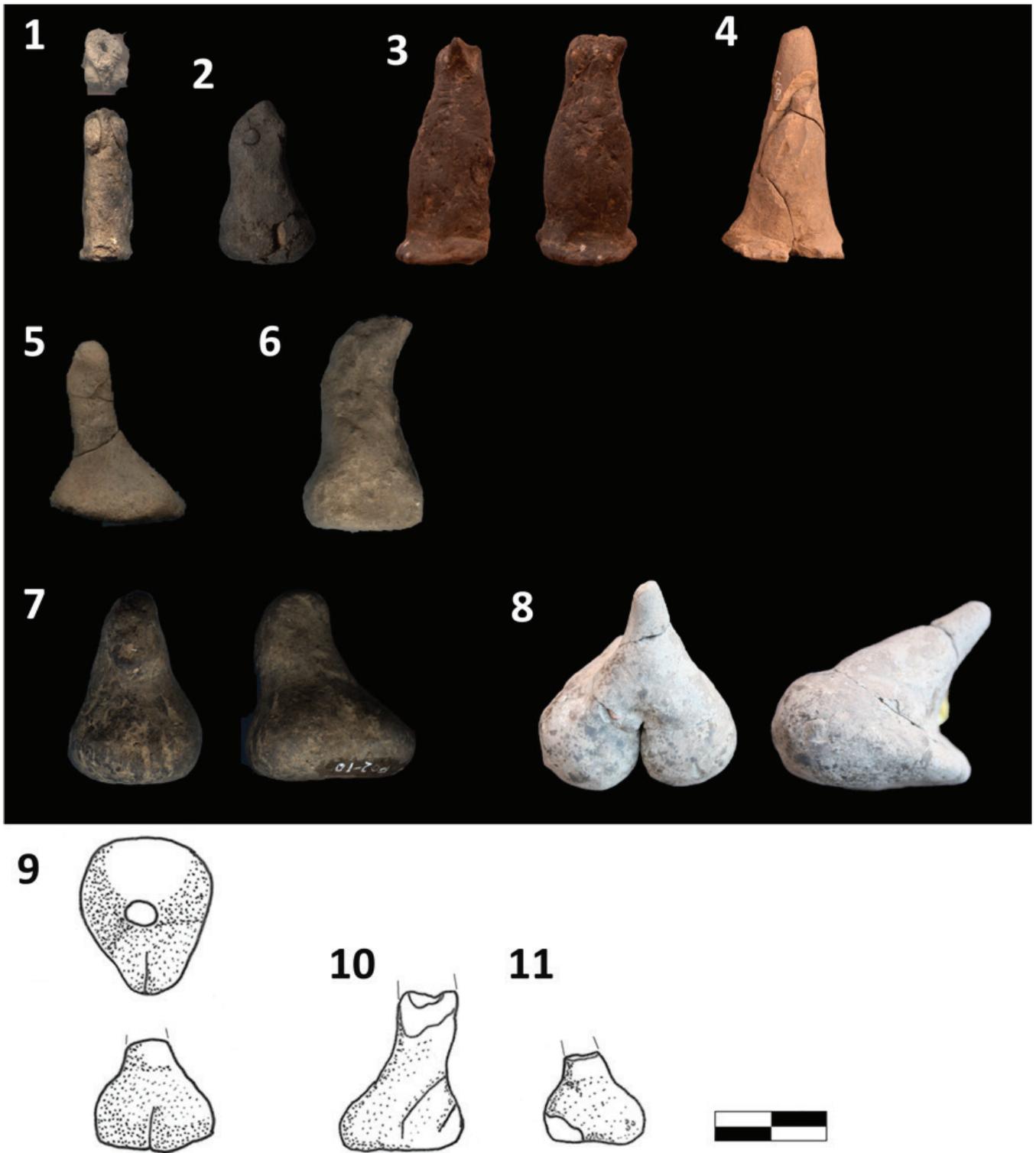


Figure 4.53: Head on base figurines (photographs not to scale). 1-4: F02\_026, F04\_033, IIF10\_122 and F07\_007; head on base figurines, 1-3 are examples with a head and facial features; 4: conical shape; 5-6: F04\_006 and O04\_430; head on base type; 7-11: F02\_010 and F08\_015, O08-195, O08-222, O09\_270, round base figurines, 8 is the only example with clear buttocks. Image by author, drawings by author after original pencil drawings, original photographs and drawings courtesy of the Tell Sabi Abyad Project

### Head on divided base

The majority of the head on divided base figurines are simple tripod shapes, there is no indication of any facial features: see F04\_030, F04\_031, F04\_048, F05\_112 and F04\_029 (fig. 4.55: 1-4, 11). Six examples are a bit larger, very irregular, and do have a very crudely pinched-out nose. These are F07\_028-F07\_030 and

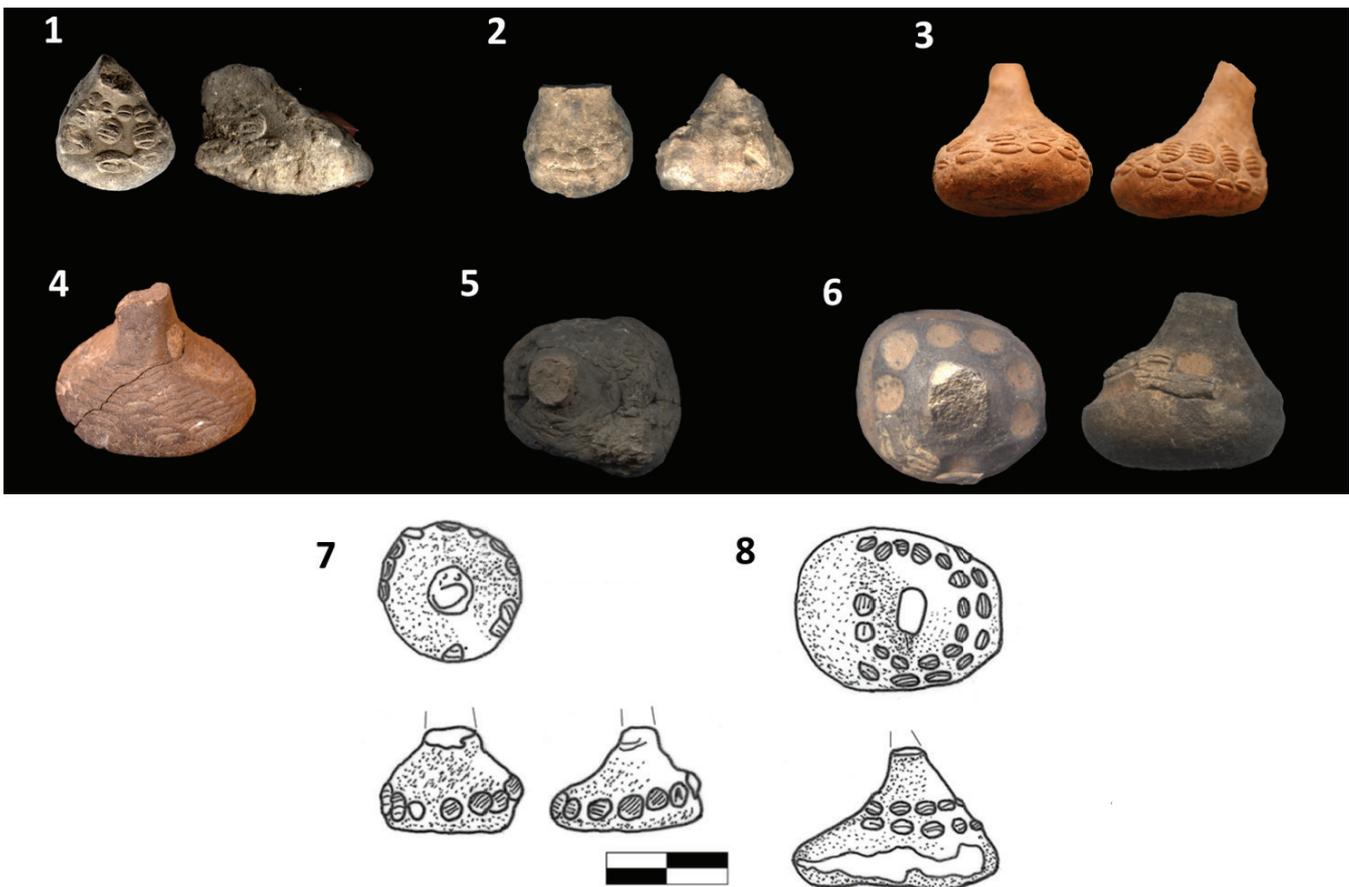


Figure 4.54: Round base figurines (photographs not to scale). 1: F04\_052; 2: F04\_056; 3: O09\_193; 4-5: O07\_492, O04\_297, covered in fingernail impressions; 6: O03\_075; 7: O09\_038; 8: O08\_178. Image by author, drawings by author after original pencil drawings, original photographs and drawings courtesy of the Tell Sabi Abyad Project

F07-032-F07\_034, see Figure 4.55: 5-10. There are two cross-over objects, F08\_052 has applied arms (or breasts), little balls of clay are attached to the legs and it has facial features (fig. 4.55: 12). The second example F04\_057 (no image) is very crude, but it shows an applied piece to indicate a belly and possibly a second one as a breast. A final interesting example, IIF99\_001 (fig. 4.55: 13), is reminiscent of the Çatalhöyük abbreviated type. It is the only known example in the dataset with a head element.

Five objects are less abbreviated. One is a fragment of legs and feet of what would have been a standing figurine. There is a tentative designation for two figurines. F09\_123 is a figurine with extending arms and possibly applied breasts. However, the applied elements are very irregular and no good visual reference exists for this object. The same holds for IIIF05\_116, it appears to be a flat figure with two arms, a stub head and two fractures for legs. The two other figures are sitting figures, O04\_342 seems to have been intentionally headless and has stylised arms and legs. The final example, O92\_159 was not recognised as clearly being a figurine. However, the drawing on the day form seems to clearly show a plump female figure. It has rounded legs and large breasts, no arms are indicated and the head is a simple tip.

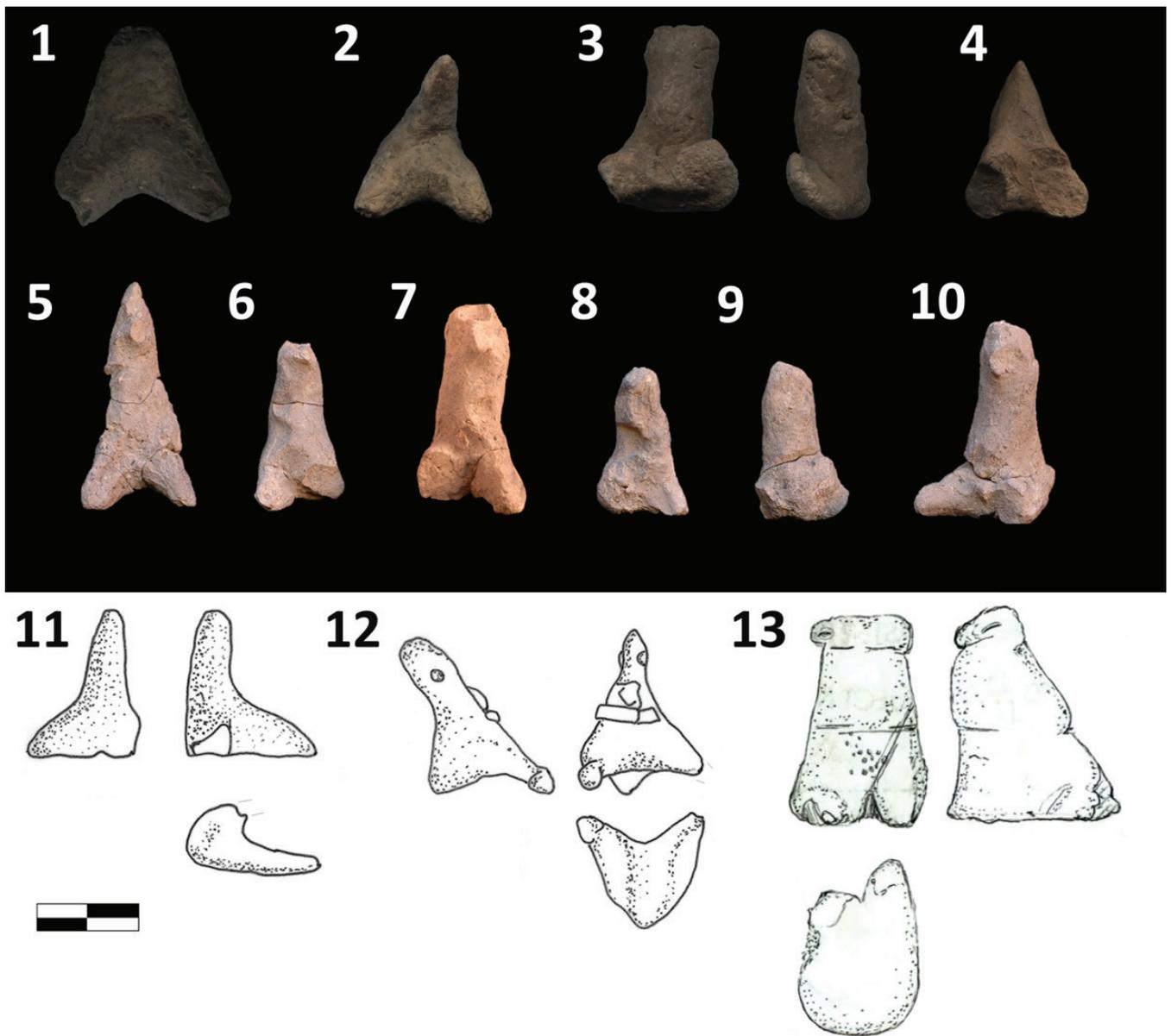


Figure 4.55: Head on divided base figurines (photographs not to scale). 1: F04\_030; 2: F04\_031; 3: F04\_048; 4: F05\_112; 5-10: F07\_028-F07\_030, F07-032-F07\_034, the larger type with crudely modelled nose; 11: F04\_029; 12: F08\_052, applied elements; 13: IIF01\_009, only example with head flap. Image by author, drawings by author after original pencil drawings, original photographs and drawings courtesy of the Tell Sabi Abyad Project

### Decorated type

This type is represented by shapes which range from very abbreviated, such as F91\_001, F91\_002 and F92\_003 (fig. 4.56: 10, 11, 14), to more elaborated with arm stubs and at times also an indication of a waist, examples are F01\_003, F93\_008 and F91\_011 (fig. 4.56: 1, 2, 5). Others are very fragmented and survive only as base/torso fragments, such as F99\_016. F91\_004 and F91\_019 (fig. 4.56: 6-8). These objects have grooves, impressions made with an implement and at times also fingernail impressions (see for example F91\_005, fig. 4.56: 12). There are some that have very little 'decoration', they were added to the group because of the base shape which is very distinct with a triangular section and slight bulge on the front (see F92\_010, fig. 4.56: 9). There is one object, F91\_011, with clear appliqués on the chest, these were remarked as being breasts, but it is not particularly evident (see fig. 4.56: 5). None of the objects survives with a head and no clear matching

head fragments have been recovered. By the fractured neck areas, it is clear that heads would have been present. There is one object with a possible dowel hole, F92\_010 (fig. 4.56: 9).

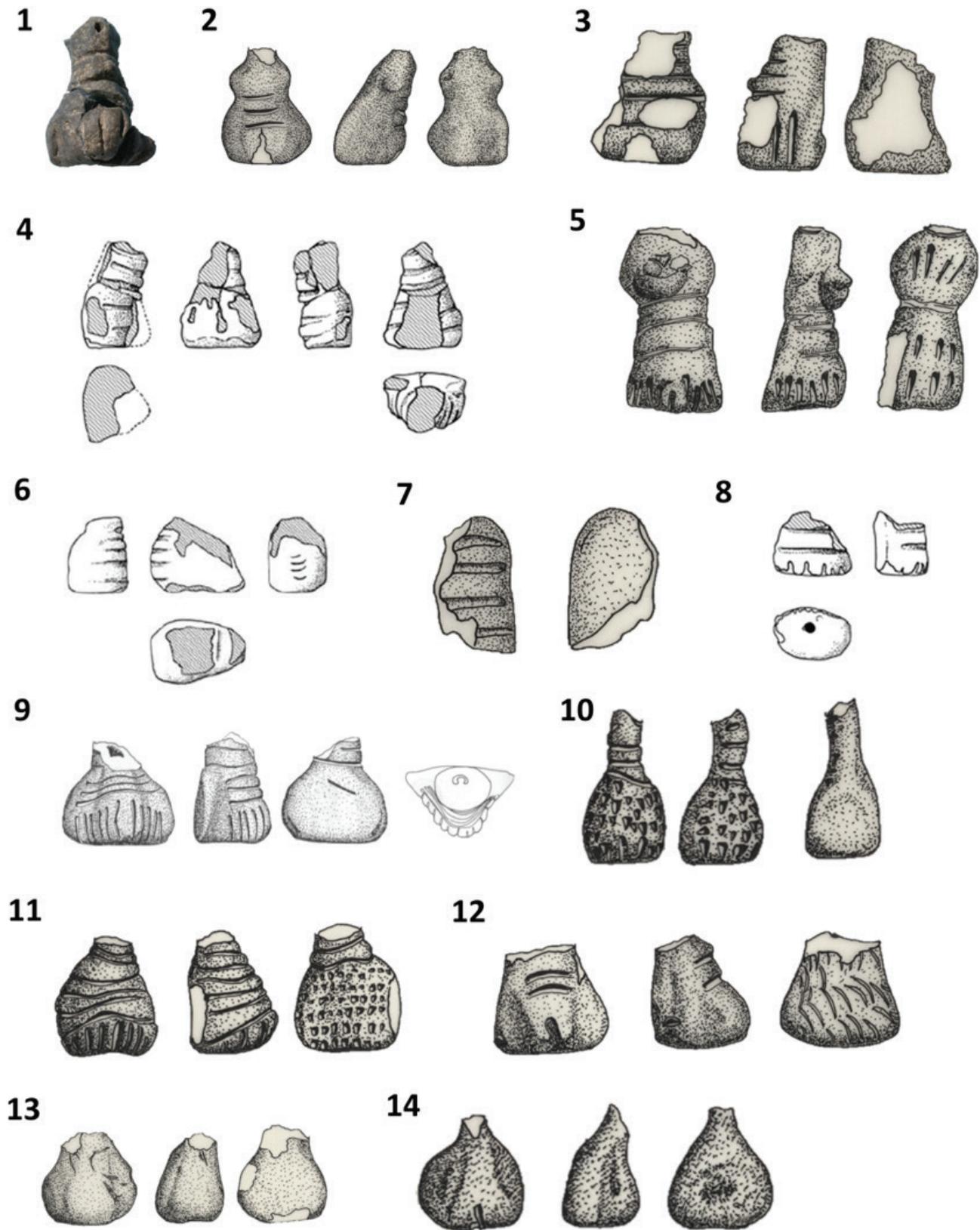


Figure 4.56: Decorated type (not to scale). 1: F01\_003; 2: F93\_008; 3: F93\_017; 4: F97\_009; 5: F91\_011; 6: F99\_016; 7: F91\_004; 8: F97\_019; 9: F92\_010; 10-11: F91\_001, 11: F91\_002, impressions on back; 12: F91\_005, fingernail impressions on back; 13: F91\_017; 14: F92\_003. Image by author, original drawings courtesy of the Tell Sabi Abyad Project

## Pillar shapes

Pillar shapes usually stand on a round base which usually has a (slightly) concave bottom with pinched-out edges. At times the base has a slight 'foot'. The torso is round or flattened and the objects often have a slight hourglass shape, as the torsos taper above the base and then widen at the arms. Their shape is quite distinct, therefore, even when just a base or torso fragment is preserved they can quite securely be identified as being a pillar shape. As touched upon in the introduction there are labrets with very similar shapes, which makes identification of base fragments at times difficult (see fig. 4.57 for a selection of labrets).

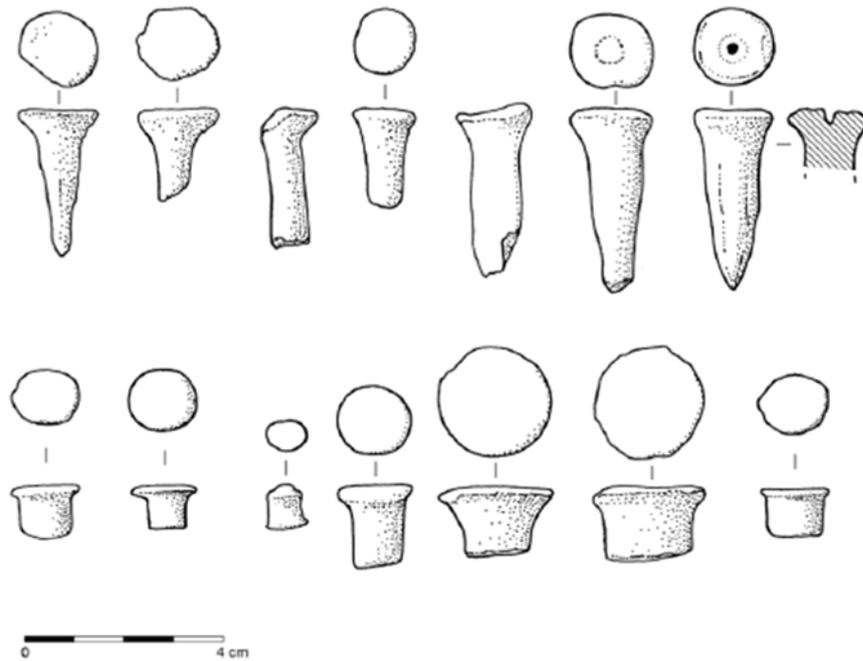


Figure 4.57: Selection of labrets. Adapted by author. Original image courtesy of the Tell Sabi Abyad Project

Arms are round to oval in section, at times more flat triangular. They are either straight and go diagonally up or horizontally out, other times they are curved and placed in front of the body. Heads are seldom preserved, when present they are very abbreviated with only a nose indicated (see fig. 4.58 for a selection of pillar shapes).

They are as a rule not finely executed objects, for example, the torsos can be quite irregular and arms are placed at different heights and are uneven in size as seen on object IIIIF05\_009 (fig. 4.58: 8). There is variety within this group, but the objects are designated pillar shape based on the (at times roughly) pillar-shaped torsos, a lack of any bodily elaboration and the presence of arms and a head, although there are a few instances where there is no clear fracture for a head. A final note for the pillar shapes is a set of four figurines that are very similar: the heads project forward and the arms are very wing-like. Images are available for objects IIIIF10\_130 and F08\_022 (see fig. 4.58: 9, 12).

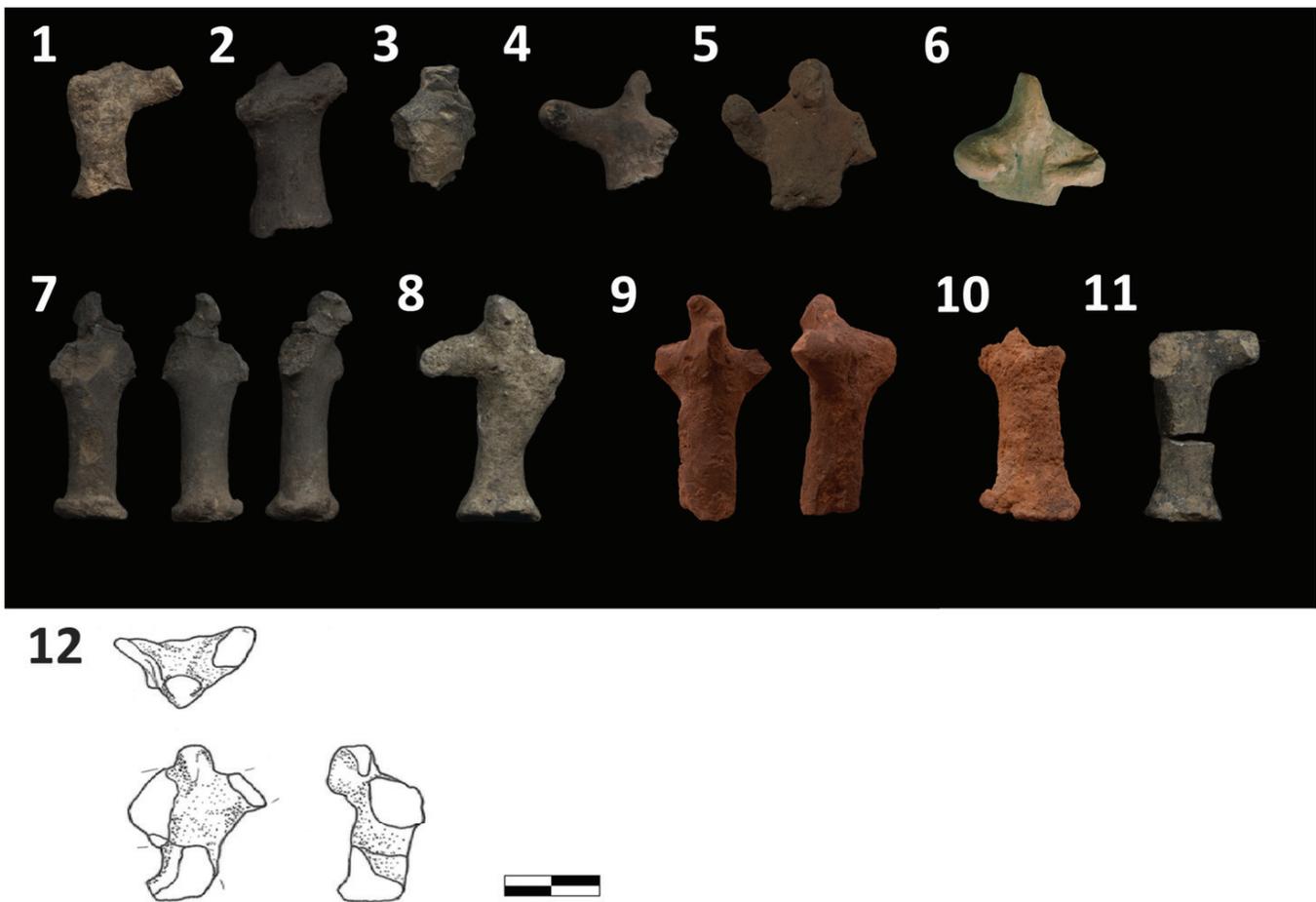


Figure 4.58: Pillar shapes (photographs not to scale). 1: F04\_070; 2: F05\_080; 3: F05\_103; 4: F05\_100; 5: IIIIF10\_003; 6: F08\_008; 7: F05\_176; 8: IIIIF05\_090; 9: IIIIF10\_130; 10: IIIIO10\_189; 11: F05\_125; 12: F08\_022. Image by author, drawing by author after original pencil drawing. Original drawing and photographs courtesy of the Tell Sabi Abyad Project

### Violin type

These are so named for the two ‘violin type’ figurines that are known from the Halaf (compare Belcher 2016), there are two such clear examples at the site: H86\_001 and F08\_001 (see fig. 4.59: 1-2). They are flat with undecorated backs. The front is decorated indicating breasts and a pubic triangle or perhaps garments with painted or incised decoration. Some objects are very similar, but they are more fragmented and survive as flat torsos with breasts (often visibly applied) and arm stubs, examples are F09\_109, F92\_014, F91\_003, F92\_006, F97\_005 and F97\_018 (fig. 4.59: 3, 7, 10-13).

Added to this category is a subset of objects that are not flat but stand on a base. Their backs are flat, the front of the base is rounded and the torso at times leans a bit forward or to the side. They too have breasts and arm stubs very similar to the flat objects: for example F91\_009, F92\_015, F97\_008, F97\_014, F97\_017 and F91\_003 (fig. 4.59: 4-6, 8-10). None but F08\_001 (see fig. 4.59: 2) survive with a head and three of them have a dowel hole in their neck.

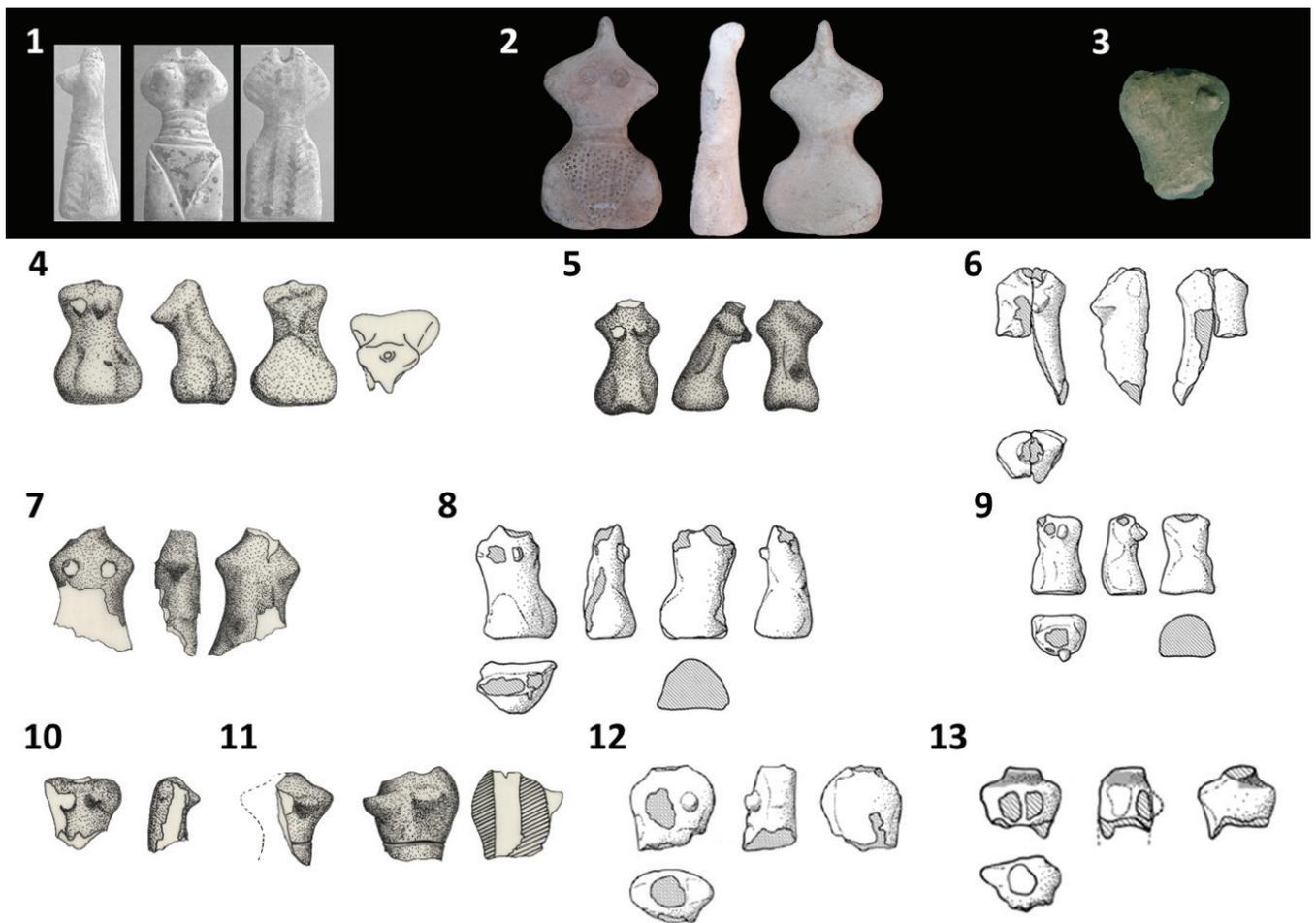


Figure 4.59: Violin shapes (not to scale). 1: H86\_001; 2: F08\_001; 3: F09\_109; 4: F91\_009; 5: F92\_015; 6: F97\_008; 7: F92\_014; 8: F97\_014; 9: F97\_017; 10: F91\_003; 11: F92\_006; 12: F97\_005; 13: F97\_018. Image by author, original drawing and photographs courtesy of the Tell Sabi Abyad Project

### Human-undivided base

The human-undivided base figurines are those objects that do not clearly fit into the three types described above. They are base and torso fragments that are differently shaped (compare for example O88\_089c and F99\_004, fig. 4.60: 11, 13) and only have arm stubs, such as F96\_008, F97\_010, O88\_089a and O88\_089g (fig 4.60: 4, 5, 10, 12). There are two figurines that have clear arms, F08\_026 and F09\_117 (fig. 4.60: 2-3), F09\_017 has an applied arm that wraps around the torso. There are five objects with clear dowel holes in their neck, for example F04\_035, F92\_001, F97\_006 and F98\_001 (see fig. 4.60: 1, 6-8).

### Indeterminate objects

The indeterminate category consists of base fragments that are not clearly anthropomorphic or more abbreviated, there are 10 possible arm fragments and seven head fragments. Two of the head fragments are interesting and unique in the dataset. One of these, F02\_016 (see fig. 4.61: 1) is very elaborate and unlike any other in the dataset, it has clear facial features and an applied element around the neck with vertical incisions, which was interpreted as a possible necklace or scarf. This object was found in a Late Bronze Age context and is tentatively Neolithic in date. The other, F04\_060 (fig. 4.61: 2) is interesting as it has an applied

band of clay and small pellets of clay with cross-shaped incisions (likely fingernail impressions). It is therefore reminiscent of the round base with appliqués, however, the shape is unusual with a strong slant instead of a flat base.

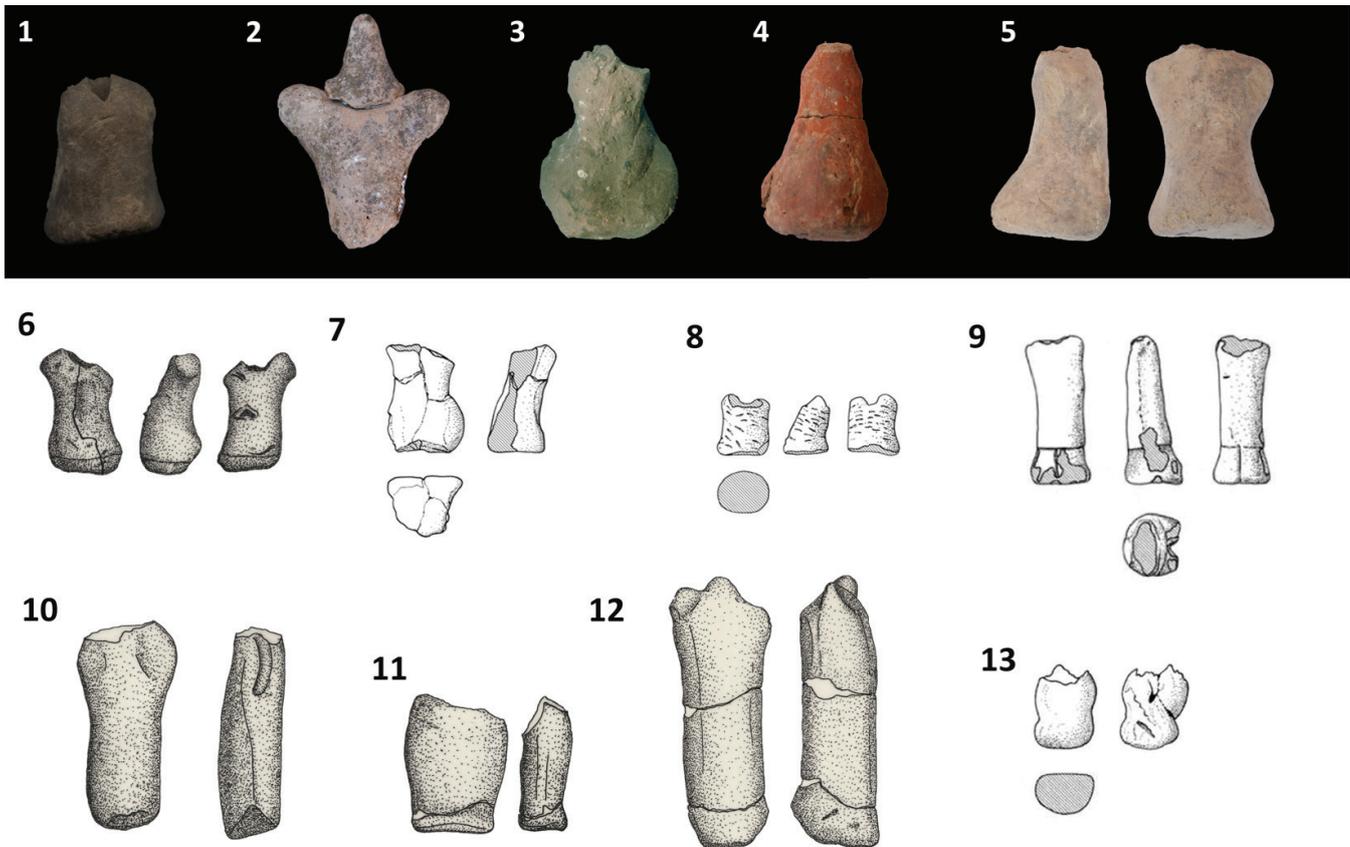


Figure 4.60: Human-undivided base (not to scale). 1: F04\_035, clear dowel hole; 2: F08\_026; 3: F09\_117; 4: F96\_008; 5: F97\_010; 6: F92\_001; 7: F97\_006; 8: F98\_001; 9: F97\_013; 10: O88\_089a; 11: O88\_089c; 12: O88\_089g; 13: F99\_004. Image by author, original drawing and photographs courtesy of the Tell Sabi Abyad Project

### Anthropomorphic and abbreviated sizes

The figurines in this category vary considerably in size. The head on base figurines range from 5 cm in height (not complete) to 1.2 cm for the smallest which survives with part of the torso intact. The head on divided base are of a roughly comparable size range, 4.9 cm for the largest and 1.4cm for the smallest surviving with the torso.

Pillar shapes are equally diminutive. The few complete ones measure 3.8 to 5.2 cm in height. There are objects that would have been substantially larger: the tallest one survives as a base and torso fragment, fractured below the arms, and measures 5.5 cm. The size range for the decorated type is larger, ranging from only 1.3 cm in height (without head) to 6 cm for F92\_010 which survives only as a base fragment with a small part of the torso. The violin type also has a larger size range from 7.9 cm for the largest to 2.7 cm for the smallest. Finally, the human-undivided base range from 2.9 cm (only part of the base is missing) to 7.2 cm in height (a small part of the torso and head is missing).

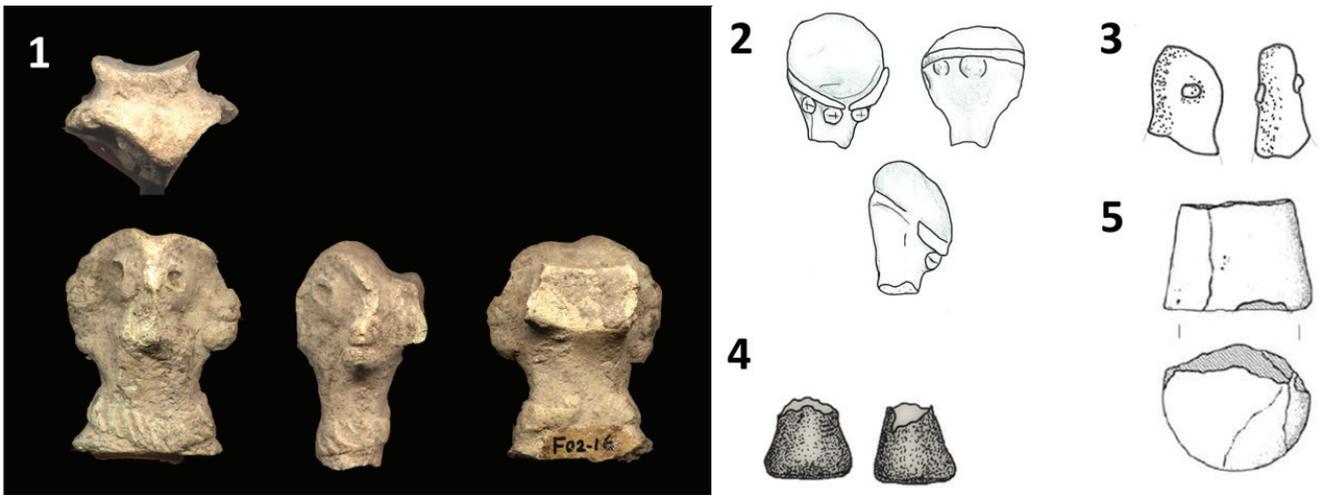


Figure 4.61: Indeterminate objects (not to scale). 1: F02\_016; 2: F04\_060; 3: F08\_53; 4: F93\_020; 5: F96\_010. Image by author, original drawing and photographs courtesy of the Tell Sabi Abyad Project

### 4.9.3 GEOMETRIC OBJECTS

There is a large corpus of geometric fragments consisting of 113 conical objects and 127 cylindrical objects. All objects that were classified as possible figurine fragments have been added, and in addition, the 'O' objects that were deemed possible figurine fragments. The majority of the fragments are identified as possible torso and base fragments of pillar shapes as well as horn or arm fragments. (see fig. 4.62 for a range of conical objects: 1-12 and cylindrical objects 13-19). The cylindrical objects at times have an indication of a base, but as they are too non-descript they have been added in the geometric category. However, indeterminate might also be an adequate qualification for these objects.

### 4.9.4 INDETERMINATE AND UNCLEAR OBJECTS

There are 283 indeterminate pieces, tentatively assigned to possible types (see table 4.16). The vast majority are anthropomorphic limbs or zoomorphic limbs/horns. As the pillar shapes have arms that can be similar in shape to zoomorphic legs it is often quite difficult to make the distinction (fig. 4.63: 4-11). A portion of fragments are likely part of abbreviated or anthropomorphic figurines: torso and base fragments (see fig. 4.63: 1-3).

Table 4.16: Indeterminate corpus absolute numbers and percentages

Indeterminate Corpus		
Anthropomorphic	33	11.7%
Abbreviated	4	1.4%
Zoomorphic	62	21.9%
Anthropomorphic or abbreviated	5	1.8%
Anthropomorphic or zoomorphic	164	58%
Abbreviated or zoomorphic	15	5.3%
<b>Totals</b>	<b>283</b>	<b>100%</b>



Figure 4.62: Geometric pieces (not to scale). 1-12: F03\_030, F04\_044, F05\_010, F05\_060, F05\_074, O04\_189, III005\_023, III005\_070, O04\_207, O04\_423, O04\_456, O04\_496, conical objects; 13-19: IIIF05\_101, IIIF05\_123, F05\_062, F05\_065, F05\_093, F05\_142, F05\_152, cylindrical objects. Image by author, original photographs courtesy of the Tell Sabi Abyad Project

## Unclear

There are 181 possible figurine fragments designated as unclear. They are too fragmented to offer a confident interpretation and/or the descriptions and visual references do not allow for a clear interpretation. The objects added here are those that were designated (possible) figurine fragments by the original object recorders and deemed by me to be indeed possible figurine fragments. Those that were deemed too undiagnostic were not added.

Many of them are possible body parts belonging to zoomorphic figurines, and again, many possible torso fragments of pillar shapes and more abbreviated shapes. Unfortunately, no clear photos or drawings are available to elucidate some of the shapes.



Figure 4.63: Indeterminate pieces (not to scale). 1-3: O04\_407, O05\_165, IIIIF05\_155, possible torso/base fragments; 4-12: F04\_065, F05-011, F05\_085, F05\_096, F05\_147, F08\_010, F09\_027, F09\_075, F09\_083, possible horn/arm fragments. Image by author, original photographs courtesy of the Tell Sabi Abyad Project

#### 4.10 FIGURINE DATASETS: CONCLUSIONS

This concludes the descriptions of the figurine corpora from both sites. This discussion has made apparent the large variety within both datasets. Looking at both typologies, the Çatalhöyük figurines appear at first sight to be more easily divisible in their respective categories. However, on closer inspection of the description of figurines within categories, it is clear that the diversity is great within each category. The figurines at Tell Sabi Abyad, more specifically the anthropomorphic and abbreviated ones, are more difficult to categorise. However, the sub-types within them are more readily definable and the figurines within them are more standardised than we see at Çatalhöyük. If this (relative) standardisation is also seen in production, use and deposition is the topic of the next chapter.

It is also clear that proportionately, the proportions of zoomorphic versus anthropomorphic and abbreviated ones are almost equal at Tell Sabi Abyad, whilst at Çatalhöyük the zoomorphic figurines dominate due to the extraordinary amount of horn fragments recovered there (see table 4.17). There are, however, far fewer (actually virtually none) truly naturalistic human forms and all are relatively abbreviated at Tell Sabi Abyad. The same holds for the zoomorphic figurines, there are far more clear cases at Çatalhöyük of quadrupeds being modelled as a specific animal instead of generic quadrupeds as we see at Tell Sabi Abyad.

Table 4.17: Figurine corpora Çatalhöyük and Tell Sabi Abyad, absolute and relative numbers

Figurine corpus Çatalhöyük		
Zoomorphic	1505	52.5%
Abbreviated	611	21.3%
Anthropomorphic	205	7.2%
Phallic	8	0.3%
Geometric	148	5.2%
Indeterminate and unclear	389	13.6%
<b>Totals</b>	<b>2866</b>	<b>100%</b>

Figurine corpus Tell Sabi Abyad		
Zoomorphic	498	31%
Anthropomorphic and abbreviated	406	25.2%
Geometric	240	14.9%
Indeterminate and unclear	464	28.9%
<b>Totals</b>	<b>1608</b>	<b>100%</b>

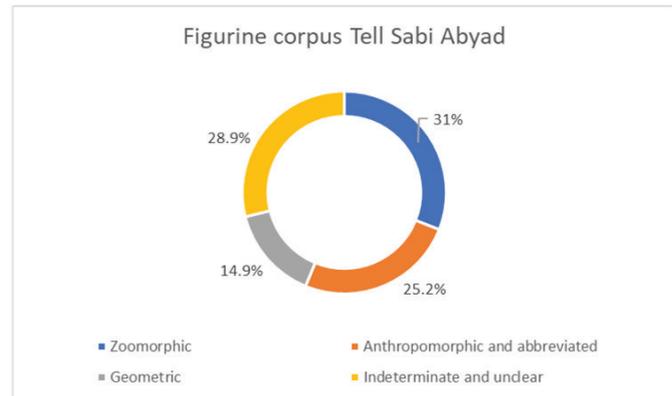
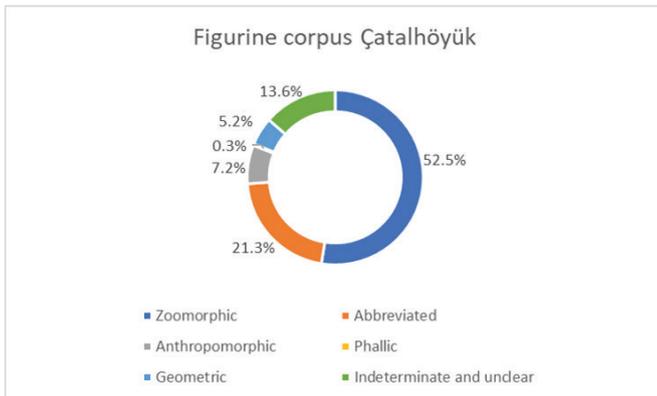


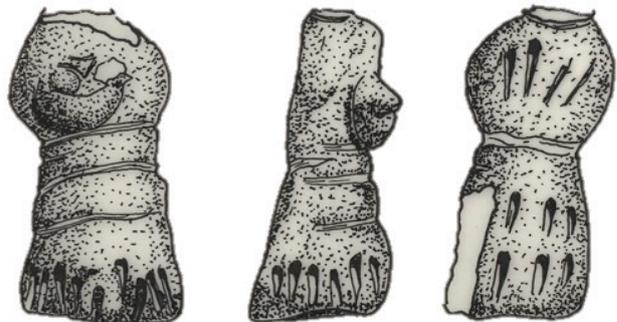
Figure 4.64: Visualisation of the figurine types for Çatalhöyük and Tell Sabi Abyad

The numbers of geometric and indeterminate/unclear objects make up a large part of the Tell Sabi Abyad dataset, partly due to the abbreviated nature of the anthropomorphic pillar shapes combined with the presence of very similar labret and token shapes as well as the information available to clearly identify them.

Finally, figurines made from materials other than clay are rare at both sites, but at Çatalhöyük the numbers and percentages are significantly higher (especially within anthropomorphic figurines) than at Tell Sabi Abyad.

In the following chapter, the datasets will be analysed focussing on material properties, production, use and deposition.





## CHAPTER 5: ANALYSIS

This chapter will set forth the analysis of the datasets from both sites. This analysis will follow the steps in the object biography, focussing in turn on material properties, production, use wear and depositional contexts. Subsequently, changes through time will be also analysed. Because the aim is to show the life biography of the figurines at both sites as a cohesive whole this chapter will first present the data from Çatalhöyük and subsequently that from Tell Sabi Abyad. A comparative synthesis of both sites is given at the end of the chapter.

The focus will be on the entire clay figurine corpus and identifying patterns within types and between types. For the stone, bone and shell figurines aspects of material properties, production and use wear are largely unknown and they will not form part of the analysis except for the discussion on depositional contexts and changes through time. To ensure the readability of the text the tables can be found in Appendix A.

### 5.1 MATERIAL ANALYSIS ÇATALHÖYÜK: INTRODUCTION

#### Clay types

As already touched upon in the previous chapter, an extensive programme of clay analysis was performed at the site. Aviss (2010) identified the following clay types: upper alluvial, marl (pure and sandy marl), black organic and lower alluvial (upper, middle and lower).

With the checklist that was made to classify clay types more figurines could be assigned a clay type in subsequent years, and many more were assigned a possible clay type. In this analysis, only the secure clay type designations will be taken into account, although in the material analysis the probable designations will be mentioned. Furthermore, the system put into place by Aviss allows for an analysis of clay fabric texture and inclusions, therefore, even when the clay type is unknown, there is still much information available to perform a material analysis

Differentiating between the three types (lower, middle, upper) of lower alluvial clay is difficult and the distinction was only made by Aviss. Here, the differentiation is not made, to not overcomplicate the analysis. Likewise, marl is differentiated into pure marl and sandy marl, here the differentiation is not retained in the counts mostly because Aviss often recognises marl as a mixture between pure marl and sandy marl, also following Doherty (2017, 80).

Because sandy marl is quite distinct from pure marl both in colour (especially when exposed to heat) and texture, characteristics which were perhaps purposefully selected for, it will be mentioned in the discussions. This is even more important because sandy marl is used as an outer layer on a core of different clays (see ahead).

## Inclusions

A total of 14 categories of recorded inclusions are used here: marl/plaster, gypsum, calcite, mica/biotite, mineral, grit, pebble, grog, organic (vegetal), carbonised organic matter, phytoliths, charcoal, shell, bone and unclear. Noticeably, the distinction between organic/vegetal and carbonised organic material is difficult to make: very often what was recorded as organic/vegetal turns out to be carbonised organic material when referring to *Avis*' observations. Phytoliths have also been recorded significantly more often by *Avis*. Minerals were also divided into types, however, in subsequent years they were often just recorded as 'minerals'. Here the distinction between different minerals has not been made.

Some objects have inclusions as recorded by *Avis* in the pilot project, but were subsequently recorded as having no (visible) inclusions, visible here meaning macroscopically or using low magnification. In these instances, no information is known about where inclusions were visible (surface and/or cross-section), here they have been recorded 'visible'. The same goes for objects which have recorded inclusions, but no information on whether they were observed on the surface and/or cross-section. Furthermore, it has to be kept in mind that the presence and size of inclusions are not quantified for figurines not analysed by *Avis*, thus they are subjective to a degree.

For figurines not recorded by *Avis* recognising the type of inclusions is not straightforward. Furthermore, the terminology varied between different recorders over the years. The clearest example of both these problems is found in the category of marl or plaster inclusions. The distinction is not only hard to make on a macroscopic level, the terms used to record this type of inclusion vary between marl, plaster, gypsum and lime. These varied descriptions have all been subsumed in one category, that of marl/plaster.

Some categories have been maintained with some remarks. Firstly, calcite is an often recognised inclusion, but calcite and gypsum are also not easily distinguishable. However, the category of calcite has been maintained. The same goes for mineral and 'pebble', at times the same thing is meant and 'pebble' is perhaps not always the best description. The distinction is based on size, however, there is no clear definition of what inclusion size constitutes a pebble. There is, however, a clear distinction between mineral inclusions seen in the clay fabric compared to the presence of ONE single 'larger' inclusion.

### 5.1.1 ZOOMORPHIC FIGURINES: MATERIAL PROPERTIES

#### Clay types

Out of the 1500 zoomorphic clay figurines, 545 could be assigned a clay type (36%). When we add the probable designations of clay types the number rises to 715 (48%), giving a good representation of the complete zoomorphic corpus. The clay types are summarised in Tables 5.1 and 5.2 (leg fragments are added to the category of quadrupeds).

Lower alluvial clay is most commonly used for zoomorphic figurines. However, 88 horn fragments are possibly made of marl, which would significantly increase the overall number and percentage of this clay type to almost equal levels to lower alluvial clays.

There is a likely mixture of lower alluvial and sandy marl in 17 objects: 10 quadrupeds, five horn fragments and one indeterminate object and bucranium. Two objects (quadruped and indeterminate) are likely a mix of black organic clay and sandy marl. A further 13 objects seem to have an outer layer/slip layer of sandy marl: 10 quadrupeds, two horn fragments and one bucranium. Of the figurines made of marl, 19 were made of (primarily) sandy marl: seven quadruped figurines and 12 horn fragments. A further 26 objects are recorded as a mixture of white marl and sandy marl.

#### Fabrics and inclusions

The predominance of lower alluvial clays and marl seems logical as they are fine clays with few inclusions and thus seem a good choice for figurine production. Indeed the clay fabrics are overwhelmingly fine and fine to medium (tables 5.3 and 5.4). As expected, black organic clay, generally coarser than the other clays, subsequently affected the fabrics of the quadruped figurines which make up the highest proportion of the use of black organic clay.

When combining fabric types with inclusions, this image of fine and clean clays becomes more pronounced. The presence of inclusions is summarised in Tables 5.5 and 5.6 and the amount and size of inclusions are summarised in Tables 5.7-5.10. Finally, information on inclusion types is available for 1148 objects (see tables 5.11-5.12).

There are a few examples of anomalous large inclusions; four objects (17697.H3, 1396.H15 23160.H1 and 21140.H1; fig. 5.1: 1-4) have a single pebble inclusion that protrudes from the surface and it is unlikely they were not noticed during production. Perhaps these pebbles were pressed into the clay rather than naturally occurring. Alternatively, simply no effort was made to remove them. Another example, 18154.X3 (fig. 5.1: 5) has a large charcoal inclusion, and 999999.H243 (fig. 5.1: 7) has a large bone inclusion; perhaps an indication of some mixing with midden/colluvial clay. Finally, 22676.H3 (no image) and 30232.H1 (fig. 5.1: 6) have a large marl/calcite inclusion. Overall, all clay types and figurine types show fine-textured clays with small inclusions in small amounts. There is no clear evidence to support that clays were prepared in any way.

Doherty (2017, 115) states that there is no evidence for intentional adding temper in the clays. Therefore the anomalous recording of grog (twice within the zoomorphic corpus) might be a misidentification. Alternatively, these might be rare exceptions of adding temper or perhaps there was some mixing with midden clay.



Figure 5.1 Large inclusions seen in zoomorphic figurines (not to scale): 1-2: 17697.H3, 1396.H15, horn fragments with pebble inclusion. 3-4: 23160.H1, 21140.H1, quadrupeds with pebble inclusion; 5: 18154.X3, quadruped with charcoal inclusions; 6: 30232.H1, quadruped with calcite/marl inclusion; 7: 999999.H243, quadruped with bone inclusion. Image by author, original photographs courtesy of the Çatalhöyük Research Project

## Clay colours

Colours vary but are most often within the 10 YR and 7.5 YR spectra for zoomorphic figurines, most often in the colour range of light grey to very dark grey and brownish grey. The lighter colours, as well as the pinkish, reddish and yellowish hues, are found in the marl clays. The colour range for the objects with a Munsell number is summarised in Table 5.13 (percentages) and Figure 5.2 (absolute numbers).

Two different surface colours were recorded on 66 objects. At times these colour differences are quite striking. Colours on objects can differ as ranging from very dark to very light colours, or surfaces are very noticeably more reddish/pinkish in places. These colour differences are the result of using different clays to make one object, uneven heat exposure and/or post-depositional staining.

A Munsell colour for figurine cross-sections (core) is available for 159 objects. From these, 88 examples show clear colour differences between surface and core, with similar differences between dark and lighter hues and more pinkish and reddish hues between surface and core.

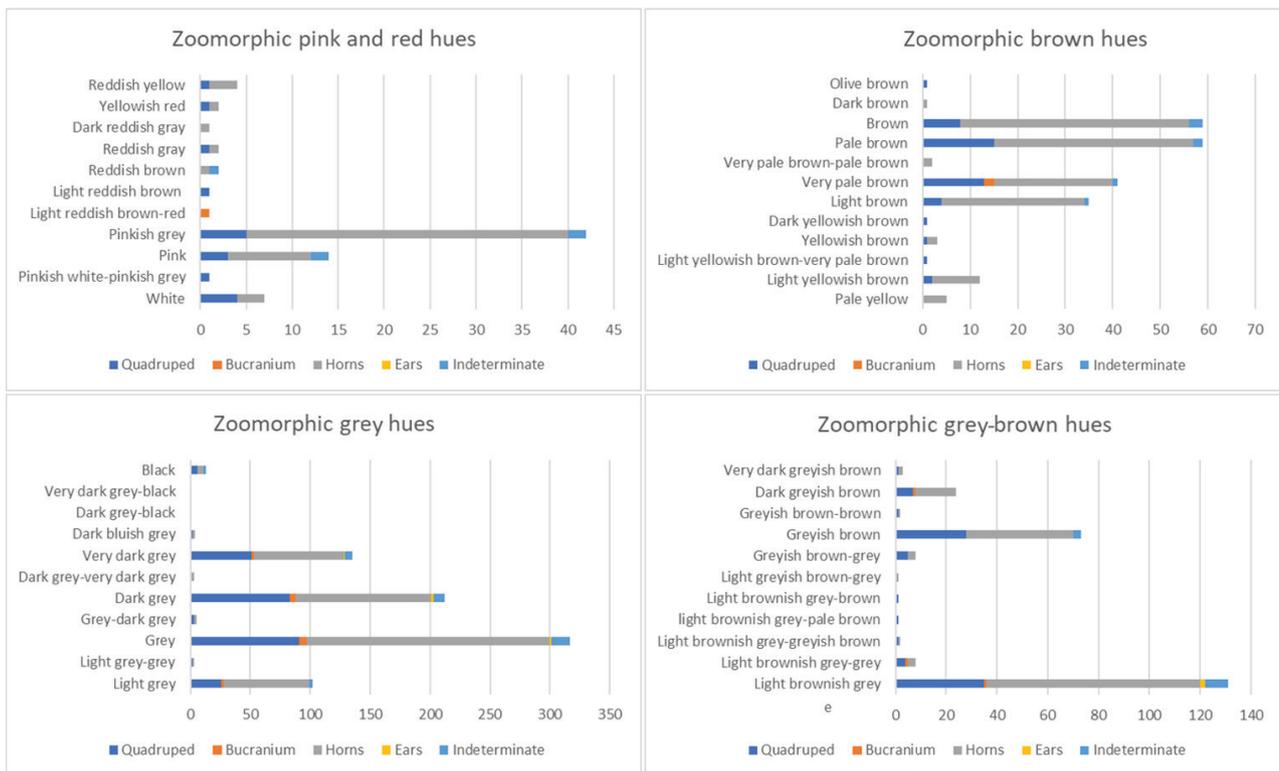


Figure 5.2: Colours of zoomorphic figurines divided in different hues

### 5.1.2 ABBREVIATED FIGURINES: MATERIAL PROPERTIES

#### Clay types

Abbreviated figurines are primarily made of lower alluvial clays and marls (see tables 5.14-5.15). The only occurrence of brown silt is recorded in this type. One object has been recorded as a mix of lower alluvial and marl. There are three other mentions of possible clay mixing: one head on divided base type is perhaps a mixture of lower alluvial and black organic clay, two other head on divided base type are possibly a mix of lower alluvial and marl. In one instance (head on divided base) it appears that sandy marl was used as an outer layer on a lower alluvial clay core. Five objects are tentatively noted as being made of plaster instead of clay. However, as this was recorded only as a remark they have been kept as undetermined.

#### Fabrics and inclusions

The fabrics are overwhelmingly fine across the types and clay types (tables 5.16-5.17), 236 objects have visible inclusions (39%; tables 5.18-5.19).

Inclusions are mostly rare to sparse across figurine and clay types (tables 5.20-5.21) and are overwhelmingly small to medium (tables 5.22-5.23). There is one mention of a large inclusion: 32132.H12 has a large calcite inclusion visible in the fracture. The range of inclusions is slightly more limited than those seen in zoomorphic figurines, there is no mention of 'bone' and 'grog' and inclusions are predominantly mica/biotite, minerals, calcite and gypsum (tables 5.24-5.25).

## Clay colours

Colours are primarily in the 10 YR range, followed by the 7.5 YR range and 2.5 Y representing the pinkish/reddish and yellowish hues as found in the marl clay (table 5.26 and fig. 5.3). They show a large variability but tend to be slightly more in the lighter shades than the zoomorphic figurines. There are 43 objects with different surface colours and 49 objects with different core colours.

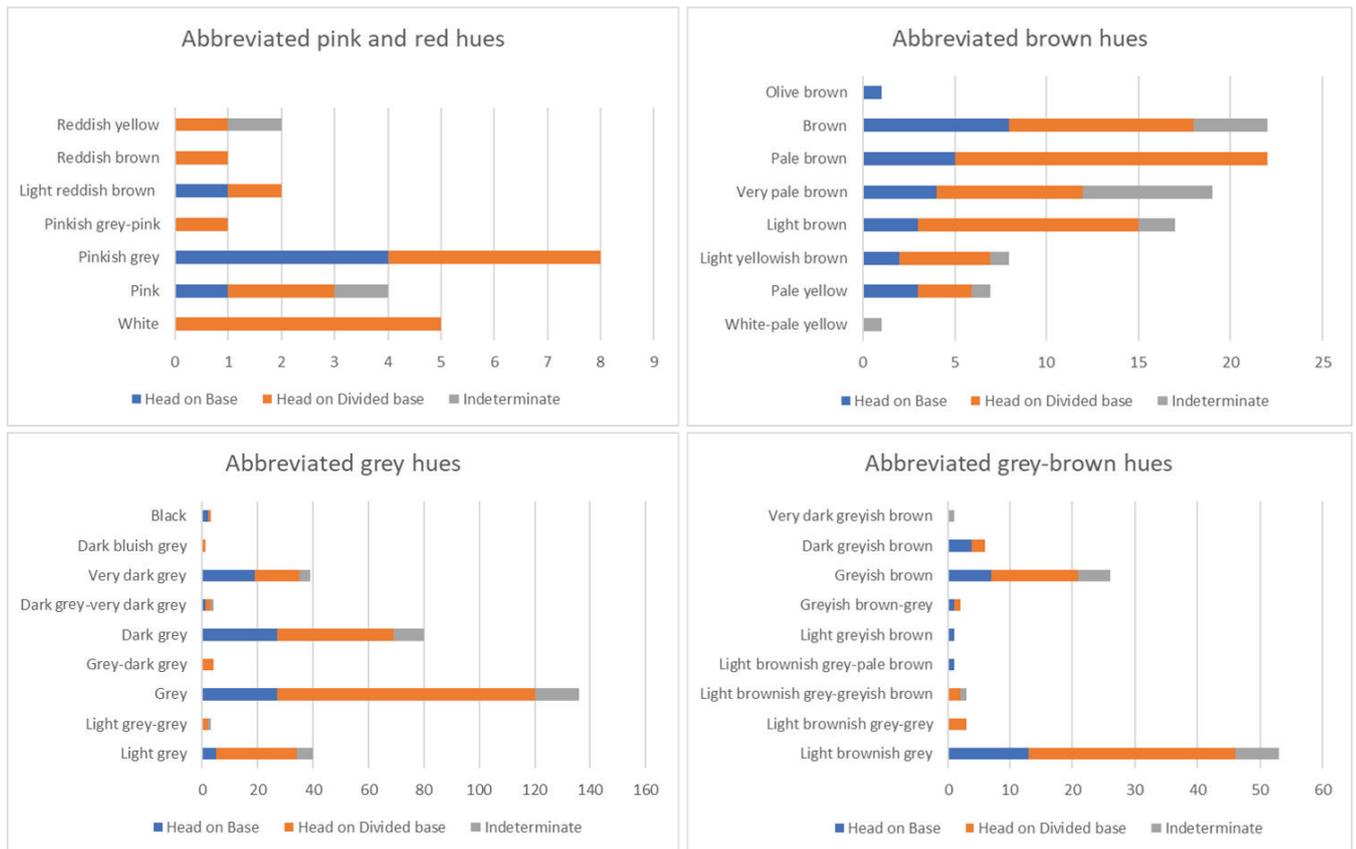


Figure 5.3: Colours of abbreviated figurines divided in different hues

### 5.1.3 ANTHROPOMORPHIC FIGURINES: MATERIAL PROPERTIES

#### Clay types

Clay types are summarised in Tables 5.27-5.28. Because many of the Mellaart finds could not be examined, there is less information available for the anthropomorphic figurines than there is for the other figurine types, and only nine Hodder objects have been analysed in detail by Aviss. The clay types are overwhelmingly fine lower alluvial and marl clays. Black organic clay is only recorded in two instances, and one object is made from upper alluvial clay. Of the 14 marl objects, two are recorded as made from a pure marl source, one as a mix of marls and four from sandy marl.

## Clay fabrics and inclusions

Fabrics are predominantly fine across the different figurine and clay types (tables 5.29-5.30). Information on the presence, amount and size of inclusions can be found in tables 5.31-5.36. Inclusions are recorded from rare to common in relatively even numbers, their size is predominantly small and small to medium. There are no recorded instances of conspicuously large inclusions as seen in the zoomorphic and abbreviated forms. In only one instance larger pebble and quartz inclusions were recorded in the core of an object. The type of inclusions is known for 81 objects and most commonly mica, minerals and organic inclusions are recorded (tables 5.37-5.38).

## Clay colours

The colours are mostly in the 10 YR range and the grey and grey-brown hues. There are only four objects in the reddish-pinkish hues and 12 in the brown hues (see table 5.39 and fig. 5.4). There are 25 instances of different surface colours and 22 differing core colours.

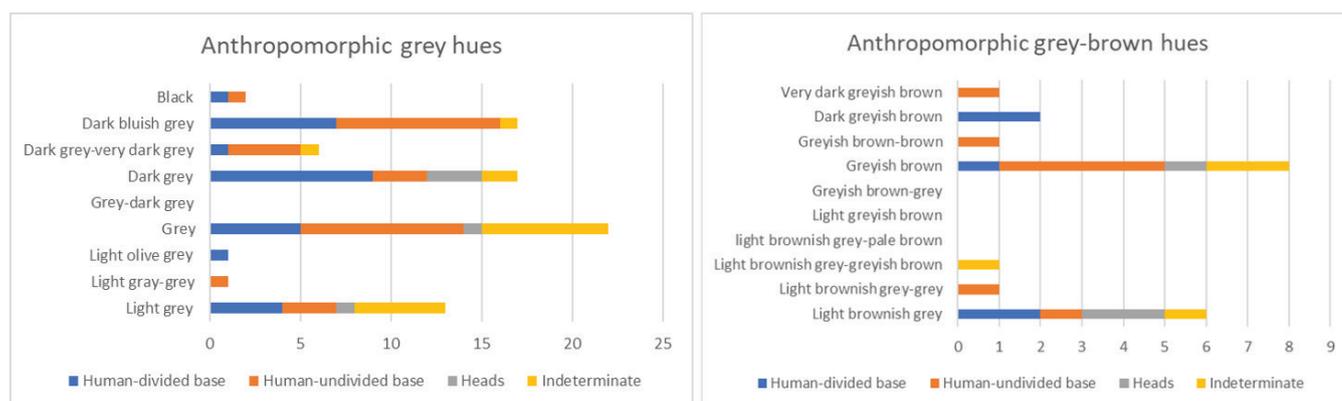


Figure 5.4: Colours of anthropomorphic figurines divided in different hues

### 5.1.4 PHALLOMORPHIC FIGURINES: MATERIAL PROPERTIES

Four out of the seven clay objects could be assigned a clay type: two are made from black organic, one of marl and upper alluvial respectively and two from an undetermined clay type (of which one is potentially marl). Detailed information is available for one object.

## Fabrics and inclusions

Fabric information is available for all objects and fabrics range from fine to coarse. The presence of inclusions has been recorded for six objects and four objects have visible inclusions. For these four objects, inclusions are recorded from rare to common and range from small to medium in size, with one black organic object having inclusions of varying sizes (namely mica and a large organic inclusion) (tables 5.40-5.44).

## Clay colours

Colours have been recorded for seven objects. Four are in the grey range: from light grey to very dark, the others are pinkish grey, light brown and greyish-brown. Secondary surface colours are not recorded, but there are two objects with different core colours.

### 5.1.5 GEOMETRIC OBJECTS: MATERIAL PROPERTIES

## Clay types, fabrics and inclusions

Geometric objects are mostly made from lower alluvial and marl clays with overwhelmingly fine fabrics, however, mostly clay types are unknown for these objects (tables 5.45-5.48). There are 45 objects with visible inclusions recorded mostly as rare to sparse and are mostly small (tables 5.49-5.54) and only one object has a large pebble inclusion. Inclusions are varied, but mica and minerals are by far most often recorded (tables 5.55-5.56).

## Clay colours

Clay colours fall predominantly in the 10 YR range and grey and grey-brown hues (see table 5.57 and fig. 5.5). Yellowish and pinkish colours occur only very rarely. Different surface colours are recorded on 8 objects and 8 objects have different core colours.

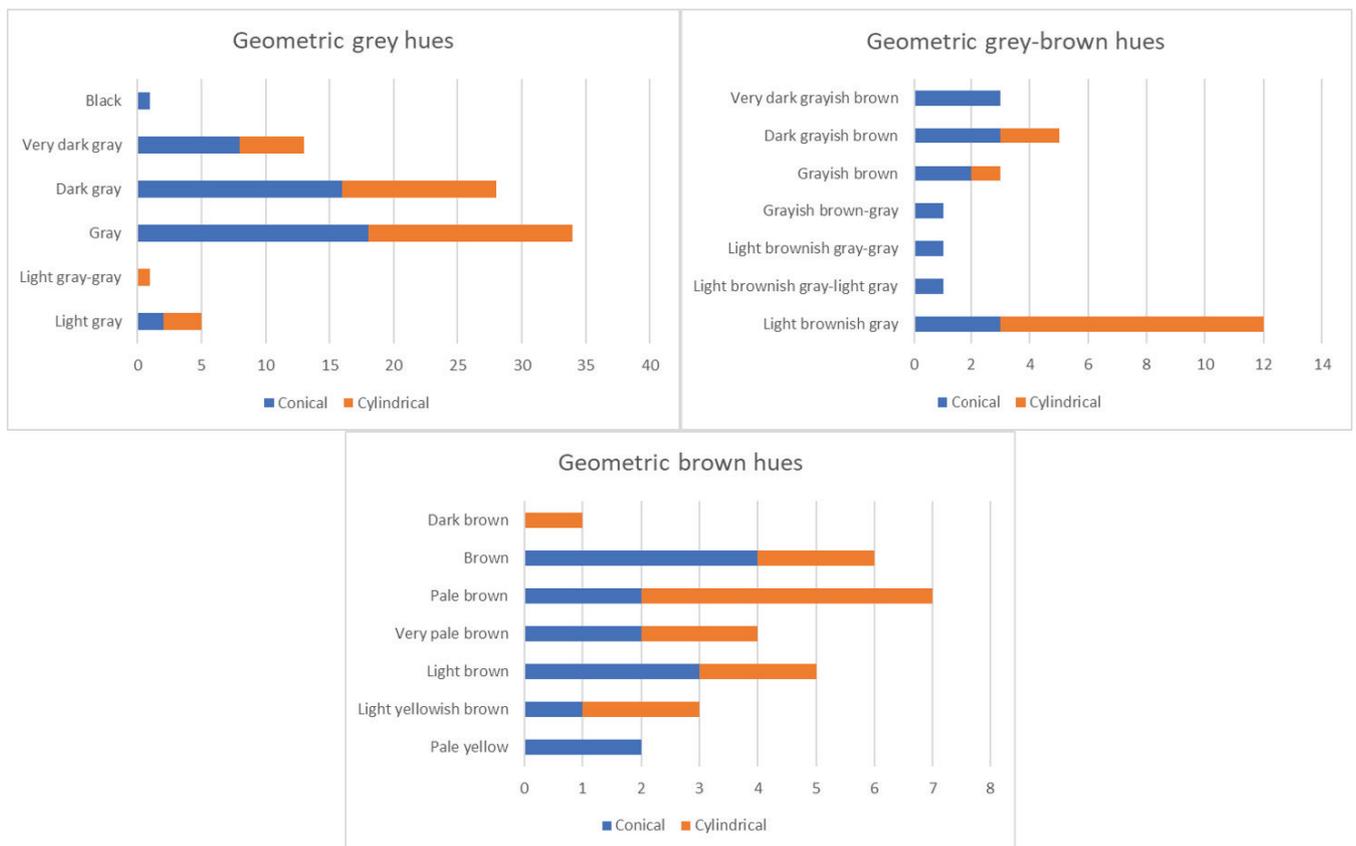


Figure 5.5: Colours of geometric objects divided in different hues

### 5.1.6 INDETERMINATE OBJECTS: MATERIAL PROPERTIES

#### Clay types

Marl is the most common clay type in the indeterminate corpus, followed closely by lower alluvial clays (tables 5.58-5.59). Two objects are made of a pure marl source and five are made from sandy marl. One object has been recorded by *Avis* as a possible mixture of upper alluvial and lower alluvial clay.

#### Fabrics and inclusions

Clay fabrics are predominantly fine across figurine and clay types. Black organic objects form an exception as they are medium to coarse (tables 5.60-5.61). There are 128 objects with visible inclusions, which are recorded predominantly as rare to sparse. Inclusions are overwhelmingly small across all types. Large inclusions are only recorded 10 times. In three instances a large pebble inclusion can be seen in the clay fabric (tables 5.62-5.67). A wide range of inclusions has been recorded with calcite, mica and mineral inclusions being the most common. There is one recording of possible grog (tables 5.68-5.69).

#### Clay colours

Colours are predominantly in the 10 YR range. The possible anthropomorphic fragments are almost exclusively in this range. Within all types colours are mostly in the grey hues, followed by grey-brown hues. Brown hues are rare and pink-red hues occur only very rarely and are mostly pinkish-grey colours (table 5.70 and fig. 5.6). Different surface colours have been recorded for 27 objects and different core colours for 32 objects.

### 5.1.7 UNCLEAR OBJECTS: MATERIAL PROPERTIES

#### Clay types

Predominately marl clays are recorded followed by lower alluvial clays (table 5.71). There is one object made likely from midden clay.

#### Clay fabrics and inclusions

Clay fabrics are predominantly fine, except for the four black organic objects which are medium and coarse (table 5.72).

There are 63 objects with visible inclusions and are predominantly rare to sparse. Inclusions are predominantly small and small to medium. There are two instances of medium to large and large inclusions: object 16898.H2 is the one example of midden clay and 12971.H20 has a large inclusion visible in the fabric (tables 5.73-5.75). Recorded inclusions are predominantly mica, mineral and calcite (table 5.76).

5. ANALYSIS

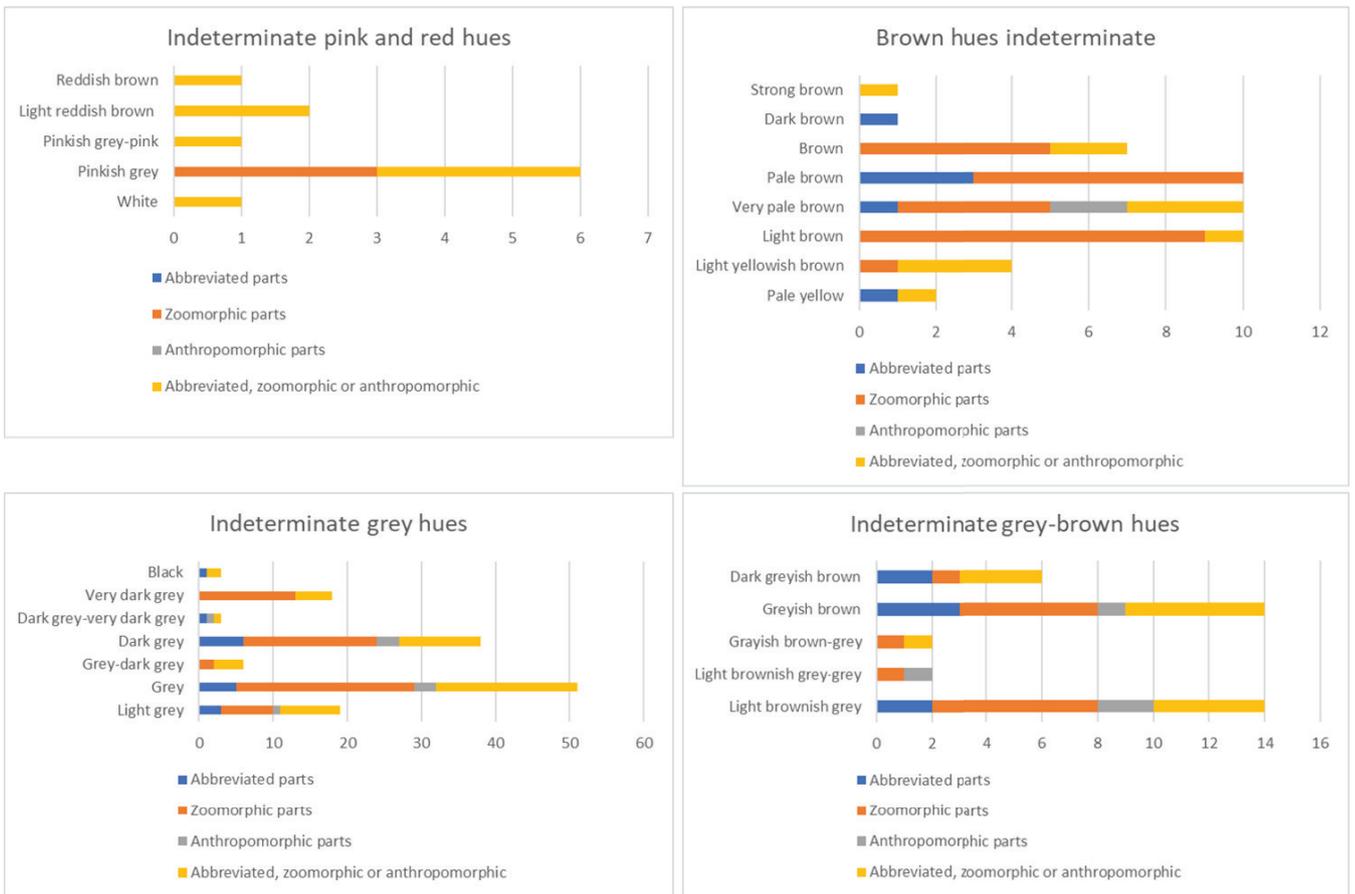


Figure 5.6: Colours of indeterminate objects divided in different hues

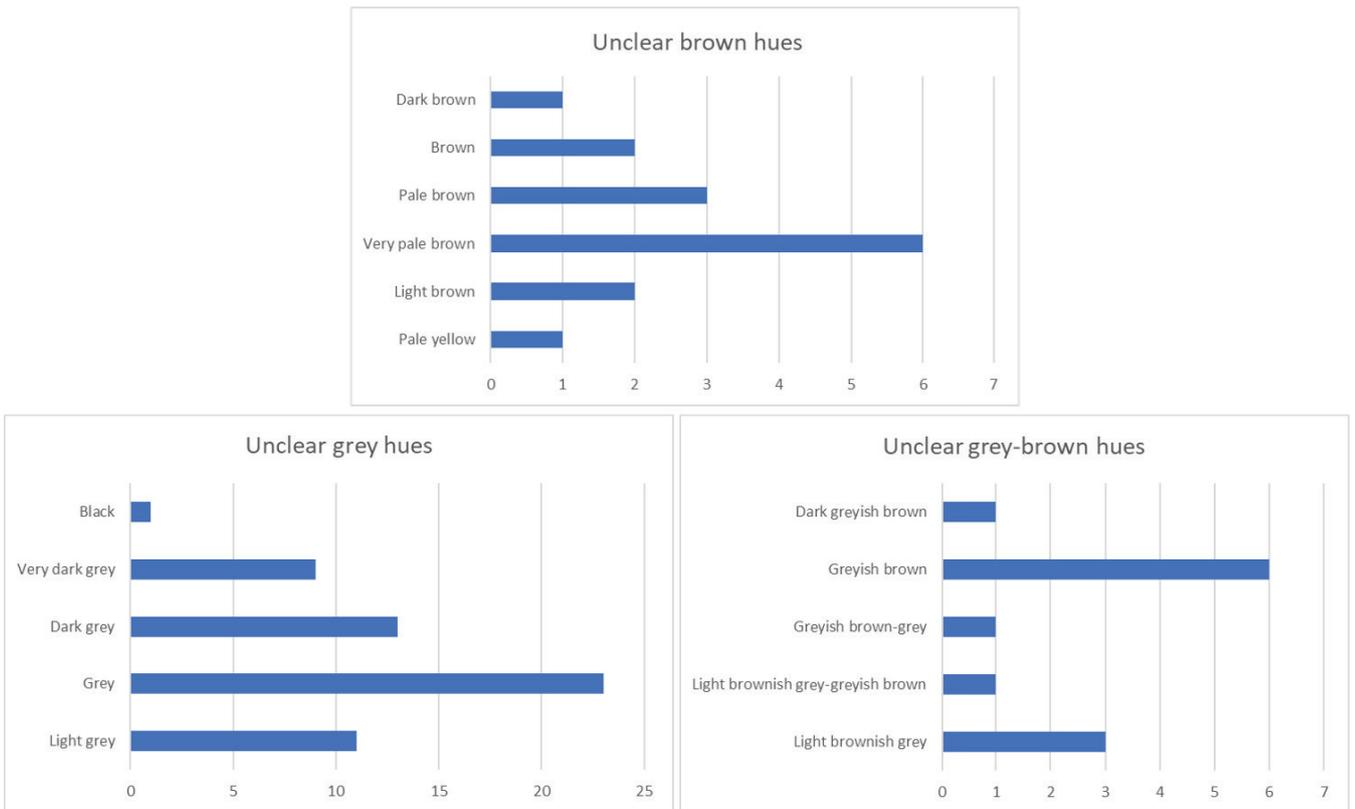


Figure 5.7: Colours of unclear objects divided in different hues

## Clay colours

Colours are mostly in the 10 YR range and the grey hues, followed by brown and greyish-brown hues. Only two objects are pinkish or reddish (table 5.77 and fig. 5.7). A second surface colour has been recorded for eight objects and a differing core colour for 10 objects.

## 5.2 ÇATALHÖYÜK FIGURINE CORPUS: CONCLUSIONS MATERIAL PROPERTIES

When taking into account only figurine typology there is no clear pattern relating to the use of particular types of clay. Furthermore, there seems to be no indication of any preparation of clay pastes. The inclusions that occur seem to be naturally present in the different clays. In his 2017 study, Doherty looked at a range of clay objects at the site, namely mudbricks, plaster, clay balls, geometric objects and figurines, and has some interesting insights to offer. In his review of older studies, he notices that there is a tendency to see inclusions as being intentionally added as temper and that different clay ‘recipes’ are interpreted as proof of individual choices and household-level production. In contrast, Doherty sees no clear evidence for tempering of clay.

However, Doherty does observe changes in the types of clay used through time, observed in all categories except figurines. Doherty recognises preferences for clays in other object categories which he sees as lacking in figurines. They instead seem to be made “*with whatever clay was available*” (Doherty 2017, 72). He describes the clay often as ‘scrappy’; alluvial clays mixed with darker clays or marl, which might indicate that clays were extracted from thicker clay beds that were depleted or very thin clay beds (Doherty 2017, 115).

The full analysis of the dataset presented here is in line with his findings. The very few recorded instances of grog, bone or charcoal inclusions notwithstanding, all the inclusions are present within the naturally occurring clays. There is thus no clear evidence for the tempering of clays, conversely, there seems to be (at least in quite a few instances) no effort to remove larger inclusions.

Doherty also states that clay was not selected based on any strict performance criteria, beyond being suitably mouldable into a small form. He notes that social preferences might have been more important than practical considerations and that clay selection was constrained by taboos, as appearance or ‘quality’ certainly does not seem to have been a key criterium (Doherty 2017, 115). However, the concept of ‘quality’ is a very subjective one, and we might not understand what that term entailed for the people at Çatalhöyük. Doherty likely relates ‘quality’ to other object categories where clay needed to comply with more ‘technical’ specifications. This is not easy to determine with ‘social technology’ such as figurines. The analysis ahead will show that, when taking into account figurine production and use wear, some patterning in clay usage does become apparent.

### 5.3 ANALYSIS FIGURINE PRODUCTION ÇATALHÖYÜK: INTRODUCTION

In this section, the production sequence of figurines will be discussed in a reconstructed *chaîne opératoire*, focussing on:

- 1) Presence, shape and shaping of specific elements
- 2) Shaping: usage of tools
- 3) Smoothing of surfaces
- 4) Additional surface treatment(s)
- 5) Heat exposure<sup>1</sup>

Observations have been made based on the data in the existing database, supplemented by personal observations made on site, as well as examining photographs.

Related to the shaping of objects is whether or not pieces are composite or made from a single piece of clay and whether or not this is a conscious choice or a circumstance that arose in the process of making. Discerning patterns might offer insights into the various ways of crafting these objects. It also highlights the fact that making figurines is both an additive and an extractive technique where clay is added to form elements but also pinched and scraped away in other parts.

Recording whether an object is composite and how elements are shaped, is only possible through detailed first-hand inspection or by having high-quality photographs. Even then, it is only possible to securely identify composite elements when the piece has not been smoothed to a degree where all the seams have been removed, or when distinctive fracture areas remain. These fracture areas are smooth, flat or concave and at times some remnants of a 'lip' of clay can be seen around the fracture from where clay was smoothed around the composite element to secure it to the main piece.

For some of the objects, other members of the Çatalhöyük figurine team have recorded observations on the shaping of objects, but for many of the figurines referenced in the following sections I have been the only one to record data on these aspects and not all the figurines were examined personally. All this means the number of composite pieces recorded here is a minimal number; likely many more objects are composite.

At times it is clear that figurines were made using implements. There are three general categories of tool use: shaping, smoothing and creating (facial) features. Tools were also used to create some of the use-wear (punctures and gouges), these are not part of the analysis of tool use in production.

Smoothing was originally recorded as an indicator of the 'quality' of production for figurines. Quality here is not meant as referring to either 'good' or 'bad', but rather the level of time and attention paid. In theory, all marks related to production could be removed by smoothing. However, the extent to which a figurine can

---

<sup>1</sup> With the caveat that heat exposure is not always clearly relatable to either production, use or post-depositional influences.

be smoothed is also related to the type of clay used, the fabric texture, and how malleable the clay was when used. Furthermore, post-depositional influences can make the original level of smoothing difficult to assess. Often, the level of smoothing is discernible and there is a large variability; from objects that have not been smoothed at all, to figurines that have been incredibly well-smoothed, and in some instances even burnished. This characteristic becomes more interesting when compared to other aspects of production and use-wear. In conjunction with smoothing, the presence of fingernail impressions (likely) related to production and fingerprints will be discussed.

Additional surface treatment comes in the form of self-slip, slip and paint. Self-slip is defined as an object being slipped with the same material as the clay body. This is evidenced by a finely textured surface. Self-slip is difficult to establish and might have resulted from wiping the surface with a wet hand.

Finally, heat exposure will be discussed. Heat exposure is recorded as unbaked, baked, burnt and indeterminate. Heat exposure is very difficult to ascertain and was identified based on colour and hardness, but most often 'indeterminate' was recorded. For a sample of the figurines, additional information is available on the level of heat exposure. For some, it has also been recorded if heat exposure was even or uneven, and based on the information recorded in the database and as could be discerned on photographs an analysis has been done here on the sidedness of heat exposure to see if patterns exist.

Heat exposure will be discussed here with figurine production, however, it is not certain that heat exposure is part of the production process. There are instances where it occurs after objects acquired use wear: for example, zoomorphic figurines that are baked were punctured and gouged when the clay was still wet, so heat exposure must have occurred after. Therefore, heat exposure will also be discussed in the section on use-wear.

### **5.3.1 ZOOMORPHIC FIGURINES: PRODUCTION**

#### **Presence, shape and shaping of specific elements**

Through first-hand inspection of 79 quadrupeds on-site and further inspection of photographs, it does appear that some objects are made from a single piece of clay. As has become apparent from the previous chapter, the size range of zoomorphic figurines is considerable and many were big enough to be made from one piece of clay. This is evidenced by the fact that often the breaks of legs and horns do not occur where they would have been attached, rather the stumps of horns and legs remain, strengthening the assertion that they were not added, otherwise they would have more likely fractured at their weakest point.

#### **Horns and ears**

Of the 269 quadruped heads it is clear that in 142 instances horns were represented and in 61 instances they were never present (tables 5.78-5.79). When looking at how horns are fractured, often horn stumps remain, so it appears that they were not attached as separate pieces. However, the fact that they often have

seams along their length, indicating they were rolled, and their very round sections, makes it unlikely they were pinched out from the head. Therefore, they were probably made as separate pieces and subsequently very well integrated into the main piece. In only three instances is it visible that horns are attached as a separate piece (for example 10311.X1, fig. 5.8: 6), in a further nine instances they are perhaps attached. Very tentatively it appears that in some instances the two horns were made as one piece and pressed on top of the head (for example 17084.H5, fig. 5.8: 7).

The presence or absence of horns is quite evenly distributed across clay types. Their shaping as separate elements is also not restricted to one clay type (tables 5.81-5.82). The shape of horns is often difficult to ascertain due to poor preservation. Conical shapes are most common and they are round to oval in section (table 5.82). Of the 269 quadruped heads, there are 127 instances where ears are represented, in 58 instances ears were never present (tables 5.78-5.79). Of all elements, ears are most often visibly applied, evidenced by seams where these ears were stuck on the head as with 18154.H11 and 19342.X16 (fig. 5.8: 8-9). Placement of ears is most commonly under the horns when horns are represented. At times they are attached to the horns. In a few instances ears were pinched out from the horns.

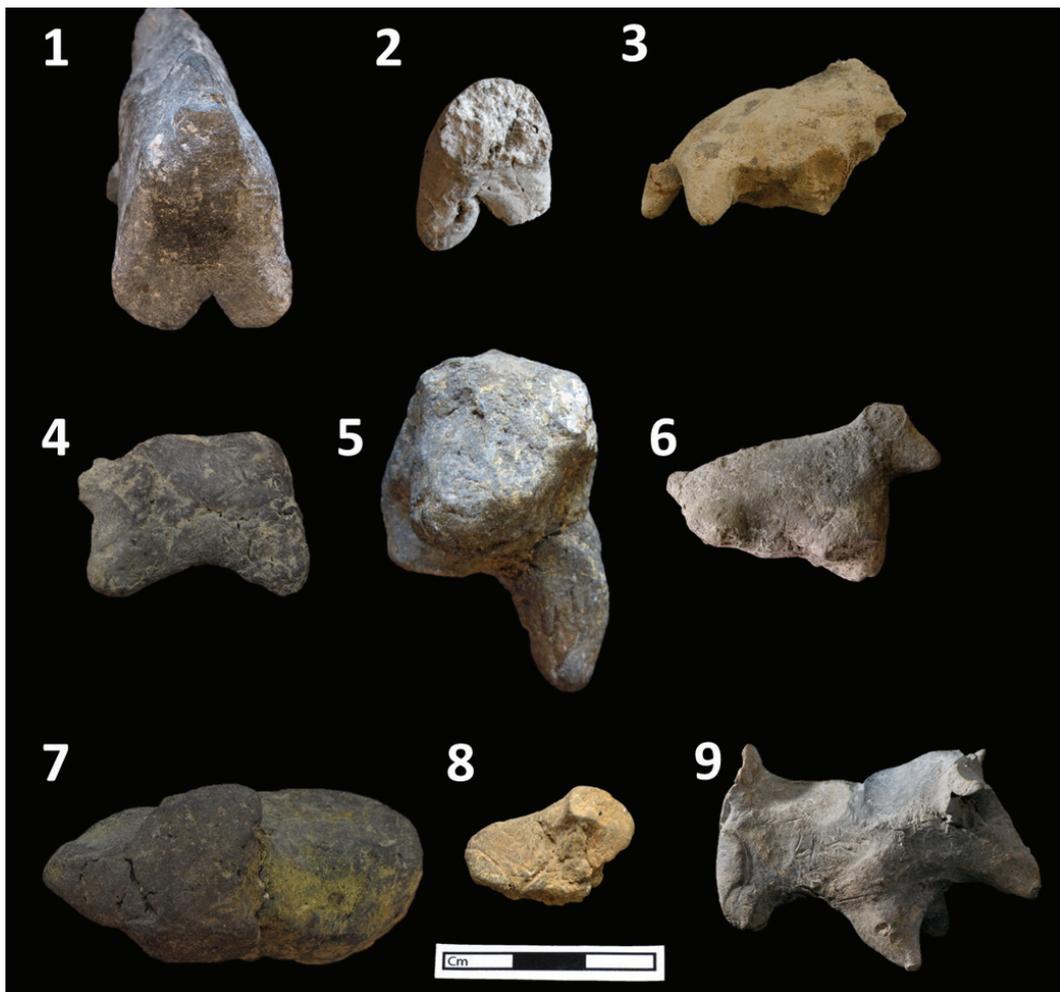


Figure 5.8: Examples of different ways of shaping elements: 1: 13723.X4, legs shaped as one and then separated; 2: 13174.X10, leg pulled out and then folded; 3-5: 16233.X1, 3740.X3, 13161.H2; applied legs; 6: 10311.X1, applied horn evidenced by flat fracture with slight rim; 7: 17084.H5, possibly horns made as one and applied on top of head; 8-9: 18154.H11, 19342.X16, applied ear, note the folded clay on hind leg on no. 9). Image by author, original photographs courtesy of the Çatalhöyük Research Project

Rarely are ears preserved completely. But in shape they do not seem to differ greatly, mostly they are flat, pinched-out flaps or stubs. In a few instances, the shapes are a bit more elongated and/or shaped into more of an actual ear also seen in two instances as a more crescent-shaped section left by a fractured ear (table 5.83). Often ears could have been simply pinched out in one motion with two fingers. At times there seems to be scraping around the ear area (see next section on tool use) either to scrape up clay to form the ear or to possibly create a rougher surface allowing the ear to better adhere to the head.

Of the 24 bucrania, eight have ears and nine objects are earless. Of these eight instances, ears are applied on three bucrania and in two more instances ears are possibly applied. The ear shapes are similar to those seen on quadrupeds. In three instances the ear was pinched out from under the horns. There are two instances where horns are quite certainly applied and there is one more instance of a possible attached horn. Horn shapes are predominantly conical and curved, with two instances of a curved and spiralling horn.

### **Legs and tails**

Legs are represented in all but five instances. Very rarely legs are visibly attached to the body: six instances are recorded in the dataset, with another 26 possible cases, three are shown here: 16233.X1, 3740.X3 and 13161.H2 (fig. 5.8: 3-5). Furthermore, often it is not evident that all four legs on a figurine were applied (table 5.78-5.81).

Leg shapes are most often conical and (flat) triangular shapes (table 5.84). There are three examples where the back legs were pinched out and shaped as one whilst the front legs are separate conical shapes. Three quadrupeds have both their front and back legs shaped as one piece. One example (13723.X4; fig. 5.8: 1) has front and hind legs that were made as one by pulling out clay along the width of the body to form a flat flap with also a seam visible on the back of the hind legs showing how the clay was folded. Subsequently, an incision was made to create two legs. Mostly legs seem pinched/pulled from the main body and subsequently shaped, visible by smears of clay and finger impressions. Folding of clay can be also seen due to unsmoothed seams and ridges; a piece of clay was pulled out and the end was then folded back to form the leg, for example 13174.X10 (fig. 5.8: 2).

Tails are visible on 185 quadrupeds and not represented in 40 instances. Because of the breakage of quadruped bodies, it is often unclear if a tail was originally present. Tails are not often visibly applied, they seem pinched out of the main body or are well smoothed into the body. The shape of tails varies, mostly they are conical; either curved or straight (table 5.85). The next most common shape are flaps, rounded, irregular or more or less triangular, pressed against the body. There is also evidence of clay being scraped up with a nail or tool (see ahead) to create a 'ridge' tail. In other instances, there is very clear evidence of smoothing around conical tails, again sometimes likely with an implement. The few instances of more elongated tails are noted because the tails are disproportionately large compared to the body (the quadrupeds identified as fox or reptilian).

## Tool use

Tool use is recorded very rarely on zoomorphic figurines with 61 likely instances in this dataset. Tables 5.86 and 5.87 show the types of tool use on zoomorphic figurine types and clay types. Most tool use is related to either shaping or smoothing of objects, evidenced by scrape marks. In some instances, clay was scraped up to form a tail leaving marks that do not look like they were made with a fingernail as with 1055.H2 and 19390.X3 (fig. 5.9: 1-2). Scraping around the ear area could be related to attaching ears.

Implements are also used to make holes, in two instances there are two holes on the top of heads, indicating perhaps that originally something (antlers?) were inserted in these holes, for example 12394.H4 (fig. 5.9: 3). In only one instance is there a hole underneath the tail, perhaps to indicate an anus. Another anomalous occurrence is a deep hole above the tail on object 22130.X1 (fig. 5.9: 4). Two quadrupeds, 12648.X2, 19205.X1, seem to have a muzzle that was made by folding clay around a round implement (fig. 5.9: 5-6). In five instances tools were used to incise or create holes to indicate facial features, one is depicted here: 5021.D1 (eyes and/or mouth; fig. 5.9: 7).<sup>2</sup>

There are thus varied ways in which tools were used. Identifying what tools are used is difficult, however stone and/or bone scraping implements were likely used and the holes could have been made with needle-like objects, awls, or even sturdy reeds or twigs.



Figure 5.9: Examples of tool use on zoomorphic figurines. 1-2: 1055.H2, 19390.X3, possible tool use to shape tail; 3: 12394.H4, holes to insert objects?; 4: 22130.X1; hole above tail; 5-6: 12648.X2, 19205.X1, muzzle shaped around implement; 7: 5021.D1 creating facial features and holes. Image by author, original photographs courtesy of the Çatalhöyük Research Project

<sup>2</sup> In tables 5.86 and 5.87 the incising of features have been subsumed under one category, the other two instances are objects that have incising to indicate legs.

## Smoothing and additional surface treatment

Analysis showed that smoothing is most related to the type of clay used (table 5.88-5.89), no other clear patterns can be discerned. However, it is the case that the figurines that have been punctured, gouged, deformed and/or broken (see ahead) are less well-smoothed in general, over 50% of them are either rough or roughly smoothed.

Fingernail impressions are recorded across the zoomorphic corpus. Within the category of quadrupeds, there are 106 objects (22%) with recorded fingernail impressions. It is clear that some fingernail impressions are related to shaping; we can observe them where the different elements were pinched out or attached: legs, horns/ears and tails. In total 31 objects have fingernail impressions which are likely related to shaping.

Mostly one fingernail impression was recorded on objects (n=21), in five instances two fingernail impressions are seen and for five objects the amount of fingernails is unknown. They occur most often on the muzzle and horn/ear area (fig. 5.10). In 35 instances fingernail impressions occur on horn fragments. Very likely they are related to shaping the horns. As with fingernails, fingerprints are also seen on objects across all clay types, smoothing levels and heat exposure (tables 5.90-5.93).

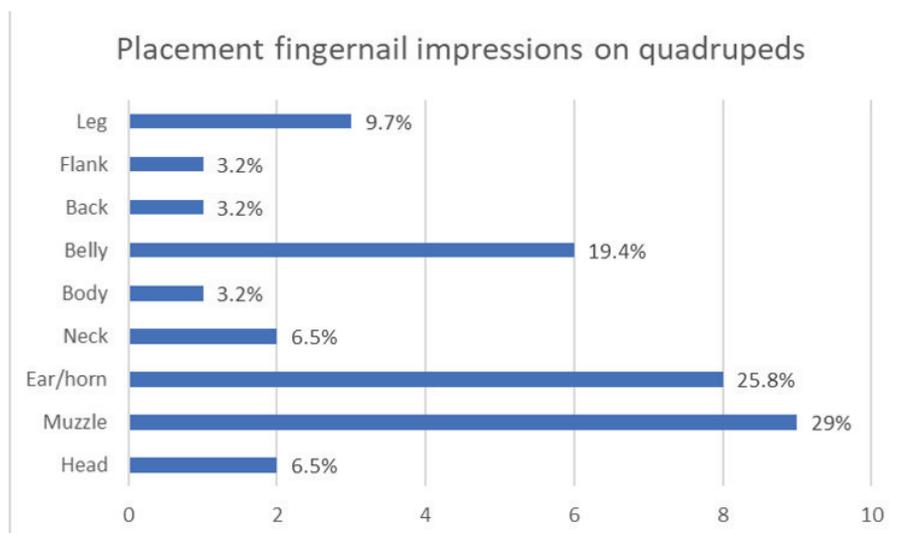


Figure 5.10: Placement of fingernail impressions likely related to shaping

The few instances of additional surface treatment on zoomorphic figurines are (self-)slip and paint. As discussed in the section on fabrics, 13 objects seem to have an outer layer/slip layer of sandy marl: 10 quadrupeds, two horn fragments and one bucranium (examples shown are 12945.H7 and 15605.H1; fig. 5.11: 1-2). A further six quadrupeds have a possible slip layer, for only one object it is quite clear that it has been slipped (4121.D4, see fig. 5.11: 3).

On zoomorphic figurines, the colouring is patchy and not clearly applied. Therefore the designation is tentative. Some examples also show discolouration in fractured sections, this could be the result of post-depositional conditions. There are six figurines with possible paint, two figurines with a band on the back: 14183.H8 and 20698.X2 (fig. 5.11: 5-6), one object, 5292.H1, has a sandy marl slip and a stripe of what was in the

database described as possible paint (fig. 5.11: 7) and the remaining three have red paint/staining, shown here object 13103.X11 (fig. 5.11: 4).



Figure 5.11: Additional surface treatment zoomorphic figurines. 1: 12945.H17, possible sandy marl self-slip; 2: 15605.H1, marl slip; 3: 4121.D4, lighter slip; 4-6: 13103.X11, 14183.H8, 20698.X2, possible paint or staining; 7: 5292.H1, slip and possible paint stripe. Image by author, original photographs courtesy of the Çatalhöyük Research Project

## Heat Exposure

Information on heat exposure is recorded for a large number of the figurines. Unfortunately, this is often impossible to ascertain based solely on visual inspection, therefore 691 objects are classified as ‘indeterminate’ (see tables 5.94 and 5.95). As the numbers reflect, when ascertainable, there is a substantial number of figurines across clay types that do show heat exposure, with the highest number ( $n=104$ , 56,2%) found in the marl clays.

There are only eight mentions of even heat exposure within the zoomorphic corpus and 247 instances where heat exposure has been noted as being uneven (see. fig. 5.12). There are 79 quadrupeds with uneven heat exposure and the predominant differences are seen between the left and right sides. Although there is no clear preference (19 objects are recorded as showing more heat exposure on the right and 25 on the left), it does seem that figurines were often placed on their sides in or near open fires or a heat source. Uneven heat exposure has been recorded on 138 horn fragments, occurring mostly lengthwise along one side, also indicating the placement of figurines on their side as does the lengthwise uneven heat exposure seen on 16 leg fragments.

