11. Çatalhöyük Figurine Report 2013
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This year only 19 figurines were recorded, largely because excavation was focused on buildings rather than midden from which most of our examples are derived. The 2013 corpus can be broken down into 7 quadrupeds, 6 horns, (13 zoomorphic total), 3 abbreviated figures and 2 anthropomorphic examples. The two human figures closely resemble those we have identified previously. Figurine 30242.X1 was recovered from a layer of fill in Space 508 from the TPC area and is a clay torso with a protruding belly and sway back. The head is missing and it was also broken at both legs and arms. The second human form also found in TPC, 30783.X1 in Space 516, has an overall rectangular body shape, with a large broad back, a non differentiated head, but with a delineated stomach and breasts. No legs were depicted and the arms would have been disproportionate to the body. Again in TPC Space 484, a large quadruped 30754.X2 was recovered. This is an unusual example with a stocky body, long tail, and short legs reminiscent of a feline. Unfortunately the head is missing but the neck appears very thick in comparison to the torso. The back is relatively flat but there is a small hump near the neck. This quadruped is also hollowed out underneath the torso, which is another unusual feature for animal figurines found at the site.

Since several researchers on site are interested in looking more closely at the zoomorphic forms other types of analysis have been conducted on this specific dataset. For example, Der is conducting thesis research to explore human-animal relations broadly across the site, Meskell and Martin have focused on comparisons with the faunal material (Martin & Meskell 2012) and Meskell is working on ideas of scale and species specificity. To that end, Der conducted a pilot study on all the quadrupeds now held on-site using XRF with the aid of Lee Drake (Bruker Elemental) and Adam Nazaroff, and with many helpful comments by Chris Doherty, and we thank them for their support this season.

X-ray Fluorescence (XRF) and the Quadruped Figurines
Contribution by Lindsay Der

A new analytical technique explored by the figurines team this year was that of x-ray fluorescence to investigate elemental composition. There are several advantages to handheld portable XRF (HHpXRF) which are particularly relevant to the Çatalhöyük figurines. Perhaps most importantly, HHpXRF is non-destructive and can be deployed in the field. Both these points are significant in light of strict export and permitting regulations which prevent analysis of the figurines beyond the field laboratory. In addition, HHpXRF can measure a large number of samples in a relatively short time at little cost. In the 2013 field season, we primarily focused on the quadruped figurines, but for comparative purposes our sample also included some bucrania, anthropomorphic, and abbreviated figurines. Our objective was to use geochemical data generated by XRF to help determine the level of variability in the clay chosen for figurine manufacture. Our analysis is qualitative as we do not have samples of source material with which to compare our figurine measurements. Here we point to the work of Forouzan et al. in which portable XRF was utilized to identify clay populations in the artifact assemblage of Early Chalcolithic zoomorphic figurines, sling bullets and tokens at Chogha Gavaneh, Iran (2012). Previous research at Çatalhöyük regarding clay sourcing, including
petrographic analysis (Doherty and Camizulü 2008; Doherty 2013), has shown that figurines were largely manufactured from backswamp clay throughout the Neolithic occupation of the site. Further, although Doherty identifies six main material types for clay objects, he notes that these material types were either derived from Pleistocene Lake Konya clays or Holocene alluvial clays, the latter possibly burying the former. Only pottery is believed to have been manufactured from clays sourced beyond the site.

We used a handheld XRF device from the Bruker Elemental AXS Tracer series and SP1XRF software to gather spectra for a total of 83 quadrupeds, 4 bucrania, 2 abbreviated forms and 1 anthropomorphic figurine. We did not select for particular areas of the site or occupational levels. Rather, we simply sought to analyze as many of the quadrupeds as possible. It is worth noting here that only a partial selection of the quadruped assemblage resides in on-site storage with the majority residing in various museums in Turkey. Likewise, we measured figurines that fell within the complete range of quality, from the finely modelled to the coarser examples. At the suggestion of the Bruker representative, measurements were taken with a baud rate of 115200 at 40 kV for 60 seconds. We used an anode current of 32μA and a red filter (1 mil Al, 1 mil Ti, 1 mil Cu). For spectra analysis we used ARTAX software, defining our own parameters for evaluating the data instead of deploying the default ceramics method in the program. Under our own parameters, we identified the following elements: Al, Ar, Au, Ba, Bi, Br, Ca, Cl, Cr, Cu, Fe, Ga, K, Mn, Nb, Ni, P, Pb, Pd, Re, Rh, S, Si, Sn, Sr, Ti, Y, Zn, Zr. Of particular concern were the trace elements, such as the rare earth elements of Rb, Zr, and Sr. Emphasizing these rare earth elements can help to counteract error generated from inconsistent absorption of x-rays on uneven surfaces such as the three dimensional and curved planes which make up the figurine forms (Frahm 2013:1082; Liritzis and Zacharias 2011:132-3; Forster et al. 2011).

