

ÇATALHÖYÜK 2005 ARCHIVE REPORT

Çatalhöyük Research Project





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INTRODUCTION - *Ian Hodder*

New finds and new interpretations at Çatalhöyük

It is remarkable how new finds can challenge ideas that have been built up over many years. Çatalhöyük has been excavated now for several decades. First it was excavated by James Mellaart in the 1960s, and the current team has been working at the site continuously since 1993. Many theories about the site had settled down and have been taken for granted. But yet this year we found two objects which upset established views and forced us to reconsider some of our unquestioned assumptions. It is amazing what a few small objects can do.

120 people from all over the world assembled at Çatalhöyük again this summer. The team came from Britain, the United States, Iran, Romania, Serbia, Greece, Poland – in fact 13 different countries. All these people came to join Turkish colleagues working at the site. In addition to the Polish, US- and UK-based teams there are now two teams from Turkey working at the site. One, from Istanbul University and led by Mihriban Özbaşaran, has started work on the southwestern edge of the main East Mound. Their aim is to try to reach the lowest levels of the mound as they are interested in making comparisons with their excavations at the earlier sites of Aşıklı Höyük and Musular. The other, from Selcuk University in Konya and led by Ahmet Tırpan and Asuman Baldıran, plan to excavate the large historic site to the southeast of the East Mound (Figure 1). This year they began by doing surface survey and geophysical prospection. Together the Turkish and international teams have made some exciting new discoveries that are changing interpretations of this 9000 year old site in the Konya region.

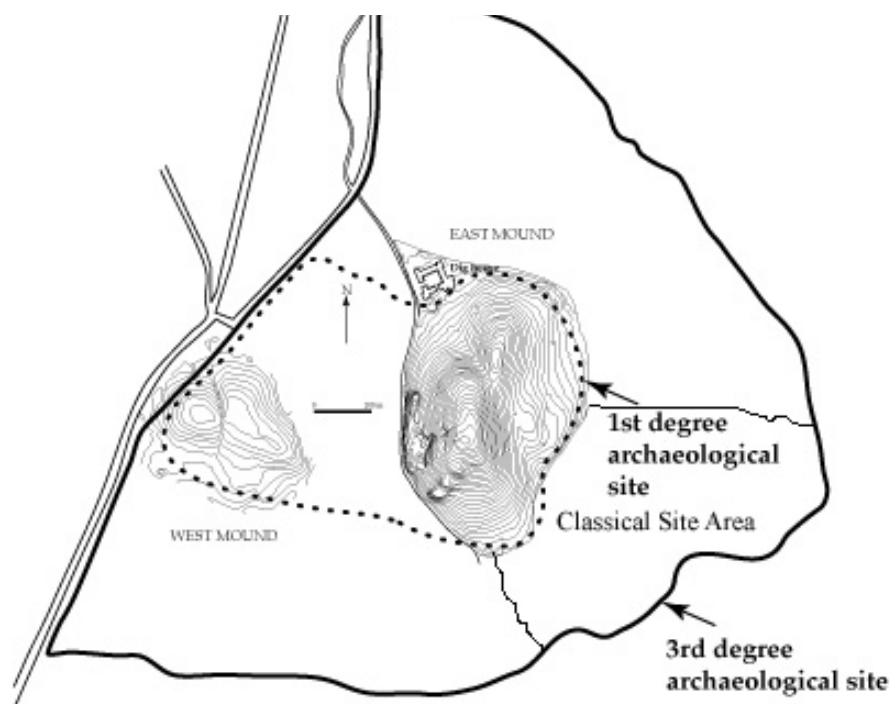


Figure 1. Plan of 1st degree protected area boundaries of Neolithic East and Chalcolithic West mounds and approximate extent of Classical site within 3rd degree protection zone.

One example of the new discoveries that have shaken our earlier assumptions is a beautifully made stamp seal (Figure 2), found in the fill of a Level V building in the South Area on the East mound. These stamps were probably used to stamp designs on skin or clothing. This example shows an animal with its front and hind legs raised upwards. Such figures have been known from Çatalhöyük for some time as plaster reliefs on the walls of houses. An example excavated by James Mellaart is shown in (Figure 3). These plaster reliefs have often been interpreted as ‘mother goddess’ figures. But the heads and hands of the plaster relief examples have always been cut off, so it

was never possible to say whether the figures were humans or not. But now the stamp seal provides a key. Here the head and the hind paws remain. They clearly show that the figure is an animal, probably a bear. So it is probable that the reliefs with upraised arms and legs are not goddesses but bears. Depicting animals, such as leopards, in houses is common at Çatalhöyük, and so it is not surprising that we should find a bear. It has long been argued that some form of ‘mother goddess’ was central to the symbolism at Çatalhöyük, and these views were partly based on the interpretation of the reliefs with upraised arms as a woman. While it remains possible that the figures are ‘mother bears’ and representative of a female divinity, there is now little evidence that they are indeed women at all.



Figure 2. Clay stamp seal (11652.XI).

Another exciting event this year was the discovery of our first full in-situ bull’s head and horns (Figure 5). In this case, the bull’s skull had not been plastered but it had been set into the wall. In fact, there may have been a whole series of bulls above this one as we found at least 11 cattle horns plus some skulls dismantled above the one shown in Figure 5. There were traces of painting beside and beneath the skull. Adjacent to the bull’s head in Figure 5 is a collapsed and dismantled bench that was also set with a row of bull’s horns. This complex installation was found in a burned room in Building 52 in part of the 4040 Area on the north hill of the East Mound. We had already suspected that elaborate buildings of the type found by Mellaart in the south of the East Mound would also be found elsewhere on the site, but this find really proved that without any further doubt. The discovery of

Another important object this year that upset our long-held views was a clay figurine discovered by the Istanbul team in the burnt fill of a house (Figure 4). Immediately on finding the figurine we were all taken aback by its very strange and unusual imagery. The front of the figurine looks very much like the small, squat, so called ‘mother goddess’ figurines that are so well known (though rare) from Çatalhöyük. There are full breasts on which the hands rest, and the stomach is extended in the central part. There is a hole in the top for the head which is missing. As one turns the figurine around one notices that the arms are very thin, and then on the back of the figurine one sees a depiction of either a skeleton or the bones of a very thin and depleted human. The ribs and vertebrae are clear, as are the scapulae and the main pelvic bones. The figurine can be interpreted in a number of ways - as a woman turning into an ancestor, as a woman associated with death, or as death and life conjoined. It is possible that the lines around the body represent wrapping rather than ribs. Whatever the specific interpretation, this is a unique piece that may force us to change our views of the nature of Çatalhöyük society and imagery. Perhaps the importance of female imagery was related to some special role of the female in relation to death as much as to the roles of mother and nurturer.



Figure 3. Excavated in the 1960s this example of a plaster relief has traditionally been interpreted as a ‘mother goddess’s’ but perhaps interpretations need revising in view of the discovery of the clay stamp seal (11652.XI).

the installed bull's head in a burnt room also shows us that the conditions of abandonment have a major effect on what is found. In most cases, installations are carefully dismantled before a house is abandoned. In this case, the fire and the large numbers of artifacts found on the floors, and the concentrations of seeds (naked barley, einkorn, emmer, peas, tiny crucifer seeds and almonds with kernels still in the shell) in the storage bins, all indicate a swift and unusual abandonment.

Overall we excavated 7 new buildings in the 4040 Area on the northern hill (see Figure *). While several of these had been disturbed by the digging of the foundation trench for a probably Roman building or tower, and by Byzantine burials, several had undergone a careful abandonment process which had resulted in the preservation of internal features. For example, in Building 57 we found that an upright plastered column was still in position, and in the same building a unique plastered fireplace with deeply incised curving, spiral-meander decoration (Figure 6). While this is the only example of such a fireplace that has been found at Çatalhöyük, it is notable that there is another building (Building 58) in the same area that has squared rather than the usual rounded fireplace or oven. There are a number of ways in which we had begun to suspect that small groups of houses with their own distinct architectural features might occur in the 4040 Area. In this same area, the same two buildings (Buildings 57 and 58) have two projecting walls on the western side of the main room, dividing this part of the room into three sections. While James Mellaart did find a few such examples in the South Area, this concentration in one area of the north part of the site does suggest local groupings of architectural styles. Burial patterns too have continued to suggest that some buildings act as places of burial for a group of houses. All this suggests local community groupings between the individual house and the large building sectors identified in the 2003 scraping in the 4040 Area.



Figure 4. Clay figurine 12401.X7. Side view showing full breasts on which the hands rest and the extended stomach on one side and a skeletal representation of scapula, ribs, vertebrae and pelvis on the other side.