Although there are some interesting examples of striking colours seen on baked objects, especially in the marl clays, a lack of clear patterns does not indicate intentionality. Furthermore, heat exposure often does

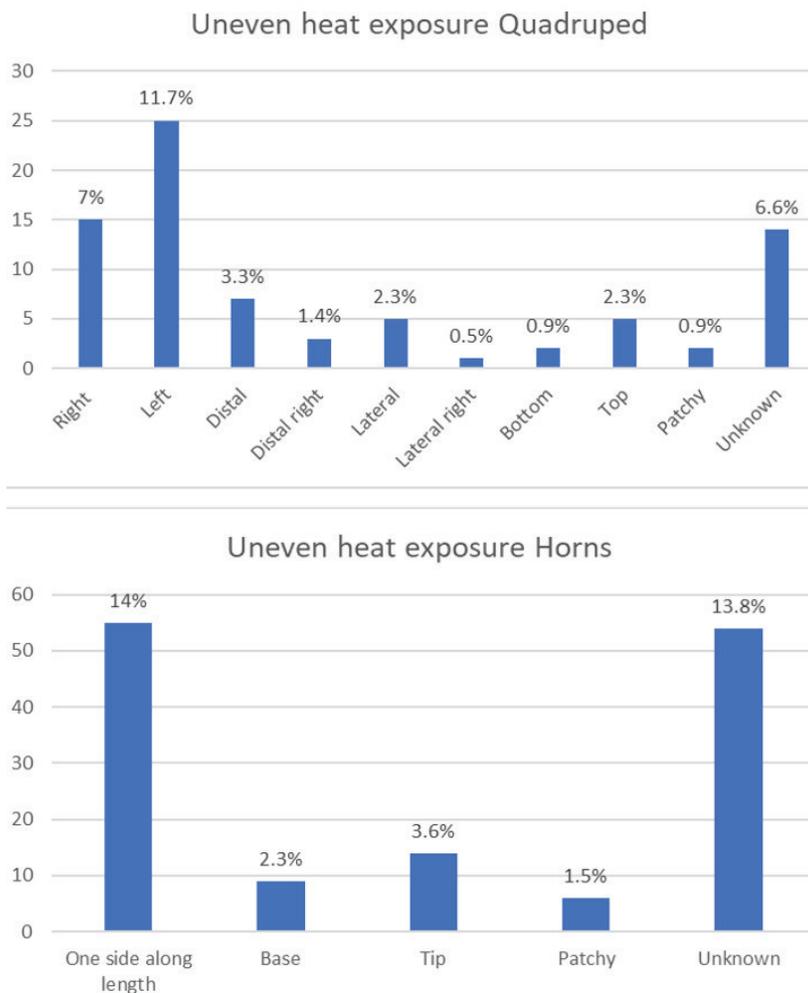


Figure 5.12: Heat exposure quadrupeds and horn fragments. Percentages based on totals per type with recorded heat exposure (n=213 and n=392)

### 5.3.2 ABBREVIATED FIGURINES: PRODUCTION

#### Presence, shape and shaping of specific elements

Abbreviated forms consist of three main elements: a base (with or without legs), a torso and head. Sometimes these heads are elaborated with a nose and/or head element.

Leg shapes are mostly conical to (flat) triangular. There are four main ways in which legs were shaped: 1) they are applied, 2) shaped separately from the main piece, 3) the base was pinched out to a large flap and then separated to make legs, and 4) the base was only slightly pinched/incised to create 'legs' or 'feet' (described as divided base; see table 5.96 and fig. 5.13).

In some cases, the legs are far enough apart to fit a finger between them. Smoothing and smearing marks are often seen between the legs, such as 22300.X1, 15437.X2 and 1073.H2 (see fig. 5.13: 1-3). When legs are placed very close together it seems impossible for them to have been pinched out from the main piece, however, at times it is visible that legs were pushed together after shaping as evidenced by folds and seams in the clay as seen in 12946.H18, 6756.H1, 21122.H1, 21645.H2 and 999999.H182 (fig. 5.13: 8-12). Incising

not seem to have occurred in a controlled manner. Colours are often splotchy-with dark and light areas. At times it seems objects were placed in open fires where one side turned grey to black and the opposite sides, which were exposed to oxygen changed into reddish, pinkish and orange hues (see also the previous sections on clay colours).

Comparing heat exposure to clay type also does not reveal patterns. The only possible correlation is between heat exposure and tool use. In the categories of bucrania and horns all the objects showing (possible) tool use are baked or burnt. Within the quadruped category, 63.8% of the figurines with tool use were exposed to heat.

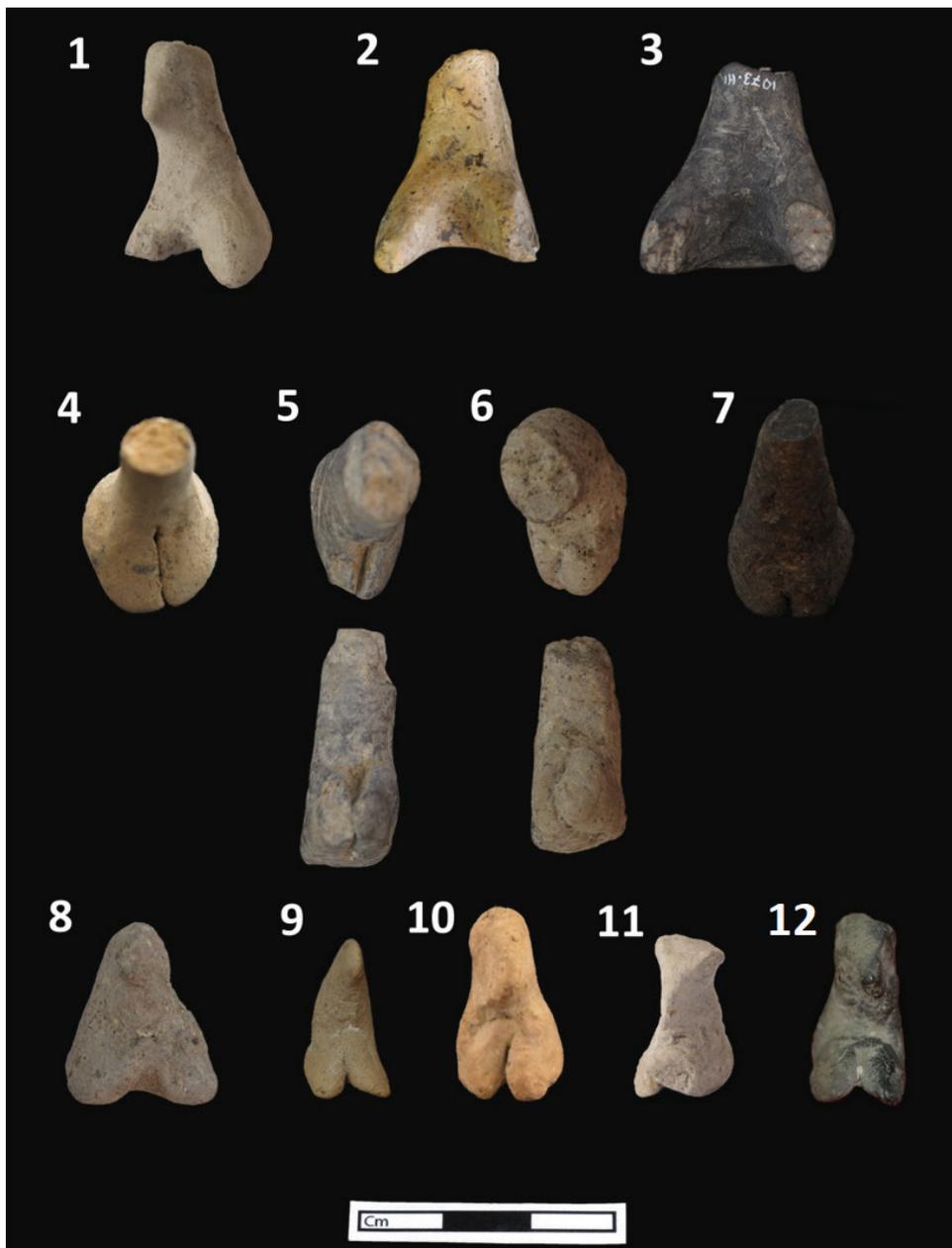


Figure 5.13: Different ways of shaping legs as seen on abbreviated figurines. 1-3: 22300.X1, 15437.X2, 1073.H2, figurines with legs shaped from main piece; 4-7: 19215.X2, 1832.X6, 8775.H1, 16497.X1, figurines with base pinched/incised to create legs or 'feet'; 8-12: 12946.H8, 16756.H1, 21122.H1, 21645.H2, 999999.H182, figurines with clay pushed up in the middle with ridge of clay visible. Image by author, original photos courtesy of the Çatalhöyük Research Project

occurs on a pinched-out base and at times legs have been further emphasised by an incision, examples are 19215.X2, 1832.X6, 8775.H1, 16497.X1 (fig. 5.13: 4-7). In only seven instances are legs visibly applied. In two further instances, the head and torso seem applied to the base and legs.

Head elements are represented in 133 instances (table 5.97-5.98). They are seldomly visibly applied (only one certain and five possible occurrences). Mostly, they are pinched out and pressed against the top or the back of the head when they are longer. They are often fractured at the tips only, a further indication they were shaped from the main object. The creation of this flap leaves the top of the head often flat. Likely noses were pinched out afterwards creating triangular profiles. Noses too are overwhelmingly shaped from the

main piece and seem most often created by a simple pinch left and right. Only twice does the nose appear to be applied. There are two instances where a piece of clay was applied to the front of the torso indicating a stomach and potentially breasts and one further figurine has a potential beard.

Concluding, the abbreviated shapes appear to predominantly have been made from one piece of clay. If they were composite in higher numbers, the composite pieces were well integrated into the main piece.

### **Tool use**

There are 72 instances where tools were likely used to make abbreviated figurines (table 5.99-5.100). In most cases, tool use is related to creating facial features either by incising with a thin tool or creating holes with a rounded implement. Incising on the base to accentuate/shape legs and/or (perhaps) an indication of buttocks on the back of the base is recorded 19 times.

There are seven instances where holes were created on the top of the head. In one instance the head is covered with multiple small perforations which originally might have held (organic) material. There are six further examples where there is one puncture on top of the head. The reason for making these holes is unclear. They are carefully made and differ from other punctures classified as use-wear seen on both abbreviated and zoomorphic figurines.

There are smooth areas on six of the objects which are very flat and shiny and were perhaps made with a tool. In three instances, grooves or incisions are perhaps to be interpreted as indicating features or 'decoration'.

### **Smoothing levels and additional surface treatment**

Abbreviated figurines are overwhelmingly smoothed to well-smoothed. As with the zoomorphic figurines, smoothing is mostly related to the clay types, with rough and roughly smoothed objects being made mostly of black organic and undetermined clays (table 5.101-5.102).

In total 95 abbreviated objects have visible fingernail impressions, however, very few of these impressions look to be related to shaping objects. In 20 instances it is unclear if fingernail impressions are related to shaping or use wear. Six of the instances of fingernail impressions are related to shaping the legs. In three instances the fingernail impressions seem to be the result of shaping the head/nose and two instances are seen of a fingernail impression with a small scoop of clay. Fingerprints occur in moderate amounts across the corpus, irrespective of clay types, smoothing levels and heat exposure (tables 5.103-5.106).

There are 22 abbreviated figurines with additional surface treatment (table 5.107-5.108). There is one case of self-slip and two of slip, although these occurrences are given tentatively. There are five examples of painted objects, in three instances the paint is applied as dots that cover the entire object (for example 22635.H1 and 22635.H2, fig. 5.14: 2-3). There are a few instances of paint traces, one of these possible applications of paint is on object 18154.H5 (fig. 5.14: 6), this object has a stripe on the bottom that is unexplained and perhaps could be painted.

Although numbers are very low, the large majority of instances of additional surface treatment occur within the head on divided base category and marl clays. Furthermore, it is seen almost exclusively on smoothed and well-smoothed objects. There is no correlation between additional surface treatment and heat exposure.



Figure 5.14: Abbreviated figurines with additional surface treatment. 1: 12524.H4, paint and slip; 2: 22635.H1, red and cream paint dots; 3: 22635.H2, red paint dots; 4: 23634.H4, red paint on top of head; 5: 99999.H232, red paint dots; 6: 8154.H5, possible paint stripe on bottom.

Image by author, original photos courtesy of the Çatalhöyük Research Project

## Heat exposure

As with zoomorphic figurines, for a large percentage of abbreviated figurines it could not be established whether objects were exposed to heat. Across the three types around 35 to 40 per cent do have visible heat exposure, mostly being light to medium baked as far as this could be established. Burning is observed rarely (tables 5.109-5.110).

Uneven heat exposure is recorded 99 times: 61 times on head on divided base, 23 on head on base and 15 times on indeterminate objects. In 36 instances the (darker) grey to black colouration caused by heat exposure can be seen along the length of objects (see fig. 5.15), suggesting they were placed flat on a heat source.

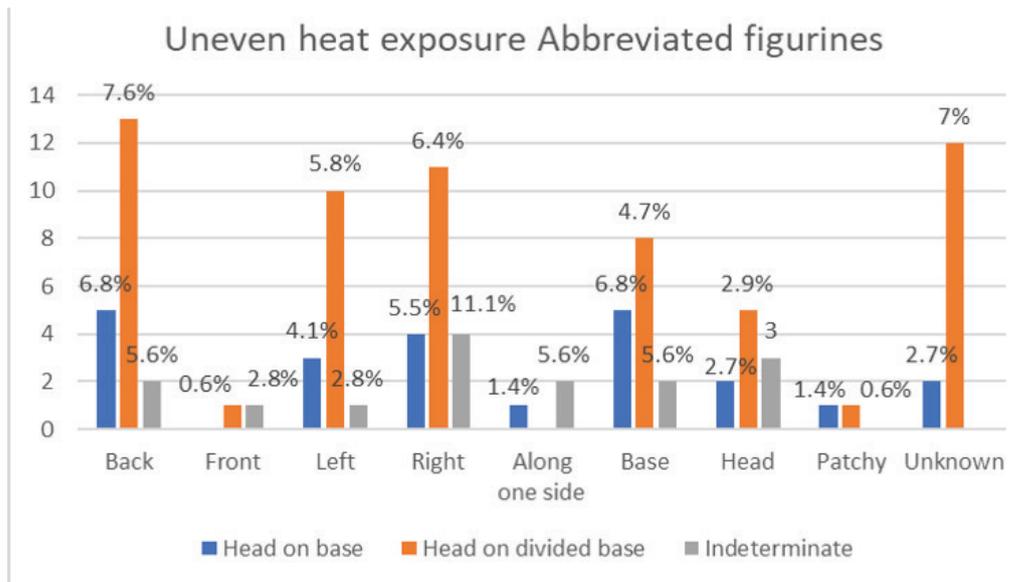


Figure 5.15: Uneven heat exposure on abbreviated figurines. Percentages based on totals with heat exposure: Head on base n=73, Head on divided base n=172, Indeterminate n=36

### 5.3.3 ANTHROPOMORPHIC FIGURINES: PRODUCTION

#### Presence, shape and shaping of specific elements

Anthropomorphic figurines consist of four elements: a base (with or without legs), the torso, arms and head. These elements can have further elaboration. Figurine bases at times have an indication of buttocks and sometimes legs have feet indicated. The torso can have a navel and/or breasts. Arms are sometimes elaborated with hands and/or fingers. Finally, heads sometimes show facial features (eyes, nose, mouth and ears) as well as an indication of hair or a cap. These different elements will be discussed in turn. As anthropomorphic figurines are very commonly shaped using tools, tool use will be discussed in this section as well.

#### Legs and feet

Leg shapes are predominantly conical. When legs are folded under the body or are cross-legged the shape is also roughly conical, albeit more rounded and 'fleshy'. Feet and cone-shaped legs coincide in nine instances, 14 objects have no feet indicated. Straight legs have feet indicated four times. Feet are very simple in shape, toes are only indicated once and the feet seem pinched out from the legs. In two instances there is some further elaboration by indicating a band above the feet; it seems this band of clay was applied as a separate piece.

There are five instances where there are no clear legs, but rather the base has been pinched out and then legs separated and pressed together, alternatively the base was pinched out and then incised. A further three examples have only an incision made in the base (see table 5.111).

It is very difficult to discern whether or not anthropomorphic figurines are composite because these objects could not be studied on-site and photographs are often not of sufficient quality. However, it is also the

case that these objects are very well smoothed and likely any composite elements would have been very well integrated into the main object. Two objects have visibly applied legs. One object, 999999.H56, is made of three pieces, the legs and buttocks area were applied as separate pieces to the torso. The previously mentioned bands above the feet on two figurines are the other clear composite objects. In four more instances legs are potentially applied, and one more indication exists of possibly attached buttocks (tables 5.112-5.113).

There are many instances of tool use related to shaping legs. Potentially the numbers are higher, but for the Mellaart figurines in particular there is little information available. However, there are 18 clear cases of tool use to delineate legs (table 5.114). For figurines with straight legs, it seems legs were made as one and then a groove/incision was made to delineate two legs. For the figurines that are seated, tools are also used to delineate legs and create grooves to indicate lower/upper legs (for example, 11324.X3, 11848.X1 and 99999.H64; fig. 5.16: 1, 4-5). How exactly the legs are shaped is unclear; perhaps they were roughly shaped and then tooled. Tools might also have been used for smoothing and giving shape to the overall object, but this cannot be established with certainty. Besides delineating legs, clear tool marks indicating buttocks is recorded nine times (see 11848.X1 and 13167.X7; fig. 5.16: 4, 7). In three instances a pubic triangle was indicated by incisions/grooves.

### **Torso and arms**

The torso areas of anthropomorphic figurines are often elaborated with navels, which are created with a tool shaped as a puncture or divot as seen on 999999.H64 and 999999.H68 (fig. 5.16: 5 and fig. 5.17: 11). In one instance, 13103.X19, the belly is applied to the main body (fig. 5.16: 14). Another possible example is recorded where an indication of a seam might imply it was applied. Arms are often further delineated with grooves to separate the upper and lower arms and to create the separation between arms and body. In 12 instances a small tool was used to incise fingers. It is difficult to ascertain how arms were shaped. The total corpus has eight figurines with visibly applied arms, in 15 more instances they are potentially applied, for example 5512.X1 (fig. 5.16: 12). The number is likely higher as the position of the arms, placed on the body and/or legs, makes it very unlikely that they were shaped from one main body. Moreover, it is very unlikely that the incised hands could have been made as one piece. Very likely a small piece of clay was applied and subsequently incised as seen, for example, on 999999.H64 (fig. 5.16: 5).

Breasts are applied in six instances, and four more possible instances are recorded, shown here are 5512.X1 and 13103.X19 (fig. 5.16: 12, 14). They are further delineated with tools, either to create a groove between the breasts or underneath. There are four clear instances and three likely occurrences of tool use to shape breasts. In one instance, 999999.H68, a tool was used to create small divots indicating nipples (fig. 5.17: 11).

Eight figurines have some sort of elaboration on the body. This elaboration comes in the form of punctures, impressions and incisions/grooves. Only one object has a clear indication of clothing: 999999.H66 has finely incised clothing with shallow punctures (fig. 5.16: 9). There is one possible example of impressed circles

made with a hollow implement, however, they are not visible on the photographs.

Finally, in only two cases (and two more possible examples) (scrape) marks are seen, indicating a tool was used to shape objects. These are 13103.X12 and 14187.H1, not pictured here, as the markings are not clear on the photographs. Finally, there are five objects with clear marks indicating tools were used to smooth surfaces.

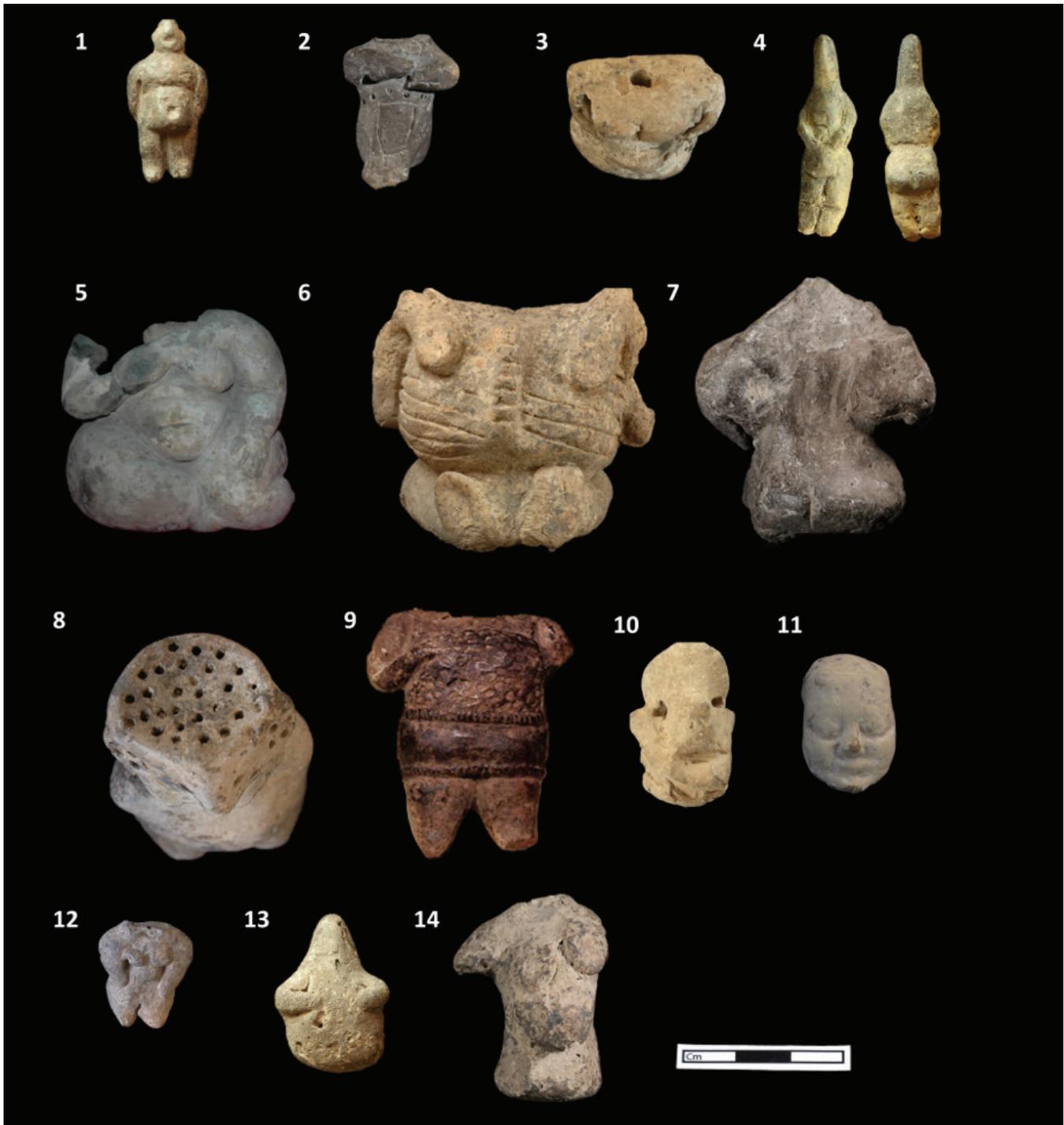


Figure 5.16: Anthropomorphic figurines, tool use and composite pieces. 1: 11324.X3, delineating arms, legs, navel; 2: 15160.X2, elaboration on body; 3: 13167.X10; dowel hole; 4: 11848.X1, delineating legs and buttocks; 5: 999999.H64, incising fingers, delineating arms and legs; 6: 12401.X7: incising ribs and vertebrae; 7: 13167.X7: incision to indicate buttocks and possibly scrape marks on back; 8: 5043.X1: facial features and holes on top and sides of head; 9: 999999.H66, indication of clothing; 10-11: 13142.X3, 23704.X7, facial features and 11 possibly applied eyes; 12: 5512.X1, applied breasts; 13: 11874.X1, applied arms; 14: 13103.X19, applied breasts and belly. Image by author, original photos courtesy of the Çatalhöyük Research Project

## Heads

In 29 instances dowel holes indicate that heads were made separately. Both the figurines that have heads and the separately made heads have facial features made with tools. There are 20 objects which clearly show this and three more possible instances. Facial features are incised or indicated by shallow punctures, as seen on 13142.X3 (fig. 5.16: 10).

There are two objects with punctures on top of the head, which might indicate hair, or they held (organic) material to indicate hair. Punctures in the ears or sides of the head are recorded four times. In two instances it can be seen that ears are applied and three more possible instances are recorded. In one case, small oval pieces of clay have potentially been applied to indicate eyes, such as 23704.X7 (fig. 5.16: 11).

To conclude, tool use is very common within the anthropomorphic figurine corpus. There are few cases of tools being used to form the main shape, instead, tools are used to delineate limbs and different features.

## Smoothing and additional surface treatment

Objects are generally very well smoothed (tables 5.115 and 5.116). Burnish is recorded two times and in seven more possible instances. Surfaces, especially of the Mellaart figurines are very smooth and perhaps burnish occurs more often, however from the photographs this is difficult to ascertain. There are also instances where surfaces are recorded as being polished. It is not clear if this polish is part of the production process and will therefore be discussed under the section of use wear.

There are only nine recorded instances of fingernail impressions. Only in one instance is it likely related to shaping: 13103.X19 (fig. 5.16: 14) has a fingernail impression above the applied breast. Fingerprints are recorded on nine objects.

Additional surface treatment is recorded as self-slip, slip and paint. There are three objects with self-slip, however, more objects probably have self-slip if one looks at the available photographs. For example, it can be observed at times that grooves made to indicate features are slightly smeared over by clay. A slip layer was applied to 20 objects. Paint is recorded on eight objects applied as dots and stripes and both slip and paint are seen on five objects (tables 5.117-5.118, fig. 5.17).

## Heat exposure

Heat exposure is recorded for 99 figurines; the vast majority are baked (n=83, 51.2%) of the total corpus, tables 5.119-5.120). Uneven heat exposure is recorded on 27 objects. For most objects, there is no information on the patterning of the uneven heat exposure. For the five separately made heads that are recorded to have uneven heat exposure, there is one object that can be seen to have a very localised dark grey area. The only potential pattern is found within the human-divided base type where 10 objects with uneven heat exposure are recorded, eight of these show darker colouration on their backs (fig. 5.18).



Figure 5.17: Anthropomorphic figurines with additional surface treatment. 1-4: 14902.X1, 12652.H1, 13167.X10, 999999.H72, figurines with slip layer; 5-9: 999999.H179, 22641.X1, 13129.X1, 4839.H2, 4921.H1, figurines with paint; 10-11: 12401.X7, 999999.H68 (not to scale), figurines with slip and paint. Image by author, original photos courtesy of the Çatalhöyük Research Project

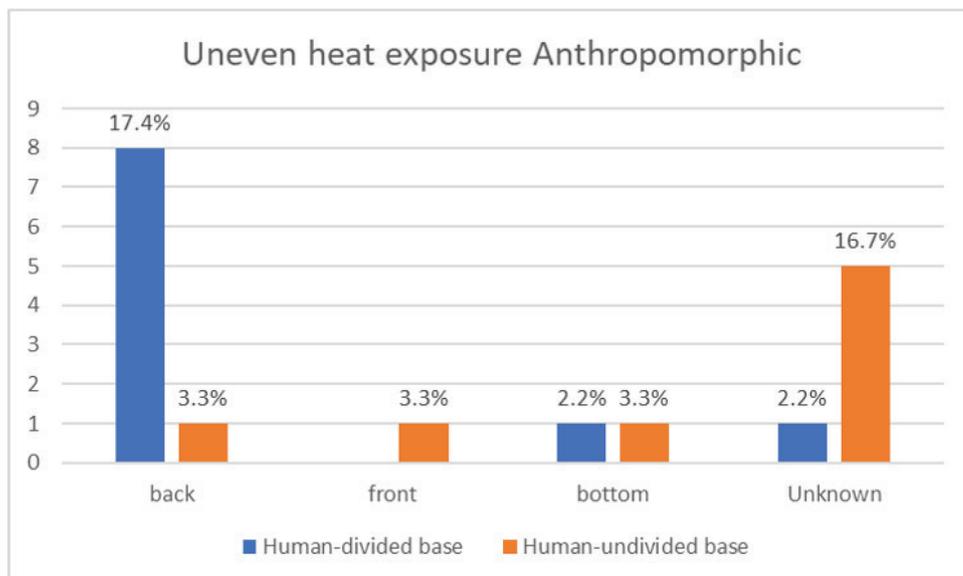


Figure 5.18: Anthropomorphic figurines showing uneven heat exposure

### 5.3.4 PHALLOMORPHIC FIGURINES: PRODUCTION

There is little to note on the shaping of phalломorphic figurines. There is no indication of tool use on these objects and they are all seemingly made from one single piece of clay. No clear markings related to shaping is seen on the objects. There are two instances of fingernail impressions which are not related to shaping and one instance of fingerprints is recorded.

Four out of the six objects are smoothed and two objects, one of undetermined clay and the other upper alluvial, are rough. None of the objects has additional surface treatment. Heat exposure is recorded on four objects (table 5.121). Uneven heat exposure is recorded for one object, seen along its length.

### 5.3.5 GEOMETRIC OBJECTS: PRODUCTION

#### Shaping, smoothing and additional surface treatment

Geometric objects are always made from a single piece of clay. Tool use is recorded only four times. Two times on conical objects: 12988.H8 has a large perforation on one end (fig. 5.19: 1) and the other has a small divot on the surface, originally interpreted as a navel. On the two cylindrical objects, geometric lines are incised on one object (13139.H5) and burnish is recorded on the other (14183.H3; fig. 5.19: 2 and 3).

Objects are generally well smoothed. There are relatively more rough surfaces than in other figurine types and also there is a higher percentage of marl objects that are roughly smoothed than we see in other categories. (table 5.122-5.123). No fingernail impressions related to shaping are seen. There are 17 objects with fingerprints.

One conical object has a possible slip layer and one cylindrical object has possible slip and paint, however, these designations are very tentative.



Figure 5.19: Tool use seen on geometric objects. 1: 12988.H8, perforation; 2: 13139.H5, incisions; 3: 14183.H3, possible smoothing marks. Image by author, original photos courtesy of the Çatalhöyük Research Project

## Heat exposure

Low percentages of geometric objects are recorded as unbaked. Across conical and cylindrical objects and clay types substantial numbers are baked (table 5.124-5.125). Uneven heat exposure is recorded in 16 instances, six times on conical objects and 10 times on cylindrical objects. Most often the uneven heat exposure is seen along one side, in five instances the most heat exposure is seen on one end or the bottom of the object (fig. 5.20).

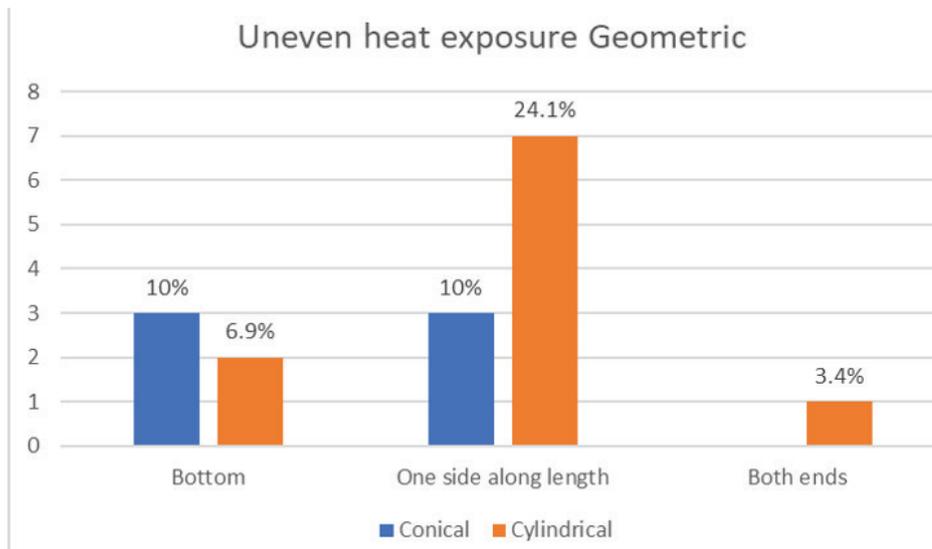


Figure 5.20: Geometric objects showing uneven heat exposure

### 5.3.6 INDETERMINATE OBJECTS: PRODUCTION

#### Shaping, smoothing and additional surface treatments

Within the corpus of indeterminate objects there are few examples of composite pieces. Two possible anthropomorphic pieces have two (roughly) cylindrical pieces (legs?) that were pressed together (pictured here is 12971.H4; fig. 5.21: 8). Another possible anthropomorphic piece, 5497.H7, could be an arm with the lower and upper arm made separately and pressed together (fig. 5.21: 2). There is one, likely zoomorphic, fragment that could be a horn with an attached ear. Finally, one potential abbreviated head fragment has an applied flap, perhaps a head element (18152.H5; fig. 5.21: 1).

Tool use is predominantly recorded on possible anthropomorphic objects (n=12). Six objects have finely made punctures reminiscent of the head fragments within the anthropomorphic corpus, shown here 5497.H7, 3366.H1, 5049.H1 and 5321.H3 (fig. 5.21: 2-5). Two objects have incised grooves that could be an elaboration of body fragments, shown here is 12980.H7 (fig. 5.21: 6). Three have incised lines that could delineate features; a possible arm incised, a possible leg with an incision to delineate the upper and lower leg as well as the foot (for example 13103.H10; fig. 5.21: 7) and finally, an incision delineating possible buttocks. A final example shows signs of scraping which is likely related to smoothing the object.

Five more indications of tool use are recorded. One abbreviated or anthropomorphic piece has an incision, it is unclear if it is to delineate features. Two pieces, an anthropomorphic/zoomorphic and zoomorphic frag-

ment, have markings related to shaping the object. Two abbreviated objects show tool use, one has a dowel hole and the other has tool use possibly related to shaping the legs.

Objects are relatively less well smoothed than other categories. Possible anthropomorphic pieces are mostly smoothed to well smoothed, but across the other categories as well as across clay types substantial percentages are rough and roughly smoothed (table 5.126-5.127). No clear fingernail impressions related to shaping can be seen. There are 47 instances of objects with fingerprints, which occur most commonly on lower alluvial clays (n=11, 42.3%), followed by undetermined clay types (n=29), marl (n=5) and one black organic object. The objects with fingerprints are mostly well smoothed (n=29) and baked or indeterminate heat exposure (n=22 and 21).

Additional surface treatment is rare, recorded 11 times, only three times additional surface treatment can be seen. Two objects, one anthropomorphic and one abbreviated/zoomorphic piece have slip (shown here 3366.H1; fig. 5.21: 3) and paint (5321.H3; fig. 5.21: 5) and one zoomorphic piece has a clear slip. Six further objects have a possible slip layer and two objects have possible paint which could also be some red staining (18152.X2; fig. 5.21: 9).



Figure 5.21: Composite pieces, tool use and additional surface treatment on indeterminate objects. 1-2: 18152.H5, 5497.H7: composite pieces and punctures on 2; 3-5: 3366.H1, 5049.H1, 5321.H3, punctures, likely slip layer on 3; 6: 12980.H7, grooves as elaboration; 7: 13103.H10, possibly indication of foot and lower leg; 8: 12971.H4, paint; 9: 18152.X2, paint or staining. Image by author, original photos courtesy of the Çatalhöyük Research Project

## Heat exposure

Possible anthropomorphic fragments are only recorded as baked or indeterminate. The other categories show small percentages of unbaked fragments as well as burnt pieces around 10% for each category (table 5.128-5.129). Uneven heat exposure is recorded in 30 instances. Because of the fragmentary nature of these objects, any patterning is not ascertainable, most often it appears patchy or along one side of the fragments.

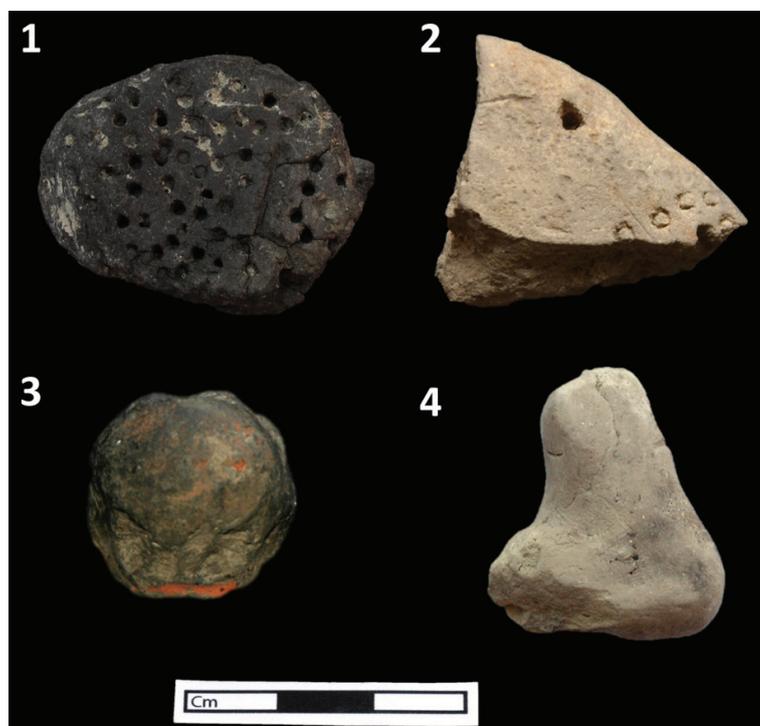
### 5.3.7 UNCLEAR OBJECTS: PRODUCTION

#### Shaping, smoothing and additional surface treatment

There is only one clear composite fragment; a cylindrical fragment with a thin flap that has been applied. One other object potentially has an applied element (leg?).

Tool use is recorded on 10 objects. Two objects have a perforation or dowel hole. Decoration in the form of incisions is recorded one time. Impressed circles, made with a hollow implement is recorded three times (for example 18628.H1; fig. 5.22: 2). Interestingly, this type of elaboration is very rare within the entire corpus, the only other occurrence being on an anthropomorphic figurine. One object has additional elaboration in the form of two grooves. Punctures are recorded two times (pictured here 18326.H1; fig. 5.22: 1) and, finally, smoothing is recorded once.

Smoothing levels are similar to patterns seen within other categories. Black organic clay fragments are more roughly smoothed, contrasting with the lower alluvial and marl clays which are smoothed to well



smoothed (table 5.130). There are two recorded instances of fingernail impressions related to production. One object has fingernail impressions related to pinching out a small element and one object is covered with fingernail impressions that are arranged in straight lines along the object. Fingerprints are recorded 14 times. Additional surface treatment is recorded on ten objects: five instances of slip (four times tentatively), one of self-slip (999999.H245; fig. 5.22: 4), one of paint (123971.H1; fig. 5.22: 3) and two possible cases of slip and paint.

Figure 5.22: Tool use and additional surface treatment on unclear objects. 1: 18326.H1, punctures; 2: 18628.H1, impressions and perforation; 3: 123971.H1, paint; 4: 999999.H245, possible self-slip. Image by author, original photos courtesy of the Çatalhöyük Research Project

## Heat exposure

Heat exposure is recorded across all clay types, although for the majority of objects heat exposure is recorded as indeterminate (table 5.131). Uneven heat exposure is recorded 11 times. As with the indeterminate objects, fragmentation makes it difficult to say anything meaningful about the nature of this uneven heat exposure. Colour differences appear as patchy or along one side of the fragments.

### 5.4 ANALYSIS FIGURINE PRODUCTION ÇATALHÖYÜK: CONCLUSIONS

Zoomorphic figurines are complex items with many small elements such as ears and horns and as such, they are relatively more often composite than abbreviated figurines. The anthropomorphic figurines are also often composite, but their elements are well smoothed into the main piece. Even so, zoomorphic figurines are not as often visibly composite as one might expect. Abbreviated figurines are the most simple shapes to create and are mostly made of one piece of clay. Clear relations between clay types and composite pieces are not visible.

Tool use is seen across figurine types in low numbers and most commonly on anthropomorphic figurines and it is mostly related to indicating facial features and creating or accentuating bodily features.

The level of smoothing often correlates to clay types. As a whole, the zoomorphic figurines, most often made from coarse black organic clay, are therefore relatively less smoothed than the other figurine types. However, there is a lot of variability, and instances of extremely well-smoothed objects occur within the zoomorphic corpus. We can also note that black organic clay across types is hardly ever smoothed using tools. In contrast to smoothing levels, additional surface treatment is more strongly related to figurine type; the anthropomorphic category is the only one where it was observed in substantial numbers.

Heat exposure is not related to figurine type or clay type. Across all types, heat exposure is observed and the percentages of baked objects are around a third for zoomorphic and abbreviated and over half for anthropomorphic figurines. Heat exposure often occurred uneven, either parts of objects are more exposed to heat, or differing oxidising and reducing conditions caused colour differences. There is no correlation between the uneven heat exposure and a specific side (back, front, etc.) of figurines. However, zoomorphic figurines often show differences in colours on their right/left sides. For abbreviated and anthropomorphic figurines, the patterns are obtuse but differences are mostly observed along the length of objects. This does not necessarily help answer the question of whether heat exposure is related to production or use. In the following sections, the potential link between heat exposure and use-wear and contexts will be analysed to help us answer this question.

## 5.5 ANALYSIS FIGURINE USE-WEAR ÇATALHÖYÜK: INTRODUCTION

Use-wear is seen on objects in three main categories: 1) punctures, gouges and breakage; 2) polish and 3) impressions. Punctures here are distinct from perforations, dowel holes and holes as an elaboration or indicating (facial) features. Instead, it is the acting upon objects that is important here, as is the case with gouges. It is often related to intentional breaking or pulling apart of the object and will be discussed in conjunction with gouges. Punctures and gouges were made when clay was plastic or slightly leather hard. Likewise, pulling figurines apart could not have been done when the figurines were completely dry, there are some instances however of very clear breaks which perhaps were broken through percussion when the clay was hard. These instances are discussed per figurine category.

Polish on (parts of) figurines is likely related to handling the object, therefore distinct from burnishing. It is not always easily recognisable on objects and relating it to the use of figurines is not straightforward. In the database and through personal observations the occurrence of polish can be securely established, seen as very shiny, darker surfaces. These markings were created through time, although how long is hard to say, when objects were likely leather hard.

Impressions come primarily as fingernail impressions. These at times are related to shaping objects (as discussed in the previous section), however, there are instances where they are likely not related to the process of shaping, for example when they occur on otherwise smooth and flat surfaces. In both cases, they were created when the clay was plastic or at most leather hard. Much more rare are impressions of cloth or matting. There are also instances of plant impressions, how they were created is often unclear, however they will be discussed here as potential clues on how and in what contexts figurines were used.

### 5.5.1 ZOOMORPHIC FIGURINES: USE-WEAR

#### **Punctures, gouges and intentional damage**

Within the zoomorphic corpus, 92 quadrupeds have punctures. The number of punctures ranges between one to three, but there are four exceptions: two objects have 11 punctures, one has 19 and another example has 20. There is no clear pattern in the placement of punctures; they are found on the left side on 35 objects, 27 times on the right side and 11 times on both. They are most often found on the body and the flanks in particular (see fig. 5.23). There are 67 objects with gouges, contrary to punctures the amount of gouges is restricted to one or two per object (for 16 objects the number of gouges was not recorded). The placement of gouges largely mirrors the placement of punctures and there is no clear sidedness: 12 times they occur on the left, 16 times on the right and once on both sides of objects.

Punctures and gouges occur on other zoomorphic types as well, albeit less frequently. In two instances punctures occur on bucrania, on horns they are present in 11 instances and four times they are present on indeterminate pieces. Gouges occur once on bucrania, eight times on horns and four times on indeterminate

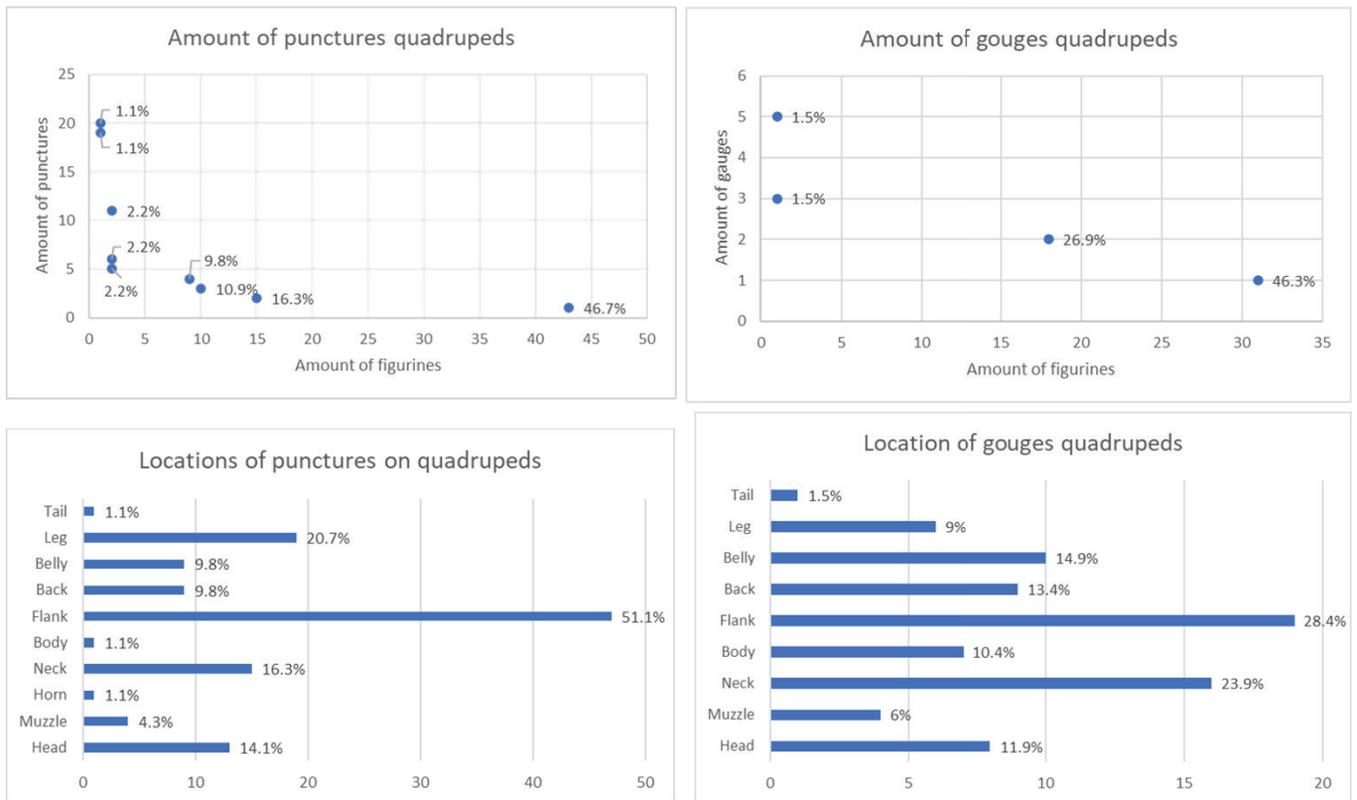


Figure 5.23: Amount and placement of punctures and gouges on quadrupeds

pieces. On horn fragments and indeterminate pieces, they occur together twice.

Gouges and punctures occur most often on black organic clay, however, on marl clay objects they are very rare (table 5.132). When we compare the presence of punctures and gouges to smoothing levels it is clear that rough and roughly smoothed figurines are most often punctured and gouged. Whilst punctures and gouges occur across smoothing levels, the percentages are markedly lower for well-smoothed figurines (table 5.133). There are substantial numbers of baked and burnt figurines with punctures and gouges (table 5.134). This allows us to partly reconstruct the *chaîne opératoire* for these objects as heat exposure occurred after they were punctured/gouged. This puncturing and gouging occurred when the clay was plastic, perhaps at times leather hard, but certainly not after the clay was exposed to heat.

In total 45 quadrupeds are very likely intentionally broken or pulled apart (six of these instances are tentative). Breakage occurs mostly as removing the head (24 objects), in a further six instances part of the head was removed. The body was broken in half in nine instances and part of the body was damaged two times. There are two occurrences each of intentionally damaged horns and legs.

There are 13 broken objects with punctures and 26 have gouges. In 24 instances gouges are present in the fractured x-sections, indicating the elements were either gouged off, gouged and then broken/pulled off, or the gouges contributed to the break at some later point, for example 18377.X9 and 32128.H1 (fig. 5.24: 7-8). There is a subset of figurines that has a very clean break through the neck or head in 12 instances, pictured here 10238.X1, 14559.H1, 16995.X11, 23037.H1 and 16741.H1 (fig. 5.24: 1-5) and three times through the body (for example 15400.X14; fig. 5.24: 6). Contrary to the damage done when the clay is still plastic, in

these instances this breaking seems to have occurred when the clay was hardened to some degree. Six of these objects are indeed baked and one is burnt. Only one is recorded as unbaked and the remainder has indeterminate heat exposure. Without clear markings, this type of breaking is more tentatively interpreted as intentional.

Intentional breaking of figurines is seen across clay types in small percentages, except upper alluvial clay. Breakage occurs most frequently on figurines with a rough surface finish and is relatively most common on unbaked figurines. However, the low number of instances in the large dataset does not show clear patterns (tables 5.134-5.137). When we take into account only the quadrupeds the relative proportions across clay type, smoothing levels and heat exposure stay the same.

Deformation is recorded 27 times on quadrupeds, twice on bucrania and three times on indeterminate pieces. Pieces are completely flattened, or parts of the object are deformed. On quadrupeds, there are 10 instances where especially the legs have been deformed whilst the clay was still plastic, for example 999999. H27, 20489.H3 and 4121.D4 (see fig. 5.24: 9-11). The percentages of deformation are similar to those of breakage across clay types, smoothing levels and heat exposure. A final three quadrupeds are both broken and deformed. In all three instances, the object is flattened and the head is pulled off.



Figure 5.24: Intentional damage on zoomorphic figurines. 1: 10238.X1; 2: 14559.H1; 3: 16995.X11; 4: 23037.H1; 5: 16741.H1; 6: 15400.X14; 7: 18377.X9; 8: 32128.H1; 9: 999999.H27; 10: 20489.H3; 11: 4121.D4. Image by author, original photos courtesy of the Çatalhöyük Research Project

## Polish

Polish is very rare on zoomorphic figurines. It is recorded on quadrupeds (n=28), horn fragments (n=19) and indeterminate pieces (n=5). There is not much information on the location of the polish on objects, but it occurs most commonly on body fragments. Polish is found only on lower alluvial (n=20), marl (n=7) and undetermined (n=25) clay types. Polish is not related to the smoothing level of objects, although most objects are well smoothed (n=24) and smoothed (n=18), there are also 10 objects which are only roughly smoothed. Half of the objects with polish are baked, a further six are burnt, 19 have indeterminate heat exposure and one is unbaked.

There are only a few figurines with polish that have been intentionally damaged: five are intentionally broken and four have punctures and/or gouges. This confirms the idea that objects were shaped and then damaged when still semi-plastic and not handled much. Perhaps they were discarded directly (or shortly after) the act of damaging them.

## Impressions related to use

There are 47 objects where fingernail impressions seem unrelated to shaping. The intentionality of fingernail impressions is not always clear. Perhaps through handling the object at times faint fingernail impressions can occur. There are some very deep fingernail impressions on objects which seem intentional. The nature of these fingernail impressions on quadrupeds is different from punctures and gouges as they do not seem to be intended to 'damage' the objects. There are some examples where punctures, gouges or intentional breaking/deforming co-occur with fingernail impressions: in 24, 23 and 14 instances respectively. Most commonly only one or two fingernail impressions are seen, some objects are recorded as having 'many' and they occur mainly on otherwise (relatively) smooth surfaces of the flanks or back of objects (fig. 5.25).

Fingernail impressions occur on other zoomorphic types in substantially lower numbers: they are recorded only twice on bucrania and five times on indeterminate pieces and seem unrelated to shaping. Fingernail impressions occur relatively more often on marl clays compared to other types of use-wear: 29 objects within the zoomorphic corpus (15.7%). There are no clear patterns related to smoothing levels and heat exposure.

Plant impressions occur in small numbers across zoomorphic figurine types. In most instances the nature of these plant impressions is uncertain. There are mentions of 'chaff' impressions, which at least indicates anthropogenic material was impressed and the impressions are thus not organic inclusions as chaff was not used as temper. However, mentions of blades of grass or the like could in some instances be (lost) organic inclusions. Alternatively, they were placed up against plant material whilst the clay was still plastic as seen on objects 14186.X15 and 11626.H1 (fig. 5.26: 3-4). There are a few instances of note within the dataset. There are three quadrupeds and one horn fragment with a grain kernel impression. These are deep impressions, which is difficult to interpret as being accidental and they are also unlikely to have been inclusions. It seems

that the kernel was pressed into the clay, shown here are 13159.X8 and 16534.H4 (fig. 5.26: 1-2).

In one instance a quadruped is mentioned to have been 'up against organic material', but the photos are inconclusive. Finally, there are a few mentions of possible imprints of matting/textile: once on quadrupeds (for example 14186.X15), twice on horn fragments (shown here 11626.H1), and once on an indeterminate fragment, object 32125.H5 (see fig. 5.26: 5-7).

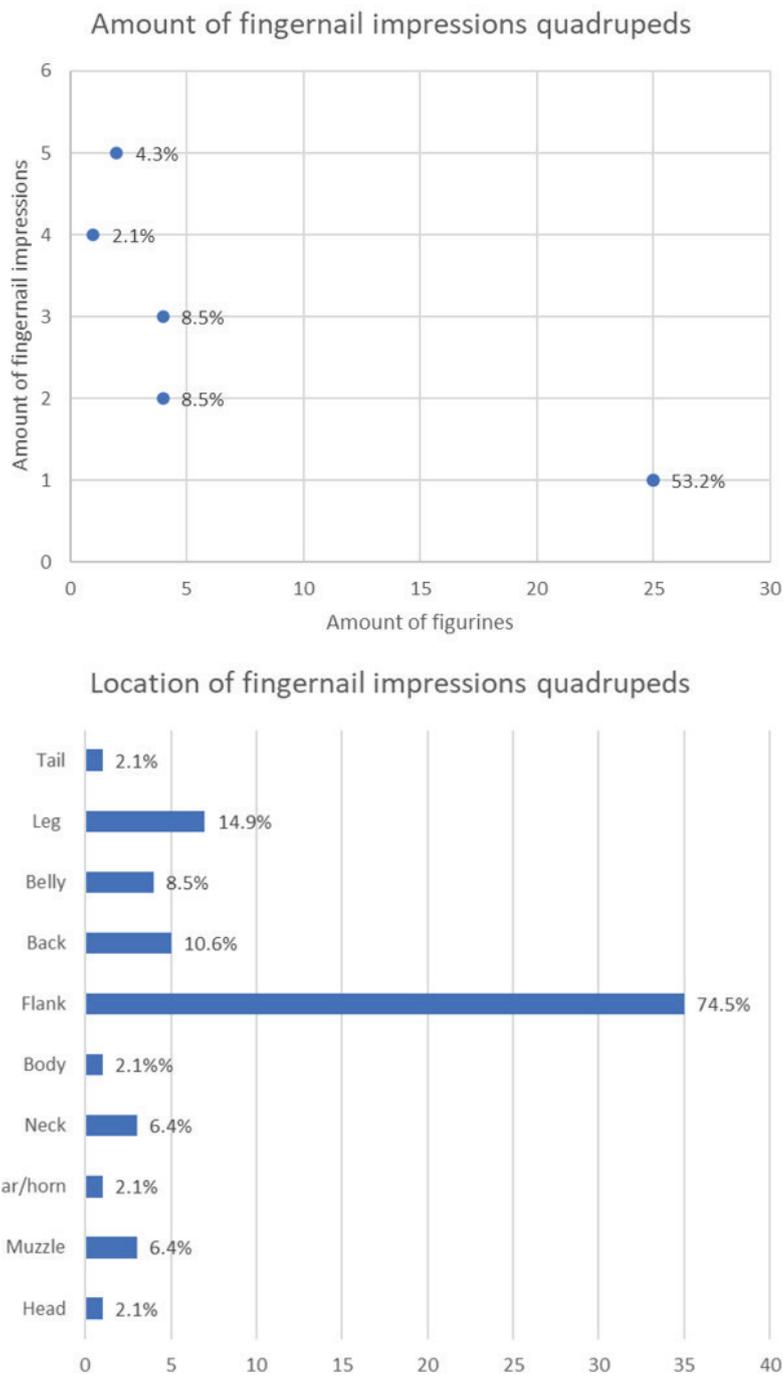


Figure 5.25: Amount and placement of fingernail impressions on quadrupeds



Figure 5.26: Examples of impressions (not to scale). 1-2: 13159.X8, 16534.H4, grain kernel/seed impressions; 3-4: 14839.H1, 12946.H1 (plant/grass impressions); 5-6: 14186.X15, 11626.H1 (possible textile impressions); 7: 32125.H5, possible matting impressions. Image by author, original images of the Çatalhöyük Research Project

### 5.5.2 ABBREVIATED FIGURINES: USE-WEAR

#### Punctures, gouges and intentional damage

Punctures and gouges occur in low numbers within the abbreviated corpus. They are different in nature compared to the punctures and gouges seen on zoomorphic figurines as they are not clearly related to ‘damaging’ objects.

A total of 59 out of the 611 abbreviated objects have puncture marks. The vast majority only has one puncture mark, 13 have two and one object has three. Almost half ( $n=25$ ) of the objects with punctures have them on their torso (see fig. 5.27). Punctures occur front and back, left and right in roughly equal numbers. Gouges are even rarer ( $n=24$ ), they are seen almost exclusively on the torso area ( $n=20$ ) and are often shallow along the length of objects. Punctures and gouges co-occur three times on head on divided base objects. They are by far the most common on black organic clay. There is no correlation between smoothing levels and heat exposure (table 5.138-5.141).

Intentional breaking and deforming of abbreviated figurines are very rare, occurring 15 and nine times across the corpus. Intentional breaking is recorded four times for head on base objects, eight times for head on divided base and three times for indeterminate objects. As with zoomorphic figurines, there are different ways in which figurines were damaged. In three instances a gouge is seen in the fractured area such as with 12540.X2 (fig. 5.28: 5). In six instances a clean cut is seen removing the head, or the upper part of the head (shown here are 4465.H3 and 18508.X1; fig. 5.28: 1-2). In another three instances, the head is pinched/pulled off from the torso (see fig. 5.28: 3-4; 1037.H1 and 32123.H1). Only on two figurines was part of the base/leg intentionally removed, shown here 19347.X4 (fig. 5.28: 6).

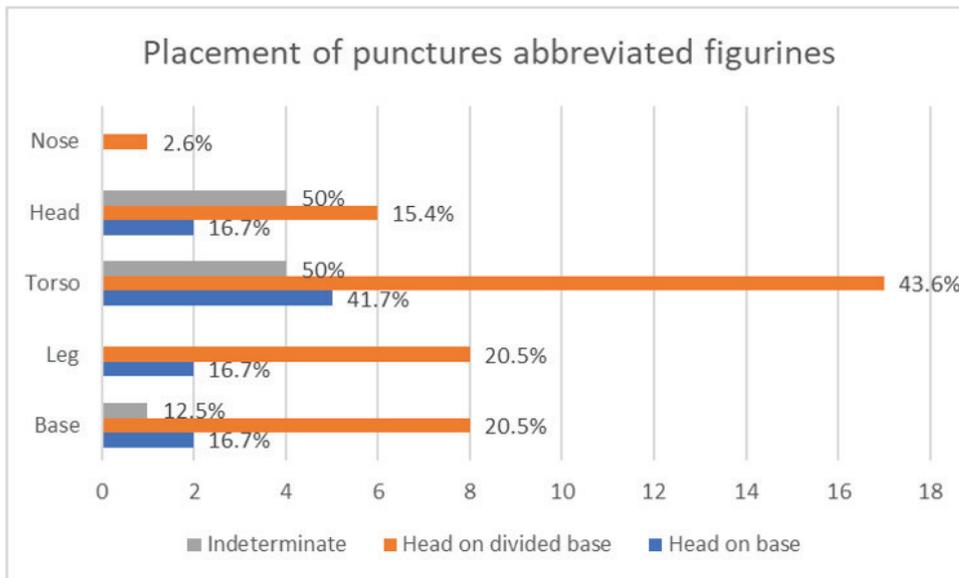


Figure 5.27: Placement punctures on abbreviated figurines

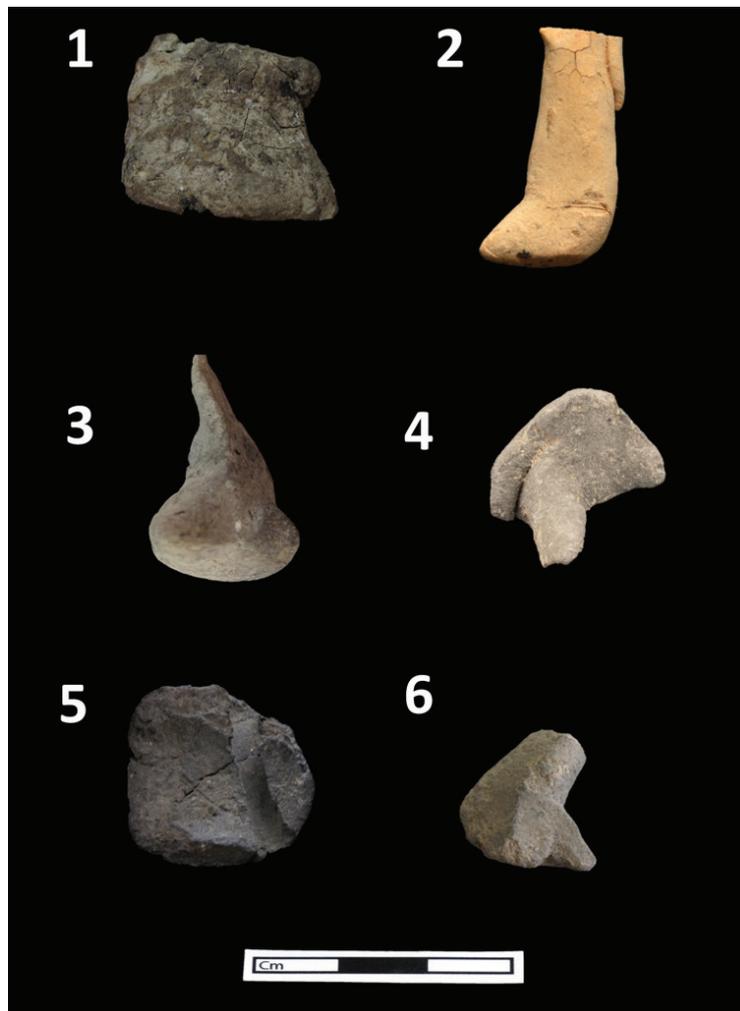


Figure 5.28: Intentional breakage. 1-2: 4465.H3, 18508.X1, clean cut through head; 3-4: 1037.H1, 32123.H1, head pinched off; 5: 12540.X2, gouge through base; 6: 19347.X4, part of base/leg sheared off. Image by author, original photographs courtesy of the Çatalhöyük Research Project

Five of the broken objects have gouges and only one object has a puncture, and thus there is no clear link between puncturing/gouging and breaking objects. In total 9 figurines are deformed or flattened, four objects are recorded as appearing unfinished and deformed.

The majority of damaged figurines unfortunately do not have a clay type assigned, so patterning does not become apparent. One thing to note is that no black organic objects are broken/deformed but four out of the five abbreviated black organic figurines have punctures and/or gouges. There is also no clear link between heat exposure or smoothing levels (tables 5.142-5.143).

## **Polish**

Polish occurs in roughly equal percentages across types: head on base has 16 objects with polish (15.9%), the head on divided base has 30 objects (8.4%) and indeterminate pieces number 10 (11.6%). The pieces with polish are predominantly smoothed to well smoothed; 46 out of the 56 instances. Six objects are roughly smoothed. Tentatively, three objects with burnish also have handling polish, however, it is hard to determine from the photographs. There is no clear link between heat exposure and polish on objects.

There are 30 objects that are described as being shiny all over, or 'the surface has a sheen'. There are some objects which are polished to a point that they almost appear burnished. It is more difficult to make the case for polish as being part of use-wear when it occurs on an entire object. When objects only have patches of polish it occurs on all parts of the figurines without a clear pattern.

In the category of abbreviated figurines, intentional damage and puncturing/gouging are separated from objects acquiring polish. None of the polished objects has been intentionally broken/deformed and punctures and gouges occur very seldomly on polished objects: seven and two instances respectively.

## **Impressions related to use**

There are 64 objects with fingernail impressions that seem unrelated to production (table 5.144). Information on the number of fingernail impressions is lacking for 12 objects, three of these are described as having 'several' or 'many'. The location of fingernail impressions is unknown for four objects. Most have 1 or 2 fingernail impressions: 33 (two object descriptions note that there are likely more) and 10 figurines respectively. Six objects have three fingernail impressions and another six objects have four. Fingernail impressions occur predominantly on the torso area of figurines on otherwise smooth surfaces (fig. 5.29).

Plant impressions occur a total of 41 times. Most of the mentions of plant imprints are ambiguous: there are some clear plant impressions, how they were created is unknown. Likely, the objects were up against plant material in some instances, for example 1832.X6, 18508.X1 and 23143.H42 (fig. 5.30: 4-6). There are some interesting observations. First, there are four objects with grain kernel impressions (shown here 12540.X2, 17253.X1 and 32114.H13; fig. 5.30: 1-3). Second, there are five mentions of plant impressions on the bottom of the base of figurines and there is one clear example, object 22332.H1 (fig. 5.30: 7) with impressions of organic material or matting. Finally, there are two mentions of the object being perhaps wrapped in material.

The objects with other impressions, numbering 22 objects, are again ambiguous. There are two interesting examples where it appears that maybe there is an impression of a string around the object: 19346.X2 and 8699.H7 (fig. 5.30: 8-9). There are no clear patterns between clay types, smoothing levels or heat exposure (table 5.145-5.147).

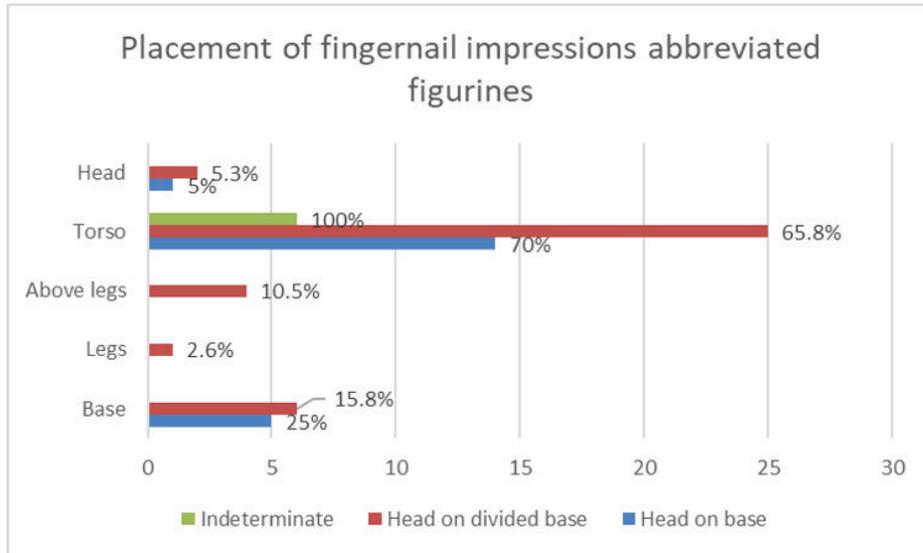


Figure 5.29: Placement of fingernail impressions on abbreviated figurines

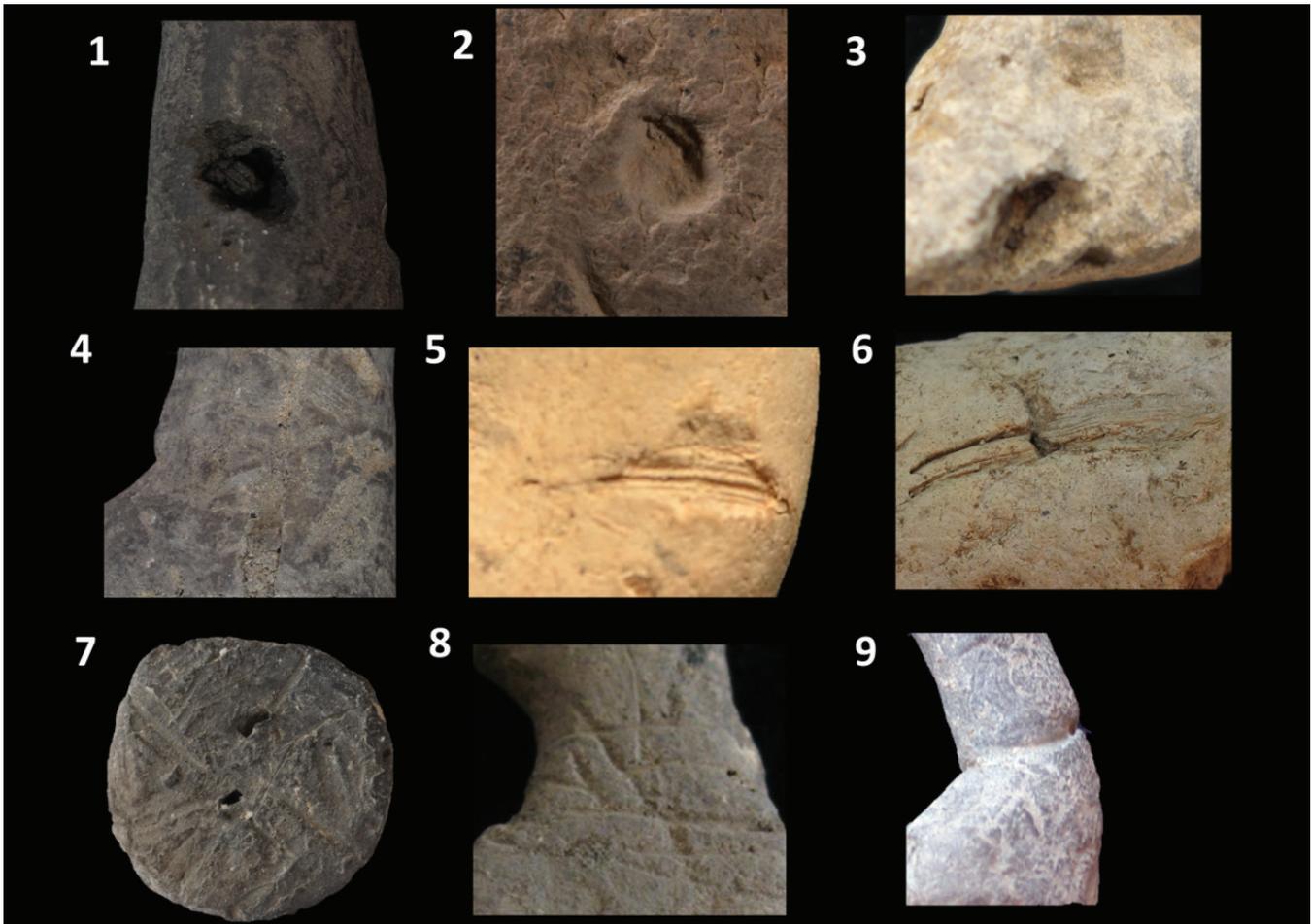


Figure 5.30: Plant impressions and impressions abbreviated figurines (not to scale). 1-3: 12540.X2, 17253.X1, 32114.H13, grain kernel impressions; 4-6: 1832.X6, 18508.X1, 23143.H42, plant impressions; 7: 22332.H1, possible impression of matting; 8-9: 19346.X2, 8699.H7, possible impression of string. Image by author, original images courtesy of the Çatalhöyük Research Project

### 5.5.3 ANTHROPOMORPHIC FIGURINES: USE-WEAR

#### Punctures, gouges and intentional damage

Punctures and gouges are extremely rare on anthropomorphic figurines, occurring a total of 14 and five times across the corpus (table 5.148). In eight instances there is one puncture, in three instances there are two and for two objects the amount is unknown. There is no clear patterning to where punctures were made. Most commonly they occur on the base (n=4), twice on the head, back and on the body (unspecified where exactly) and once a puncture is recorded under the breast of a figurine and once on the neck area.

Gouges occur on the back, base and neck of figurines. In three instances only one is seen, two gouges are recorded once and one object has (at least) four gouges. All the instances of punctures and gouges occur on objects found during the Hodder excavations. This might be explained by less detailed information for Mellaart objects, however, the available photos never show clear punctures or gouges. Within the anthropomorphic type, there is a clearer link between smoothing levels of figurines as opposed to other categories: 36.4% (n=4) of the roughly smoothed figurines have punctures, for the smoothed and well-smoothed objects this is substantially lower: only 6.9% and 4.2% respectively (six and four objects).

In only one instance is the removal of a head linked to a gouge seen in the fractured area of the neck. Evidence for intentional breaking and deforming of figurines is only recorded three times. In these instances, the pinching and pulling of the head/neck area can be seen.

There are potentially more examples of head removal on the Mellaart figurines as at times a clean break of the neck area can be seen. Based solely on the photographs it is difficult to say for certain. It is clear that 'headlessness' is a theme within the anthropomorphic corpus, indicated by the many examples with dowel holes as well as stone figurines where the head was intentionally removed. Within the human-divided base, type there are six such objects. In two instances the area is slightly concave: they were intentionally headless or the head was very carefully removed. In all cases, the breaks are clean and straight, but again it is difficult to say if the heads were intentionally removed.

#### Polish

Polish is recorded across the different types, most commonly on the human-divided base figurines (n=25, 40.3%), followed by human-undivided base (n=15, 27.3%), indeterminate pieces (n=7, 23.3%) and heads (n=2, 14.3%). As discussed earlier, the distinction between polish and burnish is sometimes hard to make on these objects. There are 16 objects that are recorded as partly polished. The location of this polish is predominantly on various parts of the body and base and there are two separately made heads with patches of polish. The other examples (except for five objects where the location of polish is unclear) are recorded as having a 'shiny surface', or having polish all over.

## Impressions related to use

Fingernail impressions not related to production are recorded on only four objects, thrice on a human-undivided base and once on a human-divided base. In three instances there is a clear fingernail impression seen on the back, one object has potentially more impressions on the front of the torso. The two other occurrences mention an unspecified number of possible fingernail impressions on the body.

There are 18 recorded examples of plant impressions, four of these are grain kernel/seed impressions, shown here 13142.H3, 13161.H3 and 10663.X1 (fig. 5.31: 1-3). There are a few objects with clear plant impressions that run along the torso/back of figurines, which are not lost inclusions such as 30868.H1 and 12466.H1 (fig. 5.31: 4-5), and in one instance, 16806.H1, there seem to be smearing marks (fig. 5.31: 6).

There are five objects with other impressions. Two objects, found in the same unit: 1873.H1 (fig. 5.31: 7) and 1873.H20 (not pictured), have opposing crescent-shaped impressions on the bottom of the base; perhaps they were placed on some textured surface. There is one final interesting imprint seen on one of the Mellaart figurines, object 999999.H63 (fig. 5.31: 8): parallel, slightly wavy lines run horizontally across the

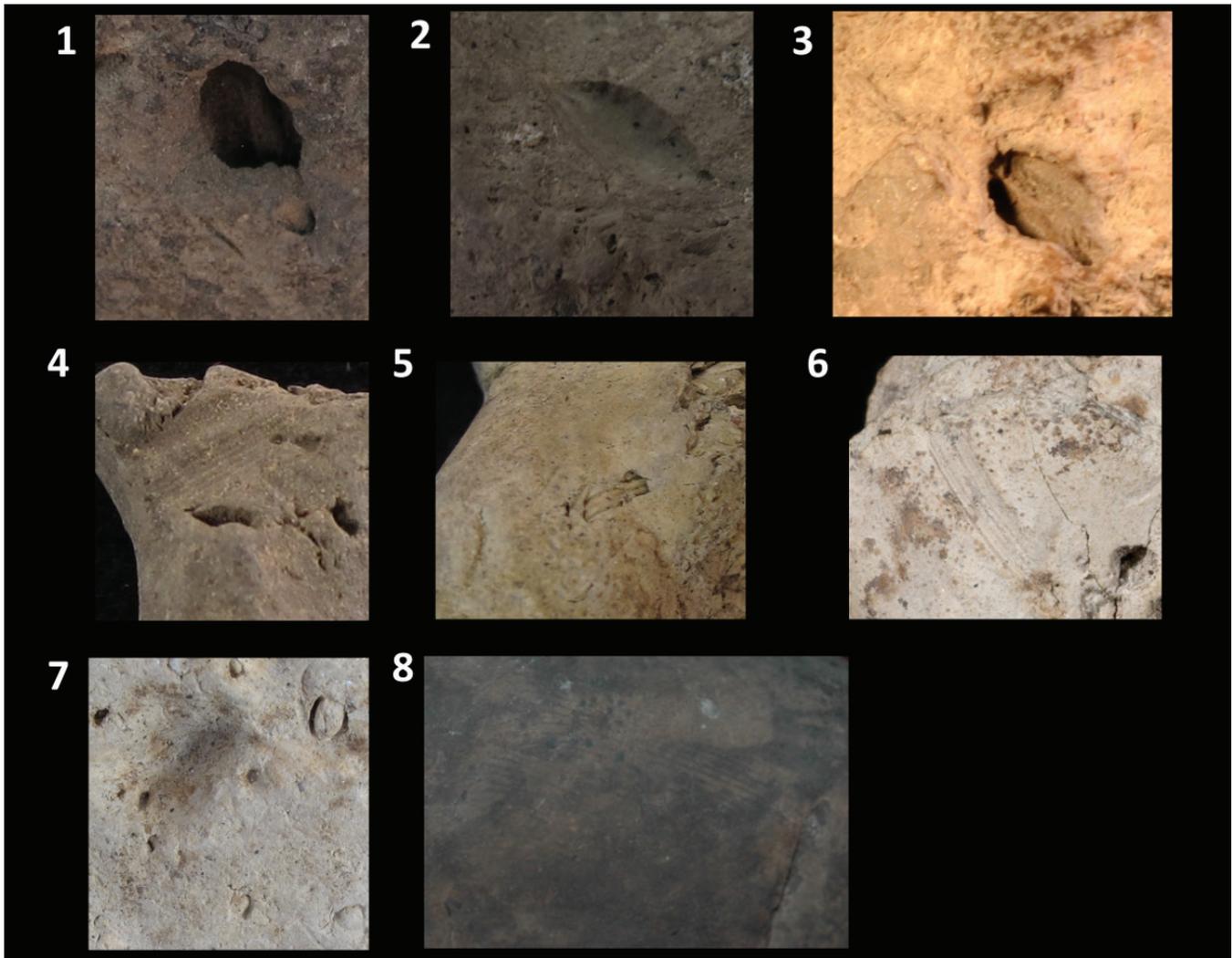


Figure 5.31: Plant impressions and impressions anthropomorphic figurines (not to scale). 1-3: 13142.H3, 13161.H3, 10663.X1, grain kernel impression; 4-6: 30868.H1, 12466.H1, 16806.H1 (plant impressions); 7: 1873.H1, possible impression of matting; 8: 999999.H63, possible impression of textile. Image by author, original images courtesy of the Çatalhöyük Research Project

back of the object. Perhaps this is an imprint of a textile.

#### 5.5.4 PHALLOMORPHIC FIGURINES: USE-WEAR

There is very little visible use-wear on phalломorphic objects. On one object some punctures are seen on the base and shallow gouges are seen all over the object. There is one object with fingernail impressions, it is unclear how many. They are present on an otherwise smooth surface, so most likely not related to shaping the object. There are three objects with plant impressions, but on two objects at least some of these are lost inclusions seen in very coarse black organic clay.

#### 5.5.5 GEOMETRIC OBJECTS: USE-WEAR

Six conical objects have a single puncture mark each. A gouge is seen on one conical object and one cylindrical object. In both instances, the gouge might have contributed to breaking the object. There is no link between clay type, heat exposure or smoothing levels.

Three conical and three cylindrical objects have polish, in all instances, the object is described as having a 'shiny surface'. In one instance the object is very polished and it almost appears burnished.

Seven objects have plant impressions; two conical and five cylindrical objects. There are two notable instances, 30823.X1 and 12988.H7, where very deep pronounced impressions are seen (fig. 5.32: 1-2), in one instance (30823.X1) there might also be a string impression of some sort. There is one other impression recorded on cylindrical object 12526.H3. These do not show up clearly on the photograph (fig. 5.32: 3), but the entire fragment is covered in parallel lines, interpreted as perhaps a textile imprint.



Figure 5.32: Plant impressions and impressions geometric objects. 1-2: 30823.X1, 12988.H7, plant impressions and no 1 possibly a string; 3: 12526.H3, possible textile impression. Image by author, original images courtesy of the Çatalhöyük Research Project

### 5.5.6 *INDETERMINATE OBJECTS: USE-WEAR*

#### **Punctures, gouges and intentional damage**

Punctures and gouges are recorded 13 and 11 times respectively. They occur in small percentages across the corpus (table 5.149). There is no clear link between clay types, but of note is that 33.3% of the black organic figurines have punctures. Punctures occur once in nine instances and four objects have two punctures. In all four cases of intentional damage, a gouge is seen in the fractures. There are an additional nine objects that have been intentionally flattened.

#### **Polish and impressions**

Polish is recorded in 12 instances across the corpus. Proportionately it occurs most commonly on fragments deemed as possibly anthropomorphic: four objects (21.1%). Polish is mostly recorded as occurring on parts of the object, patterning is lacking.

Fingernail impressions are only recorded on five objects. Only one fingernail impression is mentioned on each of these objects. Plant impressions occur primarily on possible zoomorphic fragments: in 12 out of the 18 instances. There is one object, 5417.H4, with a possible seed/grain impression (fig. 5.33: 1), and some instances of very clear plant impressions such as 13127.H2 and 999999.H223 (fig. 5.33: 2-3). There is one mention of a very thin curving impression on object 999999.H220; perhaps a string, or a thin plant impression (fig. 5.33: 4). There are six other impressions, the nature of which is unclear from the available information and photographs. There is one likely example of matting impressed on one side of the object (13139.H4) and another (12988.H19) with many deep thin impressions on one side, which alternatively are incisions (fig. 5.33: 5-6).

### 5.5.7 *UNCLEAR OBJECTS: USE-WEAR*

#### **Punctures, gouges and intentional damage**

Seven unclear objects have puncture marks. There is one object with many punctures covering one side of the object, at least 36 could be discerned on the photograph. Four objects have gouges, two are mentioned to have multiple but the photographs do not show them clearly. Intentional breakage is not recorded in this category, however, four objects seem to be flattened.

#### **Polish and impressions**

Polish is recorded on three objects, reported as having a 'shiny surface'. Three objects have fingernail impressions, the exact location on the object is unknown. Five objects are reported to have plant impressions, some sort of chaff impression can be seen on one object, for the other four the pictures are inconclusive. Seven objects have other impressions, again from the available information and photographs it is difficult to

determine their exact nature. There is one instance of cloth impression on object 15755.H9, seen as very fine impressions with weft and warp visible (figure 5.34: 1). Another possible cloth impression is recorded, the photographs do not show it clearly. A final example, 16898.H2, has very fine parallel impressions; perhaps related to smoothing or also impressions of cloth (fig. 5.34: 2).



Figure 5.33: Plant impressions and impressions indeterminate objects (not to scale). 1: 5417.H4, seed/grain kernel impression, 2: 13127.H2, plant impression; 3: 999999.H223, plant impression; 4: 999999.H220, plant or string impression; 5: 13139.H4, impression of matting; 6: 12988.H19, impressions or incisions. Image by author, original images courtesy of the Çatalhöyük Research Project

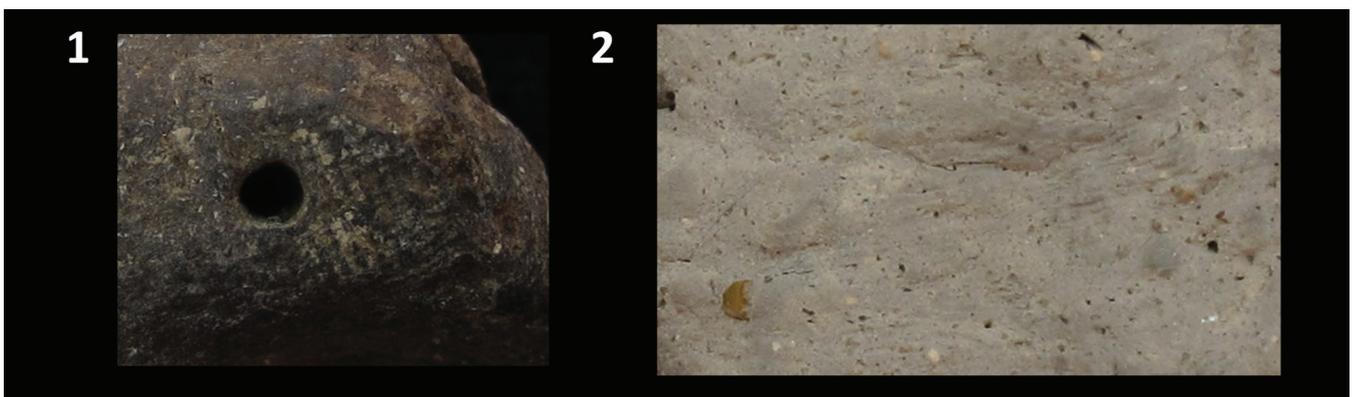


Figure 5.34: Plant impressions and impressions unclear objects (not to scale). 1: 15755.H9, cloth impression; 2: 16898.H2, parallel impressions; related to smoothing?. Image by author, original images courtesy of the Çatalhöyük Research Project

## 5.6 ANALYSIS FIGURINE USE-WEAR ÇATALHÖYÜK: CONCLUSIONS

Intentional ‘damage’ in the form of punctures and gouges can be seen in small amounts across types. However, only on zoomorphic figurines are the numbers substantial and, interestingly, this damage is seen more frequently on black organic clays.

The presence of one or several punctures on figurines is enigmatic. Whilst with zoomorphic figurines there is a link between intentionally damaging objects and puncturing them, in the other categories this link is less clear. This holds also for the presence of fingernail impressions not related to production. This implies manipulation of the objects when they were recently made and the clays were still (semi-)plastic. These markings again are much less common on anthropomorphic figurines, combining this with the fact that polish is most commonly seen on anthropomorphic figurines and very seldomly on zoomorphic figurines we might posit different life biographies where anthropomorphic figurines were in circulation longer acquiring polish through use. Zoomorphic figurines, in contrast, were more often made and manipulated in some way that left marks and then discarded.

The various markings of textiles, matting and strings are very interesting and offer tantalising insights into contexts and ways of using figurines. Figurines were at times perhaps wrapped in textiles or plant material (think of the long impression of grass blades), or even dressed or adorned. The string impressions might indicate figurines were suspended (and carried on the person?). The recording of these types of markings is extremely low and any patterns, therefore, remain elusive. However, it does offer interesting insights into the variety of ways in which figurines were used. Equally enigmatic is the presence of deep grain kernel impressions observed across types. These seem intentionally made and might be related to an unexplained practice where these kernels were pressed into the clay.

## 5.7 ÇATALHÖYÜK FIGURINES CONTEXTUAL INFORMATION: INTRODUCTION

As described in chapter four, figurines are assigned a unit number, these unit numbers are located within a space. At times the unit is located or associated with a feature, and units are recorded as being external or internal when associated with a building. Here the contexts will be described as: 1) external or in a building; 2) context type; 3) primary or secondary; 4) showing signs of burning.

### 5.7.1 CONTEXT LOCATIONS

Contexts are recorded as being inside buildings, external or unknown. Originally there was a distinction between ‘room fill’ and ‘midden in abandoned building’. These have all been changed to roomfills in buildings for two reasons: firstly the term ‘abandoned building’ was not consistently used and, secondly, be it deliberate infilling of a building or a midden building up through time when the building was not inhabited, there is no evidence or mention of figurines being intentionally placed.

Across all types, figurines are most commonly found in external areas. As already noted different excavation techniques were employed resulting in varying excavation records. Therefore the counts as presented in Figure 5.35, representing the site as a whole, skew patterning around frequency and context locations. Looking at the areas North, South and West (see table 5.150) we see that on the West Mound more figurines were found in houses as is the case in the TP area (subsumed under area South). This is also explained by research foci and the large open areas exposed in the 2006 season in the North and South areas which have increased the numbers in external contexts considerably (see Meskell et al. 2008).

Looking at the number of figurines in buildings, certain buildings have yielded a high number of figurines (table 5.151). The fill of buildings differs, although unfortunately the information was not recorded for all buildings in the excavation database. For buildings 1, 4 and 5 it was observed that the room fills were very clean, perhaps even processed and screened (Meskell *et al.* 2008, 114). Other houses were filled with midden deposits when they were not intended to be rebuilt. At times, the excavation method is a contributing factor to the number of figurines recovered, a clear example is building 3, which was excavated by the BACH team over several seasons.



Figure 5.35: Location of different figurine types. Phallomorphic is not shown (25%, n=2 were found in a building and 75% (n=6) were found in external areas

### 5.7.2 CONTEXT TYPES

In this thesis contexts have been standardised to 17 context descriptions:

- Storage features: the fill and make-up of bins, basins and niches
- Fire features: the fill and make-up of ovens and hearths
- Platform: the fill and make-up of platforms
- Room fill: all fill within buildings
- Floor: deposits found on or very near floors, potentially primary depositions
- Construction: walls, wall plaster, bricks and make-up/packing. It is often not clear if figurines were found as part of these constructional elements or found in collapse or dump. Make-up and packing is the fill under floors, used to create a surface to build upon. At times, the description in the database is difficult to interpret (e.g. is it a room fill related to the building below, or is it packing related to the floor of the building)
- Foundation cut fill: fill of cuts created to build (internal) walls
- Posthole fill: at times also recorded as 'post retrieval pit' when posts were removed as part of the dismantling or destruction of buildings
- Burial fill: both internal and external as well as Neolithic and later burials. There is no clear indication that these figurines are primary depositions
- Objects cluster: at times figurines are recorded as being part of an object cluster. These occur both externally and in buildings
- Activity-lime burning: an event where (likely) lime was burnt to make plaster, characterised by a burnt matrix and material
- Activity-fire spot: an area where a fire was made, characterised by a burnt matrix. At times it is recorded that it is not entirely clear if the fire was in-situ or it is a small dumping event of burnt material
- Activity-external surface: separated from external midden/dump contexts as it is clearly stated an external surface was present where activities took place
- Fill between buildings: in nature different from midden/dump. The fill in very narrow spaces between buildings seem often the result of dumping events, at times perhaps for consolidation or packing
- Pit fill: occur both in buildings and external areas
- Midden/dump: originally often separated in the database into more localised dumping events (also of building materials) and middens. Here the distinction is not relevant as they all appear to be secondary, external contexts, so they have been combined

- Unstratified: used for objects found during removal of topsoil, cleaning sections, backfill etc. and when unit information was not recorded

All figurine types are similarly distributed across these context types (table 5.152-5.156 and fig. 5.36-5.39). Unfortunately, whether or not figurines are found in primary depositions is difficult to establish. At times going back to diary entries by excavators can give clues, but the number of objects is such that it is impossible to fully explore contextual information. Moreover, many of the objects were found in the dry sieve or during flotation and their exact location within the unit is unknown as is their relation to other finds. The excavation database only has information on being 'in-situ' or 'not in-situ' for 149 out of the 1275 units from which figurines derive and these in-situ depositions, which are mostly 'construction' contexts, are not informative on the intentional deposition of figurines.

Here, the focus will be on those contexts that most likely indicate the intentional placement of figurines: storage and fire features, floors and object clusters. However, this does not imply that figurines in other contexts might not have been placed intentionally.

### **Storage features**

There are 20 units related to storage features, these units are located in 14 different buildings (see table 5.157). From the unit descriptions, it is clear that most often the depositions are not primary; it is recorded that the fills are midden-like, or the same as the surrounding room fill. These features were at times also (partly) dismantled as part of the house abandonment process. With exception of bucrania, all types are found in very small amounts in these features. Within the zoomorphic figurines, mostly horns are found (n=9) in storage features which is perhaps an indication that they were placed there as separate pieces because if fractured, one would expect the larger piece to have been recovered as well. There are no storage features with substantial numbers of figurines; four is the largest amount recovered.

There are no clear links between figurines and other finds within these contexts. X-finds recovered from storage features are diverse. There is one interesting context either primary, or a single dumping event of materials on or in a bin. This context could perhaps also be classified as a cluster. It is located in unit 1889 and it has a recorded 125 recorded X-finds, many apparently burnt stones and clay balls. These are likely related to cooking activities, but also other objects were found including bone objects, bone/tooth and an antler object.

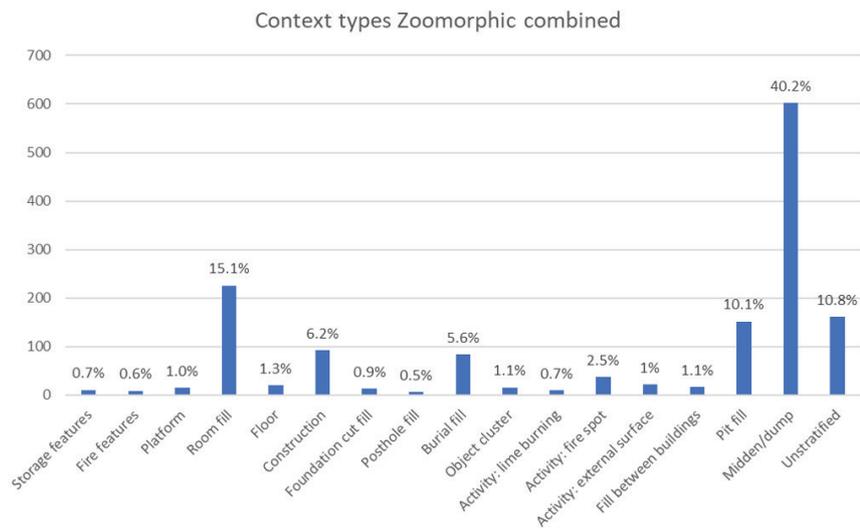


Figure 5.36: Context types zoomorphic figurines combined

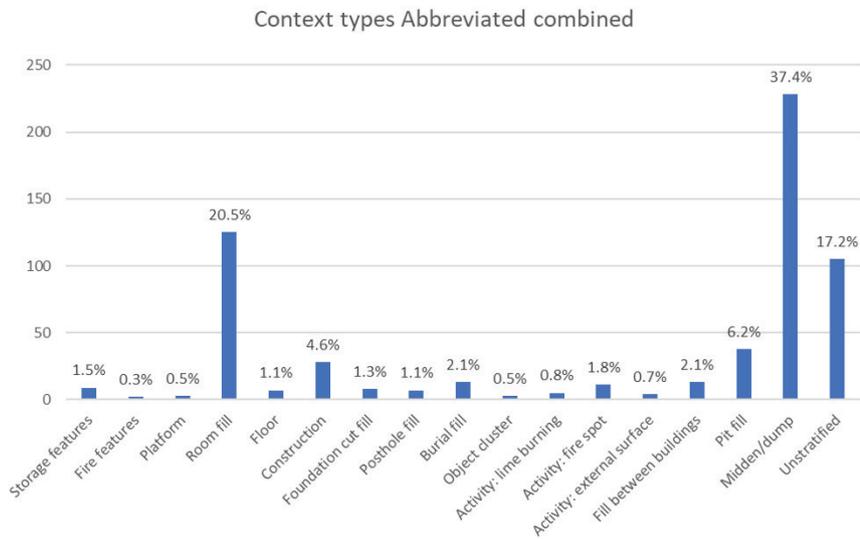


Figure 5.37: Context types abbreviated figurines combined

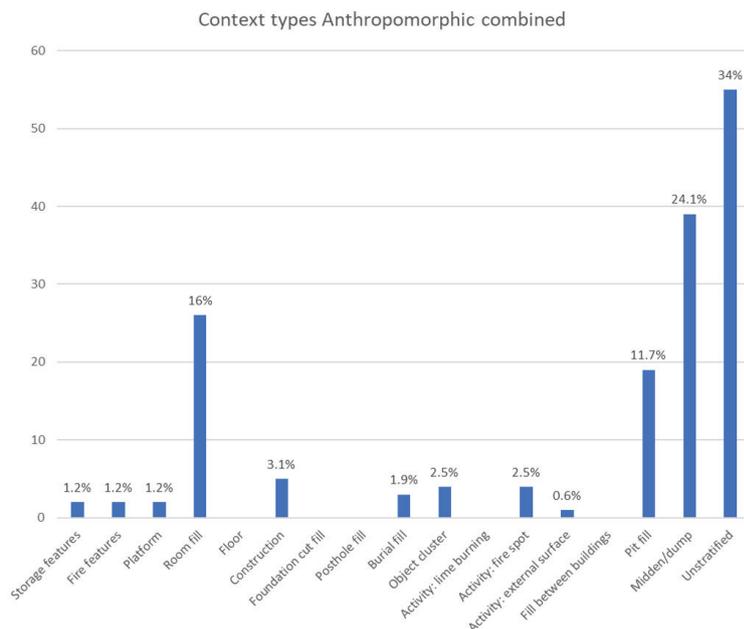


Figure 5.38: Context types anthropomorphic figurines combined

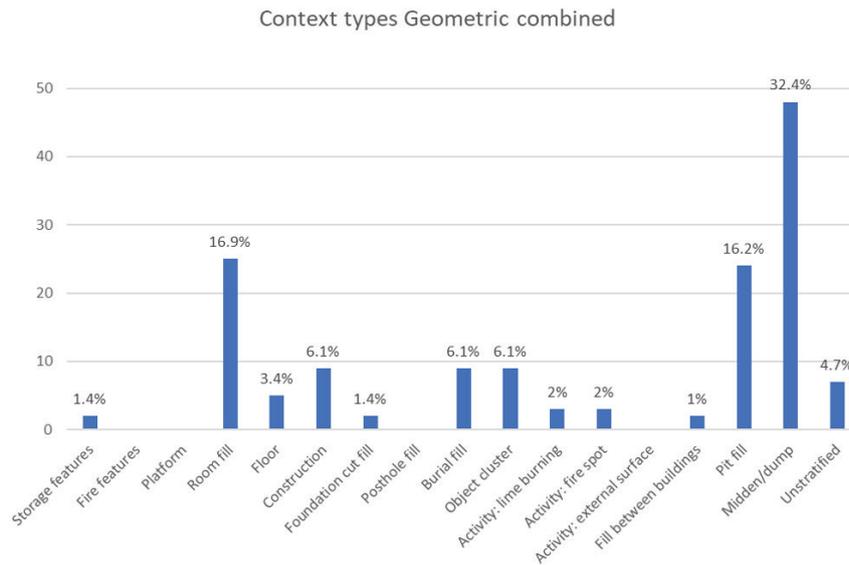


Figure 5.39: Context types geometric objects combined

## Fire installations

There are 13 units related to fire installations, linked to nine buildings and two units are unrelated to buildings. Only 14 figurines are linked to fire installations (see table. 5.158). Again the zoomorphic category is mostly represented by horns (n=6).

As with storage features, these fire installations have at times been dismantled and the fill is not the original fill, but there are a few instances when the fill does seem to be primary. X-finds are rarely recorded, in contrast to storage features.

## Platforms

There are 14 units linked to platforms. These contexts are linked to nine buildings, one is unrelated to a building, or at least, it could not be linked to one (table 5.159). A total of 21 figurines were recorded in these contexts. These are primarily zoomorphic and, again, they are mostly represented by horn fragments (n=13). One unit, 23078, recorded as the packing of a platform, has a relatively high number of seven figurines recorded. Four of these were horn fragments and one head on base and two head on divided base figurines were found.

The contexts were recorded mostly as primary by the excavators although these platforms are at times not intact, but seem (partly) dismantled. Figurines are recorded as on or slightly above platform level or as part of the construction or fill of platforms. Not many X-finds were recorded in platform contexts.

## Object clusters

There are 16 units recorded as object clusters. These are related to eight buildings and six units are in external areas (table 5.160). These clusters are most often not object clusters, but animal bone clusters, which then also contain a few figurines. There are two large clusters, units 5417 and 7958, which have 10 and seven

figurines respectively. Unit 7958 has a cluster of seven zoomorphic figurines all of which are quadrupeds which makes this a very clear clustered deposition.

The cluster of 10 figurines, is a varied assemblage of zoomorphic, abbreviated, indeterminate and unclear fragments said to be related to a complete pottery vessel set in the floor of building 42. Unfortunately, no information was recorded on other finds or the exact location of the objects in relation to the pottery vessel.

### **5.7.3 STONE FIGURINES RELATED TO CONTEXTS**

The few stone figurines recovered during the Hodder excavations show no clear patterning when looking at all the types: 12 are recovered from buildings, eight in external areas and for one object unit information is missing. However, looking at the anthropomorphic figurines (numbering 12) nine of those come from buildings. Furthermore, relatively speaking they are by far more often from primary depositions. There are four examples from a single building (150; see also ahead in spatial distributions), two of them from within a plastered platform and two from inside the burnt fill of the building. Another example in unit 10246, comes from an object cluster, although the excavators note that it is not clear if the objects were intentionally placed or ended up there through post-depositional processes. Five of these objects also come from burnt building fills, which at 41.6% is much higher than we see in the clay figurines.

Within the other stone figurine types numbering 13, only three are from buildings and none come from burnt fills. Although it is difficult with such low numbers there does seem to be a link with buildings and anthropomorphic figurines as well as with the burning of buildings (as mentioned earlier, this was done intentionally, likely as a 'house closing' ritual).

### **5.7.4 CLAY TYPES RELATED TO CONTEXTS**

There is no clear pattern in clay types compared to internal or external contexts. It can be observed that objects made from black organic clay are mostly found in external contexts (n=48, 84.2%), whilst lower alluvial and marl clays are more equally divided with 62.9% and 60.2% found in external areas. Upper alluvial clays are found mostly in buildings (n=9, 56.3%).

When looking at those figurines that are found in the potentially primary contexts, only lower alluvial and marl objects were recovered (of course along with indeterminate clay types). The two clear figurine clusters interestingly have objects all made of the same clay type. The cluster in unit 5417 has five marl objects and five indeterminate clay types, which are also potentially marl (fig. 5.40). The second cluster of animal figurines found in unit 7958 are all made of lower alluvial clays (fig. 5.41).