Spectra obtained for the clay figurines at first glance seemed to indicate relatively homogenous geochemical signatures (Fig. 11.1). However, bivariate comparisons of several trace elements show that there appears to be a continuum from marl to silty clays and that some figurines appear to be outliers (Fig. 11.2, 11.3, 11.4, 11.5). One disadvantage of portable XRF is that it does not account for differing concentrations of elements, only ratios, which can be problematic for qualitative analysis (Shackley 2010:19). Consequently, using spectra readings alone can be very misleading as artifacts with the same mineralogical compositions but different elemental proportions will appear to be from the same source. The similarity in the elemental make-up of figurine clays can be attributed to the
clays at Çatalhöyük having originated from the same mountains.

As a control, we also analyzed the elemental composition of a stone quadruped figurine (Fig. 11.6). Calcium and strontium measurements are greater for the stone example (19101.H3) which matches our expectations given that this figurine was carved from tufa. In contrast, the clay figurine (14186.X16) displays results consistent with marl. However, both the clay and stone quadrupeds appear to have similar chlorine measurements, likely indicative of some sort of contamination.

In addition we chose to compare XRF data from a mudbrick and red clay packing sample taken on-site this year to our clay figurine measurements (Fig 11.7). Again, the spectra seem quite similar. However, a bivariate comparison of calcium and iron sets the red clay packing apart from the mudbrick and figurines (Figure 8). This result is not altogether surprising given that mudbrick, like the figurines, was manufactured from backswamp clay until level South M. After South M, mudbricks are found with more silty clay fabrics due to the depletion of backswamp clays and the subsequent need for alternative clay sources (Doherty 2013).

The application of HHpXRF in archaeology has been a widely debated topic in recent years (Liritzis and Zacharias 2011; Frahm and Doonan 2013; Frahm 2013; Shackley 2010). Despite its convenience and potential, a literature survey conducted by Frahm and Doonan (2013:1429-30) found that only 4% of researchers utilized this technique in an on-site laboratory or fieldhouse, perhaps due to a preference for benchtop XRF machines and laboratory conditions to which many researchers attribute greater reliability (Shackley 2010). However, tests on obsidian mimicking non-laboratory conditions show that geochemical measurements using portable XRF are credible so long as measurements were taken in a consistent manner (Frahm 2013). In these tests Frahm was able to achieve a 94% success rate regardless of ‘sub-optimal’ conditions which included
a lack of calibration and the presence of irregular artifact surfaces. Thus, these tests demonstrate that precision is crucial to the identification of sources amongst artifacts whereas accuracy plays a greater role in studies that attempt to match measurements to known standards.

Several criticisms have been levelled against portable XRF, including minimal size requirements for maintaining accuracy (Frahm 2013:1082). In our case, this was a non-issue as all the figurines measured had a thickness greater than 2mm and a diameter larger than 1mm. However, had we chosen to measure the zoomorphic horn figurines, many of which fall below these size thresholds, this would have likely played a factor in data reliability. On the other hand, the deposition of figurines in secondary contexts, such as middens and fills, almost certainly affected our results.