It is also clear that apparently contemporary plans of houses on one 'level' at Çatalhöyük may mask significant variation in date. For example, in the 4040 Area Building 58 is stratigraphically later than its neighbour Building 55. On the basis of pottery and obsidian finds, Building 58 and adjacent buildings to the east excavated last year are later than surrounding buildings and probably date to Levels IV-II. On the other hand, Space 90 in the northern part of the 4040 strip excavated this year is dated by pottery to Levels VII-V. This variation in date will be examined further with radiocarbon determinations, but it is at least clear for the moment that adjacent houses or groups of houses can have very different dates. Indeed, some of the supposed spatial patterning identified above may be temporal. The squared ovens in Buildings 57 and 58 may both be part of a change that occurs at the top of the mound towards greater importance given to ovens (the oven in Building 57 is also decorated). A central oven was found in a late building in the 4040 strip excavated in 2004 (Building 47), and in 2005 Building 55 had painting on the wall by the oven. In 2005 also, a central hearth was found in a Level II-I building in TP, and central hearths have been found on the later West Mound. In the lower levels in the East Mound ovens tend to be rounded and to be set into or be close to south walls of main rooms. The shift in shape and location for the ovens, and

their decoration, may indicate a greater centrality for domestic oven-based activities in the later levels of the site.

Other activities

An educational programme at the site sponsored by Shell and Coca-Cola has continued this year. The aim of the programme is to educate young people from the Konya region, and other areas of Turkey, about the importance of archaeology for Turkey and about Çatalhöyük. This year 500 children spent a day at the site. Each day 20 children spent the day learning about the site, doing some excavation of previously excavated earth, doing Çatalhöyük paintings and making models of Çatalhöyük houses. The programme is being run by Gülay Sert.



Figure 5. In-situ bull's head and horns set in one side of a bench in Building 52 in the 4040 Area.

With funding from the Global Heritage Fund, and with the expertise of Nick Merriman and his students from the Institute of Archaeology in University College London, the Visitor Center was entirely redecorated and the exhibit remade, display panels were renewed and placed on the site, and an audio guide was produced in English and Turkish.

With help from the Çumra belediye başkanı, a car park was made across the road from the entrance to the site. This has greatly alleviated congestion in the entrance area to the site as tourist numbers have continued to increase.

We are extremely grateful to Cengiz Bektaş for his exciting designs for a Çatalhöyük museum. This captures the spirit of the site and would be made out of mud brick and located near Çumra. The task that faces us now is to raise the funding for this imaginative venture.

RAPORU GIRISI – Ian Hodder

Çatalhöyük’de yeni buluntular ve yeni yorumlamalar

Yeni buluntuların, yıllardır biriken bilgileri nasıl şüpheye düşürdüğünü görmek olağanüstü birşey. Çatalhöyük’deki kazılar uzun bir süredir devam etmekte. 1993 yılından beri şu andaki ekip tarafından çalışılan kent, ilk olarak James Mellart tarafından 1960’larda kazılmaya başlandı. Çatalhöyük’le ilgili birçok teori kanıtlanarak kabul edildi. Ancak bu sene bulduğumuz iki eser bu teorileri sarsarak, üzerinde durmadığımız bazı tahminlerimizi yeniden gözden geçirmemize sebep oldu. Birkaç küçük eserin neler değiştirebileceğini görmek inanılmaz bir duygu.

Bu yaz yine dünyanın her yerinden gelen 120 kişi Çatalhöyük’de toplandı. Ekip İngiltere, Amerika, İran, Romanya, Sırbistan, Yunanistan ve Polonya’nın da aralarında olduğu 13 ülkeden gelenlerden oluştu. Polonya, Amerika ve İngiltere ekiplerinin yanısıra, bu sezon Türkiye’den iki yeni ekip aramıza katıldı. Bunlardan ilki olan Mihriban Özbaşaran başkanlığındaki İstanbul Üniversitesi ekibi, doğu höyüğünün güneybatı kenarında çalışmalarına başladı. Ekibin amacı, höyüğün en aşağı tabakalarına ulaşarak, bu tabakaları Aşıklı ve Musular’daki erken tabakalar ile karşılaştırmaktır. Ahmet Tırpan ve Asuman Baldıran başkanlığındaki Konya Selçuk Üniversitesi ekibi ise doğu höyüğünün güneydoğusundaki geniş tarihi alanı kazmayı planlamaktadır. Ekip bu sene yüzey ve jeofizik araştırması ile çalışmalarına başladı. Türk ve uluslararası ekiplerin işbirliği sonunda, Konya bölgesindeki bu 9000 yıllık arkeolojik kentle ilgili yorumlamaları değiştiren heyecan verici yeni buluşlar elde edildi.



Figure 6. A unique plastered fireplace with deeply incised curving, spiral-meander decoration in Building 57, 4040 Area.

alçı kabartmalar çoğu zaman ‘ana tanrıça’ figürleri olarak yorumlanmışlardır. Ancak kabartmalardaki figürlerin baş ve elleri daima zarar gördüğü için figürlerin insan olup olmadıklarını anlamak mümkün olmamıştır. Bu yüzden damga mührü bize bir ışık olmaktadır. Hayvanın başı ve arka pençeleri zarar görmediği için, betimlenen hayvanın bir ayı olduğu düşünülmektedir. Böylelikle, kabartmalarda yer alan elleri ve ayakları yukarı kalkmış figürlerin tanrıça değil ayı oldukları da tahmin edilebilir. Leopar gibi hayvan betimlemeleri Çatalhöyük evlerinde sıkça görüldüğü için, bir ayı betimlemesi bizi şaşırtmamalıdır. Kabartmalardaki kalkık kollu figürlerin bir kadın olarak yorumlanmasıyla ortaya çıkan ana tanrıça fikri uzun bir süre Çatalhöyük ile bağdaştırılmıştır. Bu figürlerin ‘ana ayılar’ olarak betimlenip, kadına dair bir kutsallığı yansıtmaları mümkün olduğu gibi, gerçekten kadın olduklarına dair şu anda çok az bir kanıt bulunmaktadır.

Önceki tahminlerimizi gölgeye düşüren bu yeni buluşlardan biri, ustalıklı yapılmış bir damga mührüdür (Fig 1). Bu mühür, doğu höyüğündeki Güney Alanı’nda bulunan Tabaka V’e ait bir binanın dolgusunda bulunmuştur. Mühürler büyük ihtimalle deri ve gıysi üzerine baskı yapmak için kullanılmıştı. Bahsettiğim mühür, ön ve arka ayakları yukarı doğru kalkmış olan bir hayvanı betimlemektedir. Buna benzer figürler, Çatalhöyük evlerinde bulunan alçı kabartmalarda da görülmüştür. James Mellart tarafından bulunmuş olan bir örnek Fig. 2’de görülebilir. Bu

Bu sene bulunan ve yine uzun süredir inandığımız yorumları sarsan diğer önemli eser, İstanbul ekibi tarafından bir evin yanık dolgusunda bulunan kil figürüdür (Fig.3). Figürün bulunur bulunmaz, garip ve olağan olmayan imajı tüm ekibin kafasını karıştırdı. Figürünün ön tarafı, Çatalhöyük’de daha önce bulunmuş olan ana tanrıçalara benzer şekilde ufak ve bodur biçimde betimlenmiştir. Karın kısmı ortaya doğru uzanırken, eller dolgun göğüslerin üzerine dayanmaktadır. Ayrıca varolmayan baş kısmında bir delik bulunmaktadır. Figürünün arkasını çevirdiğimizde, kolların çok ince olduğunu ve iskelete ya da çok zayıf bir insanın kemiklerine benzeyen bir betimleme yapıldığını görürüz. Kaburga kemikleri ve vertebrae çok belirgin olduğu gibi, scapulae ve pelvis kemikleri de açıkça seçilebilir. Bu figürünün anlamı birçok şekilde yorumlanabilir: atasına benzeyen bir kadına, ölümle özdeşleştirilen bir kadına veya da ölüm ve hayatın birleşimine. Ayrıca, vücudun üzerindeki çizgiler kaburga kemiklerinden ziyade vücudun bir şeye sarmalanmış olduğunu betimlemiş de olabilir. Figürün nasıl yorumlanırsa yorumlansın, Çatalhöyük’deki toplum ve tasvirlerin doğasına ait olan görüşlerimizi değiştirdiği bir gerçektir. Belki de Çatalhöyük’deki kadın betimlemesinin önemi, analık ve yetiştirme gibi rollerin dışında, ölümle ilgili olan diğer önemli bir rol ile bağdaştırılabilir.

2005 sezonundaki bir diğer heyecan verici olay ilk olarak bulunan bütün haldeki in situ boğa başı ve boynuzlarıydı (Fig.4). Bu örnekte, boğanın kafatası alçılanmamış fakat duvarın içine yerleştirilmiştir. Boğa başının üst kısmında 11 adet sığır boynuzu ile bazı kafatasları bulunduğu için, aslında bu başın üzerinde bir dizi daha baş olduğu düşünülebilir. Kafatasının altında ve arka tarafında boya izleri de vardır. Figure 4’de görülen boğa başının hemen yanındaki yıkık bir seki içine yerleştirilmiş bir seri boğa boynuzu da dikkat çekmektedir. Bu kompleks yapı, doğu höyüğünün kuzey tepesinde bulunan 4040 alanı içindeki Bina 52’nin yanmış bir odasındadır. Mellaart tarafından doğu höyüğünün güneyinde de ortaya çıkarılan bu tip binaların, kentin diğer alanlarında da bulunabileceğini önceden bilmemize rağmen bu buluntu, düşüncemizin doğruluğunu kanıtlamış oldu. Ayrıca, bu boğa başının yanmış bir odada ortaya çıkarılması, evin terk edilmiş durumunun buluntu üzerinde büyük bir etkisi olduğunu gösterir. Birçok durumda, evler terk edilmeden önce yerleştirmeler dikkatli bir biçimde kaldırılmıştır. Bu örnekte ise zeminde bulunan yangın izleri ile çok sayıda eser ve saklama ambarlarında bulunan tohum toplulukları (arpa, einkorn ve emmer buğdayı, bezelye, minik turpgiller tohumları ve badem (taneler hala kabuğun içinde) olağan dışı olan hızlı bir terketme şekli görülür.