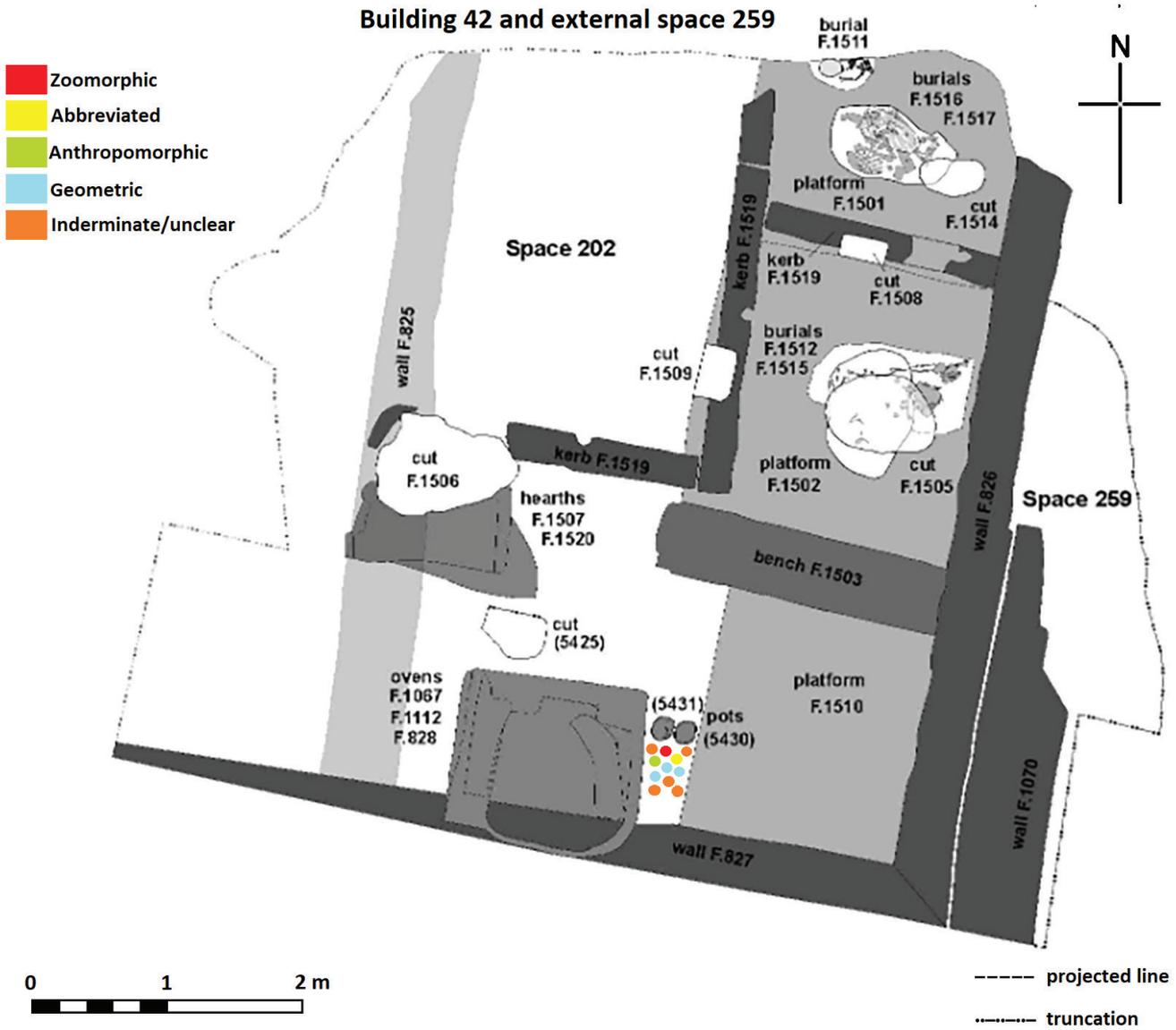
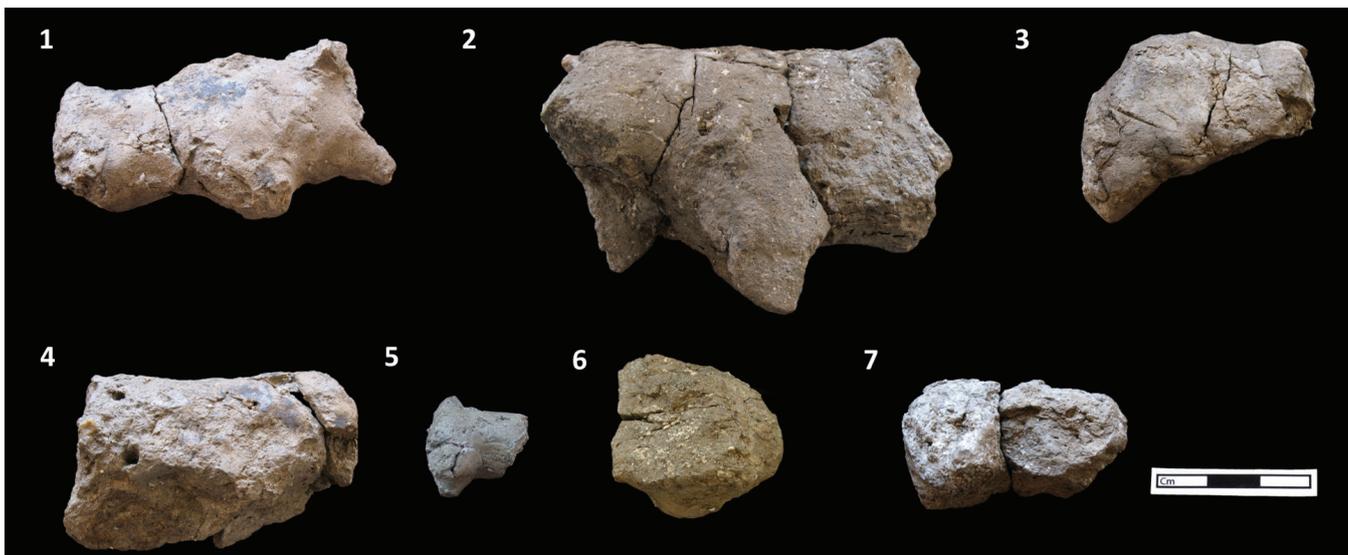


Figure 5.40: Figurine cluster in unit 5417. 1-10: 5417.H1, H3, H7, H8, H12, .H11, H4, H6, H9, H10 (top) and approximate location of figurine cluster in building 42 (bottom). Image by author, original images and map courtesy of the Çatalhöyük Research Project



Building 49 phase 2a-b

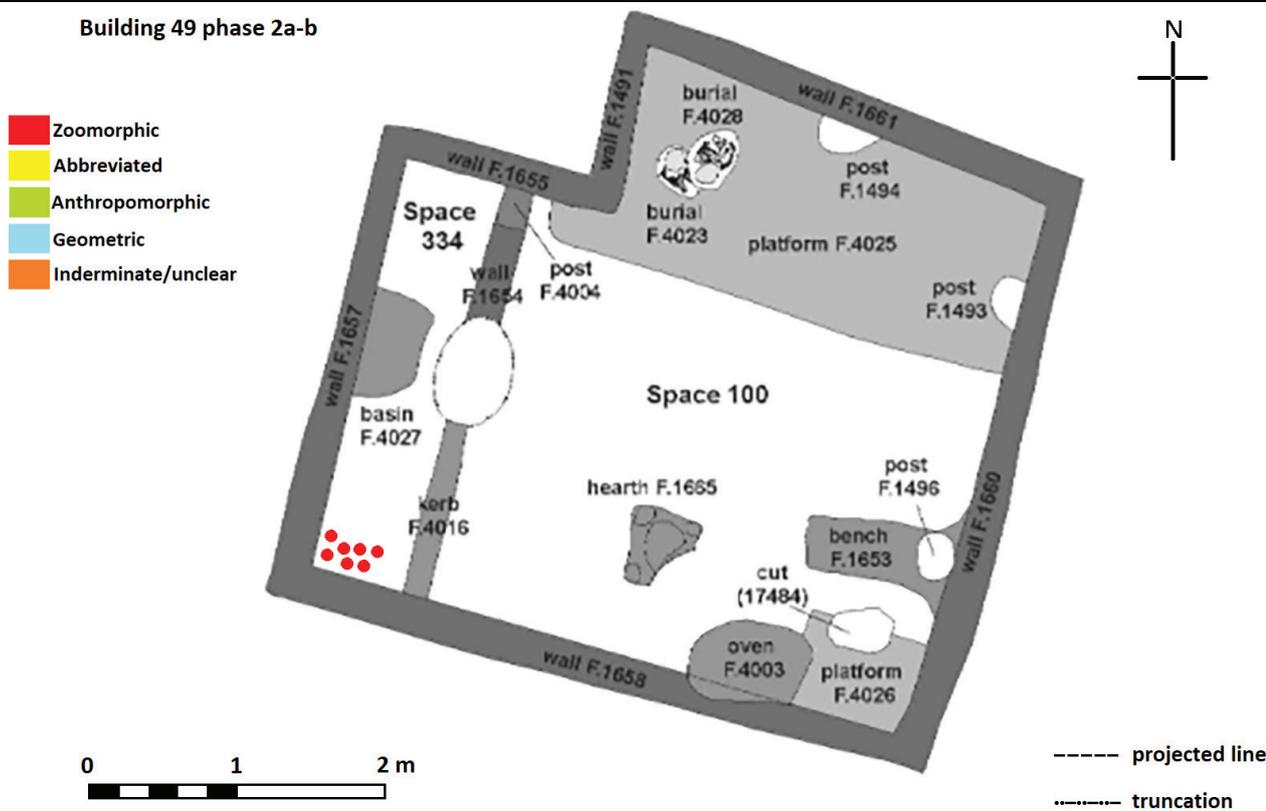


Figure 5.41: Figurine cluster in unit 7958. 1-7: 7958.X1-X3-7 (top) and approximate location of figurine cluster in building 49 (bottom).  
Image by author, original images and map courtesy of the Çatalhöyük Research Project

### 5.7.5 HEAT EXPOSURE RELATED TO CONTEXTS

Interestingly, contexts showing signs of burning have figurines within them that are not clearly baked or burnt, and vice versa. This informs us about the life biography of objects and allows us to more securely establish when heat exposure occurred. There are 183 units that show clear signs of burning, 101 of these are in buildings, the others are in external areas. Ten of these units have figurines that are designated as unbaked (a total of 11 objects). There are 94 units with objects of indeterminate heat exposure (a total of 182 objects), and a further 19 units have a total of 20 figurines where information on heat exposure is missing. Figurines

with heat exposure number 189: 137 baked figurines and 52 burnt figurines. In these contexts, heat exposure could have occurred after deposition and not as part of production or use.

The figurines recovered in fire installations are mostly baked or burnt (11 out of 14). Although the fill is often not primary fill, the link between heat exposure and fire installations is interesting.

There are 771 units with no signs of burning. Of these, nearly half (n=356) have baked figurines numbering 541 objects and a further 108 units have burnt objects, numbering 125 objects. In these instances, it is clear that heat exposure occurred earlier in the life biography of these objects. Interestingly, for those objects with a sandy marl outer layer, all but two were found in unburnt contexts, lending credence to the hypothesis that these objects were intentionally exposed to fire to attain the desired orange/red colouration.

### **5.7.6 USE-WEAR RELATED TO CONTEXTS**

There are no connections between particular use-wear and depositional contexts. The only interesting example is again unit 7958, where the zoomorphic figurine cluster was found. Of these objects, five were intentionally damaged. Regardless of how figurines were made or used, for the most part they ended up in secondary contexts with no clear intentionality but rather as discarded items.

## **5.8 CONTEXTS: CONCLUSIONS**

Contextual patterns are mostly lacking and intentional deposition can not be substantiated often based on the available information. There are some interesting examples of clustered depositions, but these seem to be the exception, not the rule. The only correlation that can be observed is the link between stone anthropomorphic figurines that are found relatively more often in buildings.

There are no correlations between production, use-wear and heat exposure and depositional contexts. Interestingly, many figurines with heat exposure are found in contexts that show no signs of being burnt. Therefore, we can say that for these figurines heat exposure occurred as part of production or use.

## **5.9 PATTERNS THROUGH TIME: INTRODUCTION**

In this section the diacronic patterns of figurines will be discussed. First, the different figurine types will be discussed looking at clay types, production and use-wear. This section will also describe the changes in relative proportions of all figurine types through time.

The different areas of exposure between the North and South parts of the tell as well as through the different levels make it impossible to draw definite conclusions based on absolute numbers. Moreover, the early and final levels have only been uncovered in the South area. However, the relative proportions of different aspects of production and use-wear through time might reveal meaningful patterns.

### 5.9.1 ZOOMORPHIC FIGURINES THROUGH TIME

Zoomorphic figurines are found throughout the different phases, from the earlier levels up to the Chalcolithic levels on the West mound. Numbers reflect the larger areal exposure in the middle and late phases. Interestingly, the vast majority of the horn fragments that make up a large part of the zoomorphic corpus are found in the North area of the tell. In the middle phase there are no less than 304 horn fragments, compared to 103 in the South area. Overall, the middle and late phase uncovered in the North area has more horn fragments (n=422) than the South area in all its phases: early through to final (n=369).

#### Clay types and production

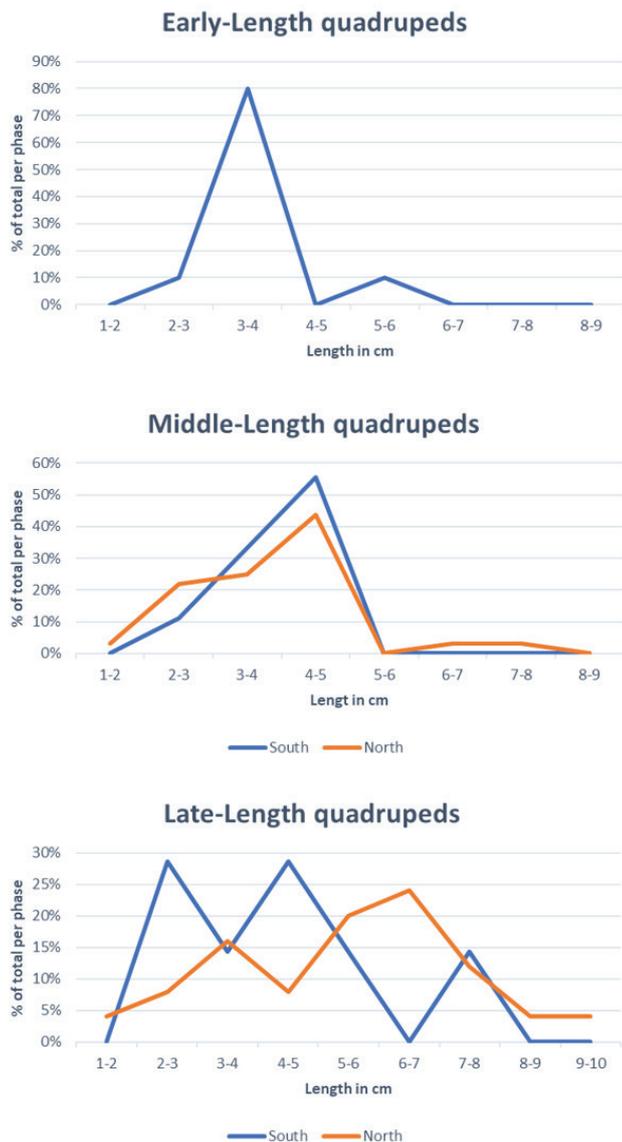


Figure 5.42: Size of (nearly) complete quadrupeds through time. Note the similar distribution of sizes in the middle period and the overall increase in size in the later phase

objects are remarkably similar in the North and South areas. This image changes in the late phase, but in both areas objects measuring over 6 cm now occur, whilst these are virtually absent in earlier levels.

Clay types through time (see table 5.161) reveal that marl and lower alluvial clays are not temporally or spatially restricted. However, black organic clay is recorded in the last levels of the middle phase and the late phase, and also predominantly in the North area where it makes up 21.5% of the clay types in the quadruped figurines. Perhaps this indicates differential preferences between crafting communities in these different areas of the tell.

The great variety within zoomorphic figurine production means that any patterning through time is not clearly visible. Furthermore, the low number of occurrences of any particular element identified within the production sequence also means that identifying patterns is very difficult.

It can be noted that tool use on zoomorphic figurines occurs through the early to final phases on the East mound, as well as on the West mound. Quadrupeds modelled as realistic animals are found throughout the levels and in both the North and South areas.

There is an interesting remark to be made on the increase in size of quadrupeds through time. Figure 5.42, shows those objects surviving (nearly) complete with head and body. In the middle period sizes of objects

## Use-wear

The practice of damaging zoomorphic figurines shows interesting patterns within the quadruped figurines, puncturing and gouging is observed throughout the levels in low percentages. The actual breaking and deforming, however, shows a rise in the late period in both the North and the South areas where 30% are intentionally damaged (see table 5.162).

### 5.9.2 ABBREVIATED FIGURINES THROUGH TIME

Abbreviated figurines are found throughout the different phases, but most come from the later middle phase and the late phase and they are virtually absent in the final levels.

#### Clay types and production

Clay types used to make abbreviated figurines are more varied in the North area and black organic clay is only recorded here (table 5.163). Any patterns in production are difficult to trace through time. Tool use is recorded in all phases in low numbers. The same holds for additional surface treatment, although it can be noted that for the head on divided base type this is only seen in the South area

## Use-wear

There is no clear patterning regarding intentional damage, which occurs in all phases and areas in small percentages (under 10%; with exception of the final phase where it is absent). Objects with polish occur across all phases in low percentages in both the North and South areas.

### 5.9.3 ANTHROPOMORPHIC FIGURINES THROUGH TIME

Anthropomorphic figurines are very rare in the early levels, actually they occur mostly in the late phase at the site. Of course, many of them (the Mellaart finds) are unfortunately unstratified. When taking into account the temporal aspect, really very few are found per phase. There are, however clearly more of them in the late levels. Furthermore, the figurines shaped as separate heads are almost exclusively found in the South area (all but one). It is also clear that the more realistic anthropomorphic figurines do not appear until the late phase. In the early and middle phases the figurines are more abbreviated.

#### Clay types and production

Because there are so few anthropomorphic figurines per level, there are no clear trends seen through time (see table 5.164). Tool use and additional surface treatment, including burnish, is seen in all phases in low frequencies. However, additional surface treatment is most common in the early phase, where seven of the 20 objects (35%) have slip and/or paint. The practice of creating dowel holes is seen only in the late phase, with two instances potentially dated to the middle phase.

#### 5.9.4 PHALLOMORPHIC FIGURINES THROUGH TIME

The low numbers of this type does not allow for any patterns through time. These eight objects are found in the early, middle, late and Chalcolithic levels on the West mound. Found once each in the early and middle phase, twice in the later levels and three times on the West mound.

#### 5.9.5 GEOMETRIC, INDETERMINATE AND UNCLEAR OBJECTS THROUGH TIME

These categories have been put into one table (5.165). There is little to say about these objects. They occur in small numbers throughout all levels and no patterns can be seen relating to production or use-wear.

### 5.10 SPATIAL DISTRIBUTION

Appendix B shows the level maps of both the North and South areas enabling an assessment of any potential spatial patterning even if contextually there are no clear patterns. The large midden areas exposed in the North area, space 279 in particular, yielded enormous amounts of figurines, meaning that the ratio between figurines found in external areas and buildings in the North is much more unbalanced than in the South where actually more figurines were found in buildings, 54% versus 36% in the North.

The problem is that within spaces, and the units within these spaces, it is not clear over what period of time these figurines accumulated and without contextual information on where objects were retrieved in the various fills it is difficult to look at figurine distributions and comment on clustering or potential primary depositions.

In some levels, figurines are found in very large quantities in certain areas. Space 279 (level North. H) has been mentioned and another example is building 3 (level North. Ga). The most convincing example of spatial patterning is seen in level South. S/TP. M, where five anthropomorphic figurines were recovered in one building: one clay anthropomorphic head and four stone objects (see fig. 5.43). Only two were securely identified as being intentionally placed within a plastered platform. However, the number of five anthropomorphic figurines within this one house is extraordinary and likely these figurines were not simply discarded within accumulating room fill.

Spatial patterning is often also temporal patterning. For example, within the head on base type there are more elongated examples that are very abbreviated. They are found predominantly in the South area in the late phase, and of these 16 found, 13 come from space 132. Examples of very squat head on base figurines come predominantly from the North area in the middle phase and of these 23 examples, 10 come from space 60.

Within the zoomorphic figurines, there are also some examples that look very similar related to the ways of shaping tails. The first example is a group of figurines with a very distinctive tail: a cone shape on a flattened back side with smoothing and or scraping around it. Four clear examples of this exist and they are all dated to the late period, and found in space 279 (see figure 5.44). The second example, are three quadruped heads,

possibly equid. They are all from the late period, two come from the same space, a midden in South. P, but the third example comes from a room fill dated to level North. H (see fig. 5.45). These examples illustrate that there are instances where we can see a personal hand, or perhaps household or neighbourhood traditions that are temporally quite restricted.



Figure 5.43: Anthropomorphic figurines found in building 150 (nos. 1 and 4 not to scale). 1: 23704.x7; 2-3: 32806.X1-X2; 4-5: 20736.X1-X3. Image by author, original images courtesy of the Çatalhöyük Research Project



Figure 5.44: Quadrupeds with similarly shaped tails. 1: 12988.H1; 2: 13124.H1; 3: 13142.H4; 4: 13174.X10. Image by author, original photos courtesy of the Çatalhöyük Research Project



Figure 5.45: Possible equids. 1: 12502.H4; 2: 12508.H3; 3: 13440.X3. Image by author, original photos courtesy of the Çatalhöyük Research Project

When looking at all figurines, spatial patterns show that the relative proportions of the different types in the North and South areas are relatively similar (table 5.166). More interesting are the patterns seen in clay types through time. The use of black organic clay is very temporally restricted (seen mostly in the middle phase) and in the North area. In general, the North area seems to have a wider variety of clay types used as can be seen in Table 5.167. This might point to a more local tradition using this type of clay.

### 5.11: TEMPORAL AND SPATIAL PATTERNS: CONCLUSIONS

Taking into account the biases created by different excavation methods and more areal exposure in some levels there are some patterns to be seen. Looking at figurine types, there is an increase in more realistic anthropomorphic figurines through time. There are also an extraordinary amount of horn fragments found in the late phase.

Clay types are more diverse in the North area and especially in the North area. Use wear does not show clear patterns as the number of occurrences are few to begin with, however the breaking of zoomorphic figurines does seem to occur mostly in the later levels.

### 5.12 MATERIAL ANALYSIS TELL SABI ABYAD: INTRODUCTION

Unfortunately, detailed information about material properties is lacking for the figurines at Tell Sabi Abyad. Whatever information was available has been recorded in a similar fashion to that of the Çatalhöyük corpus and the analysis for the Tell Sabi Abyad corpus is arranged similarly, omitting the sections on clay types, as no information is known. This section will detail information on clay fabric and inclusions (known for a small number of objects) and clay colours.

Colours have not been recorded using a Munsell chart, therefore the colour descriptions as given have been used here—although standardised as much as possible. At times it is unclear if one or two surface colours were given. For example, ‘dark grey-brown’. It might be intended as meaning dark greyish-brown, or as two separate colours. Here they were not separated into dark grey and brown, but this might not reflect the original recorders’ intention.

### **5.12.1 ZOOMORPHIC FIGURINES: MATERIAL PROPERTIES**

#### **Clay fabrics and inclusions**

Information on fabric is recorded for 13 zoomorphic figurines: 10 quadrupeds and three horns. Fabric is recorded as fine for five quadrupeds, fine/medium for two objects and coarse for another three objects. The three horn fragments are recorded as having a fine and one as having a very fine fabric.

The absence of (visible) inclusions is not recorded, only the presence of inclusions is noted for 20 objects: 18 quadrupeds, the one bird figurine and one indeterminate piece (also perhaps a bird). The amount of inclusions is recorded for four quadrupeds as having few inclusions.

Lime and organic inclusions are most often recorded (see table 5.168), in one instance the organic inclusions are specified as being straw or chaff. One other object with organic inclusions is recorded as having some impressions of straw. All inclusions could be naturally occurring within the clays, with exception of the straw/chaff, which might be intentionally added as temper. Interestingly, the single example of a bird figurine is commented as being made from the same clay fabric as used in the contemporaneous Halaf pottery.

#### **Clay colours**

Colours have been recorded for 182 objects. By far, the majority of figurines fall within the brown hues (table 5.169). Two different surface colours are recorded for 19 objects. In seven instances this can be linked to uneven heat exposure where parts of the object are black, red or orange. Different core colours are recorded for six objects. This is related to a slip layer on two objects (see production) and in the other instances, uneven heat exposure is the cause of different colouring.

### **5.12.2 ANTHROPOMORPHIC AND ABBREVIATED FIGURINES: MATERIAL PROPERTIES**

#### **Clay fabrics and inclusions**

Information on fabrics is recorded for 11 objects. Two head on base objects are recorded as having a fine to medium fabric and one as having a coarse fabric. A further two head on divided base objects have a fine fabric. One pillar shape is recorded as having a very fine fabric and another as being of coarse fabric. One human undivided base and one violin type figurine have a fine fabric. Finally, two indeterminate pieces also have a fine fabric.

Information on inclusions has been recorded for 30 objects. Four objects have no visible inclusions: one decorated type, one violin shape, one head on base and one head on divided base. Of the 26 remaining objects the amount of inclusions has been recorded for five objects: four head on base figurines have few inclusions and sparse inclusions in two instances each. A final object, a head on divided base is recorded as having sparse inclusions. For two indeterminate objects, it is noted that large organic inclusions can be seen.

By far the most common inclusions are lime particles. As with the zoomorphic figurines, all inclusions could be naturally occurring, except for the three occurrences of grog which likely mean the objects were tempered. This temper was recorded on two indeterminate pieces: a head and a torso fragment and one undivided base fragment (see table 5.170).

### **Clay colours**

Colours are recorded for 123 objects. As with the zoomorphic figurines, the majority of the figurines fall into brown and grey hues (table 5.171). Differing surface colours are recorded for 22 objects, again often likely related to uneven heat exposure with eight objects being partly blackened and two objects partly orange and red respectively. Different core colours are recorded for six objects, in two instances related to heat exposure where the core is orange and in the other instance black.

### **5.12.3 GEOMETRIC OBJECTS: MATERIAL PROPERTIES**

#### **Clay fabrics and inclusions**

Information on fabrics is known for seven objects: four have a fine fabric, one fine to medium, and two have a coarse fabric. The presence of inclusions is recorded for six objects. One object is recorded as having no visible inclusions. For the remaining five objects the nature of the inclusions is unclear in two instances: one has white and orange inclusions, said to be perhaps calcite and grog. The second also has white inclusions, again said to be maybe mineral. Of the remaining three objects, one has organic inclusions, the second has mica and the third sand and organic inclusions. This object group again has inclusions that could be naturally present in the clay, except for the potential presence of grog.

#### **Clay colours**

Clay colours are recorded for 99 geometric objects. Within the category of conical objects, colours fall mostly in the brown hues followed by grey hues. For the cylindrical objects, the vast majority are within the brown hues (table 5.172).

Different surface colours are recorded for only three objects. Two are related to heat exposure with parts of the objects being blackened. Different core colours are recorded for four objects, two showing red/grey as well as a pink colour related to heat exposure.

### **5.12.4 INDETERMINATE AND UNCLEAR OBJECTS: MATERIAL PROPERTIES**

#### **Clay Fabrics and inclusions**

Information on fabrics is recorded for five indeterminate objects, in all cases, it is recorded as fine. For the unclear category, information is recorded for three objects: twice as fine and once as fine to medium. The presence of inclusions is recorded for 14 indeterminate objects, twice no visible inclusions could be seen. In

three instances information on the amount of inclusions is recorded: twice many inclusions were observed and once very few inclusions.

In the unclear category, inclusions have been recorded for 18 objects. Once, very few inclusions were observed, few inclusions are mentioned three times, 'some' and 'many' are each recorded once. The types of inclusions are shown in table 5.173. One indeterminate object shows black particles of an unclear nature. For two objects it is mentioned that the organic inclusions are seen on the surface of the objects.

Black particles are also reported on one unclear object. For one object, information on inclusion type is missing and with the final object with unclear inclusions, they might be organic. In one instance the organic inclusions are reported as chaff. There is one mention of charcoal, perhaps this is evidence for the use of midden/colluvial clay, although its presence could be the result of post-depositional influences.

### **Clay colours**

Clay colours have been recorded for 98 indeterminate and 81 unclear objects. Again most objects fall within the brown hues (table 5.174). Different surface colours are recorded for seven indeterminate objects, which in four instances can be related to heat exposure. Four unclear objects have different surface colours which in two instances can be related to heat exposure. Six unclear objects are recorded to have different core colours, four of these instances are related to heat exposure.

## **5.13 TELL SABİ ABYAD FIGURINE CORPUS: CONCLUSIONS MATERIAL PROPERTIES**

Despite the limited information recorded on material properties, we can still make some statements. Fabrics range from very fine to coarse, with fine fabrics being by far the most commonly recorded. There are only a few mentions of large inclusions, exclusively organic, in contrast to Çatalhöyük. Most of the inclusions could be naturally present in the clay. However, as discussed in chapter four, sizeable amounts of large organic inclusions do not occur in the clays used at the site and thus indicate it could be temper. Furthermore, in a few instances, it is specifically mentioned chaff or straw is present as well as grog (both also used as temper in pottery). These inclusions are very likely evidence for the tempering of clay in at least some instances, contrasting with figurine production at Çatalhöyük.

## **5.14 ANALYSIS FIGURINE PRODUCTION TELL SABİ ABYAD: INTRODUCTION**

The structure of analysis will follow that of the previous section on Çatalhöyük, omitting those aspects for which information is lacking. Here the discussion will focus on objects being composite, relying predominantly on original object descriptions. Tool use can be discussed in more detail as this was recorded more frequently or can be ascertained more easily from drawings and photographs.

Likewise, smoothing and additional surface treatments are registered quite often. Here the terminology has been adapted to line up with Çatalhöyük. No assessments have been made from photographs, only existent comments on smoothing have been taken into account.

Finally, heat exposure was also recorded for a moderate amount of objects. Interestingly, whilst very seldomly employed at Çatalhöyük, at Tell Sabi Abyad far more objects are securely recorded as being unbaked. As remarked upon, this determination is not easily made, however here these designations have been maintained. The designation of burnt is often accompanied by the additional comment of 'secondarily burnt', relating to the burnt contexts in which they were recovered. At times the remark is made that the object was originally unbaked. However, this is an odd assumption as we cannot assess the type of heat exposure (or lack thereof) before objects were burnt. These objects have therefore been recorded as burnt. Additional information on the level and evenness/unevenness of heat exposure has also been recorded for a small proportion of objects and will also be analysed. As in the section on Çatalhöyük, heat exposure will be discussed under production. However, the link between heat exposure and contexts is often more secure for the Tell Sabi Abyad corpus.

#### **5.14.1 ZOOMORPHIC FIGURINES: PRODUCTION**

##### **Presence, shape and shaping of specific elements**

Horns are present on 79 quadrupeds. Only in one instance is it possibly attached, as indicated by the visible depression where the horn was pressed on the head. Horns are rarely preserved complete and in 16 instances it is unclear if horns were present. Horn shapes are therefore not easily ascertained. Mostly they are conical, with round to oval fractures and they curve out and up, forward as well as backwards. As discussed with the Çatalhöyük horns, they are often very nicely rounded in section making it unlikely that they were pinched out and shaped this way. However, the visual references available do not allow for any statement on their shaping.

Ears are more often not represented, only in 32 instances do quadrupeds have ears (representing 36% based on the number of objects for which the presence/absence could be ascertained). Ear-shapes are often flat triangular or rounded. In two instances they are quite large and oval (IIIF05\_009 and III005\_050), and in one case they are described as 'leaf-shaped' (F08\_016). There are 26 instances where it is unclear if objects had ears. In three instances it is commented that ears are applied elements, and they are possibly applied twice. Otherwise, they seem pinched out from the head. Finally, there is one mention of a head being applied, as the surviving body fragment does not have a clear fracture at the neck.

##### **Legs and tails**

In 206 instances legs are indicated. In only six instances are legs clearly absent. However, there are quite a few instances where fragmentation is such (n=51) that the presence of legs cannot be ascertained. Legs are at times also so small as to be almost non-existent.

There is no mention of legs being applied, however, the photographs show three possible instances of applied legs: F05\_049, F04\_013 and F96\_006 (fig. 5.46: 1-3). Of these F04\_013 is most convincing: the remain-



Figure 5.46: Composite and possible composite pieces (not to scale). 1-3: F05\_049, F04\_013, F96\_006, possibly attached legs; 4: F09\_112, possibly applied tail. Image by author, original photos courtesy of the Tell Sabi Abyad project

der of the right hind leg seems pressed onto the body. Most often, the triangular, conical and short legs were likely pinched out and at times also folded as evidenced by seams (examples shown in fig. 5.47). There is only one example where legs were not individually made. Object O03\_160 (no clear image) has a depression along the belly giving the indication of legs.

Tails are indicated on 75 quadrupeds and absent on 30, for most objects the presence of a tail could not be ascertained. In one instance the tail is applied as a small pellet of clay (F09\_112; no image) and on the other object as a triangular piece (F09\_112; fig. 5.46: 4). One further object (IIIF05\_032; no image) has a reported extra piece of clay applied to the back, perhaps this is also a tail, however, the provided sketch does not show this applied piece. Finally, an indeterminate object, F07\_018, seems to have a thin layer of clay folded over its core, with subsequently also a strip of clay applied.

### Tool use

Tool use is recorded on 16 quadrupeds and one horn fragment. In five instances this is related to creating facial features where a round implement was used to indicate eyes and in one instance possibly nostrils (for example F04\_017 and F08\_032; fig. 5.48: 3-4). In one instance these holes are very large and can be seen to continue far into the body. The other 11 instances of tool use are related to smoothing, where parallel striations are visible on the objects. However, there is a possibility that these are related to modern cleaning, so



Figure 5.47: Seams seen as evidence of shaping (not to scale). 1: IIF10\_114; 2: F04\_062; 3: F07\_011; 4: F05\_008. Image by author, original photos courtesy of the Tell Sabi Abyad project

it should be kept in mind that these instances of smoothing are tentative. One instance of these striations is also seen on a horn fragment, although less pronounced (see 005\_136 and 004\_470; fig. 5.48: 1-2).

### Smoothing and additional surface treatment

Smoothing levels are known for just under 50% of the zoomorphic corpus. The majority of figurines have been recorded simply as being smoothed (table 5.175). Rough and roughly smoothed objects are only recorded within quadrupeds. Well smoothed is recorded very rarely and a few objects have been recorded as 'very well smoothed' (here recorded under well smoothed).

Additional surface treatment is very rarely mentioned for zoomorphic figurines. One quadruped head fragment is recorded as having a yellowish slip layer. The single bird figurine has a slip layer as well as paint. One example of a quadruped body has remnants of white plaster. However, it is unclear if this was intentionally applied or due to post-depositional conditions. The aforementioned indeterminate example, F07\_018, is noted as having a slip layer. I do not think 'slip layer' is the correct designation, rather a thin 'sheet' of clay was folded around the object's core. Finally, object IIF96\_008, a quadruped figurine, is noted as having traces of ochre. Whether this was intentionally applied was not commented upon.

There are very few objects with fingernail impressions that are clearly related to production. Six instances occur within quadrupeds, and in five it is not certain if they are related to production. They occur once on the snout and twice under a horn, which could be from pinching out and shaping these elements. Two objects



Figure 5.48: Tool use on zoomorphic figurines (not to scale). 1-2: O05\_136, O04\_470, possible smoothing marks; 3-4: F04\_017, F08\_032, implements used to create facial features. Image by author, original photos courtesy of the Tell Sabi Abyad project

have an unspecified amount of fingernail impressions on the belly and around one of the legs respectively. The final example is most clear: a pinched up back shows a fingernail at the pinch mark. Four horn fragments have a single (in one instance two) fingernail impression, which are likely from shaping. For one it is unclear, only recorded as ‘some’ fingernail impressions. Only one indeterminate objects has recorded fingernail impressions, a total of three are seen. Their nature is unclear.

Fingerprints are not often recorded: on 37 quadrupeds, eight horn fragments and one indeterminate fragment. The location of these fingerprints are not always mentioned, however, they are reported on the various areas where elements were pinched out, namely horns, tails, legs and pinched-up backs.

### Heat exposure

Heat exposure is recorded for just under 70% of zoomorphic figurines. As commented earlier, a substantial percentage across types is recorded as having no heat exposure (see table 5.176). For 13 objects the baking or burning of objects is recorded as being (likely) secondary.

A further qualification of the level of heat exposure is available for a few objects. Five quadruped figurines are recorded as being lightly baked. Three horn fragments and a quadruped are recorded as being sundried. Finally, two quadrupeds and a horn fragment are recorded as being completely burnt.

Two quadrupeds are noted as being evenly baked or burnt. Uneven heat exposure is noted for 12 quadrupeds, one bucranium and one indeterminate object. There is no clear pattern as mostly ‘partially’ is used to

describe this uneven heat exposure. For three quadrupeds the heat exposure is more pronounced on one flank.

### 5.14.2 ANTHROPOMORPHIC AND ABBREVIATED FIGURINES: PRODUCTION

#### Presence, shape and shaping of specific elements

The more abbreviated head on base figurines are simply a base ending in a tip or a very schematic head. Very rarely preserved, only three have this head or tip still attached. Two of these have a pinched-out nose, and two also have applied eyes, objects F02\_026 and F04\_033 (see fig. 5.49: 1-2).

Applying elements to the base is seen often on the rounded base figurines. A total of 14 of these objects have rounded to oval pellets pressed onto the surface. The placing of these appliqués seems at times rather random: a group placed on a small area as is seen on four objects. The others have them applied in one or two rows. In three instances there are no fingernail impressions, otherwise one up to six impressions are seen in each appliqué. At times the number of fingernail impressions varies on a single object, seemingly rather random. Two objects have a further elaboration of an impressed strip of clay encircling the object underneath a row of appliqués.

The head on divided base figurines never have visibly applied legs. It is never commented upon and it does not become clear from the available drawings and photographs. These objects too, often do not have real heads, rather they end in tips. Of the 12 objects surviving with a head/tip, there are five that show an indication of a nose that is pinched out. One object has applied eyes. This object, F08\_052, also has some applied elements to its torso (fig. 5.49: 3). These are likely arms and, as mentioned on the object form, breasts, although this is very speculative. Two objects have a piece of clay attached to their torso, indicating a belly. One object is very interesting as it is likely composed of four pieces, two leg pieces and two breasts or arms that are not well smoothed into one object. A final example has two cone-shaped elements applied. Unfortunately, the sketch on the object form is rather unclear. Described as breasts, one of these cone shapes is attached to the side of the object, so it is more likely an arm. Perhaps this object had both breasts and arms applied. This would make this object the only head on divided base figurine with arms.

The decorated type figurines are relatively uncomplicated in shape, with rounded to square bases going up into more narrow and rounded torsos. They are not recorded as composite pieces, except for one example that has some pieces of clay applied on its torso, much like F08\_052, and these also interpreted as arms and possibly breasts. These objects are often fractured well below any possible head, so no comments can be made on their shape or composite nature. It can be noted that two out of the 15 objects have a potential dowel hole, these are holes seen in fractured torso fragments as opposed to holes in clearly non-fractured neck/shoulder areas. Perhaps a stick was inserted to secure the heads, rather than being used for removable heads.

The violin-shaped objects consist of a base, torso and short arm stubs or rounded shoulders. Only one object survives with a simple, featureless head. Three further objects have a clear dowel hole in unfractured necks. All these objects have breasts and in five instances (38.6%) they are visibly applied, in a further two instances they are potentially applied. This is often indicated by a slight depression with a small lip of clay surrounding it, indicating where the breasts were pressed into the clay (for example F08\_001 and F09\_109 and fig. 5.49: 7-8). On the other six objects it could not be ascertained and it was not commented upon. However, on the very flat torsos it is unlikely that the breasts were pinched out.



Figure 5.49: Composite pieces (not to scale). 1-2: F02\_026, F04\_033, applied eyes; 3: F08\_052, applied eyes, arms and foot; 4: F05\_089, possible applied arm; 5: F08\_026, applied head; 6: F09\_117, applied arm; 5-6: F08\_001, F09\_109, applied breasts. Image by author, original photographs courtesy of the Tell Sabi Abyad project

There are comments on pillar shape figurines being composite pieces. In one instance (F05\_089) the photograph shows that potentially at least one arm was applied, evidenced by a seam where the arm and body meet (fig. 5.49: 4). If arms were attached they were well integrated into the body. The objects are often quite irregular with flaring, concave bases—likely from where people were holding the object whilst shaping it.

Twelve objects survive with heads. When possible to ascertain, all but one of these heads are simply pinched out left and right creating the indication of a nose. One object has a flattened head when seen from the front with a nose and another element underneath, perhaps indicating a mouth or a beard. However, it is damaged and therefore hard to see. One further example has a puncture within its pinched-out nose. It seems intentional, perhaps indicating a mouth.

The human undivided base type is a more diverse group of figurines of which 17 out of the 37 have arms, ranging from mere stubs to actual arms. One object (F09\_117) has an arm indicated by a thin strip that curves around the object and it is visibly applied (fig. 5.49: 6). Four of the objects survive with heads. Three of these have a similar head to the pillar shapes: simply created with a pinch. The fourth example (F08\_026) has an applied head, which was slightly smoothed into the body on the front and back with the seam still clearly visible. This object also has clay balls applied as eyes (fig. 5.49: 5). Six objects have a dowel hole. There is a seventh object with a possible dowel hole that is so large that the torso appears almost partly hollow.

The indeterminate category reveals little evidence on how they were shaped. As with the other categories, their composite nature is evidenced by small elements applied to the main object. Two head fragments have applied elements. One has a band of clay and four round appliqués with a fingernail impression. The other has an applied element around the neck and possibly small rounded elements to the sides of the head, as well as having possibly round pellets attached as eyes. Two torso fragments have a small applied piece of clay. In one instance it is unclear if this is intentional, the very irregular fragment does not have a clear orientation and the small piece is irregular. The second instance is a roughly pear-shaped, flat torso fragment with a small ball applied to its base, interpreted as indicating a foot.

## **Tool use**

Tool use within this group of figurines is exclusively related to creating dowel holes and creating features on faces and bodies. The striations/scratches possibly related to smoothing as seen on zoomorphic figurines are not recorded on the anthropomorphic and abbreviated figurines.

Tool use is a definite characteristic of some of the figurine types and rarely seen in others. Possible dowel holes and/or punctures are seen across types, within the decorated type and the violin type they occur in relatively substantial percentages (see table 5.177). The most distinguishing characteristic of the decorated type are the grooves and at times impressions that cover them, all but four have these. The amount of grooves varies. Most often there are vertical incisions on the base and horizontal grooves higher up on the base and torso. They most often do not encircle the object but are located on the front of the base. On one torso/neck fragment, three grooves can be seen encircling the neck. Backs are most often smoothed, howe-

ver, there is one object with roughly square impressions made with an implement. Another object has triangular/wedge-shaped impressions on the front of the base.

These grooves and impressions do not seem to be clear indicators of features such as legs (unlike the two instances seen in the divided base type), arms or clothing and are perhaps to be interpreted as decorative. The tools to make these marking are likely a stick or reed, but only in one instance can impressions be seen in the grooves to indicate this. It should be noted that one object was recorded as not having incised grooves, but rather that the grooves seemed impressed into the clay. There were thus likely two ways of creating these markings. As for the impressions, perhaps an implement was purposefully created to make the distinct square and wedge shapes instead of more *ad hoc* implements such as reeds.

For the violin type, the markings related to tool use might indicate clothing or perhaps a pubic triangle on two objects. One has incised lines creating this pubic triangle and the second has shallow dots filling this incised triangle.

Attention has to be drawn here to the fingernail impressions that can be seen on these objects. These are instances of fingernail impressions being very clearly intentionally part of the production process of objects. Four of the decorated type have these impressions on their backs, very carefully made and in one further object has five on its base placed in a row (for example F91\_008 and F91\_005; see fig. 5.50: 3-4).

There are also a few examples within other types. Two head on base are completely covered by fingernails, on one these are very carefully placed, on the other they are placed more randomly, for example O07\_492 and O04\_297 (fig. 5.50: 5-6). Two others have a row of horizontal fingernail impressions surrounding the base. There is one violin type figurine that has some fingernail impressions around the neck. One human-undivided base (F98\_001) is also covered in carefully placed horizontal fingernail impressions and, finally, one indeterminate base fragment (F91\_015) is also covered in fingernail impressions (fig. 5.50: 1-2).

### **Smoothing and additional surface treatment**

The level of smoothing is known for just under half of the figurines (table 5.178). Most have some level of smoothing. The head on divided base figurines are relatively more roughly smoothed, some figurines in this group were just pinched into shape, with little smoothing and large finger impressions still visible.

Additional surface treatment is seen on a small number of figurines. Three head on divided base figurines have possible paint: two are reported as perhaps having brown paint on their backs. A third possibly has some black dots above the legs. For four violin type figurines it is clear that they have additional surface treatment (a large percentage, 30.8%). One has a light slip layer and two are painted or slipped with red paint on the shoulder and neck area. The fourth has a complex pattern of black painted dots around the breasts, black lines around the neck area and also the pubic triangle area is black along with patches of black visible on the stylised legs. Furthermore, black vertical lines are painted on the side and going out from these lines is a herring-bone pattern in red-brownish paint. This same pattern is also seen on the back of the figurine.



Figure 5.50: Figurines covered with fingernail impressions (not to scale). 1: F91\_015; 2: F98\_001; 3: F91\_008; 4: F91\_005; 5: O07\_492; 6: O04\_297. Image by author, original photographs courtesy of the Tell Sabi Abyad project

One pillar shape has a double row of small black painted dots encircling the base. Two human-undivided base have an additional surface treatment. One is covered in a red slip, or potentially slip and paint. One base fragment shows traces of red paint. Finally, one indeterminate fragment also has a red slip or paint.

Other than the instances described above, fingernail impressions related to production and fingerprints are rarely recorded. The head on divided base category is the only type where they are recorded on a substantial percentage ( $n=7$ , 17%) and are very likely related to shaping the legs. Fingerprints as well are very seldomly recorded and again most often on the head on divided base figurines (also seven times). The violin type and decorated type have the least amount of these markings recorded: only one and two instances respectively of fingerprints is recorded

## Heat exposure

Across the different types, figurines are most commonly reported as being unbaked, the exception being the violin type figurines that are most commonly recorded as burnt (53.8%; see table 5.179). All these instances are recorded as secondary burning.

Uneven heat exposure is recorded for a total of 15 objects across all types and for only two is further information recorded: once burning is seen on one side of an indeterminate object and once on the bottom of an indeterminate base fragment.

### 5.14.3 GEOMETRIC OBJECTS: PRODUCTION

#### Shaping, smoothing and additional surface treatment

There is little to note on the shaping of the geometric corpus. There are two indications of a composite piece: two conical pieces. One has an added layer of clay on its tip, giving it a slightly phallic appearance and a second one has a strip of clay wrapped around the object just above its base. Tool use is recorded in six instances as the creation of holes. If these are actually dowel holes is not clear. In two instances they might be perforations and in one case there are three shallow punctures on the top of a conical object, interpreted as perhaps being made as to have held another object in place, or perhaps intended as 'facial' features. In three instances striations are seen, interpreted as perhaps smoothing marks in one instance this is clear burnishing with facets seen along the object. This is one of only two mentions in the corpus of clear burnishing. There is also a cone shape that reportedly shows signs of 'shaving', perhaps burnish is meant. A final example is a cone reported as having an incised groove curving along one side of the object.

Information on smoothing is known for under half of the figurines and geometric objects are mostly recorded simply as 'smoothed' (table 5.180). Additional surface treatment is not recorded.

There are 21 instances of fingernail impressions, none of them is clearly related to the production of these objects, therefore they will be discussed in the next section on use wear. There are 15 objects (seven conical and eight cylindrical) with reported fingerprints.

## Heat exposure

The majority of objects are recorded as unbaked (see table 5.181), with further classification of sundried for two cylindrical and four conical objects. A further two conical objects are recorded as being perhaps unbaked to perhaps lightly baked. Four conical and one cylindrical object are recorded as lightly baked. Finally, for seven conical objects, the burning is recorded as being secondary. One conical object is recorded as unbaked (sundried) but it was also mentioned in the notes that it was secondarily burnt.

Uneven heat exposure is noted for three conical and three cylindrical objects: two conical objects have more heat exposure once along one side and one at the top of the object.

#### 5.14.4 *INDETERMINATE OBJECTS: PRODUCTION*

##### **Shaping, smoothing and additional surface treatment**

Within the indeterminate corpus, there is only one possible composite piece that perhaps represents a part of an animal body with an attached leg or a torso with an attached arm. Tool use is only recorded as being tentative. Two objects: one possible zoomorphic object (a horn or leg) and one possible zoomorphic/anthropomorphic piece (a body fragment with an appendage) show the parallel striations related to smoothing or modern cleaning. One abbreviated/anthropomorphic piece is recorded as having an unusual incision that curves on a flat surface. Finally, a potential anthropomorphic head fragment is recorded as having facial features in the form of three holes. However, on both the drawing and photograph only one clear puncture is seen. One possible horn/arm fragment has fingernail impressions that are recorded as being potentially decoration.

Other instances of fingernail impressions that are likely related to production only number four. There is one fragment (interpreted as a head) with a fingernail on each side, perhaps indicating eyes. Two other pieces show a single fingernail, likely made when bending the clay. A further 22 objects are recorded as having fingerprints. Information on smoothing is recorded for just over half of the objects. As with the other categories objects are predominantly just recorded as being smoothed (table 5.182). Additional surface treatment was not recorded for these objects.

##### **Heat exposure**

Most objects are recorded as being unbaked (table 5.183). For three objects the further qualification of sundried was added. Seven objects are recorded as being secondarily burnt. Finally, six objects are recorded as having uneven heat exposure. For three objects it is noted that uneven heat exposure can be seen along one side of the object.

#### 5.14.5 *UNCLEAR OBJECTS: PRODUCTION*

##### **Shaping, smoothing and additional surface treatment**

Within this category, two objects are recorded as composite. One irregular fragment has two strips of clay applied to its surface, a third irregular (as seen on the drawing) fragment was also attached. The other example is a curved piece with clear facets. The object consists of two pieces and it is recorded that seams can still clearly be seen.

Five objects have the before mentioned striations or 'scrape marks' related to either smoothing or modern cleaning, a further object is recorded as burnished. Three objects have holes that in one instance are interpreted as eyes in what is possibly a zoomorphic head. Two other objects, both potential abbreviated/anthropomorphic have a possible dowel hole, in one instance two holes are placed close together.

There are three instances of potential 'decoration'. One object has shallow incisions in a rough checkerboard pattern. A second example shows two parallel incisions that seem regular and man-made. A final object has decoration made with fingernails, placed very regularly in three rows. The object is very fragmented and does not have a clear shape, however, the nature of these fingernail impressions brings to mind the head on base examples. Other examples of fingernail impressions related to production are not apparent and will be discussed with use-wear. There are 12 objects with recorded fingerprints.

Objects are predominantly recorded as smoothed, with low percentages recorded as more roughly smoothed or well smoothed and one object is recorded as being burnished (table 5.184). Additional surface treatment is recorded for two objects: one is recorded as having a slip layer and a second one as having possible dark-coloured painted decoration.

### Heat exposure

Just over 40% of the objects are recorded as unbaked, with one object being recorded as sundried. Two objects are recorded as lightly baked and one as well baked to burnt. Burnt objects only number 16 and of these four are recorded as secondarily burnt. There are only two instances of recorded uneven heat exposure with no further information given (table 5.185).

## 5.15 ANALYSIS FIGURINE PRODUCTION TELL SABİ ABYAD: CONCLUSIONS

Information on production is not as detailed as the information available for the Çatalhöyük corpus. However, there are still interesting observations to be made. Objects are visibly composite at times, likely many more are than are recorded here. As with the Çatalhöyük figurines, zoomorphic figurines are most often recorded as composite (although 'most often' is very relative here as the numbers are very low across the corpus). The abbreviated/anthropomorphic shapes are relatively simple shapes and can easily be shaped from one piece of clay. The application of small balls of clay as eyes and as 'decoration' within the head on base (rounded base) type is notable and this way of applying elements is not observed at Çatalhöyük.

Tool use is very rare, however, what is striking is that conversely, it is a defining feature for the decorated type. The use of tools for smoothing is attested, however, because it has been recorded that it could have been caused by cleaning objects this type of tool use has to be considered as tentative.

It is clear that many objects have some level of smoothing.<sup>1</sup> Burnish is extremely rare, only observed twice by the original recorders. Clear differences between different figurine types are not apparent. Additional surface treatment is also very rare, the clearest examples being within the abbreviated/anthropomorphic category.

As commented upon, figurines are most often said to be unbaked, whilst at Çatalhöyük mostly 'indeterminate' was used. Whilst a note of caution was already given in the introduction, many objects have no clear

---

<sup>1</sup> The readers are also referred to the catalogue with all the photographs, although photographs were not used here to supplement information on smoothing, they do show that most objects were smoothed to some degree.

signs of being exposed to heat. The added qualification of being ‘secondarily’ burnt or baked provides information on where in the life biographies heat exposure occurred. There are only rare mentions of heat exposure being even or uneven and patterns are not apparent. The colour differences on figurines do indicate that objects were likely often exposed to heat in an uncontrolled manner as we also observe at Çatalhöyük.

## 5.16 ANALYSIS FIGURINES USE-WEAR TELL SABİ ABYAD: INTRODUCTION

Use wear on figurines from Tell Sabi Abyad is similar to that seen at Çatalhöyük and therefore the following sections are structured similarly, focussing on punctures, gouges and intentional damage, polish and impressions. Fingernail impressions will be discussed here when they are clearly, or potentially, not related to production. There are also many mentions of various ‘indents’, ‘scratches’, ‘damages’ and ‘notches’ which are never clearly intentionally created and therefore these will not be discussed.

### 5.16.1 ZOOMORPHIC FIGURINES: USE-WEAR

#### Punctures, gouges and intentional damage

Next to punctures and gouges, there are also markings recorded as incisions. The word ‘gouge’ is actually never employed at Tell Sabi Abyad. Here the distinction has been made where gouges are very pronounced, deep and wide marks as opposed to incisions which are less pronounced and appear more like ‘cuts’.

Punctures are only recorded or personally observed on photographs on 14 quadrupeds. Depicted here are F05\_028, F04\_069 and F07\_014 (fig. 5.51: 10, 13-14). In eight instances only one puncture is recorded, two punctures (one perhaps has more) are seen on two figurines. Three figurines have a substantial number of punctures: seven, eight and one remarked as having many. On one figurine these eight punctures are seen all over the object: the front of the body, right front leg, left front leg and the back. On the other example, the seven punctures are all concentrated around the right front leg. On the final example, the punctures were originally described as incisions, however from the drawing they are much more like shallow puncture marks. The object might have more of these markings, no amount was mentioned and only one side of the object was drawn.

There are no clear patterns seen in the placing of punctures, they are located on the left side on seven objects, on the right side in four instances. There is only one instance of punctures occurring on the head of quadrupeds, all the other instances are recorded in various places on the body, most commonly on the flanks (n=8).

Gouges occur on 14 quadrupeds (see O05\_015, F05\_059, F05\_028, III005\_036 and F98\_008; fig. 5.51: 8-12) and the amount ranges from one to four. Mostly only one is observed (n=8). As with punctures, these gouges occur most often on the flanks of objects: in seven instances. Three are across the back of quadrupeds, three are seen on the neck area and once a gouge occurs on the belly. As with punctures, there are no patterns in the sidedness of these markings.

Finally, 13 objects have incisions that can likely be interpreted as intentional ‘damage’, for example F05\_028 and F98\_008 (fig. 5.51: 10 and 12). They occur on various parts of the body: back, flank and neck and twice on the head. The number of incisions ranges from one to four and mostly only one incision is seen (n=6). There are three objects with an unspecified number of incisions. One object is recorded as having ‘many’ and on the photograph, it can be seen that the entire flank is covered with them. Object III005\_036 reportedly has V-shaped incisions, but they are not clearly visible (fig. 5.51: 11). The third example has ‘many’ incisions concentrated on the right side of its head and front of the body. These incisions are recorded as being partly smeared over, so clearly made when the clay was still plastic. In contrast to what is evidenced at Çatalhöyük, where damages seem to have occurred when the clay was still plastic many of the gouges and incisions seem to have been made when the clay had (partly) dried, most clearly seen on F05\_028 (fig. 5.51: 10), which has a large gouge across its back and many incisions which cut through the darker outside layer.



Figure 5.51: Figurines with intentional damage (not to scale). 1: F02\_002, flattened, head removed?; 2-7: F05\_004, F05\_008, F05\_005, F05\_129, F05\_131, F05\_017, intentional breakage?; 8-9: O05\_015, F05\_059, gouges; 10: F05\_028, punctures, gouge and incisions; 11: III005\_036, gouge in neck; 12: F98\_008, deformed, gouge and incisions; 13-14: F04\_069, F07\_014, punctures. Image by author, original photographs courtesy of the Tell Sabi Abyad project

There is little clear evidence for intentional breaking and/or deforming of figurines. The intentional breaking is never commented upon and the examples are thus tentative. All these 18 instances are examples of clean breaks, rather than the pinching and pulling observed on the Çatalhöyük figurines, except perhaps on F02\_002 (see fig. 5.51: 1), also the only example which is clearly flattened. All the instances are thus recognised from photographs and drawings where very clean breaks are seen through the necks or heads (n=14) and twice through the body (fig. 5.51: 1-7). Once it is commented that an impression of a reed or stick is seen in the fracture of a body fragment, perhaps related to the breaking.

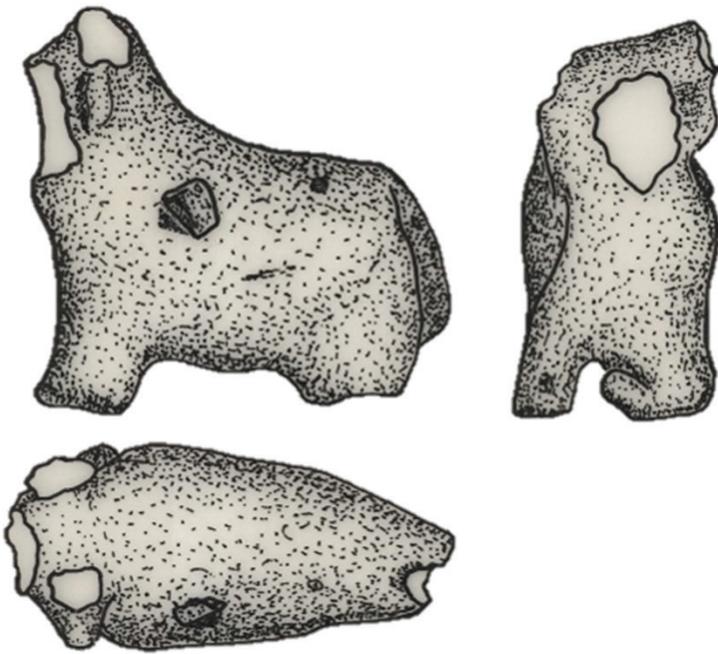


Figure 5.52: F93\_018 (not to scale). Figurine with inserted stone and possibly deformed left front leg. Image by author, original photographs courtesy of the Tell Sabi Abyad project

There are four instances of deforming. The aforementioned object F02\_002 is the only clear example of a flattened object. Two very similar objects F98\_008 (fig. 5.51: 11) and F98\_007 might be slightly deformed seen on their legs and muzzles. A final example is recorded as having a very pronounced thumb impression on the front of the body, perhaps also an instance of intentional deforming.

A final interesting example is object F93\_018 where a small stone was inserted into the left flank (fig. 5.52), this is interpreted as likely intentionally inserted. No other markings are recorded, but although not recognised as such it seems the left front leg might also be deformed as it appears to have been pressed inwards.

All types of potential intentional damage are seen very rarely and only on quadrupeds. The co-occurrence of the various types is low. The breaks seem to be clear cuts with no evidence that gouges or punctures on the (potentially) intentionally broken objects contributed to the break and 10 of these objects have no other markings. There is only one instance where a potential gouge seems to have contributed to a break namely object III005\_036 (fig. 5.51: 11). This was not mentioned on the object form but seems to be quite evident from the photograph.

Incisions, gouges, and punctures do not co-occur, only two objects have both incisions and gouges and only the previously discussed object F05\_028 has all three types of markings as well as being potentially broken (but see again III005\_036 where potentially a shallow puncture can be seen on its right flank).

There are no patterns between intentional damage and smoothing levels or heat exposure (table 5.186-5.187). As the objects are mostly just recorded as smoothed, the percentages are subsequently quite high

within the other categories of smoothing, but this is deceptive. Low, roughly equal percentages, of objects with intentional damage are seen across unbaked, baked and burnt objects.

### Polish

Polish cannot readily be discerned on photographs, therefore the only instances here are those originally observed. There are only very few instances of polish, often recorded as patches of polish but without further qualification. There are nine instances of polish on quadrupeds, recorded once on the back, once on the back and flank and once 'where people likely held the object'. The only other mention of polish is on a horn fragment.

### Impressions related to use

There are 23 instances of fingernail impressions that are likely related to use. Unfortunately, detailed information is often missing. In 15 instances the amount of fingernail impressions is unknown. In the other eight instances the number of fingernail impressions ranges from one to four. There are at least some objects that seem to have many fingernail impressions on the flanks. There is one example for which a clear photograph exists: IIF05\_039, a body fragment with a left flank (possibly also other areas) covered in fingernail impressions (see fig. 5.53: 1). Fingernail impressions occur almost exclusively on the body, most often on the flanks (n=14), only once is a fingernail seen on the head. One object apparently has fingernail impressions that form a pattern: a 'herring bone' pattern on one flank and a row on the other, unfortunately there is no photograph or clear drawing. The only other clear photograph is shown in Figure 5.53: 2, IIF05\_065 with a clear fingernail impression on the right flank.



Figure 5.53: Fingernail impressions seen on IIF05\_039 and IIF05\_065 (not to scale). Image by author, original photographs courtesy of the Tell Sabi Abyad project

There is one example of fingernail impressions on a horn fragment that do not seem related to production: three fingernail impressions are placed in a row. There are no patterns between fingernail impressions and heat exposure or smoothing levels.

Other impressions possibly related to use are very rarely commented upon. There is only one instance recorded within quadrupeds, F02\_002, the flattened body fragment has impressions of some sort of material on one side as if it was pressed up against something whilst flattened. One horn fragment is recorded as having plant/fibre impressions and finally, one indeterminate fragment is recorded as having basketry or reed impressions on one side

### 5.16.2 ANTHROPOMORPHIC AND ABBREVIATED FIGURINES: USE-WEAR

#### Punctures, gouges and intentional damage

There is very little evidence for the intentional damaging of figurines based on what we can observe on the figurines (but see more on contexts later). Clear puncture marks are not recorded. Two head on base objects have a hole or puncture in their base. There are also two head on undivided base figurines that have punctures: one has one and the other has two which are described as ‘made by animals’, it is uncertain what the recorded meant with this qualification. One human-undivided base has a puncture on its base and one pillar

shape, IIIIF05\_097, has possible punctures as seen on the photograph (fig. 5.54: 4). Finally, three indeterminate pieces have a puncture. Two of these are described as either a puncture or a hole left by a lost inclusion. The final example is said to be a dowel hole in an indeterminate head fragment.

Gouges are never mentioned, there are some mentions of incisions and scratches, the nature of these is mostly in doubt as being intentional or even clearly human-made. One indeterminate object can be mentioned where one side is covered with possible incisions. From the photographs, there are only two clear possible instances of gouges/incisions: one pillar shape with two deep gouges (IIIIO10\_177) and one indeterminate (O04\_354) fragment with an incision that seems to continue into the fractured area (fig. 5.54: 1-2).

Clear evidence of deforming and breaking is also very rare. It is only originally recorded for two objects. One head on divided base has recorded traces of ‘cutting or breaking’. A further decorated type is recorded as possibly having its head removed: there is a flat facet where perhaps the head was cut,



Figure 5.54: Examples of possible intentional damage (not to scale). 1: IIIIO10\_177; 2: O04\_354; 3: F04\_048; 4: IIIIF05\_097. Image by author, original photographs courtesy of the Tell Sabi Abyad project

although it is also said that the damage might be modern. There is also one head on divided base (F04\_048; see fig. 5.54: 3) which might be deformed as the legs are pressed upward. A final example is a pillar-shape that was perhaps flattened.

### Polish

Polish is recorded on a few objects. Three head on base objects are recorded as having polish, without further elaboration on where this polish occurs. Two pillar shapes have recorded polish, once occurring as two patches on the front and back of the object. One human-on divided base has a 'shiny surface' as it is described and, finally, one indeterminate piece has a patch of polish.

### Impressions related to use

There are seven possible instances of fingernail impressions as use-wear seen on head on divided base figurines, which have unspecified amounts of fingernail impressions on their torso. These are more difficult to relate to production and might potentially be related more to using objects. A further example has three fingernail impressions (or incisions?) placed vertically next to each other between the legs of the figurine they seem unrelated to the shaping of objects. One human-undivided base, F96\_008, has at least seven fingernail impressions recorded, all on one side of the object (fig. 5.55: 1). These fingernail impressions are placed without any clear patterning and do not look like the other instances of fingernail impressions as decoration.

Plant impressions are recorded in two instances on the round base figurines (no images available): on F04\_052 it is reported that the bottom of the base is rough and covered in plant impressions. The other object, 007\_033, is completely covered in plant/fibre impressions and perhaps was wrapped at some point. One head on divided base (F04\_057) has clear, deep plant impressions near its base (fig. 5.55: 2), another one has a reed impression seen in a fracture. Finally, one pillar shape (F04\_070) has plant impressions near its base (not clearly seen on the photograph, but see fig. 5.55: 3).

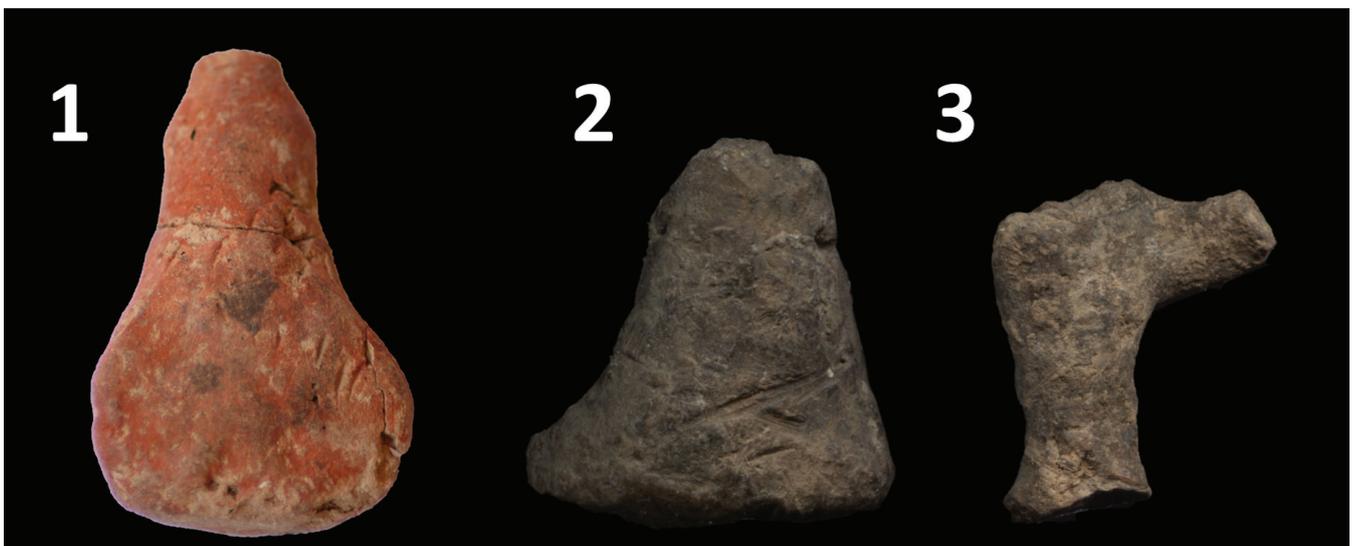


Figure 5.55: Examples of markings related to use (not to scale). 1: F96\_008; 2: F04\_057; 3: F04\_070. Image by author, original photographs courtesy of the Tell Sabi Abyad project

Other impressions are even more rarely recorded. One head on base (004\_001) has two deep, round impressions the nature of which is unclear. One decorated type (F92\_010) is recorded as having a cord impression on the back at the narrow part of the 'waist'. Unfortunately, this was not drawn nor is there a photograph.

### 5.16.3 GEOMETRIC OBJECTS: USE-WEAR



Figure 5.56: F07\_003, three fingernail impressions placed in a row (not to scale). Image by author, original photograph courtesy of the Tell Sabi Abyad project

Clear markings related to use are only present in the form of fingernail impressions and plant impressions. There are 21 geometric objects with fingernail impressions: 14 conical and seven cylindrical pieces. When there are only one or two reported, as is the case on 11 objects, relating it as intentional and not related to production is tentative. There are three objects where it is quite likely these markings are not production-related. One object has three fingernail impressions placed next to each other forming a line on a cylindrical object (fig. 5.56). One conical object has an unspecified amount but it seems to be covered in impressions. A final example is another cone shape that has two fingernail impressions overlapping in an X-shape with next to it another, single impression (or possibly a short incision). For the remaining seven objects it is only recorded that there are 'some' or 'multiple' impressions. Plant impressions are recorded on only three pieces without much further information available. Other impressions are ambiguous and they could not be seen on photographs. Two objects have one and three squarish impressions at the bottom of the base. Three others have an impression, with no further information recorded.

Finally, polish is recorded on eight pieces, seven of which are conical pieces. For three pieces it was observed that the polished was localised, in two instances the surface showed polish all over and the final three are noted simply as having a 'polished surface'.

### 5.16.4 INDETERMINATE OBJECTS: USE-WEAR

As with geometric objects there is no evidence of intentional damage within this category. Three objects have incisions: two have a single incision and a third (005\_093) has several incisions as well as potentially a small puncture (fig. 5.57: 1). There are six more instances of punctures (for example IIIF05\_022, III005\_094 and III010\_179; fig. 5.57: 2-4)

Fingernail impressions likely not related to production are seen on 15 objects. For eight objects it is only mentioned that there are multiple fingernail impressions, with one recorded as having multiple on one side of the object in various orientations, making it unlikely to be related to shaping. There are five objects with only one recorded impression, for these it is more uncertain that they are not production-related. Finally, one object has two impressions next to each other and another has at least seven on various parts of this fragment.

Six objects show plant impressions, although in three instances it is mentioned that they are either impressions of straw, fibre in one instance, or temper. In one instance there are recorded impressions being the result perhaps of 'lying on something'. Polish is recorded on six objects, four are polished all over and two objects have a concave area which is polished.

### 5.16.5 UNCLEAR OBJECTS: USE-WEAR

Clear evidence of damage is not seen within this category. The only potential example, 004\_525, shows a cut or gouge with three clear thinner marks. Perpendicular there is also a deep gouge which was originally described as an impression (fig. 5.58: 1). There are only three objects with punctures; one to three punctures are recorded (for example 004\_293; fig. 5.58: 2). There are three other objects reported to have one, two and multiple 'cut marks', however, these instances are more tentative.

Fingernail impressions are not clearly related to either use or production. There are eight objects, four of which have one fingernail impression, one has two and the others have an unspecified amount. Plant impressions are recorded twice, once as potentially lost inclusions and the other has reported plant impressions on one side of the object. One final object is recorded as having what looks like a fish-scale pattern, perhaps an imprint from lying on something. Finally, five objects show polish which is reported as being all over the object in three instances and in patches in the other two.

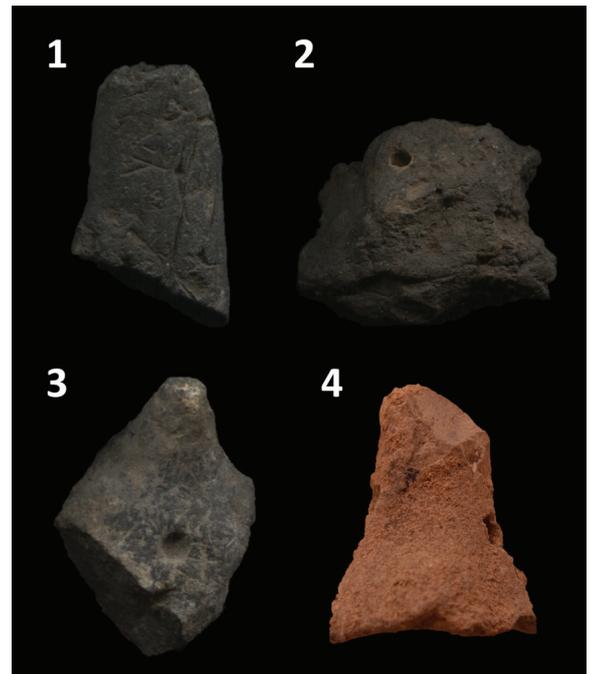


Figure 5.57: Objects with punctures (not to scale). 1: 005\_093, also has incisions; 2: IIIF05\_022; 3: III005\_094; 4: III010\_179. Image by author, original photograph courtesy of the Tell Sabi Abyad project



Figure 5.58: Unclear objects with gouges, incisions and punctures (not to scale). 1: 004\_525; 2: 004\_293. Image by author, original photograph courtesy of the Tell Sabi Abyad project

## 5.17 TELL SABİ ABYAD FIGURINES USE-WEAR: CONCLUSIONS

Despite being rare and at times tentative based on the available documentation, there is evidence of intentional damage which seems restricted to zoomorphic figurines. There are very few instances of gouging and/or pulling apart of zoomorphic figurines, rather most figurines were broken when the clay had hardened to some degree after heat exposure. All other types of use-wear are recorded only in very low numbers and clear patterns are not evident. As with the figurines at Çatalhöyük there are examples of impressions related to use: fingernail impressions not clearly related to use and some instances of plant impressions. Impressions of matting and textiles, again more rare compared to Çatalhöyük, are also recorded.

## 5.18 TELL SABİ ABYAD FIGURINES CONTEXTUAL INFORMATION: INTRODUCTION

At Tell Sabi Abyad the unique Locus/Lot combinations have been linked to context types. These are available for most figurines on Tell Sabi Abyad I. When not available, the context types were given by the author based on the context descriptions. For Tell Sabi Abyad II information could be supplemented from two publications (Verhoeven and Akkermans 2000; Verhoeven 2004). For both Tell Sabi Abyad II and III the contextual information is less secure, meaning mostly that building numbers are not known and context locations are unclear more often.

The context descriptions follow those of Çatalhöyük, describing contexts as being: 1) external or in a building, 2) context type, 3) primary or secondary and, 4) showing signs of being burnt.

### 5.18.1 CONTEXT LOCATIONS

Contexts are recorded here as related to buildings, open areas, platforms, or unknown. Unknown are those for which contextual information is unclear or missing. Unknown is also used for figurines recovered from the Late Bronze Age (LBA) *Dunnu* remains which cover part of the tell and also partly disturb the underlying Neolithic archaeology. This means that some of the Neolithic figurines are from mixed contexts such as LBA pits, burials, buildings and at times they are even found as inclusions in mudbricks. These objects have context descriptions, but as these are clearly not the original contexts, they are recorded as coming from unknown context locations. The number of figurines from these contexts are low: 65 in total.

Platforms are a particular type of context location that has been added here to indicate building platforms. These are not platforms located in houses as we find at Çatalhöyük, but rather platforms on which—at times—buildings were constructed. However, platforms are not always associated with buildings and are recorded as features instead of buildings and therefore, the distinction of open area or building does not clearly apply. Added to the category of platforms is one context located on Tell Sabi Abyad III, where a ditch (feature AT) is clearly associated with a platform (feature Q). It should also be noted that many figurines come from other features located in open areas such as ovens, hearths, (fire)pits and bins. These features have been recorded as being located in open areas.

The majority of figurines come from outside areas, although within these open areas a substantial number of figurines are found within features (see ahead). There is one type within the anthropomorphic and abbreviated figurines, the decorated type, that is almost exclusively found inside room fills (fig. 5.59).



Figure 5.59: Location of figurines

The allocation of building numbers was not always possible. For Operation I, the information was available through the central database. For Operation III and IV the building numbers were assigned by checking daynotes and drawings against the available maps (only two figurines come from building I in Operation IV). The same method was used for Tell Sabi Abyad II, although more tentatively, as the loci have not all been assigned to contexts and levels. Here the figurines were recovered in building IV (n=3) and V (n=5) and for one figurine the building is unknown. For Tell Sabi Abyad III the buildings are unknown as the excavations of this part of the site have only been partly analysed and maps are not available. The 33 figurines associated with buildings can therefore not be linked to specific buildings Table 5.188 shows the figurines from buildings in Operation I and III.

Within Operation I, the level 6 (Burnt Village) buildings have the highest concentrations of figurines. Together with the Burnt Building in Operation II these are definitely primary depositions. The rest of the buildings were all left standing in a ruined state and filled in with debris and midden-like deposits, unlike Çatalhöyük where there is at times a distinction between 'clean fills' and midden-like deposits. The room fills are therefore all likely secondary, with possible exceptions of the objects found on floors (see ahead). Exca-

vation biases are not a factor at Tell Sabi Abyad: all buildings were excavated in similar ways and therefore the numbers are representative across different Operations.

### 5.18.2 CONTEXT TYPES

At Tell Sabi Abyad the range of context types is relatively limited. A total of 14 context types have been assigned, partly following those employed for Çatalhöyük.

- Storage features: the fill and make-up of bins, basins and niches
- Fire features: the fill and make-up of ovens, hearths and fire pits
- Platform: As said, these are platforms in external contexts
- Room fill: all fills within buildings
- Floor: deposits found on or very near floors and potentially primary depositions
- Construction: contexts from walls and mudbricks
- Foundation fills: fill of cuts created to build (internal) walls. These are very rare at Tell Sabi Abyad and at times it is unclear if these contexts could also be classified as construction contexts. However, as it was a separate category within the original site database, the terminology has been retained
- Burial fill: the fill of burials, both internal and external as well as Neolithic and later burials. There is no clear indication that these figurines are primary depositions
- Activity-external surface: separated from external midden/dump contexts as it is clearly stated an external surface was present where activities took place
- Pit fill: occur both in buildings and external areas
- Soil layer: originally employed for nearly all outside area contexts
- Ash deposits: used for outside areas where context descriptions state that the figurine was discovered in an ash layer or ash pocket
- Debris layer: used for outside areas where the context descriptions state that figurines were discovered in building debris
- Unstratified: used for objects found during removal of topsoil, cleaning sections, backfill etc. and when unit information was not recorded

Within external contexts originally only 'soil layer' and 'floor' (e.g. external surfaces) were distinguished. Here, two categories have been added, namely ash deposits and debris layer. These have been assigned when the context descriptions clearly stated that the figurines were found in either ash pockets and ash layers or building debris. Loci are almost never described as clearly being midden deposits or dumps and therefore this term has not been employed here. Nonetheless, there are, of course, midden-like deposits where finds of bones, sherds and the like are reported.

The different nature of the open areas at Tell Sabi Abyad compared to Çatalhöyük becomes apparent through the many features that are found in these external spaces: ovens, hearth, firepits, tannurs and many pits are reported in these areas.

Object clusters are found much more often at Tell Sabi Abyad compared to Çatalhöyük. This was not recorded as a context type (e.g. 'cluster'), instead it was mentioned in the comments. Here the original context descriptions have been maintained, however, object clusters will of course be described within the different context categories.

The different figurine types are similarly distributed among the context types (table 5.189-5.182, fig. 5.60-5.62). Secondary contexts in external soil layers are most common, although for anthropomorphic/abbreviated figurines this is quite closely followed by room fills. Across types, there are also substantial numbers of figurines found in pit fills and ash deposits. The nature of deposits as being primary or secondary is in some cases easier to establish compared to Çatalhöyük. This is partly due to the excavation methods where all figurines were recovered in-situ with only a few exceptions of objects that were missed and later found in pottery lots. This means that clustering is not only seen in features but also in open area soil layers, ash deposits and pit fills. Perhaps not to be interpreted as primary depositions, these could also be perhaps the result of multiple figurines being discarded at once, or in a short time span. These clusters will nonetheless be discussed as potentially intentional depositions. As with the analysis of the Çatalhöyük contexts, the focus otherwise will be on storage and fire-related features as well as objects found on floors inside structures.

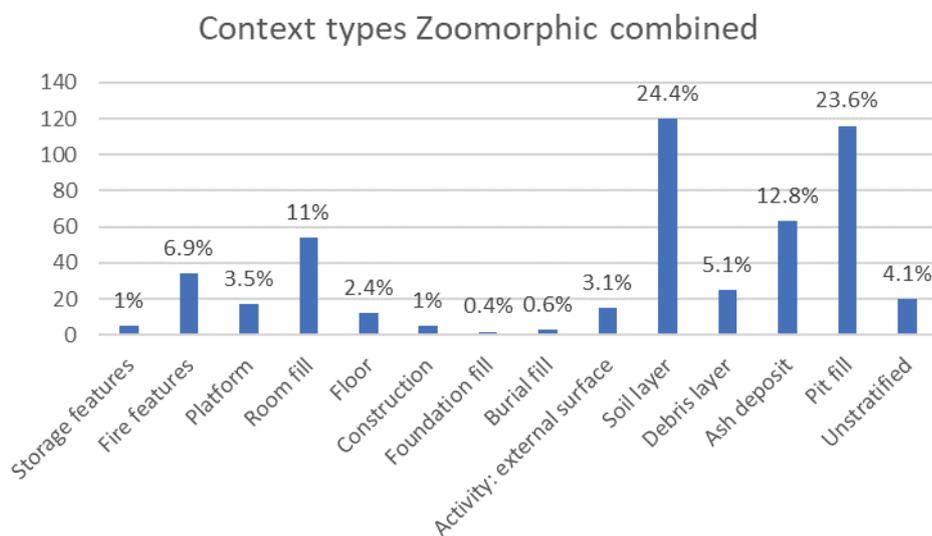


Figure 5.60: Context types zoomorphic figurines combined

### Context types Anthropomorphic and Abbreviated combined

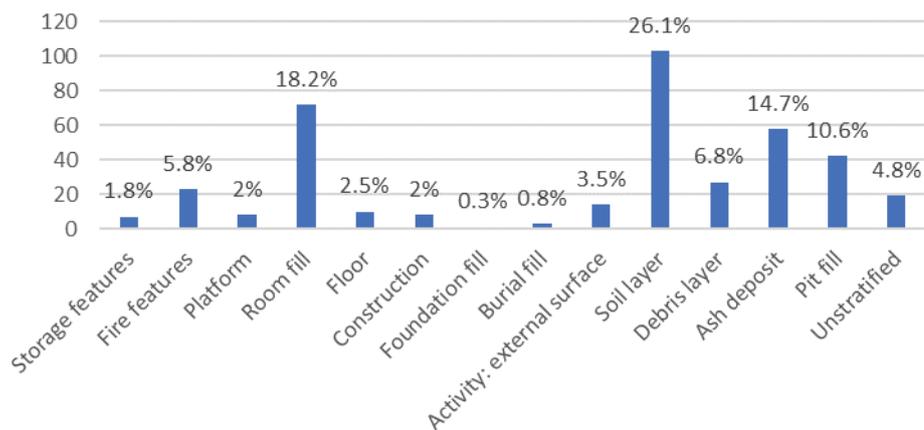


Figure 5.61: Context types Anthropomorphic and abbreviated figurines combined

### Context types Geometric combined

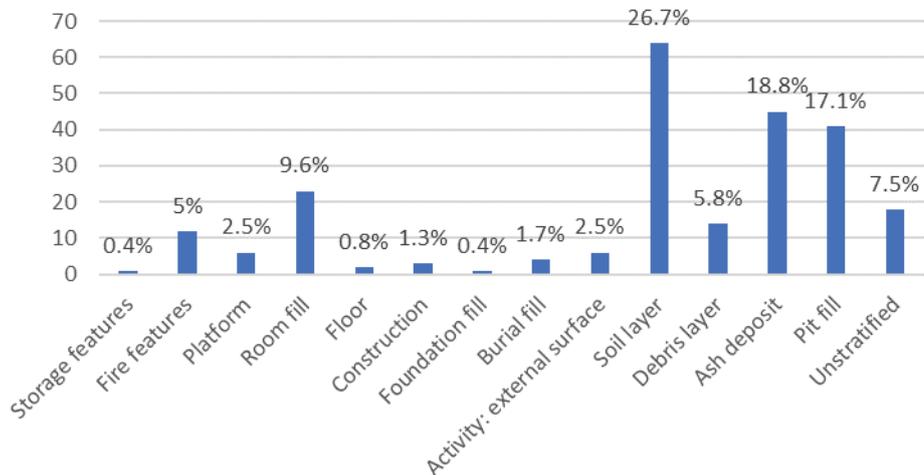


Figure 5.62: Context types Geometric objects combined

## Storage features

Figurines related to storage features are very rare and only occur in Operation III. Of the six different contexts, only one is clearly a primary deposition. Bin GE inside building 4.4 was a closed context where 12 figurines were found alongside a selection of other object types (mostly fragmented; see table 5.193) as well as sheep/goat leg bones which were perhaps articulated according to the day notes. The figurines found are three quadrupeds, three head on base, two pillar shapes, one human-undivided base and an indeterminate anthropomorphic/abbreviated fragment (see fig. 5.63).

## Fire installations

A total of 51 different features contained one or more figurines (table 5.194). These contexts are almost exclusively external. There are a few contexts with clear clusters of figurines and at times other objects: oven AL in Operation I contained seven figurines and a large cluster of other objects including 78 tokens. Five of



Figure 5.63: Above: F08\_026 and F08\_032, part of the figurine cluster. Below: Bin GE in building 4.4, Operation III. Object cluster in situ. Photograph courtesy of the Tell Sabi Abyad Research Project

these figurines are zoomorphic, two of which (F98\_007 and F98\_008; fig. 4.65: 1-2) are complete and very similar, and one cylindrical piece and an unclear object (F98\_013: perhaps abbreviated with a dowel hole; see fig. 5.64: 7).

In Operation III, fire pit MO contained 10 figurines again associated with tokens: there were seven clear tokens and an additional 48 clay objects of an unclear designation. There are three quadruped fragments (F09\_125-126 and 128; fig. 5.65: 1-2, 4) and a horn fragment as well as a pillar shape (F09\_127; fig. 5.65: 3), head on divided base and one indeterminate anthropomorphic/abbreviated fragment (F09\_129; fig. 5.65: 5). The final three objects are one conical, indeterminate and unclear object. All these objects are very fragmented. Finally, on Tell Sabi Abyad III, hearth AF contained eight figurines and another 32 ambiguous clay fragments. The figurines are all fragmented, two are quadrupeds and there is one horn fragment. All the others are of an indeterminate nature.

These contexts are very likely primary depositions. For the other contexts, there are likely more examples where figurines were placed intentionally, but it is difficult to substantiate. As will be discussed in more detail later on, not all figurines are reported as baked or burnt and there is often reported disturbances within

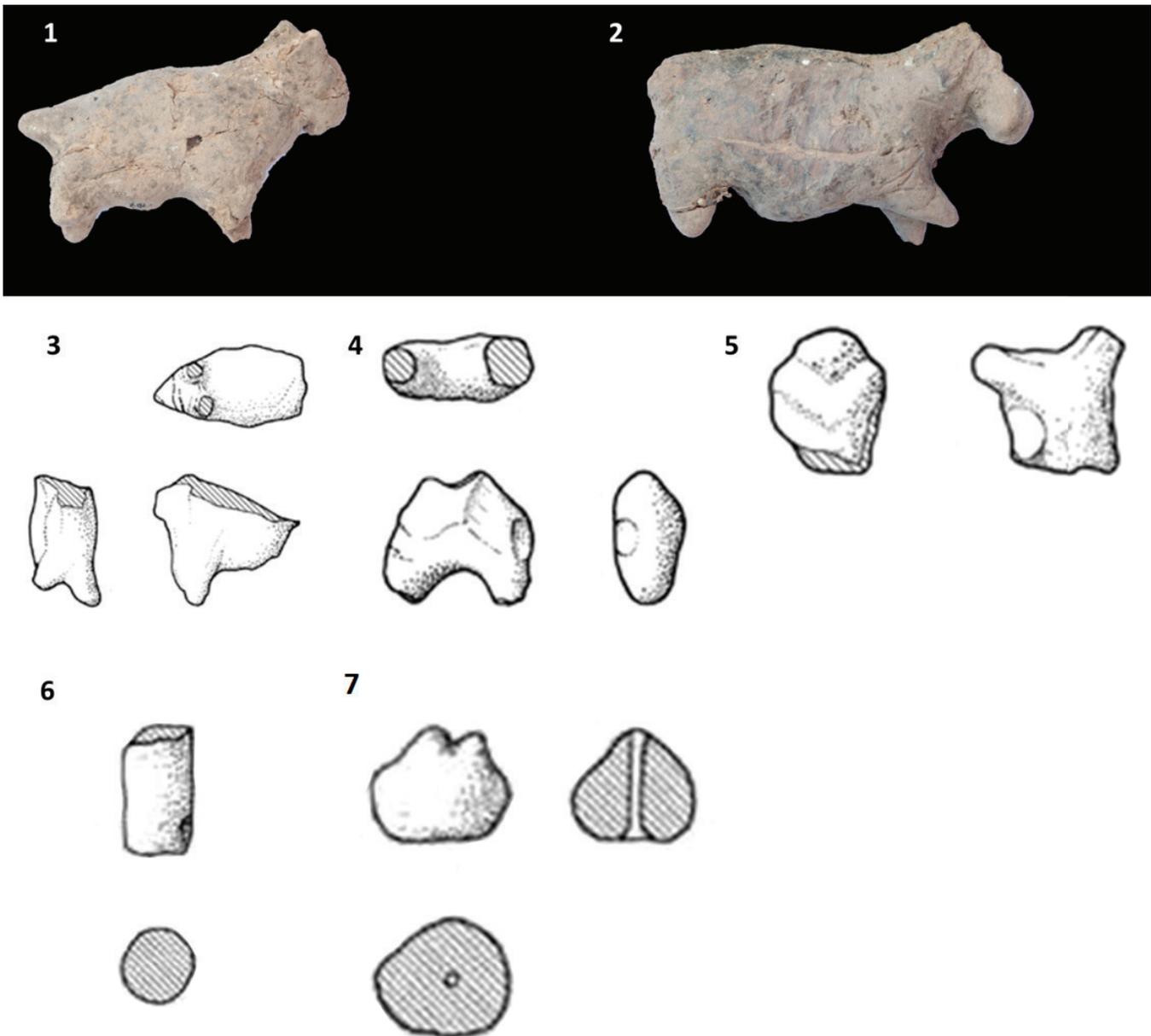


Figure 5.64: Figurines from oven AL in Operation I (not to scale). 1-2: F98\_007, F98\_008; 3-5: F98\_008-010; 6-7: F98\_012, F98\_013. Image by author. Photographs courtesy of the Tell Sabi Abyad Research Project

these features as well as some mixing of fills. Therefore the nature of the fill is not always primary and it cannot be claimed with confidence these objects were intentionally placed.

### Floor contexts

There are 22 floor contexts, of which four are potentially infill or make-up of floors (see table 5.195). There are two concentrations of figurines. One comes from building 6.14 in Operation I, where seven anthropomorphic/abbreviated and one unclear fragment were recovered together with many other objects. The figurines are two violin type, two decorated type and three human-undivided base (fig. 5.66). The second cluster of five figurines, of which four are quadrupeds, was found in a building on Tell Sabi Abyad III.

All the other instances of floor contexts yielded one or two figurines, some in association with other objects. Whilst the two object clusters are likely intentional deposits, for the remaining ones this is not clear.



Figure 5.65: Part of the figurine cluster from fire pit MO in Operation III (not to scale). 1-5: F09\_125-129. Image by author. Photographs courtesy of the Tell Sabi Abyad Research Project



Figure 5.66: Part of the figurine cluster building 6.14 (not to scale). 1-3: F97\_008-010; 4-6: F97\_012-014. Image by author. Photographs courtesy of the Tell Sabi Abyad Research Project

## Object clusters

There are several figurine clusters in addition to the ones described above. These occur in outside ash deposits, pits and once in the ditch associated with the platform on Tell Sabi Abyad III. Particularly in the pit fills, clustering is not always clear as some have different fills deposited in multiple events. These different lots (fills) have been recorded separately (table 5.196).

There are two pits with clear separate fills, both from Tell Sabi Abyad III. The first is a pit fill in square H08 locus 043 (no feature name) with three fills, all of which contained multiple figurines. A total of 28 figurines came from this one pit and is a mix of zoomorphic (three quadruped, two horns and one indeterminate), anthropomorphic/abbreviated (four pillar shapes, one indeterminate) as well as geometric and unidentifiable pieces. Other types of finds are not reported from this pit, only more clay fragments were found in the ashy fills.

The second pit is located in the same square (again no feature name), is very large and has several loci/lot combinations assigned to it. Here the contexts have been separated according to the day notes and at least three fills were recognised: 'central fill', 'second fill' and an 'ashy fill'. So, although information on fills is at times unclear, clearly this large pit has several depositional events all associated with figurines.

It should also be noted that this part of the tell was used as a cemetery by the Halaf community living on Tell Sabi Abyad I. The cemetery was characterised by 'death pits', which disturbed the earlier occupational remains on the tell. Therefore, the nature of these pits and their association is not completely secure, being either in-situ material or original material/fill disturbed and redeposited at a later date. There is clearly some mixing of material as some human bones were also found in the fill of this pit.

Nonetheless, even if the material is (partly) disturbed by later activity, the sheer amount of figurines deposited in this pit is quite remarkable. Originally the numbers were higher but many fragments were too ambiguous to be clearly assigned as figurines. The 106 objects that are part of this dataset are again a mix of different types and all fills yielded these different types, so there is no clustering of types within the fills. There are, however, mostly zoomorphic figurine fragments in this pit (n=54, 51%), 33 quadrupeds (fig. 5.67: nos 1-15), 17 horn fragments (fig. 5.67: 16-24) and four indeterminate pieces. Of the 17 anthropomorphic/abbreviated objects 12 are pillar shapes (fig. 5.67: 25-31), a further three head on base, one human-undivided base and one indeterminate piece were found.

Not only many figurines, but a range of other objects and fragments were also found. Perhaps this pit is to be interpreted as a dump of some sort. As could be gathered from the deposition forms the fill consisted of a lot of ash and loam, no animal bones or the like were found, so perhaps the nature of this dump is not a midden deposit. There are associations with animal bones and zoomorphic figurines in other pits. Clear examples are pit AN where five figurines were found together in an ashy fill above a more solid fill with large animal bones. The second example is found on Tell Sabi Abyad II, pit BB yielded seven zoomorphic figurines in association with many animal bones.



Figure 5.67: Part of the figurine cluster in the large pit in square H08, Tell Sabi Abyad III (not to scale). 1-15, quadrupeds: IIIIF05\_032, 034, 038, 039, 042, 049, 051, 065, 074, 120, 124a, 131, IIIIO05\_037, 065, IIIIF05\_037; 16-24, horn fragments: IIIIF05\_010, 047, 054, 055, 057b, 067, 069, 092, 124b; 25-31, Pillar shapes: IIIIF05\_036, 081, 090, 116, 119, 133, 135. Image by author. Photographs courtesy of the Tell Sabi Abyad Research Project

Of the clusters in ash deposits, one is extremely interesting. Again in an early context on Tell Sabi Abyad III, an ash deposit in square I06 is reported to be the result of a single burning event where the figurines were thrown into the fire. The majority of objects (11 out of 17) are indeed reported as being burnt. The figurines are mostly very fragmented and hard to identify. There are three recognisable pillar shape objects (fig. 5.68: 6-8), one quadruped, indeterminate zoomorphic and three horn fragments (fig. 6.68: 1-5) and the remaining nine are cylindrical and indeterminate fragments.

There are three clusters in room fills, one comes from building 6.2 in the Burnt Village. In essence, all these room fills are clusters of objects, however, this is the only one where a large number of figurines are reported to be found in close association to each other, together with a large amount of a wide variety of objects. The figurines are mostly anthropomorphic/abbreviated: eight decorated type, five head on base, two violin type and one indeterminate fragment along with five quadrupeds and three horn fragments.

One cluster in a room fill has been added even though there is only one figurine associated with this context. The day notes clearly state that the figurine was found as part of a cluster with different objects. The same goes for the cluster in an ash deposit in Operation III (shown in italics in table 5.196).



Figure 5.68: Part of the figurine cluster in an ash deposit in square I06, Tell Sabi Abyad III (not to scale). 1-2: IIF10\_131, IIO10\_226, quadruped and indeterminate zoomorphic; 3-5: IIF10\_127-129, horn fragments; 6-8: IIF10\_130, IIO10\_231, 238, pillar shapes. Image by author, photographs courtesy of the Tell Sabi Abyad Research Project

### 5.18.3 NON-CLAY FIGURINES RELATED TO CONTEXTS

Non-clay figurines are found in very small numbers throughout the layers without clear contextual patterns, except within the anthropomorphic/abbreviated corpus. The clear anthropomorphic stone examples: the oval heads and the singly realistic human-divided base example all come from early PPNB/Initial PN layers from Tell Sabi Abyad II (table 5.197). However, interestingly, one example of these limestone heads was found in Transitional level building 6.12. Potentially, this piece was found and curated by later inhabitants as it is identical to the very early examples. The three bone examples are temporally very restricted found in levels A3/4 in Operation III.

#### **5.18.4 HEAT EXPOSURE RELATED TO CONTEXTS**

Information on heat exposure was taken from deposition forms. At times contexts that would be expected to show signs of burning, e.g. features related to fire, are not recorded as being burnt; likely because the deposition form describes only the fill (that could be secondary), and not the make-up of these features. The information on the deposition forms has been maintained here with the exception of the room fill in the Burnt Building in Operation II, which is clearly burnt but was not recorded as such on the deposition form.

The vast majority of figurines comes from unburnt contexts (n=1183). Of these 330 have been recorded as being exposed to fire at some earlier point in their life biography. Conversely, there are high percentages of unbaked objects in burnt contexts (table 5.198). If these qualifications are correct it is likely at times related to secondary deposition of figurines in these contexts. However, likely there are figurines that have been misidentified as not having been exposed to fire. For example, there are 15 figurines found in burnt room fill that are recorded as unbaked, which seems unlikely. There are no patterns seen between context types and heat exposure.

#### **5.18.5 INTENTIONAL DAMAGE AND CONTEXTS**

Any type of use-wear is recorded or observed only in very low numbers and no clear patterns are seen in relation to context types. However, in the discussion on use-wear it became clear that the objects are very rarely reported as being intentionally broken, however, contextual information gives us additional information on this matter. The contexts in question are the bin GE, which is a closed context, and the room fills in the burnt village and the burnt building. These latter two contexts are not closed contexts and figurines could have fractured in the burning event. However, in these carefully and completely excavated rooms the missing figurine parts were not recovered. Most notably, anthropomorphic heads are missing from the assemblage.

### **5.19 PATTERNS THROUGH TIME**

The excavation of large horizontal exposures and very good <sup>14</sup>C dates for Tell Sabi Abyad allows for a detailed assessment of patterns through time. In particular Operation III has a sequence of settlements that have been excavated in their entirety. For Tell Sabi Abyad II and III there is more insecurity about both level assignation of figurines and the dating of those levels. Tables per level have therefore only be made for the larger Operations I and III (table 5.199-5.200) and figurine types across different phases in all locations (table 5.188). It can be observed that proportions of figurine types through time shift from zoomorphic figurines being most common to anthropomorphic/abbreviated becoming more common through time. This image is most clear on Tell Sabi Abyad II and II, where zoomorphic figurines dominate the assemblage. Geometric, indeterminate and unclear fragments form a substantial part of the assemblage in all levels and no clear patterns are apparent. Therefore, only zoomorphic and anthropomorphic/abbreviated are discussed below.

### 5.19.1 ZOOMORPHIC FIGURINES THROUGH TIME

Zoomorphic figurines predominate in the earlier levels, across types they are hardly found after the EPN. They are restricted mostly to Operation III on the main tell and a substantial number was recovered from Tell Sabi Abyad III (n=113, 37.9%; table 5.189). More specifically, after level A04 in Operation III (6455-6390 BC), zoomorphic figurines are found very rarely.

Patterns in production and use are not readily apparent due to the low occurrences overall. It can be noted that only one instance of tool use is recorded on Tell Sabi Abyad III, all the others come predominantly from the EPN and Initial PN period. Within this period tool use is temporarily very restricted as nine out of the 16 instances of tool use are recorded in levels A12 to A10 (6865-6675 BC). All forms of intentional damage is more evenly distributed across the different periods, with again the highest amount occurring in the Initial PN, levels A11-10 (6825-6740 BC).

### 5.19.2 ANTHROPOMORPHIC AND ABBREVIATED FIGURINES THROUGH TIME

The various types within the corpus have very different distributions. The decorated type and violin type are very restricted in time (table 5.203). The decorated type occurring only in the Pre-Halaf and Transitional period and 19 (86.3%) are from the level 6 Burnt Village. The 10 stratified violin type are from the same period and again mostly from level 6 (n=8). The other types are more evenly distributed, however, they are all almost absent in the PPNB. Possibly 25 pillar shapes are PPNB in date but they are unstratified finds from Tell Sabi Abyad III, dated PPNB to EP. The head on base are mostly dated to the EPN as are the head on divided base. Furthermore, within the head on base, the rounded shape with appliqués are all found in levels A04/A02 in Operation III (6455-6375 BC; 6 objects are unstratified). Finally, the pillar shapes are mostly dated to the Initial PN.

As tool use is mostly seen on the decorated type, tool use is also quite restricted in time. But also on the other types tool use is mostly seen in the Transitional and later periods. Three instances are from Tell Sabi Abyad II and III, but tool use in early levels is very rare. Figurines with dowel holes are only found in the later levels, the earliest occurrence in level A05 and come mostly from level 6 in Operation I. Additional surface treatment is also restricted to the later levels: the violin shapes are unstratified in three instances, but likely Halaf in date. Interestingly the three head on divided base examples with possible paint are all early finds from Tell Sabi Abyad II.

## 5.20 SPATIAL DISTRIBUTION

Spatial patterning is quite variable throughout the different (sub-)levels (see Appendix B for the maps showing figurine distributions) which is also clearly temporally related as discussed in the previous section. Contrary to Çatalhöyük, contexts clearly change through time (table 5.204). Notably on Tell Sabi Abyad II and III a large percentage comes from pit fills and, furthermore, larger amount of figurines are found together



Figure 5.69: Location of figurines securely dated to level A4c. Image by author, original map courtesy of the Tell Sabi Abyad Research Project

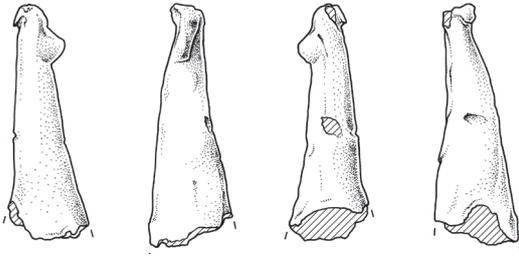
in single contexts in these earlier levels. Other contexts that are temporally restricted to earlier levels are figurines in ash concentrations and fire related features, which are found from mostly in the PPNB to EPN. Notable as well is the very spatially restricted concentrations in buildings in the Transitional levels.

Patterning within settlements is not readily apparent in most levels, except for the clear clustering in the Burnt Village and Burnt Building. In Operation III it does seem that some buildings at times have clearer associations with figurines, not only as finds in room fill but as finds made in the outside areas around them. This can be observed, for example, in level A4c where buildings in the southeastern part of the settlement have almost no figurines in/around them (fig. 5.69). In contrast the figurines cluster in and around buildings to the north and northwest (see also map 47 in Appendix B).

## 5.21 CONCLUSIONS

In this chapter the two datasets were discussed in terms of material properties, production, use and find contexts. Finally, patterns through time were discussed. The analysis shows the variety in shaping figurines at both sites, with some comparable practices which are also seen in how figurines were subsequently used. The data resolution for the Çatalhöyük figurines allows for a much more detailed discussion as reflected in the analysis. Contextually and temporally, the figurines from Tell Sabi Abyad are more informative with clear patterning and changes through time, seen in both in the types of figurines that are found and where they are found. A full synthesis of the analysis will be presented in the next chapter.





