Ovis/Capra, It's what's for Dinner; Preliminary Analysis of Faunal Material from a Minoan Settlement

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The processing, cataloguing, and preliminary analyses of faunal material from the Minoan settlement of Gournia began during the 2012 excavation season. This included backlogged material from the two previous seasons. Excavations during the past three seasons, under Prof. L.V. Watrous and Ph.D. student D.M. Buell from the University at Buffalo SUNY, have revealed a thriving Middle/Late Minoan Period settlement complete with industry, trade, and faunal material. A specific deposit consisting of faunal material, hundreds of stacked conical cups with other assorted shallow bowls and ceramics found within the palace suggest the practice of a specific ritual event that is not unique to Gournia, but compares favorably to similar deposits from across the island. The goal of this project is to examine this ritual practice through the analyzation of the faunal material in context with the other ceramics in order to extrapolate Minoan cultural practices from ritual activity.

Biological organisms must consume energy in order to survive. As a part of that consumption, numerous waste materials are invariably left over, such as charred seeds, organic residue, and animal bones. Thus, an investigation of these materials reveals the diets and consumption practices of past populations.[1] Archaeologists and analysts must begin their investigations at the very beginning in order to build the best cases on which to base our interpretations. Archaeologists should attempt to interpret these materials beyond simple diet and consumption in order to progress theories beyond those of a deterministic Cultural Ecology or cultural evolution via energy extraction of Steward[2] and White,[3] respectively. As helpful and insightful as these early theories were, we now realize that the shaping of culture was not solely determined by the environment,[4] especially in later societies consisting of sedentary towns and villages. Choices were often not optimal; rather, choices stemmed from cultural practices and traditions and were acted out unintentionally.[5] Therefore, a careful analysis of consumed waste material, especially faunal material, can tell us more than the fact that this past population consumed meat. Spatial analyses and contextual studies of primary faunal deposits can give us clues to the cultural and social practices that created such deposits, highlighting certain aspects of cultural activities such as feasts, gatherings, and preparation.[6] After populations became more sedentary and agricultural, they created other uses for animals based on their cultural practices that went beyond simple consumption.[7] Eating and other animal uses are as much cultural practices as are ritual and traditions, and the analysis of faunal material alongside the analyses of other cultural materials adds to the interpretations of social practices and cultural changes over time.

Archaeology of Feasts

Faunal analysis has evolved methodologically and theoretically since its origins from simple species lists and fragment counts of a given assemblage from hunter/gatherers to investigating animal domestication and site formation processes.[8] In the process of this evolution archaeologists have created methods of analysis which interpret faunal assemblages starting from their original cultural practices, through the taphonomic processes which operate on the material after deposition, up through the subsequent excavation of the material.[9] Through this process, archaeologists have begun to emphasize their studies on specific events, such as feasts, which have recently become a hot topic.[10]

There is a wealth of ethnographic information concerning feasting, and archaeological evidence continues to grow as more and more scholars recognize evidence for this activity in archaeological contexts. There is a wide spectrum of definitions of a feast, from Nerissa Russell's "occasions consciously distinguished from everyday meals,"[11] to Michael Dietler's "ritualized social events in which food and drink constitute the medium of expression in the performance of what Cohen has called 'political-symbolic drama,' as contrast to daily activity."[12] Scale is also a question of what constitutes a feast; do they always have to be made up of large gatherings? Most archaeologists today realize that feasts are not always made up large gatherings, but, rather, can be viewed along a spectrum.[13] The common theme through all definitions of feasts is an event that is markedly different from everyday meals and activity. Feasts are also distinct events that can be more archaeologically detectable than everyday meals, which is another reason for the rise in popularity for archaeological investigations. There are many aspects of a deposit that can suggest a distinct event besides the sheer size and number of specimens. One way is the context of the deposit; faunal remains mixed with other materials such as preparation, serving, and/or drinking vessels often indicates a single or short term event.[14] Nerissa Russell also highlights the presence of special food prepared for feasts.[15] This can be either a richer assortment of species or a more concentrated emphasis on a single species; whichever way, it

is the different balance of taxa than normal that can mark a deposit as a feast. The location of a deposit is also important. Many archaeologists investigating feasting events note that feasting deposits are typically separate from everyday waste, and are usually near the location of the event, such as an open courtyard, open space in the middle of a settlement, a temple or other sacred building.[16]