Figure 7. An Educational programme aims to educate young people from the Konya region, and other areas of Turkey, about the importance of archaeology for Turkey and about Çatalhöyük.

Kuzey tepesindeki 4040 alanında 7 yeni bina ortaya çıkarıldı (Fig.5). Bunların bir kısmı, bir Roma binası ya da kulesinin temel kazısı sırasında ve Bizans gömüleri tarafından bozulurken, diğer kısmı iç özelliklerin korunmasına yol açan dikkatli bir terk edilmiş sürecinden geçmiştir. Örneğin, bina 57’de hala aynı pozisyonda olan alçıdan yapılmış dikili bir sütun ile üzerinde oyulmuş spiral meander motifi olan, yine alçıdan yapılmış bir şömine bulduk (Fig.6). Bu şömine Çatalhöyük’de bulunan ilk örnek olmasına rağmen, bu alandaki başka bir binanın da daha yuvarlak bir şömine ya da fırın yerine karesel bir şömineye sahip olduğu dikkati çekmiştir. 4040 alanındaki kendilerine özgü mimari bir özelliği olan evlerin dikkatimizi çekmesine neden olan bir kaç neden vardır. Aynı alandaki iki aynı bina (Bina 57 ve 58), ana odanın batı kısmını üç parçaya bölen iki adet çıkıntılı duvara sahiptir. James Mellart’ın Güney Alanı’nda bunlara benzer yapılar bulmasına rağmen, kentin kuzey kısmındaki bir alanda bu tip bir topluluğun bulunması bazı yerel mimari stiller olduğunu gösterir. Bulunan gömü örnekleri de, bazı binaların bir grup eve ait olan gömü yerleri olarak kullanıldıklarını önerir. Tüm bu kanıtlar, farklı evler arasındaki

yerel toplum grupları ve 2003’ de 4040 alanındaki kazıma sonucu belirginleşen geniş bina alanlarını gösterir.

Çatalhöyük evlerinin tek bir tabakaya ait çağdaş planları, tarihleme açısından çok çeşitlilik gösterebilir. Örneğin 4040 alanındaki Bina 58, komşusu olan Bina 55’den stratigrafik açıdan daha geç bir tarihe sahiptir. Seramik ve obsidyen malzemeye göre, Bina 58 ve doğuya doğru uzanan bitişik binalar, çevre binalardan daha geç bir tarihe, büyük ihtimalle Tabaka IV ve II arasına tarihlenir. Bu durumdan farklı olarak, 4040 alanının kuzey kısmında bu sene kazılan Alan 90, seramik malzeme tarafından Tabaka VII ve V arasına yerleştirilir. Bitişik ve grup halindeki evlerin tarihleme açısından çeşitlilik gösterdiği bir gerçektir ve bu durum radyokarbon yöntemi ile daha geniş bir şekilde incelenecektir. Aslında, yukarıda belirtilen bazı tahmini örnekler belli bir döneme ait olabilir. Bina 57 ve 58’deki karesel fırınlar höyüğün tepesinde oluşan bir değişimin parçası olabilir (Bina 57’deki fırın da motiflidir). 4040 alanında 2004’de yapılan şerit kazısında ortaya çıkan geç bir binada (Bina 47) merkezi bir fırın bulunurken, 2005’de bulunan Bina 55’de , fırının yanındaki duvarda boya izlerine rastlanmıştır. Ayrıca 2005 yılında TP alanındaki bir Tabaka II-I binası içinde merkezi bir fırın bulunurken, geç Batı höyüğünde de merkezi fırınlar bulunmuştur. Doğu höyüğünün aşağı tabakalarında bulunan fırınlar daha yuvarlak bir şekilde olup ana odaların güney duvarlarına yakın bir biçimde yerleştirilmişlerdir. Fırınların süslemeleri, şekil ve yerlerinde görülen değişiklikler, kentin daha geç dönemlerinde evlerdeki fırın kullanımının yaygınlaşmış olduğunu kanıtlar.

Diğer Aktiviteler

Shell ve Coca Cola tarafından desteklenen eğitim programımıza bu sene de devam ettik. Programın amacı hem Konya çevresinden hem de Türkiye’nin diğer bölgelerinden gelen çocuk ve gençleri Çatalhöyük ve arkeolojinin Türkiye için önemi konusunda eğitmektir. Bu sene 500 çocuğu ağırladık. Hergün 20 çocuk, Çatalhöyük hakkında bilgi edinirken daha önce hazırlanmış toprakta kazı yapıp, Çatalhöyük duvar resimleri ile evlerinin maketlerini hazırladı. Eğitim programı Gülay Sert tarafından yürütülmektedir.



Global Heritage Fund ve Nick Merriman ve öğrencilerinin (The Institute of Archaeology, UCL) desteği sayesinde ziyaretçi merkezimiz yeniden dekore edilerek, sergi yeniden düzenlendi (Fig.8) Ayrıca paneller değiştirildi ve bazıları alana da yerleştirildi. Bu çalışmalara ek olarak hem İngilizce hem de Türkçe bir sesli rehber hazırlandı.

Figure 8. The Visitor Center was entirely redecorated and the exhibit remade, display panels were renewed.

Çumra Belediye Başkanı’nın yardımıyla, Çatalhöyük’ün girişinin karşısındaki alana bir otopark yaptırıldı. Bu çalışma, devamlı artan ziyaretçi sayısı dolayısıyla girişte yoğunlaşan kalabalığın düzene girmesini sağladı. Ayrıca Çatalhöyük Müzesi ile ilgili heyecan verici dizayn çalışmalarından dolayı Cengiz Bektaş’a teşekkür ederiz.

Müze ,Çatalhöyük ruhunu yansıtan kerpiçten yapılıp, Çumra yakınında inşa edilecektir. Şu an için yapmamız gereken, bu müzenin inşası için gereken parasal desteği bulmaktır.

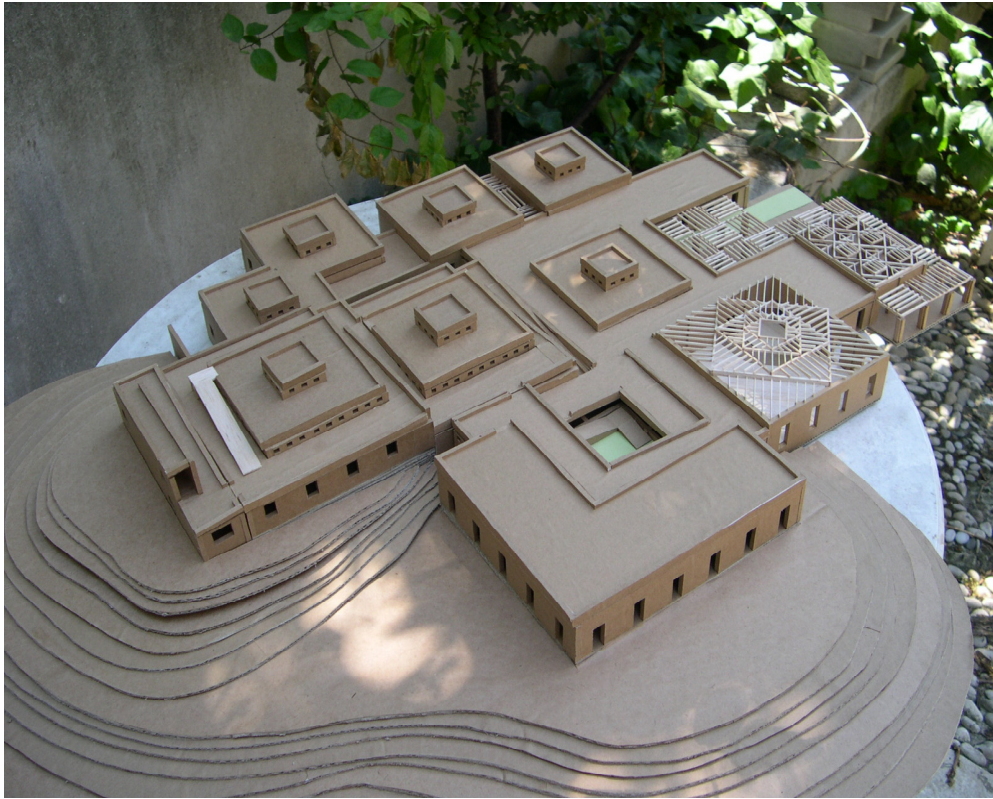


Figure 9. Design for a Çatalhöyük museum by Cengiz Bektaş which captures the spirit of the site and would be made out of mud brick and located near Çumra.