# CHAPTER 6: SYNTHESIS AND CONCLUSIONS

This final chapter presents a comparative synthesis of the two sites following object biographies through production, use and deposition. This will be used to return to the original research questions formulated in the first chapter:

- What characteristics and qualities of figurines can we identify as being important for them to be socially efficacious objects?
- What characteristics are useful for comparing similarities in life biographies beyond visual typologies?
- What can the patterns observed in figurine production tell us about it as a craft?

After this the main research question will be addressed: 'How are observed differences in the social settings at Çatalhöyük and Tell Sabi Abyad reflected in figurine life biographies?' Finally, some thoughts on further research will be offered.

## 6.1. FIGURINE LIFE BIOGRAPHIES

### 6.1.1 MAKING FIGURINES

#### Choosing clays

A range of different clays with varying properties was used at Çatalhöyük. As established, all clays seem to have been available throughout the occupational sequence at the site. From a technical point of view, the lower alluvial clays are very suitable for figurine production. The choice for other clay types which are not as easy to work with, such as clays with a very high marl content or the black organic clays, could indicate they were chosen because of some social or cultural considerations. The claim that clay selection was completely random is refuted by a potential preference for black organic clay for making zoomorphic figurines. Furthermore, these objects are subsequently often intentionally damaged. Another interesting observation is that this clay is predominantly found in figurines from the North area. Also, the fact that there are figurines with a sandy marl layer covering a core of different clay indicates at least a few instances of an intentional selection of clay, although clear definite patterns remain elusive. This intentionality contrasts with other observations at the site. Often clays are mixed, likely unintentionally, and large inclusions are seen in clay fabrics which seemingly did not matter.

Whilst the information is limited for Tell Sabi Abyad, there is evidence for clay preparation by adding temper, in contrast to Çatalhöyük. There is too little information to state if this was a common practice, or if these objects are unique examples.

### **Composite figurines**

Initially, it was hoped that the composite nature of figurines would reveal patterns that could point at different craft traditions. This could not be established, and practical considerations seem to be the main reason behind creating figurines from one piece or multiple pieces.

Furthermore, it proved difficult to identify the composite nature of figurines. However, this is interesting in itself. The smaller objects, specifically zoomorphic figurines, are difficult to create from one piece of clay (cf. Bladt Knudsen and Greenberg 2019). For example, the nicely rounded horns (at times with seams from rolling) seen at both sites, are unlikely to have been shaped from the animals' heads and yet, they are very rarely visibly applied. This fact is informative as a proxy for how well objects were smoothed and various parts integrated into a durable object. This in turn, indicates the importance placed on these objects remaining intact for longer periods.

At Çatalhöyük, the zoomorphic figurines are most often visibly composite, however, the more complex anthropomorphic shapes are likely also often composite, specifically their arms and legs. However, as these objects were mostly not available for first-hand study it is difficult to substantiate the claim. Studying the available photographs did not reveal any visible composite pieces, so it does seem that the composite elements on anthropomorphic objects are well integrated and, of course, these objects are well-smoothed in general.

For Tell Sabi Abyad, there is little evidence for objects being structurally composite. Within the zoomorphic corpus, ears are relatively often applied and within the violin type, breasts are almost always visibly applied. However, many more figurines are likely composite pieces, it was just not recorded. There is a clear tradition at the site where small elements were applied to anthropomorphic/abbreviated objects to indicate eyes or arms. The appliqués on the round base figurines is another example of this phenomenon and this way of using applied pieces is distinctly different from the Çatalhöyük corpus.

### **Tool use**

Tool use is seen at both sites, but at Tell Sabi Abyad it is more related to creating elaboration on the 'decorated type' figurines in the form of either impressed or incised grooves. Impressions also occur, squarish and in one instance more wedge-shaped. Again this type of tool use is different from what we see at Çatalhöyük. There, we see evidence for tool use related to creating and smoothing the main shape, but not in any substantial numbers. There is some evidence for smoothing objects with tools at Tell Sabi Abyad, however, we have to be careful because there are instances where the marks are caused by modern cleaning. Creating (facial) features with tools is also seen more often at Çatalhöyük. Whilst at this site eyes are more often cre-

ated by punctures and incisions, at Tell Sabi Abyad pellets of clay are predominantly applied (although the occurrences are very rare).

Any specific tools used in figurine production are extremely difficult to identify and there is no indication of a specific figurine 'tool kit'. More ad hoc tools might have been used, quite often striations indicating reeds or the like, are mentioned. Perhaps bone awls were also used to puncture and incise and flint and stone tools could have been used for scraping, smoothing and burnishing objects. These kinds of objects are known from all contemporary levels at both sites.

### **Additional surface treatment**

Additional surface treatment is very rare at both sites, occurring only in small percentages. At Tell Sabi Abyad, paint and slip are strongly linked to anthropomorphic shapes, more so than at Çatalhöyük. However, at this site paint is also more often seen on anthropomorphic objects and at both sites, it is more obviously applied to these objects as dots and geometric patterns, whilst on zoomorphic figurines, it appears more commonly as staining.

### **6.1.2 USING FIGURINES**

#### **Damaging figurines**

The clearest evidence of use-wear is the intentional damage done to objects through gouges, punctures, breaking or pulling apart and deforming. This is observed far more often at Çatalhöyük, although more instances might have gone unrecorded at Tell Sabi Abyad. At both sites these practices are long-lived, however, it also becomes clear that across the corpus the number of figurines used in this way is low, even more so when taking into account the temporal aspect. At both sites (more clearly at Çatalhöyük), puncturing and, to a lesser degree, gouging and damaging is seen on other figurines as well. For zoomorphic figurines, this practice is known from other sites and is at times interpreted as 'hunting magic' (f.e. Freikman and Garfinkel 2009; Garfinkel 1999). However, we have to question whether similar practices equate to similar rationales. The very low occurrences overall are enigmatic, clearly, the practice is ingrained in the social habitus in some way over many generations, but it is by no means common.

Damaging of anthropomorphic figures is not often discussed in figurine studies, except for the practice of removing heads (Schmandt-Besserat 2013b; Verhoeven 2007 and references therein). However, there are examples of 'damaging' anthropomorphic and abbreviated objects at Çatalhöyük not related to removing figurine heads. Perhaps we can interpret the practice of damaging zoomorphic and anthropomorphic objects as being interrelated. The interpretation of hunting magic would then seem unlikely.

The practice of head removal is seen at both sites, evidenced at Tell Sabi Abyad by the absence of heads of figurines in the Burnt Village. At Çatalhöyük some figurines, including stone examples, also show evidence of this. Furthermore, this focus on 'headlessness' is also evidenced by dowel holes in the necks of objects which

is evidenced at both sites. This similarity, again, does not imply the same underlying meaning behind this practice and previous research at both sites offer different interpretations for the practice of head removal on anthropomorphic figurines.

The presence of dowel holes and intentional head removal attested at both sites is very interesting. These phenomena are reported in a large area from the PPNB into the PN (Croucher 2012b; Kuijt 20002 and references therein; McAdam 1997; Meskell 2007, 2008; Morsch 2002; Talalay 2004; Verhoeven 2007; Voigt 2000).

This perceived focus on the heads of anthropomorphic figurines is at times linked to a focus on real human skulls, which are founded cached, curated and at times decorated (cf. Croucher, 2012b; Kuijt 2000; Schmandt-Besserat 2013b; Verhoeven 2012). Much as interpretations of head removal and dowel holes are interpreted more nuancedly, so too have interpretations of the skull cult shifted away from the notions of a universal meaning related to a veneration of the ancestors where rituals revolving around ancestors served to integrate communities and a means to consolidate authority as well as create intergenerational memory (see Verhoeven 2012 and references therein).

More recently a more nuanced view has been proposed where the skulls are interpreted as likely having different functions and meaning (e.g. Bonogofsky 2003). Just as universalist interpretations offered for figurine representation and meaning has been challenged and criticised, the idea of one overarching rationale behind the manipulation and caching of skulls is also increasingly questioned (cf. Croucher 2012a).

An interesting point is whether the focus was on the head or 'headlessness'. Some argue that the low number of figurines intentionally created without heads means that a focus on 'headlessness' is fallacious. Rather, a fixed permanent head was not always the desired outcome in the manufacture of these figurines, but the incorporation of a head, fixed or changeable, was an essential element of anthropomorphic figurines (Belcher and Croucher 2017, 449-450). Indeed, the amount of anthropomorphic with dowel holes, intentionally removed heads or made without heads is low at both sites. For Tell Sabi Abyad I am unconvinced by many of the mentions of dowel holes based on the evidence available to me. The very small holes in fractured neck areas as they are described are not convincing as being dowel holes. The most interesting takeaway from these practices is the long time span in which they are attested. As with damaging zoomorphic figurines, practices are apparently transferred over many generations and one wonders why such low numbers of figurines are treated this way. Perhaps these practices are to be interpreted as being linked to certain situations or events.

For the examples from the Burnt Village at Tell Sabi Abyad, Verhoeven convincingly argues for the removal of heads of anthropomorphic figurines as a kind of social contract between the permanent inhabitants and the pastoralists who were often away from the site (Verhoeven 2007). Meskell (2008) links the practice of the circulation of actual skulls at Çatalhöyük, with the removal of figurine heads and figurines with dowel holes. She emphasises the power of these objects as a medium through which people could explore narra-

tives and experiences. By changing their heads they could change identity and she sees it as another example evidencing the importance of the malleable nature of figurines as opposed to static images.

Interestingly, in the Çatalhöyük wall paintings headless anthropomorphic figures are also a recurring theme. It is also interesting to note that dowel holes are not observed on zoomorphic figurines, whilst zoomorphic plastered head and horn elements in houses at times were removed when houses were demolished and perhaps re-used and kept as potential links to past events and in this way might have functioned in similar ways to plastered and circulated human skulls as a means of memorialisation (Meskell 2008).

### **Other types of use-wear**

We can posit some other ways in which figurines were used by the rare occurrences of markings such as string and fabric impressions. Perhaps figurines were suspended or even carried on the body (cf. Meskell 2007). Fabric impressions could also indicate that figurines were sometimes clothed. Just as removable heads might be evidence of changing identities, adorning figurines with different fabrics could be interpreted in a similar way. Furthermore, the figurines from Çatalhöyük with punctures in their heads might also originally have held different (organic) materials.

Within the Çatalhöyük corpus, the impressions of grain kernels and seeds are enigmatic. They appear intentional as the impressions are deep and pronounced. Whether the seeds were impressed and then removed or originally part of the objects is unknown.

Handling polish points at some figurines being in circulation for at least a while before deposition. However, there are no patterns to allow us to say any type of figurine was in circulation longer nor does the location of polish allow for clear statements. This is partly due because the location of polish was often not recorded.

### **6.1.3 DEPOSITING FIGURINES**

There is little patterning in contextual settings at Çatalhöyük, all figurines—independent of their life biographies—end up mostly in secondary contexts. The exception is perhaps some evidence of spatial patterning of stone anthropomorphic figurines. At times, there does seem to be a connection between building biographies and figurines found in the fill of these buildings, more on this will be said in section 6.5.

The picture at Tell Sabi Abyad is very different. Contexts in the earliest levels are linked to fire features and clustering is seen in pit fills. Primary deposition is seen in the Burnt Village and there is a connection between anthropomorphic figurines, tokens and sealings. After this Transitional phase, clear contextual patterns are no longer evidenced

### **6.1.4 HEAT EXPOSURE**

Where heat exposure fits in the life biographies of figurines is difficult to establish. However, the analysis shows that it occurred in different stages. At times it can be (tentatively) linked to production. The objects with a sandy marl layer are one of these examples, as are the Halaf-level figurines from Tell Sabi Abyad. Heat

exposure as part of use is most clearly evidenced at Tell Sabi Abyad and at times it allows us to bring life biographies into sharper focus. This is most apparent when combining information on heat exposure with that on intentional damage. Some objects were first gouged and punctured and then exposed to heat, in other instances objects were first exposed to heat or left to harden and then gouged and/or broken. This intentional breaking is more difficult to recognise than the pulling apart of figurines leaving clear evidence. However, the very clean breaks through necks and heads likely indicate that this breakage was intentional.

There are many examples of baked or burnt figurines that were recovered from contexts that are not exposed to heat. Based only on macroscopic inspection, establishing heat exposure is difficult. Still, there are clear examples of burnt and baked objects and often this cannot be linked to post-depositional influences. Heat exposure is often uneven and seen on parts and sides of objects indicating that it did not occur in a controlled manner.

### **6.1.5 EXAMPLES OF OBJECT BIOGRAPHIES**

As stated it is not intended to provide thick descriptions for singular objects but to look for patterns. However, it is appropriate to demonstrate how this approach can serve to 'follow' a figurine through its life biography. As the first example from Çatalhöyük let's look at object 13161.H3, an anthropomorphic figurine (see fig. 6.1). This object was found in North area in external space 279 inside a pit feature described as having a 'lime' deposit. The object dates to level North. H in the late phase (6500-6300 BC).

The object is made from lower alluvial clay with a fine fabric with inclusions being very rare and small. They were identified microscopically as being (carbonised) organic material in small amounts, black organic mineral, crushed shell, gypsum, mica/biotite and quartz. Its surface colour is dark-grey (10YR 6/1) with a lighter light-brownish grey core (10YR 6/2). In its incomplete and damaged state, it measures 4.4 cm in height.

As we know the clay used to make figurines were located in the direct vicinity of the site and was readily available. Whether the figurine's maker went out specifically to collect some clay with the intent to make this figurine (and possibly others) is impossible to answer. Possibly larger amounts of clay were gathered in one go and subsequently used to make a range of objects. There is no evidence that the clay was prepared by adding temper, all inclusions are naturally present in the clay. Potentially, some larger inclusions could have been removed.

The figurine's main shape was hand-modelled, but tools were used to create some of the details. The buttocks are slightly concave with the edge turned slightly upwards. They seem to have been shaped by pinching with the index finger on top and the thumb on the buttocks' underside. The belly, breast and arm are very well smoothed into the main piece, however, there are clear spaces between the arm and the belly/breast. Either the arm was made separately or the arm was moulded on the main piece and then folded to fit between belly and breast. Likely some sort of tool was used under the belly to maybe smooth the clay, but possibly also to create a slight depression to emphasise it. The breast fits very neatly on the arm and sits atop it a bit,

so most likely the arm was made first and then the breast was shaped. The belly button is indicated as a small puncture made with an implement of some sort. A final example of tool use is the possible burnish that is seen on the figurine's belly and breast.

An interesting feature of this anthropomorphic shape is the impression of a grain kernel on its left side, just under the arm. The intentionality of this impression is hard to prove, however, the figurine is well smoothed, possibly even burnished. Therefore, the fact that this impression was not smoothed over might indicate it was purposeful.

After the creation of this object and after it gained this impression it was exposed to heat at some point. It is described as being baked and the heat exposure seems to have occurred evenly. Again, the object was not baked as ceramics, perhaps it was close to a heat source, but not directly exposed to fire.

The object is partly polished, it was used and handled for a period of time before ending up in the pit in space 279. The figurine is not only badly weathered but also missing most of its left torso, arm and head. These parts of the figurine were not recovered, but it is inconclusive if the damage to the object occurred before or after deposition. It is easy to imagine that the small head and arm were damaged beyond recognition at the time of excavation.

The figurine was found in the pit with two other figurines (13161.H1 and H2), two quadrupeds, along with a range of other (fragmented) objects and materials: bone, other indeterminate clay objects, eggshell, mollusc, obsidian, plant material, pottery and stone. So, perhaps this fill can be considered to be a refuse deposit. It is unclear if the materials were put into the pit in one event or accumulated over time.

The other two figurines have quite different biographies before their deposition in the pit. 13161.H1 is a quadruped head, made from lower alluvial clay. The fabric is fine to medium, inclusions are common and are small to medium. This figurine was examined microscopically and the inclusions are again all naturally present (carbonised organic matter, gypsum, phytoliths, red sand grains and quartz). Only the surface colour was recorded as dark grey, 10YR 4/1. It would have been part of a substantially sized object; this head fragment measures nearly 5 cm in length.

The object is hand-modelled, with no evidence of tool use. There is a concave area between the horns on top of the head with faint fingerprints. There are no clear signs of how the object was shaped. The horns are not visibly applied. The bottom of the muzzle is concave, perhaps the result of a finger impression with some smearing of clay visible. The ears are likely separately made. There is a small remnant of an ear visible on the right of the head and a small concave area on the left where the ear would have attached. Horns were not represented on this object.

There is no use-wear or other markings visible on this object, with the exception of some plant impressions on the snout which could be caused by lost organic inclusions. It is unclear if the object was exposed to heat, it is noted as indeterminate. No other markings are recorded. The object was recovered only as a head fragment, the body was not found in the pit. There is no evidence that the head was intentionally removed.

13161.H2 is a quadruped head and body made from black organic clay. Its fabric is coarse and inclusions are common and vary considerably in size. Also looked at under the microscope, the inclusions were recognised to be significant inclusions of marl/plaster, biotite/mica, carbonised organic matter, gypsum and phytoliths. One surface colour was recorded, 2.5Y 4/1; dark grey. The object misses both right legs, but is otherwise intact and measures 5.4 cm in length.

The object is hand-modelled with no evidence of tool use. On the left side there is a clear finger impression, under and above the ear, showing how it was pinched out. This quadruped did not have horns. A deep finger smear is visible width-wise across the neck behind the head. The tail is also pinched from the main piece, with a pinch mark visible on the left and right sides above the tail. The right front was possibly attached as there is a slight seam with some voids where the leg was attached as if it was not well-smoothed into the main body. The object has not been well smoothed in general which is also a result of the affordances of black organic clay. As with 13161.H1, there is no clear use-wear. At some point the object was exposed to heat and unevenly burnt. The top (back) of the object has received more heat exposure than the belly.

These three figurines ended up in the same pit fill, either together or in different events spaced over time. Whether these figurines were made at the same time and by the same person is unknown.

As a final example from the site let us look at object 22635.H1. This abbreviated figurine only misses a part of the head and measures 3.3 cm in height. The object is made from marl and has a fine texture. Information about inclusions was not recorded. The object's colour is 7.5 YR 5/2, light-brown.

There is little to note on the shaping of the object, it is a simple shape with a small pinched-out nose. A thin implement was used to create three small holes to indicate the eyes and mouth. The object is extremely well smoothed. Lines of red and along with red and cream (originally likely yellow) dots cover the object. These dots are regular and likely created with a small brush or fingertip. There are no other clear markings related to how the object was shaped, nor is there any use-wear on the object. It is unknown if the object was exposed to heat.

The object was recovered in burnt building 131, space 500, which is the main area of this building. The fill of this building is noted to be "highly processed", it was remarkably devoid of finds. Other finds and materials recovered from the building are bone material (both animal and human), shell, obsidian, ground stone, agate and clay balls (large ones and so-called mini balls). It is extremely interesting to note that in this clean building fill another very similar figurine was found, although it is unknown if they were found close together.

The object, 22635.H2, is also made from marl clay very similar to that of 22635.H1. Its colour is pinkish grey (7.5YR 6/2). It is also an abbreviated object, however, this object is abbreviated to such a degree that it does not have a clear head. The object is complete and measures 2 cm in height. The object has a yellow and red spot on the left side and traces of red spots along the length of its back. Some red spots are also visible on the front of the object. The object likely had some heat exposure. The object is well-smoothed, its base was described as being flattened and tamped and whilst still (semi-)plastic the object was likely punctured

once on the left side of the 'head' and a possible fingernail impression is also seen on the head. Otherwise, no markings can be seen.

The objects are similar to such a degree that they were likely made together, perhaps by the same person. If they were put into the building together is unknown, but it is clear that their placement occurred after the building was burnt as the figurines have little to no heat exposure.

Two examples are given from Tell Sabi Abyad. F09\_072 is a zoomorphic figurine. It is the body fragment of a quadruped measuring 4 cm in length, one leg remains and the object is badly broken. Information on fabric is unknown, but sand inclusions are mentioned which are most likely naturally occurring. There are five smaller pieces that also belong to the object, but are too brittle to glue together. Some smoothing of the clay was mentioned. No markings related to production or use are mentioned or seen on the photograph.

The object was found in an open area ash deposit in square D04, Operation III. It comes from level A14, dated to ca. 7000-6900 BC; the initial Pottery Neolithic. It was part of a cluster of 16 figurines. No other material such as bone or pottery is recorded, so it seems that this deposit was not a midden. The 16 objects found in this cluster were likely placed here together. Whether they were made at the same time is unknown. As at Çatalhöyük, clay was readily available near the site but the organisation of clay gathering is unknown. This group of figurines could have been made by a single or multiple people in one sitting or over time. They did, however, not receive the same treatment during their 'life', particularly their exposure to heat. Only two objects are recorded as burnt, object F09\_072 and the indeterminate piece. All the other objects are unbaked. Object F09\_072 is completely burnt through and black on the outside and has an orange core. This burning did not occur in situ and must have occurred before the placement of the object in this deposit.

The final example given here is object F91\_002, a decorated type figurine. Fractured through its torso the object measures only 2.8 cm in height. No information is recorded on fabric and inclusions. The flat back of the object is covered in squarish impressions made with an implement. What type of implement was used to create them is not readily apparent, nor if it was an implement created for the purpose. Unlike many of the other types of use-wear where an unmodified ad-hoc implement could have been used (such as sticks, straws or bone implements) the shape of these impressions could suggest perhaps some modification. The rounded front of the object is covered in six horizontal lines and near the bottom, eight short vertical incisions were made with a thin tool.

The object was recovered in a room fill in building 6.2, room 10, which is part of the Burnt village of level 6, dated to 6010-5995 BC (Transitional level). In this specific room, 28 figurines were found along with a range of other materials: sealings, tokens and vessels amongst others. The fill of the room was heavily burnt and many of the finds were also burnt or baked. This figurine was also recorded as baked, but it was not extensively burnt.

Use-wear is not recorded, but as with all the anthropomorphic figurines in this building it was found without its head and it is reported that this head removal was intentional. It cannot be established if the clay was

plastic or already dried when the heads were removed, but it likely occurred before the objects were placed inside the buildings.

From these examples there are several conclusions that we can draw:

1. Although we can reconstruct life biographies, at times in quite some detail, some aspects remain elusive (for example clay extraction and the existence of a specific figurine 'tool kit')
2. Whilst we can often reconstruct the sequence of events to a degree, the length of time between these different events and thus the entire life-cycle of figurines is unknown.
3. Biographies are divergent in visual categories and between visual categories, giving cause to rethink these categories or, at least, realise that our categories are an analytical tool not archaeological reality.
4. Object biographies highlight the difficulties inherent in the categories of production and use and figurines as 'finished' objects.

### 6.1.6 CONCLUSIONS: FIGURINE LIFE BIOGRAPHIES

Are there standardised ways to make figurines? The answer for Çatalhöyük seems to be that this is not the case. There is variety within all types, not only in how objects were shaped but also in how the final object appears. So, whilst there is a broad typology in which figurines seem to fit, there is much variety within these types.

To speak of clear 'subtypes' is difficult at Çatalhöyük. There are instances of very similar-looking figurines. For example, the zoomorphic (equid) heads and the more elongated and squat examples within the abbreviated corpus. They do not constitute clear subtypes, instead, they might indicate an individual hand and perhaps local craft traditions in different areas of the tell.

There is not any particular way of production that is clearly linked to any figurine type. There is of course a temporal aspect that is easy to overlook: we are dealing with a dataset (at both sites) that spans over a millennium. This means, not only that variety is to be expected, but also that even the impressive number of figurines recovered likely represents a fraction of the figurines originally made and used.

At Tell Sabi Abyad there is more clear evidence of standardised figurines with a very similar *chaîne opératoire*, which is why subtypes were assigned for this dataset. Specifically, the decorated type, violin type and the rounded base with appliqués are standardised to such a degree that, when fragmented, it is often still possible to assign them to a category because either their shape or elaboration (e.g. grooves and appliqués) is very distinct.

At Çatalhöyük, the life biographies beyond production are diverse and patterns are largely absent. Most of the types of use-wear are observed in small numbers and are not clearly linked to any figurine type or aspects of production and deposition. Perhaps, this can be partly explained by different roles figurines had and these could be similar across figurine categories. Some figurines were made, used and quickly discarded.

Others were in circulation longer, wrapped, carried or displayed.

At Tell Sabi Abyad it is contextual information that points at similar roles for both zoomorphic and anthropomorphic figurines. A clear example are the figurines found in the early pit fills, at times perhaps intentionally burnt either in-situ or elsewhere, and subsequently discarded together. Both zoomorphic and anthropomorphic underwent this treatment. In contrast, there are also contrary examples, most notably the decorated type is very standardised in production, use and deposition.

## 6.2 WHAT PROPERTIES MAKE FIGURINES SOCIALLY EFFICACIOUS OBJECTS?

The statement that figurines should be researched as a process, rather than a static 'end product' holds true for the figurines at both sites. Many of the objects were made to be acted upon in a variety of ways. Not only intentional damage is observed, but also the presence of fingernail impressions show the importance of altering objects after creating them. Of course, the malleable nature of clay is its prime affordance in these types of use-wear.

At Tell Sabi Abyad, heat exposure as part of use, shows the importance of the performance element of figurines. At Çatalhöyük, the properties of the different clay types can be considered to be important, although only as suggestions as there are no clear patterns. However, different colours and different textures could have been considered important intrinsic qualities. Importantly, clay can also be transformed through heat exposure, changing the intrinsic properties, such as colour and malleability.

The size range of figurines is also likely of importance. At times the objects are so small as to make them very impractical to produce. A scarcity of clay was clearly not a concern, so why are figurines so small? Perhaps the close interaction was of importance in some instances, not just in production but also in subsequent interactions. The ease of carrying smaller objects might also have been a consideration. Larger objects, in contrast, might have been intended to be 'displayed' or at least did not require an 'up close' encounter. Related to the three-dimensional nature of figurines; being able to view them from different angles and manipulating them is likely an important factor.

## 6.3 BEYOND VISUAL CATEGORIES

The *chaîne opératoire* of figurines is the first way to explore different ways of conceptualising them. Obviously, figurines made from different materials require different tools and techniques linking them to other objects made from the same materials. However, also within clay figurines distinctly different *chaînes opératoires* are evidenced. The anthropomorphic figurines at Çatalhöyük as well as the Halaf examples from Tell Sabi Abyad are examples of objects that from a production point of view are more akin to the painted pottery found at the sites.

Similar ways of making as well as using zoomorphic and anthropomorphic figurines at both sites could indicate that conceptually they were not always seen as different objects and, of course, the modern dichotomy between humans and animals might not have existed at the sites.

The strongest evidence to help us rethink figurine categories through contextual information comes from Tell Sabi Abyad where a strong association exists between figurines, tokens and sealings within the Burnt Village and the burnt building in Operation II. In these contexts conceptually (some) figurines are associated with administrative and economic activities. Conversely, it also makes apparent that these items, whilst administrative initially, were part of a symbolic and ritual act of deliberately setting aflame these buildings and these artefact assemblages within them. In this context figurines conceptually might have been much closer related to tokens and sealing practices than other figurines in use at the same time. On the other hand, at Çatalhöyük, there are very similar depositional practices throughout time and across figurine types in secondary refuse deposits, without clear links to other object categories. This could indicate that irrespective of how objects were made and used, figurines were seen as the same class of objects, at least at the time of deposition (see also Meskell *et al.* 2008, 144).

#### **6.4 FIGURINE MAKING AS A CRAFT**

In most instances, there is no indication of craft specialisation in clay figurines. There are exceptions, such as the beforementioned Halaf figurines at Tell Sabi Abyad and some anthropomorphic examples at Çatalhöyük. As for figurines made from other materials, the stone figurines show craft specialisation and for these objects, there is evidence for obsidian tools used for their production found in the South area and perhaps even a figurine workshop (see Meskell 2007, 150).

A more precise chronology would allow us to assess local craft traditions at Çatalhöyük. As it stands now it is not clear if the very similar examples are contemporaneous or evidence for the transmission of ways of making figurines over generations.

#### **6.5 SOCIAL SETTINGS: HOUSEHOLD VERSUS COMMUNITY AND ITS INFLUENCE ON FIGURINE PRACTICES**

Three themes were discussed in chapter three to compare the two case study sites: 1) history houses versus shifting settlements, 2) the presence of sealing practices and communal storage linked to early notions of personal property at Tell Sabi Abyad and, finally, 3) the changes observed in the later levels of both sites. Based on the first two themes I argued for a focus on the household at Çatalhöyük and the community as a whole at Tell Sabi Abyad.

There are certain ways in which the observed differences in figurine practices can be linked to these different social settings at both sites. First, we can classify the corpus at Tell Sabi Abyad as having a more limited range of figurine types as well as ways of creating figurines versus the Çatalhöyük corpus as having much diversity within a broad typology. The larger population size at Çatalhöyük is likely part of the explanation for the great variation seen in objects and ways of shaping objects. Local crafting traditions are potentially evidenced at the site as well, perhaps linked to households or neighbourhoods. At Tell Sabi Abyad there were certainly fewer people making figurines but the social setting at the site might also have contributed to a

relatively more homogeneous corpus. Perhaps figurine-making was a shared practice within this small community, leading to more emulation and a more homogeneous corpus. In the later levels at Tell Sabi Abyad, figurine types are found only in certain parts of the tell, e.g. the decorated type in Operation I and the round base with appliqué in Operation III. These types are also in use for only relatively short periods. Perhaps these are also examples of local craft traditions.

As stated, contextual patterning at Çatalhöyük is mostly absent. However, there are a few instances where the deposition of figurines in houses can perhaps be seen as an expression of household identities. In a study by Meskell et al. (2008), two houses are referenced as having a potential link between figurines, house biographies and their associated households: Building 42 (level South. R) and 49 (level North. G). Building 42 yielded two stone anthropomorphic figurines and also had evidence of an unusual burial of a female holding a plastered skull. The house and internal spaces were maintained in the same layout over a long period. Perhaps, within this household, there was a focus on the household lineage and memory-making surrounding certain individuals. The presence of anthropomorphic figurines in this house might be an expression of this house(hold) identity. We can now add building 150, where five anthropomorphic figurines were recovered, as a possible example of this phenomenon. In Building 49, a group of zoomorphic figurines was found. In contrast to building 42, this house underwent many changes over time and a link to animals is evidenced by the find of (plastered) horn cores and an atypical animal bone assemblage with many unusual species, perhaps an indication of a focus on animal-human relations in this house(hold) (Meskell et al. 2008, 148-149). Perhaps we can also interpret cross-over objects that have both anthropomorphic and zoomorphic properties as expressions of animal-human relations. Of course, the modern distinction of humans and animals as separate and very different entities might not have existed. At Çatalhöyük the link between cattle and humans is the strongest as seen in the iconography. They are most often depicted in two and three-dimensional media; see Meskell 2008). Whilst it has to be emphasised that these are exceptions in the large corpus, it offers interesting insights into figurines as an expression of identities on the household level.

At Tell Sabi Abyad, there is a strong contextual link between figurines, sealings and tokens that exists (or at least is archaeologically evidenced) for a very brief time. Furthermore, a specific type of figurine (the decorated type) is found exclusively in the context of these burnt administrative buildings. Whilst the finds of the burnt village indicate a link between figurines and objects linked to administration and personal property there is no evidence for figurines being viewed as personal property.

Rather, I agree with the postulated idea of the practice of removing the heads of these objects as forming a social contract. This might indicate the need to consolidate ties in changing environments and social settings, where part of the population now practised a more mobile, pastoralist lifestyle.

### **Changes through time**

The postulated community focus at Tell Sabi Abyad is most strongly evidenced by the way figurines were used in the earlier periods. The large clusters of figurines perhaps indicate groups of people coming together

in communal activities involving figurines. These activities seem related to fire in some instances as evidenced by figurines found in contexts related to ashy and burnt deposits and pit fills. The intentional burning of the level 2 building in Operation II and the level 6 settlement in Operation I, seems to be the culmination of this practice and are certainly spectacular communal events, perhaps involving the entire community, or at least experienced in some way by everybody at the site.

Changing social settings are evidenced at both sites in the later levels, potentially linked to the 8.2 KYA event. Although tentative, some possible changes in figurine practices are seen at Çatalhöyük. First, there is a focus on more realistic anthropomorphic figurines when looking at the dateable Hodder finds. As discussed in chapter three, the practice of burying people in houses ceases in the later levels. Can the placement of anthropomorphic figurines in platforms be interpreted as replacing the interment of actual people? As this is currently only observed in one house, future research might help us answer this question. Another interesting observation is the focus on more realistic (albeit exaggerated) anthropomorphic shapes and dowel holes that only occur in later levels.

As discussed in chapter two, there is a tendency to equate 'realistic' figurines as representing actual people, and we must keep this in mind. However, there are indications that figurines became less 'anonymous' and in the later levels came to function as objects with identities that, as discussed earlier, could be altered by exchanging heads and also perhaps through different clothes and adornments. Are these figurines examples of representing individuals or household lineages? Juxtaposing this to Tell Sabi Abyad, there is no evidence of clear 'realistic' anthropomorphic objects (except for the very early stone example). Perhaps we can posit that this is due to a stronger focus on the community and not the individual at the site.

Changes in zoomorphic figurines are also seen at both sites. At Çatalhöyük more types of clay are used in later levels and intentional damaging also increases, both these phenomena are observed most clearly in the North area. Perhaps this is linked to the changing subsistence patterns and the presence of wild species in the site's environs. As discussed in chapter three, auroch seemingly disappear and actual skulls are no longer used, instead, they are now present in representation only as plastered elements. Perhaps the large number of horn fragments found in this period can be interpreted as part of the same phenomenon of substituting actual horns with small proxy's in clay. Likewise, the increase in the size of quadruped figurines might also be a related phenomenon.

At Tell Sabi Abyad zoomorphic figurines almost completely disappear after the Transitional period, perhaps this can be linked to changing herding practices, as discussed livestock was moved away from the site and perhaps the absence of these animals means that they were no longer represented in figurine form. Contra Çatalhöyük where the actual absence of auroch did not mean they were no longer represented at the site.

Figurine numbers decline significantly in the final levels at both sites, however, this is to be expected with the observed population drop. More limited excavations of these later levels and more later disturbance of these levels likely also play a part. At Çatalhöyük a more fine-grained dating of figurines from the West

Mound, now all dated Chalcolithic would also afford a clearer picture of figurines in this final phase of Neolithic occupation.

At Tell Sabi Abyad the Transitional levels, dated around 6000 BC, seem to mark the end of communal practices involving figurines. The large clusters of figurines seen in (burnt) pit fills in the earlier levels disappear after the EPN and figurine numbers drop considerably from the Pre-Halaf period onwards.

To conclude, there is evidence that the different social settings influenced figurine practices at both sites and there is good evidence to interpret these as linked to a communal versus household focus at the sites as set forth in chapter 3. Furthermore, there are clear changes in figurine practices that coincide with large scale changes that impacted many aspects of life at both sites. This is a strong incentive to incorporate social settings in figurine analyses.

## 6.6 FUTURE RESEARCH AND FINAL CONSIDERATIONS

It might not be possible to record figurines in the level of detail as we see at Çatalhöyük where a dedicated research group studied them over many years. However, a standardised recording methodology for figurines across sites is very desirable. Returning to Langin-Hooper's (2014, vii) statement in Chapter 2, expressing that figurines are caught between the disciplines of art history and archaeology, but out of the full interpretative scope of either, I have to disagree. Although, figurines are idiosyncratic objects, analysing patterns seen in large datasets has great potential. Focusing on material properties, use-wear and deposition would greatly benefit figurine research as a synthesis of figurine practices would then be possible.

Importantly, this study has proven that, even though information for the Tell Sabi Abyad figurines is less detailed, there is much scope to employ an artefact approach. Although observations are more tentatively given, it allows us to take a fresh look at legacy datasets. This is more important than ever, as archaeological materials have been lost due to years of unrest in the region. The corpus of figurines is one of the unfortunate victims of the war in Syria, and more than likely most or all of the figurines have been destroyed. Research at Çatalhöyük continues and building upon the innovative work done under Hodder, it is hoped that they continue to focus on detailed figurine recordings. More research on clay types and aspects of production and use-wear will perhaps bring into focus patterns and observations that are given tentatively here.

Re-analysing existing datasets is needed, including a reassessment of fragmentary objects. There are likely a large amount of figurine fragments now unrecognised and grouped under 'small finds' at many sites. Taking these fragments into account is important to understand the range of figurine practices, and clay technologies, at any given site. Finally, it is important to remove figurines from their, at times, privileged position as art objects and consider them as archaeological artefacts that form part of a larger set of material culture.

The fact that there are similar figurine practices across sites is very interesting and more detailed artefact studies, including more technical studies, at other sites are essential. It would allow for a more detailed picture of how practices are distributed across regions and inform us on interaction spheres. It is also vitally

important to incorporate the aspect of different social settings into such an analysis. Figurine practices are long-lived and widely distributed. However whilst the choice to create figurines (as contrasted to the creation of something else, or the creation of nothing at all) persists despite the temporal changes and social settings, there is evidence of a range of choices, variability within and between sites, and the existence of sites where no figurine creation apparently happened.

This thesis has demonstrated the dynamic nature of figurine practices at two Neolithic sites. Furthermore, the analysis highlighted the importance of incorporating a temporal aspect in order to show this dynamic nature. It is easy to lose sight of time depth, however, we have to remember that both sites were inhabited for a very long time, representing countless generations.

Because these two comparable sites show much intra- and inter-site variability, any generalised statements on figurine practises in the Neolithic Near East need to be reconsidered. Variations at each site reflect a range of possible choices by the inhabitants, even while they were working within an 'envelope' of figurine creation, use and discard—there were some shared ideas (both on an intra- and intersite level) of what the process and outcome should be, and shared communities of practice. However, even though the existence of similar practices, such as intentionally damaging and removing the heads of figurines, is evidenced at a variety of sites, the underlying rationales for these practices are not necessarily the same. Likewise, similar looking objects do not indicate a universal underlying 'meaning' for figurines. As this thesis has shown, figurine practices are deeply socially embedded. This social setting should be primary to inform us *about* figurines, instead of inferring social settings *from* figurines.

# BIBLIOGRAPHY

- A Campo, A.L. (1994) *Anthropomorphic representations in prehistoric Cyprus: a formal and symbolic analysis of figurines, c. 3500-1800 B.C.* (Studies in Mediterranean Archaeology and Literature). Jonsereds: Paul Åströms Förlag.
- Akkermans, P.M.M.G. (1988) 'The soundings at Tell Damishliyya', in van Loon, M.N. (ed.) *Hammam et-Turkman I. Report on the University of Amsterdam's 1981-84 excavations in Syria* (PIHANS 63). Leiden: Nederlands Instituut voor het Nabije Oosten, pp. 19-68.
- Akkermans, P.M.M.G. (1989) *Excavations at Tell Sabi Abyad – prehistoric investigations in the Balikh Valley, northern Syria*. Oxford: British Archaeological report.
- Akkermans, P.M.M.G. (1993) *Villages in the steppe. Later Neolithic settlement and subsistence in the Balikh Valley, northern Syria* (Archaeological Series 5). Ann Arbor: International Monographs in Prehistory.
- Akkermans, P.M.M.G. (ed.) (2006) *Tell Sabi Abyad—the late Neolithic settlement: report on the excavations of the University of Amsterdam (1988) and the National Museum of Antiquities Leiden (1991-1993) in Syria*. Istanbul and Leiden: Nederlands Historisch-Archeologisch Instituut.
- Akkermans, P.M.M.G. (2010) 'Late Neolithic architectural renewal: the emergence of round houses in the northern Levant, c. 6500-6000 BC', in Bolger, D. and Maguire, L.C. (eds.) *Development of pre-state communities in the ancient Near East*. Oxford: Oxbow Books, pp. 22-29.
- Akkermans, P.M.M.G. (2013) 'Tell Sabi Abyad, or the ruins of the white boy. A short history of research into the late Neolithic of northern Syria', in Bonatz, D. and Martin, L. (eds.) *100 Jahre Archäologische Feldforschungen in Nordost-Syrien – eine Bilanz. Internationales Symposium des Instituts für Vorderasiatische Archäologie der Freien Universität Berlin und des Vorderasiatischen Museums der Staatlichen Museen zu Berlin vom 21. Juli bis 23. Juli 2011 im Pergamonmuseum*. Wiesbaden: Harrassowitz Verlag, pp. 29-43.
- Akkermans, P.M.M.G. and le Mière, M. (1992) 'The 1988 excavations at Tell Sabi Abyad, a later Neolithic village in northern Syria', *American Journal of Archaeology*, 96(1), pp. 1-22.
- Akkermans, P.M.M.G. and Verhoeven, M. (1995) 'An image of complexity: the burnt village at late Neolithic Sabi Abyad, Syria', *American Journal of Archaeology*, 99(1), pp. 5-32.
- Akkermans, P.M.M.G. and Duistermaat, K. (1997) 'Of storage and nomads—the sealings from late Neolithic Sabi Abyad, Syria', *Paléorient*, 22, pp. 17-44.
- Akkermans, P.M.M.G. and Schwartz, G.M. (2003) *The archaeology of Syria: from complex hunter-gatherers to early urban societies (c. 16,000-300 BC)*. Cambridge: Cambridge University Press.
- Akkermans, P.M.M.G. and Duistermaat, K. (2004) 'More seals and sealings from Neolithic Tell Sabi Abyad, Syria', *Levant*, 36(1), pp. 1-11.
- Akkermans, P.M.M.G. and Duistermaat, K. (2014) 'Late Neolithic seals and sealings', in Akkermans, P.M.M.G., Brüning, M.L., Huigens, H.O. and Nieuwenhuys, O.P. (eds.) *Excavations at late Neolithic Tell Sabi Abyad, Syria. 1994-1999 Field Seasons* (PALMA Series 11). Turnhout: Brepols Publishers, pp. 113-124.
- Akkermans, P.M.M.G. and van der Plicht, J. (2014) 'The site and its chronology', in Akkermans, P.M.M.G., Brüning, M.L., Huigens, H.O. and Nieuwenhuys, O.P. (eds.) *Excavations at late Neolithic Tell Sabi Abyad, Syria. The 1994-1999 field seasons*. Turnhout: Brepols Publishers, pp. 17-28.
- Akkermans, P.M.M.G., Cappers, R., Cavallo, C., Nieuwenhuys, O.P., Nihamn, B. and Otte, I.N. (2006) 'Investigating the early Pottery Neolithic of northern Syria: new evidence from Tell Sabi Abyad', *American Journal of Archaeology*, 110(1), pp. 123-156.
- Akkermans, P.M.M.G., Brüning, M.L., Huigens, H.O. and Nieuwenhuys, O.P. (2014) 'Tell Sabi Abyad 1994-1999 campaigns. Late Neolithic stratigraphy and architecture', in Akkermans, P.M.M.G., Brüning, M.L., Huigens, H.O. and Nieuwenhuys, O.P. (eds.) *Excavations at late Neolithic Tell Sabi Abyad, Syria. The 1994-1999 field seasons* (PALMA Series 11) Turnhout: Brepols Publishers, pp. 29-86.
- Alley, R.B. and Agustsdottir, A.M. (2005) 'The 8k event: cause and consequences of a major Holocene abrupt climate change', *Quaternary Science Reviews*, 24, pp. 1123-1149.
- Antczak, M. and Antczak, A. (2017) 'Caribbean', in Insoll, T. (ed.) *Oxford handbook of prehistoric figurines*. Oxford: Oxford University Press, pp. 196-220.

- Anvari, J., Brady, J., Franz, I., Naumov, G., Orton, D., Ostaptchouk, S., Stroud, E., Willett, P., Rosenstock, E. and Biehl, P. (2017) 'The Çatalhöyük west mound and the early Chalcolithic in central Anatolia', in Steadman, S.R. and McMahon, G. (eds.) *The archaeology of Anatolia: recent discoveries*. Newcastle upon Tyne: Cambridge Scholars Publishing, pp. 6-39.
- Arimura, M., Balkan-Atlı, N., Borell, F., Cruells, W., Duru, G., Erim Özdoğan, A., Ibanez, J., Maeda, O., Miyake, Y., Molist, M.I. and Özbaçaran, M. (2000) 'A new Neolithic settlement in the Urfa region: Akarçay Tepe, 1999', *Anatolia Antiqua*, VIII, pp. 227-255.
- Armstrong Oma, K. and Goldhahn, J. (2020) 'Introduction: human-animal relationships from a long-term perspective', *Current Swedish Archaeology*, 28, pp. 11-22.
- Arntz, M. (2017) *Shifting focus. Towards an understanding of figurine production, use and deposition. A case study from late Neolithic Tell Sabi Abyad (Syria) 6455-6225 BC*. Unpublished MA thesis. Leiden University.
- Avis, J. (2010) 'Figurines clay composition report, in *Archive report on the Catalhöyük season 2010*. Available at: <http://www.catalhoyuk.com> (Accessed on 06 December 2021).
- Bachofen, J.J. (1861) *Das Mutterrecht*. Reprint. Norderstedt: Hansebooks, 2017.
- Bader, N.O. (1993) 'Tell Maghzaliyah: an early Neolithic site in northern Iraq', in Yoffee, N. and Clark, J.J. (eds.) *Early stages in the evolution of Mesopotamian civilization*. Tucson and London: The University of Arizona Press, pp. 7-40.
- Bailey, D.W. (1994) 'Reading prehistoric figurines as individuals', *World Archaeology*, 25(3), pp. 321-331.
- Bailey, D.W. (1996) 'The interpretation of figurines: the emergence of illusion and new ways of seeing', in Hamilton, N. (ed.) *Can we interpret figurines?*, *Cambridge Archaeological Journal*, 6(2), pp. 291-295.
- Bailey, D.W. (1997) 'Review of the concept of the goddess, S. Billington and M. Gren (eds.)', *Antiquity*, 71, pp. 246-248.
- Bailey, D.W. (2005) *Prehistoric figurines: representation and corporeality in the Neolithic*. London and New York: Routledge.
- Bailey, D.W. (2007) 'The anti-rhetorical power of representational absence: incomplete figurines from the Balkan Neolithic', in Renfrew, C. and Morley, I. (eds.) *Image and imagination: a global prehistory of figurative representation*. Cambridge: McDonald Institute for Archaeological Research, pp. 117-126.
- Bailey, D. W. (2010) 'The figurines of old Europe', in Anthony, D.W., and Chi, J.Y. (eds.) *The lost world of old Europe: the Danube Valley, 5000-3500 BC*. Princeton (NJ): New York Institute for the Study of the Ancient World at New York University and Princeton University Press, pp. 113-127.
- Bailey, D.W. (2013) 'Figurines, corporeality, and the origins of the gendered body', in Bolger, D. (ed.) *A companion to gender prehistory*. Chichester: John Wiley, pp. 244-264.
- Baird, D. (1996) 'The Konya plain survey: aims and methods', in Hodder, I. (ed.) *On the surface: Çatalhöyük 1993-95* (McDonald Institute Monographs/BIAA Monograph 22). Cambridge and London: McDonald Institute for Archaeological Research and British Institute of Archaeology at Ankara, pp. 41-46.
- Baird, D. (2005) 'The history of settlement and social landscapes in the early Holocene in the Çatalhöyük area', in Hodder, I. (ed.) *Çatalhöyük perspectives: reports from the 1995-1999 Seasons* (McDonald Institute Monographs/BIAA Monograph 40). Cambridge and London: McDonald Institute for Archaeological Research and British Institute of Archaeology at Ankara, pp. 55-74.
- Baird, D. (2006) 'The Boncuklu project; the origins of sedentism, cultivation and herding in central Anatolia', *Anatolian Archaeology*, 12, pp. 13-16.
- Baird, D. (2007) 'Pınarbaşı: from Epipalaeolithic camp site to sedentarising village in central Anatolia', in Özdoğan, M. and Başgelen, N. (eds.) *The Neolithic in Turkey: new excavations and new discoveries*. Istanbul: Arkeoloji ve Sanat Yayınları, pp. 285-311.
- Baird, D. (2008) 'The Boncuklu project: The origins of sedentism, cultivation and herding in central Anatolia', *Anatolian Archaeology*, 14, pp. 11-14.
- Baird, D. with Fairbairn, A. and Mustafaoğlu, G. (2016) 'Boncuklu: the spread of farming and the antecedents of Çatalhöyük', *Heritage Turkey*, 6, pp. 15-18.
- Baird, D., Carruthers, D., Fairbairn, A. and Pearson, J. (2011) 'Ritual in the landscape: evidence from Pınarbaşı in the seventh-millennium cal BC Konya Plain', *Antiquity*, 84, pp. 380-394.
- Baird, D., Fairbairn, A., Martin, L., and Middleton, C. (2012) 'The Boncuklu Project; the origins of sedentism, cultivation and herding in central Anatolia', in Özdoğan, M. and Başgelen, N. (eds.) *The Neolithic in Turkey: new excavations and new Research*. Istanbul: Arkeoloji ve Sanat Taslikioglu, pp. 219-244.

- Baird, D., Campbell, S. and Watkins, T. (1995) 'Summary and conclusions', in Baird, D., Campbell, S. and Watkins, T. (eds.) *Excavations at Kharabeh Shattani. Volume II*. Edinburgh: University of Edinburgh, Department of Archaeology, pp. 185-194.
- Bánffy, E. (2001) 'Notes on the connection between human and zoomorphic representations in the Neolithic', *The Archaeology of Cult and Religion*, 13, pp. 53-71.
- Bar-Yosef, O. (1980) 'A human figurine from a Khiamian site in the Lower Jordan Valley', *Paléorient*, 6, pp. 193-199.
- Bar-Yosef, O. and Gopher, A. (eds.) (1997) *An early Neolithic village in the Jordan Valley. Part I: the archaeology of Netiv Hagdud* (American School of Prehistoric Research Bulletin 43). Cambridge (MA): Peabody Museum of Archaeology and Ethnology, Harvard University.
- Bayliss, A., Farid, S. and Higham, T. (2014) 'Time will tell: practising Bayesian chronological modelling on the East Mound', in Hodder, I. (ed.) *Integrating Çatalhöyük: themes from the 2000-2008 seasons* (Çatalhöyük Research Project Volume 10/BIAA Monograph 49). Los Angeles and London: The Cotsen Institute of Archaeology and British Institute at Ankara, pp. 53-90.
- Bayliss, A., Brock, F., Farid, S., Hodder, I., Southon, J. and Taylor, R.E. (2015) 'Getting to the bottom of it all: a Bayesian approach to dating the start of Çatalhöyük', *Journal of World Prehistory*, 28(1), pp. 1-26.
- Baysal, A. and Wright, K.T. (2005) 'Cooking, crafts and curation: ground-stone artefacts from Çatalhöyük', in Hodder, I. (ed.) *Changing materialities at Çatalhöyük: reports from the 1995-99 Seasons* (Çatalhöyük Research Project Volume 5/BIAA Monograph 39). Cambridge and London: McDonald Institute for Archaeological Research and British Institute at Ankara, pp. 307-324.
- Belcher, E. (2007) 'Fifth millennium anthropomorphic figurines in southeastern and central Anatolia: comparative museum research', *Araştırma Sonuçları Toplantısı*, 25(3), pp. 233-246.
- Belcher, E.H. (2014) *Embodiment of the Halaf: late Neolithic figurines from northern Mesopotamia*. Unpublished PhD thesis. Columbia University.
- Belcher, E.H. (2016) 'Identifying female in the Halaf: prehistoric agency and modern interpretation', *Journal of Archaeological Method and Theory*, 23(3), pp. 921-948.
- Belcher, E.H. and Croucher, K. (2016) 'Exchanges of identity in prehistoric Anatolian figurines', in Stucky, R.A., Kaelin, O. and Mathys, H.P. (eds.) *Proceedings of the 9<sup>th</sup> international congress on the archaeology of the Ancient Near East* (9<sup>th</sup> ICAANE). Wiesbaden: Harrassowitz Verlag, pp. 43-56.
- Belcher, E.H. and Croucher, K. (2017) 'Prehistoric figurines in Anatolia (Turkey)', in Insoll, T. (ed.) *The Oxford handbook of prehistoric figurines*. Oxford: Oxford University Press, pp. 443-467.
- Bell, C. (1992). *Ritual theory, ritual practice*. Reprint. Oxford: Oxford University Press, 2009.
- Bennison-Chapman, L.E. (2014) *The role and functions of "tokens" and sealing practices in the Neolithic of the Near East: the question of early recording systems, symbolic storage, precursors to writing, gaming, or monitoring devices in the world's first villages*. Unpublished PhD thesis. University of Liverpool.
- Bennison-Chapman, L.E. (2018) 'Reconsidering "tokens": the Neolithic origins of accounting or multifunctional, utilitarian tools?', *Cambridge Archaeological Journal*, 29(2), pp. 233-259.
- Bennison, L.E. (2019) 'Clay objects as "tokens"? Evidence for early counting and administration at late Neolithic Tell Sabi Abyad, Mesopotamia', *The Journal of the Council for British Research in the Levant*, 50(3), pp. 305-337.
- Bennison-Chapman, L.E. (2020) 'Conscious "tokens"?', in Hodder, I. (ed.) *Consciousness, creativity, and self at the dawn of settled life*. Cambridge and New York: Cambridge University Press, pp. 107-132.
- Bernbeck, R. and Pollock, S. (2003) 'The biography of an early Halaf village: Fıstıklı Höyük 1999-2000', *Istanbul Mitteilungen*, 53, pp. 9-77.
- Bernbeck, R. and Nieuwenhuys, O.P. (2013) 'Established paradigms, current disputes and emerging themes: the state of research on the late Neolithic in Upper Mesopotamia', in Nieuwenhuys, O.P., Bernbeck, R., Akkermans, P.M.M.G. and Rogasch, J. (eds.) *Interpreting the late Neolithic of Upper Mesopotamia* (PALMA 9). Turnhout: Brepols Publishers, pp. 17-38.
- Biehl, P.F. (1996) 'Symbolic communication systems: symbols on anthropomorphic figurines of the Neolithic and Chalcolithic from south-eastern Europe', *Journal of European Archaeology*, 4(1), pp. 153-176.
- Biehl, P.F., Franz, I., Orton, D.C., Ostaptchouck, S., Rogasch, J. and Rosenstock, E. (2012) 'One community and two tells: the phenomenon of relocating tell settlements at the turn of the 7<sup>th</sup> and the 6<sup>th</sup> Millennia in central Anatolia', in Hofmann, R., Moetz, F.-K. and Müller, J. (eds.) *Tells: social and environmental space*. Bonn: Habelt, pp. 53-65.

- Bladt Knudsen, N. and Greenberg, R. (2019) 'The Khirbet Ware figurine: a new component in the Kura-Araxes cultural assemblage', *Levant*, 51(3), pp. 271-286.
- Bogaard, A., Charles, M. and Twiss, K.C. (2010) 'Food storage and sharing at Çatalhöyük: the botanical and faunal evidence', in Benz, M. (ed.) *The principle of sharing, segregation and construction of social identities at the transition from foraging to farming* (Studies in Early Near East Production, Subsistence, and Environment 14). Berlin: Ex Oriente, pp. 313-330.
- Bogaard, A., Charles, M., Livarda, A., Ergun, M., Filipovic, D. and Jones, G. (2013) 'The archaeobotany of mid-later occupation levels at Neolithic Çatalhöyük', in Hodder, I. (ed.) *Humans and landscapes of Çatalhöyük: reports on the 2000-2008 seasons* (Çatalhöyük Research Project Volume 8/BIAA Monograph 47/Monumenta Archaeologica 30). Los Angeles: Cotsen Institute of Archaeology Press, pp. 93-128.
- Bogaard, A., Filipović, D., Charles, M., Fairbairn, A., Green, L., Fuller, D.Q. and Stroud, E. (2017) 'Agricultural innovation and resilience in a long-lived early farming community: the 1500-year sequence at Neolithic-early Chalcolithic Çatalhöyük, Central Anatolia', *Anatolian Studies*, 67, pp. 1-28.
- Bonogofsky, M. (2003) 'Neolithic plastered skulls and railroading epistemologies', *Bulletin of the American School of Oriental Research*, 331, pp. 1-10.
- Bordaz, J. (1969) 'The Suberde excavations, southwestern Turkey: an interim report', *Türk Arkeoloji Dergisi*, 17(2), pp. 43-71.
- Boyd, B. (2017) 'Archaeology and human-animal relations: thinking through anthropocentrism', *Annual Review of Anthropology*, 46, pp. 299-316.
- Boyd, B. and Cook, J. (1993) 'A reconsideration of the 'Ain Sakhri' figurine', *Proceedings of the Prehistoric Society*, 59, pp. 399-405.
- Brami, M.N. (2014) 'Revisiting Hacilar', *Arkeoloji Ve Sanat*, 146, pp. 13-28.
- Brami, M.N. (2017) *The diffusion of Neolithic practices from Anatolia to Europe: a contextual study of residential construction, 8,500-5,500 BC cal.* Oxford: BAR International Series.
- Broman Morales, V. (1983) 'Jarmo figurines and other clay objects', in Braidwood, L.S., Braidwood, R.J., Howe, B., Reed, C.A. and Watson, P.J. (eds.) *Prehistoric archaeology along the Zagros flanks* (The University of Chicago Oriental Institute Publications Volume 105). Chicago: Oriental Institute of the University of Chicago, pp. 369-424.
- Broman Morales, V. (1990) *Figurines and other clay objects from Sarab and Cayönü* (Oriental Institute Communications 25). Chicago: The Oriental Institute of the University of Chicago.
- Brown, S. (1993) 'Feminist research in archaeology. What does it mean? Why is it taking so long?', in Rabinowitz, N. and Richlin, A. (eds.) *Feminist theory and the classics*. New York: Routledge, pp. 238-271.
- Brück, J. (1999) 'Ritual and rationality: some problems of interpretation in European archaeology', *European Journal of Archaeology*, 2(3), pp. 313-344.
- Brüning, M.L., Van Exel, V., Van Kesteren, C., Nilhamn, B., Rooijackers, T., Schuitema, K. and De Wit, T. (2014) 'The other small finds', in Akkermans, P.M.M.G., Brüning, M.L., Huigens, H.O. and Nieuwenhuys, O.P. (eds.) *Excavations at late Neolithic Tell Sabi Abyad, Syria. The 1994-1999 field seasons* (PALMA series 11). Turnhout: Brepols Publishers, pp. 165-216.
- Buchanan, I. (2021) *Assemblage theory and method*. London and New York: Bloomsbury Academic.
- Byrd, B.F. (1994) 'Public and private, domestic and corporate: the emergence of the southwest Asian village', *American Antiquity*, 59(4), pp. 639-666.
- Campbell, S. and Fletcher, A. (2013) 'Multisited and modular sites in the Halaf tradition', in Nieuwenhuys, O.P., Bernbeck, R., Akkermans, P.M.M.G. and Rogasch, J. (eds.) *Interpreting the late Neolithic of Upper Mesopotamia* (PALMA 9). Turnhout: Brepols Publishers, pp. 51-62.
- Campbell, S. and Daems, A. (2017) 'Figurines in prehistoric Mesopotamia', in Insoll, T. (ed.) *The Oxford handbook of prehistoric figurines*. Oxford: Oxford University Press, pp. 568-590.
- Can Gemici, H. (2018) *The world of figurines in the Neolithic and early Chalcolithic north Aegean: the case of Uğurlu Höyük – Gökçeada*. Unpublished MA thesis. Middle East Technical University, Graduate School of Social Sciences.
- Cappers, R. (2014). 'The cultivated and wild plant remains', in Akkermans, P.M.M.G., Brüning, M.L., Huigens, H.O. and Nieuwenhuys, O.P. (eds.) *Excavations at the Neolithic tell Sabi Abyad, Syria: the 1994-1999 seasons*. Turnhout: Brepols Publishers, pp. 233-346.
- Carter, E. (2012) 'On human and animal sacrifice in the Late Neolithic at Domuztepe', in Porter, A.M. and Schwartz, G.M. (eds.) *Sacred killing. The archaeology of sacrifice in the ancient Near East*. Winona Lake: Eisenbrauns, pp. 97-124.

- Carter, T. (2011) 'A true gift of mother earth: the use and significance of obsidian at Çatalhöyük', *Anatolian Studies*, 61, pp. 1-19.
- Carter, T. and Millic, M. (2013) 'The chipped stone', in Hodder, I. (ed.) *Substantive technologies at Çatalhöyük. Reports from the 2000-2008 seasons* (Çatalhöyük Research Project Volume 9/BIAA Monograph 48). London and Los Angeles: British Institute at Ankara and Cotsen Institute of Archaeology, pp. 417-478.
- Carter, T. and Shackley, M.S. (2007) 'Sourcing obsidian from Neolithic Çatalhöyük (Turkey) using energy dispersive X-ray fluorescence', *Archaeometry*, 49(3), pp. 437-454.
- Cauvin, J. (2000a) *The birth of the gods and the origins of agriculture*. Cambridge: Cambridge University Press.
- Cauvin, J. (2000b) 'The symbolic foundation of the Neolithic revolution in the Near East', in Kuijt, I. (ed.) *Life In Neolithic farming communities: social organization, identity, and differentiation*. New York: Kluwer Press, pp. 235-251.
- Cauvin, J., Aurenche, O., Cauvin, M.-C. and Balkan-Atli, N. (1999) 'The Pre-pottery site of Cafer Hoyuk', in Özdoğan, M. and Başgelen, N. (eds.) *Neolithic in Turkey*. Istanbul: Arkeoloji ve Sanat Yayınları, pp. 87-103.
- Cauvin, J., Hodder, I., Rollefson, G.O., Bar-Yosef, O. and Watkins T. (2001) 'The birth of the gods and the origins of agriculture by Jacques Cauvin, translated by Trevor Watkins (New Studies in Archaeology). Cambridge: Cambridge University Press, 2000; ISBN 0-521-65135-2 hardback £37.50 & \$59.95 Reviewed by Ian Hodder, Gary O. Rollefson, Ofer Bar-Yosef with a response by Trevor Watkins', *Cambridge Archaeological Journal*, 11(1), pp. 105-121.
- Cessford, C. (2001) 'A new dating sequence for Çatalhöyük', *Antiquity*, 75, pp. 717-725.
- Cessford, C. (2005) 'Estimating the Neolithic population of Çatalhöyük', in Hodder, I. (ed.) *Inhabiting Çatalhöyük: reports from the 1995-1999 seasons* (Çatalhöyük Research Project Volume 4/BIAA Monograph 38). Cambridge and London: McDonald Institute for Archaeological Research and British Institute of Archaeology at Ankara, pp. 325-328.
- Charles, M., Doherty, C., Asouti, E. and Bogaard, A. (2014) 'Landscape and taskscape at Çatalhöyük: an integrated perspective', in Hodder, I. (ed.) *Integrating Çatalhöyük: themes from the 2000-2008 seasons* (Çatalhöyük Research Project Volume 10/BIAA Monograph 49). Los Angeles and London: The Cotsen Institute of Archaeology and British Institute at Ankara, pp. 71-89.
- Clare, L., Rohling, E.J., Weninger, B. and Hilpert, J. (2008) 'Warfare in late Neolithic/early Chalcolithic Pisidia, southwestern Turkey. Climate induced social unrest in the late 7<sup>th</sup> millennium calBC', *Documenta Praehistorica*, 35, pp. 65-91.
- Clark, S.R. (2007) *The social life of figurines: recontextualizing the third millennium BC terracotta figurines from Harappa (Pakistan)*. Unpublished PhD. thesis. Harvard University.
- Collet, P. and Spoor, R. (1996) 'The ground stone industry', in Akkermans, P.M.M.G (ed.) *Tell Sabi Abyad, the Late Neolithic settlement. Report on the excavations of the University of Amsterdam (1988) and the National Museum of Antiquities Leiden (1991-1993) in Syria*. Istanbul and Leiden: Nederlands Historisch-Archaeologisch Instituut, pp. 415-438.
- Conard, N.J. (2009) 'A female figurine from the basal Aurignacian of Hohle Fels Cave in southwestern Germany', *Nature*, 459, pp. 248-252.
- Conkey, M.W. and Tringham, R.E. (1995) 'Archaeology and the goddess: exploring the contours of feminist archaeology', in Stanton, D.C. and Stewart, A.J. (eds.) *Feminisms in the academy*. Ann Arbor: University of Michigan Press, pp. 199-247.
- Contenson, de, H. (1995) *Aswad et Ghoraiyé: sites Néolithiques en Damascène (Syrie) aux IX<sup>ème</sup> et VIII<sup>ème</sup> millénaires avant L'ère Chrétienne*. Beirut: Institut Français d'Archéologie du Proche-Orient.
- Contenson, de, H. (2000) *Ramad: site Néolithique en Damascène (Syrie) aux VIII<sup>ème</sup> et VII<sup>ème</sup> millénaires avant L'ère Chrétienne*. Beirut: Institut Français d'Archéologie du Proche-Orient.
- Corbey, R., Layton, R. and Tanner, J. (2004) 'Archaeology and art', in Bintliff, J. (ed.) *A companion to archaeology*. London and New York: Blackwell, pp. 357-379.
- Coupy, L. (2009) 'Ways of enchanting. Chaînes opératoires and yam cultivation in Nyamikum Village, Maprik, Papua New Guinea', *Journal of Material Culture*, 14(4), pp. 433-458.
- Christidou, R., Coquegniot, E. and Gourichon, L. (2009) 'Neolithic figurines manufactured from phalanges of equids from Dja'de el Mughara, Syria', *Journal of Field Archaeology*, 34(3), pp. 319-335.
- Croucher, K. (2008) 'Ambiguous genders? Alternative interpretations: a discussion of case studies from the Pre-pottery Neolithic and Halaf periods', in Bolger, D. (ed.) *Gender through time in the Ancient Near East*. New York: AltaMira Press, pp. 21-52.
- Croucher, K. (2012a) 'Anatolia', in T. Insoll (ed.) *Oxford Handbook of the Archaeology of Ritual and Religion*. Oxford: Oxford University Press, pp. 826-845.
- Croucher, K. (2012b) *Death and Dying in the Neolithic Near East*. Oxford, Oxford University Press.

- Cutting, M.V. (2005) *The Neolithic and early Chalcolithic farmers of central and southwest Anatolia: household, community, and the changing use of space*. Oxford: Archaeopress.
- Daems, A. (2008) 'Evaluating patterns of gender through Mesopotamian and Iranian human figurines: a reassessment of the Neolithic and the Chalcolithic period industries', in Bolger, D. (ed.) *Gender through time in the Ancient Near East*. New York: AltaMira Press, pp. 77-118.
- Daems, A. (2017) 'From a bird's eye view: prehistoric human figurines from Iran', in Insoll, T. (ed.) *The Oxford handbook of prehistoric figurines*. Oxford: Oxford University Press, pp. 591-610.
- Davies, S. (2012) *The artful species. Aesthetics, art, and evolution*. Oxford: Oxford University Press.
- DeMarrais, E. (2007) 'Early figuration in the south Andes: materiality, iconography, and the uses of images', in Renfrew, A.C. and Morley, I.R. (eds.) *Image and imagination: a global prehistory of figurative representation*. Cambridge: McDonald Institute for Archaeological Research, pp. 255-270.
- DeMello, M. (2012) *Animals and society: an introduction to human-animal studies*. New York and Chicester, Columbia University Press.
- Dobres, M.A. (1999) 'Technology's links and *chaînes*: the processual unfolding of techniques and technician', in Dobres, M.A. and Hoffman, C.R. (eds.) *The social dynamics of technology: practice, politics, and world views*. Washington (DC): Smithsonian Institution Press, pp. 124-146.
- Dobres, M.A. (2010) 'Archaeologies of technology', *Cambridge Journal of Economics*, 34(1), pp. 103-114.
- Doherty, C. (2017) *Living with clay: materials, technology, resources and landscape at Çatalhöyük*. Unpublished PhD thesis. University of Leicester, School of Archaeology and Ancient History.
- Doherty, C., Charles, M. and Bogaard, A. (2007) 'Preliminary sediment coring to clarify "clay" sources and potential land-use around Çatalhöyük', in *Archive report on the Catalhöyük season 2007*. Available at: <http://www.catalhoyuk.com> (Access on 06 December 2021).
- Domingo Sanz, I. and Fiore, D. (2014) 'Style: its role in the archaeology of art', in Smith, C. (ed.) *Archaeology of art section, encyclopedia of global archaeology*. New York: Springer-Verlag, pp. 7104-7111.
- Dornemann, R.H. (1986) *A Neolithic village at Tell el Kowm in the Syrian desert*. Chicago: University of Chicago Press.
- Duistermaat, K. (1996) 'The seals and sealings', in Akkermans, P.M.M.G. (ed.) *Tell Sabi Abyad—the late Neolithic settlement*. Istanbul and Leiden: Nederlands Historisch-Archeologisch Instituut, pp. 339-401.
- Duistermaat, K. (2008) *The pots and potters of Assyria. Technology and organisation of production, ceramic sequence and vessel function at late Bronze Age Tell Sabi Abyad, Syria (PALMA 4)*. Turnhout: Brepols Publishers.
- Duistermaat, K. (2010) 'Administration in Neolithic societies? The first use of seals in Syria and some considerations on seal owners, seal use and private property', in Müller, W. (ed.) *Die Bedeutung der Minoischen und Mykenischen Glyptik. VI. Internationales Siegel-Symposium, Marburg, 9-12 Oktober 2008. Corpus der minoischen und mykenischen Siegel - Beiheft no. 8*. Mainz am Rhein: Verlag Philipp von Zabern, pp. 163-178.
- Duistermaat, K. (2012) 'Which came first, the bureaucrat or the seal? Some thoughts on the non-administrative origins of seals in Neolithic Syria', in Regulski, I., Duistermaat, K. and Verkinderen, P. (eds.) *Seals and sealing practices in the Near East. Developments in administration and magic from prehistory to the Islamic period. Proceedings of an International Workshop at the Netherlands-Flemish Institute in Cairo on December 2-3, 2009. Orientalia Lovaniensia Analecta 219*. Leuven, Paris and Walpole (MA): Uitgeverij Peeters and Departement Oosterse Studies, pp. 1-16.
- Duistermaat, K. (2013) 'Private matters: the emergence of sealing practices in Neolithic Syria', in Nieuwenhuys, O.P., Bernbeck, R., Akkermans, P.M.M.G. and Rogasch, J. (eds.) *Interpreting the late Neolithic of Upper Mesopotamia (PALMA 9)*. Turnhout: Brepols, pp. 315-322.
- Duistermaat, K. and Schneider, G. (1998) 'Chemical analyses of sealing clays and the use of administrative artefacts at late Neolithic Tell Sabi Abyad (Syria)', *Paleorient*, 24(1), pp. 89-106.
- Düring, B.S. (2001) 'Social dimensions in the architecture of Neolithic Çatalhöyük', *Anatolian Studies*, 51, pp. 1-18.
- Düring, B.S. (2006) *Constructing communities: clustered neighbourhood settlements of the central Anatolian Neolithic, ca. 8000-5500 Cal BC*. Leiden: Nederlands Instituut voor het Nabije Oosten.
- Düring, B.S. (2007) 'The articulation of houses at Neolithic Çatalhöyük, Turkey', in Beck, R. (ed.) *The durable house, house society models in archaeology*. Carbondale: Center for Archaeological Investigations, Southern Illinois University, pp. 130-153.
- Düring, B.S. and Marciniak, A. (2005) 'Households and communities in the Central Anatolian Neolithic', *Archaeological Dialogues*, 12, pp. 165-187.

- Durkeim, É. (1912) *Les Formes élémentaires de la Vie Religieuse*. Paris: Alcan.
- Duru, R. (1999) 'The Neolithic of the Lake District', in Özdoğan, M. and Başgelen, N. (eds.) *Neolithic in Turkey: the cradle of civilization—new discoveries*. Istanbul: Arkeoloji ve Sanat Yayınları, pp. 165-191.
- Duru, R. and Umurtak, G. (2005) *Höyücek, 1989–1992. Yılları Arasında Yapılan Kazıların Sonuçları*. Ankara: Türk Tarih Kurumu.
- Edwards, P.C. (2013) 'Visual representations in stone and bone', in Edwards, P.C. (ed.) *Wadi Hammeh 27, an early Natufian settlement at Pella in Jordan*. Leiden: Brill Publishers, pp. 287-319.
- Edwards, P.C., Major, J., McNamara K.J. and Robertson, R. (2019) 'The natural inspiration for Natufian art: cases from Wadi Hammeh 27, Jordan', *Cambridge Archaeological Journal*, 29(4), pp. 607-624.
- Esin, U. and Harmanakaya, S. (1999) 'Aşıklı in the frame of central Anatolian Neolithic', in Özdoğan, M. and Başgelen, N. (eds.) *Neolithic in Turkey: the cradle of civilization—new discoveries*. Istanbul: Arkeoloji ve Sanat Yayınları, pp. 115-132.
- Evershed, R., Payne, S., Sherratt, A.G., Copley, M.S., Coolidge, J., Urem-Kotsu, D., Kotsakis, K., Özdoğan, M., Özdoğan, A.E., Özbaşaran, M., Bıçakçı, E., Garfinkel, Y., Levy, T. and Burton, M.M. (2008) 'Earliest date for milk use in the Near East and southeastern Europe linked to cattle herding', *Nature*, 2008, pp. 528-531.
- Fairbairn A.J., Near, J. and Martinioli D. (2005) 'Macrobotanical investigation of the north, south and KOPAL area excavations at Çatalhöyük East', in Hodder, I. (ed.) *Inhabiting Çatalhöyük: reports from the 1995–1999 seasons* (Çatalhöyük Research Project Volume 4/BIAA Monograph 38). Cambridge and London: McDonald Institute for Archaeological Research and British Institute at Ankara, pp. 91-130.
- Farbstein, R. (2011) 'Technologies of art. A critical reassessment of Pavlovian art and society, using *chaîne opératoire* method and theory', *Current Anthropology*, 52(3), pp. 401-432.
- Farbstein, R. (2017) 'Palaeolithic central and eastern Europe', in Insoll, T. (ed.) *The Oxford handbook of prehistoric figurines*. Oxford: Oxford University Press, pp. 681-704.
- Farid, S. (2005) 'Introduction to the south area excavation', in Hodder, I. (ed.) *Inhabiting Çatalhöyük: reports from the 1995–1999 seasons* (Çatalhöyük Research Project Volume 4/BIAA Monograph 38). Cambridge and London: McDonald Institute for Archaeological Research and British Institute at Ankara, pp. 41-58.
- Farid, S. (2008) 'Introduction to the excavation areas', in *Çatalhöyük 2008 Research Project Archive Report*. Available at: [http://www.catalhoyuk.com/sites/default/files/media/pdf/Archive\\_Report\\_2008.pdf](http://www.catalhoyuk.com/sites/default/files/media/pdf/Archive_Report_2008.pdf) (Accessed 30 November 2021).
- Farid, S. (2014) 'Timelines: phasing Neolithic Çatalhöyük', in Hodder, I. (ed.) *Integrating Çatalhöyük: themes from the 2000-2008 seasons* (Çatalhöyük Research Project Volume 10/BIAA Monograph 49). Los Angeles and London: The Cotsen Institute of Archaeology and the British Institute at Ankara, pp. 91-129.
- Fernández-Götz, M., Gardner, A., Díaz de Liaño, G. and Harris O.J.T. (2020) 'Posthumanism in archaeology: an introduction', *Cambridge Archaeological Journal*, 31(1), pp. 455-459.
- Florh, P., Fleitmann, D., Matthews, R., Matthews, W. and Black, S. (2016) 'Evidence of resilience to past climate change in southwest Asia: early farming communities and the 9.2 and 8.2 ka events', *Quaternary Science Reviews*, 136, pp. 23-39.
- Fort, J., Pujol, T. and Vander Linden, M. (2012) 'Modelling the Neolithic transition in the Near East and Europe', *American Antiquity*, 77(2), pp. 203-219.
- Fox, N.J. and Alldred, P. (2019) 'New materialism', in Atkinson, P.A., Delamont, S., Cernat, A., Sakshaug, J.W. and Williams, M. (eds.) *SAGE Research methods foundations*. London: Sage. <https://methods.sagepub.com/foundations/new-materialism>.
- Freikman, M. and Garfinkel, Y. (2009) 'The zoomorphic figurines from Sha'ar Hagolan: hunting magic practices in the Neolithic Near East', *Levant*, 41(1), pp. 5-7.
- Gamble, C.N., Hanan, J.S. and Nail, T. (2019) 'What is new materialism', *Angelaki. Journal of Theoretical Humanities*, 24(6), pp. 111-134.
- Gangal, K., Sarson, G.R. and Shukurov, A. (2014) 'The Near-Eastern roots of the Neolithic in South Asia' *PLoS ONE*, 9(5): <https://doi.org/10.1371/journal.pone.0095714>.
- Garfinkel, Y. (1995) *Human and animal figurines of Munhata (Israel)* (Les Cahiers des Missions Archéologiques Françaises en Israël No. 8). Paris: Association Paléorient.
- Garfinkel, Y. (1999) *The Yarmukians. Neolithic art from Sha'ar Hagolan*. Jerusalem: Bible Lands Museum.
- Garfinkel, Y. and Miller, M.A. (2002) 'The archaeology of Sha'ar Hagolan', in Garfinkel, Y. and Miller, M.A. (eds.) *Sha'ar Hagolan. Volume 1. Neolithic art in context*. Oxford: Oxbow Books, pp. 10-34.

- Garfinkel, Y., Korn, N. and Miller, M.A. (2002) 'Art from Sha'ar Hagolan: visions of a Neolithic village in the Levant', in Garfinkel, Y. and Miller, M.A. (eds.) *Sha'ar Hagolan. Volume 1. Neolithic Art in Context*. Oxford: Oxbow Books, pp. 188-208.
- Garfinkel, Y., Korn, N. and Miller, M.A. (2010) *Sha'ar Hagolan. Volume 3. Symbolic dimensions of the Yarmukan culture: canonization in Neolithic art*. Jerusalem: Israel Exploration Society.
- Garrod, D. (1957) 'The Natufian culture: The life and economy of a Mesolithic people in the Near East', *Proceedings of the British Academy*, 43, pp. 211-227.
- Garrod, D. and Bate, D. (1937) *The stone age of Mount Carmel. Excavations at the Wady el-Mughara. Volume I*. Oxford: Clarendon Press.
- Gaydarska, B., Chapman, J., Raduntcheva, A. and Koleva, B. (2007) 'The *chaîne opératoire* approach to prehistoric figurines: an example from Dolnoslav, Bulgaria', in Renfrew, C. and Morley, I. (eds.) *Image and imagination: a global prehistory of figurative representation* (McDonald Institute Monographs). Cambridge: McDonald Institute for Archaeological Research, pp. 171-184.
- Gell, A. (1988) 'Technology and magic', *Anthropology Today*, 4(2), pp. 6-9.
- Gell, A. (1992) 'The technology of enchantment, and the enchantment of technology', in Coote, J. and Shelton, A. (eds.) *Anthropology, Art, Aesthetics*. Oxford: Clarendon Press, pp. 40-66.
- Gell, A. (1998) *Art and agency*. Oxford: Oxford University Press.
- Gérard, F. and Thissen, L. (eds.) (2002) *The Neolithic of central Anatolia: internal developments and external relations during the 9<sup>th</sup>-6<sup>th</sup> millennia cal BC—Proceedings of the International CANeW Round Table, Istanbul, November 23-24, 2001*. Istanbul: Ege Yayınları.
- Gheorghiu, D. (2010) 'Ritual technology: an experimental approach to Cucuteni-Tripolye Chalcolithic figurines', in Gheorghiu, D. and Cyphers A. (eds.) *Anthropomorphic and zoomorphic miniature figures in Eurasia, Africa and Meso-America. Morphology, materiality, technology, function and context* (BAR International Series 2138). Oxford: Archaeopress, pp. 61-72.
- Gimbutas, M. (1974) *The goddesses and gods of old Europe: 7000 to 3500 BC myths, legends and cult images*. Berkeley: University of California Press.
- Gimbutas, M. (1982) *Goddesses and gods of old Europe. Myths and cult images*. London: Thames & Hudson Publishers.
- Gimbutas, M. (1989) *The language of the goddess*. London: Thames & Hudson Publishers.
- Gittins, E. (2013) 'The archaeology of becoming the human animal', *Society and Animals*, 21, pp. 120-133.
- Goodman, N. (1976) *Languages of art. An approach to a theory of symbols*. Indianapolis: Hackett Publishing Company.
- Gosden, C. (2004) 'What do objects want?', *Journal of Archaeological Method and Theory*, 12(3), pp. 193-211.
- Gourichon, L. (2004) *Faune et saisonnalité: l'organisation temporelle des activités de subsistance dans l'Épipaléolithique et le Néolithique Pré-céramique du Levant nord (Syrie)*. Unpublished PhD thesis. Lyon II University.
- Haaland, G. and Haaland, R. (1995) 'Who speaks the goddess's language? Imagination and method in archaeology research', *Norwegian Archaeological Review*, 28(2), pp. 105-121.
- Halperin, T., Faust, K.A., Taube, R. and Giguet, A. (eds.) (2009) *Mesoamerican figurines: small-scale indices of large-scale social phenomena*. Gainesville: University of Florida Press.
- Hamilakis, Y. and Jones A.M. (2017) 'Special section. Archaeology and assemblage', *Cambridge Archaeological Journal*, 27(1), pp. 77-84.
- Hamilton, N. (1996) 'Can we interpret figurines?', *Cambridge Archaeological Journal*, 6(2), pp. 281-307.
- Hamilton, N. (1998) 'Burial, figurines and miscellaneous 1998', in *Çatalhöyük 1998 archive report*. Available at: [http://www.catalhoyuk.com/archive\\_reports/1998/ar98\\_15.html](http://www.catalhoyuk.com/archive_reports/1998/ar98_15.html) (accessed 06 December 2021).
- Hamilton, N. (2005) 'The beads', in Hodder, I. (ed.) *Changing materialities at Çatalhöyük: reports from the 1995-99 seasons* (Çatalhöyük Research Project Volume 5/BIAA Monograph 39). Cambridge and London: McDonald Institute for Archaeological Research and British Institute at Ankara, pp. 325-332.
- Hansen, S. (2014) 'Neolithic figurines in Anatolia', in Özdoğan, M., Başgelen, N. and Kuniholm, P. (eds.) *The Neolithic in Turkey. 10500-5200 BC: environment, settlement, flora, fauna, dating, symbols of belief, with views from north, south, east, and west*. Istanbul: Archaeology and Art Publications, pp. 265-292.

- Harrison-Buck, E. and Hendon, J.A (eds.) (2018) *Relational identities and other-than-human agency in archaeology*. Louisville, University Press of Colorado.
- Helwing, B. (2016) 'Recording the Neolithic graveyard at Tell es-Sawwan', *Paléorient*, 42(1), pp. 129-142.
- Hicks, D. (2012) 'The material-cultural turn: event and effect', in Beaudry, M.C. and Hicks, D. (eds.) *The Oxford handbook of material culture studies*. Oxford: Oxford University Press, pp. 25-98.
- Hill, E. (2013) 'Archaeology and animal persons: toward a prehistory of human-animal relations', *Environment and Society*, 4, pp. 117-136.
- Hodder, I. (1982) 'Theoretical archaeology: a reactionary view', in Hodder, I. (ed.) *Symbolic and structural archaeology*. Cambridge: Cambridge University Press, pp. 1-16.
- Hodder, I. (1989) 'Post-modernism, post-structuralism and post-processual archaeology', in Hodder, I. (ed.) *The meaning of things. Material culture and symbolic expression*. London and New York: Routledge, pp. 64-78.
- Hodder, I. (ed.) (1996a) *On the surface: Çatalhöyük, 1993-1995* (Çatalhöyük Research Project Volume 1/BIAA Monograph 22). Cambridge and London: McDonald Institute for Archaeological Research and British Institute of Archaeology at Ankara.
- Hodder, I. (1996b) 'Re-opening Çatalhöyük', in Hodder, I. (ed.) *On the surface: Çatalhöyük, 1993-1995* (Çatalhöyük Research Project Volume 1/BIAA Monograph 22). Cambridge and London: McDonald Institute for Archaeological Research and British Institute of Archaeology at Ankara, pp. 1-18.
- Hodder, I. (1997) 'Always momentary, fluid and flexible towards a reflexive excavation methodology', *Antiquity*, 71, pp. 691-700.
- Hodder, I. (2000) 'Developing a reflexive methodology in archaeology', in Hodder, I. (ed.) *Towards reflexive method in archaeology: the example at Çatalhöyük*. Cambridge and London: McDonald Institute for Archaeological Research and British Institute of Archaeology at Ankara, pp. 3-18.
- Hodder, I. (2005) 'Changing entanglements and temporalities', in Hodder, I. (ed.) *Changing materialities at Çatalhöyük: report from the 1995-99 seasons* (Çatalhöyük Research Project Series 2/BIAA Monograph 28). Cambridge and London: McDonald Institute for Archaeological Research and British Institute of Archaeology at Ankara, pp. 1-22.
- Hodder, I. (2006) *Çatalhöyük: the leopard's tale: revealing the mysteries of Turkey's ancient 'town'*. London: Thames & Hudson.
- Hodder, I. (2007a) '2007 Season review', in *Çatalhöyük Research Project 2007 Archive Report*. Available at: [http://www.catalhoyuk.com/sites/default/files/media/pdf/Archive\\_Report\\_2007.pdf](http://www.catalhoyuk.com/sites/default/files/media/pdf/Archive_Report_2007.pdf) (Access on 02 December 2021).
- Hodder, I. (ed.) (2007b) *Excavating Çatalhöyük: south, north, and KOPAL area reports from the 1995-1999 seasons* (Çatalhöyük Research Project Volume 3/ BIAA Monograph 37). Cambridge: McDonald Institute for Archaeological Research.
- Hodder, I. (ed.) (2010) *Religion in the emergence of civilisation: Çatalhöyük as a case study*. Cambridge: Cambridge University Press.
- Hodder, I. (2011) 'Human-thing entanglement: towards an integrated archaeological perspective', *Journal of the Royal Anthropological Institute*, 17(1), pp. 154-177.
- Hodder, I. (2012a) *Entangled: an archaeology of the relationships between humans and things*. Oxford: Wiley-Blackwell.
- Hodder, I. (2012b) 'Çatalhöyük. A summary of recent work concerning architecture', in Söğüt, B. (ed.) *Festschrift for Ahmet A. Tırpan*. Istanbul: Ege Yayınları, pp. 303-314.
- Hodder, I. (ed.) (2013a) *Çatalhöyük excavations: The 2000-2008 seasons* (Çatalhöyük Research Project Volume 7/BIAA Monograph 46/Monumenta Archaeologica 29). Los Angeles: Cotsen Institute for Archaeology Press.
- Hodder, I. (2013b) 'Dwelling at Çatalhöyük', in Hodder, I. (ed.) *Humans and landscapes of Çatalhöyük: reports from the 2000-2008 seasons* (Çatalhöyük Research Project Volume 8/BIAA Monograph 47). Los Angeles and London: The Cotsen Institute of Archaeology and British Institute at Ankara, pp. 1-30.
- Hodder, I. (2014a) 'Çatalhöyük: the leopard changes its spots. A summary of recent work', *Anatolian Studies*, 64, pp. 1-22.
- Hodder, I. (2014b). 'The entanglements of humans and things: a long-term view', *New Literary History*, 45(1), pp. 19-36.
- Hodder, I. (2015) 'Introduction', in Hodder, I. and Marcinak, A. (eds.) *Assembling Çatalhöyük* (Themes in contemporary archaeology, volume 1). Leeds: Maney Publishing, pp. 1-6.
- Hodder, I. (2016) *Studies in human-thing entanglement*. Available at: <http://www.ian-hodder.com/books/studies-human-thing-entanglement> (Accessed 02 March 2018).

- Hodder, I. and Cessford, C. (2004) 'Daily practice and social memory at Çatalhöyük', *American Antiquity*, 69, pp. 17-40.
- Hodder, I. and Pels, P. (2010). History houses: a new interpretation of architectural elaboration at Çatalhöyük, in Hodder, I. (ed.) *Religion in the emergence of civilisation: Çatalhöyük as a case study*. Cambridge: Cambridge University Press, pp. 163-186.
- Hodder, I. and Doherty, C. (2014) 'Temporal trends: the shapes and narratives of cultural change at Çatalhöyük', in Hodder, I. (ed.) *Integrating Çatalhöyük: themes from the 2000-2008 seasons* (Çatalhöyük Research Project Volume 10/BIAA Monograph 49). Los Angeles and London: The Cotsen Institute of Archaeology and the British Institute at Ankara, pp. 169-184.
- Hodder, I., Cessford, C. and Farid, S. (2007) 'Introduction to methods and approaches', in Hodder, I. (ed.) *Excavating Çatalhöyük: south, north, and KOPAL area reports from the 1995-1999 seasons* (Çatalhöyük Research Project Volume 3/BIAA 37). Cambridge and London: McDonald Institute for Archaeological Research and British Institute at Ankara, pp. 3-24.
- Hoffmann, D.L., Standish, C.D., García-Diez, M., Pettitt, P.B., Milton, J.A., Zilhão, J., Alcolea-González, J.J., Cantalejo-Duarte, P., Collado, H., de Balbín, R., Lorblanchet, M., Ramos-Muñoz, J., Weniger, G.-Ch. and Pike, A.W.G. (2018) 'U-Th dating of carbonate crusts reveals Neanderthal origin of Iberian cave art', *Science*, 359 (6378), pp. 912-915.
- Holland, T.A. (1982) 'Appendix C. Figurines and miscellaneous objects', in Kenyon, K. and Holland, T.A. (eds.) *Excavations at Jericho. Volume four*. London: British School of Archaeology in Jerusalem, pp. 551-563.
- Huigens, H.O., van Exel, V., Flohr, P., Kelder, J.M., Koek, E. and Rooijackers, T. (2014) 'The ground-stone industry' in Akkermans, P.M.M.G., Brüning, M.L., Huigens, H.O. and Nieuwenhuys, O.P. (eds.) *Excavations at late Neolithic Tell Sabi Abyad, Syria. The 1994-1999 field seasons* (PALMA series 11). Turnhout: Brepols Publishers, pp. 135-164.
- Hurcombe, L. (2007) 'A sense of materiality and sensory perception in concepts of materiality', *World Archaeology*, 39(4), pp. 532-545.
- Ingold, T. (2001) 'Beyond art and technology: the anthropology of skill', in Schiffer, M.B. (ed.) *Anthropological perspectives on technology*. Albuquerque: University of New Mexico Press, pp. 17-31.
- Ingold, T. (2007) 'Materials against materiality', *Archaeological Dialogues*, 14(1), pp. 1-16.
- Ingold, T. (2011) *Being alive: essays on movement, knowledge and description*. London: Routledge.
- Ingold, T. (2013) *Making: anthropology, archaeology, art and architecture*. London: Taylor & Francis Ltd.
- Insoll, T. (2017) 'Miniature possibilities? An introduction to the varied dimensions of figurine research', in Insoll, T. (ed.) *The Oxford handbook of prehistoric figurines*. Oxford: Oxford University Press, pp. 3-15.
- Jennbert, K. (2021) 'Post-humanistic approaches in archaeology', *Current Swedish Archaeology*, 29, pp. 43-47.
- Jones, A. (2004) 'Archaeometry and materiality: materials-based analysis in theory and practice', *Archaeometry*, 46(3), pp. 327-338.
- Joyce, R.A. (2007) 'Figurines, meaning, and meaning-making in early Mesoamerica', in Renfrew, C. and Morley, I. (eds.) *Material beginnings: a global prehistory of figurative representation*. Cambridge: McDonald Institute for Archaeology Research, pp. 107-116.
- Kaimaris, D., Hourmouziadis, G. and Patias, P. (2011) '3D scanning and digital processing used in the study of a Neolithic figurine', *Applied Geomatics*, 3(3), pp. 153-157.
- Kay, K. (2020) 'Dynamic houses and communities at Çatalhöyük: a building biography approach to prehistoric social structure', *Cambridge Archaeological Journal*, 30(3), pp. 451-468.
- Knapp, A.B. (2009) 'Representations: female figurines and social identity on protohistoric Cyprus' in Hoube-Nielsen, S. and Slej, K. (eds.) *Proceedings from the international conference 'finds and results from the Swedish Cyprus expedition 1927-1931: a gender perspective', March 31-April 2, 2006* (Focus on the Mediterranean, no. 5). Stockholm: Medelhavsmuseet, pp. 137-144.
- Knapp, A.B. and Meskell, L.M. (1997) 'Bodies of evidence on prehistoric Cyprus', *Cambridge Archaeological Journal*, 7(2), pp. 183-204.
- Knox, D.-K. (2012) *Making sense of figurines in Bronze Age Cyprus. A comprehensive analysis for Cypriot figurative material from EC I-LC IIIA (c.2300BC-c.1100BC)*. Unpublished PhD thesis. University of Manchester.
- Kreiter, A., Riebe, D.J., Parkinson, W.A., Pető, Á., Tóth, M., Pánczél P. and Bánffy, E. (2014) 'Unique in its chaîne opératoire, unique in its symbolism: undressing a figurine from the 6<sup>th</sup> millennium BC Körös culture, Hungary', *Journal of Archaeological Science*, 44, pp. 136-147.

- Kozłowski, S.K. (2002) *Nemrik. An aceramic village in northern Iraq, with Preface by Olivier Aurenche*. Warsaw: Institute of Archaeology, Warsaw University.
- Kuijpers, M.H.G. (2014) *Early Bronze Age metalworking craftsmanship: an inquiry into metalworking skill and craft based on axes in the north-Alpine Region*. Unpublished PhD Thesis. Cambridge University.
- Kuijpers, M.H.G. (2018) 'A sensory update to the *chaîne opératoire* in order to study skill: perceptive categories for copper-compositions in archaeometallurgy', *Journal of Archaeological Method and Theory*, 25, pp. 863-891.
- Kuijt, I. (2000) 'People and space in early agricultural villages: exploring daily lives, community size, and architecture in the Late Pre-Pottery Neolithic', *Journal of Anthropological Archaeology*, 19(1), pp. 75-102.
- Kuijt, I. (2002) 'Keeping the peace: ritual, skull caching, and community integration in the Levantine Neolithic', in Kuijt, I. (ed.) *Life in Neolithic farming communities: social organisation, identity, and differentiation*. New York, Boston, Dordrecht, London, Moscow: Kluwer, pp. 137-160.
- Kuijt, I. (2008) 'The regeneration of life: Neolithic structures of symbolic remembering and forgetting', *Current Anthropology*, 49(2), pp. 171-197.
- Kuijt, I. (2017) 'Clay ideas: Levantine Neolithic figurine trajectories and intellectual threads', in Insoll, T. (ed.) *The Oxford handbook of prehistoric figurines*. Oxford: Oxford University Press, pp. 545-566.
- Kuijt, I. and Chesson, M.S. (2005) 'Lumps of clay and pieces of stone: ambiguity, bodies and identity as portrayed in Neolithic figurines', in Pollock, S. and Bernbeck, R. (eds.) *Archaeologies of the Middle East: Critical Perspectives*. Malden: Blackwell, pp. 152-183.
- Kyriakidis, E. (2004) 'Archaeologies of ritual', in Kyriakidis, E. (ed.) *Archaeology of ritual*. Los Angeles: Cotsen Institute of Archaeology Press, pp. 289-309.
- Langin-Hooper, S.M. (2014) 'Introduction', in Langin-Hooper, S.M. (ed.) *Figuring out the figurines of the Ancient Near East* (Occasional Papers in Coroplastic Studies 1). The Association for Coroplastic Studies, pp. vii-xiii. Available at: <http://journals.openedition.org/acost/365> (Accessed 17 April 2020).
- Larsen, C.S., Hillson, S.W., Boz, B., Pilloud, M.A., Sadvari, J.W., Agarwal, S.C., Glencross, B., Beauchesne, P., Pearson, J., Ruff, C.B., Garofalo, E.M., Hager, L.D., Haddow, S.D. and Knüsel, C.J. (2015) 'Bioarchaeology of Neolithic Çatalhöyük: lives and lifestyles of an early farming society in transition', *Journal of World Prehistory*, 28, pp. 27-68.
- Last, J. (2005) 'Pottery from the East Mound', in Hodder, I. (ed.) *Changing materialities at Çatalhöyük: reports from the 1995-1999 seasons* (Çatalhöyük Research Project Volume 5/BIAA Monograph 39). Cambridge and London: McDonald Institute for Archaeological Research and British Institute at Ankara, pp. 101-138.
- Latour, B. (2005) *Reassembling the social – an introduction to actor-network-theory*. Oxford: Oxford University Press.
- Le Mière, M., Thirion-Merle, V. and Picon, M. (2018) 'Investigation the provenance of the early pottery from Tell Sabi Abyad', in Nieuwenhuys, O.P. (ed.) *Relentlessly plain. Seventh millennium ceramics at Tell Sabi Abyad, Syria*. Oxford: Oxbow Books, pp. 267-276.
- Lesure, R.G. (1999) 'Figurines as representations and products at Paso de la Amada, Mexico', *Cambridge Archaeological Journal*, 9(2), pp. 209-220.
- Lesure, R.G. (2002) 'The goddess diffracted: thinking about the figurines of early villages', *Current Anthropology*, 43(4), pp. 587-610.
- Lesure, R.G. (2011) *Interpreting ancient figurines: context, comparison, and prehistoric art*. Cambridge: Cambridge University Press.
- Lévi-Strauss, C. (1969) *The elementary structures of kinship*. Translated from French by J. Harle Bell, R. von Sturmer, and R. Needham. Boston: Beacon Press.
- Lewis, G. (1986) 'The look of magic', *Man. New Series*, 21(3), pp. 414-437.
- Major, J. (2018) *Wadi Hammeh 27, Jordan Valley. Natufian art items. A contextual analysis*. Berlin: ex Oriente.
- Marciniak, A. and Czerniak, L. (2007) 'Social transformations in the late Neolithic and the early Chalcolithic periods in central Anatolia', *Anatolian Studies*, 57, pp. 115-130.
- Marciniak, A., Barański, M.Z., Bayliss, A., Czerniak, L., Goslar, T., Southon, J. and Taylor, R.E. (2015) 'Fragmenting times: interpreting a Bayesian chronology for the late Neolithic occupation of Çatalhöyük East, Turkey', *Antiquity*, 89(343), pp. 154-176.
- Martin, L. and Meskell, L.M. (2012) 'Animal figurines from Neolithic Çatalhöyük: figural and faunal perspectives', *Cambridge Archaeological Journal*, 22(3), pp. 401-419.

- Martinón-Torres, M. (2002) 'Chaîne opératoire: the concept and its applications within the study of technology', *Gallacia* 29(99), pp. 29-45.
- Matthews, W. and Farid, S. (1996) 'Exploring the 1960's surface: the stratigraphy of Çatalhöyük', in Hodder, I. (ed.) *On the surface, Çatalhöyük 1993-95* (Çatalhöyük Research Project Volume 1/BIAA Monograph 22). Cambridge and London: McDonald Institute for Archaeological Research and British Institute of Archaeology at Ankara, pp. 271-300.
- Mauss, M. (1950) *A general theory of magic*. (First published in 1902 in collaboration with H. Hubert). Translated by R. Brain. Reprint. London: Routledge, 2001.
- Mauss, M. (1935) *Sociology and psychology essays*. Translated by B.R. Brewster. Reprint. London: Routledge and Kegan Paul, 1979.
- McAdam, E. (1997) 'The figurines from 1982-5 seasons of excavations at Ain Ghazal', *Levant*, XXIX, pp. 115-145.
- Mellaart, J. (1962) 'Excavations at Çatal Hüyük, first preliminary report, 1961', *Anatolian Studies*, 12, pp. 41-65.
- Mellaart, J. (1964) 'Excavations at Çatal Hüyük, third preliminary report, 1963', *Anatolian Studies*, 16, pp. 165-191.
- Mellaart, J. (1967) *Çatal Hüyük: a Neolithic town in Anatolia*. London: Thames & Hudson.
- Mellaart, J. (1970) *Excavations at Hacilar. Volumes I and II*. Edinburgh: Edinburgh University Press.
- Merpert, N.Y. and Munchaev, R.M. (1987) 'The earliest levels at Yarim Tepe I and Yarim Tepe II in Northern Iraq', *Iraq*, 49, pp. 1-36.
- Merve Kilinç, G., Omrak, A., Özer, F., Günther, T., Metin Büyükkarakaya, A., Biçakçı, E., Baird, D., Melike Dönertaş, H., Ghalichi, A., Yaka, R., Koptekin, R., Koptekin, D., Can Açı, S., Parvizi, P., Krzewińska, M., Daskalaki, E.A., Yüncü, E., Dilşad Dağtaş, N., Fairbairn, A., Pearson, J., Mustafaoğlu, G., Selim Erdal, Y., Gökhan Çakan, Yl, Togan, İ., Somel, M., Storå, J., Jakobsson, M. and Götherström, A. (2016) 'The demographic development of the first farmers in Anatolia', *Current Biology*, 26(19), pp. 2659-2666.
- Meskell, L.M. (1995) 'Goddesses, Gimbutas and "new age" archaeology', *Antiquity*, 69, pp. 74-86.
- Meskell, L.M. (1998) 'Oh my goddess!', *Archaeological Dialogues*, 5, pp. 126-142.
- Meskell, L.M. (2007) 'Refiguring the corpus at Çatalhöyük', in Renfrew, C. and Morley, I. (eds.) *Image and imagination a global prehistory of figurative representation*. Cambridge: McDonald Institute for Archaeological Research, pp. 137-150.
- Meskell, L.M. (2008) 'The nature of the beast: curating animals and ancestors at Çatalhöyük', *World Archaeology*, 40, pp. 373-389.
- Meskell, L.M. (2017) 'The archaeology of figurines and the human body in prehistory', in Insoll, T. (ed.) *The Oxford handbook of prehistoric figurines*. Oxford: Oxford University Press, pp. 17-36.
- Meskell, L.M. and Nakamura, C. (2005) 'Çatalhöyük figurines', in *Çatalhöyük 2005 archive report*. Available at: <http://www.catalhoyuk.com> (Accessed 01 December 2019).
- Meskell, L.M., Nakamura, C., King, R. and Farid, S. (2008) 'Figured lifeworlds and depositional practices at Çatalhöyük', *Cambridge Archaeological Journal*, 18(2), pp. 139-161.
- Moro Abadía, O. and Palacio-Pérez, E. (2015) 'Rethinking the structural analysis of Palaeolithic art: new perspectives on Leroi-Gourhan's structuralism', *Cambridge Archaeological Journal*, 25(3), pp. 657-672.
- Morphy, H. (2010) 'Art as action, art as evidence', in Beaudry, M.C. and Hicks, D. (eds.) *The Oxford handbook of material culture studies*. Oxford: Oxford University Press, pp. 265-290.
- Morris, C. (2017) 'Minoan and Mycenaean figurines', in Insoll, T. (ed.) *The Oxford handbook of prehistoric figurines*. Oxford: Oxford University Press, pp. 659-680.
- Morris, C., Peatfield, A. and O'Neill, B. (2018) 'Figures in 3D: digital perspectives on Cretan Bronze Age figurines', *Open Archaeology*, 4, pp. 50-61.
- Morsch, M.G.F. (2002) 'Magic figurines? Some remarks about the clay objects of Nevah Çori', in Gebel, H.G.K., Dahl Hermansen, B. and Hoffmann Jensen, C. (eds.) *Magic practices and ritual in the Near Eastern Neolithic* (Studies in early Near Eastern production, subsistence, and environment 8). Berlin: Ex Oriente, pp. 145-162.
- Mullin, M.H. (1999) 'Mirrors and windows: sociocultural studies of human-animal relationships', *Annual Review of Anthropology*, 28, pp. 201-224.
- Nakamura, C. and Meskell, L.M. (2006) 'Figurine report 2006', in *Çatalhöyük 2006 Archive Report*. Available at: <http://www.catalhoyuk.com> (Accessed 30 November 2019).