Figurines were in contact and mixed in with a variety of material including soil, other artifacts, and faunal remains (Meskell et al. 2007; Meskell 2008). Beyond any prehistoric contaminants, modern residues from artifact handling, storage, etc. are also potential factors. The resultant surface contamination makes it difficult to tell whether the XRF readings are of the clay’s geochemical signature or that of the contaminant. One way to potentially mitigate error and surface heterogeneity would be to analyze multiple areas on each figure. Due to time constraints, we were unable to implement such a procedure this season. Still, this is not a foolproof solution as the entire object may have been contaminated. Moreover, internal variability is a known issue in pottery analysis (and by relation, clay objects) (Liritzis and Zacharias 2011:119).
Animal figurines and material scales at Neolithic Çatalhöyük
Contribution by Lynn Meskell

The Çatalhöyük project currently has recorded some 2500 figurines of humans, animals and abbreviated forms throughout the 1400-year sequence. We have done intensive work on densities of all figurine types through time, by individual excavation unit. There is a peak in animal figurines (including both quadrupeds and isolated horns), from the South Area in Level P and in the North Area (specifically the 4040 excavation area) at Level I. These two levels are roughly contemporaneous in date though come from the south and north areas of the East Mound respectively (c. 6400–6300 cal. bc). The 4040 excavation area of the site has the greatest concentration of quadrupeds and the widest range of taxa, including much less frequently depicted boar, bear and fox, plus a wider variety of forms. During this time there are significant changes in house size, environmental shifts towards an increasingly dry landscape, change in mud-brick composition, an increase in ceramics, cattle domestication and an increase in sheep and goat herding with more complex herd management suggested (Henton 2013; Russell et al. 2013). In the case of Çatalhöyük the focus is upon crafting exotic animals, with an eye to the world outside, even though domesticated animals were assuming a greater role in village life. In that way figurines are signifiers of a larger landscape, a world of wider resources, experiences, and places.

One interpretation is that these objects were more akin to proxies: physical embodiments of real or desired animals that could be hunted, others herded, some owned, borrowed, some shared and eaten. Proxies could be used in hunting plans, negotiations about flock managing, exchanging, or distributing animals themselves and parts thereof, or employed in narrating stories or passing on knowledge about animals — their behavior, products, location in landscapes (Martin and Meskell 2012). In the upper levels of the site we know from the human remains that there was increased mobility for both males and females (Larsen et al. 2013), evidence that fits nicely with the increasingly wide use of the landscape for herding sheep and managing domestic cattle (Russell et al. 2013; Henton 2013). In contrast, wild bulls play a disproportionate role in feasting and
architectural installations during the same period (Russell, et al. 2013: 250). Taken together, the consumption, curation and display of certain wild species increases at a time when people were connecting to an expanding world beyond the site.

Considering the relationship between the human maker and the thing reduced (the animal) forces us into ‘an anthropocentric world where the scale of the human dictate all spatial relationships’ (Bailey 2005: 29) and has the concomitant effect of mastery. Yet if we look comparatively at the size ranges of both animal and human figurines it is clear that there is no natural or realistic size relationship, in fact many human figures are often smaller than their zoomorphic counterparts. Thus both sets of figurines were not meant to realistically work together, to be assembled or be in obvious narrative dialogue together. Human figurines likely signify concerns like personhood, aging, sexuality, maturity and a pre-occupation with flesh (Nakamura & Meskell 2009). Their roles, like their animal counterparts, could be interpreted as didactic. Animals too could be shown in various stages of their lifecycles, indicated for example by the rounded nose of adult boar or the flat upturned snout of a juvenile (Martin and Meskell 2012: 411). Their attention to anatomical species-specific detail suggests a familiarity, knowledge and insight that was shared and circulated as well. It is not simply that they are proxies for hunted beasts, and only 12% show signs of stab or puncture marks. A broader interpretation might be that ‘control’ of animals was the wider preoccupation — the process of moulding them between human hands, showing and representing them to others, ultimately leading to wider discussion, familiarity and negotiation.