ACKNOWLEDGEMENTS

The project works under the auspices of the British Institute of Archaeology at Ankara, with a permit from the Turkish Ministry of Culture and Tourism. The project is grateful to the Director General of Monuments and Museums, Orhan Düzgün and to our temsilci Kazim Mertok.

The main sponsors are Koçbank and Boeing. Our long term sponsors are Shell and Merko, and other sponsors are Thames Water and IBM. Our main institutional partner and sponsor is Selçuk University. In Britain support has been provided by the British Institute of Archaeology at Ankara, and University College London. In America funding has been received from the Global Heritage Fund, Stanford University, U.C. Berkeley Archaeological Research Facility and MACTIA. Private donations have been made by John Coker. In Poland thanks are due to the University of Poznan, and the Polish Heritage Council. Other support is provided by the Friends of Çatalhöyük and the Turkish Friends of Çatalhöyük, and we are grateful as ever to Jimmy and Arlette Mellaart. Special thanks are extended to Ömer Koç for his continued support of the project.

The other institutional partners of the project are Cambridge University, Stanford University, University of California at Berkeley, University College London, The Museum of London, Poznan University, Istanbul University, Middle East Technical University (Ankara).

The team from Istanbul is sponsored by Coca Cola, Konya Ticaret Odası, Kosiad Konya Sanayici ve İşadamları Derneği, Konya Valisi and Cumra Kaymakami.

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Çatalhöyük projesi, Ankara'daki İngiliz Arkeoloji Enstitüsü'nün desteği altında, Kültür ve Turizm Bakanlığı'nın verdiği izinle yürütülmektedir. Proje, Anıtlar ve Müzeler Müdürü Orhan Düzgün ve bakanlık temsilcisi Kazım Mertok'a teşekkürlerini sunar.

Ana sponsorlarımız Koçbank and Boeing'dir. Uzun dönemden beri olan sponsorlarımız Shell, Merko, Thames Water ve IBM'dir. Kurumsal anlamda ana ortağımız ve destekçimiz Selçuk Üniversitesi'dir. İngiltere'den aldığımız destek, McDonald Arkeolojik Araştırma Enstitüsü, Ankara'daki İngiliz Arkeoloji Enstitüsü ve University College London tarafından verilmektedir. Amerika'dan alınan destek, Global Heritage Fund, Stanford Üniversitesi, U.C Berkeley Arkeolojik Araştırma Kuruluşu ve MACTIA tarafından verilmektedir. John Coker özel yardımda bulunmaktadır. Polonya'dan gelen destekten ötürü Poznan Üniversitesi ve Polonya Kültür Mirasları Derneği'ne Akademisi'ne teşekkür ederiz. Diğer sponsorlarımız olan Çatalhöyük dostlarına, Türk Çatalhöyük dostlarına, Jimmy ve Arlette Mellaart'a teşekkür ederken, devam eden desteğinden dolayı Ömer Koç'a da derin teşekkürlerimizi sunarız.

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Istanbul ekibi Coca Cola, Konya Ticaret Odası, Kosiad Konya Sanayici ve İşadamları Derneği, Konya Valisi ve Cumra Kaymakami tarafından desteklenmektedir.



THE FIELD TEAM 2005

Project Director:	Ian Hodder.
Field Director & Project Coordinator:	Shahina Farid.
Project Administration:	Katerina Johnson.
Computing:	Mirza Baig (University of Cambridge) Rich May, Mia Ridge, Peter Rauxloh (Museum of London Systems Team).
4040 Excavations:	Doru Bogdan, Lisa Yeomans, Ahmet Çinici, Tuna Kalaycı, Konstantinos Koutsadelis, Estra Terzi, Candemir Zoroğlu.
TP excavations:	Arkadiusz Marciniak, Lech Czerniak, Patrycja Filipowicz, Adam Golanski, Lukasz Klima, Arkadiusz Klimowicz, Katarzyna Regulska, Kludia Sibilska, Kinga Vorbrich.
South Area excavations:	Simon McCann, Alex Pryor, Roddy Regan, Kelsey Traher,
IST excavations:	Mihriban Özbaşaran, Guneş Duru, Didem Akbulut, Heval Bozbay, Nejla Kurt, Filiz Şeker, Turhan Ülgür.
SEL excavations:	Asuman Baldiran, Zafer Korkmaz, Şenay Öcal, Vildan Konaç, Sevgi Gürdal, Dilek Coşkun.
Geophysical survey team:	Ismail Ergüder, Abdülkadir Sucu, Öner Özdemir.
Stanford Field Team:	Ulrike Krotscheck, Cassandra Cuellar, Shamala Gallagher, Amelia Strom Hardin, Bradley Heinz
Berkeley Field School:	Elizabeth Lee, Valeriano Saucedo III, Elizabeth Tien Ha.
Illustration:	John Gordan Swogger.
Post Excavation	
Building Plans:	Sophie Lamb.
Survey and Digitising:	Dave Mackie.
Finds:	Julie Cassidy.
Heavy Residue:	Slobodan Mitrović.
Conservation:	Duygu Camurcuoğlu-Cleere, Margrethe Felter, Dominica D'Arcangelo, Amy Drago, Glykeria Gkika, Christie Pohl.
Image and Media:	Michael Ashley, Jason Quinlan, Ruth Tringham.
Faunal Team:	Louise Martin, Nerissa Russell, Katheryn Twiss, Benjamin Arbuckle, Hijnke Buitenhuis, Ian Cameron, Rebecca Daly, Marina Lizarralde, Kamilla Pawlowska, Adam Watson, and Joe.
Amphibian & small mammals:	Rhian Mayon-White.
Human Remains:	Simon Hillson, Clark Larsen, Lori Hager, Başak Boz, James Gosman, Tomasz Kozłowski, Marin Pilloud.
Palaeoethnobotany:	Amy Bogaard, Michael Charles, Nicola Stone, Marek Polcyn, Bahram Ajourloo.
Phytoliths:	Emma Jenkins.
Isotopes:	Jessica Pearson.
Chipped Stone:	Tristan Carter, Nurcan Kayacan, Marina Milić.
Ground Stone:	Karen Wright, Adnan Baysal.
Ceramics:	Nurcan Yalman, Müge Ergun, Hilal Gültekin, Duygu Tarkan,
Figurines & Miniature Clay Objects:	Lynn Meskell, Carolyn Nakamura.
Clay Stamp Seals:	Ali Ümut Türkcan.
Architectural Analysis:	Mirjana Stevanović, Ina St. George, Burcu Tung, Serena Love
Ethnoarchaeology:	Nurcan Yalman.
Site Presentation & Interpretation:	Nick Merriman, Erini Marouli, Yukiko Sasada, Milo Wakelin.
West Mound Study Season:	Catriona Gibson, Jonathan Last.

**Summer School Workshop:
Research Projects:**

Gülay Sert, Kamile Kandal, Nuray Kaygaz.
Marion Cutting, Sharon Moses, Steve Mills, Colette Maxfield, Cat Mathews,
Jackie Zak.

Novelist:

Eugene Robinson Swigart.

Biographer:

Michael Balter.

Artist in Residence:

Michael Dan Archer.

Camp Manager:

Levent Özer.

Site Custodians:

Mustafa Tokyağsun, Hasan Tokyağsun, Ibrahim Eken.

House Staff:

Ismail Salmancı, Rükiye Salmancı, Nevriye Şener, Mavili (Tokyağsun)
Gemiz.

Site Workmen:

Arif Arslan, Mehmet Eken, Tarik Eken, Haşim Ferahkaya, Fatih Gülüç, Ali
Küçükavcılar, Kamber Küçükavcılar, Ahmet Sivas, Mevlut Sivas, Mustafa
Sivas, Mehmet Söylemez, Abdullah Yaşlı, Hülusi Yaşlı, Hüseyin Yaşlı,
Saliha Sivas, Fadimana Yaşlı, Fatima Yaşlı, Rabia Yaşlı, Suna Yaşlı.