Through feasts, archaeologists examine political and economic relationships,[17] as well as social relationships[18] and the rise of complexity.[19] Brian Hayden, for example, sees the act of competitive feasting during the upper Paleolithic and Mesolithic periods as precursors to the development of agriculture and the domestication of animals.[20] According to Hayden, as social leaders were competing for prominence early feasts became more and more elaborate as individuals tried to outdo one another. This continual practice of one-up-manship inevitably led to the domestication of animals and agriculture in order to create larger feasts. Paul Halstead has also suggested that food, and in particular feasts, eventually led to social inequalities in Neolithic Greece.[21] According to Halstead, during times of hardship and crop failure, households which were suffering would borrow from those who had more, or work in the fields of those who were better off. Over time, this led to debts owed to the larger households which created dependency on the larger houses by those households which were suffering.[22]

Evidence for feasting is more apparent, and elaborate, during the Bronze Age and later periods. Of course, textual evidence assists archaeologists working in the Late Bronze Age and later in Greece. Valasia Isaakidou et al. discovered a large sample of burned cattle bones in Room 7 at the Mycenaean 'Palace of Nestor' at Pylos.[23] This sample compared quite favorable to Homer's account of animal sacrifice from the *Odyssey*, as well as later Archaic and Classical sources. The cattle bones had been stripped of their meat and heaped together in the middle of Room 7 in the palace and then subsequently were burned, presumably as a display and sacrifice to the gods. Isaakidou et al. interpret this display as an Archaic Greek ritual practice that possibly began in the Late Bronze Age.[24]

Methods of identifying types of feasts have come from archaeological investigations into Bronze Age feasting deposits. Archaeologists contend that, based on the nature of the contextual ceramic sample, one can infer whether a specific feasting event was more inclusive or exclusive.[25] According to Halstead and Barrett in their introduction to feasting, highly individualized cups underline the participation of individual actors, while standardized serving vessels emphasize the existence of both groups of 'companions' or close kin served from the same dish, and of a larger collective that shared a common material culture and etiquette of consumption.[26] In essence, standardized cups with simple designs represented more communal gatherings, whereas highly specialized, individual cups represented a more enclosed, elite gathering. Therefore, archaeologists concentrated on the ceramic samples from feast deposits, attempting to find 'sets' of drink wares and serving wares in order to determine the nature of the feast.[27]

Not all feasts occur for specific political or competitive means. Dietler and Hayden, for example, have categorized feasts according to their function.[28] Hayden has created an elaborate typology of feasts, sorted into three main categories: alliance and cooperation feasts, economic feasts for gain, and diacritical feasts which are sumptuary for status and display.[29] Dietler groups feasts into empowering feasts, which typically serve to enhance the host's prestige; patron-role feasts, which are redistributive and typically maintain and legitimate an existing hierarchy; and also diacritical feasts, which are all about marking off an elite group.[30] As Dietler states, "It is possible to move beyond the traditional focus on generalized diet (or 'what they ate') in the archaeological analysis of food by seeing

food as a pervasive and critical element in the articulation and manipulation of social relations."[31] Newer methods for faunal analysis and archaeological theories, such as theories of practice and structuration,[32] allow for this shift in focus to occur.

Faunal analysis as a whole, as well as feasting as a practice, is in the process of being reconceptualized. The practice of feasting is beginning to be examined with as much vigor as the function, or meaning, of the feast. Yannis Hamilakis defines a feast as;

> "It is the memory of the distinctive event, of the performances, of the processions, of the violence and sensory effects produced by the sacrificing and killing of animals, of distinctive participants with their elaborate garments, their perfumed bodies and their rare and exotic drinking vessels, of the substances consumed with their psychoactive effects, and so on."[33]

Meg Kassabaum is examining the act of feasting along a continuum, based on the number of participants and its particular social meaning.[34] Gender divisions and roles, both during a feast and during the preparations, are now being examined.[35] Questions such as, what roles did women play in the preparation of the feast, along with, how gender inclusive were past feasts, are now being investigated along with the typical questions of how big was the feast, and what did they eat.

While feasts and rituals are two separate acts, oftentimes the two occur together. A useful definition of ritual is, "a performance, planned or improvised, that effects a transition from everyday life to an alternative context within which the everyday is transformed,"[36] or an event which has an impact on the world.[37] Feasts can be either ritualized or secular; it depends on the context and intention behind the practice. The ethnographic record is full of ritual acts involving animals and feasts, and then the disposal of the remains, typically of wild or hunted game. According to Russell, the context and association of a deposit can reflect ritual action.[38] Comparison of sacrificial or ritual deposits to more secular everyday deposits can be a method to illuminate areas of ritual practice in order to delineate different uses of space.

Let us now examine how these definitions of feasting and ritual may relate to the faunal and associated ceramics discovered in the Minoan settlement of Gournia.