The range of taxa identified in the figurine corpus does not include any animal or ‘type’ that has not been found in faunal remains at Çatalhöyük. Yet the faunal remains include a broad range of animals, such as birds, fish, rodents, small carnivores and reptiles that are not found as figurines. People most commonly made cattle figurines (44), followed by boar/pig (15), then equid (9) and deer (8). Caprines overall number 11, and the representations of goats far outnumber sheep. This presents an opposite picture to the ratio of sheep/goat in the faunal remains, where sheep always outnumber goats by far (Russell & Martin 2005; Russell et al. 2013). There are even examples that could have been fashioned by the same individual, such as their similarity. Two equids from the South Area (12508.H3 and 12502.H4) are almost identical, as are two 22 foxes or small carnivores (12648.X2 and 12980.H8) both from 4040H. Two very similar goats (2250.X2 and 19305.X5) are both small, finely modeled with extremely detailed ears and horns. People at Çatalhöyük favoured making a particular range of quadrupeds (primarily cattle, boar, equid, deer, and goat), rather than reptiles, felids, birds and other local taxa, and indeed rather than domestic sheep. The majority of figurines probably represent wild animals, with the most being wild cattle, so we might say that ‘wildness’ was prized in some way (Martin and Meskell 2012: 415). But this further prompts us to question why ignore the animals with which one has greater familiarity and daily proximity — was it that very familiarity that bred contempt?

Species specificity
For Bailey (2005: 29) the miniature is not a model, it does not convey complete accuracy and precision, rather it results from human experimentation with the wider world. Each figurine combines the maker’s eye, hand and knowledge to manipulate the world. I would go further, suggesting here that small animal figurines from Çatalhöyük are about subjective and selective representation and care; they materially embody the inhabitants’ preoccupations and concerns.
Indeed their small size forces a kind of selectivity and so archaeologists must be attentive to what is detailed and what is omitted. Miniaturism gains force, according to Bailey, from its inherent qualities of compression. As a result value is enhanced: ‘miniaturism concentrates and distills what is normal in people’s routine day-to-day activities and thoughts and then produces a denser expression of that part of that reality’ (2005: 32).

Recalling that the miniature affords selective representation and prioritization, I turn now to the Neolithic preoccupation with rendering certain animal traits and disregarding others. For example, figurine makers were not interested in showing the texture of animal coats, their particular patterns or other marking, which they certainly had the skill to perform if desired. Although in some cases equids’ manes or boar’s backs were elaborated by pinching, making ridges or scoring (e.g. 12972.H1, 12508.H3, 12524.XB). In general it is the shape of the animal head and body that is salient rather than its exterior (for parallels see Horwitz & Goring-Morris 2004: 172). Taken together and examined as a corpus they are highly detailed, finely modeled and anatomically specific. They seek to capture the quintessential elements of each animal species and there is a careful, often exuberant, selection of the horse’s mane, the boar’s snout, the deer’s antlers and the goat’s beard. This tendency lends weight to the idea that they served didactic purposes and that they were knowledgeable conduits between humans and between other media.

Rendering heads and tails in detail, regardless of figurine size or modeling quality, was paramount. We see a similar tendency in the anthropomorphic examples, where attention to heads, headlessness and head removal (Meskell 2008) as well as delineating the buttocks (Nakamura & Meskell 2009) was a central concern. But with the animals it is always the presence of the head, the attention to particular head shape, and correct rendering of the ears, horns, tusks and beards that is compelling. The ratio of head to body among the quadrupeds also underlines the dominance of the head over the body (1:1 ratio = 4%, 1:1.5 ratio = 29%, 1:2 ratio = 38%, 1:2.5 = 16%, 1:3 = 13%). Louise Martin developed a methodology to record the morphology of the discrete ‘body parts’ that make up each figurine, such as heads, horns, necks and torsos, legs and tails. In this study of several hundred quadrupeds Martin found that head shape is consistently species specific and ranged from being long and pointed to short and blunt, to triangular and wedge-shaped. Wild cattle, the most
prevalent animal depicted, have a heavy triangle wedge-shaped head whereas deer have finely modeled heads and relatively long narrow snouts (one has evidence of removable antlers). Equids have long faces with rounded or pointed snouts, sometimes with upstanding ears quite different from those of other ungulates and in one instance a mane. Horn morphology and placement also reveals detailed knowledge: whether the horn base was round, ovoid or flattened, whether they came off at the side of the head or from the top, 'V'-shaped or vertical (see also Schmandt-Besserat 1997). For cattle, the shape of the head, placement horns, followed by the bulk of the neck and shoulders were the critical signifiers (Martin and Meskell 2012). This same pattern is observed in the treatment of plastered faunal installations where the head and horns of cattle is the primary common, at the expense of the rest of the animal (see the examples of Buildings 52 and 77, Russell et al. 2013: 221). 