- Nakamura, C. and Meskell, L.M. (2009) 'Articulate bodies: forms and figures at Çatalhöyük', *Journal of Archaeological Method and Theory*, 16(3), pp. 205-230.
- Nakamura, C. and Meskell, L.M. (2013) 'Figurine worlds at Çatalhöyük', in Hodder, I. (ed.) *Substantive technologies at Çatalhöyük. Reports from the 2000-2008 seasons* (Çatalhöyük Research Project Volume 9/BIAA Monograph 48). London and Los Angeles: British Institute at Ankara and Cotsen Institute of Archaeology, pp. 201-234.
- Nanoglou, S. (2008) 'Representation of humans and animals in Greece and the Balkans during the earlier Neolithic', *Cambridge Archaeological Journal*, 18(1), pp. 1-13.
- Niculescu, A. (2011) *The major symbolism of the Neolithic and Eneolithic anthropomorphic figurines of the Carpathian-Danubian-Pontic space in light of new research*. Unpublished PhD thesis. University of Alba Iulia.
- Nieuwenhuyse, O.P. (1997) 'Following the earliest Halaf: some later Halaf pottery from Tell Sabi Abyad, Syria', *Anatolica*, XXIII, pp. 227-242.
- Nieuwenhuyse, O.P. (2006) 'The earliest pottery from Tell Sabi Abyad', *Leiden Journal of Pottery Studies*, 22(2006), pp. 111-128.
- Nieuwenhuyse, O.P. (2007) *Plain and painted pottery: the rise of late Neolithic ceramic styles on the Syrian and northern Mesopotamian plains* (PALMA 3). Turnhout: Brepols Publishers.
- Nieuwenhuyse, O.P. (2009) 'The 'painted pottery revolution': emulation, ceramic innovation and the early Halaf in northern Syria', in Astruc, L., Gaulon, A. and Salanova, L. (eds.) *Méthodes d'approche des premières productions céramiques: étude de cas dans les Balkans et au Levant. Table-ronde de la Maison de l'archéologie et de l'ethnologie (Nanterre, France) 28 février 2006*. Rahden (Westf.): Verlag Marie Leidorf GmbH, pp. 81-90.
- Nieuwenhuyse, O.P. (2017) 'Globalizing the Halaf', in Hodos, T. (ed.) *The Routledge handbook of archaeology and globalization*. London: Taylor and Francis Group, pp. 839-854.
- Nieuwenhuyse, O.P., Roffet-Salque, Evershed, R.P., Akkermans, P.M.M.G. and Russell, A. (2015) 'Tracing pottery use and the emergence of secondary product exploitation through lipid residue analysis at late Neolithic Tell Sabi Abyad (Syria)', *Journal of Archaeological Science*, 64, pp. 54-66.
- Nilhamn, B., Jacobs, L. and van As, B. (2018) 'Raw materials for early ceramic production at Tell Sabi Abyad', in Nieuwenhuyse, O.P. (ed.) *Relentlessly plain. Seventh millennium ceramics at Tell Sabi Abyad, Syria*. Oxford: Oxbow Books, pp. 232-239.
- Nodelman, S., 1979-1980. The legacy of the caves/The legacy of Altamira. *Portfolio*, 1(5), pp. 48-55.
- Nishiaki, Y. (2001a) 'Tell Seker al-Aheimar, the Upper Khabur, Syria: the 2000 season', *Orient Express*, 2001(2), pp. 35-37.
- Nishiaki, Y. (2001b) 'Conclusion', in Nishiaki, Y. and Matsutani, T. (eds.) *Tell Kosak Shamali. The archaeological investigations on the Upper Euphrates, Syria. Volume I. Chalcolithic architecture and the earlier prehistoric remains*. Tokyo: The University Museum, The University of Tokyo, pp. 231-233.
- Nishiaki, Y. (2007) 'A unique Neolithic female figurine from Tell Seker al-Aheimar, northeast Syria', *Paléorient*, 33(2), pp. 117-125.
- Nishiaki, Y. and le Mière, M. (2005) 'The oldest pottery Neolithic of Upper Mesopotamia: new evidence from Tell Seker al-Aheimar, The Khabur, northeast Syria', *Paléorient*, 31(2), pp. 55-68.
- Noy, T. (1989) 'Gilgal I—a Pre-Pottery Neolithic site, Israel. The 1985-1987 seasons', *Paléorient*, 15(1), pp. 11-18.
- Noy, T. (1991) 'Art and decoration of the Natufian at Nahal Oren', in Bar-Yosef, O. and Valla, F. (eds.) *The Natufian culture in the Levant*. Ann Arbor: International Monographs in Prehistory, pp. 557-568.
- Oates, J. (1969) 'Choga Mami, 1967-68: a preliminary report', *Iraq*, 31(2), pp. 115-152.
- Olsen, B. (2007) 'Keeping things at arm's length: a genealogy of asymmetry', *World Archaeology*, 39(4), pp. 579-588.
- Olsen, B. (2010) *In defense of things: archaeology and the ontology of objects*. Lanham (MD): AltaMira Press.
- Orton, D., Anvari, J., Gibson, C., Last, J., Bogaards, A., Rosenstock, E. and Biehl, P.F. (2018) 'A tale of two tells: dating the Çatalhöyük West Mound', *Antiquity*, 92(363), pp. 620-639.
- Ostaptchouk, S. (2014) 'The contribution of chert knapped stone studies at Çatalhöyük to notions of territory and group mobility in prehistoric central Anatolia', *DigIt*, 2(1), pp. 34-48.
- Overton, N.J. and Hamilakis, Y. (2013) 'Discussion article. A multi-species archaeology. With responses by Argent, G., Boyd, B., Larsson, L., Mannermaa, K. and Pluciennik, M.', *Archaeological Dialogues*, 20(2), pp. 111-173.

- Özbaşaran, M. (2011) 'The Neolithic on the plateau', in Steadman S.R. and McMahon, G. (eds.) *The Oxford handbook of ancient Anatolia (10.000-323 B.C.E.)*. Oxford: Oxford University Press: pp. 99-124.
- Özbaşaran, M. and Buitenhuis, H. (2002) 'Proposal for a regional terminology for central Anatolia', in Gérard, F. and Thissen, L. (eds.) *The Neolithic of central Anatolia: internal developments and external relations during the 9th–6th millennia cal BC – Proceedings of the International CANeW Round Table, Istanbul November 23–24, 2001*. Istanbul: Ege Yayınları, pp. 67-69.
- Özbaşaran, M. and Duru, G. (2013) 'IST (Istanbul) area of the East Mound', in Hodder, I. (ed.) *Çatalhöyük excavations: the 2000–2008 seasons* (Çatalhöyük Research Project Volume 7/BIAA Monograph 46/Monumenta Archaeologica 29). Los Angeles and London: Cotsen Institute for Archaeology Press and British Institute at Ankara, pp. 621-658.
- Özdoğan, M. (2002) 'Defining the Neolithic of central Anatolia', in Gérard, F. and Thissen, L. (eds.) *The Neolithic of central Anatolia: internal developments and external relations during the 9th–6th millennia cal BC–Proceedings of the International CANeW Round Table, Istanbul November 23–24, 2001*. Istanbul: Ege Yayınları, pp. 253-261.
- Özdoğan, M. (2003) 'A group of Neolithic stone figurines from Mezraa-Teleilat', in Özdoğan, M., Hauptmann, H. and Başgelen, N. (eds.) *From villages to towns. Studies presented to Uluk Esin*. Istanbul: Arkeoloji ve Sanat Publications, pp. 511-523.
- Özdoğan, M. and Özdoğan, A. (1998) 'Buildings of cult and the cult of buildings', in Arsebük, G., Mellink, M. and Schirmer, W. (eds.) *Light on top of the Black Hill: studies presented to Halet Cambel*. Istanbul: Ege Yayınları, pp. 581-593.
- Perlès, C. (2001) *The early Neolithic in Greece: the first farming communities in Europe*. Cambridge: Cambridge University Press.
- Perrot, J. (1966) 'Le Gisement de Mallaha (Eynan)', *Israël, L' Anthropologie*, 70(5-6), pp. 437-484.
- Petty, A.A. (2004) *Anthropomorphic figurines from Umm El-Marra, Syria: chronology, visual analysis and function. Part I*. Unpublished PhD thesis. Johns Hopkins University.
- Pichon, J. (1985) 'A Propos d'une figurine aviaire à Mureybet (Phase IIIA) 8000–7000 Avant J.C.', *Cahiers de l'Euphrate*, 4, pp. 261-264.
- Pilaar Birch, S.E. (ed.) (2018) *Multispecies archaeology*. Milton Park and New York, Routledge.
- Pizzeghello, A., Vidale, M., Salemi, G., Tinè, V. and Di Pilato, S. (2015) 'De-constructing terracotta female figurines: a Chalcolithic case-study', *Interdisciplinaria Archaeologica. Natural Sciences in Archaeology*, 6(1), pp. 7-17.
- Plicht, van der, J., Akkermans, P.M.M.G., Nieuwenhuyse, O.P., Kaneda, A. and Rusell, A. (2011) 'Tell Sabi Abyad, Syria: radiocarbon chronology, cultural change and the 8.2 KA event', *Radiocarbon*, 53(2), pp. 229-243. Plug, J-H., Akkermans, P.M.M.G. and van der Plicht, J. (2014) 'Tell Sabi Abyad, Syria: dating of Neolithic cemeteries', *Radiocarbon*, 56(2), pp. 543-554.
- Plug, J-H., Hodder, I. and Akkermans, P.M.M.G. (2021) 'Breaking continuity? Site formation and temporal depth at Çatalhöyük and Tell Sabi Abyad', *Anatolian Studies*, 71, pp. 1-27.
- Rappaport, R.A. (1999) *Ritual and religion in the making of humanity* (Cambridge Studies in Social and Cultural Anthropology). Cambridge: Cambridge University Press.
- Renfrew, C. (2007) 'The archaeology of ritual, of cult, and of religion', in Kyriakidis, E. (ed.) *Archaeology of ritual*. Los Angeles: Cotsen Institute of Archaeology Press, pp. 109-122.
- Rice, P. (2014) 'Middle preclassic interregional interaction and the Maya lowlands', *Journal of Archaeological Research*, 23(1), pp. 1-47.
- Richie, T. (1996) 'Note: building complexity', in Hodder, I. (ed.) *On the surface: Çatalhöyük 1993-95*. Cambridge and London: McDonald Institute for Archaeological Research and British Institute of Archaeology at Ankara, pp. 1-18.
- Robb, J. (2017) 'Art' in archaeology and anthropology: an overview of the concept', *Cambridge Archaeological Journal. Special issue: Art, Material Culture, Visual Culture or Something Else*, 27(4), pp. 587-597.
- Robb, J. (2020) 'Material time', in Gaskell, I. and Carter, S.A. *The Oxford handbook of history and material culture*. Oxford: Oxford University Press, pp. 122-139.
- Roberts, N., Boyer, P. and Merrick, J. (2007) 'The KOPAL on-site and off-site excavations and sampling', in Hodder, I. (ed.) *Excavating Çatalhöyük: south, north, and KOPAL area reports from the 1995–1999 seasons* (Çatalhöyük Research Project Volume 3/BIAA 37). Cambridge and London: McDonald Institute for Archaeological Research and British Institute at Ankara, pp. 553-572.
- Roberts, N. and Rosen, A. (2009) 'Diversity and complexity in early farming communities of Southwest Asia: new insights into the economic and environmental basis of Neolithic Çatalhöyük', *Current Anthropology*, 50(3), pp. 393-402.

- Rodríguez-Vidal, J., d'Errico, F., Giles Pacheco, F., Blasco, R., Rosell, J., Jennings, R.P., Queffelec, A., Finlayson, G., Fa, D.A., Gutiérrez López, J.M., Carrión, J.S., Negro, J.J., Finlayson, S., Cáceres, L.M., Bernal, M.A., Fernández Jiménez, S. and Finlayson, C. (2014) 'A rock engraving made by Neanderthals in Gibraltar', *PNAS*, 111(37), pp. 13301-13306.
- Rollefson, G.O. (2008) 'Charming lives: human and animal figurines in the late Epipaleolithic and early Neolithic periods in the greater Levant and eastern Anatolia', in Bocquet-Appel, J-P. and Bar-Yosef, O. (eds.) *The Neolithic demographic transition and its consequences*. New York: Springer, pp. 387-416.
- Rooijakkers, T. (2011) 'Spinning animal fibres at late Neolithic Tell Sabi Abyad?', *Paléorient*, 38(1), pp. 93-109.
- Rosen, A.M. (2005) 'Phytolith indicators of plant and land use at Çatalhöyük', in Hodder, I. (ed.) *Inhabiting Çatalhöyük: reports from the 1995-1999 seasons* (Çatalhöyük Research Project Volume 4/BIAA Monograph 38). Cambridge and London: McDonald Institute for Archaeological Research and British Institute of Archaeology at Ankara, pp. 203-212.
- Rosenberg, M. (1999) 'Hallan Çemi', in Özdoğan, M. and Başgelen, N. (eds.) *Neolithic in Turkey. The cradle of civilization*. Istanbul: Arkeoloji ve Sana Yayinlari, pp. 25-33.
- Rosenberg, M., Nesbitt, R., Redding, R.W. and Peasnell, B.L. (1998) 'Hallan Çemi, pig husbandry, and post-Pleistocene adaptations along the Taurus-Zagros arc (Turkey)', *Paléorient*, 24(1), pp. 25-41.
- Rountree, K. (2001) 'The past is a foreigners' country: goddess feminists, archaeologists, and the appropriation of prehistory', *Journal of Contemporary Religion*, 16(1), pp. 5-27.
- Russell, A. (2010) *Retracing the steppes. A zooarchaeological analysis of changing subsistence patterns in the late Neolithic at Tell Sabi Abyad, northern Syria, c. 6900 to 5900 BC*. Unpublished PhD thesis. Leiden University.
- Russell, N. (2010) 'Navigating the human-animal boundary', *Reviews in Anthropology*, 39(1), pp. 3-24.
- Russell, N. and Martin, L. (2005) 'The Çatalhöyük mammal remains', in Hodder, I. (ed.) *Inhabiting Çatalhöyük: reports from the 1995-1999 seasons* (Çatalhöyük Research Project Volume 4/BIAA Monograph 38). Cambridge and London: McDonald Institute for Archaeological Research and British Institute of Archaeology at Ankara, pp. 33-98.
- Russell, N. (2012) *Social Zooarchaeology. Humans and animals in prehistory*. Cambridge: Cambridge University Press.
- Russell, N. and Griffiths, J. (2013) 'Çatalhöyük worked bone: South and 4040 areas' in Hodder, I. (ed.) *Substantive technologies at Çatalhöyük. Reports from the 2000-2008 seasons* (Çatalhöyük Research Project Volume 9/BIAA Monograph 48). London and Los Angeles: British Institute at Ankara and Cotsen Institute of Archaeology, pp. 277-306.
- Russell, N., Twiss, K.C., Orton, D.C. and Demirergi, G.A. (2013) 'Changing animal use at Neolithic Çatalhöyük, Turkey', in De Cupere, B., Linseele, V. and Hamilton-Dyer, S. (eds.) *Archaeozoology of the Near East 10*. Leuven: Peeters, pp. 45-68.
- Ryan, K. and Crabtree P.J. (1995) *The symbolic role of animals in archaeology*. Pennsylvania, University of Pennsylvania Press.
- Sadvari, J.W. Charles, M., Ruff, C.B., Carter, T., Vasíc, M., Spencer Larsen, C., Bar-Yosef, D.E. and Doherty, C. (2015) 'The people and their landscape(s)', in Hodder, I. and Marciniak, A. (eds.) *Assembling Çatalhöyük* (Themes in Contemporary Archaeology Volume 1). Leeds: Maney Publishing, pp. 167-178.
- Saussure, de, F. (1959) *Course in general linguistics*. Translated from French by C. Bally and A. Sechehaye. London: Owen.
- Sax, W.S. (2004) 'Healing rituals', *Anthropology & Medicine*, 11(3), pp. 293-306.
- Schmandt-Besserat, D. (2013a) 'Animal figurines', in Schmandt-Besserat, D. (ed.) *Excavation reports 3. Symbols at 'Ain Ghazal* (Bibliotheca neolithica Asiae meridionalis et occidentalis & Monograph of the Faculty of Archaeology and Anthropology, Yarmouk University). Berlin: Ex Oriente, pp. 63-111.
- Schmandt-Besserat, D. (2013b) 'The human clay figurines and ancient Near Eastern magic', in Schmandt-Besserat, D. (ed.) *Excavation reports 3. Symbols at 'Ain Ghazal* (Bibliotheca neolithica Asiae meridionalis et occidentalis & Monograph of the Faculty of Archaeology and Anthropology, Yarmouk University). Berlin: Ex Oriente, pp. 113-167.
- Schmidt, K. (2001) 'Göbekli Tepe, southeastern Turkey: a preliminary report on the 1995-1999 excavations', *Paléorient*, 26(1), pp. 45-54.
- Scott, D.A. (1996) 'Technical study of a ceremonial Sican Tumi figurine', *Archaeometry*, 38(2), pp. 305-311.
- Shanks, M., Webmoor, T. and Witmore, C. (2012) *Archaeology: the discipline of things*. Berkeley (CA): University of California Press.
- Smedt, de, J. and De Cruz, H. (2011) 'A cognitive approach to the earliest art', *The Journal of Aesthetics and Art Criticism*, 69(4), pp. 379-389.

- Soffer, O. and Conkey, M.W. (1997) 'Studying ancient visual cultures', in Conkey, M.W., Soffer, O., Stratmann, D. and Jablonski, N.G. (eds.) *Beyond art: Pleistocene image and symbol* (Wattis Symposium Series in Anthropology/Memoirs of the California Academy of Sciences number 23). San Francisco: University of California Press, pp. 1-16.
- Stein Frankle, R.L. and Stein, P.L. (2005) *Anthropology of religion, magic and witchcraft*. Boston: Pearson.
- Stordeur, D. (2003) 'Tell Aswad. Resultats préliminaires des campagnes 2001 et 2002', *Neo-Lithics*, 1(3), pp. 7-15.
- Streit, K. and Garfinkel, Y. (2015) 'Horned figurines made of stone from the Neolithic and Chalcolithic periods and the domestication of sheep and goat', *Palestine Exploration Quarterly*, 147(1), pp. 39-48.
- Talalay, L.E. (1994) 'A feminist boomerang: the great goddess of Greek prehistory', *Gender & History*, 6(2), pp. 165-183.
- Talalay, L. (2004) 'Heady business: skulls, heads and decapitation in Neolithic Anatolia and Greece', *Journal of Mediterranean Archaeology*, 17(2), pp. 139-163.
- Taylor, T. (1994) 'Excavating art: the archaeologist as analyst and audience', *Cambridge Archaeological Journal*, 4(2), pp. 250-254.
- Taylor, J.S. (2016) *Making time for space at Çatalhöyük. GIS as a tool for exploring intra-site spatiotemporality within complex stratigraphic sequences*. Unpublished PhD thesis. University of York.
- Tekin, H. (2012) 'The contribution of Hakemi Use to the prehistory of Upper Mesopotamia', in Nieuwenhuys, O.P., Bernbeck, R., Akkermans, P.M.M.G. and Rogasch, J. (eds.) *Interpreting the late Neolithic of Upper Mesopotamia* (PALMA Series 8). Turnhout: Brepols Publishers, pp. 493-502.
- Tilley, C. (1989) 'Interpreting material culture', in Hodder, I. (ed.) *The meaning of things. Material culture and symbolic expression*. London and New York: Routledge, pp. 185-194.
- Thomas, J.S. (1999) *Understanding the Neolithic*. London: Routledge.
- Thomas, J.S. (2013) *The birth of Neolithic Britain*. Oxford: Oxford University Press.
- Tomásková, S. (1997) 'Places of art: art and archaeology in context', in Conkey, M.W., Soffer, O., Stratmann, D. and Jablonski, N.G. (eds.) *Beyond art: Pleistocene image and symbol* (Wattis Symposium Series in Anthropology/Memoirs of the California Academy of Sciences number 23). San Francisco: University of California Press, pp. 265-287.
- Tringham, R.E. and Conkey, M. (1998) 'Rethinking figurines: a critical view from archaeology of Gimbutas, the 'goddess', and popular culture', in Goodison, L. and Morris, C. (eds.) *Ancient goddesses*. Madison (WI): University of Wisconsin Press, pp. 22-45.
- Tringham, R. and Stevanović, M. (eds.) (2012) *Last house on the hill: BACH area reports from Çatalhöyük, Turkey*. Los Angeles: Cotsen Institute of Archaeology Press.
- Tsuneki, A., Hydar, J., Miyake, Y., Akahane, S., Arimura, M., Nishiyama, S., Sha'baan, H., Anezaki, T. and Yano, S. (1998) 'Second preliminary report of the excavations at Tell el-Kerkh (1998), northwestern Syria', *Bulletin of the Ancient Orient Museum*, 19, pp. 1-40.
- Türkcan, A.U. (2005) 'Some remarks on Çatalhöyük stamp seals', in Hodder, I. (ed.) *Changing materialities at Çatalhöyük: reports from the 1995-99 Seasons* (Çatalhöyük Research Project Volume 5/BIAA Monograph 39). Cambridge and London: McDonald Institute for Archaeological Research and British Institute at Ankara, pp. 175-185.
- Türkcan, A.U. (2013) 'Çatalhöyük stamp seals from 2000 to 2008', in Hodder, I. (ed.) *Substantive technologies at Çatalhöyük: reports from the 2000-2008 seasons* (Çatalhöyük Research Project Volume 9/BIAA Monograph 48). London and Los Angeles: British Institute at Ankara and Cotsen Institute of Archaeology, pp. 235-246.
- Twiss, K.C. (2001) 'Ritual, change, and the Pre-Pottery Neolithic figurines of the central-southern Levant', *Kroeber Anthropological Society Papers*, 85, pp. 16-48.
- Twiss, K.C. (2007) 'The Neolithic of the southern Levant', *Evolutionary Anthropology*, 16, pp. 24-35.
- Ucko, P.J. (1968) *Anthropomorphic figurines of predynastic Egypt and Neolithic Crete, with comparative material from the prehistoric Near East and mainland Greece* (Royal Anthropological Institute Occasional Papers 24). London: Andrew Szmidla.
- Ursu, C.-E. and Țenra, S. (eds.) (2014) *Anthropomorphism and symbolic behaviour in the Neolithic and Copper Age communities of south-eastern Europe*. Suceava: Editura Karl A. Romstorfer.
- Valera, A.C., Shaw Evangelista, L. and Castanheira, P. (2014) 'Zoomorphic figurines and the problem of human-animal relationship in the Neolithic and Chalcolithic southwest Iberia', *Menga, Revista de Prehistoria de Andalucía*, 5, pp. 15-41.
- Valla F. (1995) 'The first settled societies–Natufian (12,500–10,200 bp)', in Levy, T. (ed.) *The archaeology of society in the Holy Land*. New York: Facts on File, pp. 169-187.

- Valla F., Valentin, B., Khalaily, H., Marder, O., Samuelian, N., Rabinovich, R., March, R., Dosseur, G., Bocquentin, F., Dubreuil, L. and Belfer-Cohen, A. (2001) 'Le Natoufien final de Mallaha (Eynan), deuxième rapport préliminaire: les fouilles de 1998 et 1999', *Journal of the Israel Prehistoric Society*, 31, pp. 43-184.
- van Neer, W., Gravendeel, R., Wouters, W. Russell, N. (2013) 'The exploitation of fish at Çatalhöyük', in Hodder, I. (ed.) *Humans and landscapes of Çatalhöyük: reports on the 2000-2008 seasons* (Çatalhöyük Research Project Volume 8/ BIAA Monograph 47/Monumenta Archaeologica 30). Los Angeles and London: The Cotsen Institute of Archaeology and British Institute at Ankara, pp. 313-323.
- Verhoeven M. (1999) *An archaeological ethnography of a Neolithic community – space, place and social relations in the Burnt Village at Tell Sabi Abyad, Syria*. Leiden and Istanbul: Nederlands Historisch-Archeologisch Instituut.
- Verhoeven, M. (2004) 'Tell Sabi Abyad I –a late Pre-Pottery Neolithic B village in northern Syria. Report on architecture and related finds of the 2001 campaign', *Anatolica*, 30, pp. 179-218.
- Verhoeven, M. (2007) 'Losing one's head in the Neolithic: on the interpretation of headless figurines', *Levant*, 39(1), pp. 175-183.
- Verhoeven, M. (2012) 'Retrieving the supernatural: ritual and religion', in T. Insoll (ed.) *Oxford handbook of the archaeology of ritual and religion*. Oxford: Oxford University Press, pp. 795-810.
- Verhoeven, M. and Kranendonk, P. (1996) 'The excavations: stratigraphy and architecture', in Akkermans, P.M.M.G. (ed.) *Tell Sabi Abyad—the late Neolithic settlement: report on the excavations of the University of Amsterdam (1988) and the National Museum of Antiquities Leiden (1991-1993) in Syria*. Istanbul and Leiden: Nederlands Historisch-Archeologisch Instituut, pp. 25-118.
- Verhoeven, M. and Akkermans, P.M.M.G. (eds.) (2000) *Tell Sabi Abyad II. The Pre-Pottery Neolithic B settlement: report on the excavations of the National Museum of Antiquities Leiden in the Balikh Valley, Syria*. Leuven: Peeters Publishers.
- Verpoorte, A. (2001) *Places of art, traces of fire: a contextual approach to anthropomorphic figurines in the Pavlovian (central Europe 29-24 kyr BP)* (Archaeological Studies Leiden University). Leiden: Leiden University, Faculty of Archaeology.
- Voigt, M.M. (1985) 'Village on the Euphrates, excavations at Neolithic Gritille in Turkey', *Expedition*, 27(1), pp. 10-24.
- Voigt, M.M. (2000) 'Çatal Höyük in context. Ritual at early Neolithic sites in central and eastern Turkey' in I. Kuijt (ed.) *Life in Neolithic farming communities. Social organization, identity, and differentiation*. New York: Kluwer Academic Publishers, pp. 253-293.
- von Wickede, A. (1984) 'Çavi Tarlası: Bericht über den Survey auf dem Çavi Tarlası 1982', *IstMitt*, 34, pp. 112-133.
- Walcek Averett, E. (2021) 'The Iron Age terracotta figurines from Cyprus', in Darby, E.D. and de Hulster, I.J. (eds.) *Iron Age terracotta figurines from the southern Levant in context*. Leiden: Brill Publishers, pp. 292-332.
- Warnier, J-P. (2009) 'Technology as efficacious action on objects and subjects', *Journal of Material Culture*, 14(4), pp. 459-470.
- Watson, P.J. and LeBlanc, S.A. (1990) *Girikihaciyan. A Halafian site in southeastern Turkey*. Los Angeles: Institute of Archaeology, University of California.
- Weismantel, M. and Meskell, L.M. (2014) 'Substances: 'following the material' through two prehistoric cases', *Journal of Material Culture*, 19(3), pp. 233-251.
- Wendrich, W. (2005) 'Çatalhöyük basketry', in Hodder, I. (ed.) *Changing materialities at Çatalhöyük: reports from the 1995-99 Seasons* (Çatalhöyük Research Project Volume 5/BIAA Monograph 39). Cambridge and London: McDonald Institute for Archaeological Research and British Institute at Ankara, pp. 333-338.
- White, R. (1997) 'Substantial acts: from materials to meaning in Upper Paleolithic representation', in Conkey, M.W., Soffer, O., Stratmann, D. and Jablonski, N.G. (eds.) *Beyond art: Pleistocene image and symbol* (Wattis Symposium Series in Anthropology/Memories of the California Academy of Sciences number 23). San Francisco: University of California Press, pp. 93-121.
- Whitmore, C.L. (2014) 'Archaeology and the new materialisms', *Journal of Contemporary Archaeology*, 1(2), pp. 203-246.
- Wiesner, P. (1989) 'Style and changing relations between the individual and society', in Hodder, I. (ed.) *The meaning of things. Material culture and symbolic expression*. London and New York: Routledge, pp. 56-63.
- Wilbur, A.T. (2019) 'Figurines, images, and representations used in ritual practices' in Frankfurter, D. (ed.) *Guide to the study of ancient magic*. Leiden and Boston: Brill Publishers, pp. 456-506.
- Wilkinson T J (1996) 'Sabi Abyad: the geoarchaeology of a complex landscape', in Akkermans, P.M.M.G (ed.) *Tell Sabi Abyad: The late Neolithic settlement*. Istanbul and Leiden: Nederlands Historisch-Archeologisch Instituut, pp. 1-25

- Wolfe, C. (2009) 'Human, all too human: "animal studies" and the humanities', *PMLA*, 124(2), pp. 564-575.
- Wright, K. (2013) 'Groundstone', in Hodder, I. (ed.) *Substantive technologies at Çatalhöyük. Reports from the 2000-2008 seasons* (Çatalhöyük Research Project Volume 9/BIAA Monograph 48). London and Los Angeles: British Institute at Ankara and Cotsen Institute of Archaeology, pp. 365-416.
- Wright, K. and Baysal, A. (2012) 'Ground stone tools and technologies associated with buildings in the BACH Area at Çatalhöyük', in Tringham, R. and Stevanovic, M. (eds.) *Last house on the hill: BACH area reports from Çatalhöyük, Turkey* (Çatalhöyük Research Project Volume 11/Monumenta Archaeologica 27). Los Angeles: Cotsen Institute of Archaeology, pp. 421-428.
- Zimmermann, T. and Özen, L. (2016) 'The early Bronze Age figurine from Hasanoğlan, central Turkey: new archaeometrical insights', *Anatolian Studies*, 66, pp. 17-22.

# APPENDIX A: CHAPTER 5 TABLES

## Tables Çatalhöyük Material Properties

Table 5.1: Zoomorphic figurines: certain clay type assignments

Clay type/ Zoomorphic figurines	Quadruped		Bucrania		Horns		Ears		Indeterminate		Totals	
Black Organic	30	6.1%	0		8	0.9%	0		3	4.5%	41	2.7%
Lower Alluvial	166	34.0%	6	25%	127	13.9%	1	12.5%	12	18.2%	312	20.8%
Marl	62	12.7%	4	16.7%	108	11.8%	1	12.5%	10	15.2%	185	12.3%
Upper alluvial	5	1%	0		1	0.1%	0		0		6	0.4%
Colluvial/midden	0		0		1	0.1%	0		0		1	0.1%
Undetermined	225	46.1%	14	58.3%	669	73.2%	6	75%	41	62%	955	63.7%
<b>Totals</b>	<b>488</b>	<b>100%</b>	<b>24</b>	<b>100%</b>	<b>914</b>	<b>100%</b>	<b>8</b>	<b>100%</b>	<b>66</b>	<b>100%</b>	<b>1500</b>	<b>100%</b>

Table 5.2: Zoomorphic figurines: certain and possible clay type assignments

Clay type/ zoomorphic Figurines	Quadruped		Bucrania		Horns		Ears		Indeterminate		Totals	
Black Organic	40	8.2%	0		16	1.8%	0		3	4.5%	59	3.9%
Lower Alluvial	177	36.3%	7	29.2%	152	16.6%	1	12.5%	14	21.2%	350	23.5%
Marl	82	16.8%	5	20.8%	193	21.1%	1	12.5%	14	21.2%	295	19.7%
Upper alluvial	6	1.2%	0		1	0.1%	0		0		7	0.5%
Colluvial/midden	2	0.4%	0		1	0.1%	0		0		3	0.2%
Undetermined	181	37.1%	12	50%	551	60.3%	6	75%	35	53%	785	52.3%
<b>Totals</b>	<b>488</b>	<b>100%</b>	<b>24</b>	<b>100%</b>	<b>914</b>	<b>100%</b>	<b>8</b>	<b>100%</b>	<b>66</b>	<b>100%</b>	<b>1500</b>	<b>100%</b>

Table 5.3: Fabrics compared to zoomorphic figurines

Clay fabric/ Zoomorphic figurines	Quadruped		Bucrania		Horns		Ears		Indeterminate		Totals	
Fine	270	55.3%	14	58.3%	718	78.6%	7	87.5%	40	60.6%	1049	69.9%
Fine to medium	82	16.8%	6	25%	88	9.6%	0		13	19.7%	189	12.6%
Medium	52	10.6%	1	4.2%	26	2.8%	0		7	10.6%	86	5.7%
Medium to coarse	18	3.7%	0		6	0.7%	0		1	1.5%	25	1.7%
Coarse	14	2.9%	0		2	0.2%	0		2	3%	18	1.2%
Unknown	52	10.7%	3	12.5%	74	8.1%	1	12.5%	3	4.5%	133	8.9%
<b>Totals</b>	<b>488</b>	<b>100%</b>	<b>24</b>	<b>100%</b>	<b>914</b>	<b>100%</b>	<b>8</b>	<b>100%</b>	<b>66</b>	<b>100%</b>	<b>1500</b>	<b>100%</b>

Table 5.4: Fabrics compared to clay types zoomorphic figurines

Clay fabric/ Clay types	Black organic		Lower alluvial		Marl		Upper alluvial		Colluvium/ midden		Indeterminate	
Fine	14	34.1%	198	63.5%	143	77.3%	5	83.3%	0		689	72.1%
Fine to medium	4	9.8%	57	18.3%	23	12.4%	0		1	100%	104	10.9%
Medium	8	19.5%	31	9.9%	12	6.5%	1	16.7%	0		34	3.6%
Medium to coarse	5	12.2%	15	4.8%	3	1.6%	0		0		2	0.2%
Coarse	8	19.5%	8	2.6%	1	0.5%	0		0		1	0.1%
Unknown	2	4.9%	3	1%	3	1.6%	0		0		125	13.1%
<b>Totals</b>	<b>41</b>	<b>100%</b>	<b>312</b>	<b>100%</b>	<b>185</b>	<b>100%</b>	<b>6</b>	<b>100%</b>	<b>1</b>	<b>100%</b>	<b>955</b>	<b>100%</b>

Table 5.5: Presence inclusions compared to zoomorphic figurines

Inclusion presence/ Zoomorphic figurines	Quadruped		Bucrania		Horns		Ears		Indeterminate	
Surface	123	25.2%	11	45.8%	147	16.1%	1	12.5%	8	12.1%
Cross-section	51	10.5%	3	12.5%	73	8%	0		13	19.7%
Surface and cross-section	146	29.9%	4	16.7%	115	12.6%	1	12.5%	21	31.8%
Visible	5	1%	1	4.2%	13	1.4%	0		0	
Not visible	66	13.5%	1	4.2%	355	38.8%	2	25%	14	21.2%
Unknown	97	19.9%	4	16.7%	211	23.1%	4	50%	10	15.2%
<b>Totals</b>	<b>488</b>	<b>100%</b>	<b>24</b>	<b>100%</b>	<b>914</b>	<b>100%</b>	<b>8</b>	<b>100%</b>	<b>66</b>	<b>100%</b>

Table 5.6: Presence inclusions compared to clay type zoomorphic figurines

Inclusion presence/ Clay type	Black Organic		Lower Alluvial		Marl		Upper alluvial		Colluvial/midden		Undetermined		Totals	
Surface	12	29.3%	103	33%	50	27%	3	50%	1	100%	121	12.7%	290	19.3%
Cross-section	4	9.8%	33	10.6%	20	10.8%	1	16.7%	0		82	8.6%	140	9.3%
Surface and cross-section	21	51.2%	127	40.7%	46	24.9%	1	16.7%	0		92	9.6%	287	19.1%
Visible	0		8	2.6%	2	1.1%	0		0		9	0.8%	19	1.1%
Not visible	2	4.9%	38	12.2%	53	28.6%	0		0		345	36.1%	438	29.2%
Unknown	2	4.9%	3	1%	14	7.6%	1	16.7%	0		306	32%	326	21.7%
<b>Totals</b>	<b>41</b>	<b>100%</b>	<b>312</b>	<b>100%</b>	<b>185</b>	<b>100%</b>	<b>6</b>	<b>100%</b>	<b>1</b>	<b>100%</b>	<b>955</b>	<b>100%</b>	<b>1500</b>	<b>100%</b>

Table 5.7: Amount inclusions compared to zoomorphic figurines

Inclusion amount/ Zoomorphic figurines	Quadruped		Bucrania		Horns		Ears		Indeterminate	
Rare	97	19.9%	6	25%	174	19%	2	25.0%	15	22.7%
Sparse	117	24%	9	37.5%	113	12.4%	0		17	25.8%
Common	102	20.9%	3	12.5%	43	4.7%	0		9	13.6%
Varied	0		0		2	0.2%	0		0	
Not applicable	66	13.5%	1	4.2%	355	38.8%	2	25.0%	14	21.2%
Unknown	106	21.7%	5	20.8%	227	24.8%	4	50.0%	11	16.7%
<b>Totals</b>	<b>488</b>	<b>100%</b>	<b>24</b>	<b>100%</b>	<b>914</b>	<b>100%</b>	<b>8</b>	<b>100%</b>	<b>66</b>	<b>100%</b>

Table 5.8: Amount inclusions compared to clay type zoomorphic figurines

Inclusion amount/ Clay type	Black Organic		Lower Alluvial		Marl		Upper alluvial		Colluvial/midden		Undetermined		Totals	
Rare	4	9.8%	95	30.4%	53	28.6%	1	25%	1	100%	140	14.7%	294	19.6%
Sparse	15	36.6%	88	28.2%	41	22.2%	4	50%	0		108	11.3%	256	17.1%
Common	17	41.5%	77	24.7%	17	9.2%	0		0		46	4.8%	157	10.5%
Varied	0		0		0		0		0		2	0.2%	2	0.1%
Not applicable	2	4.9%	38	12.2%	53	28.7%	0		0		345	36.1%	438	29.1%
Unknown	3	7.3%	14	4.5%	21	11.4%	1	25%	0		314	32.9%	353	23.5%
<b>Totals</b>	<b>41</b>	<b>100%</b>	<b>312</b>	<b>100%</b>	<b>185</b>	<b>100%</b>	<b>6</b>	<b>100%</b>	<b>1</b>	<b>100%</b>	<b>955</b>	<b>100%</b>	<b>1500</b>	<b>100%</b>

Table 5.9: Size inclusions compared to zoomorphic figurines

Inclusion size/ Zoomorphic figurines	Quadruped		Bucrania		Horns		Ears		Indeterminate	
Small	175	35.7%	16	66.7%	274	30%	2	25%	29	43.9%
Small to medium	97	19.9%	1	4%	50	5.5%	0		9	13.6%
Medium	25	5.1%	0		7	0.8%	0		2	3%
Medium to large	9	1.8%	0		1	0.1%	0		1	1.5%
Large	0		0		1	0.1%	0		0	
Varied	15	3.1%	1	4%	4	0.4%	0		1	1.5%
Not applicable	66	13.5%	1	4%	355	38.9%	2	25%	14	21.2%
Unknown	101	20.9%	5	20.8%	222	24.3%	4	50%	10	15%
<b>Totals</b>	<b>488</b>	<b>100%</b>	<b>24</b>	<b>100%</b>	<b>914</b>	<b>100%</b>	<b>8</b>	<b>100%</b>	<b>66</b>	<b>100%</b>

Table 5.10: Size inclusions compared to clay type zoomorphic figurines

Inclusion size/ Clay type	Black Organic		Lower Alluvial		Marl		Upper alluvial		Colluvial/midden		Undetermined		Totals	
Small	15	36.6%	158	50.6%	85	45.9%	4	66.7%	1	100%	233	24.4%	<b>496</b>	33.1%
Small to medium	9	21.9%	75	24%	23	12.4%	1	16.7%	0	0	49	5.1%	<b>157</b>	10.5%
Medium	5	12.2%	15	4.8%	4	2.2%	0	0	0	0	10	1.1%	<b>34</b>	2.3%
Medium to large	3	7.3%	4	1.3%	1	0.5%	0	0	0	0	3	0.3%	<b>11</b>	0.7%
Large	0	0	0	0	0	0	0	0	0	0	1	0.1%	<b>1</b>	0.1%
Varied	5	12.2%	10	3.2%	1	0.5%	0	0	0	0	5	0.5%	<b>21</b>	1.4%
Not applicable	2	4.9%	38	12.2%	53	28.6%	0	0	0	0	345	36.1%	<b>438</b>	29.2%
Unknown	2	4.9%	12	3.8%	18	9.7%	1	16.7%	0	0	309	32.3%	<b>342</b>	22.8%
<b>Totals</b>	<b>41</b>	<b>100%</b>	<b>312</b>	<b>100%</b>	<b>185</b>	<b>100%</b>	<b>6</b>	<b>100%</b>	<b>1</b>	<b>100%</b>	<b>955</b>	<b>100%</b>	<b>1500</b>	<b>100%</b>

Table 5.11: Type inclusions compared to zoomorphic figurines

Inclusion type/ Zoomorphic figurines	Quadruped		Bucrania		Horns		Ears		Indeterminate	
Marl/plaster	128	26.2%	3	12.5%	44	4.8%	0	0	7	10.6%
Gypsum	96	19.7%	5	20.8%	45	4.9%	1	12.5%	6	9.1%
Calcite	78	16%	3	12.5%	88	9.6%	0	0	12	18.2%
Mica/biotite	139	28.5%	11	45.8%	185	20.2%	1	12.5%	17	25.8%
Mineral	134	27.5%	4	16.7%	103	11.3%	2	25.0%	14	21.2%
Grit	7	1.4%	0	0	17	1.9%	0	0	3	4.5%
Pebble	23	4.7%	0	0	5	1%	0	0	3	4.5%
Grog	1	0.2%	0	0	1	0.1%	0	0	0	0
Organic/vegetal	48	9.8%	1	4.2%	57	6.2%	1	12.5%	9	13.6%
Carbonised organic	121	24.8%	3	12.5%	22	2.4%	0	0	4	6.1%
Phytoliths	92	18.9%	3	12.5%	17	1.9%	0	0	6	9%
Charcoal	24	4.9%	0	0	15	1.6%	0	0	4	6.1%
Shell	21	4.3%	0	0	9	1%	0	0	1	1.5%
Bone	1	0.2%	0	0	1	0.1%	0	0	0	0
Unclear	8	1.6%	0	0	8	0.9%	0	0	2	3%

Table 5.12: Type inclusions compared to clay type zoomorphic figurines

Inclusion type/ Clay type	Black Organic		Lower Alluvial		Marl		Upper alluvial		Colluvial/midden		Undetermined		Totals	
Marl/plaster	21	51.2%	142	45.5%	3	1.6%	3	50.0%	0	0	13	1.4%	<b>182</b>	12.2%
Gypsum	18	43.9%	103	33%	31	16.8%	1	16.7%	0	0	0	0	<b>153</b>	10.2%
Calcite	10	24.4%	38	12.2%	17	9.2%	1	16.7%	0	0	115	12%	<b>181</b>	12.1%
Mica/biotite	17	41.5%	135	43.3%	63	34.1%	1	16.7%	1	100%	136	14.2%	<b>353</b>	23.5%
Mineral	25	61%	138	44.2%	58	31.4%	0	0	1	100%	35	3.7%	<b>257</b>	17.1%
Grit	0	0	5	1.6%	8	4.3%	0	0	0	0	14	1.5%	<b>27</b>	1.8%
Pebble	5	12.2%	20	6.4%	4	2.2%	0	0	0	0	2	0.2%	<b>31</b>	2.1%
Grog	1	2.4%	0	0	0	0	0	0	0	0	1	0.1%	<b>2</b>	0.1%
Organic/vegetal	7	17.1%	42	13.4%	21	11.3%	3	50.0%	1	100%	42	4.4%	<b>116</b>	7.7%
Carbonised organic	18	43.9%	94	30%	35	18.9%	2	33.3%	0	0	1	0.1%	<b>150</b>	10%
Phytoliths	16	39.0%	78	24.9%	22	11.9%	1	16.7%	0	0	1	0.1%	<b>118</b>	7.9%
Charcoal	4	9.8%	27	7.7%	9	4.9%	0	0	0	0	3	0.3%	<b>43</b>	2.9%
Shell	4	9.8%	19	6.1%	6	3.2%	0	0	0	0	2	0.2%	<b>31</b>	2.1%
Bone	1	2.4%	1	0.3%	0	0	0	0	0	0	0	0	<b>2</b>	0.1%
Unclear	0	0	0	0	2	1.1%	0	0	0	0	16	1.7%	<b>18</b>	1.2%

Table 5.13: Zoomorphic figurines colours

	Quadruped		Bucranium		Horns		Ears		Indeterminate		Totals	
White	4	0.8%			3	0.3%					7	0.5%
Pinkish white-pinkish grey	1	0.2%									1	0.1%
Pink	3	0.6%			9	1%			2	3%	14	0.9%
Pinkish grey	5	1.0%			35	3.8%			2	3%	42	2.8%
Light reddish brown-red			1	4.2%							1	0.1%
Light reddish brown	1	0.2%									1	0.1%
Reddish brown					1	0.1%			1	1.5%	2	0.1%
Reddish grey	1	0.2%			1	0.1%					2	0.1%
Dark reddish grey					1	0.1%					1	0.1%
Yellowish red	1	0.2%			1	0.1%					2	0.1%
Reddish yellow	1	0.2%			3	0.3%					4	0.3%
<b>Totals</b>	<b>17</b>	<b>3.5%</b>	<b>1</b>	<b>4.2%</b>	<b>54</b>	<b>5.9%</b>			<b>5</b>	<b>7.6%</b>	<b>77</b>	<b>5.1%</b>
Pale yellow					5	0.5%					5	0.3%
Light yellowish brown	2	0.4%			10	1.1%					12	0.8%
Light yellowish brown-very pale brown	1	0.2%									1	0.1%
Yellowish brown	1	0.2%			2	0.2%					3	0.2%
Dark yellowish brown	1	0.2%									1	0.1%
Light brown	4	0.8%			30	3.3%			1	1.5%	35	2.3%
Very pale brown	13	2.7%	2	8.3%	25	2.7%			1	1.5%	41	2.7%
Very pale brown-pale brown					2	0.2%					2	0.1%
Pale brown	15	3.1%			42	4.6%			2	3.0%	59	3.9%
Brown	8	1.6%			48	5.3%			3	4.5%	59	3.9%
Dark brown					1	0.1%					1	0.1%
Olive brown	1	0.2%									1	0.1%
<b>Totals</b>	<b>46</b>	<b>9.4%</b>	<b>2</b>	<b>8.3%</b>	<b>165</b>	<b>18.1%</b>			<b>7</b>	<b>10.6%</b>	<b>220</b>	<b>14.7%</b>
Light gray	26	5.3%	2	8.3%	71	7.8%			3	5%	102	7%
Light grey-grey	2	0.4%			1	0.1%					3	0.2%
Grey	91	18.6%	6	25%	203	22.2%	1	12.5%	16	24.2%	317	21.1%
Grey-dark grey	3	0.6%			2	0.2%					5	0.3%
Dark grey	83	17%	5	20.8%	113	12.4%	2	25%	9	13.6%	212	14%
Dark grey-very dark grey					3	0.3%					3	0.2%
Very dark grey	51	10.5%	2	8.3%	75	8.2%	1	12.5%	6	9.1%	135	9%
Dark bluish grey	2	0.4%			2	0.2%					4	0.3%
Dark grey-black					1	0.1%					1	0.1%
Very dark grey-black	1	0.2%									1	0.1%
Black	6	1.2%			5	0.5%			2	3%	2	0.1%
<b>Totals</b>	<b>265</b>	<b>54.3%</b>	<b>15</b>	<b>62.5%</b>	<b>476</b>	<b>52.1%</b>	<b>4</b>	<b>50%</b>	<b>36</b>	<b>54.5%</b>	<b>785</b>	<b>52.3%</b>
Light brownish grey	35	7.2%	1	4.2%	84	9.2%	2	25%	9	13.6%	131	9%
Light brownish grey-grey	4	1%	1	4.2%	3	0.3%					8	0.5%
Light brownish grey-greyish brown	1	0.2%			1	0.1%					2	0.1%
light brownish grey-pale brown	1	0.2%									1	0.1%
Light brownish grey-brown	1	0.2%									1	0.1%
Light greyish brown-grey					1	0.1%					1	0.1%
Greyish brown-grey	5	1.0%			3	0.3%					8	0.5%
Greyish brown	28	5.7%			42	5%			3	4.5%	73	4.9%
Greyish brown-brown	1	0.2%			1	0.1%					2	0.1%
Dark greyish brown	7	1.4%	1	4.2%	16	1.8%					24	1.6%
Very dark greyish brown	1	0.2%			2	0.2%					3	0.2%
<b>Totals</b>	<b>84</b>	<b>17.2%</b>	<b>3</b>	<b>12.5%</b>	<b>153</b>	<b>16.7%</b>	<b>2</b>	<b>25%</b>	<b>12</b>	<b>18.2%</b>	<b>254</b>	<b>16.9%</b>

Table 5.14: Abbreviated figurines: certain clay type assignments

Clay type/ Abbreviated figurines	Head on base		Head on divided base		Indeterminate		Totals	
<b>Black Organic</b>	2	1.2%	2	0.6%	1	1.2%	5	0.8%
<b>Lower Alluvial</b>	21	12.8%	59	16.4%	8	9.3%	88	14.4%
<b>Marl</b>	27	16.5%	45	12.5%	15	17.4%	87	14.3%
<b>Upper alluvial</b>	1	0.6%	2	0.6%	0		3	0.5%
<b>Brown Silt</b>	0		1	0.3%	0		1	0.2%
<b>Mixture</b>	0		1	0.3%	0		1	0.2%
<b>Undetermined</b>	113	68.9%	249	69.4%	62	72.1%	424	69.6%
<b>Totals</b>	<b>164</b>	<b>100%</b>	<b>359</b>	<b>100%</b>	<b>86</b>	<b>100%</b>	<b>609</b>	<b>100%</b>

Table 5.15: Abbreviated figurines: certain and possible clay type assignments

Clay Type/ abbreviated figurines	Head on base		Head on divided base		Indeterminate		Totals	
<b>Black Organic</b>	7	4.1%	3	0.8%	1	1.2%	11	1.8%
<b>Lower Alluvial</b>	24	15.4%	78	21.7%	16	18.6%	118	19.4%
<b>Marl</b>	41	24.9%	64	17.8%	19	22.1%	124	20.4%
<b>Upper alluvial</b>	1	0.6%	3	0.8%	0		4	0.7%
<b>Brown Silt</b>	0		1	0.3%	0		1	0.2%
<b>Mixture</b>	0		2	0.6%	0		2	0.2%
<b>Undetermined</b>	91	55.0%	208	57.9%	50	58.1%	349	57.6%
<b>Totals</b>	<b>164</b>	<b>100%</b>	<b>359</b>	<b>100%</b>	<b>86</b>	<b>100%</b>	<b>609</b>	<b>100%</b>

Table 5.16: Fabrics compared to abbreviated figurines

Clay fabric/ Abbreviated figurines	Head on base		Head on divided base		Indeterminate		Totals	
<b>Fine</b>	116	70.7%	246	68.5%	68	79.1%	430	70.4%
<b>Fine to medium</b>	16	9.8%	50	13.9%	2	2.3%	68	11.2%
<b>Medium</b>	14	8.5%	18	5%	3	3.5%	35	5.7%
<b>Medium to coarse</b>	0		6	1.7%	0		6	1.1%
<b>Coarse</b>	0		0		0		0	
<b>Unknown</b>	18	11.0%	39	10.9%	13	15.1%	70	11.5%
<b>Totals</b>	<b>164</b>	<b>100%</b>	<b>359</b>	<b>100%</b>	<b>86</b>	<b>100%</b>	<b>609</b>	<b>100%</b>

Table 5.17: Fabrics compared to clay types abbreviated figurines

Clay fabric/ Clay types	Black organic		Lower alluvial		Marl		Upper alluvial		Brown silt		Mixture		Undetermined	
<b>Fine</b>	3	60%	69	78.4%	67	77%	2	66.7%	0		1	100%	287	67.7%
<b>Fine to medium</b>	0		11	12.5%	10	11.5%	1	33.3%	1	100%	0		46	10.8%
<b>Medium</b>	1	20%	6	6.8%	9	10.3%	0		0		0		18	4.2%
<b>Medium to coarse</b>	1	20%	2	2.3%	1	1.1%	0		0		0		3	0.7%
<b>Coarse</b>	0		0		0		0		0		0		0	
<b>Unknown</b>	0		0		0		0		0		0		70	16.5%
<b>Totals</b>	<b>5</b>	<b>100%</b>	<b>88</b>	<b>100%</b>	<b>87</b>	<b>100%</b>	<b>3</b>	<b>100%</b>	<b>1</b>	<b>100%</b>	<b>1</b>	<b>100%</b>	<b>424</b>	<b>100%</b>

Table 5.18: Presence inclusions compared to abbreviated figurines

Inclusion presence/ Abbreviated figurines	Head on base		Head on divided base		Indeterminate		Totals	
Surface	32	19.5%	60	16.7%	7	8.1%	99	16.3%
Cross-section	10	6.1%	31	8.6%	14	16.3%	55	9%
Surface and cross-section	11	6.7%	39	10.9%	6	7%	56	9.2%
Visible	6	3.7%	13	3.6%	7	8%	26	4.3%
Not visible	51	31.1%	113	31.5%	28	32.6%	192	31.5%
Unknown	54	32.9%	103	28.7%	24	27.9%	181	29.7%
<b>Totals</b>	<b>164</b>	<b>100%</b>	<b>359</b>	<b>100%</b>	<b>86</b>	<b>100%</b>	<b>609</b>	<b>100%</b>

Table 5.19: Presence inclusions compared to clay type

Inclusion presence/ Clay type	Black Organic		Lower Alluvial		Marl		Upper alluvial		Brown silt		Mixture		Undetermined	
Surface	2	40%	29	33%	12	13.8%	0		1	100%	0		55	13%
Cross-section	0		9	10.2%	5	5.7%	1	33.3%	0		0		40	9.4%
Surface and cross-section	2	40%	19	21.6%	9	10.3%	0		0		1	100%	25	5.9%
Visible	0		3	3.4%	6	6.9%	0		0		0		17	4%
Not visible	1	20%	27	30.7%	32	36.8%	2	66.7%	0		0		130	30.7%
Unknown	0		1	1.3%	23	26.4%	0		0		0		157	37%
<b>Totals</b>	<b>5</b>	<b>100%</b>	<b>88</b>	<b>100%</b>	<b>87</b>	<b>100%</b>	<b>3</b>	<b>100%</b>	<b>1</b>	<b>100%</b>	<b>1</b>	<b>100%</b>	<b>424</b>	<b>100%</b>

Table 5.20: Amount inclusions compared to abbreviated figurines

Inclusion amount/ Abbreviated figurines	Head on base		Head on divided base		Indeterminate		Totals	
Rare	16	9.8%	62	17.3%	16	18.6%	94	14.9%
Sparse	28	17.1%	48	13.4%	11	12.8%	87	14.3%
Common	11	6.7%	28	7.8%	6	7%	45	6.9%
Varied	1	0.6%	0		0		1	0.2%
Not applicable	51	31.1%	113	31.5%	28	32.6%	192	32.7%
Unknown	57	34.8%	108	30.1%	25	29.1%	190	31%
<b>Totals</b>	<b>164</b>	<b>100%</b>	<b>359</b>	<b>100%</b>	<b>86</b>	<b>100%</b>	<b>609</b>	<b>100%</b>

Table 5.21: Amount inclusions compared to clay type abbreviated figurines

Inclusion amount/ Clay type	Black Organic		Lower Alluvial		Marl		Upper alluvial		Brown silt		Mixture		Undetermined	
Rare	0		25	28.4%	14	16.1%	0		1	100%	1	100%	54	12.7%
Sparse	2	40%	22	25%	7	8%	1	33%	0		0		54	12.7%
Common	2	40%	11	12.5%	9	10.3%	0		0		0		23	5.4%
Varied	0		0		0		0		0		0		1	0.2%
Not applicable	1	20%	27	31%	32	36.8%	2	66.7%	0		0		130	30.7%
Unknown	0		3	3.4%	25	28.7%	0		0		0		162	38.2%
<b>Totals</b>	<b>5</b>	<b>100%</b>	<b>88</b>	<b>100%</b>	<b>87</b>	<b>100%</b>	<b>3</b>	<b>100%</b>	<b>1</b>	<b>100%</b>	<b>1</b>	<b>100%</b>	<b>424</b>	<b>100%</b>

Table 5.22: Size inclusions compared to abbreviated figurines

Inclusion size/ Abbreviated figurines	Head on base		Head on divided base		Indeterminate		Totals	
Small	39	23.8%	106	29.5%	29	33.7%	174	28.6%
Small to medium	11	6.7%	20	5.6%	2	2.3%	33	5.4%
Medium	3	1.8%	9	2.5%	3	3.5%	15	2.5%
Medium to large	2	1.2%	2	0.6%	0		4	0.7%
Large	0		3	0.8%	0		3	0.5%
Varied	1	0.6%	0		0		1	0.2%
Not applicable	51	31.1%	113	31.5%	28	32.6%	192	31.5%
Unknown	57	34.8%	106	29.5%	24	27.9%	187	30.7%
<b>Totals</b>	<b>164</b>	<b>100%</b>	<b>359</b>	<b>100%</b>	<b>86</b>	<b>100%</b>	<b>609</b>	<b>100%</b>

Table 5.23: Size inclusions compared to clay type abbreviated figurines

Inclusion size/ clay type	Black Organic		Lower Alluvial		Marl		Upper alluvial		Brown silt		Mixture		Undetermined	
Small	1	20%	42	47.7%	23	26.4%	0		1	100%	1	100%	106	25%
Small to medium	2	40%	10	11.4%	6	6.9%	1	33.3%	0		0		14	3.3%
Medium	0		2	2.3%	1	1.1%	0		0		0		12	2.8%
Medium to large	1	20%	1	1.1%	1	1.1%	0		0		0		1	0.2%
Large	0		1	1.1%	0		0		0		0		2	0.5%
Varied	0		1	1.1%	0		0		0		0		0	
Not applicable	1	20%	27	31%	32	36.8%	2	66.7%	0		0		130	30.7%
Unknown	0		4	4.5%	24	27.6%	0		0		0		159	37.5%
<b>Totals</b>	<b>5</b>	<b>100%</b>	<b>88</b>	<b>100%</b>	<b>87</b>	<b>100%</b>	<b>3</b>	<b>100%</b>	<b>1</b>	<b>100%</b>	<b>1</b>	<b>100%</b>	<b>424</b>	<b>100%</b>

Table 5.24: Type inclusions compared to abbreviated figurines

Inclusion type/ Abbreviated figurines	Head on base		Head on divided base		Indeterminate		Totals	
Marl/plaster	8	4.7%	22	6.1%	1	1.2%	31	5.1%
Gypsum	5	3.0%	25	7.0%	0		30	4.9%
Calcite	20	12.2%	34	9.5%	7	8.1%	61	10%
Mica/biotite	21	12.8%	62	17.3%	10	11.6%	93	15.3%
Mineral	14	8.5%	39	10.9%	6	7%	59	9.7%
Grit	3	1.8%	6	1.7%	4	4.7%	13	2.1%
Pebble	1	0.6%	2	0.6%	2	2%	5	0.8%
Organic/vegetal	9	5.3%	27	7.6%	5	5.8%	41	6.7%
Carbonised organic	1	0.6%	8	2.3%	1	1.2%	10	1.6%
Phytoliths	0		5	1.4%	0		5	0.8%
Charcoal	5	3%	14	4%	0		19	3.2%
Shell	0		3	0.8%	0		3	0.5%
Unclear	1	0.6%	1	0.3%	0		2	30.0%

Table 5.25: Type inclusions compared to clay type abbreviated figurines

Inclusion type/ Clay type	Black Organic		Lower Alluvial		Marl		Upper alluvial		Brown silt		Mixture		Undetermined	
Marl/plaster	2	40%	21	23.9%	2	2.3%	0		0		1	100%	5	1.2%
Gypsum	1	20%	20	22.7%	7	8%	0		1	100%	1		0	
Calcite	1	20%	12	13.6%	4	4.6%	0		0		0		44	10.4%
Mica/biotite	1	20%	24	27.3%	19	21.8%	0		1	100%	1	100%	47	11.1%
Mineral	1	20%	23	26.1%	18	20.7%	1	33.3%	1	100%	1	100%	14	3.3%
Grit	0		7	8%	2	2.3%	0		0		0		4	0.9%
Pebble	1	20%	2	2.3%	1	1.1%	0		0		1	100%	0	
Organic/vegetal	2	40%	11	12.5%	10	11.5%	1	33.3%	0		1	100%	16	3.8%
Carbonised organic	1	20%	5	5.6%	3	3.4%	0		0		1	100%	0	
Phytoliths	0		3	3.4%	1	1.1%	0		0		1	100%	0	
Charcoal	1	20%	13	14.8%	4	4.6%	0		0		1	100%	0	
Shell	0		1	1.1%	2	2.3%	0		0		0		0	
Unclear	0		0		1	1.1%	0		0		0		1	0.2%

Table 5.26: Abbreviated colours

	Head on base		Head on divided base		Indeterminate		Totals	
White			5	1.4%			5	0.8%
Pink	1	0.6%	2	0.6%	1	1.2%	4	0.7%
Pinkish grey	4	2.4%	4	1.1%			8	1.3%
Pinkish grey-pink			1	0.3%			1	0.2%
Light reddish brown	1	0.6%	1	0.3%			2	0.3%
Reddish brown			1	0.3%			1	0.2%
Reddish yellow			1	0.3%	1	1.2%	2	0.3%
<b>Totals</b>	<b>6</b>	<b>3.7%</b>	<b>15</b>	<b>4.2%</b>	<b>2</b>	<b>2.3%</b>	<b>23</b>	<b>3.8%</b>
White-pale yellow					1	1.2%	1	0.2%
Pale yellow	3	1.8%	3	0.8%	1	1.2%	7	1.1%
Light yellowish brown	2	1.2%	5	1.4%	1	1.2%	8	0.1%
Light brown	3	1.8%	12	3.3%	2	2.3%	17	2.8%
Very pale brown	4	2.4%	8	2.2%	7	8.1%	19	3.1%
Pale brown	5	3.0%	17	4.7%			22	3.6%
Brown	8	4.9%	10	2.8%	4	4.7%	22	3.6%
Olive brown	1	0.6%					1	0.2%
<b>Totals</b>	<b>26</b>	<b>15.9%</b>	<b>55</b>	<b>15.3%</b>	<b>16</b>	<b>18.6%</b>	<b>97</b>	<b>15.9%</b>
Light grey	5	3.0%	29	8.1%	6	7.0%	40	6.6%
Light grey-grey			2	0.6%	1	1.2%	3	0.5%
Grey	27	16.5%	93	25.9%	16	18.6%	136	22.3%
Grey-dark grey			4	1.1%			4	0.7%
Dark grey	27	16.5%	42	11.7%	11	12.8%	80	13.1%
Dark grey-very dark grey	1	0.6%	2	0.6%	1	1.2%	4	0.7%
Very dark grey	19	11.6%	16	4.5%	4	4.7%	39	6.4%
Dark bluish grey			1	0.3%			1	0.2%
Black	2	1.2%	1	0.3%			3	0.5%
<b>Totals</b>	<b>81</b>	<b>49.4%</b>	<b>190</b>	<b>52.9%</b>	<b>39</b>	<b>45.3%</b>	<b>310</b>	<b>50.9%</b>
Light brownish grey	13	9.3%	33	9.2%	7	8.1%	53	8.7%
Light brownish grey-grey			3	0.8%			3	0.5%
Light brownish grey-greyish brown			2	0.6%	1	1.2%	3	0.5%
light brownish grey-pale brown	1	0.7%					1	0.2%
Light greyish brown	1	0.7%					1	0.2%
Greyish brown-grey	1	0.7%	1	0.3%			2	0.3%
Greyish brown	7	5.0%	14	3.9%	5	5.8%	26	4.3%
Greyish brown-brown	4	2.9%	2	0.6%			6	1.0%
Very dark greyish brown					1	1.2%	1	0.2%
<b>Totals</b>	<b>27</b>	<b>16.5%</b>	<b>55</b>	<b>15.3%</b>	<b>14</b>	<b>16.3%</b>	<b>96</b>	<b>15.8%</b>

Table 5.27: Anthropomorphic figurines: certain clay type assignments

Clay type/ Anthropomorphic figurines	Human - divided base		Human - undivided base		Composite		Heads		Indeterminate		Totals	
Black Organic	0		2	3.6%	0		1	7.1%	0		3	1.9%
Lower Alluvial	11	18%	12	21.8%	0		3	21.4%	3	10%	29	17.9%
Marl	3	4.8%	8	14.5%	0		5	35.7%	8	26.7%	24	14.8%
Upper alluvial	0		0		0		0		1	3.3%	1	0.6%
Undetermined	48	77.4%	33	60%	1	100%	5	35.7%	18	60%	105	64.8%
<b>Totals</b>	<b>62</b>	<b>100%</b>	<b>55</b>	<b>100%</b>	<b>1</b>	<b>100%</b>	<b>14</b>	<b>100%</b>	<b>30</b>	<b>100%</b>	<b>162</b>	<b>100%</b>

Table 5.28: Anthropomorphic figurines: certain and possible clay type assignments

Clay type/ Anthropomorphic figurines	Human - divided base		Human - undivided base		Composite		Heads		Indeterminate		Totals	
Black Organic	0		1	1.8%	0		1	7.1%	0		2	1.2%
Lower Alluvial	7	11.3%	9	16.4%	0		3	21.4%	3	10%	22	13.6%
Marl	2	3.2%	6	10.9%	0		3	21.4%	7	23.3%	18	11.1%
Upper alluvial	0		0		0		0		1	3.3%	1	0.6%
Undetermined	53	85.5%	39	70.9%	1	100%	7	50%	19	63.3%	119	73.5%
<b>Totals</b>	<b>62</b>	<b>100%</b>	<b>55</b>	<b>100%</b>	<b>1</b>	<b>100%</b>	<b>14</b>	<b>100%</b>	<b>30</b>	<b>100%</b>	<b>162</b>	<b>100%</b>

Table 5.29: Fabrics compared to anthropomorphic figurines

Clay fabric/ Anthropomorphic figurines	Human - divided base		Human - undivided base		Composite		Heads		Indeterminate		Totals	
<b>Fine</b>	48	77.4%	34	61.8%	1	100%	11	78.6%	22	73.3%	116	71.6%
<b>Fine to medium</b>	2	3.2%	6	10.9%	0		1	7.1%	2	6.7%	11	6.8%
<b>Medium</b>	1	1.6%	4	7.3%	0		1	7.1%	2	6.7%	8	4.9%
<b>Medium to coarse</b>	1	1.6%	0		0				0		1	0.6%
<b>Coarse</b>	0		0		0				0		0	
<b>Unknown</b>	10	16.1%	11	20%	0		1	7.1%	4	13.3%	26	16.0%
<b>Totals</b>	<b>62</b>	<b>100%</b>	<b>55</b>	<b>100%</b>	<b>1</b>	<b>100%</b>	<b>14</b>	<b>100%</b>	<b>30</b>	<b>100%</b>	<b>162</b>	<b>100%</b>

Table 5.30: Fabrics compared to clay type anthropomorphic figurines

Clay fabric/ Clay types	Black organic		Lower alluvial		Marl		Upper alluvial		Undetermined	
<b>Fine</b>	2	100%	18	81.8%	14	77.8%	1	100%	81	68.1%
<b>Fine to medium</b>	0		2	9.1%	1	5.6%	0		8	6.7%
<b>Medium</b>	0		1	4.5%	2	11.1%	0		5	4.2%
<b>Medium to coarse</b>	0		1	4.5%	0		0		0	
<b>Coarse</b>	0		0		0		0		0	
<b>Unknown</b>	0		0		1	5.6%	0		25	21%
<b>Totals</b>	<b>2</b>	<b>100%</b>	<b>22</b>	<b>100%</b>	<b>18</b>	<b>100%</b>	<b>1</b>	<b>100%</b>	<b>119</b>	<b>100%</b>

Table 5.31: Presence inclusions compared to anthropomorphic figurines

Inclusion presence/ Anthropomorphic figurines	Human - divided base		Human - undivided base		Composite		Heads		Indeterminate		Totals	
<b>Surface</b>	7	11.3%	9	16.4%	0		1	7.1%	2	6.7%	19	11.7%
<b>Cross-section</b>	5	8.1%	4	7.3%	0		2	14.3%	4	13.3%	15	9.3%
<b>Surface and cross-section</b>	9	14.5%	9	16.4%	0		1	7.1%	2	6.7%	21	13%
<b>Visible</b>	0		0		0		0		1	3.3%	1	0.6%
<b>Not visible</b>	6	9.7%	11	20.0%	0		6	42.9%	7	23.3%	30	18.5%
<b>Unknown</b>	35	56.5%	22	40.0%	1	100%	4	28.6%	14	46.7%	76	46.9%
<b>Totals</b>	<b>62</b>	<b>100%</b>	<b>55</b>	<b>100%</b>	<b>1</b>	<b>100%</b>	<b>14</b>	<b>100%</b>	<b>30</b>	<b>100%</b>	<b>162</b>	<b>100%</b>

Table 5.32: Presence inclusions compared to clay type anthropomorphic figurines

Inclusion presence/ Clay type	Black Organic		Lower Alluvial		Marl		Upper alluvial		Undetermined	
<b>Surface</b>	0		2	9.1%	4	22.2%	0		13	10.9%
<b>Cross-section</b>	1	50%	4	18.2%	3	16.7%	0		7	5.9%
<b>Surface and cross-section</b>	0		8	36.4%	2	11.1%	0		11	9.2%
<b>Visible</b>	0		0		1	5.6%	0		0	
<b>Not visible</b>	0	50%	8	36.4%	4	22.2%	1	100%	17	14.3%
<b>Unknown</b>	1		0		4	22.2%	0		71	59.7%
<b>Totals</b>	<b>2</b>	<b>100%</b>	<b>22</b>	<b>100%</b>	<b>18</b>	<b>100%</b>	<b>1</b>	<b>100%</b>	<b>119</b>	<b>100%</b>

Table 5.33: Amount inclusions compared to anthropomorphic figurines

Inclusion amount/ Anthropomorphic figurines	Human - divided base		Human - undivided base		Composite		Heads		Indeterminate		Totals	
<b>Rare</b>	4	6.5%	8	14.5%	0		1	7.1%	5	16.7%	18	11.1%
<b>Sparse</b>	10	16.1%	9	16.4%	0		2	14.3%	4	13.3%	25	15.4%
<b>Common</b>	7	11.3%	7	12.7%	0		2	14.3%	3	10%	19	11.7%
<b>Not applicable</b>	6	9.7%	11	20.0%	0		6	42.9%	7	23.3%	30	18.5%
<b>Unknown</b>	35	56.5%	20	25.5%	1	100%	3	21.4%	11	36.7%	70	43.2%
<b>Totals</b>	<b>62</b>	<b>100%</b>	<b>55</b>	<b>89%</b>	<b>1</b>	<b>100%</b>	<b>14</b>	<b>100%</b>	<b>30</b>	<b>100%</b>	<b>162</b>	<b>100%</b>

Table 5.34: Amount inclusions compared to clay type anthropomorphic figurines

Inclusion amount/ Clay type	Black Organic		Lower Alluvial		Marl		Upper alluvial		Undetermined	
Rare	0		3	13.6%	2	11.1%	0		13	10.9%
Sparse	0		5	22.7%	3	16.7%	0		17	14.3%
Common	1	50%	6	27.3%	5	27.8%	0		7	5.9%
Not applicable	0		8	36.4%	4	22.2%	1	100%	17	14.3%
Unknown	1	50%	0		4	22.2%	0		65	54.6%
<b>Totals</b>	<b>2</b>	<b>100%</b>	<b>22</b>	<b>100%</b>	<b>18</b>	<b>100%</b>	<b>1</b>	<b>100%</b>	<b>119</b>	<b>100%</b>

Table 5.35: Size inclusions compared to anthropomorphic figurines

Inclusion size/ Anthropomorphic figurines	Human - divided base		Human - undivided base		Composite		Heads		Indeterminate		Totals	
Small	13	21.0%	9	16.4%	0		5	35.7%	8	26.7%	35	21.6%
Small to medium	5	8.1%	8	14.5%	0		0		0		13	8.0%
Medium	2	3.2%	1	1.8%	0		0		2	6.7%	5	3.1%
Medium to large	1	1.6%	4	7.3%	0		0		0		5	3.4%
Large	0		0		0		0		2	6.7%	2	1.2%
Varied	0		2	3.6%	0		0		1	3.3%	3	1.9%
Not applicable	6	9.7%	11	20.0%	0		6	42.9%	7	23.3%	30	18.5%
Unknown	35	56.5%	20	36.4%	1	100%	3	21.4%	10	33.3%	69	42.6%
<b>Totals</b>	<b>62</b>	<b>100%</b>	<b>55</b>	<b>100%</b>	<b>1</b>	<b>100%</b>	<b>14</b>	<b>100%</b>	<b>30</b>	<b>100%</b>	<b>162</b>	<b>100%</b>

Table 5.36: Size inclusions compared to clay type anthropomorphic figurines

Inclusion size/ clay type	Black Organic		Lower Alluvial		Marl		Upper alluvial		Undetermined	
Small	1	50%	6	27.3%	7	38.9%	0		21	17.6%
Small to medium	0		5	22.7%	1	5.6%	0		7	5.9%
Medium	0		2	9.1%	1	5.6%	0		2	1.7%
Medium to large	0		0		1	5.6%	0		4	3.4%
Large	0		0		0		0		2	1.7%
Varied	0		1	4.5%	1	5.6%	0		1	1%
Not applicable	0		8	36.4%	4	22.2%	1	100%	17	14.3%
Unknown	1	50%	0		3	16.7%	0		65	54.6%
<b>Totals</b>	<b>2</b>	<b>100%</b>	<b>22</b>	<b>100%</b>	<b>18</b>	<b>100%</b>	<b>1</b>	<b>100%</b>	<b>119</b>	<b>100%</b>

Table 5.37: Inclusion types compared to anthropomorphic figurines

Inclusion type/ Anthropomorphic figurines	Human - divided base		Human - undivided base		Heads		Indeterminate		Totals	
Marl/plaster	1	1.6%	6	120.0%	0		0		7	4.3%
Gypsum	0		2	3.6%	0		1	3.3%	3	1.9%
Calcite	4	6.5%	1	1.8%	1	7.1%	0		6	3.7%
Mica/biotite	11	17.7%	11	20.0%	2	14.3%	4	13%	28	17.3%
Mineral	6	9.7%	8	14.5%	0		6	20%	20	12.3%
Grit	0		2	3.6%	0		0		2	1.2%
Pebble	0		2	3.6%	0		2	6.7%	4	2.5%
Organic/vegetal	8	12.9%	5	9.1%	2	14.3%	0		15	9.3%
Carbonised organic	0		1	1.8%	0		0		1	0.6%
Phytoliths	0		1	1.8%	0		0		1	0.6%
Charcoal	0		3	5.5%	0		1	3.3%	4	2.5%
Shell	3	4.8%	1	1.8%	0		0		4	2.5%
Unclear	1	1.6%	0		0		1	3.3%	2	1.2%

Table 5.38: Inclusion types compared to clay type anthropomorphic figurines

Inclusion type/ Clay type	Black Organic		Lower Alluvial		Marl		Upper alluvial		Undetermined	
Marl/plaster	0		4	18.2%	0		0		3	2.5%
Gypsum	0		3	13.6%	0		0		0	
Calcite	0		4	18.2%	0		0		2	1.7%
Mica/biotite	1	50%	9	40.9%	7	38.9%	0		11	9.2%
Mineral	0		7	31.8%	5	27.8%	0		8	6.7%
Grit	0		1	4.5%	0		0		1	0.8%
Pebble	0		0		2	11.1%	0		2	1.7%
Organic/vegetal	0		4	18.2%	1	5.6%	0		10	8.4%
Carbonised organic	0		1	5%	0		0		0	
Phytoliths	0		1	4.5%	0		0		0	
Charcoal	0		3	13.6%	1	5.6%	0		0	
Shell	0		2	9.1%	0		0		2	1.7%
Unclear	0		0		0		0		2	1.7%

Table 5.39: Colours anthropomorphic figurines

	Human-divided base		Human-undivided base		Heads		Indeterminate		Totals	
White			1	1.8%					1	0.6%
Light reddish brown							1	3.3%	1	0.6%
Reddish brown							1	3.3%	1	0.6%
Reddish grey			1	1.8%					1	0.6%
<b>Totals</b>			<b>2</b>	<b>3.6%</b>			<b>2</b>	<b>6.7%</b>	<b>4</b>	<b>2.5%</b>
Pale yellow	1	1.6%	1	1.8%					2	1.2%
Light yellowish brown							1	3.3%	1	0.6%
Light yellowish brown-yellowish brown	1	1.6%					1	3.3%	2	1.2%
Very pale brown			1	1.8%	2	14.3%	1	3.3%	4	2.5%
Pale brown	1	1.6%			2	14.3%			3	1.9%
<b>Totals</b>	<b>3</b>	<b>4.8%</b>	<b>2</b>	<b>3.6%</b>	<b>4</b>	<b>28.6%</b>	<b>3</b>	<b>10.0%</b>	<b>12</b>	<b>7.4%</b>
Light gray	4	6.5%	3	5.5%	1	7.1%	5	16.7%	13	8.0%
Light grey-grey			1	1.8%					1	0.6%
Light olive grey	1	1.6%							1	0.6%
Grey	5	8.1%	9	16.4%	1	7.1%	7	23.3%	22	13.6%
Dark grey	9	14.5%	6	10.9%	3	21.4%	2	6.7%	20	12.3%
Dark grey-very dark grey	1	1.6%	1	1.8%			1	3.3%	3	1.9%
Very dark grey	7	11.3%	9	16.4%			1	3.3%	17	10.5%
Black	1	1.6%	1	1.8%					2	0.6%
<b>Totals</b>	<b>28</b>	<b>45.2%</b>	<b>30</b>	<b>54.5%</b>	<b>5</b>	<b>35.7%</b>	<b>16</b>	<b>53.3%</b>	<b>79</b>	<b>48.8%</b>
Light brownish grey	2	3.2%	1	1.8%	2	14.3%	1	3.3%	6	3.7%
Light brownish grey-grey			1	1.8%			1	3.3%	2	1.2%
Greyish brown	1	1.6%	4	7.3%	1	7.1%	2	7%	8	4.9%
Greyish brown-brown			1	1.8%					1	0.6%
Dark greyish brown	2	3.2%	1	1.8%					3	1.9%
<b>Totals</b>	<b>5</b>	<b>8.1%</b>	<b>8</b>	<b>14.5%</b>	<b>3</b>	<b>21.4%</b>	<b>4</b>	<b>13.3%</b>	<b>20</b>	<b>12.3%</b>

Table 5.40: Clay fabrics compared to clay types phallomorphic objects

Clay fabric/ Clay types	Black organic		Marl		Upper alluvial		Undetermined		Totals	
Fine	1	50%	1	100%	0		1	50%	3	50%
Fine to medium	0		0		1	100%	0		1	16.7%
Medium	1	50%	0		0		0		1	16.7%
Medium to coarse	0		0		0		0		0	
Coarse	0		0		0		1	50%	1	16.7%
Unknown	0		0		0		0		0	
<b>Totals</b>	<b>2</b>	<b>100%</b>	<b>1</b>	<b>100%</b>	<b>1</b>	<b>100%</b>	<b>2</b>	<b>100%</b>	<b>6</b>	<b>100%</b>

Table 5.41: Inclusion presence compared to clay types phallomorphic objects

Inclusion presence/ Clay type	Black Organic		Marl		Upper alluvial		Undetermined		Totals	
Surface	0		0		1	100%	1	50.0%	2	33.3%
Cross-section	0		0		0		0		0	
Surface and cross-section	2	100%	0		0		0		2	33.3%
Visible	0		0		0		0		0	
Not visible	0		0		0		0		0	
Unknown	0		1	100%	0		1	50.0%	2	33.3%
<b>Totals</b>	<b>2</b>	<b>100%</b>	<b>1</b>	<b>100%</b>	<b>1</b>	<b>100%</b>	<b>2</b>	<b>100%</b>	<b>6</b>	<b>100%</b>

Table 5.42: Inclusion amount compared to clay types phallomorphic objects

Inclusion amount/ Clay type	Black Organic		Marl		Upper alluvial		Undetermined		Totals	
Rare	0		0		1	100%	0		1	16.7%
Sparse	0		0		0		1	50%	1	16.7%
Common	2	100%	0		0		0		2	33.3%
Varied	0		0		0		0		0	
Not applicable	0		0		0		0		0	
Unknown	0		1	100%	0		1	50%	2	33.3%
<b>Totals</b>	<b>2</b>	<b>100%</b>	<b>1</b>	<b>100%</b>	<b>1</b>	<b>100%</b>	<b>2</b>	<b>100%</b>	<b>6</b>	<b>100%</b>

Table 5.43: Inclusion size compared to clay types phallomorphic objects

Inclusion size/ Clay type	Black Organic		Marl		Upper alluvial		Undetermined		Totals	
Small	1	50%	0		0		0		1	16.7%
Small to medium	0		0		0		1	50%	1	16.7%
Medium	0		0		1	100%	0		1	16.7%
Medium to large	0		0		0		0		0	
Large	0		0		0		0		0	
Varied	1	50%	0		0		0		1	16.7%
Not applicable	0		0		0		0		0	
Unknown	0		1	100%	0		1	50%	2	33.3%
<b>Totals</b>	<b>2</b>	<b>100%</b>	<b>1</b>	<b>100%</b>	<b>1</b>	<b>100%</b>	<b>2</b>	<b>100%</b>	<b>6</b>	<b>100%</b>

Table 5.44: Inclusion type compared to clay types phallomorphic objects

Inclusion type/ Clay type	Black Organic		Upper alluvial		Undetermined		Totals	
Marl/plaster	1	50%	0		0		1	16.7%
Gypsum	1	50%	0		0		1	16.7%
Mica/biotite	1	50%	1	100%	0		2	33.3%
Organic/vegetal	2	100%	1	100%	1	50%	4	66.7%
Charcoal	1	50%	0		0		1	16.7%

Table 5.45: Geometric objects: certain clay type assignments

Clay type/ Geometric	Conical		Cylindrical		Totals	
Black Organic	0		2	2.9%	2	1.4%
Lower Alluvial	9	11.4%	10	14.5%	19	12.8%
Marl	8	10.1%	8	11.6%	16	10.8%
Upper alluvial	2	2.5%	1	1.4%	3	2%
Undetermined	60	75.9%	48	69.6%	108	73.0%
<b>Totals</b>	<b>79</b>	<b>100%</b>	<b>69</b>	<b>100%</b>	<b>148</b>	<b>100%</b>

Table 5.46: Geometric objects, certain and possible clay type assignments

Clay type/ Geometric	Conical		Cylindrical		Totals	
Black Organic	1	1.3%	3	4.3%	4	2.7%
Lower Alluvial	14	17.7%	11	15.9%	25	16.9%
Marl	17	21.5%	15	21.7%	32	21.6%
Upper alluvial	2	2.5%	1	1.4%	3	2%
Undetermined	45	57%	39	56.5%	84	56.8%
<b>Totals</b>	<b>79</b>	<b>100%</b>	<b>69</b>	<b>100%</b>	<b>148</b>	<b>100%</b>

Table 5.47: Clay fabric compared to geometric objects

Clay fabric/ Geometric	Conical		Cylindrical		Totals	
Fine	47	59.5%	52	75.4%	99	66.9%
Fine to medium	12	15.2%	8	11.6%	20	13.5%
Medium	7	8.9%	3	4.3%	10	6.8%
Medium to coarse	6	7.6%	2	2.9%	8	5.4%
Coarse	0		0		0	
Unknown	7	8.5%	4	5.8%	11	7.4%
<b>Totals</b>	<b>79</b>	<b>100%</b>	<b>69</b>	<b>100%</b>	<b>148</b>	<b>100%</b>

Table 5.48: Clay fabric compared to clay type geometric objects

Clay fabric/ Clay types	Black organic		Lower alluvial		Marl		Upper alluvial		Undetermined	
Fine	1	50%	10	52.6%	14	88%	0		74	68.5%
Fine to medium	0		2	10.5%	1	6.3%	2	66.7%	15	13.9%
Medium	0		6	31.6%	0		1	33.3%	3	2.8%
Medium to coarse	1	50%	1	5.3%	0		0		6	5.6%
Coarse	0		0		0		0		0	
Unknown	0		0		1	6.3%	0		10	9.3%
<b>Totals</b>	<b>2</b>	<b>100%</b>	<b>19</b>	<b>100%</b>	<b>16</b>	<b>100%</b>	<b>3</b>	<b>100%</b>	<b>108</b>	<b>100%</b>

Table 5.49: Presence inclusions compared to geometric objects

Inclusion presence/ Geometric	Conical		Cylindrical		Totals	
Surface	21	26.6%	17	25%	38	25.7%
Cross-section	2	2.5%	9	13.0%	11	7.4%
Surface and cross-section	18	22.8%	7	10.1%	25	16.9%
Visible	2	2.5%	4	5.8%	6	4.1%
Not visible	26	32.9%	20	29.0%	46	31.1%
Unknown	10	12.7%	12	17.4%	22	14.9%
<b>Totals</b>	<b>79</b>	<b>100%</b>	<b>69</b>	<b>100%</b>	<b>148</b>	<b>100%</b>

Table 5.50: Presence inclusions compared to clay type geometric objects

Inclusion presence/ Clay type	Black Organic		Lower Alluvial		Marl		Upper alluvial		Undetermined	
Surface	1	50%	7	36.8%	7	43.8%	1	33.3%	22	20.4%
Cross-section	0		3	15.8%	2	12.5%	0		6	5.6%
Surface and cross-section	0		6	31.6%	2	12.5%	2	66.7%	15	13.9%
Visible	1	50%	2	10.5%	1	6.3%	0		2	1.9%
Not visible	0		1	5.3%	3	19%	0		42	38.9%
Unknown	0		0		1	6.3%	0		21	19.4%
<b>Totals</b>	<b>2</b>	<b>100%</b>	<b>19</b>	<b>100%</b>	<b>16</b>	<b>100%</b>	<b>3</b>	<b>100%</b>	<b>108</b>	<b>100%</b>

Table 5.51: Inclusion amount compared to geometric objects

Inclusion amount/ Geometric	Conical		Cylindrical		Totals	
Rare	14	17.7%	16	23.2%	30	20.3%
Sparse	12	15.2%	12	17.4%	24	16.2%
Common	15	19%	6	8.7%	21	14.2%
Varied	0		0		0	
Not applicable	26	32.9%	19	27.5%	45	30.4%
Unknown	12	15.2%	16	23.2%	28	18.9%
<b>Totals</b>	<b>79</b>	<b>100%</b>	<b>69</b>	<b>100%</b>	<b>148</b>	<b>100%</b>

Table 5.52: Inclusion amount compared to clay type geometric objects

Inclusion amount/ Clay type	Black Organic		Lower Alluvial		Marl		Upper alluvial		Undetermined	
Rare	0		11	57.9%	3	18.8%	3	100%	13	12.0%
Sparse	1	50%	4	21.1%	4	25%	0		15	13.9%
Common	0		1	5.3%	4	25.0%	0		16	14.8%
Varied	0		0		0		0		0	
Not applicable	0		0		3	18.8%	0		42	38.9%
Unknown	1	50%	3	15.8%	2	12.5%	0		22	20.4%
<b>Totals</b>	<b>2</b>	<b>100%</b>	<b>19</b>	<b>100%</b>	<b>16</b>	<b>100%</b>	<b>3</b>	<b>100%</b>	<b>108</b>	<b>100%</b>

Table 5.53: Inclusion size compared to geometric objects

Inclusion size/ Geometric	Conical		Cylindrical		Totals	
Small	31	39.2%	27	39.1%	58	39.2%
Small to medium	8	10.1%	7	10.1%	15	10.1%
Medium	0		2	2.9%	2	1.4%
Medium to large	1	1.3%	0		1	0.7%
Large	1	1.3%	0		1	0.7%
Varied	1	1.3%	0		1	0.7%
Not applicable	26	32.9%	19	27.5%	45	30.4%
Unknown	11	13.9%	14	20.3%	25	16.9%
<b>Totals</b>	<b>79</b>	<b>100%</b>	<b>69</b>	<b>100%</b>	<b>148</b>	<b>100%</b>

Table 5.54: Inclusion size compared to clay type geometric objects

Inclusion size/ Clay type	Black Organic		Lower Alluvial		Marl		Upper alluvial		Undetermined	
Small	2	100%	15	78.9%	9	56.3%	2	66.7%	30	27.8%
Small to medium	0		2	10.5%	2	12.5%	1	33.3%	10	9.3%
Medium	0		1	5.3%	0		0		1	0.9%
Medium to large	0		0		0		0		1	0.9%
Large	0		0		1	6.3%	0		0	
Varied	0		0		0		0		1	0.9%
Not applicable	0		0		3	18.8%	0		42	38.9%
Unknown	0		1	5.3%	1	6.3%	0		23	21.3%
<b>Totals</b>	<b>2</b>	<b>100%</b>	<b>19</b>	<b>100%</b>	<b>16</b>	<b>100%</b>	<b>3</b>	<b>100%</b>	<b>108</b>	<b>100%</b>

Table 5.55: Inclusion type compared to geometric objects

Inclusion type/ Geometric	Conical		Cylindrical		Totals	
Marl/plaster	8	10.1%	5	7.2%	13	8.8%
Gypsum	8	10.1%	6	8.7%	14	9.5%
Calcite	7	8.9%	9	13%	16	10.8%
Mica/biotite	27	34.2%	18	26.1%	45	30.4%
Mineral	16	20.3%	15	21.7%	31	20.9%
Grit	1	1.3%	4	5.8%	5	3.4%
Pebble	1	1.3%	0		1	0.7%
Organic/vegetal	7	8.9%	9	13%	16	10.8%
Carbonised organic	1	1.3%	2	2.9%	3	2%
Charcoal	2	2.5%	3	4.3%	5	3.4%
Shell	0		1	1.4%	1	0.7%
Unclear	3	3.8%	1	1.4%	4	2.7%

Table 5.56: Inclusion type compared to clay type geometric objects

Inclusion type/ Clay type	Black Organic		Lower Alluvial		Marl		Upper alluvial		Undetermined	
Marl/plaster	2	100%	4	21.1%	0		0		7	6.5%
Gypsum	2	100%	8	42.1%	3	18.8%	0		1	0.9%
Calcite	0		2	10.5%	3	18.8%	0		11	10.2%
Mica/biotite	1	50%	11	57.9%	6	37.5%	3	100%	24	22.2%
Mineral	2	100%	13	68.4%	5	31.3%	2	66.7%	9	8.3%
Grit	0		1	5.3%	1	6.3%	0		3	2.8%
Pebble	0		0		0		1	33.3%	0	
Organic/vegetal	0		6	31.6%	2	12.5%	1	33.3%	7	6.5%
Carbonised organic	1	50%	1	5.3%	0		0		1	0.9%
Charcoal	2	100%	2	10.5%	0		0		1	0.9%
Shell	1	50%	0		0		0		0	
Unclear	0		0		2	12.5%	0		2	1.9%

Table 5.57: Colours geometric objects

	Conical		Cylindrical		Totals	
Pinkish gray	2	2.5%	0		2	1.4%
Reddish yellow	0		1	1.4%	1	0.7%
<b>Totals</b>	<b>2</b>	<b>2.5%</b>	<b>1</b>	<b>1.4%</b>	<b>3</b>	<b>2.2%</b>
Pale yellow	2	2.5%	0		2	1.4%
Light yellowish brown	1	1.3%	2	2.9%	3	2.2%
Light brown	3	3.8%	2	2.9%	5	3.6%
Very pale brown	2	2.5%	2	2.9%	4	2.9%
Pale brown	2	2.5%	5	7.2%	7	5%
Brown	4	5.1%	2	2.9%	6	4.3%
Dark brown	0		1	1.4%	1	0.7%
<b>Totals</b>	<b>14</b>	<b>17.7%</b>	<b>14</b>	<b>20.3%</b>	<b>28</b>	<b>20.1%</b>
Light gray	2	2.5%	3	4.3%	5	3.6%
Light gray-gray	0		1	1.4%	1	0.7%
Gray	18	22.8%	16	23.2%	34	24.5%
Dark gray	16	20.3%	12	17.4%	28	20.1%
Very dark gray	8	10.1%	5	7.2%	13	9.4%
Black	1	1.3%	0		1	0.7%
<b>Totals</b>	<b>45</b>	<b>57%</b>	<b>37</b>	<b>53.6%</b>	<b>82</b>	<b>59%</b>
Light brownish gray	3	3.8%	9	13%	12	8.6%
Light brownish gray-light gray	1	1.3%	0		1	0.7%
Light brownish gray-gray	1	1.3%	0		1	0.7%
Grayish brown-gray	1	1.3%	0		1	0.7%
Grayish brown	2	2.5%	1	1.4%	3	2.2%
Dark grayish brown	3	3.8%	2	2.9%	5	3.6%
Very dark grayish brown	3	3.8%	0		3	2.2%
<b>Totals</b>	<b>14</b>	<b>16.5%</b>	<b>12</b>	<b>15.3%</b>	<b>26</b>	<b>18.7%</b>

Table 5.58: Indeterminate objects: certain clay type assignments

Clay type/ Indeterminate	Abbreviated		Zoomorphic		Anthropomorphic		Abbreviated, zoomorphic or anthropomorphic		Totals	
Black Organic	0		2	1.5%	0		4	4.3%	6	2.1%
Lower Alluvial	5	13.9%	8	6%	3	15.8%	10	10.6%	26	9.2%
Marl	2	5.6%	14	10.4%	2	10.5%	10	10.6%	28	9.9%
Upper alluvial	0		1	0.7%	1	5.3%	1	1.1%	3	1.1%
Undetermined	29	80.6%	109	81.3%	13	68%	69	73.4%	220	77.7%
<b>Totals</b>	<b>36</b>	<b>100%</b>	<b>134</b>	<b>100%</b>	<b>19</b>	<b>100%</b>	<b>94</b>	<b>100%</b>	<b>283</b>	<b>100%</b>

Table 5.59: Indeterminate objects, certain and possible clay type assignments

Clay type/ Indeterminate	Abbreviated		Zoomorphic		Anthropomorphic		Abbreviated, zoomorphic or anthropomorphic		Totals	
Black Organic	1	2.8%	7	5.2%	0		7	7.4%	15	5.3%
Lower Alluvial	5	13.9%	10	7.5%	3	15.8%	15	16%	33	11.7%
Marl	5	13.9%	18	13.4%	3	15.8%	18	19.1%	44	15.5%
Upper alluvial	0		2	1.5%	1	5.3%	1	1.1%	4	1.4%
Undetermined	25	69.4%	97	72.4%	12	63%	53	56.4%	187	66.1%
<b>Totals</b>	<b>36</b>	<b>100%</b>	<b>134</b>	<b>100%</b>	<b>19</b>	<b>100%</b>	<b>94</b>	<b>100%</b>	<b>283</b>	<b>100%</b>

Table 5.60: Clay fabric compared to possible types within indeterminate objects

Inclusion presence/ Indeterminate	Abbreviated		Zoomorphic		Anthropomorphic		Abbreviated, zoomorphic or anthropomorphic		Totals	
Surface	6	16.7%	25	18.7%	1	5.3%	15	16.0%	47	16.6%
Cross-section	6	16.7%	13	9.7%	4	21.1%	10	11%	33	11.7%
Surface and cross-section	3	8.3%	19	14.2%	4	21.1%	16	17.0%	42	14.8%
Visible	0		0				0	0.0%	0	
Not visible	8	22.2%	35	26.1%	7	36.8%	30	31.9%	80	28.3%
Unknown	13	36.1%	42	31.3%	3	15.8%	23	24.5%	81	28.6%
<b>Totals</b>	<b>36</b>	<b>100%</b>	<b>134</b>	<b>100%</b>	<b>19</b>	<b>100%</b>	<b>94</b>	<b>100%</b>	<b>283</b>	<b>100%</b>

Table 5.61: Clay fabric compared to clay type indeterminate objects

Clay fabric/ Clay types	Black organic		Lower alluvial		Marl		Upper alluvial		Undetermined	
Fine	0		22	84.6%	21	75%	1	33.3%	147	66.8%
Fine to medium	0		1	3.8%	2	7.1%	1	33.3%	36	16.4%
Medium	2	33.3%	2	7.7%	3	10.7%	0		12	5.5%
Medium to coarse	3	50%	1	3.8%	1	3.6%	1	33.3%	4	1.8%
Coarse	1	16.7%	0		0		0		0	
Unknown	0		0		1	3.6%	0		21	9.5%
<b>Totals</b>	<b>6</b>	<b>100%</b>	<b>26</b>	<b>100%</b>	<b>28</b>	<b>100%</b>	<b>3</b>	<b>100%</b>	<b>220</b>	<b>100%</b>

Table 5.62: Presence inclusions compared to possible types within indeterminate objects

Inclusion presence/ Indeterminate	Abbreviated		Zoomorphic		Anthropomorphic		Abbreviated, zoomorphic or anthropomorphic		Totals	
Surface	6	16.7%	25	18.7%	1	5.3%	15	16.0%	47	16.6%
Cross-section	6	16.7%	13	9.7%	4	21.1%	10	11%	33	11.7%
Surface and cross-section	3	8.3%	19	14.2%	4	21.1%	16	17.0%	42	14.8%
Visible	1	2.8%	4	3%	0		1	1.1%	6	2.1%
Not visible	8	22.2%	35	26.1%	7	36.8%	30	31.9%	80	28.3%
Unknown	12	33.3%	38	28.4%	3	15.8%	22	23.4%	75	26.5%
<b>Totals</b>	<b>36</b>	<b>100%</b>	<b>134</b>	<b>100%</b>	<b>19</b>	<b>100%</b>	<b>94</b>	<b>100%</b>	<b>283</b>	<b>100%</b>

Table 5.63: Presence inclusions compared to clay type indeterminate objects

Inclusion presence/ Clay type	Black Organic		Lower Alluvial		Marl		Upper alluvial		Undetermined	
Surface	2	33.3%	8	30.8%	7	25%	1	33.3%	29	13.2%
Cross-section	1	16.7%	0		6	21.4%	2	66.7%	23	10.5%
Surface and cross-section	2	33.3%	6	23.1%	2	7.1%	0		33	15%
Visible	0		0		0		0		6	2.7%
Not visible	1	16.7%	9	34.6%	8	28.6%	0		62	28.2%
Unknown	0		3	11.5%	5	17.9%	0		67	30.5%
<b>Totals</b>	<b>6</b>	<b>100%</b>	<b>26</b>	<b>100%</b>	<b>28</b>	<b>100%</b>	<b>3</b>	<b>100%</b>	<b>220</b>	<b>100%</b>

Table 5.64: Inclusion amount compared to possible types within indeterminate objects

Inclusion amount/ Indeterminate	Abbreviated		Zoomorphic		Anthropomorphic		Abbreviated, zoomorphic or anthropomorphic		Totals	
Rare	4	11.1%	27	20.1%	2	10.5%	15	16%	48	17%
Sparse	6	16.7%	26	19.4%	5	26.3%	15	16%	52	18.4%
Common	6	16.7%	6	4.5%	2	10.5%	11	11.7%	25	8.8%
Varied	0		0		0		0		0	
Not applicable	8	22.2%	35	26.1%	7	36.8%	30	31.9%	80	28.3%
Unknown	12	33.3%	40	29.9%	3	15.8%	23	24.5%	78	27.6%
<b>Totals</b>	<b>36</b>	<b>100%</b>	<b>134</b>	<b>100%</b>	<b>19</b>	<b>100%</b>	<b>94</b>	<b>100%</b>	<b>283</b>	<b>100%</b>

Table 5.65: Inclusion amount compared to clay type indeterminate objects

Inclusion amount/ Clay type	Black Organic		Lower Alluvial		Marl		Upper alluvial		Undetermined	
Rare	1	16.7%	4	15.4%	10	35.7%	2	66.7%	31	14.1%
Sparse	3	50%	5	19.2%	2	7.1%	0		42	19.1%
Common	1	16.7%	5	19.2%	3	10.7%	1	33.3%	15	6.8%
Varied	0		0		0		0		0	
Not applicable	1	16.7%	9	34.6%	8	28.6%	0		62	28.2%
Unknown	0		3	11.5%	5	17.9%	0		70	31.8%
<b>Totals</b>	<b>6</b>	<b>100%</b>	<b>26</b>	<b>100%</b>	<b>28</b>	<b>100%</b>	<b>3</b>	<b>100%</b>	<b>220</b>	<b>100%</b>

Table 5.66: Inclusion size compared to possible types within indeterminate objects

Inclusion size/ Indeterminate	Abbreviated		Zoomorphic		Anthropomorphic		Abbreviated, zoomorphic or anthropomorphic		Totals	
Small	12	33.3%	41	30.6%	6	31.6%	29	30.9%	88	31.1%
Small to medium	2	5.6%	10	7.5%	3	15.8%	7	7.4%	22	7.8%
Medium	0		3	2.2%	0		2	2.1%	5	1.8%
Medium to large	1	2.8%	1	0.7%	0		2	2.1%	4	1.4%
Small and large	0		2	1.5%	0		0		2	0.7%
Large	1	2.8%	3	2.2%	0		1	1.1%	5	1.8%
Varied	0		1	0.7%	0		1	1.1%	2	0.7%
Not applicable	8	22.2%	35	26.1%	7	36.8%	30	31.9%	80	28.3%
Unknown	12	33.3%	38	28.4%	3	15.8%	22	23.4%	75	26.5%
<b>Totals</b>	<b>36</b>	<b>100%</b>	<b>134</b>	<b>100%</b>	<b>19</b>	<b>100%</b>	<b>94</b>	<b>100%</b>	<b>283</b>	<b>100%</b>

Table 5.67: Inclusion size compared to clay type indeterminate objects

Inclusion size/ Clay type	Black Organic		Lower Alluvial		Marl		Upper Alluvial		Undetermined	
Small	2	33.3%	11	42.3%	10	35.7%	2	66.7%	63	28.6%
Small to medium	2	33.3%	2	7.7%	0		1	33.3%	17	7.7%
Medium	0		0		2	7.1%	0		3	1.4%
Medium to large	0		0		0		0		4	1.8%
Small and large	0		0		1	3.6%	0		1	0.5%
Large	1	16.7%	0		2	7.1%	0		2	0.9%
Varied	0		1	3.8%	0		0		1	0.5%
Not applicable	1	16.7%	9	34.6%	8	28.6%	0		62	28.2%
Unknown	0		3	11.5%	5	17.9%	0		67	30.5%
<b>Totals</b>	<b>6</b>	<b>100%</b>	<b>26</b>	<b>100%</b>	<b>28</b>	<b>100%</b>	<b>3</b>	<b>100%</b>	<b>220</b>	<b>100%</b>

Table 5.68: Inclusion type compared to possible types within indeterminate objects

Inclusion type/ Indeterminate	Abbreviated		Zoomorphic		Anthropomorphic		Abbreviated, zoomorphic or anthropomorphic		Totals	
Marl/plaster	1	2.8%	6	4.5%	0		2	2.1%	9	3.2%
Gypsum	1	2.8%	2	1.5%	2	10.5%	2	2.1%	7	2.5%
Calcite	5	13.9%	19	14.3%	3	15.8%	10	10.6%	37	13%
Mica/biotite	8	22.2%	22	16.5%	7	36.8%	20	21.3%	57	20.2%
Mineral	4	11.1%	13	9.8%	4	21.1%	14	14.9%	35	12.4%
Grit	4	11.1%	0		1	5.3%	3	3.2%	8	2.8%
Pebble	1	2.8%	1	0.8%	0		1	1.1%	3	1.1%
Organic/vegetal	2	5.6%	9	6.8%	3	15.8%	6	6.4%	20	7.1%
Carbonised organic	0		3	2.3%	0		2	2.1%	5	1.8%
Phytoliths	1	2.8%	1	0.8%	1	5.3%	1	1.1%	4	1.4%
Charcoal	0		2	1.5%	0		1	1.1%	3	1.1%
Shell	1	2.8%	2	1.5%	0		3	3.2%	6	2.1%
Grog	0		0		0		1	1.1%	1	0.4%
Unclear	0		0		0		2	2.1%	2	0.7%