Residue Sorters:



Figure 10. Team 2005

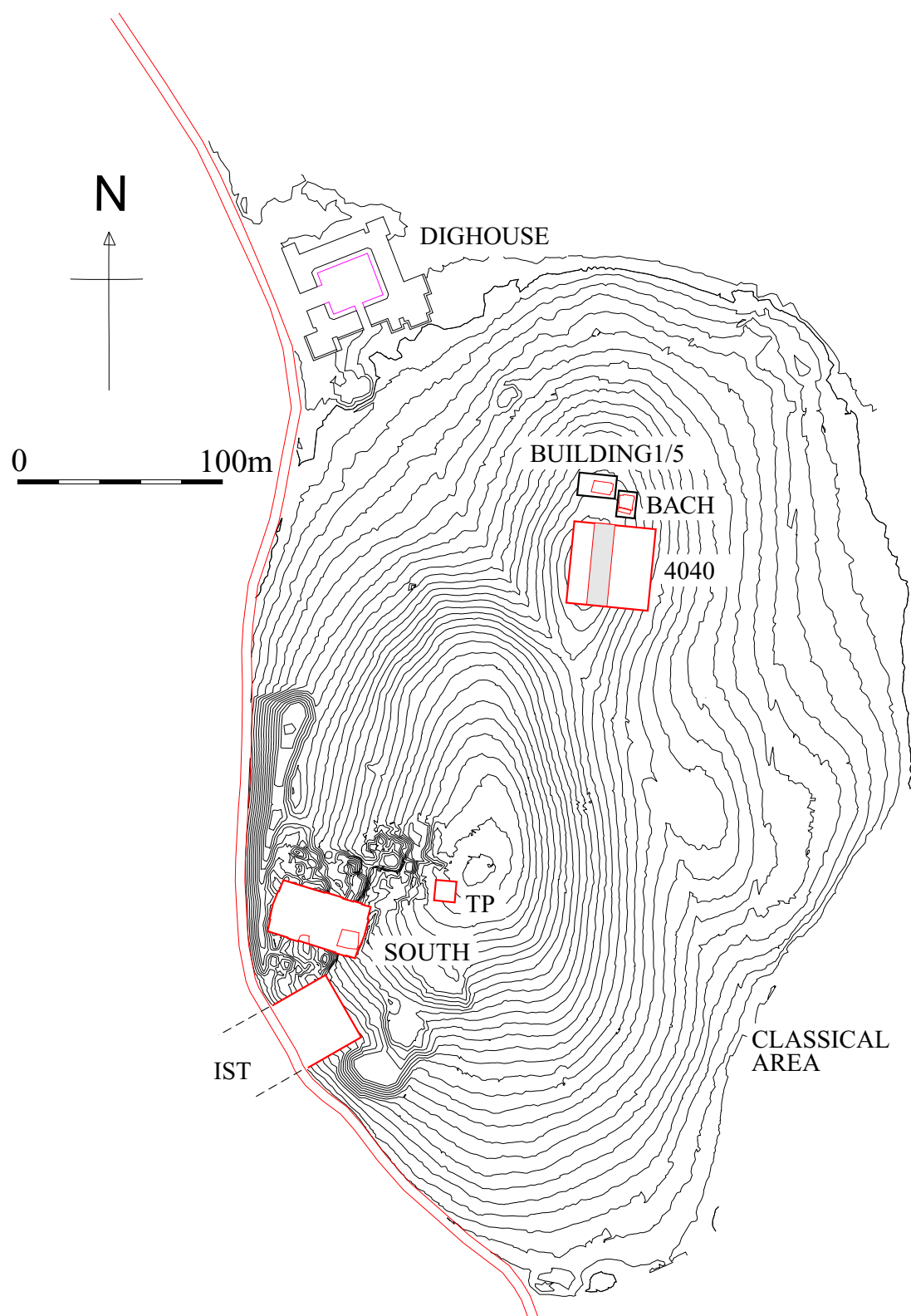


Figure 11. Areas excavated on the East mound in 2005

EXCAVATIONS

Introduction – *Shahina Farid*

Areas of Excavation 2005

Excavation took place in four areas on the East mound, and one off-site in 2005 (Fig. 11). The four areas on the mound were: 4040 Area, an area that was scraped in 2003 on the northern eminence of the mound; the TP Area, an area excavated by Team Poznań since 2001 at the crest of the mound; the South Area, an area excavated since 1995, incorporating the 1960s trenches and covered by a shelter constructed in 2002, and a new IST Area on the lower southwest slope, south of the South Area. Off site a new programme of work is conducted by a team from Selcuk University.

The areas and structures within each area were targeted with specific aims for this current phase of excavation.

Excavation Teams 2005

4040 and South Area Teams

Under direction of the Project excavation teams in for the 4040 and South Area excavations 2005 comprised contract excavators employed from the UK, Turkey, the US and Romania and assisted by field schools from Stanford University and UC – Berkeley – US, individuals were funded from the University of Cambridge, Institute of Archaeology, University College London – UK, Middle Eastern Technical University – Turkey and Tehran University – Iran. The aim is always for students to work along side professional excavators to gain a good and thorough grounding in excavation skills, recording and integrated interpretation. Excavation teams are therefore grouped based on experience with specific aims for the seasons work accounted for.

TP Area Team

The team from Poland, headed by Professors Lech Czerniak and Arkadiusz Marciniak from the Institute of Archaeology and Ethnology, Polish Academy of Sciences and the Institute of Prehistory, University of Poznan direct a team of students from Poland. The TP team have worked in an area at the southern crest of the East mound since 2001 to study the latest phases of tell occupation, dated to the end of the seventh millennium BC and located next to the 1961 trench where James Mellaart had defined Levels I – III.

IST Area Team

Team IST is mainly comprised of members and students from the University of Istanbul, Department of Archaeology, Prehistory Section under the direction of Assoc Prof. Dr. Mihriban Özbaşaran.

Team IST has formerly excavated sites in Central and Southeast Anatolia. Since 1989, its members have been working at Aşikli Höyük and Musular, the two Aceramic Neolithic sites located in the east part of Central Anatolia - west Cappadocia. Aşikli and Musular, respectively, are the predecessors of Çatalhöyük in chronological terms. Aşikli is radiocarbon dated to the 9th-8th mill. and the latter to the 8th-7th mill. BC. With such a background, Team IST aims to focus on the early/earliest development of the site. The most promising and the suitable area to fulfill this objective of excavating the early phases of the settlement in large areas is the southwestern slope of the mound.

SEL Area Team

It has long been known that a classical site lies to the southeast of the East mound beyond the site perimeter fence (Fig. 11) between the designated 1 and 3 listed areas. Under the direction of Prof. Dr Ahmet Tırpan , Dr Asuman Baldıran and Arş. Gör Zafer Korkmaz led a field team from the Dept. of Archaeology, Science and Literature Faculty, Selçuk University in its first year of a five-year project in which to investigate these historic sites.

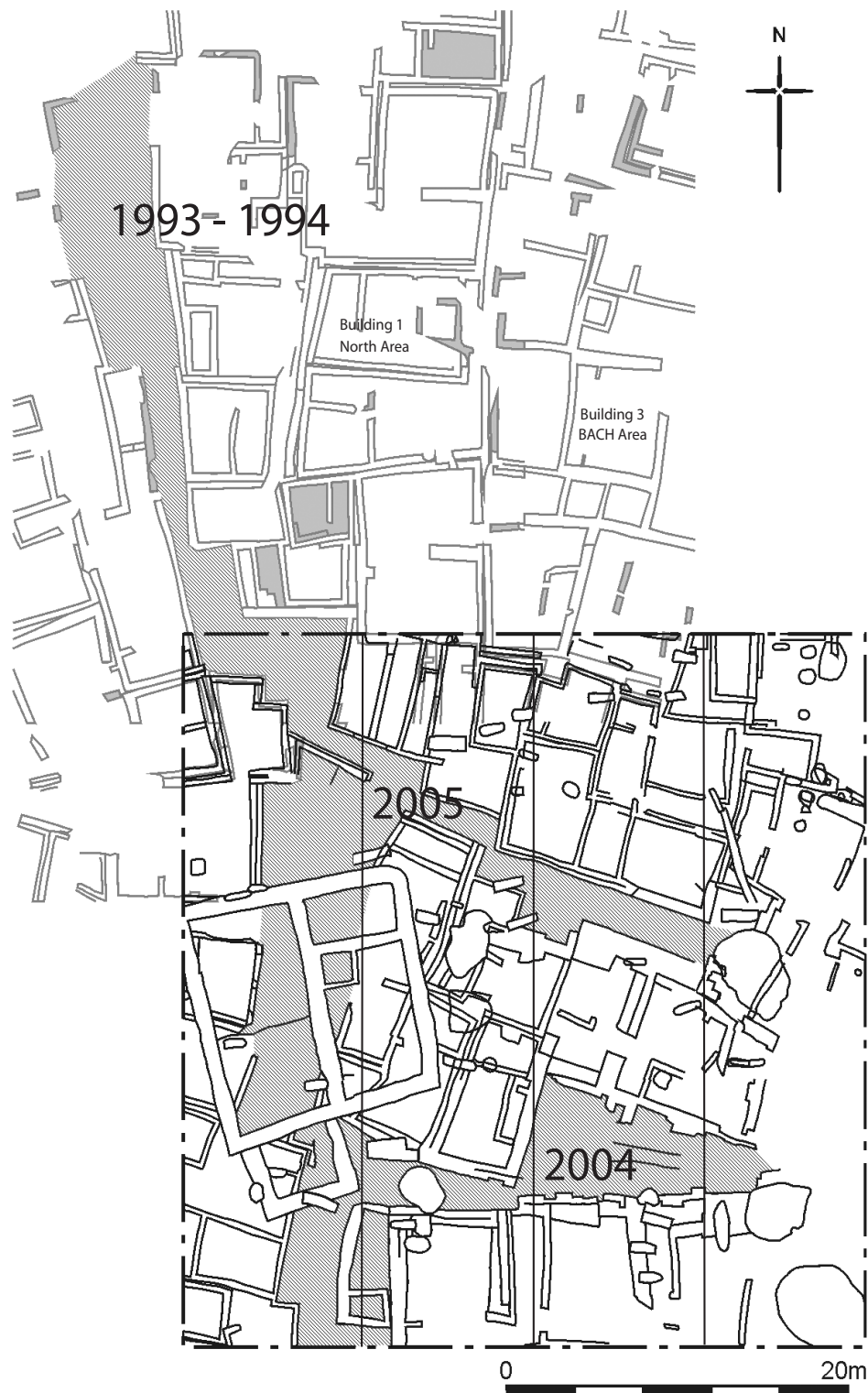


Figure 12. Integrated scraped areas 1993 - 1994 with 2003.