Equally important as the head was the presence of a tail, regardless of figurine type, size or modelling quality. While particular tails seem to characterize equids and carnivores, for most of the quadrupeds it was the persistent presence of a tail that was critical rather than its accuracy to species. Animal tails are typically large and exaggerated in the wall art (bulls, deer, boar, leopard). Moreover, our analysis shows that despite a wide variation in the manufacture, morphology and sizes of figurines classed together as a 'taxon', these bodily preoccupations with heads and tails do seem to hold from the earliest to the latest Neolithic levels (Martin and Meskell 2012: 417). The remainder of the quadruped body is often robust and nondescript, the legs non-specific, and the hoofs are basically absent. Many of the quadrupeds are made with deliberately flattened hooves or bases indicating that they were meant to be free-standing, as opposed to many anthropomorphic examples that do not and thus may have been more mobile (Meskell 2007). Quadrupeds often have flattened undersides, even where the four legs are schematically depicted. The base of the legs, since there are no hoofs, is often simply squashed. Hence they are not reliant upon being held or placed in stands and could easily have been assembled in groups.

People at Çatalhöyük were concerned with crafting a limited range of types: primarily ungulates and herbivores (cattle, equid, sheep, goat, cervids), one omnivore (boar), and far fewer representatives of carnivores (dog, fox, felid). With the exception of the carnivores, most of the represented animals are found as food remains on site. This pattern is also evident in the wall paintings and reliefs where wild cattle dominate (46% in the wall reliefs) yet only constitute 15% overall of the animal remains.
deposited on site (Russell & Martin 2005). Domesticated sheep largely comprise the site’s faunal remains and regular source of meat consumption (at least 56%), yet are never the subjects of pictorial representation and their body parts reported in wall reliefs in just 19% of cases, although many identifications may be doubtful (Russell & Meece 2005, Table 14.5).

A matter of scale

Douglass Bailey (2005) has written eloquently on matters of scale with human figurines, an approach that is even more compelling when applied to an animal corpus and its related faunal remains and representations on a site like Çatalhöyük. Too small a scale, he notes, and the figurine and the details become blurred and detailed rendering becomes impossible. Too large a scale becomes redundant or physically impossible. All scale is related to the human body as the quintessential relationship, so object making is either life-size, smaller than life-size or larger than life-size. Here I examine the embodied differences of engaging with figurines as compared with the significantly larger, more imposing plastered features and narrative wall paintings featuring humans and animals together. While the concerns for the same species and their anatomical characteristics remains constant, the social lives of these figural representations was likely very different.

I have argued above that the recognizable characteristics of individual figurines to an animal taxon seem to have been important. Those concerns also extend beyond the figurine corpus and are also present in the species specificity of the wall paintings (Nakamura & Meskell 2006; Hodder 2006). However, wall paintings depicting animals are found in only 16 houses, a relatively small number of the total buildings (Czeszewska 2014). Their visual cues might only legible to particular subset of the community, and may actually impose an experience of distance, whereas interacting with the figurines invited a more immediate and perhaps personal connection. Mellaart notes (1967) that the famous bull painting (Shrine AIII.1) was over 6ft long and the wall with the paired leopards (Shrine VI.B.44, painted with over 40 layers) was almost as long. Such monumental productions were not always the norm throughout the site. Mitchell (2006) reminds us that the ‘principles of vitalism and animism require that we also take account of what are sometimes called “lower” forms of consciousness—mere sentience, for instance, or sensuous awareness, responsiveness, as well as forms of memory and desire.’