Table 5.69: Inclusion type compared to clay type indeterminate objects

Inclusion type/ Clay type	Black Organic		Lower Alluvial		Marl		Upper alluvial		Undetermined	
Marl/plaster	1	16.7%	5	19%	1	3.6%	0		2	0.9%
Gypsum	1	16.7%	1	3.8%	2	7.1%	2	66.7%	1	0.5%
Calcite	2	33.3%	3	11.5%	1	3.6%	1	33.3%	30	13.7%
Mica/biotite	4	66.7%	9	34.6%	7	25.0%	1	33.3%	36	16.4%
Mineral	1	16.7%	5	19.2%	9	32.1%	1	33.3%	19	8.7%
Grit	0		0		0		0		8	3.7%
Pebble	0		0		2	7.1%	0		1	0.5%
Organic/vegetal	1	16.7%	1	3.8%	1	3.6%	1	33.3%	16	7.3%
Carbonised organic	0		3	11.5%	1	3.6%	1	33.3%	0	
Phytoliths	1	16.7%	1	3.8%	1	3.6%	1	33.3%	0	
Charcoal	0		1	3.8%	1	3.6%	1	33.3%	0	
Shell	1	16.7%	4	15.4%	0		1	33.3%	0	
Grog	0		0		0		0		1	0.5%
Unclear	0		0		0		0		2	0.9%

Table 5.70: Colours indeterminate objects

	Abbreviated		Zoomorphic		Anthropomorphic		Abbreviated, zoomorphic or anthropomorphic		Totals	
White	0		0		0		1	1.1%	1	0.4%
Pinkish grey	0		3	2.3%	0		3	3.2%	6	2.1%
Pinkish grey-pink	0		0		0		1	1.1%	1	0.4%
Light reddish brown	0		0		0		2	2.1%	2	0.7%
Reddish brown	0		0		0		1	1.1%	1	0.4%
<b>Totals</b>	<b>0</b>		<b>3</b>	<b>2.3%</b>	<b>0</b>		<b>8</b>	<b>8.5%</b>	<b>11</b>	<b>3.9%</b>
Pale yellow	1	2.8%	0		0		1	1.1%	2	0.7%
Light yellowish brown	0		1	0.8%	0		3	3.2%	4	1.4%
Light brown	0		9	6.8%	0		1	1.1%	10	3.5%
Very pale brown	1	2.8%	4	3%	2	10.5%	3	3.2%	10	3.5%
Pale brown	3	8.3%	7	5.3%	0		0		10	3.5%
Brown	0		5	3.8%	0		2	2.1%	7	2.5%
Dark brown	1	2.8%	0		0		0		1	0.4%
Strong brown	0		0		0		1	1.1%	1	0.4%
<b>Totals</b>	<b>6</b>	<b>16.7%</b>	<b>26</b>	<b>19.5%</b>	<b>2</b>	<b>10.5%</b>	<b>11</b>	<b>11.7%</b>	<b>45</b>	<b>15.9%</b>
Light grey	3	8.3%	7	5.2%	1	5.3%	8	8.5%	19	6.7%
Grey	5	13.9%	24	18%	3	15.8%	19	20.2%	51	18.0%
Grey-dark grey	0		2	1.5%	0		4	4.3%	6	2.1%
Dark grey	6	16.7%	19	14.2%	3	15.8%	11	11.7%	39	13.4%
Dark grey-very dark grey	1	2.8%	0		1	5.3%	1	1.1%	3	1.1%
Very dark grey	0		13	9.7%	0		5	5.3%	18	6.4%
Black	1	2.8%	0		0		2	2.1%	3	1.1%
<b>Totals</b>	<b>16</b>	<b>44.4%</b>	<b>65</b>	<b>48.1%</b>	<b>8</b>	<b>42.1%</b>	<b>50</b>	<b>53.2%</b>	<b>139</b>	<b>49.1%</b>
Light brownish grey	2	5.6%	6	4.5%	2	10.5%	4	4.3%	14	4.9%
Light brownish grey-grey	0		1	0.8%	1	5.3%	0		2	0.7%
Greyish brown-grey	0		1	0.8%	0		1	1.1%	2	0.7%
Greyish brown	3	8.3%	5	3.8%	1	5.3%	5	5.3%	14	4.9%
Dark greyish brown	2	5.6%	1	0.8%	0		3	3.2%	6	2.1%
<b>Totals</b>	<b>7</b>	<b>19.4%</b>	<b>14</b>	<b>10.5%</b>	<b>4</b>	<b>21.1%</b>	<b>13</b>	<b>13.8%</b>	<b>38</b>	<b>13.4%</b>

Table 5.71: Unclear objects: certain (left) and certain and possible (right) clay type assignments

Clay type/ Unclear			Clay type/ Unclear		
<b>Black Organic</b>	4	4.0%	<b>Black Organic</b>	7	6.9%
<b>Lower alluvial</b>	7	6.9%	<b>Lower alluvial</b>	9	8.9%
<b>Marl</b>	12	11.9%	<b>Marl</b>	19	18.8%
<b>Midden clay</b>	1	1%	<b>Midden clay</b>	1	1%
<b>Undetermined</b>	77	76.2%	<b>Undetermined</b>	65	64.4%
<b>Totals</b>	<b>101</b>	<b>100%</b>	<b>Totals</b>	<b>101</b>	<b>100%</b>

Table 5.72: Clay fabrics compared to clay types unclear objects

Clay fabric/ Clay types	Black organic		Lower alluvial		Marl		Midden clay		Undetermined		Totals	
	Fine	0		1	14.3%	9	75%	1	100%	52	67.5%	63
Fine to medium	0		0		0		0		11	14.3%	11	10.9%
Medium	2	50%	2	28.6%	1	8.3%	0		2	2.6%	7	6.9%
Medium to coarse	2	50%	4	57.1%	1	8.3%	0		1	1.3%	8	7.9%
Coarse	0		0		0		0		0		0	0.0%
Unknown	0		0		1	8.3%	0		11	14.3%	12	11.9%
<b>Totals</b>	<b>4</b>	<b>100%</b>	<b>7</b>	<b>100%</b>	<b>12</b>	<b>100%</b>	<b>1</b>	<b>100%</b>	<b>77</b>	<b>100%</b>	<b>101</b>	<b>100%</b>

Table 5.73: Presence inclusions unclear objects

Inclusion presence/ Clay type	Black Organic		Lower alluvial		Marl		Midden clay		Undetermined		Totals	
	Surface	0		1	14.3%	1	8.3%	1	100%	9	11.7%	12
Cross-section	1	25%	0		2	16.7%	0		8	10.4%	11	10.9%
Surface and cross-section	2	50%	5	71.4%	2	16.7%	0		5	6.5%	14	13.9%
Visible	0		0		1	8.3%	0		2	2.6%	3	3%
Not visible	0		1	14.3%	3	25%	0		19	24.7%	23	22.8%
Unknown	1	25%	0		3	25%	0		34	44.2%	38	37.6%
<b>Totals</b>	<b>4</b>	<b>100%</b>	<b>7</b>	<b>100%</b>	<b>12</b>	<b>100%</b>	<b>1</b>	<b>100%</b>	<b>77</b>	<b>100%</b>	<b>101</b>	<b>100%</b>

Table 5.74: Amount inclusions unclear objects

Inclusion amount/ Clay type	Black Organic		Lower alluvial		Marl		Midden clay		Undetermined		Totals	
	Rare	1	25%	3	42.9%	3	25.0%	0		11	14.3%	18
Sparse	1	25%	2	28.6%	2	16.7%	0		8	10.4%	13	12.9%
Common	1	25%	1	14.3%	1	8.3%	1	100%	4	5.2%	8	8%
Varied	0		0		0		0		0		0	
Not applicable	0		1	14.3%	3	25%	0		19	24.7%	23	22.8%
Unknown	1	25%	0		3	25%	0		35	45.5%	39	38.6%
<b>Totals</b>	<b>4</b>	<b>100%</b>	<b>7</b>	<b>100%</b>	<b>12</b>	<b>100%</b>	<b>1</b>	<b>100%</b>	<b>77</b>	<b>100%</b>	<b>101</b>	<b>100%</b>

Table 5.75: Size inclusions unclear objects

Inclusion size/ Clay type	Black Organic		Lower alluvial		Marl		Midden clay		Undetermined		Totals	
	Small	2	50%	2	28.6%	3	25%	0		13	16.9%	20
Small to medium	1	25%	4	57.1%	2	16.7%	0		6	7.8%	13	12.9%
Medium	0		0		1	8.3%	0		3	3.9%	4	4%
Medium to large	0		0		0		1	100%	0		1	1%
Large	0		0		0		0		1	1.3%	1	1%
Varied	0		0		0		0		0		0	
Not applicable	0		1	14%	3	25%	0		19	24.7%	23	22.8%
Unknown	1	25%	0		3	25%	0		35	45.5%	39	38.6%
<b>Totals</b>	<b>4</b>	<b>100%</b>	<b>7</b>	<b>100%</b>	<b>12</b>	<b>100%</b>	<b>1</b>	<b>100%</b>	<b>77</b>	<b>100%</b>	<b>101</b>	<b>100%</b>

Table 5.76: Inclusion types unclear objects

Inclusion type/ Clay type	Black Organic		Lower alluvial		Marl		Midden clay		Undetermined		Totals	
Marl/plaster	1	25%	4	57.1%	0		0		1	1.3%	6	5.9%
Gypsum	1	25%	4	57.1%	0		0		0		5	5%
Calcite	1	25%	0		2	16.7%	0		8	10.4%	11	10.9%
Mica/biotite	2	50%	5	71.4%	2	16.7%	1	100%	6	7.8%	16	15.8%
Mineral	2	50%	5	71.4%	2	16.7%	1	100%	6	7.8%	16	15.8%
Grit	0		0		0		0		1	1.3%	1	1%
Pebble	0		2	28.6%	0		0		0		2	2%
Organic/vegetal	0		1	14.3%	2	16.7%	0		3	3.9%	6	5.9%
Carbonised organic	1	25%	0		0		0		0		1	1%
Charcoal	1	25%	1	14.3%	0		0		0		2	2%
Phytoliths	1	25%	0		0		0		0		1	1%
Unclear	1	25%	0		0		0		1	1.3%	2	2%

Table 5.77: Colours unclear objects

	Unclear	
Pinkish grey	1	1%
Reddish brown	1	1%
<b>Totals</b>	<b>2</b>	<b>2%</b>
Pale yellow	1	1%
Light brown	2	2%
Very pale brown	6	5.9%
Pale brown	3	3%
Brown	2	2%
Dark brown	1	1%
<b>Totals</b>	<b>15</b>	<b>13.9%</b>
Light grey	11	10.9%
Grey	23	22.8%
Dark grey	13	12.9%
Very dark grey	9	8.9%
Black	1	1%
<b>Totals</b>	<b>57</b>	<b>56.4%</b>
Light brownish grey	3	3.0%
Light brownish grey-greyish brown	1	1%
Greyish brown-grey	1	1%
Greyish brown	6	5.9%
Dark greyish brown	1	1%
<b>Totals</b>	<b>12</b>	<b>17.2%</b>

## Tables Çatalhöyük Production

Table 5.78: Presence of elements quadruped figurines. Percentages calculated from numbers of objects for which the presence/absence of elements could be established

Elements represented/ Quadruped	Black organic		Lower alluvial		Marl		Upper alluvial		Undetermined		Totals	
Horns	8	57.1%	46	73%	24	68.6%	1	100%	63	70%	142	70%
Ears	8	53.3%	46	74.2%	16	55.2%	2	100%	54	71.1%	126	68.5%
Legs	19	95%	117	99.2%	38	100%	5	100%	138	97.9%	317	98.4%
Tail	11	68.8%	71	82.6%	25	92.6%	2	50%	76	82.6%	185	82.2%

Table 5.79: Absence of elements quadruped figurines. Percentages calculated from numbers of objects for which the presence/absence of elements could be established

Elements not represented/ Quadruped	Black organic		Lower alluvial		Marl		Upper alluvial		Undetermined		Totals	
Horns	6	42.9%	17	27%	11	31.4%	0		27	30%	61	30%
Ears	7	46.7%	16	25.8%	13	44.8%	0		22	28.9%	58	31.5%
Legs	1	5%	1	0.8%	0		0		3	2.1%	5	1.6%
Tail	5	31.3%	15	17.4%	2	7.4%	2	50%	16	17.4%	40	17.8%

Table 5.80: Quadrupeds that have been identified as composite pieces. Percentages calculated from the objects (per clay type) where these elements were clearly present

Composite/ Quadruped clay types	Black organic		Lower alluvial		Marl		Upper alluvial		Undetermined		Totals	
Horn	0		0		1	4.2%	0		2	3.2%	3	2.1%
Ear	0		13	28.3%	0		0		12	22.2%	25	19.8%
Legs	2	10.5%	3	2.6%	0		0		1	0.7%	6	1.9%
Tail	1	9.1%	2	2.8%	1	4%	0		6	8%	10	5.4%

Table 5.81: Quadrupeds that have been identified as composite and possible composite pieces. Percentages calculated from the objects (per clay type) where these elements were clearly present

Possibly composite/ Quadruped clay types	Black organic		Lower alluvial		Marl		Upper alluvial		Undetermined		Totals	
Horn	1	12.5%	4	8.7%	2	8.3%	0		5	7.9%	12	8.5%
Ear	1	12.5%	16	34.8%	1	6.3%	0		16	29.6%	34	27%
Legs	4	21.1%	14	12%	7	18.4%	0		7	5.1%	32	10.1%
Tail	1	9.1%	10	14.1%	1	4%	1	50%	9	12%	22	11.8%

Table 5.82: Horn shapes across quadruped clay types

Horn shape/ quadruped	Black organic		Lower alluvial		Marl		Upper alluvial		Undetermined		Totals	
Straight conical	1	5.9%	2	2.4%	1	2.4%	0		7	5.6%	11	4.1%
Curved conical	1	5.9%	7	8.2%	2	4.9%	0		12	9.7%	22	8.2%
Flat conical	0		1	1.2%	1	2.4%	0		0		2	0.7%
Stubs	0		1	1.2%	3	7.3%	0		0		4	1.5%
(Flat) triangular	0		1	1.2%	3	7.3%	0		5	4.0%	9	3.3%
Fractured; round sections	1	5.9%	15	17.6%	6	14.6%	0		15	12.1%	37	13.8%
Fractured; oval sections	0		3	3.5%	0		0		5	4.0%	8	3.0%
Fractured; flat sections	0		1	1.2%	1	2.4%	0		2	1.6%	4	1.5%
Fractured; irregular sections	2	11.8%	11	12.9%	2	4.9%	0		3	2.4%	18	6.7%
Shape unknown	3	17.6%	4	4.7%	5	12.2%	1	50%	14	11.3%	27	10.0%
No horns indicated	6	35.3%	17	20%	11	26.8%	0		27	21.8%	61	22.7%
Unclear if present	3	17.6%	22	25.9%	6	14.6%	1	50%	34	27.4%	66	24.5%

Table 5.83: Ear shapes across quadruped clay types

Ear shape/ quadruped	Black organic		Lower alluvial		Marl		Upper alluvial		Undetermined		Totals	
Flat oval	0		6	7.1%	4	9.8%	0		4	3.2%	14	5.2%
(Flat) triangular	1	5.9%	5	5.9%	4	9.8%	0		10	8.1%	20	7.4%
Ridge	0		5	5.9%	1	2.4%	0		4	3.2%	10	3.7%
Rounded	1	5.9%	7	8.2%	4	9.8%	0		10	8.1%	22	8.2%
Stubs	1	5.9%	4	4.7%	2	4.9%	0		5	4.0%	12	4.5%
Irregular	0		1	1.2%	0		1	50%	0		2	0.7%
Fractured; flat section	1	5.9%	12	14.1%	0		1	50%	14	11.3%	28	10.4%
Fractured; oval section	0		2	2.4%	0		0		0		2	0.7%
Fractured; round section	0		1	1.2%	0		0		0		1	0.4%
Fractured; crescent-shaped section	0		0		0		0		2	1.6%	2	0.7%
Fractured; irregular section	0		0		0		0		1	0.8%	1	0.4%
Shape unknown	4	23.5%	3	3.5%	1	2.4%	0		5	4.0%	13	4.8%
No ears represented	7	41.2%	16	18.8%	13	31.7%	0		22	17.7%	58	21.6%
Unclear if present	2	11.8%	23	27.1%	12	29.3%	0		47	37.9%	84	31.2%

Table 5.84: Leg shapes across quadruped clay types

Leg shape/ quadruped	Black organic		Lower alluvial		Marl		Upper alluvial		Undetermined		Totals	
Conical	6	30%	40	33.9%	12	31.6%	1	20%	32	22.7%	91	28.3%
Cylindrical	1	5%	2	1.7%	1	2.6%	0		6	4.3%	10	3.1%
(Flat) triangular	1	5%	24	20.3%	9	23.7%	2	40%	36	25.5%	72	22.4%
Flat, straight	1	5%	2	1.7%	0		0		6	4.3%	9	2.8%
Front legs triangular, back legs conical	0		1	0.8%	0		0		5	3.5%	6	1.9%
Both cylindrical and conical	0		1	0.8%	0		0		2	1.4%	3	0.9%
Back legs made as one, front legs conical	0		1	0.8%	0		0		1	0.7%	2	0.6%
Back and front legs made as one	0		1	0.8%	2	5.3%	0		1	0.7%	4	1.2%
Short stubs	2	10%	6	5.1%	3	7.9%	0		4	2.8%	15	4.7%
Irregular	6	30%	9	7.6%	2	5.3%	1	20%	6	4.3%	24	7.5%
No legs indicated	1	5%	1	0.8%	0		0		3	2.1%	5	1.6%
Unclear	2	10%	30	25.4%	9	23.7%	1	20%	39	25.5%	81	25.2%

Table 5.85: Tail shapes across quadruped clay types

Tail shape/ quadruped	Black organic		Lower alluvial		Marl		Upper alluvial		Undetermined		Totals	
Conical	3	15%	23	19.5%	6	15.8%	0		22	15.6%	54	16.8%
(Flat) triangular	1	5%	6	5.1%	1	2.6%	0		9	6.4%	17	5.3%
Flap	0		13	11%	7	18.4%	1	20%	6	4.3%	27	8.4%
Ridge tail	0		0		0		0		5	3.5%	5	1.6%
Stub tail	3	15%	11	9.3%	9	23.7%	1	20%	11	7.8%	35	10.9%
Long conical/cylindrical	1	5%	2	1.7%	1	2.6%	0		3	2.1%	7	2.2%
Irregular	0		2	1.7%	0		0		2	1.4%	4	1.2%
Pebble inserted as tail	0		1	0.8%	0		0		0		1	0.3%
Fractured; round section	0		2		1	2.6%	0		4	2.8%	7	2.2%
Shape unknown	3	15%	13	11.0%	1	2.6%	1		15	10.6%	33	10.2%
No tail indicated	5	25%	15	12.7%	2	5.3%	2	40%	16	11.3%	40	12.4%
Unclear if present	4	20%	30	37.3%	10	26.3%	0		48	34.0%	92	29%

Table 5.86: Tool use compared to zoomorphic figurines

Tool use/ Zoomorphic	Quadruped		Bucrania		Horn		Totals	
Scraping/ shaping	15	3.1%	0		1	0.1%	16	1%
Scraping/ smoothing	16	3.3%	1	4.2%	3	0.3%	20	1.3%
Burnish	2	0.4%	0		1	0.1%	3	0.2%
Creating (facial) features	8	1.6%	1	4.2%	0		9	0.6%
Scoop/removing clay	3	0.6%	0		0		3	0.2%
(Dowel) hole/perforation	9	1.8%	1	4.2%	0		10	0.7%

Table 5.87: Tool use compared to clay types zoomorphic figurines

Tool use/ Clay type	Black organic		Lower alluvial		Marl		Undetermined	
Scraping/ shaping	0		8	4.8%	2	3.2%	6	2.7%
Scraping/smoothing	2	6.7%	10	6%	4	6.5%	4	1.8%
Burnish	0		1	0.6%	0		2	0.9%
Creating (facial) features	0		4	2.4%	1	1.6%	4	1.8%
Scoop/removing clay	0		0	0.0%	0		3	1.3%
(Dowel) hole/perforation	1	3.3%	6	4%	0		3	1.3%

Table 5.88: Level of smoothing compared to zoomorphic figurines

Level of smoothing/ Zoomorphic	Quadruped		Bucrania		Horns		Ears		Indeterminate		Totals	
Rough	41	8.4%	1	4.2%	35	3.8%	0		3	4.5%	80	5.3%
Roughly smoothed	118	24.2%	8	33.3%	127	13.9%	1	12.5%	10	15.2%	264	17.6%
Smoothed	161	33%	8	33.3%	344	37.6%	6	75%	28	42.4%	547	36.5%
Well smoothed	130	26.6%	6	25.0%	351	38%	1	12.5%	22	33.3%	510	34%
Burnish	2	0.4%	0		1	0.1%	0		0		3	0.2%
No information	36	7.4%	1	4.2%	56	6.1%	0		3	4.5%	96	6.4%
<b>Totals</b>	<b>488</b>	<b>100%</b>	<b>24</b>	<b>100%</b>	<b>914</b>	<b>100%</b>	<b>8</b>	<b>100%</b>	<b>66</b>	<b>100%</b>	<b>1500</b>	<b>100%</b>

Table 5.89: Level of smoothing compared to clay types zoomorphic figurines

Level of smoothing/ Clay type	Black organic		Lower alluvial		Marl		Upper Alluvial		Midden clay		Undetermined	
Rough	13	31.7%	12	3.8%	5	2.7%	0		0		50	4.8%
Roughly smoothed	13	31.7%	70	22.4%	26	14.1%	0		1	100%	154	14.5%
Smoothed	10	24.4%	103	33%	67	36.2%	6	100%	0		360	34.2%
Well smoothed	5	12.2%	108	34.6%	85	45.9%	0		0		312	39.1%
Burnished	0		1	0.3%	0		0		0		2	0.2%
No information	0		18	6.1%	2	1.1%	0		0		77	7.2%
<b>Totals</b>	<b>41</b>	<b>100%</b>	<b>312</b>	<b>100%</b>	<b>185</b>	<b>100%</b>	<b>6</b>	<b>100%</b>	<b>1</b>	<b>100%</b>	<b>955</b>	<b>100%</b>

Table 5.90: Fingernail markings and fingerprints compared to zoomorphic figurines

Impressions/ Quadruped	Quadruped		Bucrania		Horn		Ear		Indeterminate		Totals	
Fingernail	31	6.4%	0		35	3.8%	0		0		66	4.4%
Fingerprint	118	7%	5	8.3%	142	3.9%	4	50%	12	18.2%	281	18.7%

Table 5.91: Fingernail markings and fingerprints compared to clay types zoomorphic figurines

Impressions/ Clay type	Black organic		Lower alluvial		Marl		Upper alluvial		Undetermined	
Fingernail	3	7.3%	19	6.1%	9	4.9%	2	40%	33	14.7%
Fingerprint	12	29.3%	80	25.6%	50	27%	0		139	61.8%

Table 5.92: Fingernail markings and fingerprints compared to smoothing levels zoomorphic figurines

Impressions/ Smoothing levels	Rough		Roughly smoothed		Smoothed		Well smoothed		Unknown	
Fingernail	4	5%	12	4.5%	25	4.6%	23	4.5%	2	2.1%
Fingerprint	11	11.3%	50	11.7%	108	10.6%	110	9.4%	2	2.1%

Table 5.93: Fingernail markings and fingerprints compared to heat exposure zoomorphic figurines

Impressions/ Heat exposure	Unbaked		Baked		Burnt		Indeterminate		Unknown	
	<b>Fingernail</b>	1	2.1%	26	4.8%	2	1.4%	33	4.8%	2
<b>Fingerprint</b>	14	29.2%	127	23.3%	24	16.2%	114	9.3%	2	2.9%

Table 5.94: Heat exposure compared to zoomorphic figurines

Heat exposure/ Zoomorphic	Quadruped		Bucrania		Horns		Ears		Indeterminate		Totals	
Unbaked	14	2.9%	0		10	1.1%	0		1	1.5%	25	0.1%
<i>Sundried</i>	11	2.3%	0		9	1%	0		0		20	1.3%
<i>Sundried to lightly baked</i>	2	0.4%	0		1	0.1%	0		0		3	0.2%
<b>Totals unbaked</b>	<b>27</b>	<b>5.5%</b>	<b>0</b>		<b>20</b>	<b>2.2%</b>	<b>0</b>		<b>1</b>	<b>1.5%</b>	<b>48</b>	<b>3.2%</b>
Baked	152	31.1%	9	38%	241	26.4%	3	37.5%	24	36.4%	429	28.6%
<i>Lightly</i>	20	4.1%	1	4%	47	5.1%	0		4	6.1%	72	4.8%
<i>Medium</i>	14	2.9%	2	8%	6	0.7%	0		1	1.5%	23	1.5%
<i>Well</i>	8	1.6%	0		3	0.3%	0		1	1.5%	12	0.8%
<i>Well to burnt</i>	6	1.2%	0		3	0.3%	0		0		9	0.6%
<b>Totals baked</b>	<b>200</b>	<b>41%</b>	<b>12</b>	<b>50%</b>	<b>300</b>	<b>32.8%</b>	<b>3</b>	<b>37.5%</b>	<b>30</b>	<b>45.5%</b>	<b>545</b>	<b>36.3%</b>
Burnt	45	9.2%	4	16.7%	90	9.8%	0		5	7.6%	144	9.6%
<i>Completely burnt</i>	2	0.4%	0		2	0.2%	0		0		4	0.3%
<b>Totals burnt</b>	<b>47</b>	<b>9.6%</b>	<b>4</b>	<b>17%</b>	<b>92</b>	<b>10.1%</b>	<b>0</b>		<b>5</b>	<b>7.6%</b>	<b>148</b>	<b>9.9%</b>
Indeterminate	178	36.5%	8	33.3%	471	51.5%	5	62.5%	29	43.9%	691	46.1%
Unknown	36	7.4%	0		31	3.4%	0		1	1.5%	68	4.5%
<b>Grand total</b>	<b>488</b>	<b>100%</b>	<b>24</b>	<b>100%</b>	<b>914</b>	<b>100%</b>	<b>8</b>	<b>100%</b>	<b>66</b>	<b>100%</b>	<b>1500</b>	<b>100%</b>

Table 5.95: Heat exposure compared to clay types zoomorphic figurines

Heat exposure/ Clay type	Black organic		Lower alluvial		Marl		Upper alluvial		Midden clay		Undetermined	
Unbaked	2	4.9%	9	2.9%	6	3.2%	0		0		8	0.8%
<i>Sundried</i>	0		12	3.8%	2	1.1%	0		0		6	0.6%
<i>Sundried to lightly baked</i>	0		2	0.6%	0		0		0		1	0.1%
<b>Totals unbaked</b>	<b>2</b>	<b>4.9%</b>	<b>23</b>	<b>7.4%</b>	<b>8</b>	<b>4.3%</b>	<b>0</b>		<b>0</b>		<b>15</b>	<b>1.6%</b>
Baked	12	29.3%	107	34.3%	90	48.6%	3	50%	1	100%	217	22.7%
<i>Lightly</i>	2	4.9%	15	4.8%	10	5.4%	0		0		45	4.7%
<i>Medium</i>	3	7.3%	8	2.6%	3	1.6%	0		0		9	0.9%
<i>Well</i>	0		3	1%	1	0.5%	0		0		8	0.8%
<i>Well to burnt</i>	1	2.4%	4	1.3%	0		0		0		3	0.3%
<b>Totals baked</b>	<b>18</b>	<b>43.9%</b>	<b>137</b>	<b>43.9%</b>	<b>104</b>	<b>56.2%</b>	<b>3</b>	<b>50%</b>	<b>1</b>	<b>100%</b>	<b>282</b>	<b>29.5%</b>
Burnt	5	12.2%	30	9.6%	4	2.2%	0		0		105	11%
<i>Completely burnt</i>	0		0		0		0		0		4	0.4%
<b>Totals burnt</b>	<b>5</b>	<b>12.2%</b>	<b>30</b>	<b>9.6%</b>	<b>4</b>	<b>2.2%</b>	<b>0</b>		<b>0</b>		<b>109</b>	<b>11.4%</b>
Indeterminate	15	36.6%	121	38.8%	67	36.2%	3	50%	0		485	50.8%
Unknown	1	2.4%	1	0.6%	2	1.1%	0		0		64	6.7%
<b>Grand total</b>	<b>41</b>	<b>100%</b>	<b>312</b>	<b>100%</b>	<b>185</b>	<b>100%</b>	<b>6</b>	<b>100%</b>	<b>1</b>	<b>100%</b>	<b>955</b>	<b>100%</b>

Table 5.96: Leg shapes compared to clay types divided base figurines

Shape legs/ Clay types	Black organic		Lower alluvial		Marl		Upper alluvial		Brown silt		Mixture		Undetermined		Totals	
Conical	1	50%	27	45.8%	16	35.6%	1	50%	0		1	100%	71	28.5%	117	32.6%
(Flat) triangular	1	50%	19	32.2%	15	33.3%	0		1	100%	0		79	31.7%	115	32%
(Flat) rounded	0		0		1	2.2%	0		0		0		8	3.2%	9	2.5%
Divided base	0		1	1.7%	2	4.4%	0		0		0		5	2%	8	2.2%
Irregular	0		1	1.7%	1	2.2%	0		0		0		1	0.4%	3	0.8%
Unclear	0		11	18.6%	10	22.2%	1	50%	0		0		85	34.1%	107	29.8%
<b>Totals</b>	<b>2</b>	<b>100%</b>	<b>59</b>	<b>100%</b>	<b>45</b>	<b>100%</b>	<b>2</b>	<b>100%</b>	<b>1</b>	<b>100%</b>	<b>1</b>	<b>100%</b>	<b>249</b>	<b>100%</b>	<b>359</b>	<b>100%</b>

Table 5.97: Presence and absence of head element and nose compared to figurine types. Percentages are calculated based on examples where presence or absence could be ascertained

Presence or absence elements/ Abbreviated types	Head on base		Head on divided base		Indeterminate		Totals	
Head element represented	25	27.8%	66	41.5%	42	57.5%	133	41.4%
Nose represented	76	87.4%	155	94.5%	64	95.5%	295	92.8%
Head element not represented	65	72.2%	93	58.5%	30	41.1%	188	58.6%
Nose not represented	11	12.6%	9	5.5%	3	4.5%	23	7.2%

Table 5.98: Presence and absence of head element and nose compared to clay types abbreviated figurines. Percentages are calculated based on examples where presence or absence could be ascertained

Presence or absence elements/ Clay types	Black organic		Lower alluvial		Marl		Upper alluvial		Undetermined	
Head element represented	0		24	43.6%	15	29.4%	1	50%	93	44.3%
Nose represented	1	100%	57	100%	43	84.3%	3	100%	191	92.7%
Head element not represented	3	100%	31	56.4%	36	70.6%	1	50%	117	55.7%
Nose not represented	0		0		8	15.7%	0		15	7.3%

Table 5.99: Tool use compared to abbreviated figurines

Tool use/ Abbreviated	Head on base		Head on divided base		Indeterminate		Totals	
Shaping	2	1.2%	6	1.7%	1	1.2%	9	1.5%
Smoothing	4	2.4%	2	0.6%	0		6	1%
Burnish	1	0.6%	2	0.6%	1	1.2%	4	0.7%
Creating (facial) features	9	5.5%	7	1.9%	6	7.0%	22	3.6%
Incision/groove on base/legs	7	4.3%	12	3.3%	0		19	3.1%
Groove and incision/decoration?	1	0.6%	0		3	3.5%	4	0.7%
Scoop/removing clay	0		1	0.3%	0		1	0.2%
(Dowel) hole/perforation	0		3	0.8%	4	4.7%	7	1.1%

Table 5.100: Tool use compared to clay types abbreviated figurines

Tool use/ Clay type	Black organic		Lower alluvial		Marl		Undetermined	
Shaping	0		3	3.4%	1	1.1%	5	1.2%
Smoothing	0		1	1.1%	1	1.1%	4	0.9%
Burnish	0		0		2	2.3%	2	0.5%
Creating (facial) features	0		1	1.1%	5	5.7%	16	3.8%
Incision/groove on base/legs	0		2	2.3%	4	4.6%	13	3.1%
Grooves and incision/decoration?	0		0		0		3	0.7%
Scoop/removing clay	0		0		0		1	0.2%
(Dowel) hole/perforation	1	20%	1	1.1%	1	1.1%	5	1.2%

Table 5.101: Smoothing levels compared to abbreviated figurines

Level of smoothing/ Abbreviated	Head on base		Head on divided base		Indeterminate		Totals	
<b>Rough</b>	16	9.8%	22	6.1%	2	2.3%	40	6.6%
<b>Roughly smoothed</b>	29	17.7%	82	22.8%	9	10.5%	120	19.7%
<b>Smoothed</b>	60	36.6%	134	37.3%	34	39.5%	228	37.4%
<b>Well smoothed</b>	52	31.7%	106	29.5%	33	38.4%	191	31.4%
<b>Burnished</b>	1	0.6%	2	0.6%	1	1.2%	4	0.7%
<b>No information</b>	6	3.7%	13	3.6%	7	8.1%	26	4.3%
<b>Totals</b>	<b>164</b>	<b>100%</b>	<b>359</b>	<b>100%</b>	<b>86</b>	<b>100%</b>	<b>609</b>	<b>100%</b>

Table 5.102: Smoothing levels compared to clay types abbreviated figurines

Level of smoothing/ Clay types	Black organic		Lower alluvial		Marl		Upper alluvial		Brown silt		Mixture		Undetermined	
<b>Rough</b>	2	40%	4	4.5%	1	1.1%	0		0		0		33	7.8%
<b>Roughly smoothed</b>	1	20%	19	21.6%	11	12.6%	1	33.3%	0		1	100%	87	20.5%
<b>Smoothed</b>	2	40%	27	30.7%	28	32.2%	0		1	100%	0		170	40.1%
<b>Well smoothed</b>	0		38	43%	44	50.6%	2	66.7%	0		0		107	25.2%
<b>Burnished</b>	0		0		2	2.3%	0		0		0		2	0.5%
<b>No information</b>	0		0		1	1.1%	0		0		0		25	5.9%
<b>Totals</b>	<b>5</b>	<b>100%</b>	<b>88</b>	<b>100%</b>	<b>87</b>	<b>100%</b>	<b>3</b>	<b>100%</b>	<b>1</b>	<b>100%</b>	<b>1</b>	<b>100%</b>	<b>424</b>	<b>100%</b>

Table 5.103: Fingernail impressions and fingerprints compared to abbreviated figurines

Impressions/ Abbreviated	Head on base		Head on divided base		Indeterminate		Totals	
<b>Fingernail</b>	0		10	2.8%	1	1.2%	11	1.8%
<b>Fingerprint</b>	17	10.4%	52	14.5%	17	19.8%	86	14.1%

Table 5.104: Fingernail impressions and fingerprints compared to clay types abbreviated figurines

Impressions/ Clay type	Black organic		Lower alluvial		Marl		Upper alluvial		Undetermined	
<b>Fingernail</b>	0		5	5.7%	2	2.3%	0		4	0.9%
<b>Fingerprint</b>	2	40%	16	18.4%	8	9.3%	2	66.7%	58	13.7%

Table 5.105: Fingernail impressions and fingerprints compared to smoothing level abbreviated figurines

Impressions/ Smoothing level	Rough		Roughly smoothed		Smoothed		Well smoothed		Burnished		Unknown	
<b>Fingernail</b>	0		3	2.5%	3	1.3%	5	2.6%	0			
<b>Fingerprint</b>	3	7.5%	11	9.2%	32	14%	33	17.3%	1	25%	6	23.1%

Table 5.106: Fingernail impressions and fingerprints compared to heat exposure abbreviated figurines

Impressions/ Heat exposure	Unbaked		Baked		Burnt		Indeterminate		Unknown	
<b>Fingernail</b>	1	3.8%	4	1.7%	1	1.9%	5	1.9%	0	
<b>Fingerprint</b>	5	19.2%	38	16.6%	5	15.4%	34	12.6%	4	12.5%

Table 5.107: Additional surface treatment compared to abbreviated figurines

Additional surface treatment/ Abbreviated	Head on base		Head on divided base		Indeterminate		Totals	
Self-slip	0		3	0.8%	0		3	0.5%
Slip	2	1.2%	8	2.2%	0		10	1.6%
Paint	2	1.2%	4	1.1%	2	2.3%	8	1.3%
Paint and slip	0		1	0.3%	0		1	0.0%
<b>Totals</b>	<b>4</b>	<b>2.4%</b>	<b>16</b>	<b>4.5%</b>	<b>2</b>	<b>2.3%</b>	<b>22</b>	<b>3.6%</b>

Table 5.108: Additional surface treatment compared to clay types abbreviated figurines

Additional surface treatment/ Clay type	Lower Alluvial		Marl		Undetermined	
Self-slip	1	1.1%	1	1.1%	1	0.2%
Slip	1	1.1%	2	2.3%	7	1.7%
Paint	0		3	3.4%	5	1.2%
Paint and slip	0		1	1.1%	0	
<b>Totals</b>	<b>2</b>	<b>2.3%</b>	<b>7</b>	<b>8%</b>	<b>13</b>	<b>3.1%</b>

Table 5.109: Heat exposure compared to abbreviated figurines

Heat exposure/ Abbreviated	Head on base		Head on divided base		Indeterminate		Totals	
Unbaked	3	1.8%	13	3.6%	1	1.2%	17	2.8%
<i>Sundried</i>	1	0.6%	6	1.7%	1	1.2%	8	1.3%
<i>Sundried to lightly baked</i>	0		1	0.3%	0		1	0.2%
<b>Totals unbaked</b>	<b>4</b>	<b>2.4%</b>	<b>20</b>	<b>5.6%</b>	<b>2</b>	<b>2.3%</b>	<b>26</b>	<b>4.3%</b>
Baked	43	26.2%	107	29.8%	27	31.4%	177	29.1%
<i>Lightly</i>	8	4.9%	16	4.5%	3	3.5%	27	4.4%
<i>Medium</i>	3	1.8%	10	2.8%	0		13	2.1%
<i>Well</i>	1	0.6%	8	2.2%	0		9	1.5%
<i>Well to burnt</i>	1	0.6%	1	0.3%	1	1.2%	3	0.5%
<b>Totals baked</b>	<b>56</b>	<b>34.1%</b>	<b>142</b>	<b>39.6%</b>	<b>31</b>	<b>36%</b>	<b>229</b>	<b>37.6%</b>
Burnt	17	10.4%	30	8.4%	5	5.8%	52	8.5%
<i>Completely burnt</i>	0		0		0		0	
<b>Totals burnt</b>	<b>17</b>	<b>10.4%</b>	<b>30</b>	<b>8.4%</b>	<b>5</b>	<b>5.8%</b>	<b>52</b>	<b>8.5%</b>
Indeterminate	77	47.0%	152	42.3%	41	47.7%	270	44.3%
Unknown	10	6.1%	15	4%	7	8.1%	32	5.3%
<b>Grand total</b>	<b>164</b>	<b>100%</b>	<b>359</b>	<b>100%</b>	<b>86</b>	<b>100%</b>	<b>609</b>	<b>100%</b>

Table 5.110: Heat exposure compared to clay types abbreviated figurines

Heat exposure/ Clay type	Black organic		Lower alluvial		Marl		Upper alluvial		Brown silt		Mixture		Undetermined	
Unbaked	0		5	5.7%	4	4.6%	0		0		0		8	1.9%
<i>Sundried</i>	0		2	2.3%	3	3.4%	1	33.3%	0		0		2	0.5%
<i>Sundried to lightly baked</i>	0		0		0		0		0		0		1	0.2%
<b>Totals unbaked</b>	<b>0</b>		<b>7</b>	<b>8.0%</b>	<b>7</b>	<b>8.0%</b>	<b>1</b>		<b>0</b>		<b>0</b>		<b>11</b>	<b>2.6%</b>
Baked	0		40	45.5%	34	39.1%	1	33.3%	1	100%	0		101	23.8%
<i>Lightly</i>	0		2	2.3%	9	10.3%	0		0		0		16	3.8%
<i>Medium</i>	0				2	2.3%	0		0		0		11	2.6%
<i>Well</i>	0				0		0		0		0		9	2.1%
<i>Well to burnt</i>	0				0		0		0		0		3	0.7%
<b>Totals baked</b>	<b>0</b>		<b>42</b>	<b>47.7%</b>	<b>45</b>	<b>51.7%</b>	<b>1</b>	<b>33.3%</b>	<b>1</b>	<b>100%</b>	<b>0</b>		<b>140</b>	<b>33%</b>
Burnt	1	20%	6	6.8%	7	8%	0		0		0		38	9%
<i>Completely burnt</i>	0		0		0		0		0		0		0	
<b>Totals Burnt</b>	<b>1</b>	<b>20%</b>	<b>6</b>	<b>6.8%</b>	<b>7</b>	<b>8%</b>	<b>0</b>		<b>0</b>		<b>0</b>		<b>38</b>	<b>9%</b>
Indeterminate	4	80%	33	38.7%	26	29.9%	1	33.3%	0		1	100%	205	48.3%
Unknown	0		0		2	2.3%	0		0		0		30	7.1%
<b>Grand total</b>	<b>5</b>	<b>100%</b>	<b>88</b>	<b>100%</b>	<b>87</b>	<b>100%</b>	<b>3</b>	<b>100%</b>	<b>1</b>	<b>100%</b>	<b>1</b>	<b>100%</b>	<b>424</b>	<b>100%</b>

Table 5.111: Leg shapes human-divided base figurines

Shape legs/ Clay types	Lower alluvial		Marl		Undetermined		Totals	
<b>Straight</b>	0				7	13%	7	11.3%
<b>Conical</b>	1	16.7%	2	100%	23	42.6%	26	41.9%
<b>(Flat) triangular</b>	0				2	3.7%	2	3.2%
<b>Stumps</b>	2	33.3%			4	7.4%	6	9.7%
<b>Incised base</b>	0				3	5.6%	3	4.8%
<b>Pinched out base</b>	1	16.7%			4	7.4%	5	8.1%
<b>Unclear</b>	2	33.3%			11	20.4%	13	21%
<b>Totals</b>	<b>6</b>	<b>100%</b>	<b>2</b>	<b>100%</b>	<b>54</b>	<b>100%</b>	<b>62</b>	<b>100%</b>

Table 5.112: Composite anthropomorphic figurines. Percentages calculated from numbers of objects for which the presence/absence of elements could be established

Composite/ Anthropomorphic	Human-undivided base		Human-divided base		Heads		Indeterminate		Totals	
<b>Buttocks</b>	0		2	3.2%	0		0		2	3.2%
<b>Legs</b>	0		2	3.2%	0		0		2	3.2%
<b>Arms/hands</b>	1	2%	3	5.8%	0		4	25%	8	6.7%
<b>Breasts</b>	3	16.7%	3	15.8%	0		0		6	14.3%
<b>Belly</b>	0		1	1.6%	0		0		1	0.7%
<b>Head</b>	0		1	2.4%	0		0		1	2.2%
<b>Ears</b>	0		0		2	25%	0		2	10.5%
<b>Elaboration/clothing</b>	0		2	3.2%	0		0		2	9.1%

Table 5.113: Possible composite anthropomorphic figurines. Percentages calculated from numbers of objects for which the presence/absence of elements could be established

Possibly composite/ Anthropomorphic	Human-undivided base		Human-divided base		Heads		Indeterminate		Totals	
Buttocks	0		3	4.8%	0		0		3	4.8%
Legs	0		6	9.7%	0		0		6	9.7%
Arms/hands	4	7.8%	13	25.0%	0		6	37.5%	23	19.3%
Breasts	6	33.3%	4	21.1%	0		0		10	23.8%
Belly	3	5.5%	2	3.2%	0		0		5	3.7%
Head	0		2	4.8%	0		0		2	4.4%
Ears	0		1	2.5%	3	37.5%	1	14.3%	5	26.3%
Eyes	0		0		0		1	8.3%	1	4.5%
Elaboration/clothing	0		2	3.2%	0		0		2	9.1%

Table 5.114: Tool use anthropomorphic figurines

Tool use/ Anthropomorphic	Human-undivided base		Human-divided base		Composite		Heads		Indeterminate		Totals	
Shaping	0		1	1.6%	0		2	7.1%	1	3.3%	4	2.5%
Smoothing	4	7.3%	4	6.5%	0		0		0		8	4.9%
Incising fingers	1	1.8%	12	19.4%	0		0		3	10%	16	9.9%
Incising toes	0		1	1.6%	0		0		0		1	0.6%
Delineating legs	0		19	30.6%	1	100%	0		1	3.3%	21	13.0%
Delineating feet	0		1	1.6%	0		0		0		1	0.6%
Delineating buttocks	4	7.3%	11	17.7%	1	100%	0		0		16	9.9%
Delineating arms	2	3.6%	8	12.9%	1	100%	0		5	16.7%	16	9.9%
Delineating stomach/waist	0		9	14.5%	0		0		2	6.7%	11	6.8%
Delineating breasts	4	7.3%	2	3.2%	1		0		1	3.3%	8	4.9%
Delineating pubic triangle	1	1.8%	4	6.5%	0		0		0		5	3.1%
Delineating hip bones	0		1	1.6%	0		0		0		1	0.6%
Delineating ribs and vertebrae	0		1	1.6%	0		0		0		1	0.6%
Delineating neck	1	1.8%	0		0		0		0		1	0.6%
Belly button	1	1.8%	16	25.8%	0		0		0		17	10.5%
Nipples	0		1	1.6%	0		0		0		1	0.6%
Knees	0		2	3.2%	1	100%	0		0		3	1.9%
Burnish	1	7.3%	5	8.1%	0		2	14.3%	0		8	4.9%
Creating (facial) features	2	3.6%	3	4.8%	0		9	64.3%	9	30.0%	23	14.2%
Indicating clothing/decoration	2	3.6%	2	3.2%	0		0		4	13.3%	8	4.9%
Scoop/removing clay	0		1	1.6%	0		0		0		1	0.6%
(Dowel) hole/perforation	14	25.5%	13	21.0%	0		9	64.3%	8	26.7%	44	27%

Table 5.115: Smoothing level compared to anthropomorphic figurines

Level of smoothing/ Anthropomorphic	Human-undivided base		Human-divided base		Heads		Composite		Indeterminate		Totals	
Rough	3	5.5%	1	1.6%	0		0		0		4	2.5%
Roughly smoothed	4	7.3%	3	4.8%	2	14.3%	0		2	6.7%	11	6.8%
Smoothed	17	30.9%	17	27.4%	3	21.4%	0		10	33.3%	47	29%
Well smoothed	22	40%	32	51.6%	6	42.9%	1	100%	16	53.3%	77	47.5%
Burnished	1	1.8%	5	8.1%	2	14.3%	0		0		8	4.9%
No information	8	14.5%	4	6.5%	1	7.1%	0		2	6.7%	15	9.3%
<b>Totals</b>	<b>55</b>	<b>100%</b>	<b>62</b>	<b>100%</b>	<b>14</b>	<b>100%</b>	<b>1</b>	<b>100%</b>	<b>30</b>	<b>100%</b>	<b>162</b>	<b>100%</b>

Table 5.116: Smoothing level compared to clay type anthropomorphic figurines

Level of smoothing/ Clay types	Black organic		Lower alluvial		Marl		Upper alluvial		Undetermined	
<b>Rough</b>	0		0		1	5.6%	0		3	2.5%
<b>Roughly smoothed</b>	2	100%	1	4.8%	2	11.1%	0		7	5.8%
<b>Smoothed</b>	0		4	19%	1	5.6%	0		41	34.2%
<b>Well smoothed</b>	0		14	66.7%	13	72.2%	1	100%	49	40.8%
<b>Burnished</b>	0		2	9.5%	1	5.6%	0		5	4.2%
<b>No information</b>	0		0		0		0		15	12.5%
<b>Totals</b>	<b>2</b>	<b>100%</b>	<b>21</b>	<b>100%</b>	<b>18</b>	<b>100%</b>	<b>1</b>	<b>100%</b>	<b>120</b>	<b>100%</b>

Table 5.117: Additional surface treatment anthropomorphic figurines

Additional surface treatment/ Anthropomorphic	Human-undivided base		Human-divided base		Heads		Indeterminate		Totals	
<b>Self-slip</b>	0		1	1.6%	0		2	5.9%	3	1.9%
<b>Slip</b>	6	10.9%	7	11.3%	4	28.6%	3	8.8%	20	12.3%
<b>Paint</b>	4	7.3%	2	3.2%	0		2	5.9%	8	4.9%
<b>Paint and slip</b>	0		3	4.8%	0		2	5.9%	5	3.1%
<b>Total</b>	<b>10</b>	<b>18.2%</b>	<b>13</b>	<b>21%</b>	<b>4</b>	<b>28.6%</b>	<b>9</b>	<b>26.5%</b>	<b>36</b>	<b>16%</b>

Table 5.118: Additional surface treatment compared to clay types anthropomorphic figurines

Additional surface treatment/ Clay type	Lower Alluvial		Marl		Upper alluvial		Undetermined	
<b>Self-slip</b>	0		2	11.1%	0		1	0.8%
<b>Slip</b>	4	19%	2	11.1%	0		14	11.7%
<b>Paint</b>	2	9.5%	1	5.6%	1	100%	4	3.3%
<b>Paint and slip</b>	0		0		0		5	4.2%
<b>Total</b>	<b>6</b>	<b>28.6%</b>	<b>5</b>	<b>27.8%</b>	<b>1</b>	<b>100%</b>	<b>24</b>	<b>20%</b>

Table 5.119: Heat exposure anthropomorphic figurines

Heat exposure/ Anthropomorphic	Human-undivided base		Human-divided base		Composite		Heads		Indeterminate		Totals	
<b>Unbaked</b>	2	3.6%	1	1.6%	0		0		0		3	1.9%
<i>Sundried</i>	0		0		0		0		0		0	
<i>Sundried to lightly baked</i>	0		0		0		0		0		0	
<b>Totals unbaked</b>	<b>2</b>	<b>3.6%</b>	<b>1</b>	<b>1.6%</b>	<b>0</b>		<b>0</b>		<b>0</b>		<b>3</b>	<b>1.9%</b>
<b>Baked</b>	19	34.5%	21	33.9%	1	100%	3	21.4%	10	33.3%	54	33.3%
<i>Lightly</i>	6	10.9%	8	12.9%	0		1	7.1%	4	13.3%	19	11.7%
<i>Medium</i>	3	5.5%	3	4.8%	0		0		2	6.7%	8	4.9%
<i>Well</i>	0		1	1.6%	0		0		0		1	0.6%
<i>Well to burnt</i>	0		1	1.6%	0		0		0		1	0.6%
<b>Totals baked</b>	<b>28</b>	<b>50.9%</b>	<b>34</b>	<b>54.8%</b>	<b>1</b>	<b>100%</b>	<b>4</b>	<b>28.6%</b>	<b>16</b>	<b>53.3%</b>	<b>83</b>	<b>51.2%</b>
<b>Burnt</b>	2	3.6%	11	17.7%	0		2	14.3%	0		15	9.3%
<i>Completely burnt</i>	0		1	2%	0		0		0		1	0.6%
<b>Totals burnt</b>	<b>2</b>	<b>3.6%</b>	<b>12</b>	<b>19.4%</b>	<b>0</b>		<b>2</b>	<b>14.3%</b>	<b>0</b>		<b>16</b>	<b>9.9%</b>
<b>Indeterminate</b>	20	36.4%	14	22.6%	0		7	50%	12	40%	53	33%
<b>Unknown</b>	3	5.5%	1	1.6%	0		1	7%	2	6.7%	7	4.3%
<b>Grand total</b>	<b>55</b>	<b>100%</b>	<b>62</b>	<b>100%</b>	<b>1</b>	<b>100%</b>	<b>14</b>	<b>100%</b>	<b>30</b>	<b>100%</b>	<b>162</b>	<b>100%</b>

Table 5.120: Heat exposure clay types anthropomorphic figurines

Heat exposure/ Clay type	Black organic		Lower alluvial		Marl		Upper alluvial		Undetermined	
	Unbaked	1	50%	0		2	11.1%	0		0
<i>Sundried</i>	0		0		0		0		0	
<i>Sundried to lightly baked</i>	0		0		0		0		0	
<b>Totals unbaked</b>	<b>1</b>	<b>50%</b>	<b>0</b>		<b>2</b>	<b>11.1%</b>	<b>0</b>		<b>0</b>	
Baked			9	42.9%	6	33.3%	1	100%	38	31.7%
<i>Lightly</i>			0		3	16.7%	0		16	13.3%
<i>Medium</i>			1	4.8%	0		0		7	5.8%
<i>Well</i>			0		0		0		1	0.8%
<i>Well to burnt</i>			0		0		0		1	0.8%
<b>Totals baked</b>	<b>0</b>		<b>10</b>	<b>47.6%</b>	<b>9</b>	<b>50%</b>	<b>1</b>	<b>100%</b>	<b>63</b>	<b>52.5%</b>
Burnt			3	14.3%	1	5.6%	0		11	9.2%
<i>Completely burnt</i>			1	4.8%	0		0		0	
<b>Totals burnt</b>	<b>0</b>		<b>4</b>	<b>19%</b>	<b>1</b>	<b>5.6%</b>	<b>0</b>		<b>11</b>	<b>9.2%</b>
Indeterminate	1	50%	7	38.1%	6	33.3%	0		39	32.5%
Unknown	0		0		0		0		7	5.8%
<b>Grand total</b>	<b>2</b>	<b>100%</b>	<b>21</b>	<b>100%</b>	<b>18</b>	<b>100%</b>	<b>1</b>	<b>100%</b>	<b>120</b>	<b>100%</b>

Table 5.121: Heat exposure clay types across phallomorphic figurines

Heat exposure/ Clay types	Black organic		Marl		Upper alluvial		Undetermined		Totals	
	Baked	1	50%	0		0		1	50%	2
Burnt	0		0		1	100%	1	50%	2	33.3%
Indeterminate	1	50%	1	100%	0		0		2	33.3%
<b>Totals</b>	<b>2</b>	<b>100%</b>	<b>1</b>	<b>100%</b>	<b>1</b>	<b>100%</b>	<b>2</b>	<b>100%</b>	<b>6</b>	<b>100%</b>

Table 5.122: Level of smoothing compared to geometric objects

Level of smoothing/ Geometric	Conical		Cylindrical		Totals	
	Rough	4	5.1%	6	8.7%	10
Roughly smoothed	17	21.5%	15	21.7%	32	21.6%
Smoothed	20	25.3%	31	44.9%	51	34.5%
Well smoothed	36	45.6%	16	23.2%	52	35.1%
Burnished	0		1	1.4%	1	0.7%
No information	2	2.5%	0		2	1.4%
<b>Totals</b>	<b>79</b>	<b>100%</b>	<b>69</b>	<b>100%</b>	<b>148</b>	<b>100%</b>

Table 5.123: Level of smoothing compared to clay types geometric objects

Level of smoothing/ Clay types	Black organic		Lower alluvial		Marl		Upper alluvial		Undetermined	
	Rough	0		0		0		0		10
Roughly smoothed	0		1	5.3%	4	25%	0		27	25%
Smoothed	1	50%	11	58%	7	43.8%	0		32	29.6%
Well smoothed	1	50%	7	36.8%	4	25%	3	100%	37	34.3%
Burnished	0		0		1	6.3%	0		0	
No information	0		0		0		0		2	1.9%
<b>Totals</b>	<b>2</b>	<b>100%</b>	<b>19</b>	<b>100%</b>	<b>16</b>	<b>100%</b>	<b>3</b>	<b>100%</b>	<b>108</b>	<b>100%</b>

Table 5.124: Heat exposure compared to geometric objects

Heat exposure/ Geometric	Conical		Cylindrical		Totals	
Unbaked	3	3.8%	0		3	2%
<i>Sundried</i>	3	3.8%	2	2.9%	5	3.4%
<i>Sundried to lightly baked</i>	0		0		0	
<b>Totals unbaked</b>	<b>6</b>	<b>7.6%</b>	<b>2</b>	<b>2.9%</b>	<b>8</b>	<b>5.4%</b>
Baked	15	19%	16	23.2%	31	20.9%
<i>Lightly</i>	7	8.9%	8	11.6%	15	10.1%
<i>Medium</i>	1	1.3%	0		1	0.7%
<i>Well</i>	0		0		0	
<i>Well to burnt</i>	1	1.3%	1	1.4%	2	1.4%
<b>Totals baked</b>	<b>24</b>	<b>30.4%</b>	<b>25</b>	<b>36.2%</b>	<b>49</b>	<b>33.1%</b>
Burnt	6	7.6%	4	5.8%	10	6.8%
<i>Completely burnt</i>	0		0		0	
<b>Totals burnt</b>	<b>6</b>	<b>7.6%</b>	<b>4</b>	<b>5.8%</b>	<b>10</b>	<b>6.8%</b>
Indeterminate	40	50.6%	36	52.2%	76	51.4%
Unknown	3	3.8%	2	2.9%	5	3.4%
<b>Grand total</b>	<b>79</b>	<b>100%</b>	<b>69</b>	<b>100%</b>	<b>148</b>	<b>100%</b>

Table 5.125: Heat exposure compared to clay types geometric objects

Heat exposure/ Clay type	Black organic		Lower alluvial		Marl		Upper alluvial		Undetermined	
Unbaked	0		1	5.3%	2	11.1%	0		2	1.9%
<i>Sundried</i>	0		3	15.8%	0		1	33.3%	1	0.9%
<i>Sundried to lightly baked</i>	0		0		0		0		0	
<b>Totals unbaked</b>	<b>0</b>		<b>4</b>	<b>21.1%</b>	<b>2</b>	<b>11.1%</b>	<b>1</b>	<b>33.3%</b>	<b>3</b>	<b>2.8%</b>
Baked	1	50%	4	21.1%	7	38.9%	1	33.3%	18	16.7%
<i>Lightly</i>	1	50%	2	10.5%	4	22.2%	0		8	7.4%
<i>Medium</i>	0		0		0		0		1	0.9%
<i>Well</i>	0		0		0		0		0	
<i>Well to burnt</i>	0		0		0		0		2	1.9%
<b>Totals baked</b>	<b>2</b>	<b>100%</b>	<b>6</b>	<b>31.6%</b>	<b>11</b>	<b>61.1%</b>	<b>1</b>	<b>33.3%</b>	<b>29</b>	<b>26.9%</b>
Burnt	0		0		0		0		10	9.3%
<i>Completely burnt</i>	0		0		0		0		0	
<b>Totals burnt</b>	<b>0</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>10</b>	<b>9.3%</b>
Indeterminate	0		9	47.4%	4	22.2%	1	33.3%	62	57.4%
Unknown	0		0		1	5.6%	0		4	3.7%
<b>Grand total</b>	<b>2</b>	<b>100%</b>	<b>19</b>	<b>100%</b>	<b>18</b>	<b>100%</b>	<b>3</b>	<b>100%</b>	<b>108</b>	<b>100%</b>

Table 5.126: Level of smoothing compared to indeterminate objects

Level of smoothing/ Indeterminate	Abbreviated		Zoomorphic		Anthropomorphic		Abbreviated, zoomorphic or anthropomorphic		Totals	
<b>Rough</b>	3	8.3%	19	14.2%	0		11	11.7%	33	11.7%
<b>Roughly smoothed</b>	4	11.1%	37	27.6%	2	10.5%	17	18.1%	60	21.2%
<b>Smoothed</b>	14	38.9%	53	39.6%	7	36.8%	38	40.4%	112	39.6%
<b>Well smoothed</b>	12	33.3%	20	14.9%	10	52.6%	23	24.5%	65	23%
<b>Burnished</b>	0		0		0		0		0	
<b>No information</b>	3	8.3%	5	3.7%	0		5	5.3%	13	4.6%
<b>Totals</b>	<b>36</b>	<b>100%</b>	<b>134</b>	<b>100%</b>	<b>19</b>	<b>100%</b>	<b>94</b>	<b>100%</b>	<b>283</b>	<b>100%</b>

Table 5.127: Level of smoothing compared to clay types indeterminate objects

Level of smoothing/ Clay types	Black organic		Lower alluvial		Marl		Upper alluvial		Undetermined	
<b>Rough</b>	4	66.7%	2	7.7%	4	14.3%	1	33.3%	22	10%
<b>Roughly smoothed</b>	1	16.7%	4	15.4%	3	10.7%	0		52	23.6%
<b>Smoothed</b>	1	16.7%	12	46.2%	12	42.9%	2	66.7%	85	38.6%
<b>Well smoothed</b>	0		7	26.9%	8	29%	0		50	22.7%
<b>Burnished</b>	0		0		0		0		0	
<b>No information</b>	0		1	3.8%	1	3.6%	0		11	5%
<b>Totals</b>	<b>6</b>	<b>100%</b>	<b>26</b>	<b>100%</b>	<b>28</b>	<b>100%</b>	<b>3</b>	<b>100%</b>	<b>220</b>	<b>100%</b>

Table 5.128: Heat exposure compared to possible types within indeterminate objects

Heat exposure/ Indeterminate	Abbreviated		Zoomorphic		Anthropomorphic		Abbreviated, zoomorphic or anthropomorphic		Totals	
Unbaked	1	2.8%	0		0				1	0.4%
<i>Sundried</i>	0		1	0.7%	0		1	1.1%	2	0.7%
<i>Sundried to lightly baked</i>	0		0		0				0	
<b>Totals unbaked</b>	<b>1</b>	<b>2.8%</b>	<b>1</b>	<b>0.7%</b>	<b>0</b>		<b>1</b>	<b>1.1%</b>	<b>3</b>	<b>1.1%</b>
Baked	9	25%	22	16.4%	8	42.1%	30	31.9%	69	24.4%
<i>Lightly</i>	0		13	9.7%	1	5.3%	2	2.1%	16	5.7%
<i>Medium</i>	2	5.6%	5	3.7%	0		0		7	2.5%
<i>Well</i>	0		3	2.2%	0		2	2.1%	5	1.8%
<i>Well to burnt</i>	1	2.8%	4	3%	0		0		5	1.8%
<b>Totals baked</b>	<b>12</b>	<b>33.3%</b>	<b>47</b>	<b>35.1%</b>	<b>9</b>	<b>47.4%</b>	<b>34</b>	<b>36.2%</b>	<b>102</b>	<b>36%</b>
Burnt	3	8.3%	14	10.4%	0		10	10.6%	27	9.5%
<i>Completely burnt</i>	0		1	0.7%	0		0		1	0.4%
<b>Totals burnt</b>	<b>3</b>	<b>8.3%</b>	<b>15</b>	<b>11.2%</b>	<b>0</b>		<b>10</b>	<b>10.6%</b>	<b>28</b>	<b>9.9%</b>
Indeterminate	20	55.6%	71	53%	10	52.6%	49	52.1%	150	53%
Unknown	0		0		0		0		0	
<b>Grand total</b>	<b>36</b>	<b>100%</b>	<b>134</b>	<b>100%</b>	<b>19</b>	<b>100%</b>	<b>94</b>	<b>100%</b>	<b>283</b>	<b>100%</b>

Table 5.129: Heat exposure compared to clay types indeterminate objects

Heat exposure/ Clay type	Black organic		Lower alluvial		Marl		Upper alluvial		Undetermined	
Unbaked	0		0		0		0		1	0.5%
<i>Sundried</i>	0		1	3.8%	0		0		1	0.9%
<i>Sundried to lightly baked</i>	0		0		0		0		0	
<b>Totals unbaked</b>	<b>0</b>		<b>1</b>	<b>21.1%</b>	<b>0</b>		<b>0</b>		<b>2</b>	<b>0.9%</b>
Baked	0		8	30.8%	15	53.6%	3	100%	43	19.5%
<i>Lightly</i>	1	16.7%	0		2	7.1%	0		13	5.9%
<i>Medium</i>	0		1	3.8%	0		0		6	2.7%
<i>Well</i>	0		0		0		0		5	2.3%
<i>Well to burnt</i>	1	16.7%	0		0		0		4	1.8%
<b>Totals baked</b>	<b>2</b>	<b>33.3%</b>	<b>9</b>	<b>34.6%</b>	<b>17</b>	<b>60.7%</b>	<b>3</b>	<b>100%</b>	<b>71</b>	<b>32.3%</b>
Burnt	0		2	7.7%	0		0		25	11.4%
<i>Completely burnt</i>	0		0		0		0		1	0.5%
<b>Totals burnt</b>	<b>0</b>		<b>2</b>		<b>0</b>		<b>0</b>		<b>26</b>	<b>11.8%</b>
Indeterminate	4	66.7%	14	53.8%	11	39.3%	0		121	55.0%
Unknown	0		0		0		0		0	
<b>Grand total</b>	<b>6</b>	<b>100%</b>	<b>26</b>	<b>110%</b>	<b>28</b>	<b>100%</b>	<b>3</b>	<b>100%</b>	<b>220</b>	<b>100%</b>

Table 5.130: Smoothing levels compared to unclear objects

Level of smoothing/ Clay types	Black organic		Lower alluvial		Marl		Midden clay		Undetermined		Totals	
<b>Rough</b>	1	25%	1	14.3%	1	8.3%	0		11	14.3%	14	13.9%
<b>Roughly smoothed</b>	1	25%	0		1	8.3%	0		14	18.2%	16	15.8%
<b>Smoothed</b>	1	25%	5	71.4%	5	41.7%	0		34	44.2%	45	44.6%
<b>Well smoothed</b>	0		1	14.3%	5	41.7%	1	100%	11	14.3%	18	17.8%
<b>Burnished</b>	0		0		0		0		1	1.3%	1	1%
<b>No information</b>	1	25%	0		0		0		6	8%	7	6.9%
<b>Totals</b>	<b>4</b>	<b>100%</b>	<b>7</b>	<b>100%</b>	<b>12</b>	<b>100%</b>	<b>1</b>	<b>100%</b>	<b>77</b>	<b>100%</b>	<b>101</b>	<b>100%</b>

Table 5.131: Heat exposure compared to unclear objects

Heat exposure/ Clay type	Black organic		Lower alluvial		Marl		Midden clay		Undetermined		Totals	
Unbaked	0		0		2	16.7%	0		0		2	2%
<i>Sundried</i>	0		0		0		0		0		0	
<i>Sundried to lightly baked</i>	0		0		0		0		0		0	
<b>Totals unbaked</b>	<b>0</b>		<b>0</b>		<b>2</b>	<b>16.7%</b>	<b>0</b>		<b>0</b>		<b>2</b>	<b>2%</b>
Baked	0		5	71.4%	5	41.7%	1	100%	15	19.5%	26	25.7%
<i>Lightly</i>	0		0		0		0		2	2.6%	2	2%
<i>Medium</i>	0		0		0		0		0		0	
<i>Well</i>	0		0		0		0		2	2.6%	2	2%
<i>Well to burnt</i>	0		0		0		0		1	1.3%	1	1%
<b>Totals baked</b>	<b>0</b>		<b>5</b>	<b>71.4%</b>	<b>5</b>	<b>41.7%</b>	<b>1</b>	<b>100%</b>	<b>20</b>	<b>26%</b>	<b>31</b>	<b>30.7%</b>
Burnt	0		0		0		0		5	6.5%	5	5%
<i>Completely burnt</i>	1	25%	0		0		0		0		1	1%
<b>Totals burnt</b>	<b>1</b>	<b>25%</b>	<b>0</b>		<b>0</b>		<b>0</b>		<b>5</b>	<b>6.5%</b>	<b>6</b>	<b>6%</b>
Indeterminate	3	75%	2	28.6%	4	33.3%	0		52	67.5%	61	60.4%
Unknown	0		0		1	8.3%	0		0		1	1%
<b>Grand total</b>	<b>4</b>	<b>100%</b>	<b>7</b>	<b>100%</b>	<b>12</b>	<b>100%</b>	<b>1</b>	<b>100%</b>	<b>77</b>	<b>100%</b>	<b>101</b>	<b>100%</b>

## Tables Çatalhöyük Use Wear

Table 5.132: Puncture and gouges compared to clay types zoomorphic figurines

Markings/ Clay types	Black organic		Lower alluvial		Marl		Upper alluvial		Undetermined		Totals	
Punctures	11	26.8%	51	16.3%	4	2.2%	2	33.3%	41	4.3%	109	7.3%
Gouges	7	9.8%	27	8.7%	10	5.4%	1	16.7%	35	3.7%	80	5.3%
Punctures and gouges	5	12.2%	10	3.2%	1	0.5%	1	16.7%	12	1%	29	1.9%
Totals	23	43.9%	88	24%	15	8.1%	3	67%	88	8.3%	218	14.2%

Table 5.133: Puncture and gouges compared to smoothing levels zoomorphic figurines

Markings/ Smoothing level	Rough		Roughly smoothed		Smoothed		Well smoothed		Unknown	
Punctures	13	16.3%	42	15.9%	37	6.8%	11	2.2%	6	6.3%
Gouges	10	12.5%	22	8.3%	36	6.6%	10	2.0%	2	2.1%
Punctures and gouges	6	7.5%	10	3.8%	12	2.2%	1	0.2%		
Totals	23	36.3%	74	28.0%	85	15.5%	18	4.3%	8	8.3%

Table 5.134: Puncture and gouges compared to heat exposure zoomorphic figurines

Markings/ Heat exposure	Unbaked		Baked		Burnt		Indeterminate		Unknown	
Punctures	4	8.3%	49	9%	9	6.1%	42	6.1%	5	7.4%
Gouges	7	14.6%	35	6.4%	4	2.7%	33	4.8%	1	1.5%
Punctures and gouges	2	4.2%	17	3.1%	0		10	1.4%	0	
Totals	13	27.1%	101	18.5%	13	8.8%	85	12.3%	6	8.8%

Table 5.135: Breakage and deformation compared to clay types zoomorphic figurines

Deformation and breakage/ Zoomorphic	Black organic		Lower alluvial		Marl		Upper alluvial		Undetermined		Totals	
Deformation	7	17.1%	12	3.8%	0		2	33.3%	11	1.2%	32	2.1%
Breakage	3	7.3%	22	7.1%	3	1.6%	0		18	1.9%	46	3%
Deformation and breakage	0		1	0.3%	0		0		2	0.2%	3	0.2%
Totals	9	24.4%	35	11.2%	3	1.6%	1	33.3%	31	3.2%	81	5.3%

Table 5.136: Breakage and deformation compared to smoothing levels zoomorphic figurines

Deformation and breakage/ Smoothing level	Rough		Roughly smoothed		Smoothed		Well smoothed		Unknown	
Deformation	8	10%	9	3.4%	10	1.8%	3	0.6%	2	2.1%
Breakage	6	7.5%	13	4.9%	15	2.7%	11	2.2%	1	1%
Deformation and breakage	1	1.3%	0		2	0.4%	0		0	
Totals	15	18.8%	22	8.3%	27	4.9%	14	2.7%	3	3.1%

Table 5.137: Breakage and deformation compared to heat exposure zoomorphic figurines

Deformation and breakage/ Heat exposure	Unbaked		Baked		Burnt		Indeterminate		Unknown	
Deformation	1	2.1%	15	2.8%	6	4.1%	10	1.4%	0	
Breakage	6	12.5%	14	2.6%	5	3.4%	20	2.9%	1	1.5%
Deformation and breakage	0		1	0.2%	0		2	0.3%	0	
Totals	7	14.6%	30	5.5%	11	7.4%	32	4.6%	1	1.5%

Table 5.138: Punctures and gouges compared to abbreviated figurines

Markings/ Abbreviated	Head on base		Head on divided base		Indeterminate		Totals	
Punctures	12	7.3%	39	10.9%	8	9.3%	59	9.7%
Gouges	8	4.9%	14	3.9%	2	2.3%	24	3.9%
Punctures and gouges	0		3	0.8%	0		3	0.5%
<b>Totals</b>	<b>20</b>	<b>12.2%</b>	<b>56</b>	<b>15.6%</b>	<b>10</b>	<b>11.6%</b>	<b>86</b>	<b>14.1%</b>

Table 5.139: Punctures and gouges compared to clay types abbreviated figurines

Markings/ Clay type	Black organic		Lower alluvial		Marl		Undetermined	
Punctures	2	40%	7	8%	7	8%	43	10.1%
Gouges	1	20%	3	3.4%	3	3.4%	17	4%
Punctures and gouges	1	20%	0		0		2	0.5%
<b>Totals</b>	<b>4</b>	<b>80%</b>	<b>10</b>	<b>11.4%</b>	<b>10</b>	<b>11%</b>	<b>62</b>	<b>14.6%</b>

Table 5.140: Punctures and gouges compared to smoothing levels abbreviated figurines

Markings/ Smoothing level	Rough		Roughly smoothed		Smoothed		Well smoothed		Burnished		Unknown	
Punctures	7	17.5%	17	14.2%	19	8.3%	12	6.3%	1	25%	3	0.7%
Gouges	2	5%	7	5.8%	9	3.9%	6	3.1%	0		0	
Punctures and gouges	0		2	1.7%	1	0.4%	0		0		0	
<b>Totals</b>	<b>9</b>	<b>22.5%</b>	<b>26</b>	<b>21.7%</b>	<b>29</b>	<b>12.7%</b>	<b>18</b>	<b>9.4%</b>	<b>1</b>	<b>25%</b>	<b>3</b>	<b>0.7%</b>

Table 5.141: Punctures and gouges compared to heat exposure abbreviated figurines

Markings/ Heat exposure	Baked		Burnt		Indeterminate		Unknown	
Punctures	25	10.9%	5	9.6%	28	10.4%	1	3.1%
Gouges	8	3.5%	3	5.8%	13	4.8%	0	
Punctures and gouges	2	0.9%	0		1	0.4%	0	
<b>Totals</b>	<b>35</b>	<b>15.3%</b>	<b>8</b>	<b>15.4%</b>	<b>42</b>	<b>15.6%</b>	<b>1</b>	<b>3.1%</b>

Table 5.142: Deformation and breakage compared to smoothing levels abbreviated figurines

Deformation and breaking/ Smoothing level	Rough		Roughly smoothed		Smoothed		Well smoothed	
Deformation	2	5%	4	3.3%	2	0.9%	1	0.5%
Breakage	0		5	4.2%	6	2.6%	4	2.1%
<b>Totals</b>	<b>2</b>	<b>5%</b>	<b>9</b>	<b>7.5%</b>	<b>8</b>	<b>3.5%</b>	<b>5</b>	<b>2.6%</b>

Table 5.143: Deformation and breakage compared to heat exposure abbreviated figurines

Deformation and breaking/ Heat exposure	Baked		Burnt		Indeterminate	
Deformation	3	1.3%	1	1.9%	5	1.9%
Breakage	9	3.9%	2	3.8%	4	1.5%
<b>Totals</b>	<b>12</b>	<b>5.2%</b>	<b>3</b>	<b>5.8%</b>	<b>9</b>	<b>3.3%</b>

Table 5.144: Impressions compared to abbreviated figurines

Impressions/ Abbreviated	Head on base		Head on divided base		Indeterminate		Totals	
Fingernails	20	12.2%	38	10.6%	6	7%	64	10.5%
Plant impressions	9	5.5%	30	8.4%	2	2%	41	6.7%
Impressions	3	1.8%	18	5.0%	1	1.2%	22	3.6%

Table 5.145: Impressions compared to clay types abbreviated figurines

Impressions/ Clay type	Black organic		Lower alluvial		Marl		Undetermined	
Fingernails	0		14	3.9%	10	12%	40	47%
Plant impressions	1	0.6%	6	1.7%	10	11.6%	24	27.9%
Impressions	0		3	3.4%	4	4.7%	15	3.5%

Table 5.146: Impressions compared to smoothing levels abbreviated figurines

Markings/ Smoothing level	Rough		Roughly smoothed		Smoothed		Well smoothed		Burnished		Unknown	
Fingernails	3	7.5%	11	9.2%	18	7.9%	30	15.7%	1	25%	1	0.2%
Plant impressions	4	10%	12	10%	15	6.6%	9	4.7%	0		1	0.2%
Impressions	4	10%	4	3.3%	11	4.8%	3	1.6%	0		0	

Table 5.147: Impression compared to heat exposure abbreviated figurines

Markings/ Heat exposure	Unbaked		Baked		Burnt		Indeterminate		Unknown	
Fingernails	3	11.5%	23	10.0%	8	15.4%	30	11.1%	0	
Plant impressions	2	7.7%	21	9.2%	8	15.4%	9	3.3%	1	3.1%
Impressions	1	3.8%	10	4.4%	4	7.7%	5	1.9%	2	6.3%

Table 5.148: Punctures and gouges compared to anthropomorphic figurines

Markings/ Anthropomorphic	Human- undivided base		Human-divided base		Heads		Indeterminate		Totals	
Punctures	9	16.4%	3	4.8%	1	7.1%	1	3%	14	8.6%
Gouges	2	3.6%	3	4.8%	0		0		5	3.1%
Punctures and gouges	1	1.8%	0		0		0		1	0.6%
<b>Totals</b>	<b>12</b>	<b>21.8%</b>	<b>6</b>	<b>9.7%</b>	<b>1</b>	<b>7.1%</b>	<b>30</b>	<b>3%</b>	<b>20</b>	<b>12.3%</b>

Table 5.149: Intentional damage compared to possible types within indeterminate objects

Intentional damage/ Indeterminate	Abbreviated		Zoomorphic		Anthropomorphic		Abbreviated, zoomorphic or anthropomorphic		Totals	
Punctures	2	5.6%	8	6%	0		3	3.2%	13	4.6%
Gouges	2	5.6%	5	3.7%	2	10.5%	2	2.1%	11	3.9%
Breakage	1	2.8%	3	2.2%	0		0		4	1.4%
Deformation	3	8.3%	5	3.7%	0		2	2.1%	10	3.5%
<b>Totals</b>	<b>8</b>	<b>22.2%</b>	<b>21</b>	<b>15.7%</b>	<b>2</b>	<b>10.5%</b>	<b>7</b>	<b>7.4%</b>	<b>38</b>	<b>13.4%</b>

## Tables Çatalhöyük Contexts and Patterns through Time

	Location per area / Figurine types		Zoomorphic		Abbreviated		Anthropomorphic		Phallomorphic		Conical		Cylindrical		Indeterminate		Unclear	
South	Building	181	30.1%	82	33.7%	29	46.8%	1	25%	12	33.3%	8	32%	51	37%	19	45.2%	
	External	420	69.8%	161	66.3%	33	53.2%	1	75%	24	66.7%	17	68%	87	63%	23	54.8%	
	Unknown	1	0.2%	0		0		0		0		0		0		0		
	<b>Totals</b>	<b>602</b>	<b>100%</b>	<b>243</b>	<b>100%</b>	<b>62</b>	<b>100%</b>	<b>2</b>	<b>100%</b>	<b>36</b>	<b>100%</b>	<b>25</b>	<b>100%</b>	<b>138</b>	<b>100%</b>	<b>42</b>	<b>100%</b>	
North	Building	266	35.7%	114	40.9%	9	18.8%	0		21	55.3%	8	21.1%	33	26.4%	23	50%	
	External	478	64.2%	163	58.4%	39	81.3%	3	100%	17	44.7%	30	78.9%	91	72.8%	23	50%	
	Unknown	1	0.1%	2	0.7%	0		0		0		0		1	0.8%	0		
	<b>Totals</b>	<b>745</b>	<b>100%</b>	<b>279</b>	<b>100%</b>	<b>48</b>	<b>100%</b>	<b>3</b>	<b>100%</b>	<b>38</b>	<b>100%</b>	<b>38</b>	<b>100%</b>	<b>125</b>	<b>100%</b>	<b>46</b>	<b>100%</b>	
West	Building	29	60.4%	11	73.3%	5	50%	1	33.3%	2	66.7%	3	100%	4	57.1%	5	62.5%	
	External	19	39.6%	4	26.7%	5	50%	2	66.7%	1	33.3%	0		3	42.9%	3	37.5%	
	Unknown	0	0%	0		0		0		0		0		0		0		
	<b>Totals</b>	<b>48</b>	<b>100%</b>	<b>15</b>	<b>100%</b>	<b>10</b>	<b>100%</b>	<b>3</b>	<b>100%</b>	<b>3</b>	<b>100%</b>	<b>3</b>	<b>100%</b>	<b>7</b>	<b>100%</b>	<b>8</b>	<b>100%</b>	
Off-site/ unknown	Building	2	1.9%	0		0		0		0		0		2	15.4%	1	20%	
	External	101	98.1%	72	100.0%	42	100%	0		2	100%	3	100%	11	84.6%	4	80%	
	Unknown	0	0%	0		0		0		0		0		0		0		
	<b>Totals</b>	<b>103</b>	<b>100%</b>	<b>72</b>	<b>100%</b>	<b>42</b>	<b>100%</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>100%</b>	<b>3</b>	<b>100%</b>	<b>13</b>	<b>100%</b>	<b>5</b>	<b>100%</b>	

Table 5.150: Location figurines per area

Table 5.151: Figurines per building

Building	Total figurines	% excavated	Infilling	Building	Total figurines	% excavated	Infilling
1	27	100	clean fill	75	7	25	clean fill
2	27	75	midden abandoned	76	9	50	not recorded
3	121	100	clean fill	77	32	50	rubble
4	1	25	clean fill	78	1	not recorded	not recorded
5	14	50	clean fill	79	6	25	rubble
6	13	25	clean fill	80	28	25	rubble
8	3	0	unknown	81	3	not recorded	not recorded
10	1	100	unknown	87	1	25	clean fill
16	5	25	clean fill	89	5	0	clean fill
17	18	50	clean fill	91	0	0	clean fill
18	9	25	unknown	92	1	0	clean fill
23	4	50	unknown	94	1	not recorded	not recorded
25	7	25	not recorded	96	8	25	clean fill
30	1	not in db	not in db	97	21	0	unknown
34	1	not recorded	not recorded	98	10	not recorded	not recorded
40	14	0	unknown	101	10	0	not recorded
41	2	25	unknown	105	12	not recorded	not recorded
42	17	50	clean fill	106	7	not recorded	not recorded
43	3	0	unknown	107	8	100	not recorded
44	7	100	clean fill	108	3	25	not recorded
47	2	25	unknown	110	8	not recorded	not recorded
49	16	100	clean fill	111	3	not in db	not in db
50	3	75	unknown	113	11	not recorded	not recorded
51	1	100	clean fill	114	16	not recorded	not recorded
52	20	25	rubble	118	5	not recorded	not recorded
53	13	50	clean fill	119	13	75	clean fill
55	1	25	clean fill	121	3	not recorded	not recorded
56	9	100	clean fill	122	1	50	rubble
57	2	25	clean fill	127	2	not recorded	not recorded
58	6	25	clean fill	128	3	not recorded	not recorded
59	6	100	clean fill	129	8	25	unknown
60	2	25	unknown	131	69	100	rubble
62	1	not recorded	not recorded	132	9	not recorded	not recorded
63	3	not recorded	not recorded	139	72	not recorded	not recorded
64	2	25	clean fill	150	3	not recorded	not recorded
65	13	100	clean fill	160	5	not recorded	not recorded
67	1	25	unknown	161	3	not in db	not in db
68	1	25	clean fill	162	2	not in db	not in db
72	14	not recorded	not recorded	370	46	not recorded	not recorded
73	7	not recorded	not recorded	469	15	not in db	not in db
74	9	not recorded	not recorded				

Table 5.152: Context types zoomorphic figurines

Context types/ Zoomorphic	Quadruped		Bucranium		Horn		Ear		Indeterminate		Totals	
Storage features	1	0.2%	0		9	1.0%	1	12.5%	0		11	0.7%
Fire features	2	0.4%	1	4.2%	6	0.7%	0		0		9	0.6%
Platform	2	0.4%	0		13	1.4%	0		0		15	1.0%
Room fill	70	14.3%	4	16.7%	143	15.6%	0		9	14.1%	226	15.1%
Floor	5	1.0%	0		14	1.5%	0		1	1.6%	20	1.3%
Construction	27	5.5%	2	8.3%	56	6.1%	1	12.5%	7	10.9%	93	6.2%
Foundation cut fill	5	1%	0		6	0.7%	2	25%	1	1.6%	14	0.9%
Posthole fill	2	0.4%	0		5	0.5%	0		0		7	0.5%
Burial fill	13	2.7%	0		70	7.7%	0		1	1.6%	84	5.6%
Object cluster	12	2.5%	0		4	0.4%	0		0		16	1.1%
Activity: lime burning	6	1.2%	0		4	0.4%	0		0		10	0.7%
Activity: fire spot	10	2%	4	16.7%	22	2.4%	0		2	3.1%	38	2.5%
Activity: external surface	4	0.8%	0		18	2.0%	0		0		22	1%
Fill between buildings	4	0.8%	0		12	1.3%	0		1	1.6%	17	1.1%
Pit fill	52	10.7%	4		90	9.8%	0		6	9.4%	152	10.1%
Midden/dump	175	35.9%	7		386	42.2%	4	50%	30	46.9%	602	40.2%
Unstratified	98	20.1%	2		56	6.1%	0		6	9.4%	162	10.8%
<b>Totals</b>	<b>488</b>	<b>100%</b>	<b>24</b>	<b>46%</b>	<b>914</b>	<b>100%</b>	<b>8</b>	<b>100%</b>	<b>64</b>	<b>100%</b>	<b>1498</b>	<b>100%</b>

Table 5.153: Context types abbreviated figurines

Context types/ Abbreviated	Head on base		Head on divided base		Indeterminate		Totals	
Storage features	5	3%	4	1.1%	0		9	1.5%
Fire features	0		2	0.6%	0		2	0.3%
Platform	0		1	0.3%	2	2.3%	3	0.5%
Room fill	29	17.7%	81	22.6%	15	17.4%	125	20.5%
Floor	2	1.2%	4	1.1%	1	1.2%	7	1.1%
Construction	5	3%	18	5%	5	5.8%	28	4.6%
Foundation cut fill	0		7	1.9%	1	1.2%	8	1.3%
Posthole fill	3	1.8%	3	0.8%	1	1.2%	7	1.1%
Burial fill	5	3%	6	1.7%	2	2.3%	13	2.1%
Object cluster	1	0.6%	2	0.6%	0		3	0.5%
Activity: lime burning	4	2.4%	1	0.3%	0		5	0.8%
Activity: fire spot	8	4.9%	1	0.3%	2	2.3%	11	1.8%
Activity: external surface	1	0.6%	2	0.6%	1	1.2%	4	0.7%
Fill between buildings	3	1.8%	10	2.8%	0		13	2.1%
Pit fill	14	8.5%	21	5.8%	3	3.5%	38	6.2%
Midden/dump	51	31.1%	137	38%	40	46.5%	228	37.4%
Unstratified	33	20.1%	59	16.4%	13	15.1%	105	17.2%
<b>Totals</b>	<b>164</b>	<b>100%</b>	<b>359</b>	<b>100%</b>	<b>86</b>	<b>100%</b>	<b>609</b>	<b>100%</b>

Table 5.154: Context types anthropomorphic and phallomorphic figurines

Context types/ Anthropomorphic and Phallomorphic	Anthropomorphic											Phallomorphic		
	Human-base		Human-divided base		Composite		Head		Indeterminate		Totals			
Storage features	1	1.8%	0		0		0		1	3.3%	2	1.2%	0	
Fire features	1	1.8%	1	2%	0		0		0		2	1.2%	0	
Platform	1	1.8%	0		0		0		1	3.3%	2	1.2%	0	
Room fill	11	20%	7	11.3%	0		2	14.3%	6	20%	26	16%	2	25%
Floor	0		0		0		0		0		0		0	
Construction	0		1	1.6%	0		3	21.4%	1	3.3%	5	3.1%	0	
Foundation cut fill	0		0		0		0		0		0		0	
Posthole fill	0		0		0		0		0		0		0	
Burial fill	1	1.8%	1	1.6%	0		0		1	3.3%	3	1.9%	0	
Object cluster	0		4	6.5%	0		0		0		4	2.5%	0	
Activity: lime burning	0		0		0		0		0		0		0	
Activity: fire spot	1	1.8%	2	3.2%	0		0		1	3.3%	4	2.5%	0	
Activity: external surface	1	1.8%	0		0		0		0		1	0.6%	0	
Fill between buildings	0		0		0		0		0		0		1	12.5%
Pit fill	10	18.2%	5	8.1%	0		1	7.1%	3	10.0%	19	11.7%	3	37.5%
Midden/dump	10	18.2%	13	21.0%	0		7	50%	9	30.0%	39	24.1%	2	25%
Unstratified	18	32.7%	28	45.2%	1	100%	1	7.1%	7	23.3%	55	34%	0	
<b>Totals</b>	<b>55</b>	<b>100%</b>	<b>62</b>	<b>100%</b>	<b>1</b>	<b>100%</b>	<b>14</b>	<b>100%</b>	<b>30</b>	<b>100%</b>	<b>162</b>	<b>100%</b>	<b>8</b>	<b>100%</b>

Table 5.155: Context types geometric objects

Context types/ Geometric	Conical		Cylindrical	
	Storage features	2	2.5%	0
Fire features			0	
Platform			0	
Room fill	16	20.3%	9	13%
Floor	2	2.5%	3	4.3%
Construction	1	1.3%	8	11.6%
Foundation cut fill	2	2.5%	0	
Posthole fill			0	
Burial fill	4	5.1%	5	7.2%
Object cluster	8	10.1%	1	1.4%
Activity: lime burning	3	3.8%	0	
Activity: fire spot	1	1.3%	2	2.9%
Activity: external surface			0	
Fill between buildings	2	2.5%	0	
Pit fill	12	15.2%	12	17.4%
Midden/dump	23	29.1%	25	36.2%
Unstratified	3	3.8%	4	5.8%
<b>Totals</b>	<b>79</b>	<b>100%</b>	<b>69</b>	<b>100%</b>

Table 5.156: Context types indeterminate and unclear objects

Context types	Indeterminate		Unclear	
	Storage features	3	1.1%	3
Fire features	1	0.4%	0	
Platform	1	0.4%	0	
Room fill	36	12.7%	21	20.8%
Floor	9	3.2%	6	5.9%
Construction	16	5.7%	9	8.9%
Foundation cut fill	5	1.8%	0	
Posthole fill	0		3	3%
Burial fill	8	2.8%	5	5%
Object cluster	6	2.1%	2	2%
Activity: lime burning	0		0	
Activity: fire spot	14	4.9%	2	2%
Activity: external surface	1	0.4%	2	2%
Fill between buildings	11	3.9%	3	3%
Pit fill	19	6.7%	6	5.9%
Midden/dump	125	44.2%	31	30.7%
Unstratified	28	9.9%	8	7.9%
<b>Totals</b>	<b>283</b>	<b>100%</b>	<b>101</b>	<b>100%</b>

Table 5.157: Figurines in storage features

Area	Unit	Building	Description	Primary?	Zoomorphic	Abbreviated	Anthropomorphic	Geometric	Indeterminate	Unclear	Totals	X-finds in unit
north	1349	1	basin/oven fill	unclear	1						1	
south	1889	2	bin fill	primary					1		1	N=125: antler, bone, bone awl, bone object, clay ball, clay drum, clay object, pottery, stone, grinding stone, bone/tooth
north	6261	3	niche fill	unclear		1				2	3	
north	3533	3	niche/bin fill	perhaps primary	1	1					2	N=1: figurine
north	3815	5	niche fill	unclear	1						1	
south	4793	6	bin fill	not primary			1				1	
south	4618	6	bin fill	unclear					1		1	
south	5049	17	bin fill	likely not primary					1		1	
south	4965	23	basin fill	primary	1						1	N=1: figurine
north	16756	52	bin fill	unclear	1	3					4	
north	16472	77	bin fill	not primary		2		1			3	N=4: alabaster bracelet frag., worked shell, figurine (2x)
north	16497	77	bin fill	not primary		1					1	N=6: figurine (1x), antler, bone
north	20921	77	bin construction	in situ	1						1	
north	16488	77	bin fill	perhaps primary							2	N=9: figurines (2x), antler, bone, clay ball, stone, horn core
south	22883	81	bin fill	unclear	1			1			1	N=1: horn core
south	22888	81	bin fill	likely not primary			1				1	N=4: bone, stone
south	20807	96	niche fill	likely not primary	1						1	
south	18645	97	bin fill	primary	1	1					2	N=3: human bone, antler
north	14967	101	bin fill	not primary						1	1	
west	15159	unassigned	bin fill	unclear	1						1	N=19: figurine (1x), basket frag., brick, flint, grinding stone, marble ball(?), metal, obsidian arrowhead, obsidian flake, polished stone, pot stand, vessel, worked bone

Table 5.158: Figurines in fire installations

Area	Unit	Building	Description	Primary?	Zoomorphic	Abbreviated	Anthropomorphic	Geometric	Indeterminate	Totals	X-finds in unit
north	1184	1	oven floor	unclear	1					1	
north	1444	1	Oven construction	unclear	1					1	N=1: figurine
north	3852	5	oven fill	primary	1					1	
south	5043	17	hearth make-up	primary			1			1	N=2: figurine, bead
south	5117	23	oven fill/ make up	unclear		1				1	N=16: stone, clay ball
south	8057	44	oven fill	primary	1					1	
north	12966	60	hearth	likely not primary			1			1	
north	13986	63	hearth fill	likely primary	1					1	
south	22388	160	hearth fill	primary	2					2	
south	32426	160	oven make up	primary		1				1	
south	17382	n.a.	oven/hearth	likely primary					1	1	
south	30825	n.a.	oven fill and make up	likely primary	1					1	
west	15595	unassigned	oven fill	unclear	1					1	N=3: figurine, potstand, clay object

Table 5.159: Figurines in platforms

Area	Unit	Building	Description	Primary?	Zoomorphic	Abbreviated	Anthropomorphic	Indeterminate	Totals	X-finds in unit
south	11626	44	platform make up	primary	1				1	
south	10663	44	platform make up	primary			1		1	N=1: figurine
north	16680	49	platform make up	primary	1				1	
north	17401	49	platform make up	primary	1				1	
north	17490	49	platform make up	primary	1				1	
north	20657	52	platform fill	likely primary	1				1	N=1: stone
south	12593	53	platform make up	primary	1				1	
south	12870	56	platform make up	primary	1				1	
south	18976	80	platform make up	unclear	1				1	
south	18637	97	platform make up	likely not primary	1				1	
north	23024	131	platform make up	unclear	1				1	
north	23078	131	platform make up	primary	4	3			7	
south	32816	150	platform fill	primary				1	1	N=1: bone point
north	16132	n.a.	platform make up	likely not primary	1		1		2	N=4: beads, obsidian

Table 5.160: Figurines in object clusters

Area	Unit	Building	Location of cluster	Primary?	Zoomorphic	Abbreviated	Anthropomorphic	Geometric	Indeterminate	Unclear	Totals	X-finds in unit
west	7794	25	room fill	unclear	1						1	N=7: pottery, ground stone, stone, obsidian (cluster continues in another unit)
south	5417	42	pot set within floor	primary	1	1		3	4	1	10	Unclear from database information.
north	10238	47	bin fill	unclear	1						1	No X-finds, but many pottery sherds and animal bones recorded
north	7957	49	packing platform	perhaps primary	1						1	N=5: figurine (1x), animal bone, clay ball, obsidian
north	7958	49	plastered feature	unclear	7						7	N=7: all figurines
north	13212	58	pit fill	not primary				5			5	N=5: figurine (4x), obsidian
south	14019	65	platform fill	unclear					1		1	N=83: bead, animal bone, bone point, burnt material, crystal, clay fragments, obsidian, pigment, polishing stone, pottery, sandy object(?), stone, worked bone
south	14522	65	under platform	likely not primary			2				2	N=16: figurine (1x), stone, scapula, human bone, animal bone (4x scapula)
south	18964	80	on floor	primary	3						3	No X-finds, but many burnt animal bones recorded
west	15160	98	room fill	unclear			1			1	2	N=44, figurines (2x), bead, clay ball, flint, ground stone, animal bone, obsidian, pottery, shell, worked bone
south	1082	n.a.	external area	not primary				1			1	N=1: dog skull. Many more dog bones and other animal bones
north	3037	n.a.	external area	not primary	1						1	N=1: horn core. More animal bones recorded
north	13107	n.a.	midden fill	primary				1			1	No X-finds, but many animal bones recorded
south	19346	n.a.	midden fill	perhaps primary		2					2	N=2: figurines. Also clay mini balls recorded
north	12401	n.a.	external area	unclear			1				1	N=35: figurine (1x), ground stone, mace head, obsidian, bracelet fragment, polishing stones, pottery, shaft straightener, worked stone
north	13904	n.a.	external area	likely not primary	1						1	N=24, mace head, stone

Table 5.161: Zoomorphic clay types through time

Phases	Levels South	Quadruped						Bucrania			Horns						Ears			Indeterminate								
		BO	LA	Ma	UA	Undet.	BO	LA	Ma	UA	Undet.	BO	LA	Ma	UA	Undet.	BO	LA	Ma	UA	Undet.	BO	LA	Ma	UA	Undet.		
Final 6300-5950	TP.Q		1																								2	
	TP.O-R		4	1																							100%	
Late 6500-6300	South.T/TP.N	1	2			3					1	2															1	
	South.S, TP.M		5	2		1					9	3															1	
	South.R		1	1		1					2	3															1	
	South.Q		4	1		1					2	3															15	
	South.P	1	10	5		17					2	15	17	1	1	81											4	5
			3.6%	37.5%	16.1%		41.1%				50%	16.3%	14.1%	0.5%	0.5%	66.8%						16.7%	22.2%	22.2%				38.9%
Middle 6700-6500	South.O	1	4	3		11					1	4	3														4	
	South.N		11	1		6				1	1	6															1	
	South.M					5																					1	
	South.? <i>M</i>		1			1																					1	
			2.3%	36.4%	9.1%		52.3%				50%	4.9%	8.7%			85.4%						1.0%	14.3%					85.7%
Early 7100-6700	South.L		1	2	1	5																					1	
	South.K			4		3							3														6	
	South.? <i>K</i>		1			1							1														3	
	South.J					1							3														3	
	South.? <i>J</i>																										1	
	South.? <i>I</i>																										3	
	South.H		1	1		6							1														3	
South.G			1		6					1	5	5			24											1		
		8.8%	23.5%	2.9%		58.8%				100%		23%			77%												50%	
Late to final Middle to late						1						1	1														12	
			1							4			1														5	
West			4	9		6						1	3														25	
																											1	
Unstr. North Unstr. South Unstr. Area unknown Unstr. Kopal		2	6	3	1	9					1	2															30	
			2	3		5							2														7	
		5	17	8		48							1	1													16	
						1																					1	
							1																					2

Table 5.161 (continued): Zoomorphic clay types through time

Phases	Levels North	Quadruped			Bucrania			Horns			Ears		Indeterminate				
		BO	LA	Ma	UA	Undet.	LA	Ma	Undet.	BO	LA	Ma	Undet.	LA	Ma	Undet.	
Final 6300-5950																	
Late 6500-6300	North.H-J IST. Unass.	17	40	3	1	18	1	1	2	1	24	12	75	2	3	1	5
			1								2	3	4		1		
		21.3%	51.3%	3.8%	1.3%	22.5%	25%	25%	50%	0.8%	21.5%	12.4%	65.3%	100%	40%	10%	50%
Middle 6700- 6500	North.F, G North.?F, ?G	3	43	10	1	67	3		2	3	47	23	207	1	1	2	15
			7	3	1	2					5	4	17		1		
		2.2%	36.5%	9.5%	1.5%	50.4%	60%	40%	1%	17.0%	8.8%	73.2%	25%	75%	10.5%	10.5%	78.9%
Early 7100-6700																	

Table 5.162: Intentional damage on quadruped figurines through time

Phases	Levels South	Punctures	Gauges	Broken/ Deformed	Levels North	Punctures	Gauges	Broken/ Deformed
<b>Final</b> 6300-5950	TP.Q	1	1	1				
	TP.O-R	<b>16.7%</b>	<b>16.7%</b>	<b>25%</b>				
<b>Late</b> 6500-6300	South.T/TP.N		1	1	North.H-J IST.Unassigned	19 1	12 1	20
	South.S, TP.M			1				
	South.R							
	South.Q	1						
South.P	8	4	10					
		<b>16.4%</b>	<b>9.1%</b>	<b>30%*</b>		<b>25.3%</b>	<b>16.5%</b>	<b>29.9%*</b>
<b>Middle</b> 6700-6500	South.O	1		2	North.F, G <i>North.?F, ?G</i>	13 2	15 2	12 3
	South.N	2	5	5				
	South.M							
	<i>South.?M</i>							
		<b>6.8%</b>	<b>11.4%</b>	<b>17.9%*</b>		<b>10.9%</b>	<b>12.4%</b>	<b>15%*</b>
<b>Early</b> 7100-6700	South.L		1	2				
	South.K		2	1				
	<i>South.?K</i>		1					
	South.J							
	<i>South.?J</i>							
	South.H		1					
	South.G	1	1	1				
		<b>2.9%</b>	<b>17.6%</b>	<b>12.9%*</b>				

\* Percentage calculated without leg fragments

Table 5.163: Abbreviated clay types through time

Phases	Levels South	Head on Base			Head on Divided Base			Indeterminate				
		LA	Ma	UA	Undet.	LA	Ma	Mixed	Undet.	LA	Ma	Undet.
Final 6300-5950	TP.Q											
	TP.O-R							1				
Late 6500-6300	South.T/TP.N	1										
	South.S, TP.M	1			1							
	South.R		1				1					
	South.Q	1						3		1		1
	South.P	6	4		33	1	3	9		1		2
		<b>18.8%</b>	<b>10.4%</b>		<b>70.8%</b>	<b>5.6%</b>	<b>16.7%</b>	<b>5.6%</b>	<b>72.2%</b>	<b>40%</b>		<b>60%</b>
Middle 6700-6500	South.O	2	3		5	3					2	4
	South.N				2	4	1					6
	South.M				2	2					1	1
	South.?M					2					1	2
			<b>14.3%</b>	<b>21.4%</b>		<b>64.3%</b>	<b>13.2%</b>	<b>15.1%</b>		<b>71.7%</b>		
Early 7100-6700	South.L		3	1	3	2					2	4
	South.K	1				1	1				1	1
	South.?K		1		6	3						
	South.J											
	South.?J											
	South.I											
	South.H										1	
South.G				1							4	
		<b>6.3%</b>	<b>25%</b>		<b>62.5%</b>	<b>9.7%</b>	<b>12.9%</b>		<b>77.4%</b>		<b>30.8%</b>	<b>69.2%</b>

Late to final												
Middle to late				1								
Early to middle				4		2			7			

West	1	2		5	1	1			5			
------	---	---	--	---	---	---	--	--	---	--	--	--

Unstr. North		1		3	1	2			13			
Unstr. South				1		3			7			2
Unstr. Area unknown	1	2		20	1	1			37			10

Table 5.163 (continued): Abbreviated clay types through time.