5-year excavation and research programme

In terms of the aims for the current 5-year phase of the project (2003-7) deal with the social geography of the settlement and larger community structure. We aim to answer questions on: how were production, social relations and art organised beyond the domestic unit? How did this organisation develop over time? Does the social geography of Çatalhöyük involve groups of houses clustered around dominant houses or is all social and economic life decentralised and based on equivalent domestic units of production?

In order to address these questions we moved away from detailed analyses of individual buildings, their construction, occupation and closure, which were the focus of the previous 5-year phase of work (1995-99, see forthcoming volumes), and we concentrated on large 'neighbourhood' areas.

4040 Area

Thus the 4040 Area to the north of the east mound was scraped in 2003 and integrated with the area exposed by surface scraping in 1993-5 (Matthews 1996). This exposed a large number of houses that defined groups of similarly aligned Neolithic houses possibly separated by 'streets' or 'alleyways' (Fig. 12).

The aim is to excavate as many buildings within the 4040 Area to their latest occupation horizon and to cover the area with a structure that will be open to visitors throughout the year, as well as providing cover for the archaeologists to continue excavating in the summer months (see South Area shelter). The next phase of work will then target specific buildings and spaces covering a range of building type and date.

Accordingly, excavation in 2004 examined a 10x40m strip straddling a number of 'zones' of structures separated by 'streets/alleys'. Preliminary results of the season indicated that in fact the 10x40 strip straddled different Neolithic occupation periods, 'levels'. Based on the pottery and chipped stone assemblages it showed that the latest structural activity attributed to Level IV – III was located in the central cluster of buildings, then Level V-IV in the southern most cluster of buildings and the earliest Level VI or later in the northern zone of buildings. The 'streets' were mostly midden deposits and may in fact be the result of temporal shifts in areas of occupation and midden discard around zones of housing.

The aim of the 2005 season was to continue exposing the last phase of buildings in the 10x40m strip to the west of the area excavated in 2004. The SW co-ordinate of this year's targeted strip was 1140/1135 (Fig. 13). Excavation in the 4040 Area commenced on 4th July and ended 10th August. Due to the short season and fewer contract excavators the intention was to excavate all historic intrusions and define and excavate the backfill of all buildings to expose the last phase and internal configuration, to gauge a basic stratigraphic sequence of the buildings and place them within the results from last year. Minimum occupation deposits were excavated.

Under the supervision of Doru Bogdan and Lisa Yeomans excavation commenced from the north working southwards. As such buildings of different Levels were under excavation at the same time. The complicated nature of construction sequences and Levels was clearly illustrated even within defined clusters of contemporary buildings. The results however, concurred with the findings from last year, that the area is divided into three zones of buildings representing different periods. Overall there was a paucity of artefacts by which to date the buildings but the little retrieved matched the results from 2004. Thus the earliest buildings lie to the north, attributed to Level VI and possibly earlier, however even within this small cluster of buildings at least three construction phases are identified. The earliest lies to the west, represented as Space 90, then Building 52, consisting of 6 possible spaces, Spaces 91, 92, 93, 94, 254 and 255, and the latest construction is Building 51, Space 98.

Although only the historic sequence over the southern most sector of buildings was excavated, based on results from last year we can assume that the period represented in this area and is equated to Level IV- V.

Consistent with last years results therefore the central cluster of buildings are attributed to Levels II – IV, on the basis of B47 and its relationship to Space 227 which was further expanded into this season. So, it appears that Building 58 (from the west) comprising Spaces 227, 258 and 274 is later than Building 47 (excavated in 2004), which appears to be contemporary with Building 55 (Spaces 247 and 256) and Building 57 (Spaces 269 and 270).

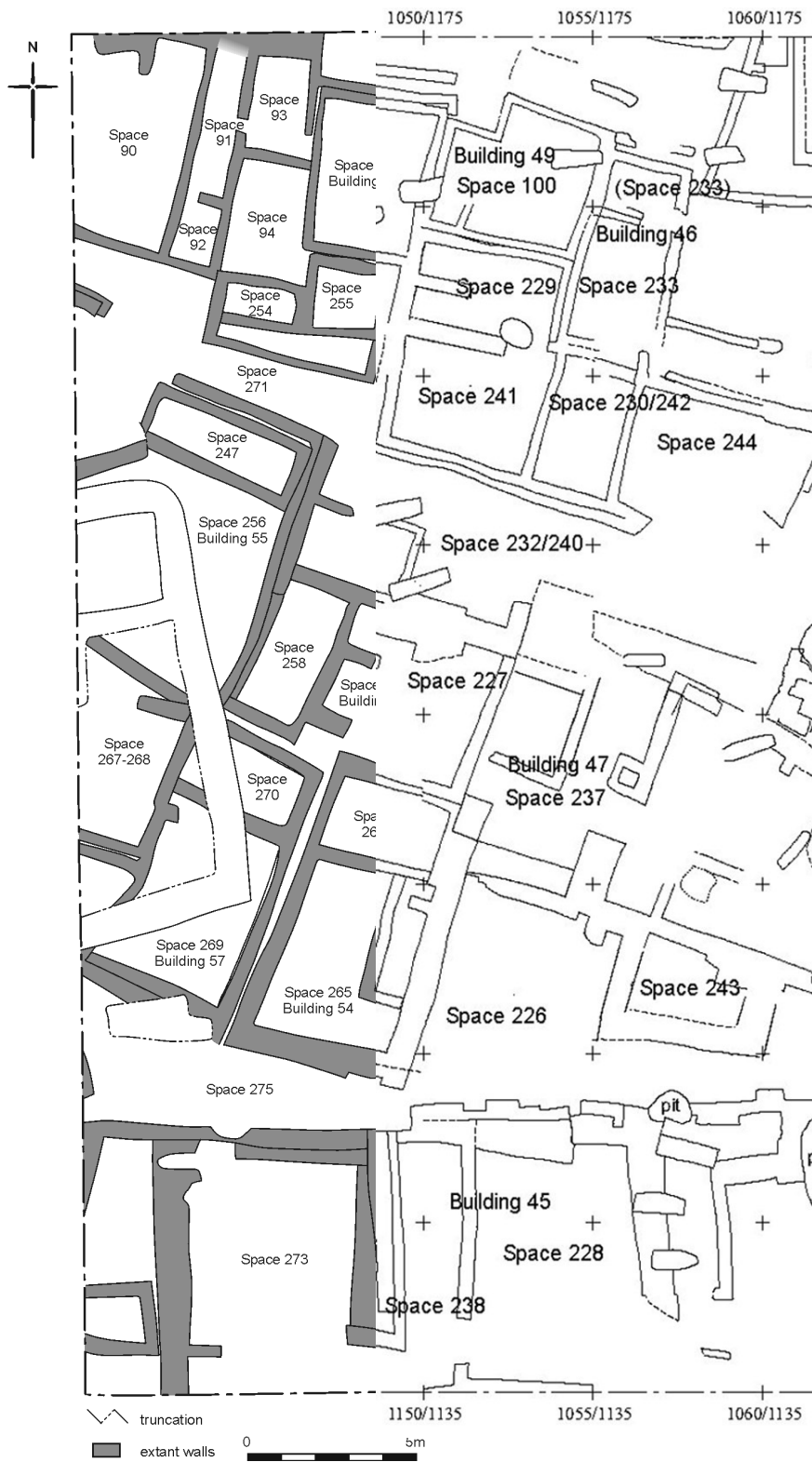


Figure 13. 10x40 strips excavated in 4040. 2004 to the right and 2005 to the left.

Later, and therefore possibly contemporary with Building 47, is Building 54 (Spaces 264, 265 and 266), as its walls overlie those of Building 58 to the north and Building 57 to the west. Immediately to the north of the 4040 Area, Buildings 1 and 3 have been dated to Level VII – VIII (Forthcoming Volume 3), although their chipped stone and pottery components suggest Level VI, similar to what we see in the northern-most zone of the 4040.

There is no reliable dating material from the ‘open’ areas that delineate the clusters of buildings discussed where minimal excavation was conducted this season. They would be later than or contemporary with the central cluster of buildings consisting of layers of accumulated domestic waste. To the south Space 275 is a continuation of Space 226 excavated in 2004, and to the north Space 271, a continuation of Spaces 232/240 also excavated in 2004. These ‘open’ areas were initially presented as streets between discrete blocks of buildings when first exposed through surface scraping in the 4040 Area in 2003 (ref 2003 archive).