Small, expedient figurines promote a kind of democratization: everyone can make and engage with zoomorphic figurines, as evidenced by their ubiquity and distribution across the site. They are part of a suite of routinized and repetitive practices at Çatalhöyük (Hodder & Cessford 2004). And in the society of things figurines are ready to hand and immediate, while having the capacity to reference more elaborate, complex and highly skilled things that may have been out of reach for some individuals. Here I am thinking of the elaborate plastered, horned benches, wall mounted bucralia (Twiss & Russell 2009) and the large narrative wall paintings. The animal art and body-part installations also show a preoccupation with wild animals such as cattle, boar, deer and leopards, rather than the domesticated sheep and goat that the inhabitants clearly relied on in practice. We might be able to say then, that making figurines was not a mimetic process of food production nor was it focused on the household economy, but rather a broader symbolic economy of desire, distance, danger and possibly even dread (Whitehouse & Hodder 2010; Hodder & Meskell 2011). Moreover, the subjects of the installations overlap significantly with the famous paintings of wild cattle, deer, boar, just as they do with the animal figurines. The images of wild beasts are
represented on a scale that dwarfs human actors, whereas the plastered faunal remains in walls and benches within buildings were obviously to-scale and enabled more lived interaction. The figurines are the opposite, they demand to be regularly handled, manipulated, and mastered. Such a reduction in size demands closer scrutiny and an embodied proxemics. This intimacy might enable new ways of seeing and potentially understanding the subject (Bailey 2005: 38). Taken together, I would argue that these miniature animals effectively connect to, enliven, and make real the major beastly subjects of some historic or mythic events.

Figurines may have had roles in a wide array of real engagements that bound people and animals in the Neolithic in similar ways that the Çatalhöyük wall paintings link with themes of hunting and baiting wild animals, and the animal part installations appear to link with consumption practices of key animals. But unlike these more fixed, displayed animal representations, the figurines seem more likely to be transactional things, made, used and discarded. This interpretation accords well with the depositional context of quadruped figurines in middens and external areas, regardless of where the transactions with real animals and animal carcasses took place, either on or off site. Because of their small size and ease of manufacture figurines could be thought of conduits for social action (exchanges, teaching, negotiations, ritual) that concern human-animal relationships. As Berger (1980: 6) noted in his discussion on looking at animals, it is because their ‘lives are distinct but run parallel’. For example, the plastered bcrania and horned benches likely relate to hunting events, that have been accompanied by feasts, that would not have been common events at the site. Given the relatively small number of bcrania preserved from the site, mostly burned hence preserved buildings, we might posit that such remains were prized and curated, then retrieved and reinstalled in later buildings (Louise Martin pers. comm.). Hunting wild cattle and boar must have involved considerable skill and bravery and would not have been possible for all members of the community. Many of these events must have been relegated to history, and in the case of the wall paintings, probably to generational memory or myth. So in this society of things (Mitchell 2005: 122) figurines offer a mobile and material connector between very different time scales that are represented in other media.

Like humans, animals are born, they are sentient and mortal, Berger wrote (1980: 4). Animals resemble us, but in their anatomy, habits, physical capacities and time they differ. They are both like and unlike. Wild animals came from over the horizon, thus they belong there and here. Fabricating and using animal figurines mediates that proximity and difference, the fundamental tension that they are like us and knowable to us, but at the same time fundamentally strange and other. The figural scale is key: they are in our hands, shaped by us. Those possibilities for mastery are more tenuous when one confronts the real remains of large animals curated to their life like forms, or even more compelling, the living beast in the landscape.
Small, finely modeled animal figurines, particularly those of exotic, non-domesticated species dominate the figural assemblage at Çatalhöyük. Attention to species specificity is largely articulated by a consistent depiction of head types and tails. For their makers a figurine should be a recognizable animal, likely identifiable to other people across the settlement (Martin and Meskell 2012: 402). These miniature beasts were regularly made from locally sourced materials, probably in external spaces, and were handle-able, mobile, and widely circulated. They could accomplish what real animals, or plastered animal installations and wall paintings cannot: they enable democratized access and individual social relations between humans and wild animals. Their small scale enabled an intimacy, control and action that are not possible with large-scale paintings or plastered bocurania relegated to a minority of buildings. In this society of things, figurines are conduits between very different material scales and they effectively embody and communicate across the species divide in expedient and intimate ways. From this perspective, the idea of what figurines want or what figurines do might provide more evocative questions than what do figurines mean?

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