Method and Materials

The faunal material for this analysis was collected during excavations at Gournia during the summers of 2010 through 2012. We used an open-air trench method of excavation, segregating individual cultural deposits within trenches into separate loci both horizontally and vertically. Trenches from within the palace at Gournia dry sieved 100 percent of the excavated soil and took a 25 percent soil-sample for flotation analysis. Sieving was done using a 1/8 inch mesh screen. Faunal specimens were then collected and sorted into bags according to the trench and locus from which they were found. Cleaning the specimens was done using a dry-brushing method with soft-bristled toothbrushes and wooden probes to dislodge soil from within bone cavities and crevices. Each identifiable specimen, 3 cm or larger in diameter with diagnostic characteristics, was then identified to an element or a specific taxon or cataloged if the specimen was culturally modified.[39] Taxonomic identification was done using a comparative collection from INSTAP (Institute of Aegean Prehistory)/East Crete Center in Pachia Ammos assembled by Prof. Lynn Snyder and consisting of single examples of *Bos taurus, Equus ferus caballus, Sus scrofa, Ovis aries, Capra hircus, Canis lupus familiaris*, a *Mustelid* and a *Sylviagus*, along with several *Ovi/Caprid* mandibles ranging in relative age from juvenile to adult. France's "Human and Nonhuman Bone Identification" was also used.[40] Unidentifiable specimens were not

cataloged but were kept and stored for future analyzation.

Trench 10 is a room in the southwest corner of the palace at the Minoan settlement of Gournia, also known as Room 13.[41] This location places it right next to the Baetyl Stone and kernos outside the southwestern corner along the road.[42] During the Middle Minoan III period (roughly 1900 BCE to 1550/1500 BCE, also known as MMIII) there was no wall separating the deposit from the *kernos* and the Baetyl stone; the cups were placed in and around the two. What is significant is the public access of this practice, occurring along the street.[43] It was not until after the Theran eruption that the southwest wing of the palace was constructed, thus incorporating this cult practice physically within the palace during the Late Minoan IB period (roughly 1550/1500 BCE to 1400 BCE, also known as LMIB).

Roughly half of the faunal material recovered from Trench 10 has been cataloged, 303 total identified specimens as of this writing. This deposit is, by far, the largest faunal deposit recovered from Gournia and comprises roughly 75 percent of the total faunal remains identified from the entire site at this time. The deposit ranges in date from MMIII to LMIB, with the majority of the deposit dating to between MMIII and MMIIIA (roughly 1900 BCE to 1700 BCE). Relative dating of each locus and deposit was done based on the associated pottery. Whether this representation is a reflection of the total deposit or simply due to the incomplete catalog is yet to be seen. Trench 10 is the richest deposit in species represented. Besides the typical *ovi/caprids* (sheep and goats) and *sus* (pig) species (each of which are represented from the other deposits) *bos* (cow), *avid* (bird) and fish were also represented. Trench 10 is the only deposit with *avids* and fish represented, with the exception of a questionable talon from Trench 4. The only other *avid* representation is a single carpometacarpus (part of the wing). *Bos*, along with artiodactyls and other large mammals, are almost exclusively represented in Trench 10, except for two *bos* molars from Trench 5, which was determined to be a pottery dump. The deposit was relatively dated based on the conical cups and shallow bowls found in context with the faunal remains. Over 700 conical cups were recovered from this deposit, many of them stacked on top of one another.

The botanical remains are of great interest. An interesting subset of grape pips that were recovered was those surrounded by grape skins in two samples from Trench 10. According to Margaritis, the limited number of pressed grapes could indicate that they are the residues of wine, with the skins having escaped the sieving and ended up in the vessels of the stored wine.[44] The most striking find within the deposit are the pomegranate remains, found in large numbers in context with the LMIB deposit in Trench 10. As of this writing, they are the first example of this tree found in the archaeological record in Crete and one of the few finds in Bronze Age Greece.[45] Previously for the Aegean, the earliest iconographic evidence for pomegranates comes from the Middle Bronze Age, and the first botanical finds were from an elite residence at Tiryns from around 1200 B.C.E.[46] The pomegranate seeds from the LMIB deposit in Trench 10 may have come from trees in nearby gardens or orchards. These trees and their fruit have had strong religious associations with fertility and rites of passage.[47]

The number and richness of the faunal sample in conjunction with the stacked conical cups from two distinct periods found from within the palace all suggest a distinct event or activity. Moreover, Elisabetta Borgna mentions similar Minoan deposits of faunal and associated conical cups which have been found at other sites on the island,[48] which would indicate that the deposit at Gournia is not unique. Huge assemblages of conical cups have been found in palatial clusters such as at Petras and Galatas and extra-palatial centers such as Nirou Chani. Borgna does not mention faunal remains in association with either of these cup deposits, however, large faunal deposits have been

found at Galatas.[49] Borgna also mentions an elaborate discard of feasting remains and 200 ordered, upside-down conical cups recovered in the pillar room of House B at Gypsades.[50]