South Area

To compliment our research aims in the 4040 Area covering contemporary neighborhoods, in the South we aim to explore more fully the temporal processes that produce phases of settlement because the buildings remaining from the Mellaart and our excavations occur at different levels. Thus it is possible to examine the chronological development of houses in relation to each other from the very base of the mound. We also work towards expanding the area where we reached natural lake marl in 1999 (Farid 1999 Archive Report). This requires strategic planning of where and to what depth to excavate in order to achieve this in a safe and coherent manner. The trench where natural was reached in 1999 falls in the centre of the South Area. In order to extend this trench we need to excavate surrounding structures in a stepped manner. Therefore, in order to reach our ‘natural’ target we have first to move further away from that focal point, but whilst doing so we will be fulfilling the aim of excavating a temporal sequence.

Therefore continuing on from last year we concentrated on excavation of two of the buildings that occupy the highest sections of the area. Work began on the 4th July and ended 10th August.

To the east, in an area previously known as the Summit Area, excavation of Building 44, currently dated to Level IV-V was concluded and the earlier (underlying) Building 56 of Level V was defined. This building is located over a large section of stratigraphy, which we hope to reduce over the course of the next few years.

The second building excavated was located to the centre of the south side where Building 42 of c. Level V was excavated last year. It was from this building that a painted plastered skull was found buried, cradled in the arms of a woman against her chest and a marble figurine retrieved from another feature (2004 Archive Report). The earlier sequence excavated this year, below Building 42, consisted of a midden area and part of a building (Building 53). Notably this earlier building has so far reflected none of the exceptional features of its successor. Absence of continuity is also conspicuous in the fact that the two buildings were not directly superimposed, which is perhaps associated with the use of the area for midden.

TP Area

The team from Poznań, Poland, continued excavations at the highest point of the East Mound (see Fig. 11). This area was targeted to investigate the latest levels of the site, which were neither represented in our excavations on the northern eminence of the mound nor in the South Area. TP Area is located immediately to the east of where Mellaart had excavated Levels I-IV (Farid 2000). The area proved to be heavily utilised in the historic period overlying the latest Neolithic levels, which have been identified as Levels 0 – II by linking the TP trench with the 1960s trench and joining buildings from both excavations. The aim is to continue to explore the later Neolithic sequence expanding westwards. The study of these later periods is providing significant data for the transition of Neolithic to Chalcolithic at Çatalhöyük and thus linking work on the both the east and west mounds.

In addition to the above on-going excavations the first reports of the new areas, IST and SEL are reported below and whilst IST are focusing on the very earliest occupation of the site, SEL are working on the latest.

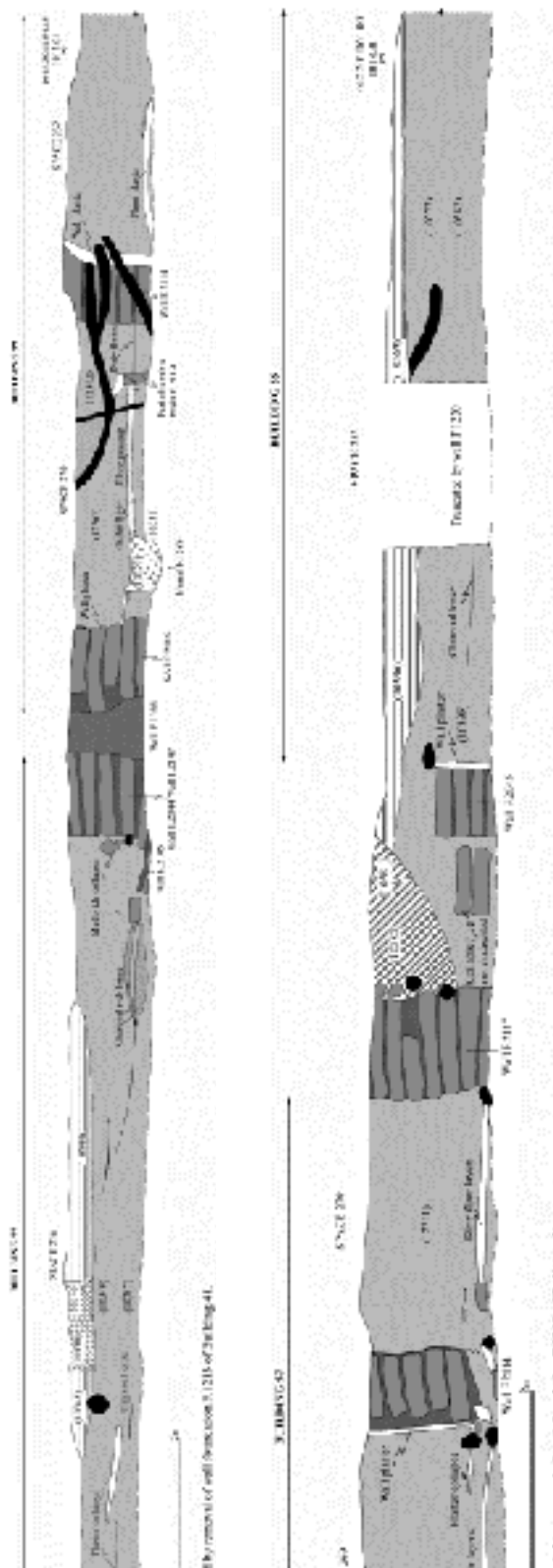


Figure 14. Sections exposed through the Neolithic sequence after removal of Classical Building 41, foundations.

4040 Area

Area Supervisors:

Doru Bogdan & Lisa Yeomans

Site Assistants:

Ahmet Cinici, Tuna Kalayci, Esra Terzi Middle Eastern Technical University, Ankara), Candemir Zoruglu (Selcuk University) Konstantinos Koutsadelis (University of Cambridge), Elizabeth Lee (Univeristy of California, Berkeley),

Stanford University

Field School:

Ulrike Krotscheck (supervisor), Cassandra Cueller, Shamala Gallagher, Amelia Strom Hardin, Bradley Heinz

Authors:

Doru Bodgan, Lisa Yeomans, Shahina Farid, Ulrike Krotscheck & Candemir Zoruglu,

Classical and later activity /Klasik ve Geç Aktiviteler - *Doru Bodgan, Lisa Yeomans, Shahina Farid*

Abstract

Late activity in this year's 10x40 strip consisted of part of the foundation trench of a probable Roman/Hellenistic building (Building 41, Spaces 212 and 216). This was located to the centre west of this year's excavation in the 4040 Area. Surface scraping in 2003 when the destruction phase of the buildings, as well as some occupation layers were excavated first exposed this square structure. The foundation cut and fill, which cut through the Neolithic layers was not however excavated until this season. The foundations were made of clay, solidly packed in deep, wide trenches, suggesting the possibility of a multiple storey construction. The clay fill was clearly collected from the mound and it contained a quantity of Neolithic material.

A number of late burials were excavated stretching across the length of the 10x40 strip. These appear to date from the Late Roman/Byzantine period displaying a typical position and orientation for this period. Most graves were simple rectangular cuts with single extended burials. The bodies were in an extended position with the heads to the west and the feet to the east. There was one exception to this pattern where the feet were to the west and the head to the east. Most of these skeletons were extended on their back but five individuals lay on their right side. These five individuals were clustered together in the southern sector. Four graves were clay lined, and three had evidence of coffins by the presence of iron nails and traces of decayed wood. One burial may have been disinterred and a further collection of human bone may have been a 'clearance' activity. Only two burials had associated grave goods. The different types of burial practices probably represent different phases and or cultural practices. The corpus of classical data from the site will be collated and reported on once it can be put into context with the off-site investigations currently being undertaken by a team from Selcuk University.

Özet

Bu sene kazılan 10x40 lık şeritteki geç aktivite, büyük ihtimalle Roma ya da Hellenistik bir binaya ait olan temel açmasının bir parçasından oluşmaktadır (Bina 41, Alan 212 ve 216). Bu şerit, 4040 alanında açılan bu seneki kazı alanının batısında bulunmaktadır. Bu kare şeklindeki yapı ilk olarak 2003 yılındaki yüzey kazımasında bazı yerleşim tabakaları ve binaların yıkım evreleri kazılırken ortaya çıkarıldı. Ancak, Neolitik tabakaları kesen temel kesik ve dolgular bu sezona kadar kazılmadı. Kilden yapılmış olan temeller derin ve geniş açmalar şeklinde

olup, birden fazla kattan oluşan bir yapının varlığını düşündürür. Kil dolgu höyükten toplanmış olup, Neolitik materyal içerir.

10x40lık şeridi boyunca kesen geç döneme ait bir çok sayıda gömü bulundu. Bu gömüler geç Roma ve Bizans dönemine ait bir pozisyon ve yönleme sergilediği için, aynı döneme tarihlenir. Bazı gömüler basit dikdörtgen kesikli ve tek uzantılıdır. İskeletler uzanmış bir vaziyette, başlar batıya ve ayaklar doğuya doğrudur. Bu düzene aykırı olan, ayakların batıya ve başın doğuya doğru uzandığı tek bir örnek vardır. Bu iskeletlerin çoğu sırt üstü uzanmış olup, beş tanesi sağ tarafları üzerine uzanmaktadırlar. Bu beş iskelet bir küme halinde güney kesiminde bulunmuşlardır. Dört gömü kil ile döşenmiş olup, bozulmuş ahşap ve demir çivi kalıntılarından dolayı üç tanesinde tabut bulunduğu düşünülmektedir. Bu gömülerden biri rahatsız edilmiş olduğu için ve bu yüzden bunu takip eden insan kemiği toplama aktivitesi bir temizleme aktivitesi olarak düşünülebilir. Sadece iki gömüde gömü hediyesi bulunmuştur. Farklı gömü aktiviteleri, büyük ihtimalle farklı evreleri ve kültürel aktiviteleri gösterir. Toplanan Klasik veriler, Selçuk Üniversitesi ekibi tarafından yapılan alan dışı araştırmalar ile birleştirilerek rapor edilecektir.