Phases	Levels North	Head on Base					Head on Divided Base					Indeterminate				
		BO	LA	Ma	Undet.		BO	LA	Ma	BS	UA	Undet.	BO	LA	Ma	Undet.
Final 6300-5950																
Late 6500-6300	North.H-J IST.Unassigned	2	3	2	8	1	6	5			15	1	4	3		
			18.8%	12.5%	56.3%	3.7%	22.2%	18.5%			55.6%	12.5%	50%	37.5%		
		12.5%														
Middle 6700-6500	North.F,G North.?F, ?G		4	7	14	1	39	14	1	2	79		6	3	22	
			13.8%	27.6%	58.6%	0.7%	26.4%	10.8%	0.7%	1.4%	60.1%	19.3%	9.7%	71%		
Early 7100-6700																

Table 5.164: Anthropomorphic clay types through time

Phases	Levels South	Human-undivided base			Human-divided base			Composite	Heads				Indeterminate				
		LA	Ma	Undet.	LA	Ma	Undet.		BO	LA	Ma	UA	Undet.	LA	Ma	UA	Undet.
Final 6300- 5950	TP.Q																
	TP.O-R	1															
Late 6500- 6300	South.T/TP.N				1		6										
	South.S, TP.M						1										
	South.R		1				2										
	South.Q						1										
Middle 6700- 6500	South.P	1		2			1										
	South.O	25%	25%	50%	8.3%	8.3%	83.3%										66.7%
Early 7100- 6700	South.N						1										
	South.M																
	South.?M																1
	South.L																
Late to final Middle to late	South.K																
	South.?K																
	South.J		1				1										
	South.?J																
	South.?I		1				3										
	South.H																
West	South.G																
			33.3%	66.7%			100%										
Unstr. North																	
Unstr. South																	
Unstr. Area unknown																	

Late to final Middle to late																	

West																	

Unstr. North																	
Unstr. South																	
Unstr. Area unknown																	

Table 5.164 (continued): Anthropomorphic clay types through time

Phases	Levels North	Human-undivided base					Human-divided base			Heads			Indeterminate					
		BO	LA	Ma	Undet.	Undet.	LA	Ma	Undet.	LA	Ma	Undet.	LA	Ma	Undet.			
Final 6300-5950																		
Late 6500-6300	North.H-J IST. Unass.	1	2	1	9	1	1	7	1	1	3	1	1	3				
		7.1%	14.3%	7.1%	71.4%	14.3%	7.1%	78.6%	100%	14.3%	42.9%	42.9%						
Middle 6700-6500	North.F, G North.?F, ?G		1		1	3								1				
			20%		80%	100%								50%				
Early 7100-6700																		

Table 5.165: Geometric, indeterminate and unclear objects clay types through time

Phases	Levels South	Conical			Cylindrical			Indeterminate			Unclear					
		LA	Ma	Undet.	LA	Ma	Undet.	BO	LA	Ma	Undet.	BO	LA	Ma	MC	Undet.
Final 6300-5950	TP.Q			2	1	1					3					
	TP.O-R			100%	25%	25%					100%					
Late 6500-6300	South.T/TP.N			3		2				1	2					
	South.S, TP.M								1	2						2
	South.R		3	1					1	5						2
	South.Q		2	2	1			1	2	9		1				1
	South.P	2	2	13	1	7	21	1	3	1	2					3
		7.7%	19.2%	73.1%	9.1%	81.8%	1.8%	7.3%	16.4%	3.6%	70.9%	7.1%	35.7%		57.1%	
Middle 6700-6500	South.O			1		3			1	3				1		3
	South.N					1				6						
	South.M					1			2	3						1
	South.M					1			1	5						1
				100%		100%			19%		81%			16.7%		83.3%
Early 7100-6700	South.L			1	1			1	1	15				3		1
	South.K				1			1	1	3						3
	South.K												1			
	South.J			1				1	1	2						1
	South.H								1	1						
	South.G					1			1	11				1		6
				100%		33.3%		2.3%	11.6%		86%		6.3%	25%		0.7%
Late to final			1													
Middle to late										4				1		1
West			1	2	1	2	1	1	1	5	1	1	2	1	4	
Unstr. North						2	1	1	1	5						3
Unstr. South	1			1	1	1	1	1	1	9						4
Unstr. Area unknown			2		3		1			10						4
Unstr. Kopal										2						1

Table 5.165 (continued): Geometric, indeterminate and unclear objects clay types through time

Phases	Levels North	Conical					Cylindrical					Indeterminate					Unclear								
		LA	Ma	UA	Undet.	%	BO	LA	Ma	UA	Undet.	%	BO	LA	Ma	UA	Undet.	%	BO	LA	Ma	UA	Undet.	%	
Final 6300-5950																									
Late 6500-6300	North.H-J IST. Unass.				18		2	5	2	1	17	3	9	3	40	1			1						
					100%		11.8%	18.5%	11.8%	3.7%	63%	5.3%	17.5%	5.3%	71.9%	7.7%			7.7%						84.6%
Middle 6700-6500	North.F, G North.?F, ?G	6	2	2	8		1	1			6		7		39	1			2						20
					2						1				9				1						5
					50%						77.8%				80%	3.3%			10%						75.8%
Early 7100-6700		30%	10%	10%																					

Table 5.166: All figurines through time

Phases	Levels South	Zoomorphic	Abbreviated	Anthropomorphic	Phallomorphic	Geometric	Indeterminate/ Unclear
Final 6300-5950	TP.Q	1					
	TP.O-R	20	1	1		6	3
		<b>65.6%</b>	<b>3.1%</b>	<b>3.1%</b>		<b>18.8%</b>	<b>9.4%</b>
Late 6500-6300	South.T/TP.N	18	2	9		5	5
	South.S, TP.M	32	3	6			6
	South.R	19	1	2		4	11
	South.Q	29	6	4		3	15
	South.P	166	59	4		25	32
		<b>56.7%</b>	<b>15.2%</b>	<b>5.4%</b>		<b>7.9%</b>	<b>14.8%</b>
Middle 6700-6500	South.O	71	33	1	1	5	8
	South.N	63	27	1		1	6
	South.M	11	14			1	6
	South.?M	11	10	2			7
			<b>55.9%</b>	<b>30.1%</b>	<b>1.4%</b>	<b>0.4%</b>	<b>2.5%</b>
Early 7100-6700	South.L	31	31	10		2	21
	South.K	16	6	2		1	7
	South.?K	6	13	5			6
	South.J	7	1			1	4
	South.?J	1					
	South.I		1				
	South.?I			1			
	South.H	12	1				2
	South.G	38	7	2		3	19
			<b>43.2%</b>	<b>23.3%</b>	<b>7.8%</b>		<b>2.7%</b>

Late to final Middle to late Early to middle	19	1	2		1	
	8	13	2			6
	0					

West	50	15	9	2	6	15
------	----	----	---	---	---	----

Unstr. North Unstr. South Unstr. Area unknown Unstr. Kopal	60	20	3		2	11
	23	13	8		3	16
	99	72	42		5	15
	1					3

Table 5.166 (continued): All figurines through time

Phases	Levels North	Zoomorphic	Abbreviated	Anthropomorphic	Phallomorphic	Geometric	Indeterminate/ Unclear
Final 6300-5950							
Late 6500-6300	North.H-J IST. Unass.	206	50	30	2	45	68
		11	1	6			2
		<b>51.5%</b>	<b>12.1%</b>	<b>8.6%</b>	<b>0.5%</b>	<b>10.7%</b>	<b>16.6%</b>
Middle 6700- 6500	North.F, G <i>North.?F, ?G</i>	431	192	5		26	74
		40	16	5	1	3	16
		<b>58.2%</b>	<b>25.7%</b>	<b>1.2%</b>	<b>0.1%</b>	<b>3.6%</b>	<b>11.1%</b>
Early 7100-6700							

Table 5.167: All figurines clay types through time

Phases	Levels South	Black organic	Lower alluvial	Marl	Upper alluvial	Midden clay	Mixture	Indeterminate
Final 6300-5950	TP.Q		1					12
	TP.O-R		14	5				37.5%
Late 6500-6300	South.T/TP.N	2	7	1	1		1	27
	South.S, TP.M		19	7				21
	South.R		3	13				21
	South.Q	1	14	8				34
	South.P	7	43	38	2	1		195
Middle 6700-6500	South.O	2	15	15	0.6%	0.2%	0.2%	63.9%
	South.N		16	8				87
	South.M			5				74
	South.?M		1	5				27
		0.7%	11.5%	11.8%				24
Early 7100-6700	South.L		5	19	3			68
	South.K		2	11				19
	South.?K		2	6				22
	South.J			4				9
	South.?J							1
	South.I							1
	South.?I							1
	South.H		1	4				10
South.G		1	9	20.6%	1.2%		59	
		4.3%						73.9%

Late to final			1	1				21
Middle to late				5				24
Early to middle								

West	2	7	26	1	1			60
------	---	---	----	---	---	--	--	----

Unstr. North	3	11	11	1				70
Unstr. South	1	10	11	1				40
Unstr. Area unknown	5	23	12					193
Unstr. Kopal								4

Table 5.167 (continued): All figurines clay types through time

Phases	Levels North	Black organic	Lower alluvial	Marl	Upper alluvial	Brown silt	Midden clay	Indeterminate
<b>Final 6300-5950</b>								
<b>Late 6500-6300</b>	North.H-J IST. Unass.	31	96 6	39 3	2			233 11
		<b>7.4%</b>	<b>24.2%</b>	<b>10%</b>	<b>0.5%</b>			<b>58%</b>
<b>Middle 6700- 6500</b>	North.F, G North.?F, ?G	8	161 15	70 11	5 1	1		483 54
		<b>1%</b>	<b>21.8%</b>	<b>10%</b>	<b>0.7%</b>	<b>0.1%</b>		<b>66.4%</b>
<b>Early 7100-6700</b>								

## Tables Tell Sabi Abyad Material Properties

Inclusion type/ Zoomorphic figurines		
Lime	6	30%
Chalk	2	10%
Calcite	2	10%
Mica/biotite	1	5%
Mineral	1	5%
Sand	5	25%
Organic/vegetal	7	35%
Unclear	4	20%

Table 5.168: Inclusion types zoomorphic figurines

Table 5.169: Colours zoomorphic figurines

	Quadruped		Bucranium		Bird		Horns		Indeterminate		Totals	
Dark	1	0.3%					1	0.8%			2	0.4%
Light					1	100%					1	0.2%
<b>Total</b>	<b>1</b>	<b>0.3%</b>			<b>1</b>	<b>100%</b>	<b>1</b>	<b>0.8%</b>			<b>3</b>	<b>0.6%</b>
White	1	0.3%									1	0.2%
Light pink/brown	1	0.3%									1	0.2%
Light yellow/brown							1	0.8%			1	0.2%
Yellow-beige							1	0.8%			1	0.2%
Yellow-greenish	1	0.3%									1	0.2%
Yellowish brown	1	0.3%									1	0.2%
Light orange							6	5%			6	1.2%
Orange	1	0.3%									1	0.2%
Light orange/brown	1	0.3%									1	0.2%
Orange-brown	1	0.3%									1	0.2%
Brown-red	2	0.6%									2	0.4%
Grey-red	1	0.3%									1	0.2%
Reddish	1	0.3%									1	0.2%
<b>Total</b>	<b>11</b>	<b>3.2%</b>					<b>8</b>	<b>6.7%</b>			<b>19</b>	<b>3.9%</b>
Light brown	15	4.3%									15	3.1%
Brown	26	7.5%	1	20%			18	15%	3	15.8%	48	9.8%
Dark brown	15	4.3%									15	3.1%
Warm brown	1	0.3%					6	5%			7	1.4%
Light brown/grey	3	0.6%									2	0.4%
Brown-grey	11	3.2%					6	5%	2	10.5%	19	3.9%
Greyish brown	1	0.3%					1	0.8%			2	0.4%
Dark grey/brown	1	0.3%					1	0.8%			2	0.4%
<b>Total</b>	<b>73</b>	<b>21.1%</b>	<b>1</b>	<b>20%</b>			<b>32</b>	<b>26.7%</b>	<b>5</b>	<b>26.3%</b>	<b>108</b>	<b>22.1%</b>
Greenish-grey	1	0.3%									1	0.2%
Light grey	2	0.6%									2	0.4%
Grey	3	0.9%					2	1.7%			5	1%
Dark grey	5	1.4%					3	2.5%	1	5.3%	9	1.8%
Grey/black	3	0.9%					1	0.8%	1	5.3%	5	1%
Dark grey/black	3	0.9%	1	20%			1	0.8%			5	1%
Black	13	3.8%	2	40%			5	4.2%	2	10.5%	22	4.5%
<b>Total</b>	<b>30</b>	<b>8.7%</b>	<b>3</b>	<b>60%</b>			<b>12</b>	<b>10%</b>	<b>4</b>	<b>21.1%</b>	<b>49</b>	<b>10%</b>

Table 5.170: Inclusion types anthropomorphic and abbreviated figurines

Inclusion type/ Anthropomorphic and abbreviated figurines		
Lime	20	76.9%
Gypsum	1	3.8%
Quartzite	2	7.7%
Sand	6	23.1%
Grog	3	11.5%
Organic/vegetal	7	26.9%
Unclear	1	3.8%

Table 5.171: Colours geometric objects

	Conical		Cylindrical		Totals	
Pale yellow-brown			1	0.8%	1	0.4%
Yellowish brown	1	0.9%			1	0.4%
red-brown			1	0.8%	1	0.4%
<b>Total</b>	<b>1</b>	<b>0.9%</b>	<b>2</b>	<b>1.6%</b>	<b>3</b>	<b>1.3%</b>
Light brown	6	5.3%	11	8.7%	17	7.1%
Light brown/beige	1	0.9%			1	0.4%
Beige			1	0.8%	1	0.4%
Brown	9	8.0%	11	8.7%	20	8.3%
Dark brown	8	7.1%	8	6.3%	16	6.7%
Very dark brown			1	0.8%	1	0.4%
Brown-grey	2	1.8%	10	7.9%	12	5%
Brown-dark grey	4	3.5%			4	1.7%
<b>Total</b>	<b>30</b>	<b>26.5%</b>	<b>42</b>	<b>33.1%</b>	<b>72</b>	<b>30%</b>
Greenish-grey	1	0.9%			1	0.4%
Grey	8	7.1%			8	3.3%
Dark grey	4	3.5%	2	1.6%	6	2.5%
Black/grey	1	0.9%			1	0.4%
Black	2	1.8%	8	6.3%	10	4.2%
<b>Total</b>	<b>16</b>	<b>15.0%</b>	<b>10</b>	<b>7.9%</b>	<b>26</b>	<b>10.8%</b>

Table 5.172: Colours anthropomorphic and abbreviated figurines

	Head on base		Head on divided base		Pillar shape		Decorated type		Violin type		Human-undivided base		Indeterminate		Totals	
Dark	1	1.2%			1	0.7%									2	0.5%
<b>Total</b>	<b>1</b>	<b>1.2%</b>			<b>1</b>	<b>0.7%</b>									<b>2</b>	<b>0.5%</b>
White	1	1.2%													1	0.3%
Light yellow-brown	1	1.2%			1	0.7%			1	7.7%			1	1.6%	4	1%
Blueish-beige					1	0.7%									1	0.3%
Yellowish brown	1	1.2%													1	0.3%
red-brown			1	2.8%	1	0.7%									2	0.5%
Reddish-orange													1	1.6%	1	0.3%
Red													1	1.6%	1	0.3%
<b>Total</b>	<b>3</b>	<b>3.7%</b>	<b>1</b>	<b>2.8%</b>	<b>3</b>	<b>2.1%</b>			<b>1</b>	<b>7.7%</b>			<b>3</b>	<b>4.9%</b>	<b>11</b>	<b>2.8%</b>
Light brown	5	6.2%			6	4.1%	2	9.1%			1	2.7%	2	3.3%	16	4.1%
Brown/beige											1	2.7%			1	0.3%
Brown	2	2.5%	1	2.8%	4	2.8%	2	9.1%			3	8.1%	2	3.3%	14	3.5%
Dark brown	1	1.2%	2	5.6%	4	2.8%	1	4.5%	2	15.4%			2	3.3%	12	3.0%
Light brown-grey	1	1.2%			3	2.1%									4	1%
Brown-grey	2	2.5%	1	2.8%	5	3.4%					3	8.1%	3	4.9%	14	3.5%
Brown-dark grey							2	9.1%	2		1	2.7%			5	1.3%
<b>Total</b>	<b>11</b>	<b>13.6%</b>	<b>4</b>	<b>11.1%</b>	<b>22</b>	<b>15.2%</b>	<b>7</b>	<b>31.8%</b>	<b>2</b>	<b>15.4%</b>	<b>9</b>	<b>24.3%</b>	<b>9</b>	<b>14.8%</b>	<b>61</b>	<b>15.4%</b>
Light grey	2	2.5%													2	0.5%
Grey	3	3.7%	1	2.8%							1	2.7%	3	4.9%	8	2%
Dark grey	2	2.5%	2	5.6%	1	0.7%	5	22.7%	2	15.4%			3	4.9%	15	3.8%
Black	4	4.9%	1	2.8%	9	6.2%	1	4.5%	1	7.7%	1	2.7%	2	3.3%	19	4.8%

Table 5.173: Inclusion types indeterminate and unclear objects

Inclusion type/ Indeterminate and unclear objects	Indeterminate		Unclear	
Lime	6	42.9%	6	27.3%
Calcite	1	7.1%		
Mica/biotite				
Mineral	1	7.1%		
Sand	2	14.3%	2	9.1%
Organic/vegetal	2	14.3%	9	40.9%
Grog	1	7.1%	1	4.5%
Charcoal			1	4.5%
Unclear	1	7.1%	3	13.6%

Table 5.174: Colours indeterminate and unclear objects

	Indeterminate		Unclear		Totals	
Dark	2	0.7%	2	1.1%	4	0.9%
<b>Total</b>	<b>2</b>	<b>0.7%</b>	<b>2</b>	<b>1.1%</b>	<b>4</b>	<b>0.9%</b>
Light yellow-brown			1	0.6%	1	0.2%
Yellowish brown	1	0.4%	1	0.6%	2	0.4%
Yellowish gray			1	0.6%	1	0.2%
Orange	1	0.4%			1	0.2%
Whitish-red			1	0.6%	1	0.2%
Red			1	0.6%	1	0.2%
Red-brown			2	1.1%	2	0.4%
Red-dark brown			1	0.6%	1	0.2%
<b>Total</b>	<b>2</b>	<b>0.7%</b>	<b>8</b>	<b>4.5%</b>	<b>10</b>	<b>2.2%</b>
Light brown	12	4.3%	7	3.9%	19	4.1%
Light brown-grey	2	0.7%			2	0.4%
Greyish-beige	1	0.4%	1	0.6%	2	0.4%
Brown	20	7.1%	20	11.2%	40	8.7%
Dark brown	10	3.5%	12	6.7%	22	4.8%
Very dark brown	1	0.4%			1	0.2%
Brown-light grey	2	0.7%			2	0.4%
Brown-grey	18	6.4%	16	8.9%	34	7.4%
Brown-dark grey	1	0.4%	4	2.2%	4	0.9%
<b>Total</b>	<b>66</b>	<b>23.4%</b>	<b>60</b>	<b>33.5%</b>	<b>126</b>	<b>27.3%</b>
Greenish-grey	1	0.4%			1	0.2%
Light grey			2	1.1%	2	0.4%
Grey	3	1.1%	4	2.2%	7	1.5%
Dark grey	3	1.1%	2	1.1%	5	1.1%
Black-grey	2	0.7%	1	0.6%	3	0.7%
Black-dark grey	3	1.1%			3	0.7%
Black	16	5.7%	2	1.1%	18	3.9%
<b>Total</b>	<b>28</b>	<b>9.9%</b>	<b>11</b>	<b>6.1%</b>	<b>39</b>	<b>8.5%</b>

## Tables Tell Sabi Abyad Production

Table 5.175: Smoothing levels compared to zoomorphic figurines

Level of smoothing/ Zoomorphic	Quadruped		Bucrania		Bird		Horn		Indeterminate		Totals	
<b>Rough</b>	5	1.4%	0		0		0		0		5	1%
<b>Roughly smoothed</b>	6	1.7%	0		0		0		0		6	1.2%
<b>Moderately smoothed</b>	4	1.2%	1	20%	0		4	3.3%	0		9	1.8%
<b>Smoothed</b>	126	36%	2	40%	1	100%	54	45%	8	42.1%	191	38.9%
<b>Well smoothed</b>	11	3.2%	0		0		3	2.5%	0		14	2.9%
<b>No information</b>	194	56.1%	2	40%	0		59	49.2%	11	57.9%	266	54.2%
<b>Totals</b>	<b>346</b>	<b>100%</b>	<b>5</b>	<b>100%</b>	<b>1</b>	<b>100%</b>	<b>120</b>	<b>100%</b>	<b>19</b>	<b>100%</b>	<b>491</b>	<b>100%</b>

Table 5.176: Heat exposure compared to zoomorphic figurines

Heat exposure/ Zoomorphic	Quadruped		Bucrania		Bird		Horn		Indeterminate		Totals	
<b>Unbaked</b>	146	42.2%	2	40%	0		37	30.8%	3	15.8%	188	38.3%
<b>Baked</b>	49	14.2%	1	20%	1	100%	18	15%	4	21.1%	73	14.9%
<b>Burnt</b>	39	11.3%	2	40%	0		16	13.3%	2	10.5%	59	12%
<b>No information</b>	112	32.7%	0		0		49	40.8%	10	52.6%	171	34.8%
<b>Totals</b>	<b>346</b>	<b>100%</b>	<b>5</b>	<b>100%</b>	<b>1</b>	<b>100%</b>	<b>120</b>	<b>100%</b>	<b>19</b>	<b>100%</b>	<b>491</b>	<b>100%</b>

Table 5.177: Tool use compared to anthropomorphic and abbreviated figurines

Tool use/Abbreviated and Anthropomorphic figurines	Head on base		Head on Divided Base		Pillar shape		Decorated type		Violin type		Human- Undivided base		Indeterminate	
(Dowel) hole/perforation	2	2.5%	1	2.8%	1	0.7%	4	18.2%	3	23.1%	8	21.6%	0	
Delineating legs	0		3	8.3%	0		0		0		0		0	
Body features: grooves/incisions	0		0		0		18	81.8%	4	30.8%	2	5.4%	0	
Body features: tool impressions	0		0		0		2	9.1%	2	15.4%	0		0	
Body features: fingernail impressions	2	2.5%	0		0		4	18.2%	1	7.7%	0		0	
Facial features	0		0		0		0		0		1	2.7%	2	3.3%

Table 5.178: Smoothing levels compared to anthropomorphic and abbreviated figurines

Level of smoothing/ Abbreviated and Anthropomorphic	Head on base		Head on Divided Base		Pillar shape		Decorated type		Violin type		Human- Undivided base		Indeterminate		Totals	
<b>Rough</b>	1	1.2%	0		0		0		0		2	5.4%	1	1.6%	4	1%
<b>Roughly smoothed</b>	1	1.2%	9	25%	1	0.7%	0		0		0		0		11	2.8%
<b>Moderately smoothed</b>	2	2.5%	1	2.8%	4	2.8%	0		0		0		0		7	1.8%
<b>Smoothed</b>	34	42%	12	33.3%	50	34.5%	9	40.9%	8	61.5%	15	40.5%	16	26.2%	144	36.5%
<b>Well smoothed</b>	1	1.2%	0		7	4.8%	0		1	7.7%	0		4	6.6%	13	3.3%
<b>No information</b>	42	51.9%	14	38.9%	83	57.2%	13	59.1%	4	30.8%	20	54.1%	40	65.6%	216	54.7%
<b>Totals</b>	<b>81</b>	<b>100%</b>	<b>36</b>	<b>100%</b>	<b>145</b>	<b>100%</b>	<b>22</b>	<b>100%</b>	<b>13</b>	<b>100%</b>	<b>37</b>	<b>100%</b>	<b>61</b>	<b>100%</b>	<b>395</b>	<b>100%</b>

Table 5.179: Heat exposure compared to anthropomorphic and abbreviated figurines

Heat exposure/ Abbreviated and Anthropomorphic	Head on base		Head on Divided Base		Pillar shape		Decorated type		Violin type		Human- Undivided base		Indeterminate		Totals	
<b>Unbaked</b>	36	44.4%	19	52.8%	38	26.2%	3	13.6%	1	7.7%	17	45.9%	23	37.7%	137	34.7%
<i>Sundried</i>	4	4.9%	1	2.8%	1	0.7%	1	4.5%							7	1.8%
<i>Sundried to lightly baked</i>					1	0.7%							1	1.6%	2	0.5%
<b>Totals unbaked</b>	<b>40</b>	<b>49.4%</b>	<b>20</b>	<b>55.6%</b>	<b>40</b>	<b>27.6%</b>	<b>4</b>	<b>18.2%</b>	<b>1</b>	<b>7.7%</b>	<b>17</b>	<b>45.9%</b>	<b>24</b>	<b>39.3%</b>	<b>146</b>	<b>37%</b>
<b>Baked</b>	12	14.8%	8	22.2%	27	18.6%	6	27.3%	1	7.7%	4	10.8%	7	11.5%	65	16.5%
<i>Lightly</i>	2	2.5%	1	2.8%					1	7.7%	1	2.7%	3	4.9%	8	2%
<b>Totals baked</b>	<b>14</b>	<b>17%</b>	<b>9</b>	<b>25%</b>	<b>27</b>	<b>19%</b>	<b>6</b>	<b>27.3%</b>	<b>2</b>	<b>15.4%</b>	<b>5</b>	<b>13.5%</b>	<b>10</b>	<b>16.4%</b>	<b>73</b>	<b>18.5%</b>
<b>Burnt</b>	10	12.3%	3	8.3%	23	15.9%	8	36.4%	7	53.8%	8	21.6%	10	16.4%	69	17.5%
<i>Completely burnt</i>					1	0.7%									1	0.3%
<b>Totals burnt</b>	<b>10</b>	<b>12.3%</b>	<b>3</b>	<b>8.3%</b>	<b>24</b>	<b>16.6%</b>	<b>8</b>	<b>36.4%</b>	<b>7</b>	<b>53.8%</b>	<b>8</b>	<b>21.6%</b>	<b>10</b>	<b>16.4%</b>	<b>70</b>	<b>17.8%</b>
<b>Unknown</b>	17	21%	4	11.1%	54	37.2%	4	18.2%	3	23.1%	7	18.9%	17	27.9%	106	26.8%
<b>Grand total</b>	<b>81</b>	<b>100%</b>	<b>36</b>	<b>100%</b>	<b>145</b>	<b>100%</b>	<b>22</b>	<b>100%</b>	<b>13</b>	<b>100%</b>	<b>37</b>	<b>100%</b>	<b>61</b>	<b>100%</b>	<b>395</b>	<b>100%</b>

Table 5.180: Smoothing levels compared to geometric objects

Level of smoothing/ Geometric	Conical		Cylindrical		Totals	
<b>Rough</b>	2	1.8%	0		2	0.8%
<b>Roughly smoothed</b>	0		3	2.4%	3	1.3%
<b>Moderately smoothed</b>	2	1.8%	4	3.1%	6	2.5%
<b>Smoothed</b>	37	32.7%	60	47%	97	40.4%
<b>Well smoothed</b>	4	3.5%	4	3.1%	8	3.3%
<b>Burnished</b>	0		1	0.8%	1	0.4%
<b>No information</b>	68	60.2%	55	43.3%	123	51.3%
<b>Totals</b>	<b>113</b>	<b>100%</b>	<b>127</b>	<b>100%</b>	<b>240</b>	<b>100%</b>

Table 5.181: Heat exposure compared to geometric objects

Heat exposure/ Geometric	Conical		Cylindrical		Totals	
<b>Unbaked</b>	48	42.5%	36	28.3%	84	35%
<b>Baked</b>	26	23%	16	12.6%	42	17.5%
<b>Burnt</b>	12	10.6%	22	17.3%	34	14.2%
<b>No information</b>	27	23.9%	53	41.7%	80	33.3%
<b>Totals</b>	<b>113</b>	<b>100%</b>	<b>127</b>	<b>100%</b>	<b>240</b>	<b>100%</b>

Table 5.182: Smoothing levels compared to possible types within indeterminate objects

Level of smoothing/ Indeterminate	Abbreviated/ Anthropomorphic		Zoomorphic		Abbreviated/ Anthropomorphic or Zoomorphic		Totals	
<b>Rough</b>	0		1	1.6%	0		1	0.4%
<b>Roughly smoothed</b>	0		2	3.2%	3	1.7%	5	1.8%
<b>Moderately smoothed</b>	1	2.4%	1	1.6%	9	5.1%	11	3.9%
<b>Smoothed</b>	19	45.2%	28	45.2%	77	43.3%	124	44%
<b>Well smoothed</b>	0		0		4	2.2%	4	1.4%
<b>No information</b>	22	52.4%	30	48.4%	85	47.8%	137	48.6%
<b>Totals</b>	<b>42</b>	<b>100%</b>	<b>62</b>	<b>100%</b>	<b>178</b>	<b>100%</b>	<b>282</b>	<b>100%</b>

Table 5.183: Heat exposure compared to possible types within indeterminate objects

Heat exposure/ Indeterminate	Abbreviated/ Anthropomorphic		Zoomorphic		Abbreviated/ Anthropomorphic or Zoomorphic		Totals	
<b>Unbaked</b>	22	52.4%	25	40.3%	57	32%	104	36.9%
<b>Baked</b>	5	11.9%	6	9.7%	31	17.4%	42	14.9%
<b>Burnt</b>	4	9.5%	8	12.9%	34	19.1%	46	16.3%
<b>No information</b>	11	26.2%	23	37.1%	56	31.5%	90	31.9%
<b>Totals</b>	<b>42</b>	<b>100%</b>	<b>62</b>	<b>100%</b>	<b>178</b>	<b>100%</b>	<b>282</b>	<b>100%</b>

Table 5.184: Smoothing levels compared to unclear objects

Level of smoothing/ Unclear		
<b>Rough</b>	3	1.7%
<b>Roughly smoothed</b>	5	2.8%
<b>Moderately smoothed</b>	11	6.1%
<b>Smoothed</b>	69	38.5%
<b>Well smoothed</b>	3	1.7%
<b>Burnished</b>	1	0.6%
<b>No information</b>	87	48.6%
<b>Totals</b>	<b>179</b>	<b>100%</b>

Table 5.185: Heat exposure compared to unclear objects

Heat exposure/ Unclear		
<b>Unbaked</b>	71	39.7%
<b>Baked</b>	30	16.8%
<b>Burnt</b>	19	10.6%
<b>No information</b>	59	33%
<b>Totals</b>	<b>179</b>	<b>100%</b>

**Tables Tell Sabi Abyad Use Wear**

Table 5.186: Intentional damage compared to smoothing levels zoomorphic figurines

Intentional damage/ Smoothing level	Rough		Roughly smoothed		Moderately smoothed		Smoothed		Well smoothed		Unknown		Totals	
<b>Punctures</b>	1	20%	0		0		6	4.7%	2	18.2%	5	2.6%	14	4%
<b>Gauges</b>	0		0		1	25%	6	4.7%	0		7	3.6%	14	4%
<b>Incisions</b>	0		0		0		2	1.6%	0		10	5.2%	12	3.5%
<b>Deformation</b>	0		1	16.7%	0		0		0		2	1%	3	0.9%
<b>Breakage</b>	0		0		1	25%	7	5.5%	0		9	4.7%	17	4.9%
<b>Deformation and breakage</b>	0		0		0		0		1	9.1%	0		1	0.3%
<b>Totals</b>	<b>1</b>	<b>20%</b>	<b>1</b>	<b>16.7%</b>	<b>2</b>	<b>50%</b>	<b>21</b>	<b>16.5%</b>	<b>3</b>	<b>27.3%</b>	<b>33</b>	<b>15.5%</b>	<b>61</b>	<b>17.6%</b>

Table 5.187: Intentional damage compared to heat exposure zoomorphic figurines

Intentional damage/ Heat exposure	Unbaked		Baked		Burnt		Unknown	
<b>Punctures</b>	5	3.4%	3	6%	2	5.1%	4	3.6%
<b>Gauges</b>	5	3.4%	4	8%	2	5.1%	3	2.7%
<b>Incisions</b>	5	3.4%	2	4%	1	2.6%	4	3.6%
<b>Deformation</b>	2	1.4%	0		0		1	0.9%
<b>Breakage</b>	7	4.8%	7	14%	1	2.6%	2	1.8%
<b>Deformation and breakage</b>	0		0		0		1	0.9%
<b>Totals</b>	<b>24</b>	<b>16.4%</b>	<b>16</b>	<b>32%</b>	<b>6</b>	<b>15.4%</b>	<b>15</b>	<b>13.5%</b>

## Tables Tell Sabi Abyad Contexts and Pattern through Time

Table 5.188: Operations I and III, amount of figurines per building

	Building	Total figurines		Building	Total figurines	Building	Total figurines
I	3.1	9	III	1.3	1	4.22	2
	3.3	2		1.5	1	4.23	2
	5.3	2		1.6	1	4.24	4
	6.2	31		1.7	1	4.26	2
	6.4	1		2.1	3	5.1	5
	6.5	18		2.2	2	5.2	2
	6.6	4		2.3	1	5.4	10
	6.9	8		2.7	1	5.5	5
	6.12	3		3.1	4	5.8	1
	6.13	1		3.2	3	8.1	2
	6.14	13		3.3?	1	8.2	1
	6.15	1		4.1	5	11.2	2
	6.22	1		4.2	5	12.1	8
	7.1	2		4.4	17	unknown	6
	7.3	1		4.5	2		
	7.5	1		4.6	4		
	7.9	2		4.9	1		
	7.10	1		4.11	1		
	7.13	1		4.12	6		
	7.14	1		4.16?	1		
8.4	1	4.18	1				
Tholos BR	1	4.21	1				

Table 5.189: Context types zoomorphic figurines

Context types/ Zoomorphic	Quadruped		Bucranium		Bird		Horn		Indeterminate		Totals	
Storage features	4	1.2%	0		0		1	0.8%	0		5	1%
Fire features	21	6.1%	0		0		10	8.3%	3	15.8%	34	6.9%
Platform	13	3.8%	1	20%	0		3	2.5%	0		17	3.5%
Room fill	44	12.7%	0		0		9	7.5%	1	5.3%	54	11%
Floor	9	2.6%	1	20%	0		2	1.7%	0		12	2.4%
Construction	4	1.2%	0		0		1	0.8%	0		5	1%
Foundation fill	2	0.6%	0		0		0		0		2	0.4%
Burial fill	3	0.9%	0		0		0		0		3	0.6%
Activity: external surface	9	2.6%	0		0		6	5%	0		15	3.1%
Soil layer	84	24.3%	1	20%	0		30	25%	5	26.3%	120	24.4%
Debris layer	13	3.8%	1	20%	0		11	9.2%	0		25	5.1%
Ash deposit	50	14%	0		0		11	9.2%	2	10.5%	63	12.8%
Pit fill	75	21.7%	1	20%	0		33	27.5%	7	37%	116	23.6%
Unstratified	15	4.3%	0		1	100%	3	2.5%	1	5.3%	20	4.1%
<b>Totals</b>	<b>346</b>	<b>100%</b>	<b>5</b>	<b>100%</b>	<b>1</b>	<b>100%</b>	<b>120</b>	<b>100%</b>	<b>19</b>	<b>100%</b>	<b>491</b>	<b>100%</b>

Table 5.190: Context types anthropomorphic and abbreviated figurines

Context types/ Anthropomorphic and Abbreviated	Head on base		Head on divided base		Pillar shape		Decorated type		Violin type		Human-Undivided base		Indeterminate		Totals	
Storage features	3	3.7%	0		2	1.4%	0		0		1	2.7%	1	1.6%	7	1.8%
Fire features	6	7.4%	4	11.1%	7	4.8%	0		1	7.7%	1	2.7%	4	6.6%	23	5.8%
Platform	1	1.2%	1	2.8%	2	1.4%	0		0		0		4	6.6%	8	2%
Room fill	21	25.9%	3	8.3%	7	4.8%	17	77.3%	6	46.2%	9	24.3%	9	14.8%	72	18.2%
Floor	2	2.5%	1	2.8%	0		2	9.1%	2	15.4%	3	8.1%	0		10	2.5%
Construction	2	1.2%	0		5	3.4%	0		0		0		1	1.6%	8	2%
Foundation fill	0		0		1	0.7%	0		0		0		0		1	0.3%
Burial fill	2	2.5%	0		1	0.7%	0		0		0		0		3	0.8%
Activity: external surface	0		0		10	6.9%	1	4.5%	0		1	2.7%	2	3.3%	14	3.5%
Soil layer	22	27.2%	15	41.7%	41	28.3%	1	4.5%	2	15.4%	8	21.6%	14	23.0%	103	26.1%
Debris layer	5	6.2%	2	5.6%	8	5.5%	1	4.5%	0		6	16.2%	5	8.2%	27	6.8%
Ash deposit	6	7.4%	4	11.1%	33	22.8%	0		0		3	8.1%	12	19.7%	58	14.7%
Pit fill	9	11.1%	5	13.9%	20	13.8%	0		0		2	5.4%	6	9.8%	42	10.6%
Unstratified	2	2.5%	1	2.8%	8	5.5%	0		2	15.4%	3	8.1%	3	4.9%	19	4.8%
<b>Totals</b>	<b>81</b>	<b>99%</b>	<b>36</b>	<b>100%</b>	<b>145</b>	<b>100%</b>	<b>22</b>	<b>100%</b>	<b>13</b>	<b>100%</b>	<b>37</b>	<b>100%</b>	<b>61</b>	<b>100%</b>	<b>395</b>	<b>100%</b>

Table 5.191: Context types geometric objects

Context types/ Geometric	Conical		Cylindrical	
Storage features	0		1	0.8%
Fire features	6	5.3%	6	4.7%
Platform	3	2.7%	3	2.4%
Room fill	17	15%	6	4.7%
Floor	0		2	1.6%
Construction	2	1.8%	1	0.8%
Foundation fill	1	0.9%	0	
Burial fill	2	1.8%	2	1.6%
Activity: external surface	2	1.8%	4	3.1%
Soil layer	26	23%	38	29.9%
Debris layer	6	5.3%	8	6.3%
Ash deposit	21	18.6%	24	18.9%
Pit fill	15	13.3%	26	20.5%
Unstratified	12	10.6%	6	4.7%
<b>Totals</b>	<b>113</b>	<b>100%</b>	<b>127</b>	<b>100%</b>

Table 5.192: Context types indeterminate and unclear objects

Context types/ Indeterminate and Unclear	Indeterminate		Unclear	
Storage features	2	0.7%	2	1.1%
Fire features	17	6.0%	11	6.1%
Platform	15	5.3%	4	2.2%
Room fill	26	9.2%	30	16.8%
Floor	7	2.5%	6	3.4%
Construction	4	1.4%	1	0.6%
Foundation fill	0		0	
Burial fill	0		0	
Activity: external surface	8	2.8%	4	2.2%
Soil layer	70	24.8%	50	27.9%
Debris layer	19	6.7%	10	5.6%
Ash deposit	55	19.5%	21	11.7%
Pit fill	41	14.5%	26	14.5%
Unstratified	18	6.4%	14	7.8%
<b>Totals</b>	<b>282</b>	<b>100%</b>	<b>179</b>	<b>100%</b>

Table 5.193: Figurines related to storage features

Area	Sq.	Locus/Lot	Building	Description	Zoomorphic	Anthro/Abbr.	Geometric	Indeterminate	Unclear	Totals	Other finds
III	G03	066/198	5.4	Niche: BI	1					1	
III	G03	073/209	5.4	Bin: BO				1		1	Bone awl
III	I04	097/103	n.a.	Bin: X	1					1	
III	H05	208/431	4.12	Bin: DB					1	1	
III	H03	214/447	n.a.	Bin: DP			1			1	
III	H03	276/687	4.4	Bin: GE	3	7		1	1	12	Bone awl (4x), stone axe, beads (3x stone, 11x shell), stone hammer (4x), unclear clay lump, stone palette, bone spatula, stone vessel fragment (2x), whetstone

Table 5.194: Figurines related to fire-related contexts

Area	Sq.	Locus/Lot	Building	Description	Zoomorphic	Anthro/Abbr.	Geometric	Indeterminate	Unclear	Totals	Other finds
I	R14	006/007	n.a.	Oven: F		1				1	
I	Q15	050/245	n.a.	Oven: AT			1			1	Bone awl, token
I	Q15	076/302	6.13	Hearth: BZ			1			1	
I	S12	089/204	n.a.	Oven: AL	5		1		1	7	Found with many objects: 78 tokens, 32 sling missiles, grinding slab, polisher, pierced disc, token
I	S14	101/109	n.a.	Oven: BT			1			1	
I	P13	105/305	n.a.	Oven: CC		1				1	
I	P13	107/286	n.a.	Oven: CA					1	1	
II	T04	003/002	n.a.	Oven in pit: A		1				1	Many Halaf sherds and animal bone
II	U06	005/007	n.a.	Ash pocket/hearth	1					1	White ware, grinding slab (2x), stone hammer, jar stopper, token
III	K4n	017/035	n.a.	Oven: M		1				1	
III	F05	024/046	n.a.	Hearth: R				1		1	Pottery sherds, animal bone
III	E03	027/048	n.a.	Hearth: N					1	1	LBA zoomorphic figurine
III	F05	040/108	n.a.	Oven: AO		1				1	ceramic bowl, 3x shell
III	F03	079/152	n.a.	Oven: BH	1				1	2	complete stone sling missile
III	E03	115/291	n.a.	Oven floor: CK	1	2				3	
III	E04	124/433	n.a.	Fire pit: FJ		1				1	
III	E04	125/438	n.a.	Fire pit: FK	1	1				2	
III	E04	131/386	n.a.	Fire pit: FD	1					1	stone axe fragment, piece of plaster
III	J05	150/297	n.a.	Oven: CP		1				1	burnt bone awl
III	E04	150/x16	n.a.	Oven: GB		1				1	two unclear clay fragments
III	J05	170/353, 200/407	n.a.	Oven: CQ		2				2	One more unclear clay fragment
III	D04	179/413	n.a.	Hearth: DZ				1		1	Fragment of stone vessel
III	F04	181/405	n.a.	Oven/hearth: DZ		1				1	
III	H03	193/512	n.a.	Hearth: EG				1		1	
III	E03	198/440	n.a.	Hearth: FA		1				1	
III	D04	217/474	n.a.	Hearth: EW			1	1	1	3	
III	H03	274/663	n.a.	Fire pit: GJ	1				1	2	One more unclear clay fragment
III	H4/I4	312/515	n.a.	Oven: JA	1					1	
III	H4/I4	347/585	n.a.	Hearth: JY					1	1	One more unclear clay fragment
III	D03	385/453	n.a.	Hearth: DS		1				1	
III	D03	405/498	n.a.	Hearth: EM			1			1	
III	D03	422/550	n.a.	Hearth: FL	1					1	
III	J04	535/959	n.a.	Oven: GE	1					1	
III	H5/I5	605/658	n.a.	Hearth: IG	1					1	One more unclear clay fragment
III	J04	934/1412	n.a.	Oven: LR			1			1	Fragment of worked stone
III	J04	982/1552	n.a.	Fire pit: MO	4	3	1	1	1	10	48 clay lumps: tokens?, 7 tokens, clay bead
III	J04	983/1530	n.a.	Fire pit: MU			1			1	
V	H13	017/052	n.a.	Oven: G		1				1	
SAB II	II-E07	002/002	n.a.	Oven: A		1			2	3	
SAB III	J08	003/006	n.a.	Oven: A	1			2		3	Five unclear burnt clay fragments
SAB III	I7w	015/025	n.a.	Oven fill	1					1	
SAB III	H09	026/045- 046	unknown	Oven/hearth: P	1	1	1	1		4	Possible token, labret, grinder, stone fragment
SAB III	H09	031/048	n.a.	Hearth: U	1		1			2	
SAB III	I7w	032/082	n.a.	Oven: Y			1			1	
SAB III	J07	042/080	n.a.	Hearth: AF	4			4		8	Found with a cluster of 32 clay fragments (unspecified) and cooking stones
SAB III	I7w	046/088	n.a.	Oven/pit: AQ	3			3		6	
SAB III	J07	058/148	n.a.	Hearth: AS	1					1	
SAB III	I08	108/185	n.a.	Fire pit fill	1			1		2	
SAB III	I8e	502/515	n.a.	Fire pit: NA	1			2		3	
SAB III	I7e	519/534	n.a.	Fire pit: KY	1					1	
SAB III	I7e	530/554	n.a.	Oven: LE		1				1	

Table 5.195: Figurines related to floor contexts

Area	Sq.	Locus/Lot	Building	Description	Zoomorphic	Anthro/Abbr.	Geometric	Indeterminate	Unclear	Totals	Other finds
I	T14	013/013	6.14	Floor		7			1	8	Clay fragments (3x), labret (2x), token, potstand (2x), painted ceramic bowl fragment (5x), grinding slab fragment (2x), grinder fragment (2x)
I	S13	040/123	7.13	Floor/pavement: RR	1					1	Pierced disc, sling missile
III	E03	065/148	4.2	Floor (fill?); AY		1				1	Stone grinder
III	F05	066/158	4.21	Floor (fill?)				1		1	Grinding slab
III	E03	067/155	4.2	Floor: AN					1	1	
III	E03	086/192-195	5.2	Floor	1		1			2	Stone axe fragment, grinding slab fragment, grinding tool fragment
III	F03	093/259	4.2	Floor: ET			1			1	
III	E03	140/339	8.1	Floor: DV	1					1	Stone vessel fragment
III	H05	252/735	4.12	Floor: EU		1				1	
III	H03	273/662	4.5	Floor: FL					1	1	Stone vessel
III	I03	312/850	4.11	Floor: HP				1		1	Sling missile fragment, stone palette, grinding stone, hammerstone (2x), grinding slab
III	G05	764/421	4.24	Floor		1				1	
III	G05	773/426	4.24	Floor (fill?)	1					1	
SAB II	G05	020/062	V	Floor				1		1	
SAB II	G05	026/075	IV	Floor					2	2	Possible token
SAB II	G05	028/074	V	Floor	2					2	
SAB II	G05	029/064	V	Floor	1				1	2	
SAB III	J09	039/045	unknown	Floor	4			1		5	Pounder fragment, clay ball, shells, fire-cracked stones
SAB III	H08	054/092	unknown	Floor: BT				1		1	
SAB III	H09	072/184	unknown	Floor: BK				1		1	Bitum with baketry impression, stone bead
SAB III	H09	077/186	unknown	Floor (fill?): BK				1		1	
SAB III	H08	143/327	unknown	Floor: FS	1					1	Limestone bead, bitumen basketry fragment, clay fragment, stone vessel fragment

Table 5.196: Figurines related to object clusters

Area	Sq.	Locus/Lot	Building	Description	Zoomorphic	Anthro/Abbr.	Geometric	Indeterminate	Unclear	Totals	Other finds
III	D04	143/300	n.a.	Ash deposit				3	2	5	One more unclear clay fragment, stone vessel fragment, many animal bones
III	H03	163/358	n.a.	Ash deposit				1	1	2	Three more unclear clay fragments, sling missile (2x), token
III	D04	170/351	n.a.	Ash deposit	3	2	1	1		7	Bone spatula, stone vessel fragment (2x)
III	D04	173/358-368	n.a.	Ash deposit	11	2	3	8	1	25	Another 8 unclear clay fragments, stone vessel fragment
III	I05	343/624	n.a.	Ash deposit					1	1	Bone awl (4x), clay bead, unclear clay fragment (3x), stone hammer, grinding slab fragment (3x), clay labrets (3x), pestle fragment, bone spatula, clay token (2x), stone vessel fragment (2x)
SAB III	I06	023/104-109	n.a.	Ash deposit	5	4	4	4		17	
SAB III	J04	050/multiple	n.a.	Ditch/platform	4	2		6		12	At least two more unclear clay fragments, grinding slab fragment
III	D04	154/326-332	n.a.	Pit fill: DN	3		1	2		6	Stone vessel fragment, bone spatula fragment, clay disc/palette fragment (2x)
SAB II	H05	050/070-111	n.a.	Pit fill: BB	7		1	3		11	Bone awl, clay fragment with impression (?), stone polisher, stone vessel, stone axe, white ware fragment
SAB III	H07	158/311	n.a.	Pit fill: AN	3		1		1	5	Two more unclear clay fragments, large animal bones
SAB III	H08	043/099-129	n.a.	Pit fill locus 043	4	4	3	1	2	14	Seven more unclear clay fragment, clay disc fragment
SAB III	H08	043/148	n.a.	Pit fill locus 043	1		4	2	1	8	Three more unclear clay fragments
SAB III	H08	043/160	n.a.	Pit fill locus 043	1	1	2	1	1	6	Five more unclear clay fragments
SAB III	H08	multiple	n.a.	Pit: central fill	12	1	1	5	1	20	25 other unclear clay fragments, stone vessel fragment (3x), labret, stone tool, stone palette fragment,
SAB III	H08	multiple	n.a.	Pit: second fill	19	6	3	7	1	36	Unclear pieces of clay (14x), token, labret (4x), stone vessel fragment (6x), stone tool (2x), jarstopper, sling missile, stone hammer, ochre, whetstone
SAB III	H08	multiple	n.a.	Pit: ashy fill	21	7	4	7	3	42	Unclear clay fragment (23x), stone grinder fragment, bone tool, labret (4x), bone tool, stone vessel fragment
SAB III	H08	multiple	n.a.	Pit: final fill/layer underneath	2	3			3	8	Unclear clay fragment (1x), bone spatula (2x), stone vessel fragment (3x), whetstone fragment
I	Q13	043/237	3.1	Room fill	1	7				8	Possibly at least 10 more figurines that could not be added because no description or visual reference exists: 'coarse' figurines, miniature jar (7x), tokens 73x, sealings (4x)
I	Q13	112-multiple	6.2	Room fill	8	16	3	2		29	Unclear clay fragment (5x), bone awl (8x), stone axe (2x), shell bead, ceramic bowl (2x), stone bowl fragments (2x), clay with cloth impression, flat stone (4x), grinding slab (9x), grinder, jar stopper (9x), jar, clay labret (6x), stone labret (2x), ceramic lid (7x), miniature bowl (4x), mortar (2x), pestle (5x), pierced disc (7x), rubbing stone, sealing (169x), sling missile (15x), bone spatula, clay spindle whorl (15x), stone spindle whorl (2x), clay stand(?) (2x), token (31x)
III	G05	821/857	4.23	Room fill		1				1	Grinding stone, worked stone, stone palette, bowl fragment
SAB III	H08	043/162	n.a.	Soil layer (ass. with large pit?)	1	2	1			4	Two more unclear clay fragments
SAB III	J07	054/142	n.a.	Soil layer	1		1	5		7	Unclear clay fragments (8x), stone vessel fragment (3x), grinding stone (3x), bone spatula
SAB III	H07	117/246	n.a.	Soil layer	2	2				4	Three more unclear clay fragments, stone vessel fragment
III	G03	166/468	n.a.	Soil layer		7				7	Bone awl, stone axe (2x; one complete), stone vessel fragment

Table 5.197: Contexts non-clay figurines

Context types/ Other materials	Stone								Bone				Shell		Totals	
	Zoomorphic		Anthropomorphic and Abbreviated		Indeterminate		Unclear		Zoomorphic		Anthropomorphic and Abbreviated		Anthropomorphic and Abbreviated			
Storage features	0		0		0		0		1	100.0%	0		0		1	4.8%
Fire features	0		1	12.5%	0		0		0		0		0		1	4.8%
Platform	0		0		0		0		0		0		0		0	
Room fill	0		1	12.5%	0		0		0		0		1	100%	2	9.5%
Floor	1	16.7%	0		0		0		0		0		0		1	4.8%
Construction	0		0		0		0		0		0		0		0	
Foundation fill	0		0		0		0		0		0		0		0	
Burial fill	1	16.7%	1	12.5%	0		0		0		0		0		2	9.5%
Activity: external surface	0		0		0		0		0		0		0		0	
Soil layer	1	16.7%	4	50%	1	100%	2	100%	0		0		0		8	38.1%
Debris layer	1	16.7%	1	12.5%	0		0		0		0		0		2	9.5%
Ash deposit	0		0		0		0		0		1	50%	0		1	4.8%
Pit fill	1	16.7%	0		0		0		0		1	50%	0		2	9.5%
Unstratified	1	16.7%	0		0		0		0		0		0		1	4.8%
<b>Totals</b>	<b>6</b>	<b>100%</b>	<b>8</b>	<b>100%</b>	<b>1</b>	<b>100%</b>	<b>2</b>	<b>100%</b>	<b>1</b>	<b>100%</b>	<b>2</b>	<b>100%</b>	<b>1</b>	<b>100%</b>	<b>21</b>	<b>100%</b>

Table 5.198: Heat exposure figurines related to contexts

	Burnt contexts			Unburnt contexts			Unclear contexts		
	Category	Count	Percentage	Category	Count	Percentage	Category	Count	Percentage
Zoomorphic	Unbaked	31	30.1%	Unbaked	150	40.7%	Unbaked	7	36.8%
	Baked	14	13.6%	Baked	55	14.9%	Baked	4	21.1%
	Burnt	22	21.4%	Burnt	37	10%	Burnt	1	5.3%
	Unknown	36	35%	Unknown	127	34.4%	Unknown	7	36.8%
	<b>Totals</b>	<b>103</b>	<b>100%</b>	<b>Totals</b>	<b>369</b>	<b>100%</b>	<b>Totals</b>	<b>19</b>	<b>100%</b>
Anthropomorphic and Abbreviated	Unbaked	35	32.4%	Unbaked	110	40.9%	Unbaked	1	5.6%
	Baked	11	10.2%	Baked	54	20.1%	Baked	8	44.4%
	Burnt	36	33.3%	Burnt	33	12.3%	Burnt	1	5.6%
	Unknown	26	24.1%	Unknown	72	26.8%	Unknown	8	44.4%
	<b>Totals</b>	<b>108</b>	<b>100%</b>	<b>Totals</b>	<b>269</b>	<b>100%</b>	<b>Totals</b>	<b>18</b>	<b>100%</b>
Geometric	Unbaked	11	37.9%	Unbaked	72	56.3%	Unbaked	1	20%
	Baked	8	27.6%	Baked	33	25.8%	Baked	1	20%
	Burnt	10	34.5%	Burnt	23	18%	Burnt	1	20%
	Unknown	14	48.3%	Unknown	64	50%	Unknown	2	40%
	<b>Totals</b>	<b>29</b>	<b>100%</b>	<b>Totals</b>	<b>128</b>	<b>100%</b>	<b>Totals</b>	<b>5</b>	<b>100%</b>
Indeterminate	Unbaked	21	34.4%	Unbaked	83	38.8%	Unbaked	2	28.6%
	Baked	6	9.8%	Baked	35	16.4%	Baked	1	14.3%
	Burnt	18	29.5%	Burnt	25	11.7%	Burnt	1	14.3%
	Unknown	16	26.2%	Unknown	71	33.2%	Unknown	3	42.9%
	<b>Totals</b>	<b>61</b>	<b>100%</b>	<b>Totals</b>	<b>214</b>	<b>100%</b>	<b>Totals</b>	<b>7</b>	<b>100%</b>
Unclear	Unbaked	7	20.6%	Unbaked	62	44.6%	Unbaked	2	33.3%
	Baked	3	8.8%	Baked	25	18%	Baked	2	33.3%
	Burnt	8	23.5%	Burnt	10	7.4%	Burnt	1	16.7%
	Unknown	16	47.1%	Unknown	42	30.2%	Unknown	1	16.7%
	<b>Totals</b>	<b>34</b>	<b>100%</b>	<b>Totals</b>	<b>139</b>	<b>100%</b>	<b>Totals</b>	<b>6</b>	<b>100%</b>

Table 5.199: Figurines through time Operation I

Date cal. BC	Period	Operation I	Zoomorphic			Anthropomorphic and Abbreviated							Geometric	Indeterminate/Unclear										
			Quadruped	Horn	Indeter.	Head on base	Head on divided base	Pillar shape	Decorated type	Violin type	Human-Undivided base	Indeter.												
5700	Middle Halaf																							
5800	Early Halaf	Level 1																						
5900		Level 2 Level 3												2			3		3			5	1	
			0.4%			3.7%		2.1%			13.5%	1.6%		0.4%										
6000	Transitional	Level 4																						
		Level 5 Level 6	14	3		6	1		19	8	7	9	3 9	1	2 18	1								
			2.9%	2.5%		7.4%	2.8%		86.4%	61.5%	18.9%	14.8%	5.4%		4.6%									
6100	Pre-Halaf	Level 7	3	4		2			2		4	1	2		5									
		Level 8	3		2	1	1				1		2	1	2									
		Level 9 Level 10																						
			1.2%	3.3%	10.5%	4.9%			9.1%		13.5%	1.6%	2.1%		1.5%									
6300	Early Pottery Neolithic																							
6400																								
6500																								
6600																								
6700																								
6800	Initial Pottery Neolithic																							
6900																								
7000	PPNB																							
7100																								

Unstratified Transitional														1
Pre-Halaf to Transitional 6/7	2			1					1	1	2	5		7
Unstratified Pre-Halaf										1				
Unstratified											1	2		

Table 5.200: Figurines through time Operation III

Date cal. BC	Period	Operation III	Zoomorphic				Anthropomorphic and Abbreviated							Geometric	Indeterminate/Un clear	
			Quadruped	Bucranium	Horn	Indeter.	Head on base	Head on divided base	Pillar shape	Violin type	Human-Undivided base	Indeter.				
5700	Middle Halaf	D-seq.											1		1	2
													2.7%		0.4%	0.4%
5800 5900	Early Halaf	C-seq.	1			1									2	6
			0.2%			5.3%									0.8%	1.3%
6000	Transitional	Level B1 Level B2 Level B3	1													
			0.2%													
6100 6200	Pre-Halaf	Level B4 Level B5 Level B6 Level B7 Level B8 Level B9	1 1		1 1					1 1			1		2	
			0.6%		4.2%		1.2%		1.4%			1.6%		0.8%		
6300 6400 6500 6600 6700	Early Pottery Neolithic	Level A1 Level A2 Level A3 Level A4 Level A5 Level A6 Level A7 Level A8 Level A9	3 6 1 31 6 2 1 4 7	1 2 1 1 1 3	2 1 1 3 1 1 1 1		5 4 4 20 2 2 2 4	1 1 7 11 3 2 1 1	1 6 1 8 1 1 1 1		1 1 2 3 1 1 1	1 1 3 3 2 1 1	5 23 3 19 3 3 1 1 3	4 1 1 1 1	10 14 13 40 7 5 3 1 10	11 7 8 3 3
			13.8%	40%	10%	10.5%	55.6%	58.3%	13.1%		10.8%	13.1%	26.7%		28.4%	
6800 6900	Initial Pottery Neolithic	Level A10 Level A11 Level A12 Level A13 Level A14	13 20 29 4 12	5 2	9 3 1	1 1			16 8 13 3 1	4 1 1		1 1 7 1 2	5 2 14 1 5	1 1 2 1 5	19 9 31 1 14	2 3 3
			17.3%		11.7%	5.3%			32.4%		2.7%	26.2%	12.9%		17.8%	
7000 7100	PPNB	Level A15 Level A16	3 1									1		1	2	
			0.8%									1.6%		0.4%	0.43%	

Pre-halaf to Transitional	1															
Pre-Halaf to Early Halaf	2				1			1							1	
Initial Pottery Neolithic/EPN	1			2				2					1		2	
PPNB/Initial Pottery Neolithic	3												1		1	
Unstratified	11			4			9	3	3	2	1	3	15		14	

Table 5.201: All figurines through time in all areas

All figurines through time	Zoomorphic		Anthropomorphic/ Abbreviated		Geometric		Indeterminate/Unclear		Totals	
Middle Halaf	0		1	0.3%	1	0.4%	2	0.4%	4	0.3%
Early Halaf	4	0.8%	11	2.8%	4	1.7%	5	1.1%	24	1.5%
<i>Early Halaf-Transitional</i>	10	2%	7	1.8%	3	1.3%	9	2.0%	29	1.8%
Transitional	18	3.7%	50	12.7%	13	5.4%	21	4.6%	102	6.4%
<i>Transitional-Pre-Halaf</i>	3	0.6%	8	2%	5	2.1%	9	2.0%	25	1.6%
Pre-Halaf	20	4.1%	17	4.3%	7	2.9%	9	2.0%	53	3.3%
<i>Pre-Halaf-EPN</i>	0		0		0		2	0.4%	2	0.1%
EPN	101	20.6%	108	27.3%	76	31.7%	139	30.2%	424	26.7%
<i>EPN-Initial PN</i>	3	0.6%	3	0.8%	1	0.4%	2	0.4%	9	0.6%
Initial PN	198	40.3%	106	26.8%	55	23%	138	29.9%	497	31.3%
<i>Initial PN-PPNB</i>	7	1.4%	1	0.3%	2	0.8%	3	0.7%	13	0.8%
PPNB	12	2.4%	4	1%	4	1.7%	11	2.4%	31	2.0%
<i>Pre-Halaf to Early Halaf</i>	2	0.4%	1	0.3%	0		1	0.2%	4	0.3%
<i>EPN to PPNB</i>	81	16.5%	44	11.2%	40	16.7%	71	15.4%	236	14.9%
<i>Unstratified</i>	32	6.5%	34	8.6%	29	12.1%	39	8.5%	134	8.4%
<b>Totals</b>	<b>491</b>	<b>100%</b>	<b>395</b>	<b>100%</b>	<b>240</b>	<b>100%</b>	<b>461</b>	<b>100%</b>	<b>1587</b>	<b>100%</b>

Table 5.202: Zoomorphic through time in all areas

Zoomorphic figurines through time	Quadruped		Bucranium		Bird		Horn		Indeterminate		Totals	
Early Halaf	3	0.9%	0		0		0		1	5.3%	4	0.8%
<i>Early Halaf-Transitional</i>	6	1.7%	0		0		4	3.3%	0		10	2%
Transitional	15	4.3%	0		0		3	2.5%	0		18	3.7%
<i>Transitional-Pre-Halaf</i>	3	0.9%	0		0		0		0		3	0.6%
Pre-Halaf	9	2.6%	0		0		9	7.5%	2	10.5%	20	4.1%
EPN	82	23.7%	2	40%	0		15	12.5%	2	10.5%	101	20.6%
<i>EPN-Initial PN</i>	1	0.3%	0		0		2	1.7%	0		3	0.6%
Initial PN	143	41.3%	3	60%	0		41	34.2%	11	57.9%	198	40.3%
<i>Initial PN-PPNB</i>	7	2%	0		0		0		0		7	1.4%
PPNB	3	0.9%	0		0		8	6.7%	1	5.3%	12	2.4%
<i>Pre-Halaf to Early Halaf</i>	2	0.6%	0		0		0		0		2	0.4%
<i>EPN to PPNB</i>	49	14.2%	0		0		31	25.8%	1	5.3%	81	16.5%
<i>Unstratified</i>	23	6.6%	0		1	100%	7	5.8%	1	5.3%	32	6.5%
<b>Totals</b>	<b>346</b>	<b>100%</b>	<b>5</b>	<b>100%</b>	<b>1</b>	<b>100%</b>	<b>120</b>	<b>100%</b>	<b>19</b>	<b>100%</b>	<b>491</b>	<b>100%</b>

Table 5.203: Anthropomorphic through time in all areas

Anthropomorphic and abbreviated figurines through time	Head on base		Head on divided base		Pillar shape		Decorated type		Violin type		Human-Undivided base		Indeterminate		Totals	
Early Halaf	0		0		0		0		0		1	2.7%	0		1	0.3%
Early Halaf	3	3.7%	0		2	1.4%	0		0		5	13.5%	1	1.6%	11	2.8%
<i>Early Halaf-Transitional</i>	3	3.7%	1	2.8%	0		0		1	7.7%	1	2.7%	1	1.6%	7	1.8%
Transitional	6	7.4%	1	2.8%	0		19	86.4%	8	61.5%	7	18.9%	9	14.8%	50	12.7%
<i>Transitional-Pre-Halaf</i>	1	1.2%	1	2.8%	0		1	4.5%	1	7.7%	2	5.4%	2	3.3%	8	2.0%
Pre-Halaf	5	6.2%	0		2	1.4%	2	9.1%	0		6	16.2%	2	3.3%	17	4.3%
EPN	45	55.6%	21	58.3%	30	20.7%	0		0		4	10.8%	8	13.1%	108	27.3%
<i>EPN-Initial PN</i>	1	1.2%	0		2	1.4%	0		0		0		0		3	0.8%
Initial PN	2	2.5%	4	11.1%	74	51%	0		0		5	13.5%	21	34.4%	106	26.8%
<i>Initial PN-PPNB</i>	0		0		0		0		0		0		1	1.6%	1	0.3%
PPNB	0		1	2.8%	2	1.4%	0		0		0		1	1.6%	4	1.0%
<i>Pre-Halaf to Early Halaf</i>	0		0		1	0.7%	0		0		0		0		1	0.3%
<i>EPN to PPNB</i>	5	6.2%	3	8.3%	25	17.2%	0		0		2	5.4%	9	14.8%	44	11.1%
<i>Unstratified</i>	10	12.3%	4	11.1%	7	4.8%	0		3	23.1%	4	10.8%	6	9.8%	34	8.6%
<b>Totals</b>	<b>81</b>	<b>100%</b>	<b>36</b>	<b>100%</b>	<b>145</b>	<b>100%</b>	<b>22</b>	<b>100%</b>	<b>13</b>	<b>100%</b>	<b>37</b>	<b>97%</b>	<b>61</b>	<b>100%</b>	<b>395</b>	<b>100%</b>

Table 5.204: Context types through time

Context types through time	PPNB		PPNB/Initial PN		Initial PN		EPN/Initial PN		EPN		EPN-Pre-Halaf		Pre-halaf		Pre-halaf-Transitional		Transitional		Transitional-Early Halaf		Early Halaf		Middle Halaf		Pre-Halaf/Early Halaf		PPNB/EPN			
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%		
Storage features	0		0		0		0		16	3.8%			1	1.9%	0	4%	0	2.9%	0	6.9%	0	8.3%	0	0	0	0	0	0	0	0
Fire features	6	19.4%	10	2%	10	2%	0		18	4.2%			8	15.1%	1	4%	3	2.9%	2	6.9%	2	8.3%	0	0	0	0	27	11.4%	27	11.4%
Platform	1	3.2%	14	2.8%	14	2.8%	0		13	3.1%			0		0		0		0		0	0	0	0	0	0	22	9.3%	22	9.3%
Room fill	2	6.5%	7	1.4%	7	1.4%	0		67	15.8%			6	11.3%	2	8%	73	71.6%	26	89.7%	12	50%	0	0	0	0	9	3.8%	9	3.8%
Floor	5	16.1%	2	0.4%	2	0.4%	0		12	2.8%			1	1.9%	0		8	7.8%	0		0	0	0	0	0	9	3.8%	9	3.8%	
Construction	1	3.2%	7	1.4%	7	1.4%	0		9	2.1%			1	1.9%	1	4%	1	1%	0		0	0	0	0	0	1	0.4%	1	0.4%	
Foundation fill	0		2	0.4%	2	0.4%	0		2	0.5%			0		0		0		0		0	0	0	0	0	0	0	0	0	0
Burial fill	0		1	0.2%	1	0.2%	0		0				0		0		0		0		0	0	0	0	0	5	2.1%	5	2.1%	
Activity: external surface	1	3.2%	39	7.8%	39	7.8%	1	11.1%	1	0.2%			2	3.8%	1	4%	0		0		0	0	0	0	0	2	0.8%	2	0.8%	
Soil layer	5	16.1%	104	20.9%	104	20.9%	6	66.7%	136	32.1%	1	50%	15	28.3%	8	32%	9	8.8%	0		6	25%	3	75%	3	75%	77	32.6%	77	32.6%
Debris layer	4	12.9%	18	3.6%	18	3.6%	2	22.2%	27	6.4%	1	50%	6	11.3%	8	32%	5	4.9%	1	3.4%	3	12.5%	0	0	0	13	5.5%	13	5.5%	
Ash deposit	3	9.7%	111	22.3%	111	22.3%	0		57	13.4%			10	18.9%	4	16%	2	2%	0		0	0	0	0	1	25%	46	19.5%	46	19.5%
Pit fill	2	6.5%	178	35.8%	178	35.8%	0		59	13.9%			3	5.7%	0		0		0		0	4.2%	1	25%	1	25%	16	6.8%	16	6.8%
Unstratified	1	3.2%	4	0.8%	4	0.8%	0		7	1.7%			0		0		1	1%	0		0	0	0	0	0	9	3.8%	9	3.8%	
<b>Totals</b>	<b>31</b>	<b>100%</b>	<b>497</b>	<b>100%</b>	<b>497</b>	<b>100%</b>	<b>9</b>	<b>100%</b>	<b>424</b>	<b>100%</b>	<b>2</b>	<b>100%</b>	<b>53</b>	<b>100%</b>	<b>25</b>	<b>100%</b>	<b>102</b>	<b>100%</b>	<b>29</b>	<b>100%</b>	<b>24</b>	<b>100%</b>	<b>4</b>	<b>100%</b>	<b>4</b>	<b>100%</b>	<b>4</b>	<b>100%</b>	<b>236</b>	<b>100%</b>

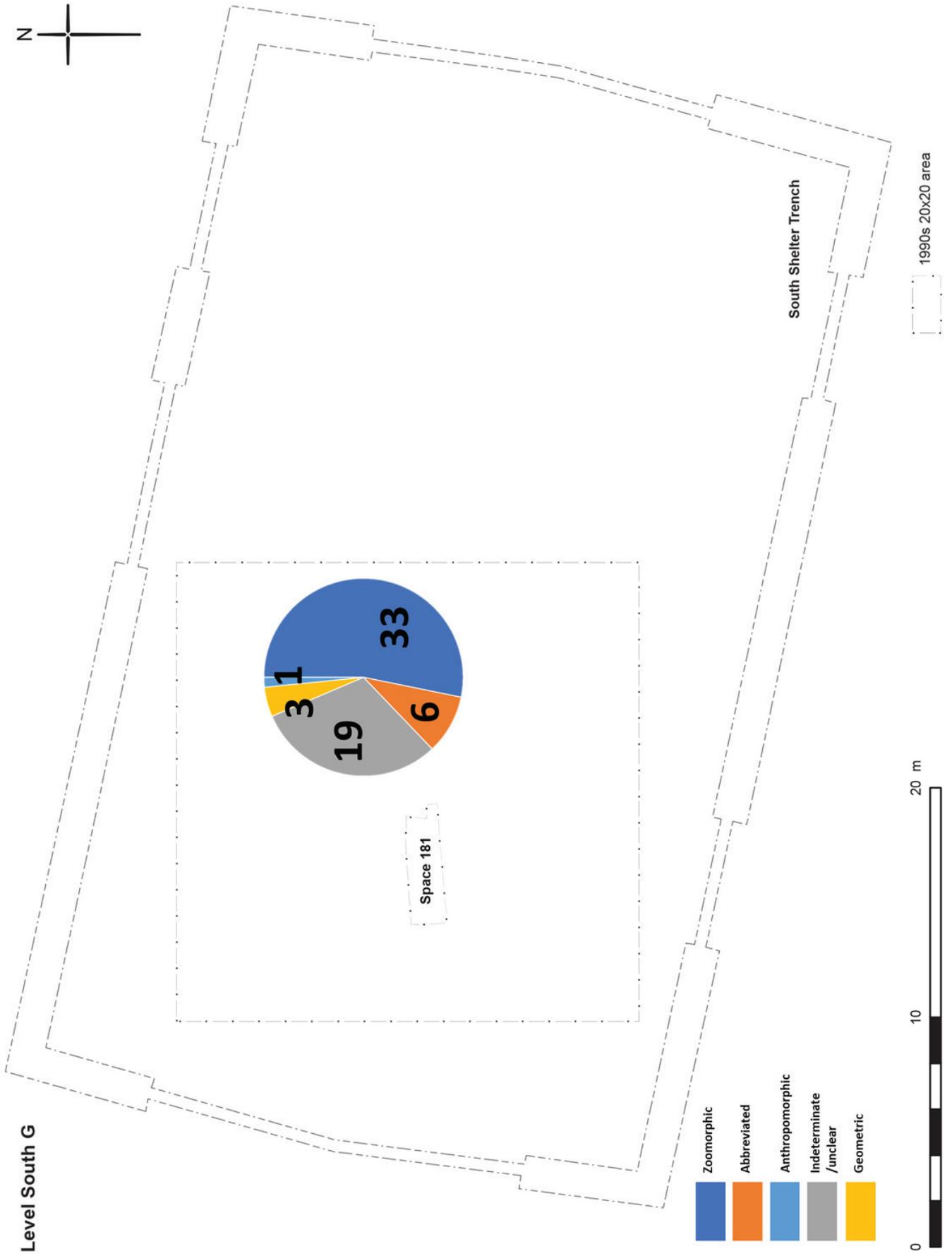
# APPENDIX B: CHAPTER 5 MAPS

Figurines with stratigraphical information have been plotted per space in the outside areas on the Çatalhöyük level maps. For Tell Sabi Abyad the figurines in outside features have been plotted when possible as not every map has all outside features drawn on them. The remaining figurines in outside areas have been plotted per square.

For Çatalhöyük level maps for the TP areas were not available. For Tell Sabi Abyad, Operation III there are no maps of the earliest levels (before A12) and the D levels, as well as Tell Sabi II (with exception of level 3) and Tell Sabi Abyad III.

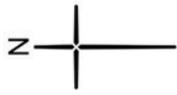
Furthermore, the Tell Sabi Abyad figurines are difficult to plot in the open areas of Operation III. Many are assigned multiple sub-levels within the main levels where substantial changes in architecture can be observed. For these levels, A1(a-d) and A4(a-c) only the figurines securely assigned to sub-levels are plotted as any meaningful relationship to architecture cannot be ascertained for the others and there is little information to be gained by plotting them. The B and D sequences have not been plotted as the figurines are largely unstratified within these periods and maps are not available for most of the levels.

For the other levels in Operation III and I the differences between sub-levels are less pronounced. The figurines that have been not assigned sub-levels, have been plotted on the same maps. They are given in italics and white lettering to distinguish them from the objects with a secure sub-level.



Level South G

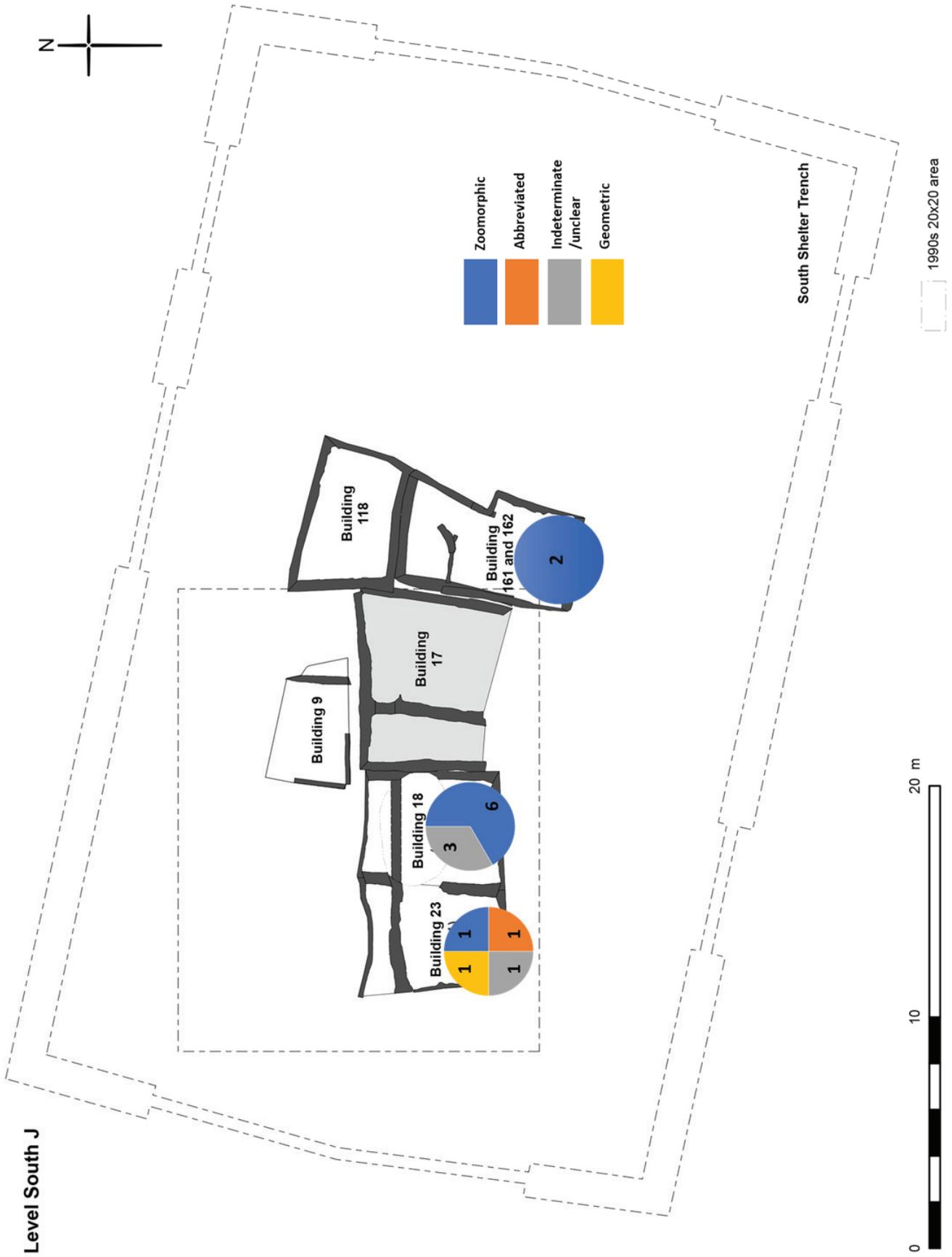
Map 1: Level South. G: Early Phase



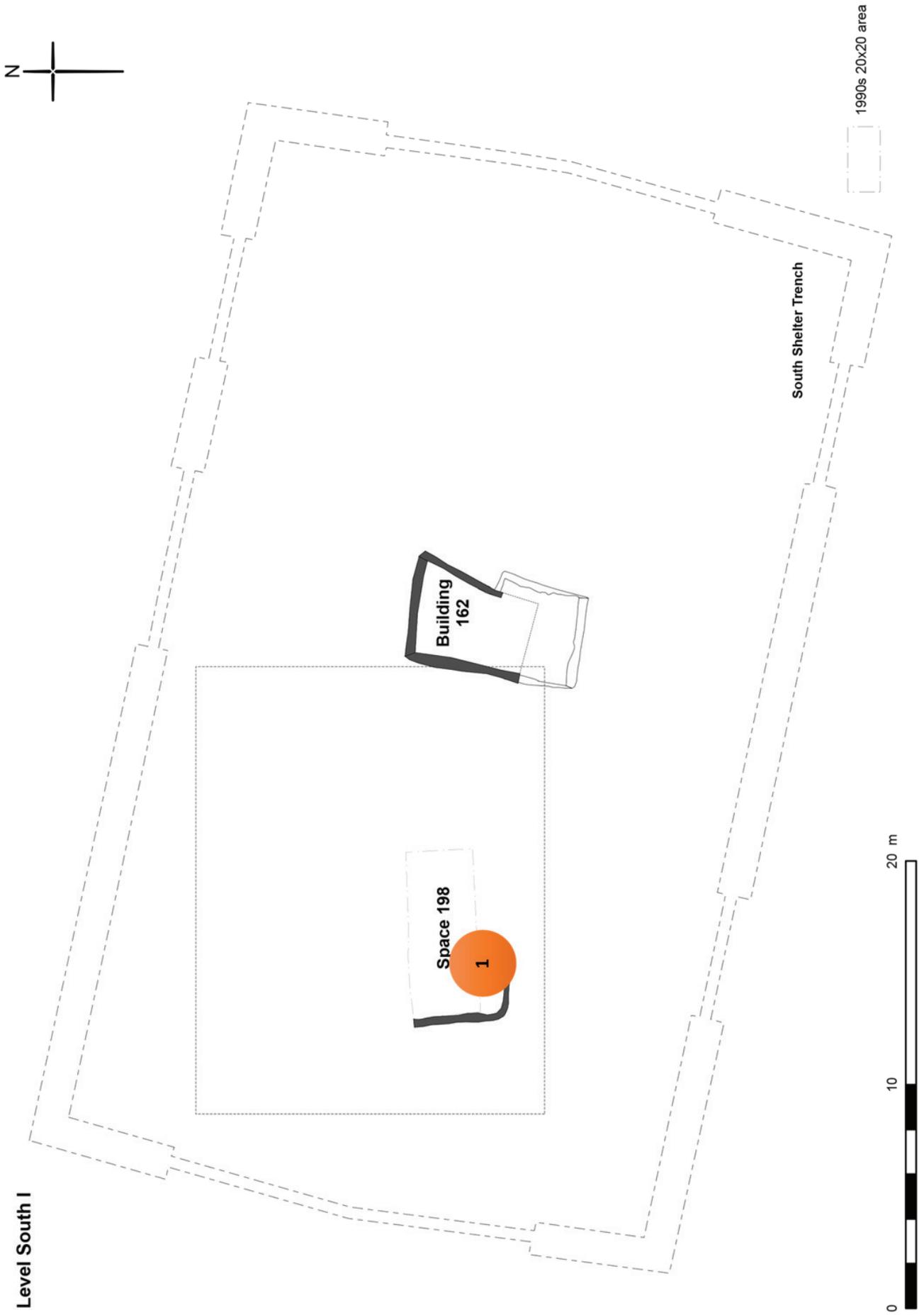
Level South H



Map 2: Level South. H: Early Phase



Map 3: Level South, J: Early Phase



Çatalhöyük GIS 2019

Level South I

Map 4: Level South. I: Early Phase



Map 5: Level South. K: Early Phase

Level South L



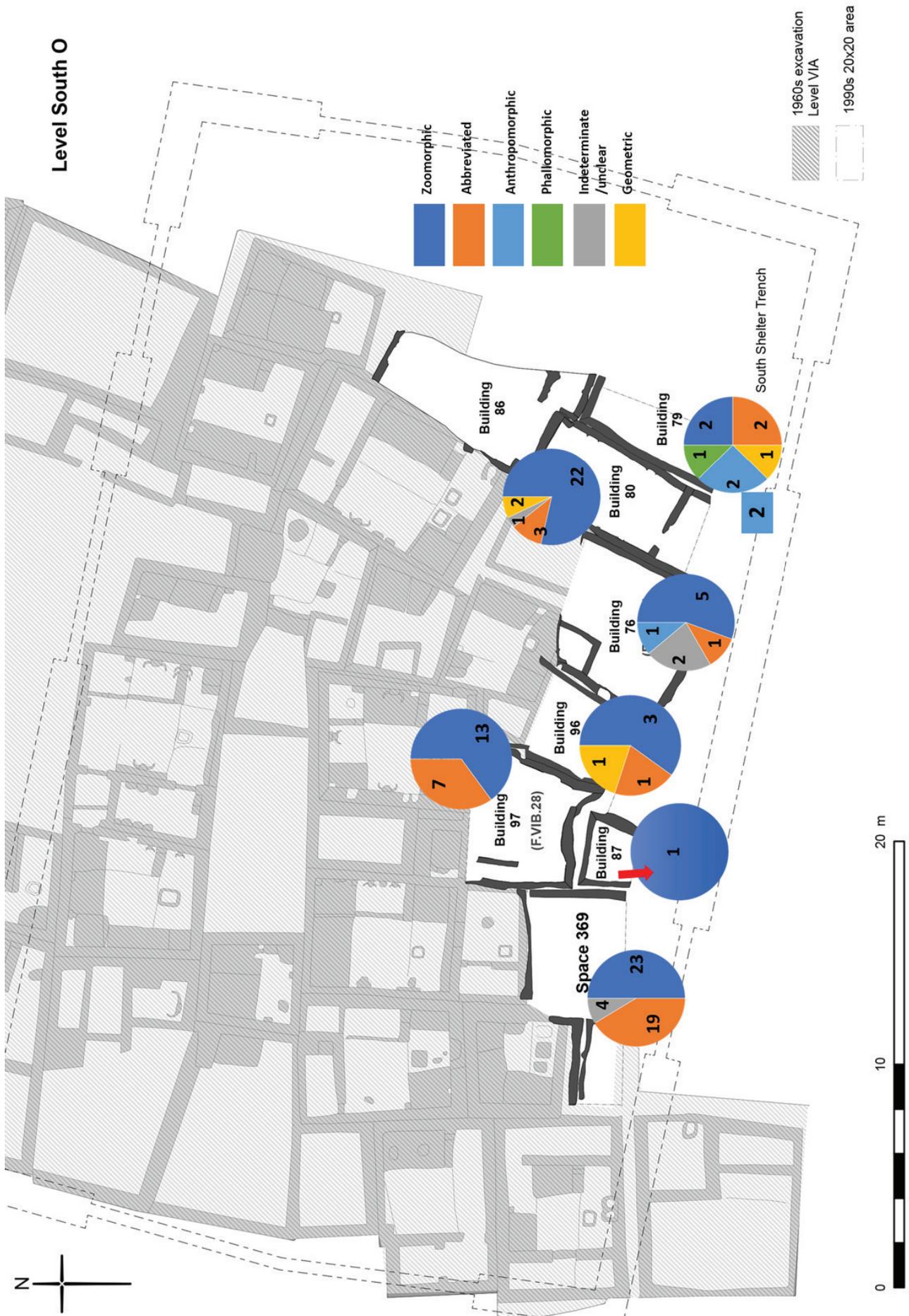
Map 6: Level South. L: Early Phase



Map 7: Level South. M: Middle Phase



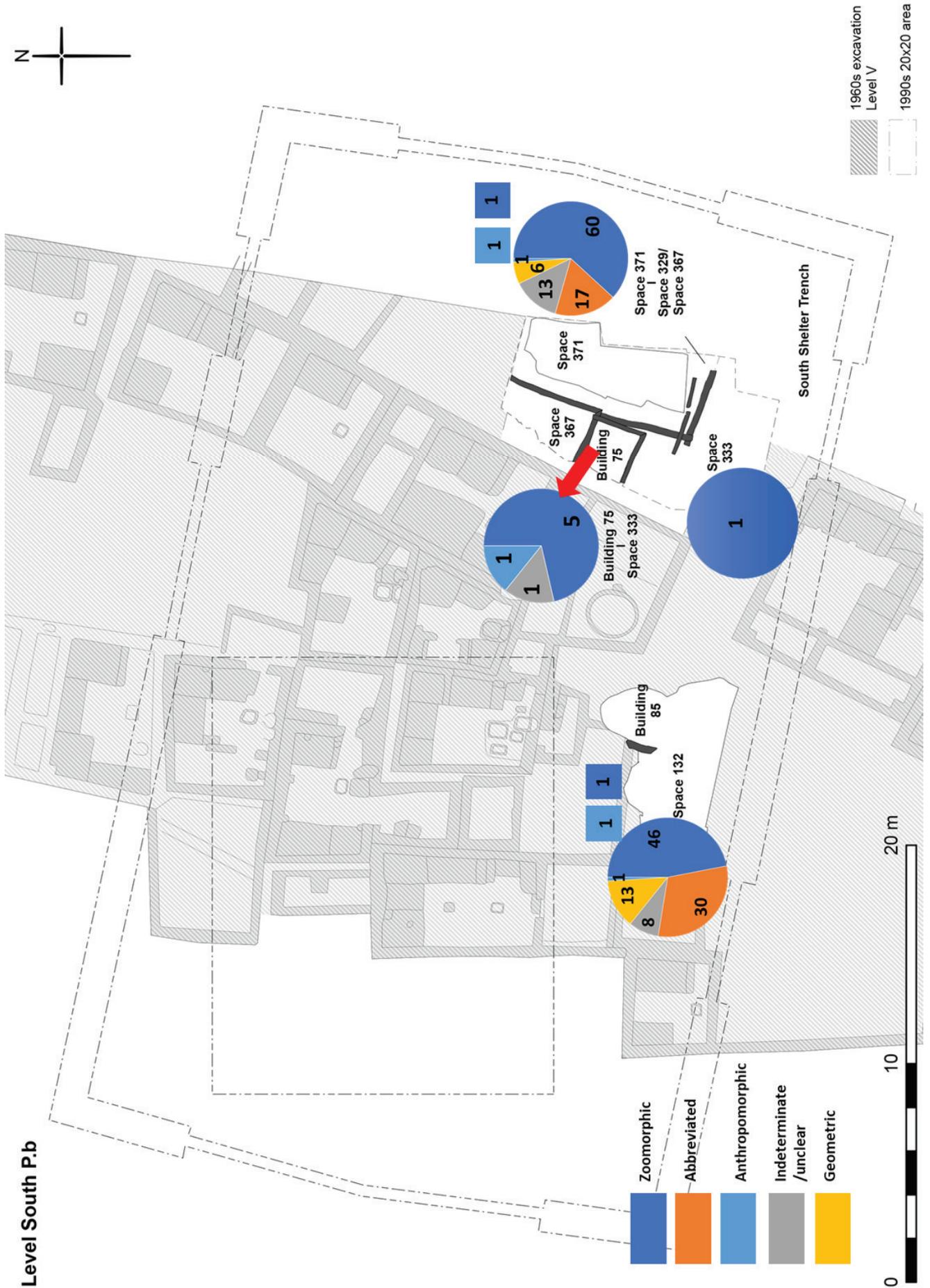
Map 8: Level South. N: Middle Phase



Map 9: Level South. O: Middle Phase



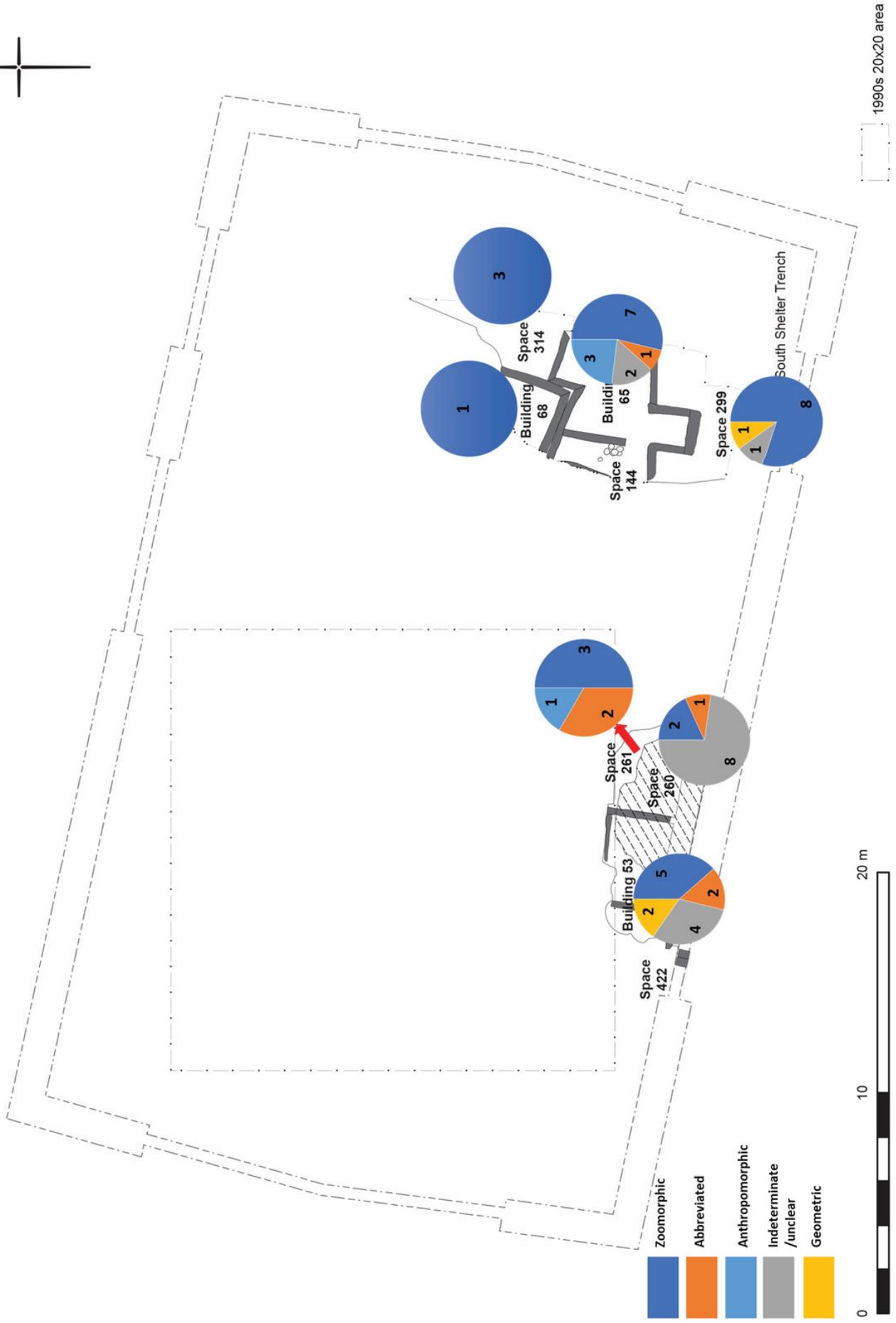
Map 10: Level South. Pa: Late Phase



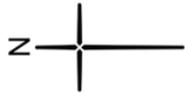
Map 11: Level South. Pb: Late Phase



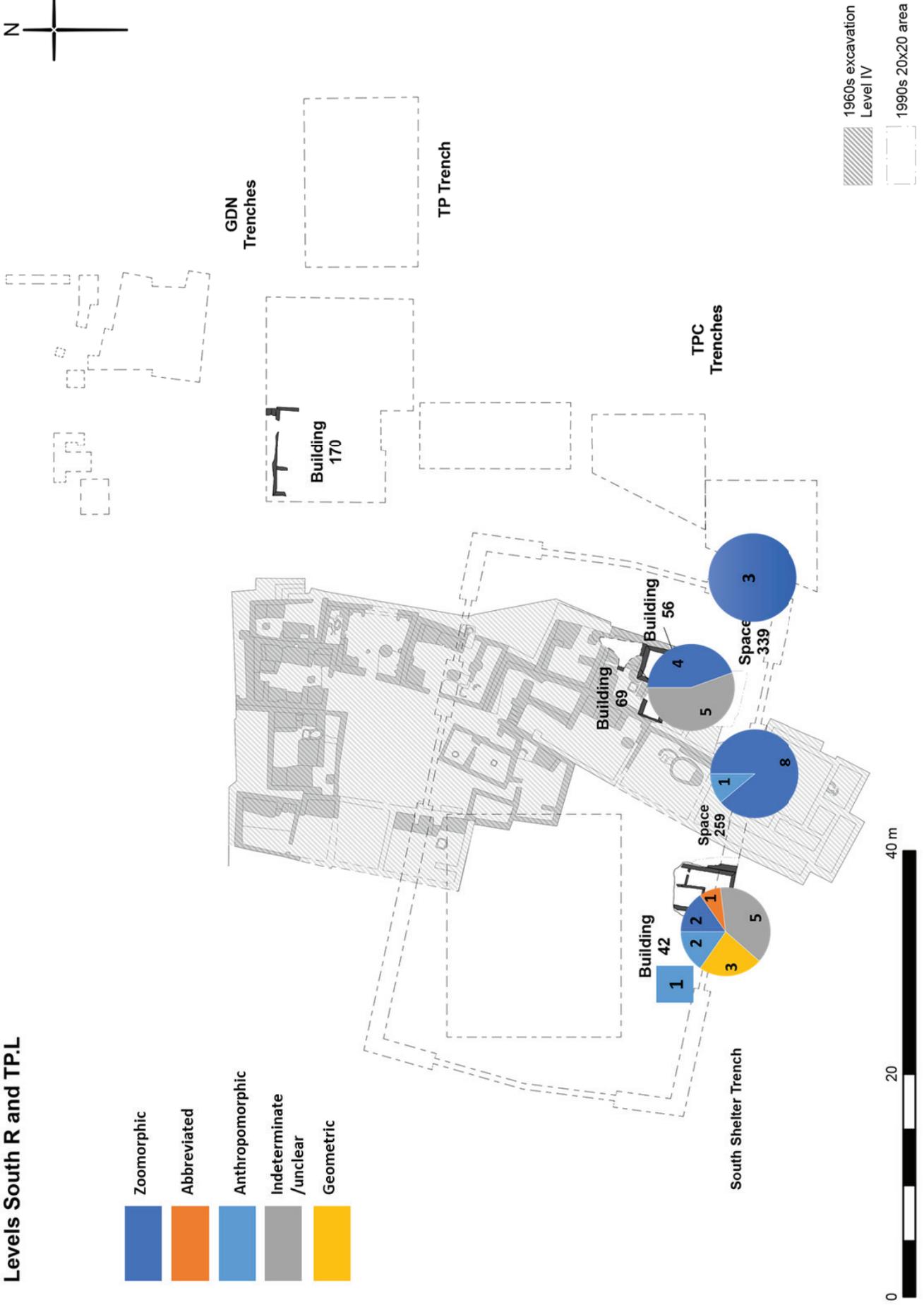
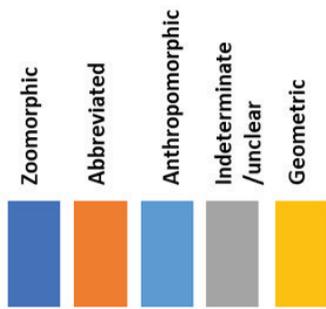
Level South Q



Map 12: Level South. Q: Late Phase

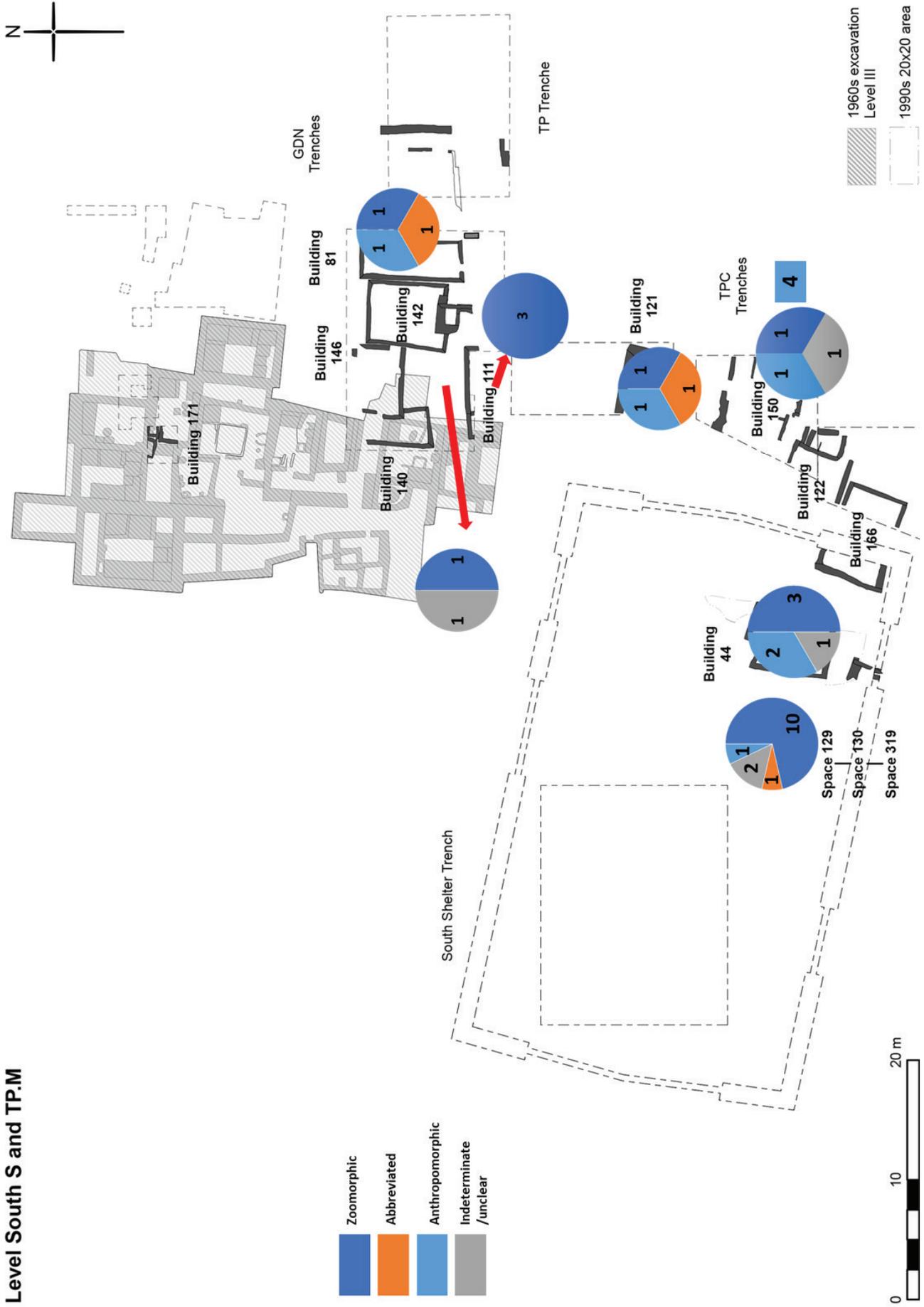


Levels South R and TP.L

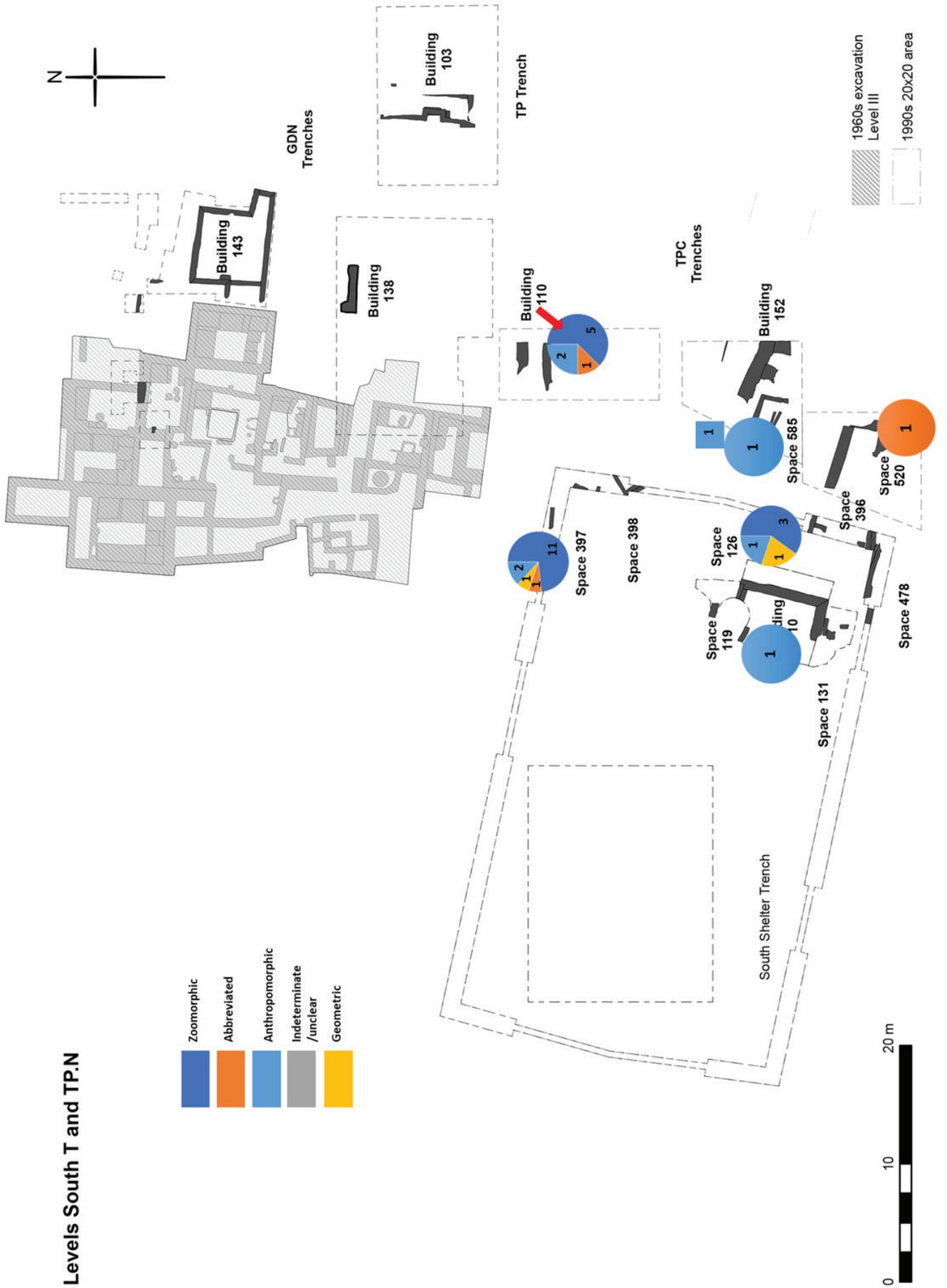


Map 13: Level South, R and TP.L: Late Phase

Level South S and TP.M

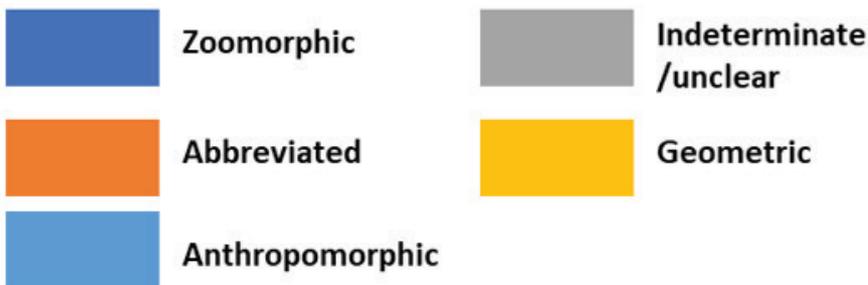
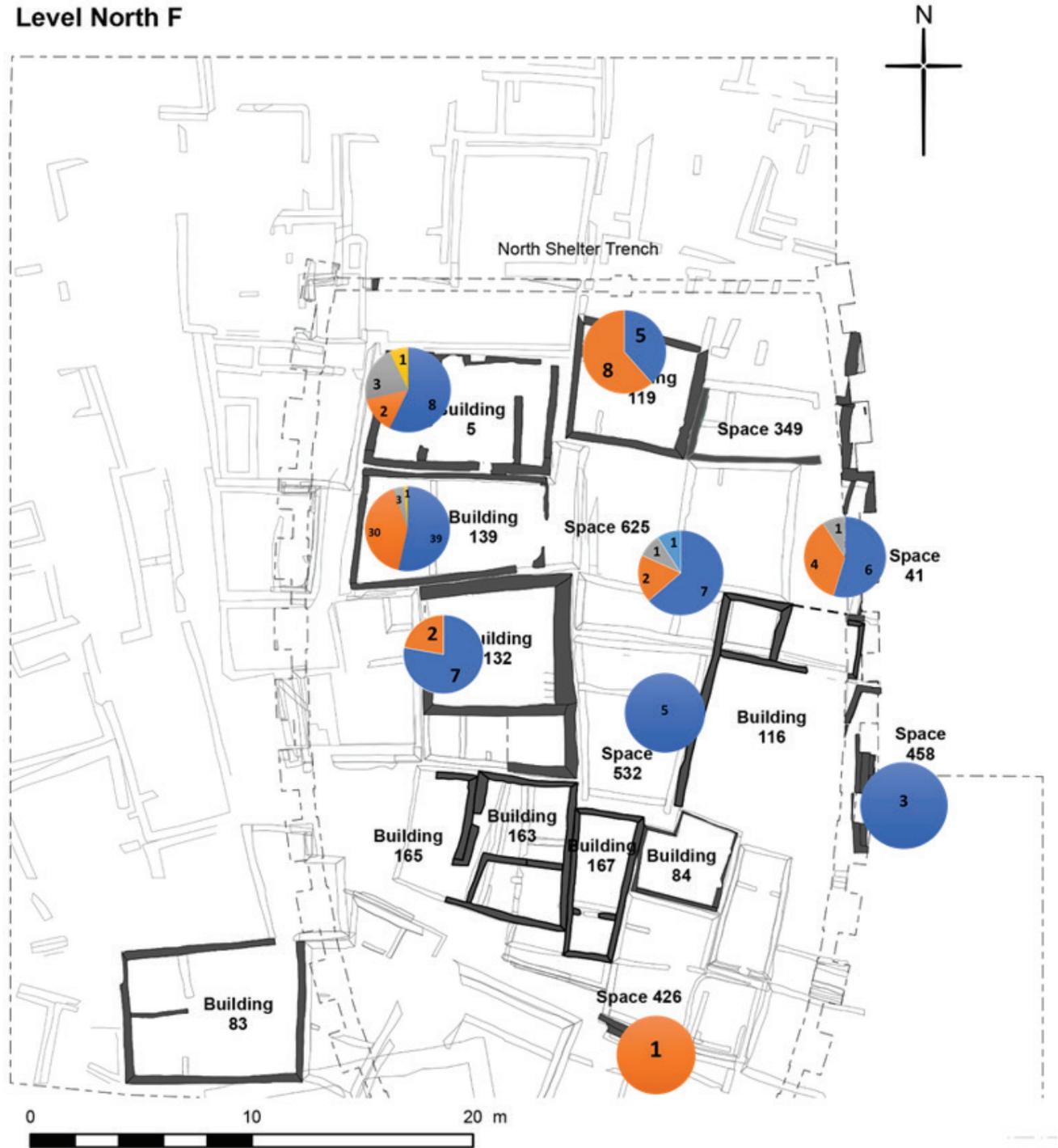