Many archaeologists and scholars have examined feasting events through an analysis of the pottery remains, inferring that the standardized form and surface treatment of conical cups and other wares underplay individual identity in favor of group affiliation in order to promote social solidarity.[51] But who is a part of these groups, who is included and excluded? Besides eating and drinking, what is the nature of these events? A number of faunal analyses of feasting events concentrate on the richness and size of the sample, leaning towards rather functionalist interpretations of social and economic politics. But what happens to the remains after the event, are they segregated from other waste material both physically and conceptually, perhaps still imbued with the residual power inherent in ceremonial remains?[52] Is the residual power still present in the space the event took place in? And, can comparing the taphonomic processes of secular and non-secular faunal remains prove helpful for future interpretations of other faunal deposits?

While it is extremely difficult to infer the intentionality behind such events, I believe archaeologists need to keep 'intention' in mind while making their inferences as a slight lean away from interpretations that may be too functionalist or reductionist. In so doing, I seek to examine this specific Minoan event through the left-over faunal remains, in context with the associated ceramic remains, in order to gain a more in-depth understanding of the event itself and the social practices embedded within it.

Endnotes:

1 O'Connor 2000, 3
2 Steward 1955, 30-42
3 White 1943, 335
4 Brumfiel 1992, 551
5 Giddens 1984, 9 in discussing Agency and Structuration, Giddens stresses that much of cultural choice comes from unintentional action derived from cultural structuration and not optimality.
6 Halstead and Barrett 2004, 6
7 Sherratt 1983, 90 this Secondary Products Revolution extended the life and use of animals from food and hide, including yoking for ploughs and wagons, dairy products, and renewable fibers such as wool.
8 Crabtree 1990, 155
9 O'Conner 2000, 43-53; see also Reitz and Wing 2008, 123-145; Crabtree 1990
10 Russell 2012, 379
11 Russell 2012, 378; see also Twiss 2008, 419
12 Dietler 1996, 89; see also Cohen 1974
13 Kassabaum Forthcoming; Dietler 1996, 2001
14 Borgna 2004; Dabney et al. 2004; Dietler 1996; Isaakidou et al. 2002; Russell 2012
15 Russell 2012, 386; see also Dabney et al. 2004; Isaakidou et al. 2002
16 Borgna 2004, 263; Dabney et al. 2004; Isaakidou et al. 2002
17 Hayden 1996, sees competitive feasts as precursor to domestication and agriculture
18 Dietler 1996:2001
19 Halstead 2004, 153; Hayden 1996, 127
20 Hayden 1996, see note 18
21 Halstead 2004
22 Halstead 2004
23 Isaakidou et al. 2002, 88
24 Isaakidou et al. 2002, 90
25 Borgna 2004, 259; Halstead and Barrett 2004
26 Halstead and Barrett 2004, 2
27 Rutter 2004 looks at ceramic sets in Minoan palatial settings at Kommos from the Middle and Late Bronze Age; see also Day and Wilson 2004, who examine the changing ceramic styles at Knossos during the Early Bronze Age as changing social practices.
28 Dietler 2001; Hayden 2001; see also Russell 2012, 381
29 Hayden 2001, 38 for a diagram of feast categories
30 Dietler 2001, 80-88; see also Russell 2012, 382
31 Dietler, 1996, 88
32 Giddens 1984
33 Hamilakis 2008, 16
34 Kassabaum forthcoming
35 Dietler 2001, 90; Russell 2012, 380
36 Alexander 1997, 139
37 Russell 2012, 52
38 Russell 2012, 77

39 Cultural modifications include cut marks from butchering, removing the meat and the skin, fractured for marrow extraction, or modified into a tool/decoration. See O'Conner 2000 Ch. 5, and Reitz and Wing 2008 Ch. 8
40 France 2009, very helpful with color photographs from multiple angle
41 Soles 1991, see map of Palace
42 Moore 1903, a Baetyl is a rough, oblong stone placed upright in a location and believed to possess a spirit, which would instigate the ritual activity associated with the stone.
43 Watrous 2012, personal communication via email
44 Margaritis and Jones 2006,
45 Margaritis 2012, forthcoming
46 Ward 2003, 530 discusses different references to pomegranates, such as vases, pendants and beads.
47 Ward 2003, 532
48 Borgna 2004, 262-263
49 Buell 2013, personal com.
50 Borgna 2004, 263 based from the excavation reports from Hogarth from 1899-1900
51 Borgna 2004, 262; Day and Wilson 2004, 45; Halstead and Barrett 2004, 2; Rutter 2004, 78
52 Russell 2012, 390

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