Map 14: Level South. S and TP.M: Late Phase



Map 15: Level South. T and TP.N: Late Phase

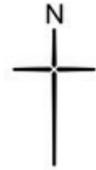
Level North F



Map 16: Level North. F: Middle Phase



Level North G-b



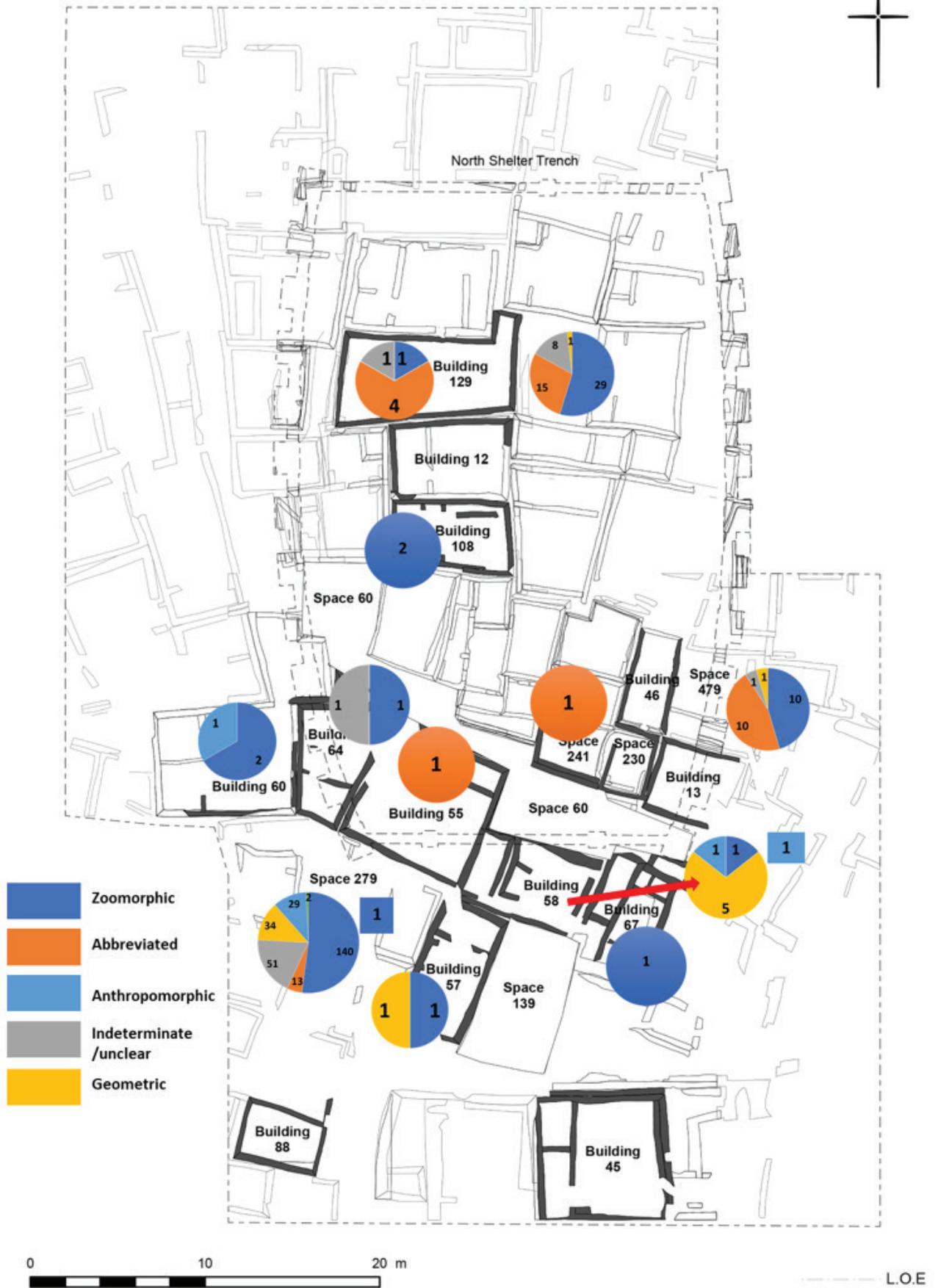
- Zoomorphic
- Abbreviated
- Anthropomorphic
- Indeterminate /unclear
- Geometric



L.O.E

Map 18: Level North. Gb: Middle Phase

Level North H

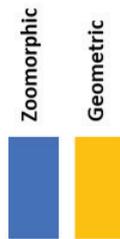
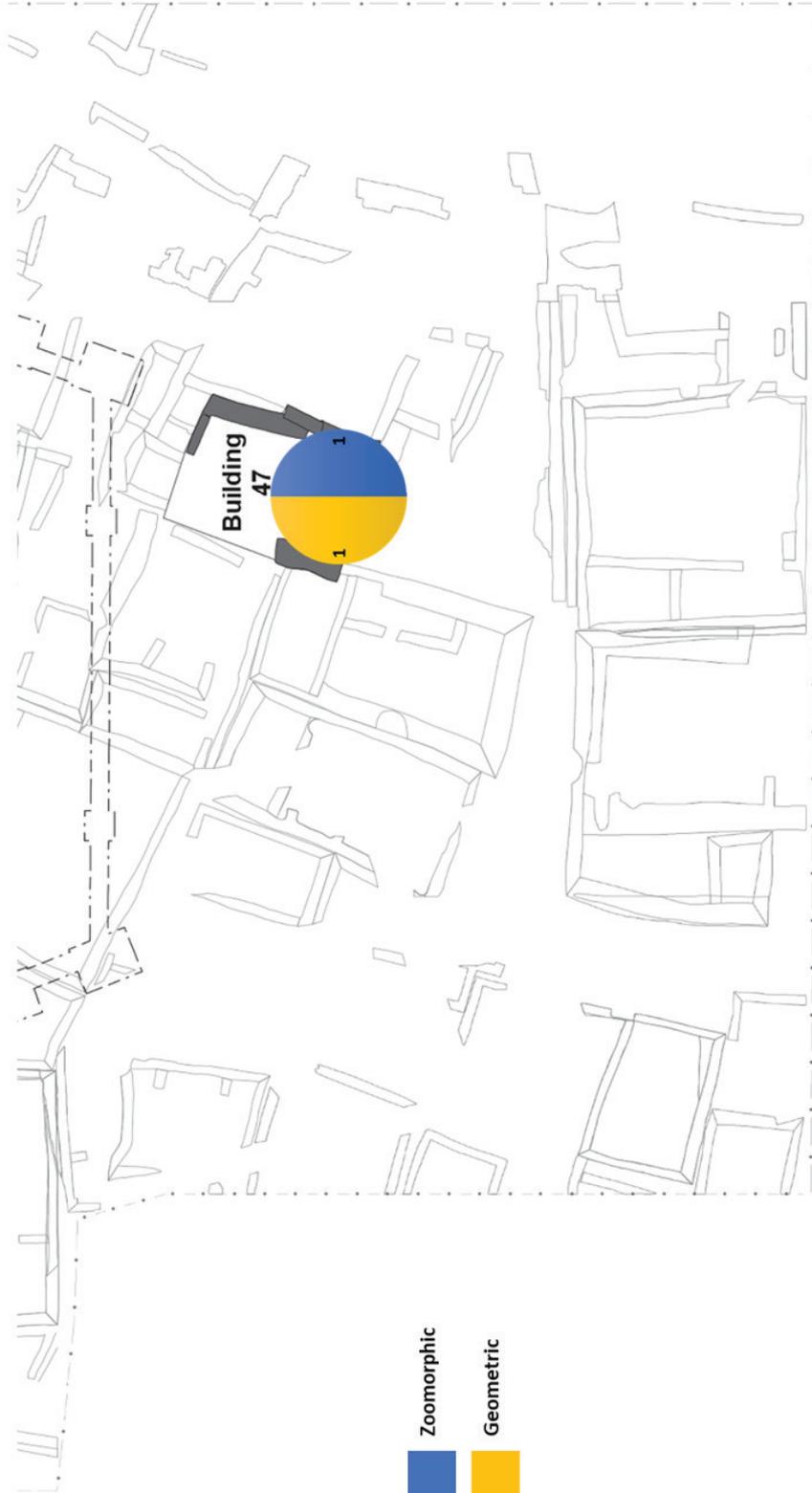


Map 19: Level North. H: Late Phase



Map 20: Level North. I: Late Phase

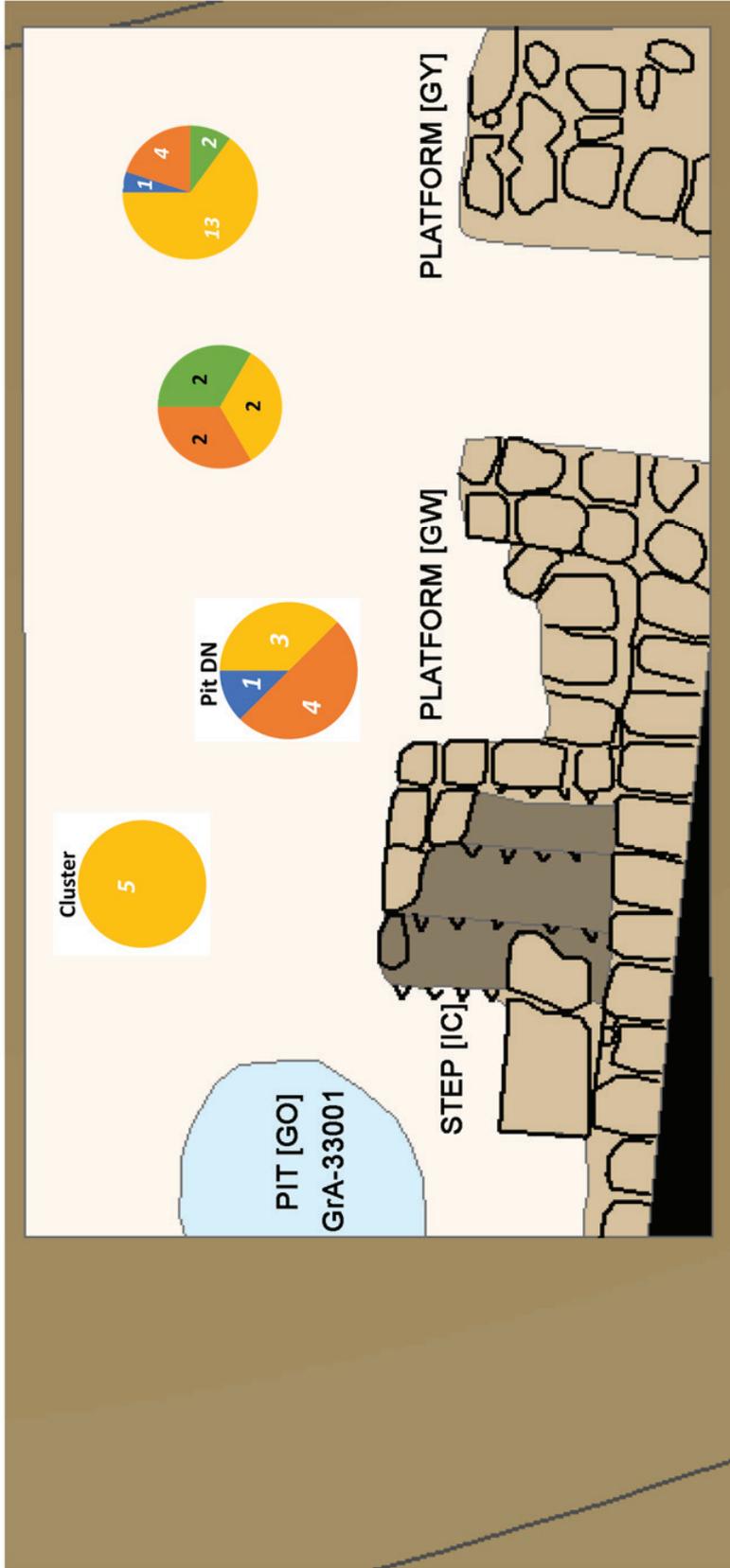
# Level North J



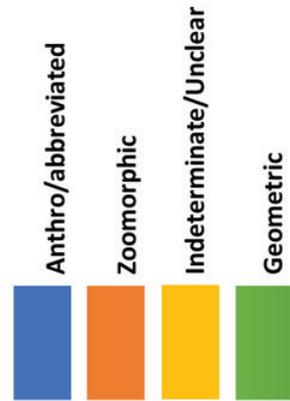
--- L.O.E

Map 21: Level North, J: Late Phase

E

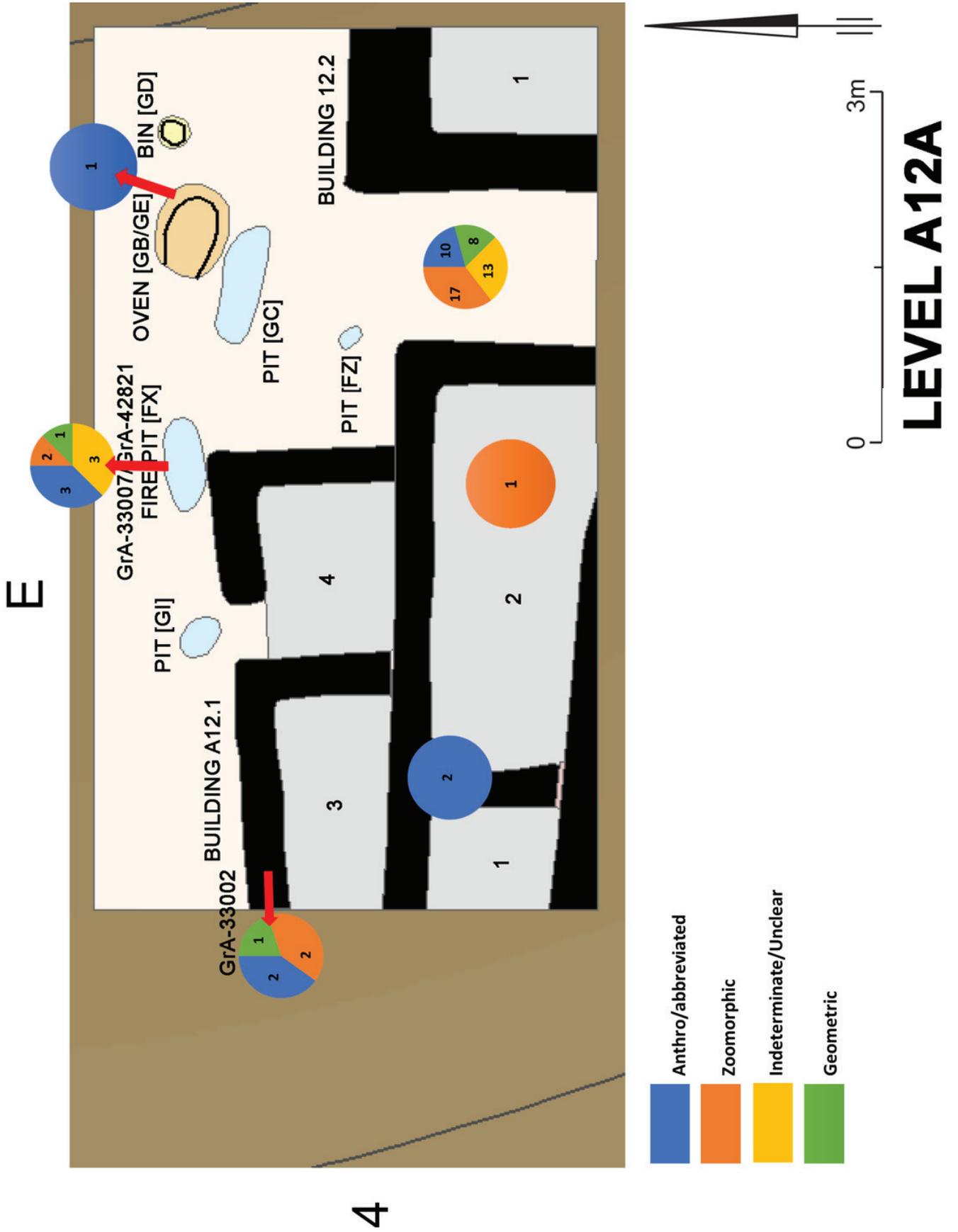


4



# LEVEL A12B

Map 22: Operation III, Level A12b: Initial Pottery Neolithic, 6865-6770 BC

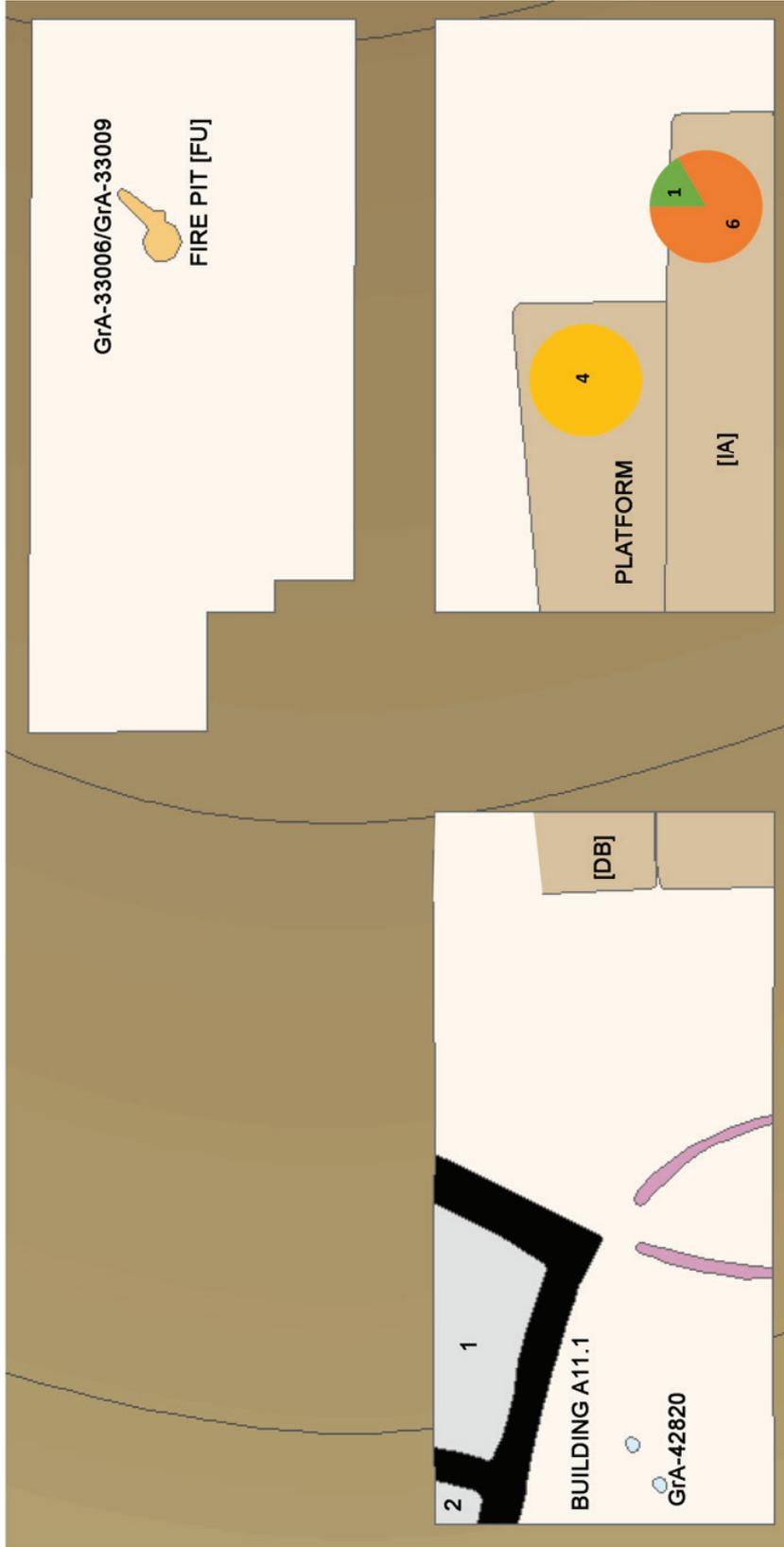


Map 23: Operation III, Level A12a: Initial Pottery Neolithic, 6865-6770 BC

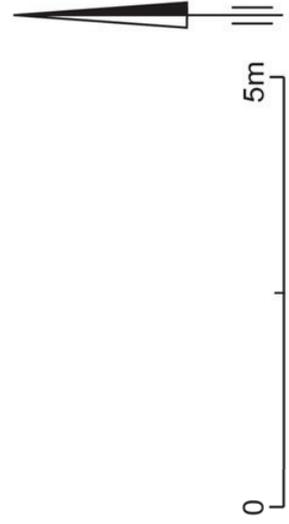
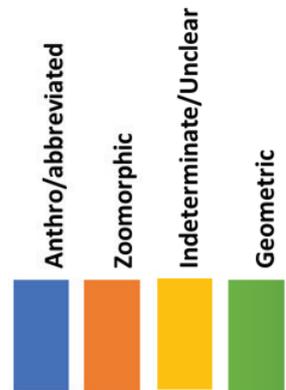
E

D

3



4



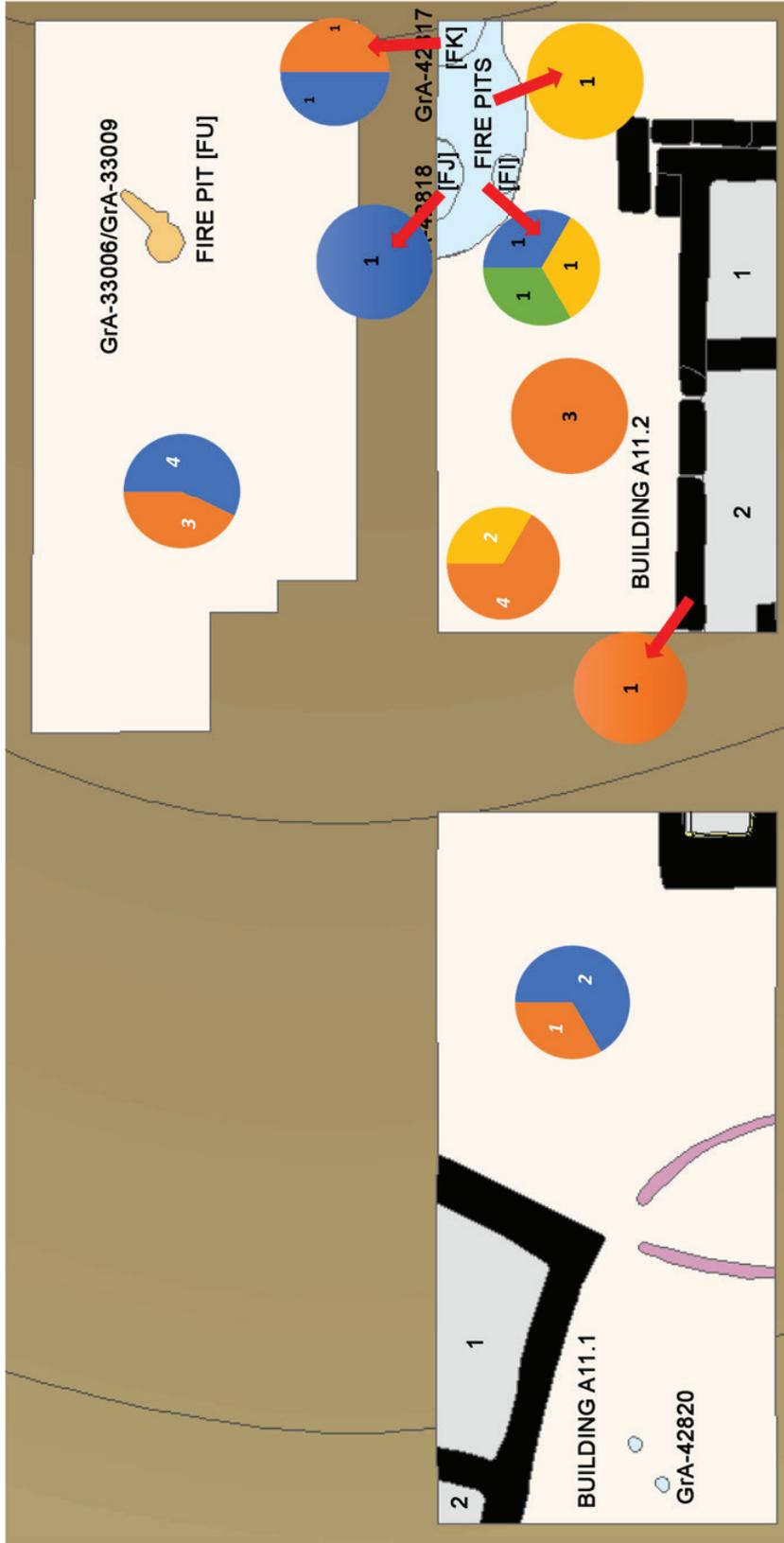
LEVEL A11B

Map 24: Operation III, Level A11b: Initial Pottery Neolithic, 6825-6740 BC

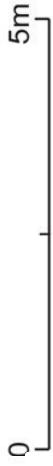
E

D

3

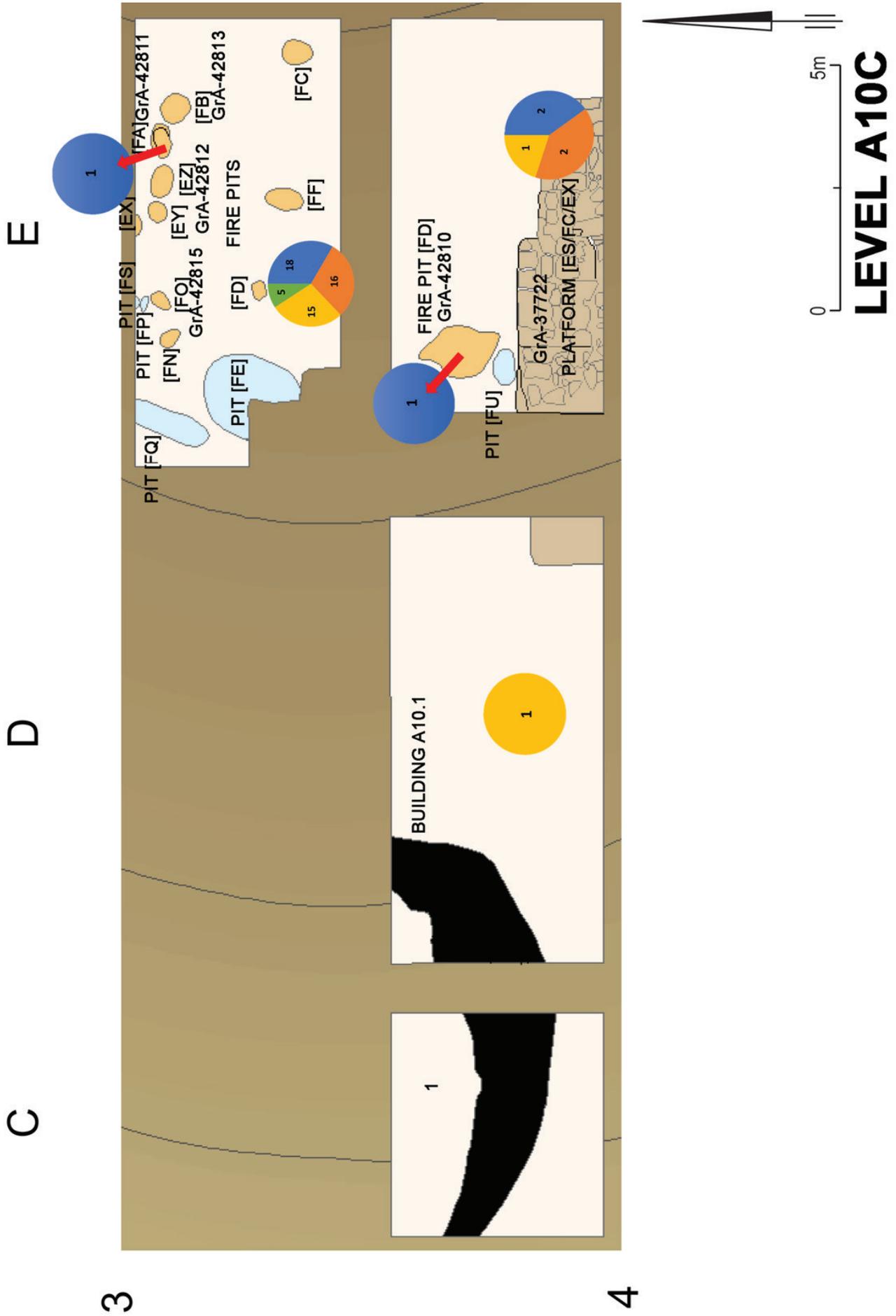


4



**LEVEL A11A**

Map 25: Operation III, Level A11a: Initial Pottery Neolithic, 6825-6740 BC



Map 26: Operation III, Level A10c: Initial Pottery Neolithic, 6750-6675 BC

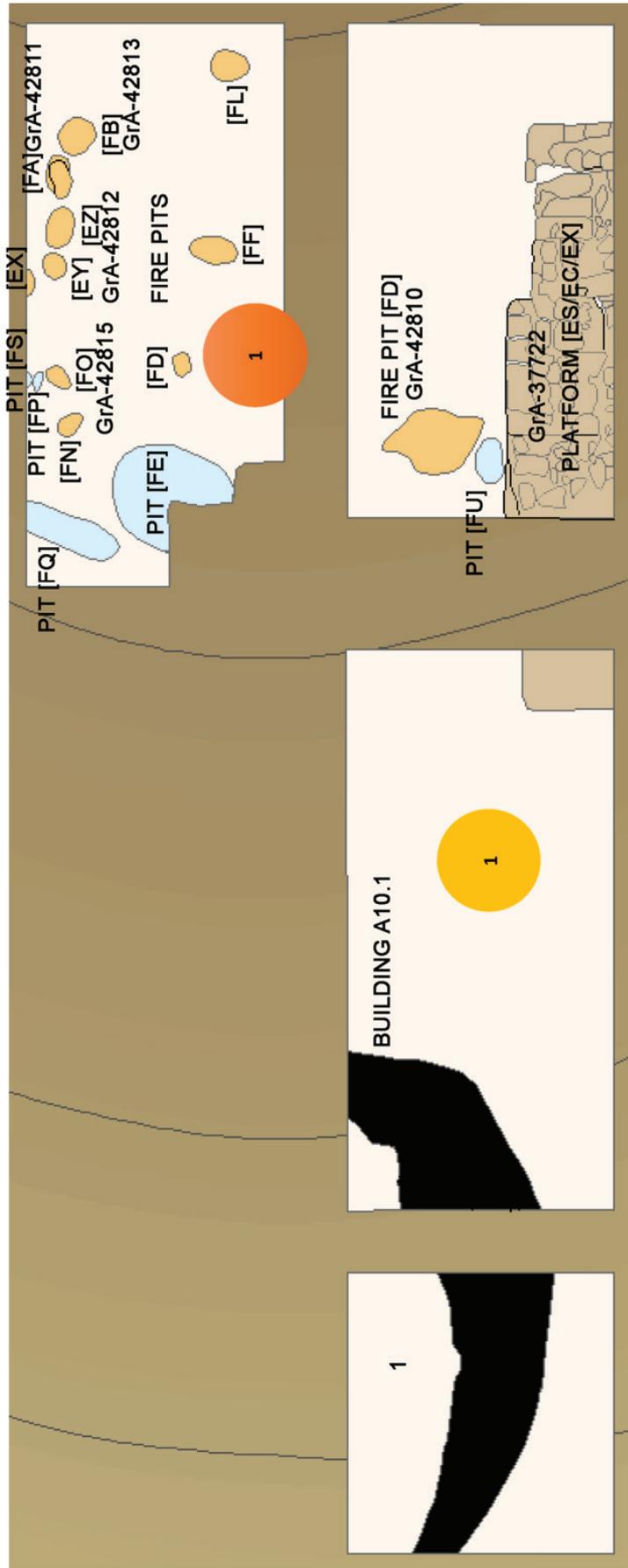
E

D

C

3

4



- Anthro/abbreviated
- Zoomorphic
- Indeterminate/Unclear
- Geometric



# LEVEL A10B

Map 27: Operation III, Level A10b: Initial Pottery Neolithic, 6750-6675 BC

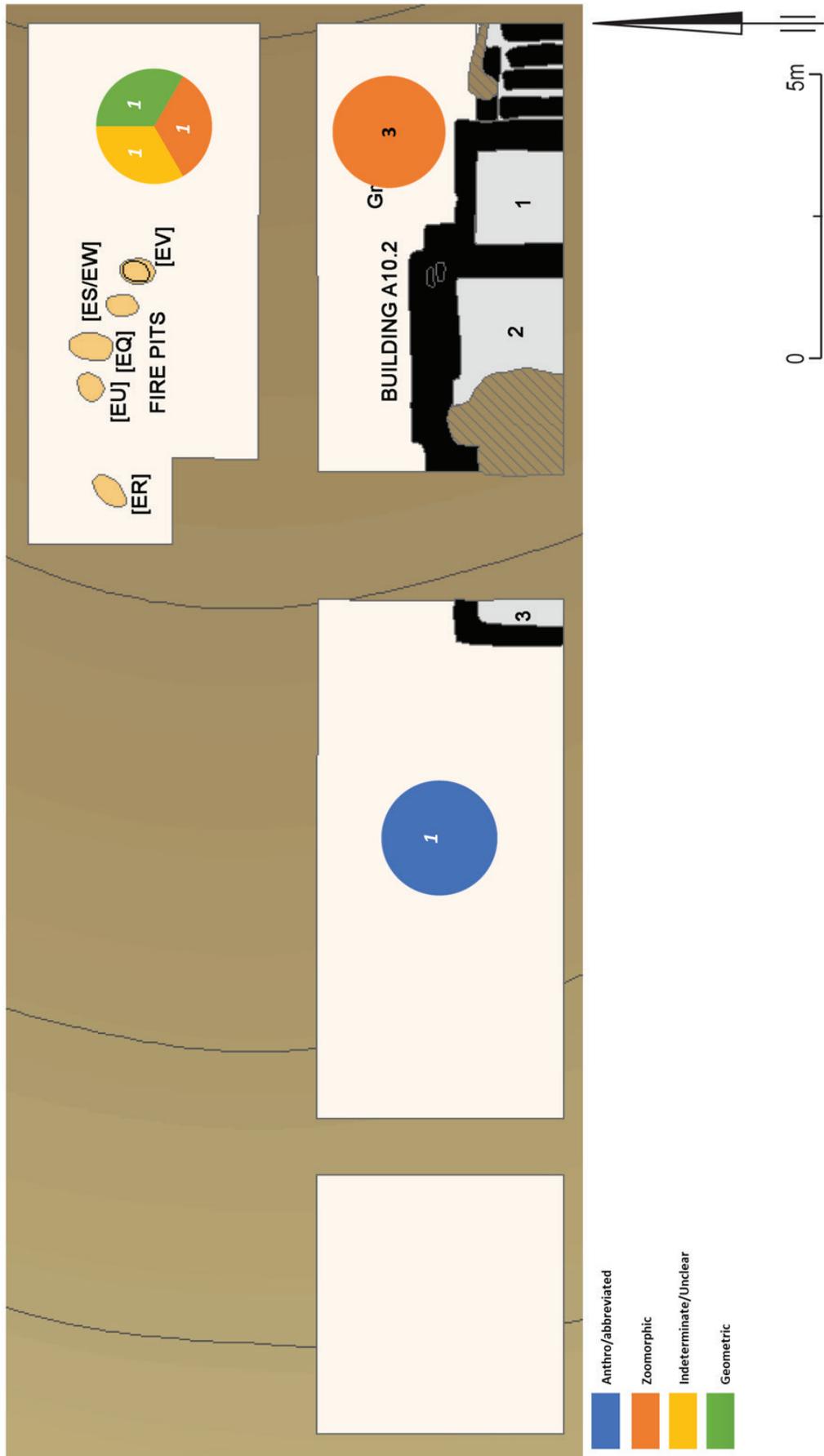
E

D

C

3

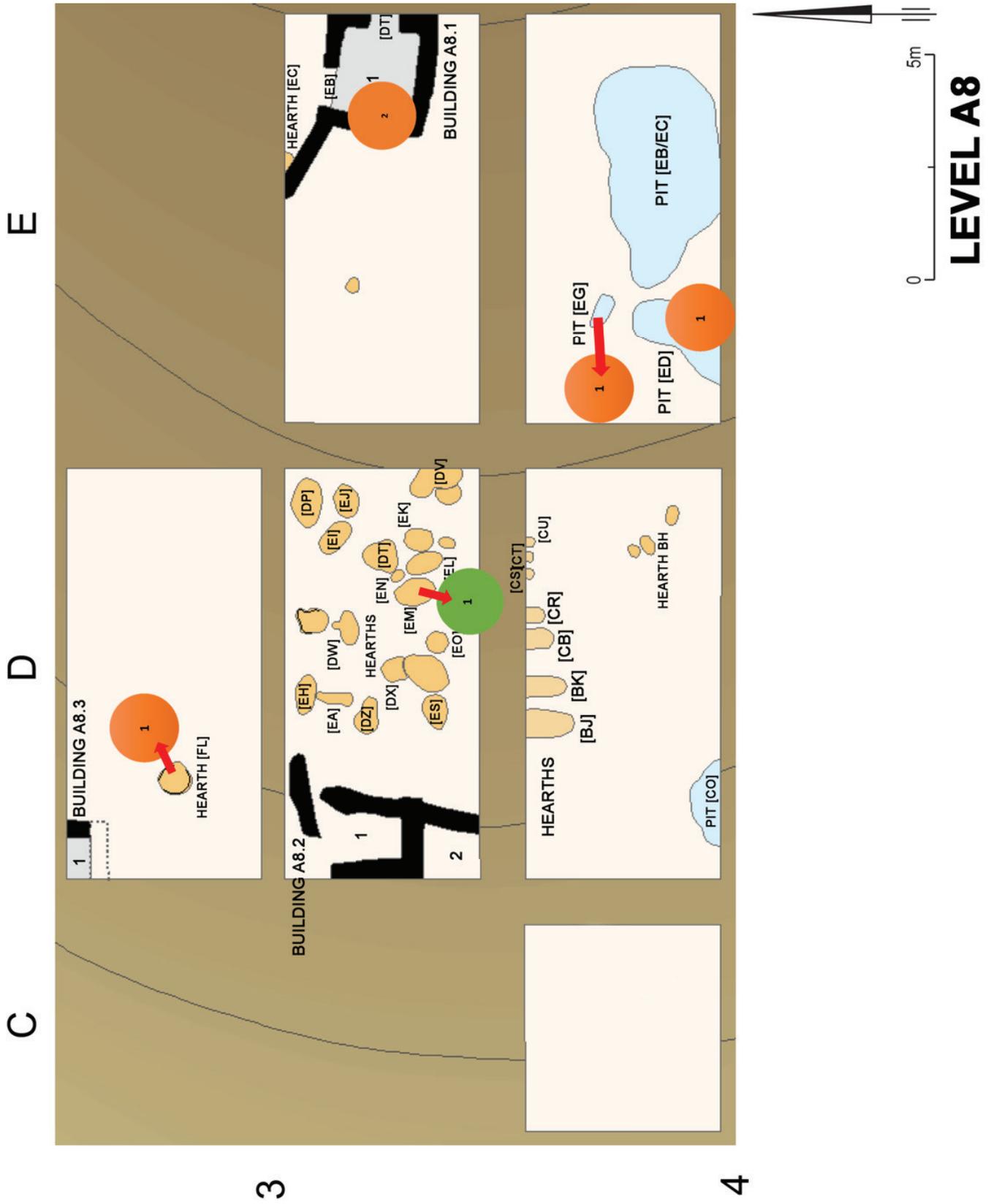
4



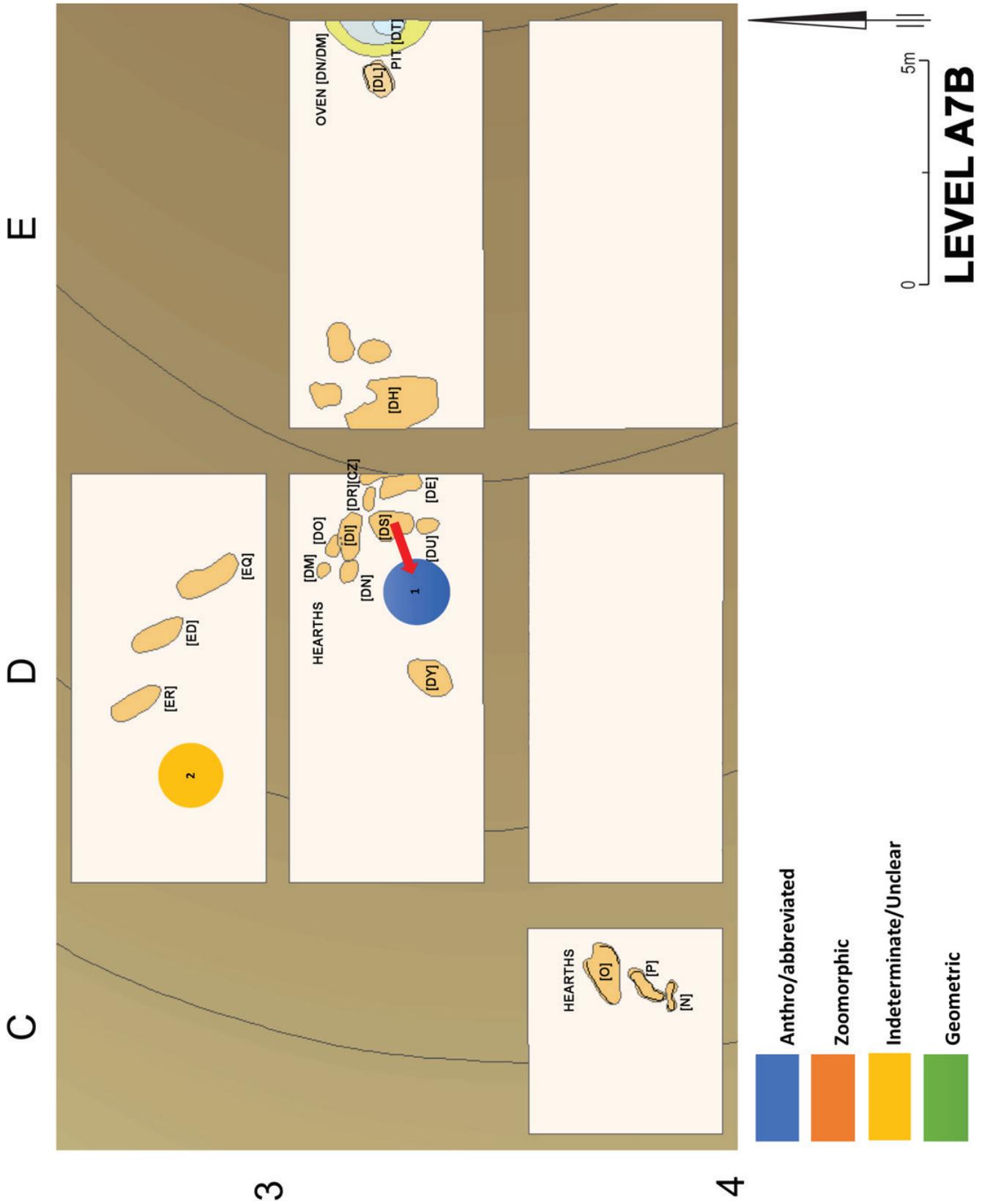
LEVEL A10A

Map 28: Operation III, Level A10a: Initial Pottery Neolithic, 6750-6675 BC

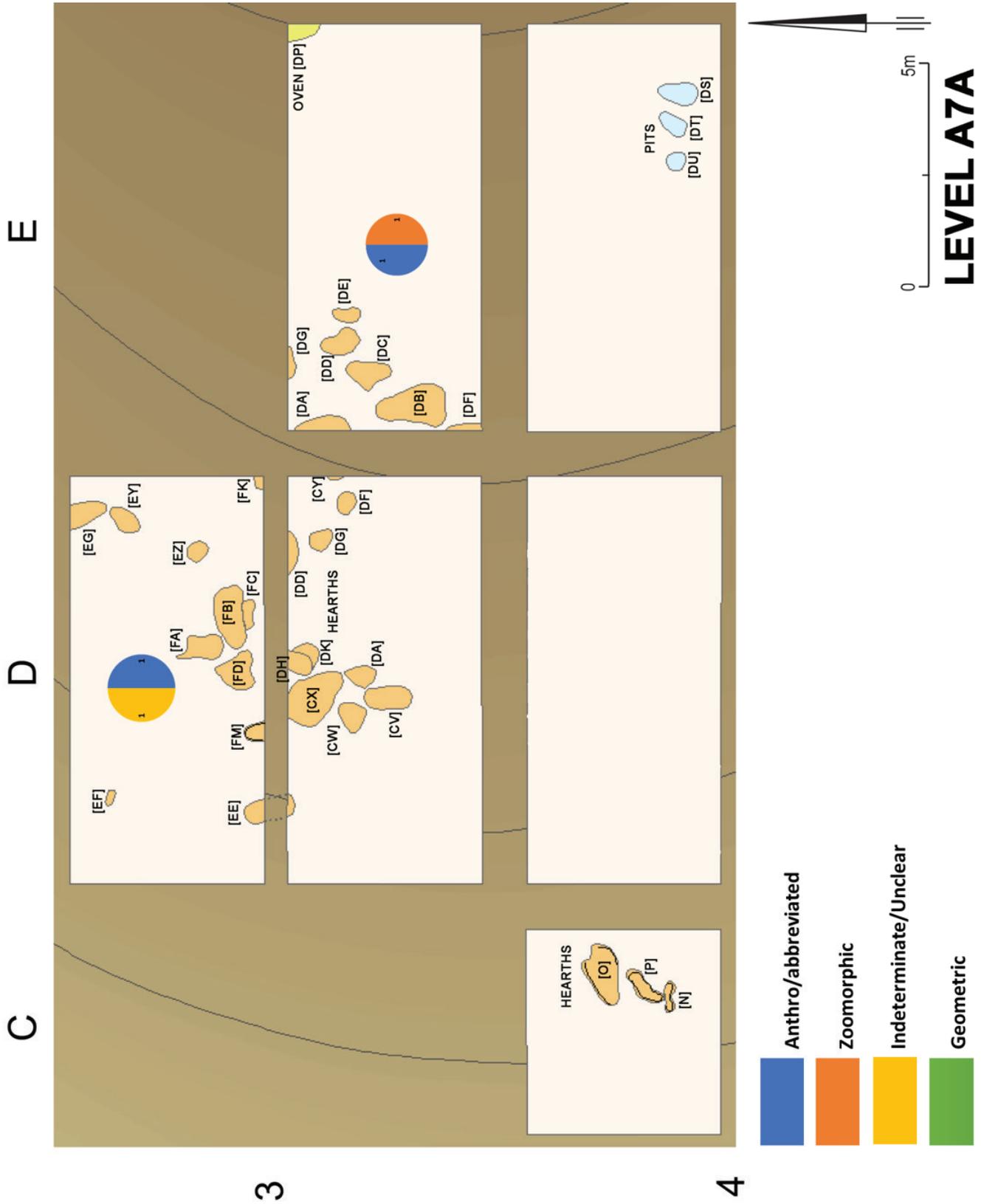




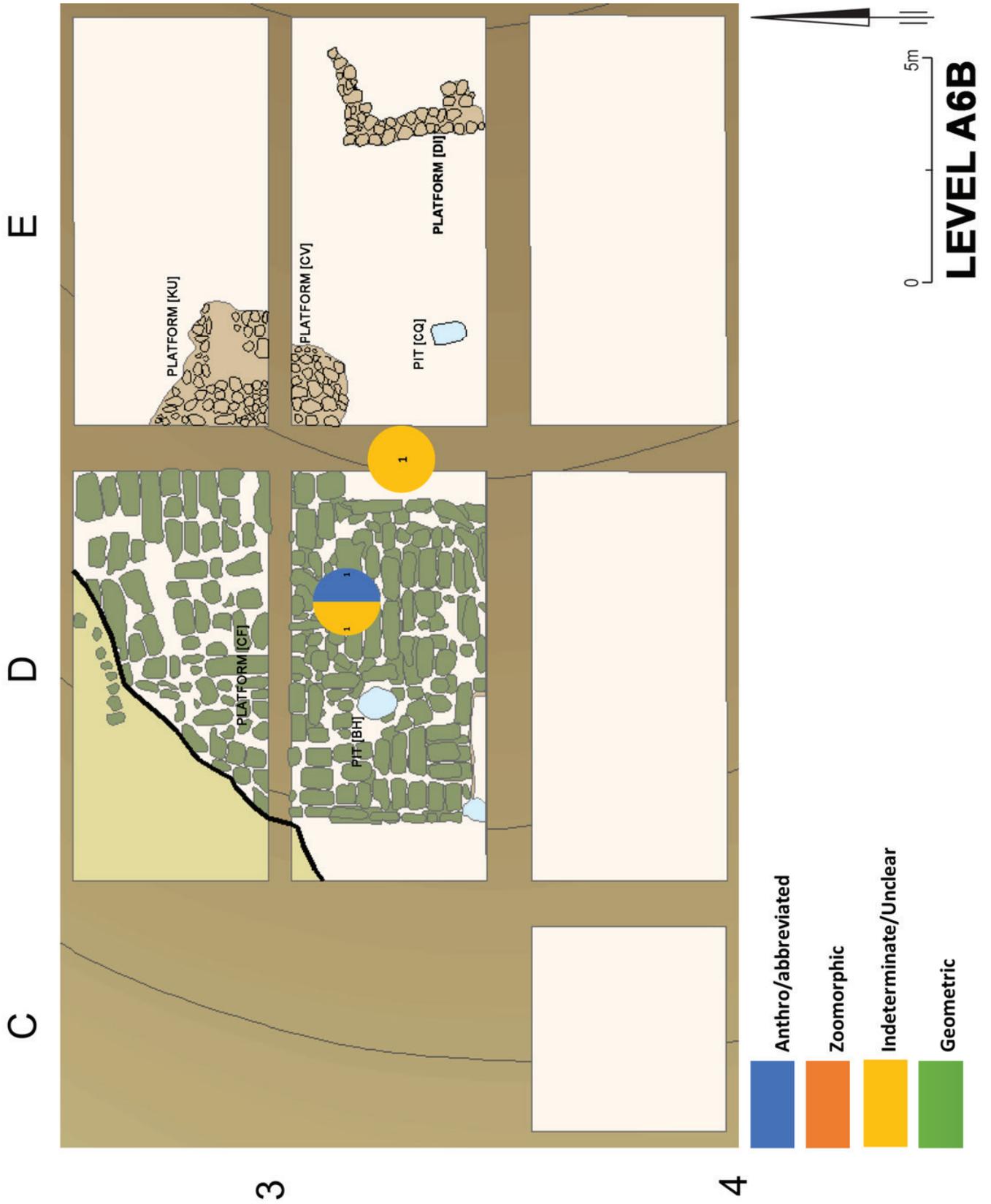
Map 30: Operation III, Level A08: Early Pottery Neolithic, 6630-6590 BC



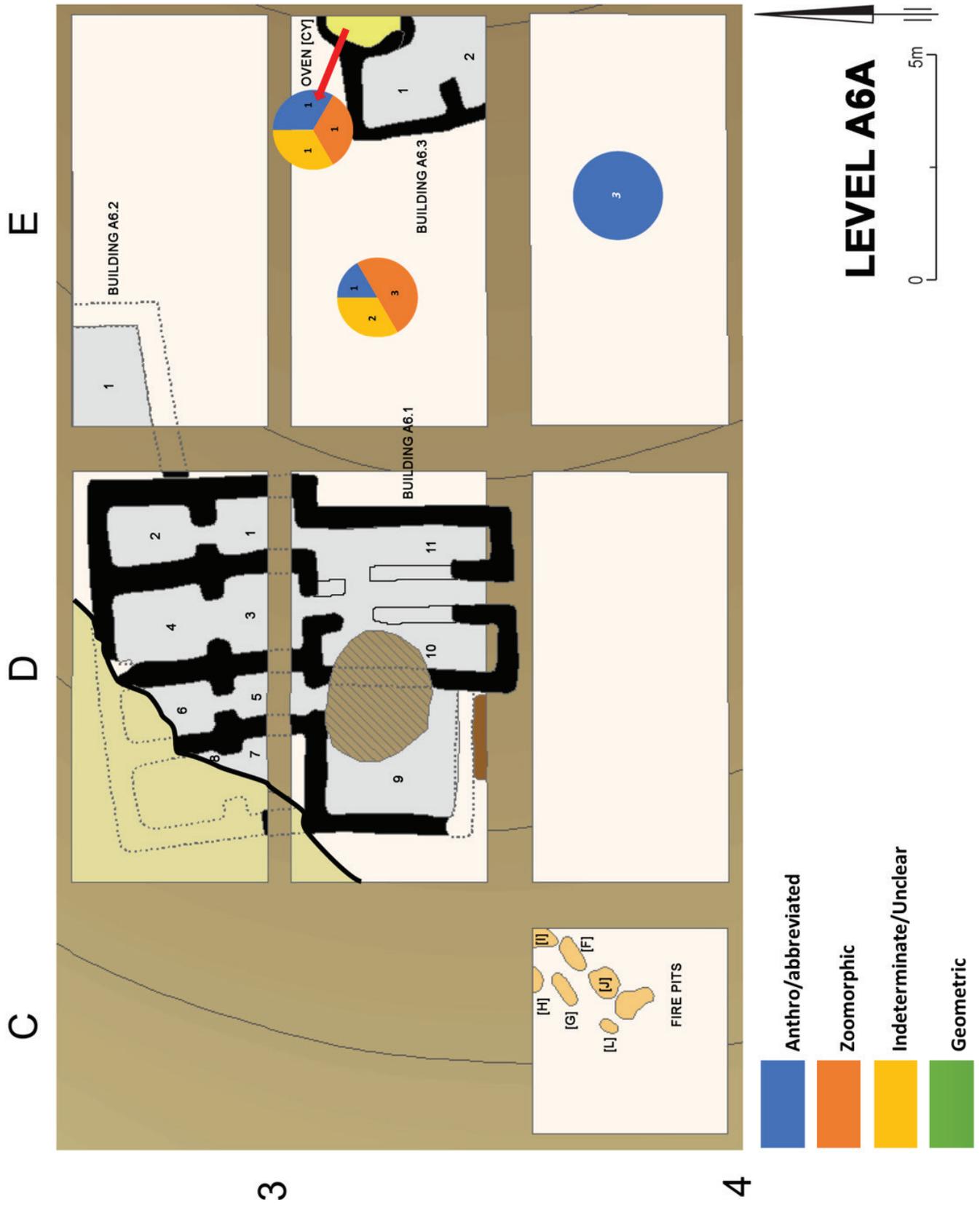
Map 31: Operation III, Level A07b: Early Pottery Neolithic, 6590-6550 BC



Map 32: Operation III, Level A07a: Early Pottery Neolithic, 6550-6495 BC



Map 33: Operation III, Level A06b: Early Pottery Neolithic, 6505-6485 BC



Map 34: Operation III, Level A06a: Early Pottery Neolithic, 6505-6485 BC





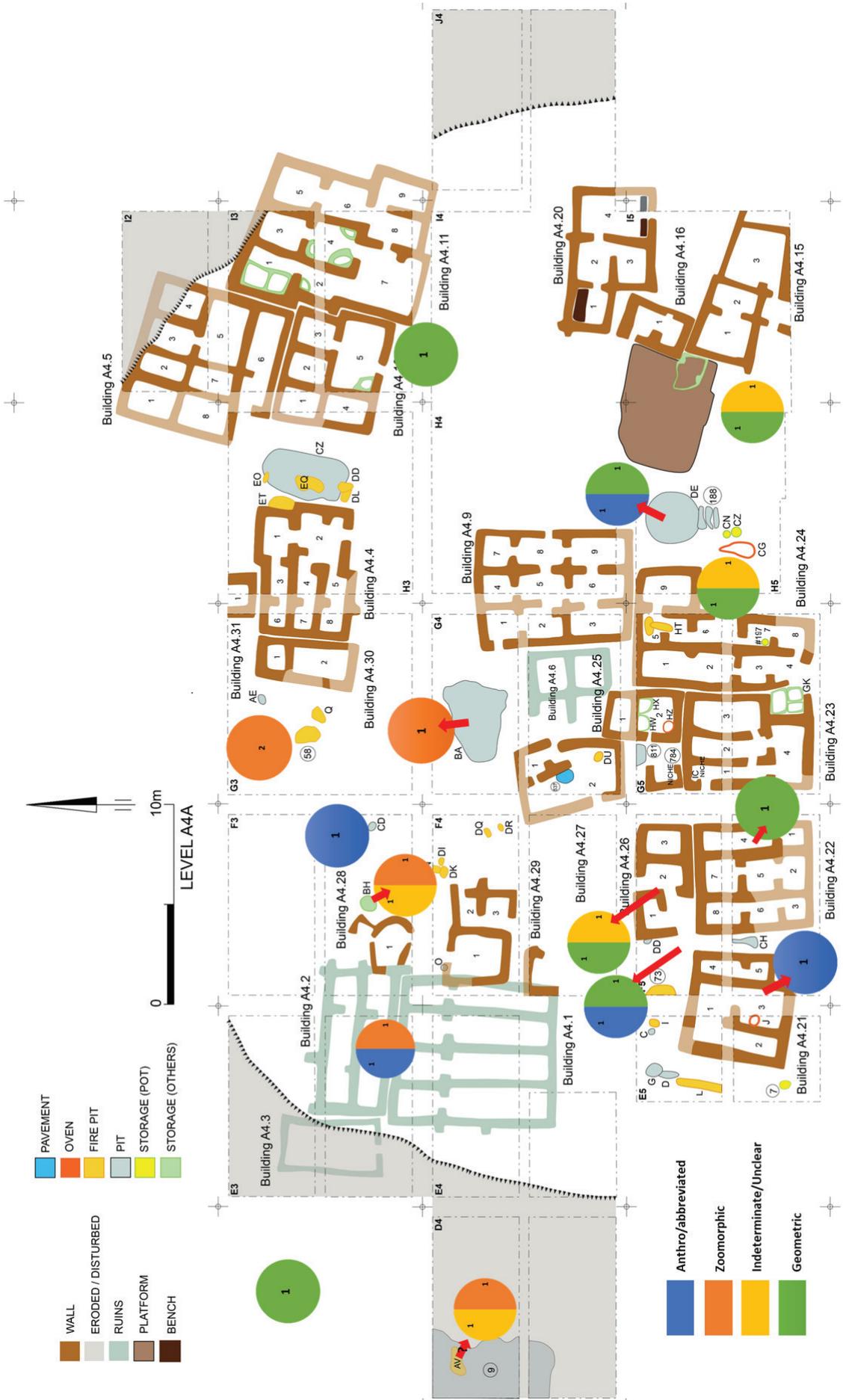
Map 36: Operation III, Level A05a: Early Pottery Neolithic, 6495-6470 BC



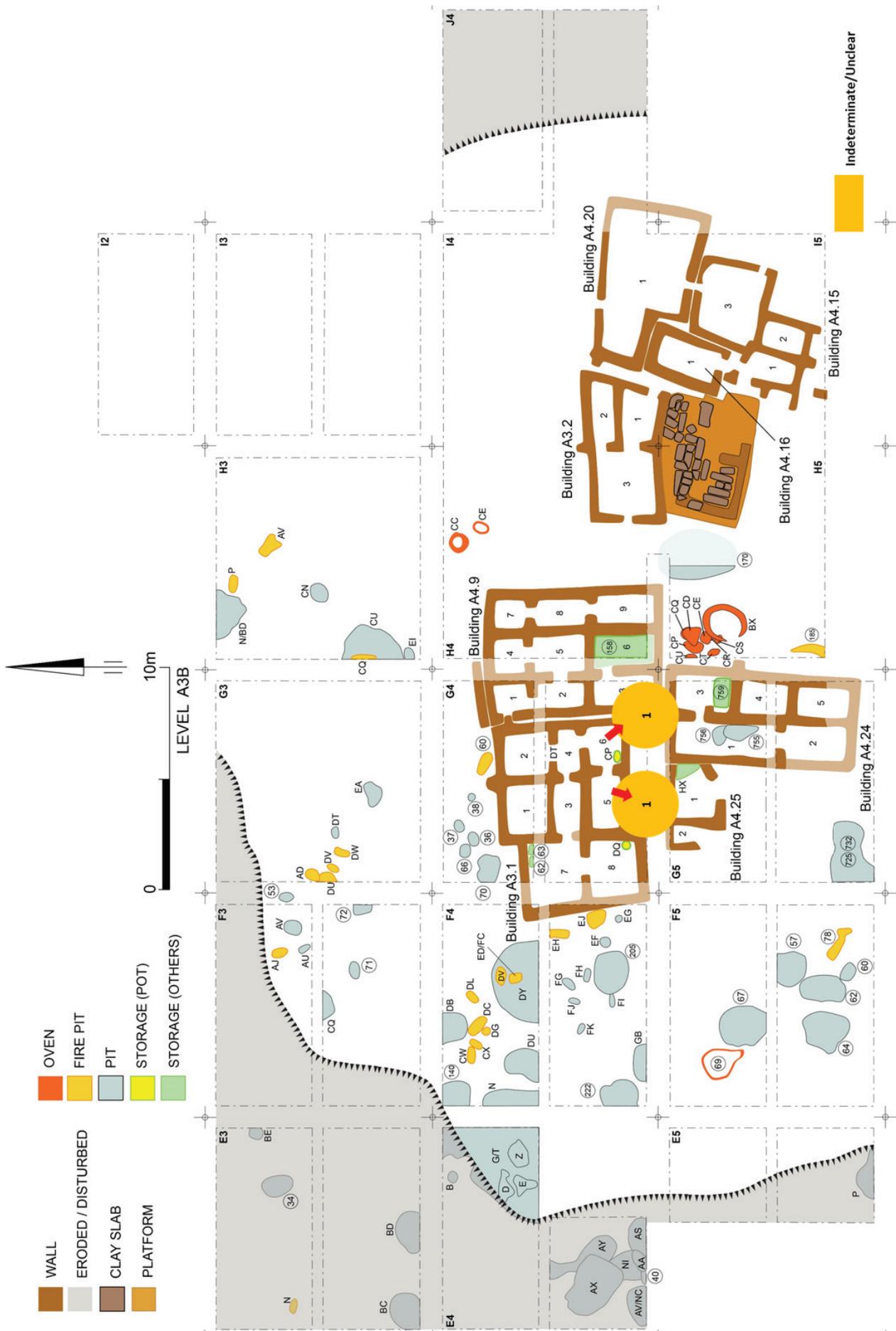
Map 37: Operation III, Level A04c: Early Pottery Neolithic, 6455-6425 BC



Map 38: Operation III, Level A04b: Early Pottery Neolithic, 6430-6395 BC

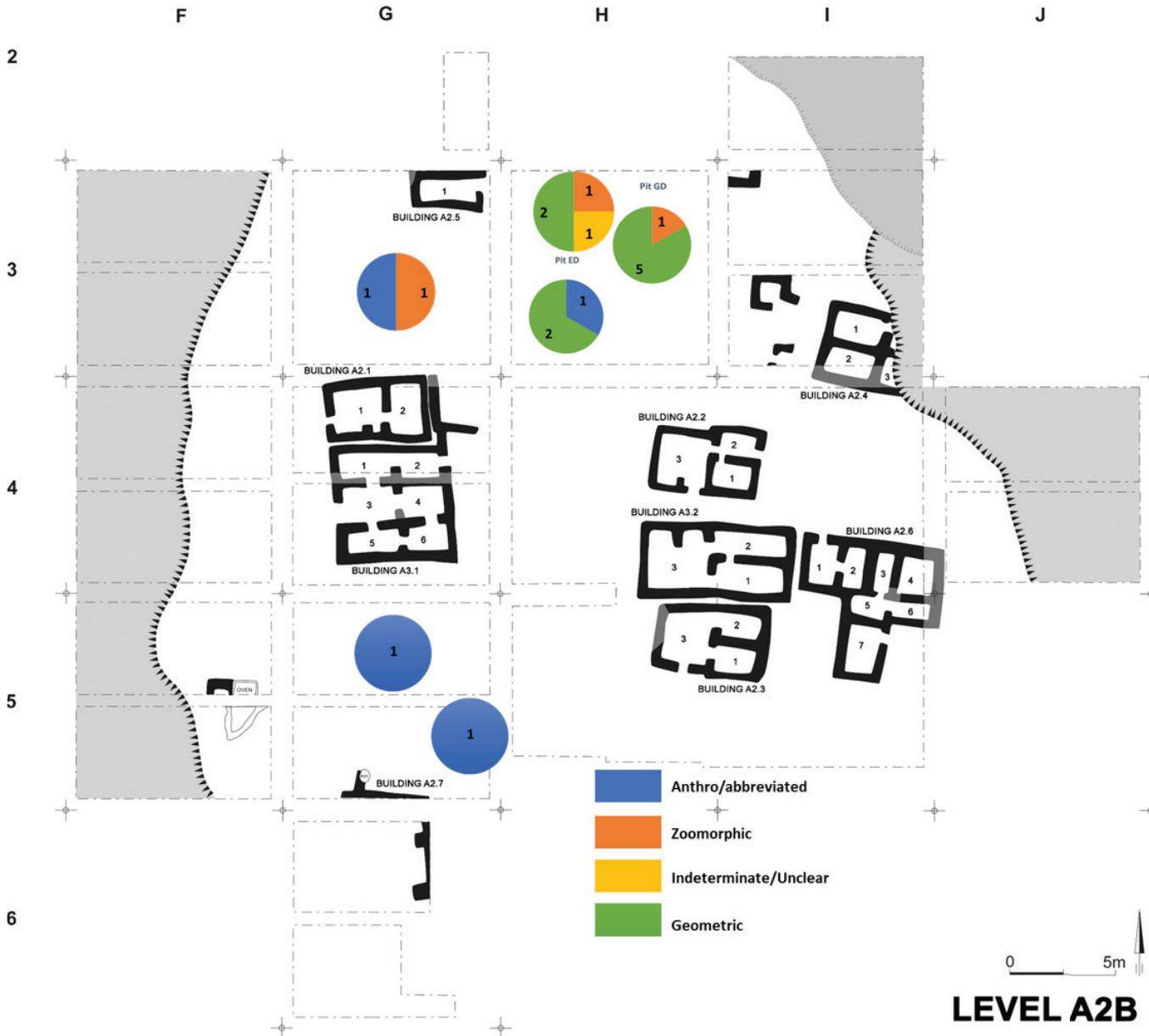


Map 39: Operation III, Level A04a: Early Pottery Neolithic, 6405-6385 BC



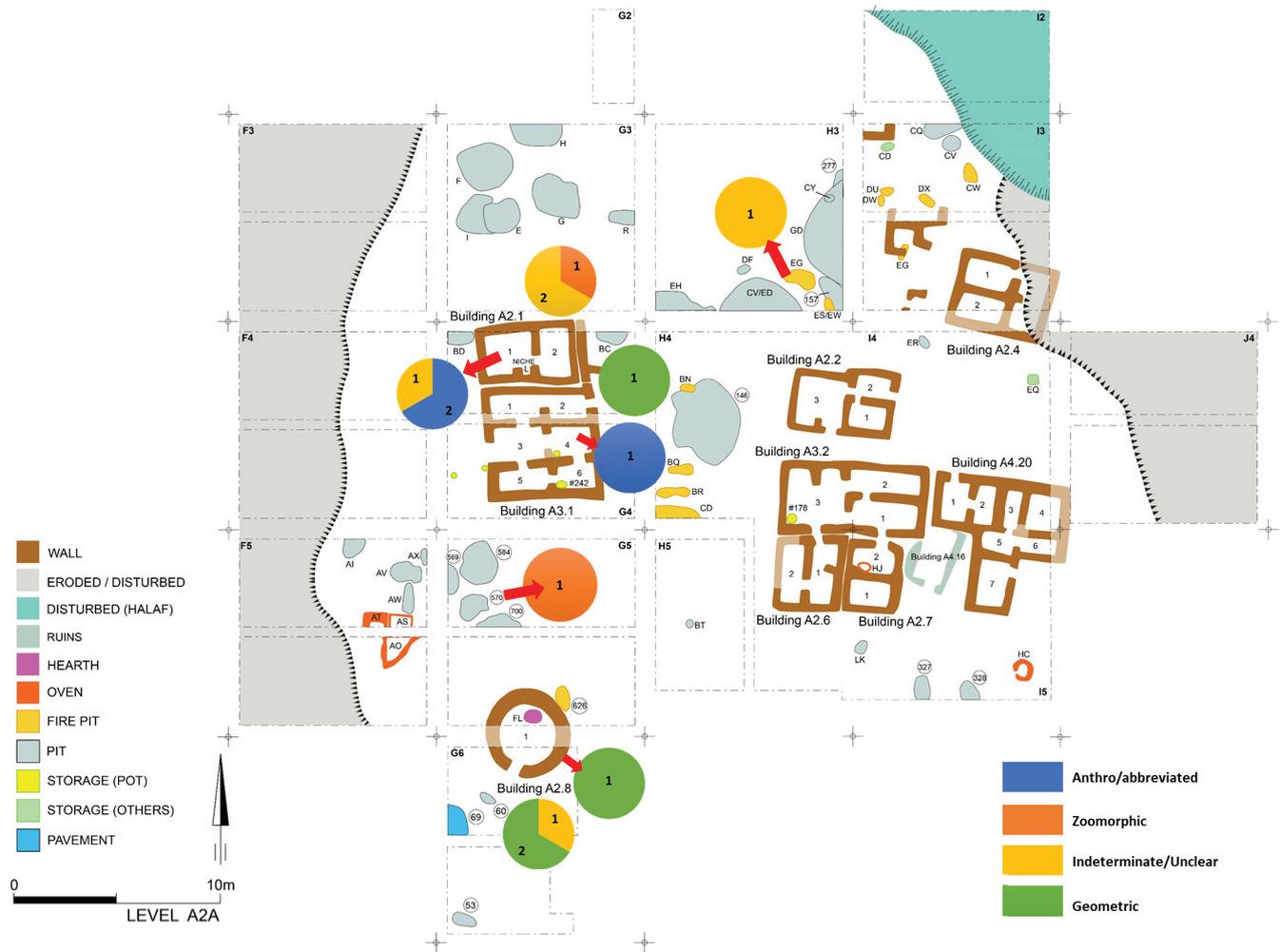
Map 40: Operation III, Level A03b: Early Pottery Neolithic, 6395-6375 BC





Map 42: Operation III, Level A02b: Early Pottery Neolithic, 6365-6335 BC





Map 44: Operation III, Level A02a: Early Pottery Neolithic, 66370-6340 BC



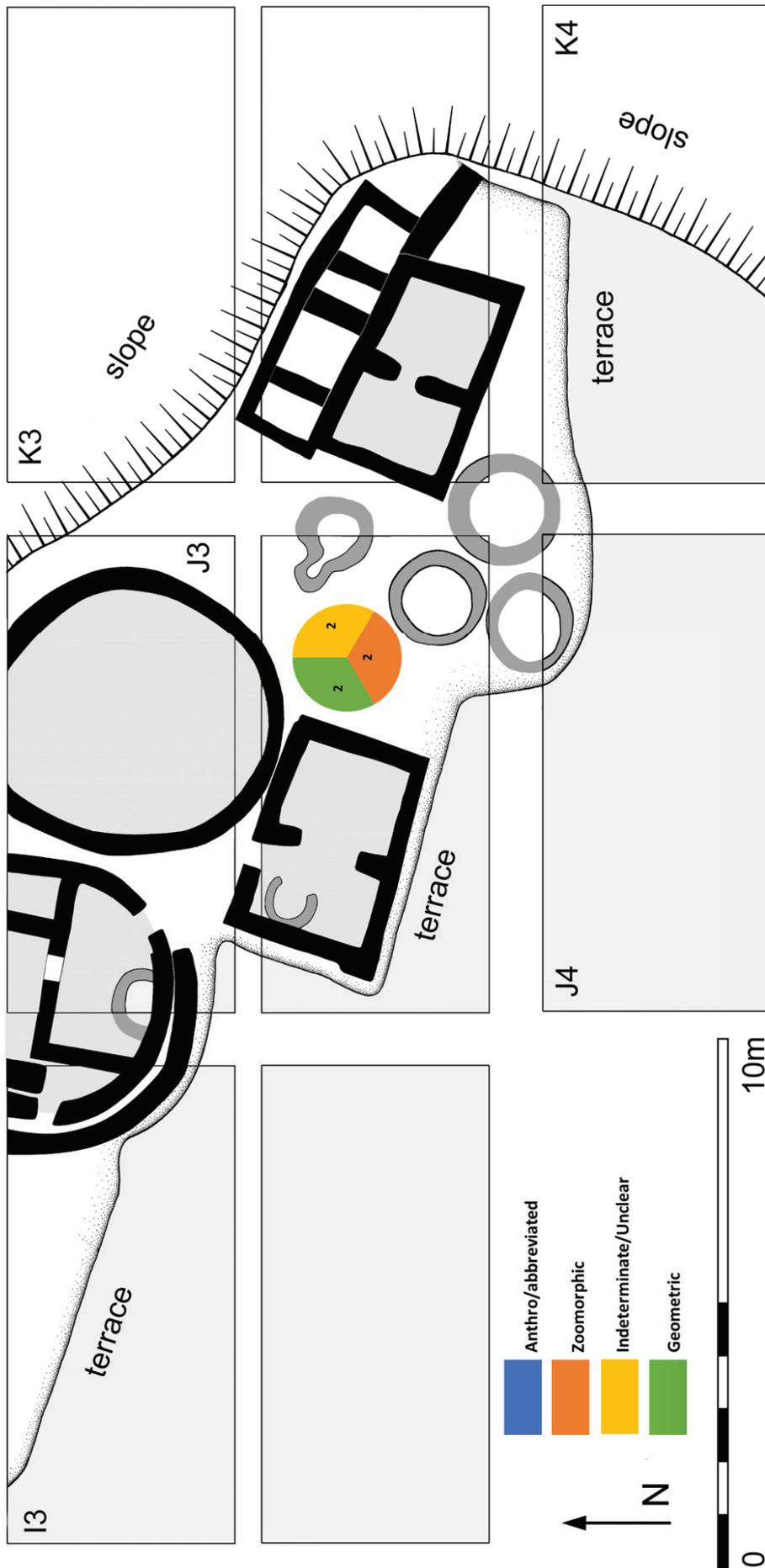
Map 45: Operation III, Level A01d: Early Pottery Neolithic, 6340-6260 BC



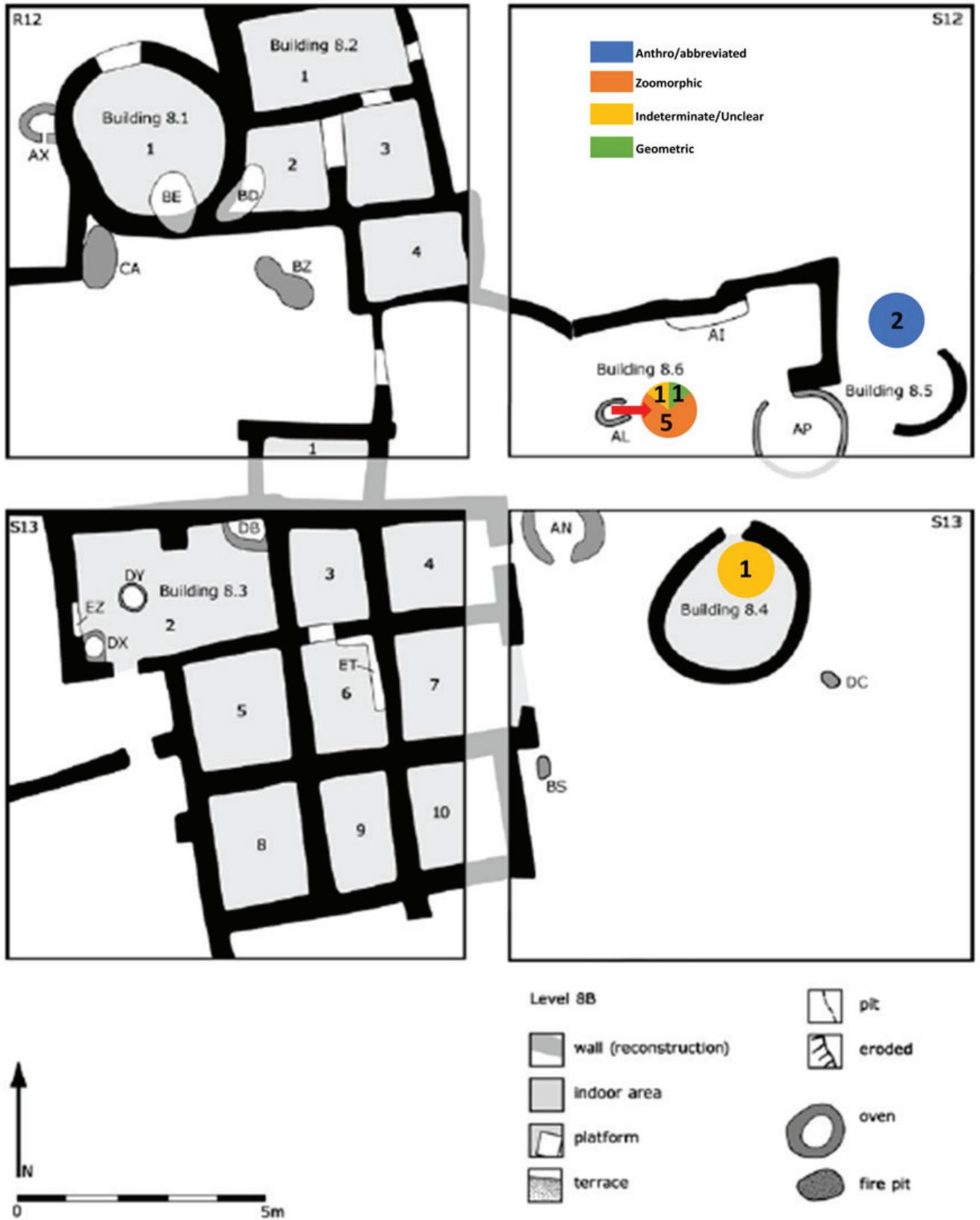
Map 46: Operation III, Level A01c: Early Pottery Neolithic, 6330-6250 BC



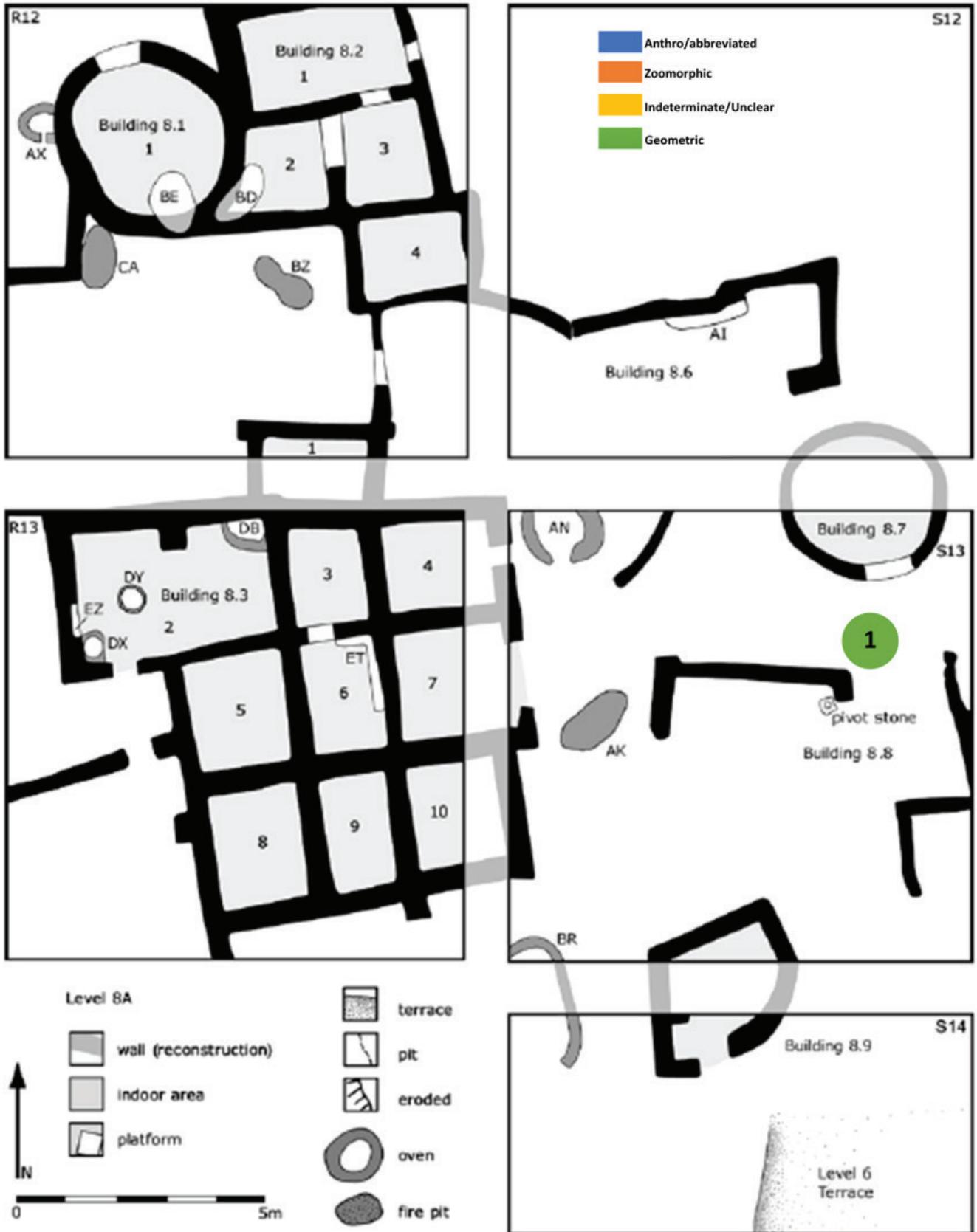
Map 47: Operation III, Level A01b: Early Pottery Neolithic, 6305-6235 BC



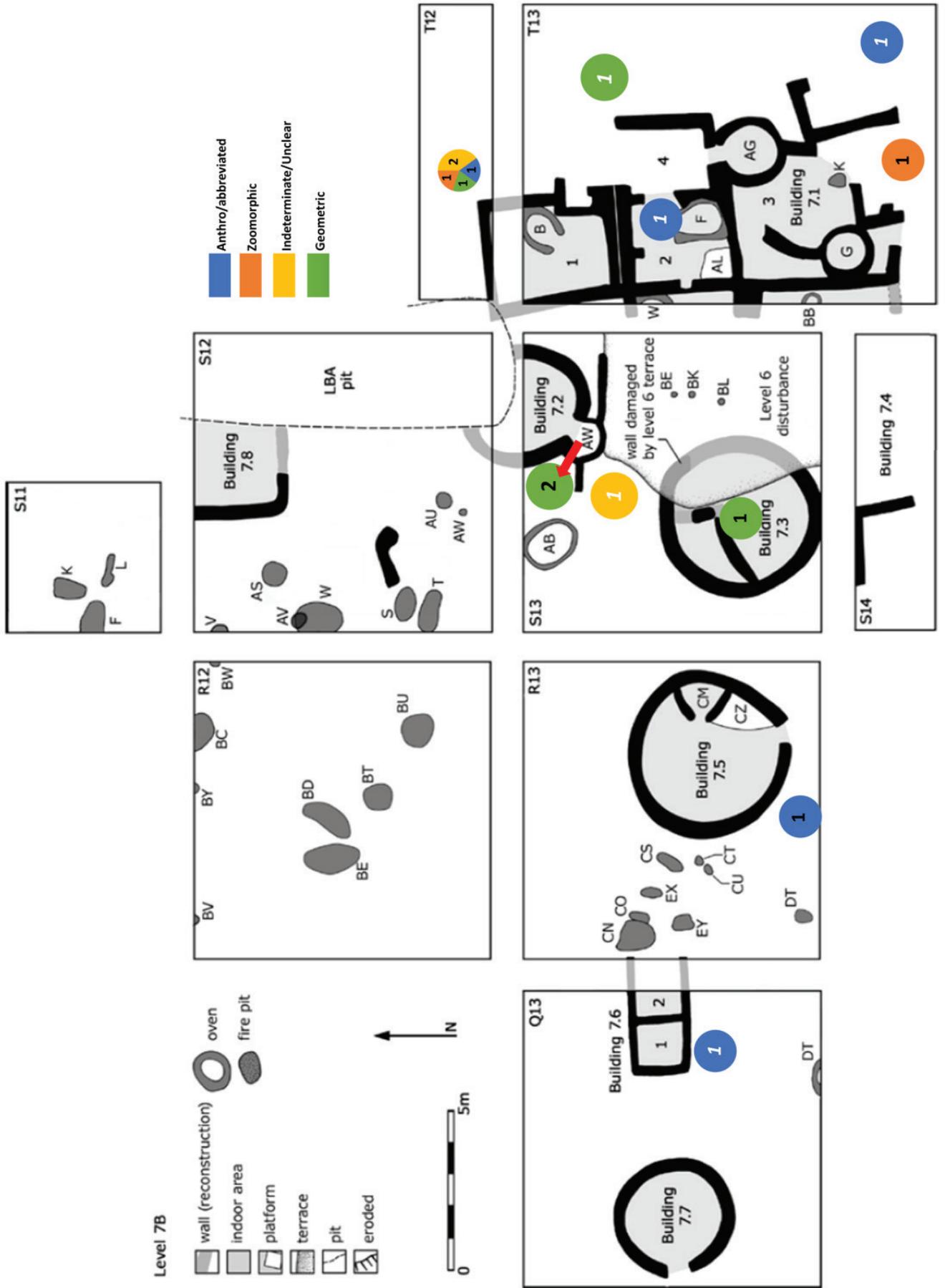
Map 48: Operation III, C-Sequence: Early Halaf



Map 49: Operation I, Level 8b: Pre-Halaf



Map 50: Operation I, Level 8a: Pre-Halaf, 6125-6075 BC



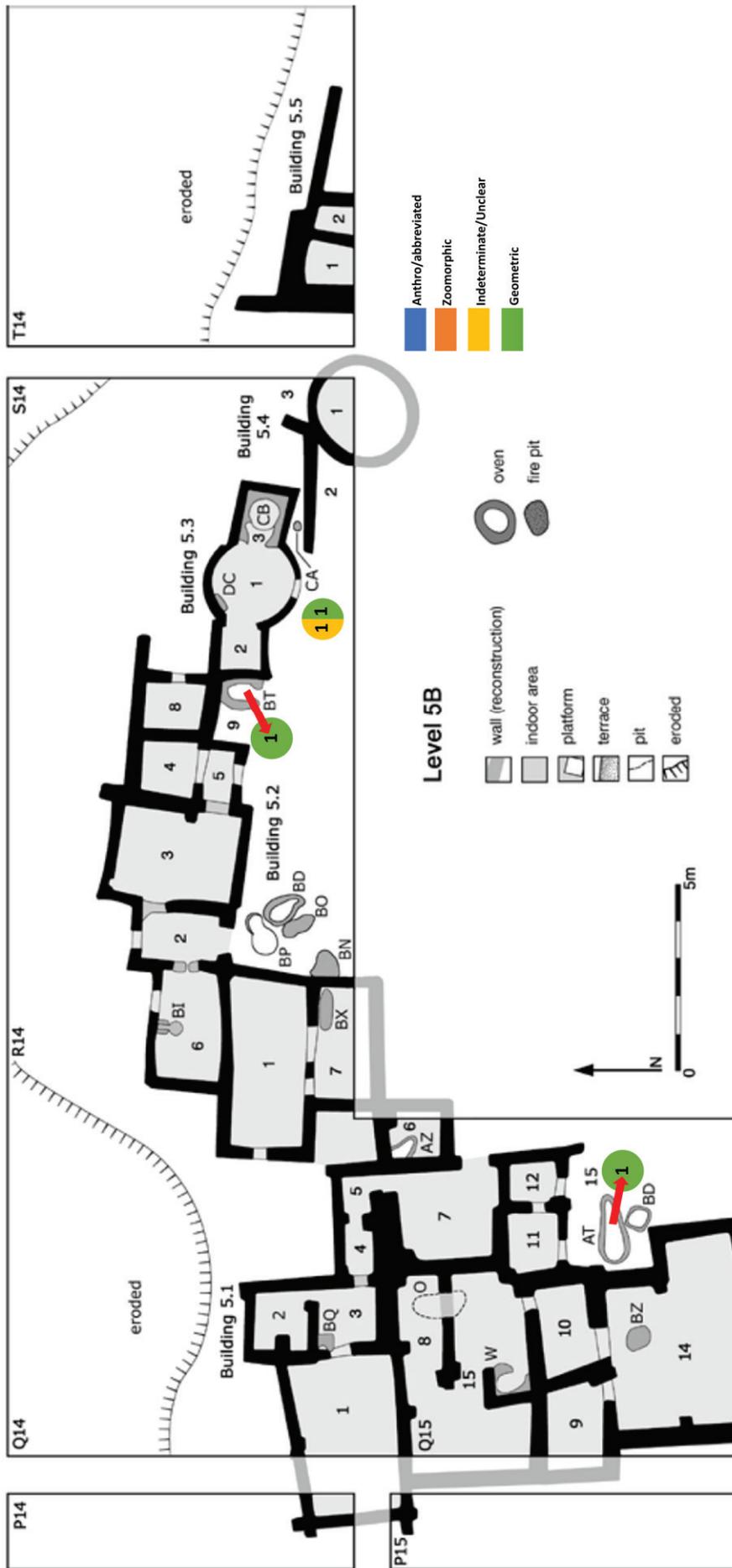
Map 51: Operation I, Level 7b: Transitional, 6020-6005 BC



Map 52: Operation I, Level 7a: Transitional, 6015-5995 BC



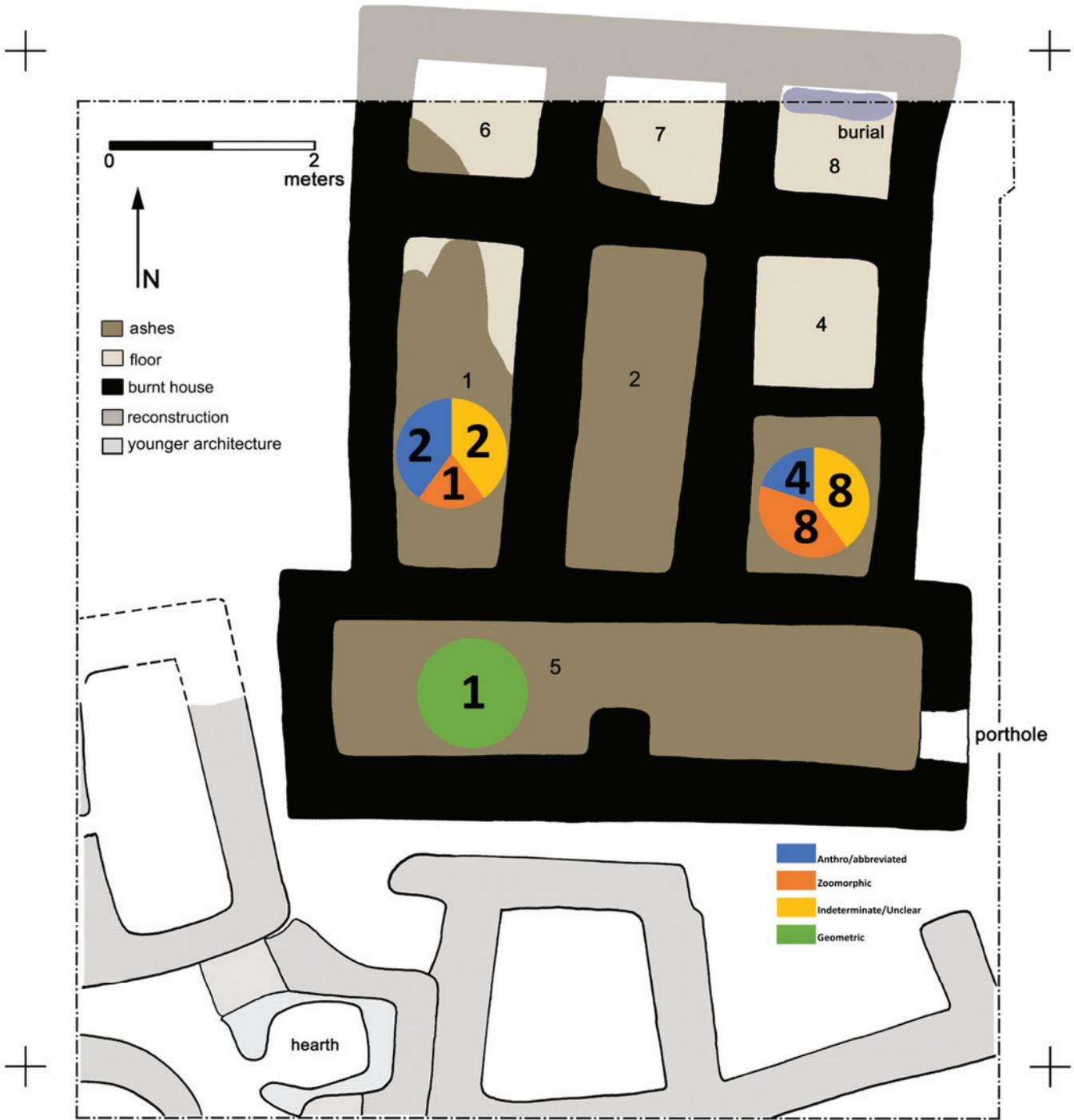
Map 53: Operation I, Level 6: Transitional, 6010-5995 BC



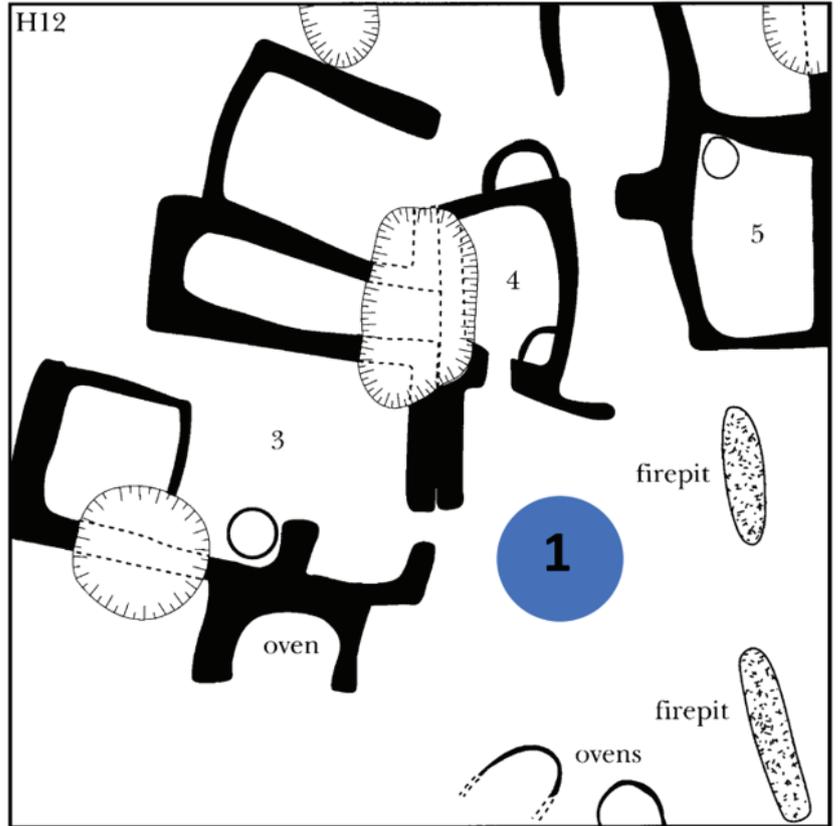
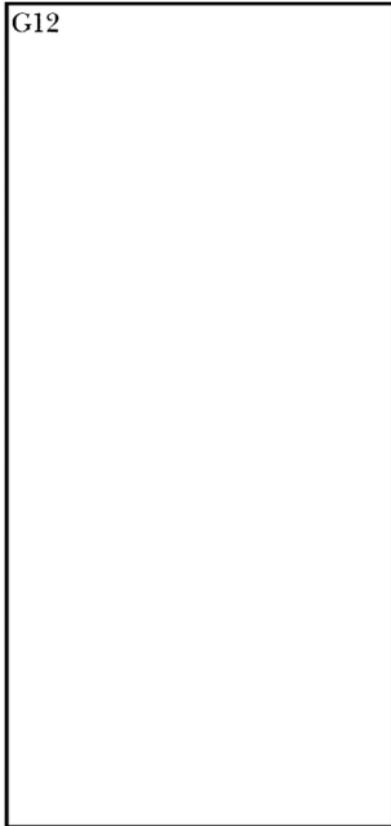
Map 54: Operation I, Level 5b: Transitional, 6000-5985 BC



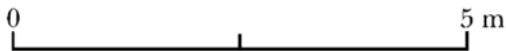
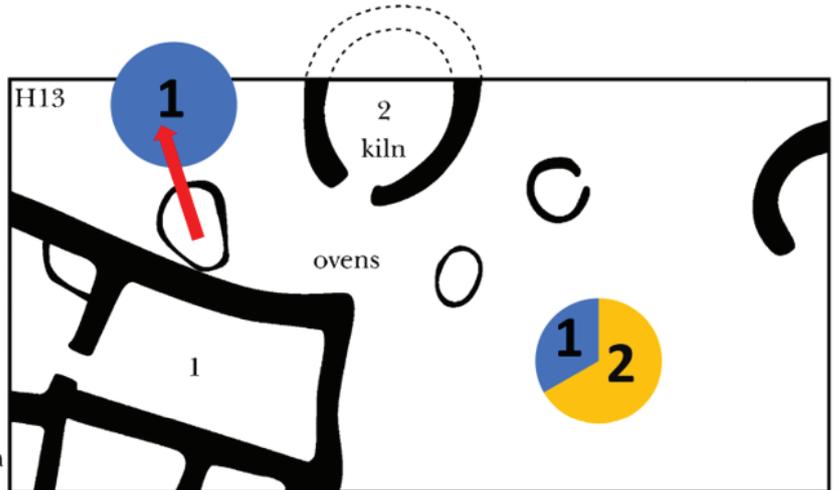
Map 55: Operation I, Level 3b/c: Early Halaf, 5940-5905 BC



Map 56: Operation II, Level 4: Transitional, 6050-6020 BC



- Anthro/abbreviated
- Zoomorphic
- Indeterminate/Unclear
- Geometric



Map 57: Operation V, Middle Phase: Pre-Halaf to Transitional, ca. 6300-6200 BC



Map 58: Tell Sabi Abyad II, Level 3a-c: PPNB