Introduction - Shahina Farid

During the Classical and Byzantine periods the Neolithic mound was used as a burial ground for the inhabitants of settlements located nearby. These settlements lie off-site in surrounding fields today and which are the focus of a team from Selcuk University who will locate, define and date the extents and types of sites present. There is also however, some late structural activity on the Neolithic mound which to date has been excavated largely at the southern crest of the mound in the TP Area (TP 2002 Archive Report), however the foundations of a large late structure was also defined in the 4040 Area. The following report describes the late sequence including the late burials from this year's excavation. Although all the following burial descriptions post-date the Neolithic structures they have been referenced to the Neolithic building numbers for a purely locational exercise.

Building 41 - Doru Bogdan

Building 41 was first exposed in 2003 after the removal of the topsoil from the 4040 Area (Fig. 12). The almost completely defined building was identified by a series of wall foundations and associated wall collapse along the outer eastern edge. The demolished debris and some plaster floors were excavated and although a number of pottery sherds were recovered, the dating of the structure was not established. The foundations and associated construction cuts were numbered F.1213, F.1214, F.1217, F.1218, F.1219 and F.1220. The wall foundations collectively defined five internal spaces, Spaces 212, 215, 216, 217 and 225.

Excavation of Building 41 in 2005 was located along the western edge of the 10x40m strip so only its eastern end was in the sector excavated. By the end of the season the eastern wall foundation F.1213 was completely excavated, and the eastern sections of the east-west walls, F.1219 to the north, partition wall F.1220 and F.1217 to the south.

The wall foundations were very solid structures. Presumably for stability 1.1m wide trenches were dug with vertical edges to a depth varying between 0.8 and 1m. The trenches were then back-filled in two stages. Placed at the base of the construction cut was one course of very large mudbricks, while the upper part of the cut was filled with solid clay. The dimensions and the solidity of the foundations suggest that they were very likely to support a building that had more than one storey. The clay source for the mudbricks and for the upper part of the foundations was probably collected from pits cut into the mound as the fill contained large quantities of Neolithic material. The percentage of post-Neolithic finds within the excavated units was very small compared to the amount of Neolithic pottery, obsidian and bone retrieved from the foundation fill.

The dating of Building 41 remains uncertain since much of the upper levels of the building had eroded away. However the foundation truncated a grave (F.1598) (Fig. 14) containing a single sherd of Hellenistic pottery that gives a *terminus post quem* for Building 41.

Late Roman/Byzantine burials - Doru Bogdan and Lisa Yeomans

The grave F.1598 cut by the foundation trench for Building 41 contained the skeletal remains (10339) of a female laid with her head to the west. The upper torso and skull of the skeleton had been removed by the foundation cut (10279). It should be noted that this skeleton appears to have been interred in a different manner to a number of skeletons excavated to the south which were buried in long, narrow and deep grave cuts with the bodies laid slightly on the right side (see below). Therefore different phases or cultural practices are represented amongst the late burials across the 4040 area and dating evidence from one grave is not applicable to the others.

In the same vicinity over the outline of Building 57 and cutting its east wall was a cut (12118), which was initially irregular in shape, but narrowed into a regular, rectangular grave cut (12119). It contained extended burial skeleton (12133).

Cutting the south wall of Building 57 an ovoid pit turned out to be an infant burial, F.2042. The burial cut double walls, the south wall of Building 57 and a possible retaining wall along the northern side of the midden area that bounded Building 57 to the south. The burial cut was clearly recognizable by colour and texture, although the top of the cut was not as clearly rectangular as the grave later proved to be. The skeleton was of an infant probably aged around two to three years lying on its right side, oriented along an east-west axis with its head to the west. Its knees were slightly flexed, and although the articulated bones were remarkably well-preserved, significant rodent activity had disturbed the burial enough that bones probably belonging to this skeleton were found in the adjacent Building 57 room fill (12116). Small amounts of wood were found in the grave fill. No notable grave goods were discovered in the associated grave fill. The grave additionally cut through F. 2110, the south oven in Building 57 (see below) (Amelia Strom Hardin).

To the east over the footprint of Building 54, F.2155 was a grave dug through the internal wall F.2138 dividing Spaces 265 and 266. The skeleton (11951) was that of a supine extended adult with the head to the west, and probably interred in a wooden coffin indicated by iron nails found around the bones but no wood traces survived. The probable coffin was placed in a narrow cut with vertical edges and flat base. No grave goods were found.

F.2157 was the grave of an infant, placed in a small cut, located in the southwestern corner outline of Space 265. The skeleton (11986) was found dorsally extended, with the head to the west, in a good state of preservation. No traces of coffin and no grave goods were present.

South of Building 57 cutting through the midden deposits of Space 275 a large irregular shaped cut proved to be two intercutting graves. Burial F.2188 with an adult female skeleton (12141) lying on her right side in an extended position within a simple cut and F.2189 was a heavily truncated adolescent (12142).

In the southern-most sector of this years 10x40m strip Space 273, located to the south of midden area 275, was identified in 2003 as a Neolithic house with typical mudbrick walls defining it on three sides while its southern wall lies beyond the scraped area. In the last four days of this year's excavation season, the decision was made for at least some of the room fill to be removed in order to expose the walls and better understand their layout. After further surface clearing a number of east-west burials was observed within the area delineated by the north-south extent of Space 273 and the width of the excavation trench, as well as two irregular interments.

The first discovered skeleton (12366) was very close to the surface and therefore severely affected by erosion. The grave cut was ill-defined and the fill covering the body was very similar to the soil into which the cut was dug. Despite the east-west orientation of the grave, this late burial (F.2161) is rather unusual due to the fact that the head was placed at the eastern end of the cut. Several greenish beads, circular and tubular, were found in the neck region of the skeleton.



Figure 15. Skeleton (12384) in F. 2162 was a child of approximately 6-8 years old.

The second atypical interment F.2160 consists of parts of three skeletons ((12359), (12360), (12385)) found in a secondary burial context. The bones were co-mingled, the long bones being concentrated together as were the *crania*, only few of them appearing to be in roughly articulated position. All evidence suggested that the skeletons were disturbed from their initial position and re-buried. It is possible that the remains were placed in a shallow cut (very difficult to identify during excavation being so close to the surface and therefore disturbance), or the remains were part of a 'clearance' dump alongside roman *tegulae* and mortar that was also found in the fill. This large unit was not fully excavated by the end of the season, but it seems to post-date one of the east-west graves of possible Christian rite.

Along the west wall of Space 273, cutting through it, a row of four graves was identified presenting obvious similarities as well as some particularities. All four were east-west oriented, but only three of them (F.2162, F.2170 and F.2187) were lined with very solid, carefully prepared clay, while the fourth (F.2169) was a simple skeleton placed in the cut. The skeletons were laid all in the same position, with the head to west dorsally extended, slightly on the right side and similar to other burials in the vicinity. Only three of the four graves (F.2162, F.2170 and F.2169) contained skeletons, while F.2187 was empty.

F.2162 and F.2170 are identical side-by-side graves, with skeletons placed on their right side placed in rectangular cuts with sides lined with thick clay. There were no grave goods nor traces of wood coffins as have been found elsewhere. Skeleton (12386) in F.2170 was that of an adult male. The lower legs had been subsequently disturbed and moved towards the torso. Skeleton (12384) in F.2162 was an approximately six-eight year old child. The similarity of these two burials along with their proximity suggests a short time span between the two interments.



Figure 16. Skeleton (12386) in F.2170 was an adult male, the lower legs had been subsequently disturbed.

Skeleton (12381) in burial F.2169 was that of an adult which was placed slightly on the right side in a clay lined oval cut unlike the rectangular cuts immediately south from it. The cut (12382) for (12381) clearly truncates the southwestern corner of another burial F.2187 and is therefore later. F.2187 is the largest grave cut of the four but lacking a skeleton. Rectangular in shape, with vertical sides substantially lined with clay and a *tegulae* on the base, which is probably Roman/Byzantine in date. Only one tile was still *in situ* on the base while fragments of the others were spread within the fill. This indicates that the entire feature was disturbed and backfilled and possibly explains the absence of a skeleton. However, there is a possibility that the grave was a cenotaph, which allowed a burial ceremony to take place for an individual whose corpse could not be interred. The east-west orientation and the presence of Roman/Byzantine artifacts within them strongly suggest that all these graves were of Christian rite.



Figure 17. Skeleton (12381) in burial F.2169.

As well as the burials located within the footprint of Space 273 there was one other feature. This was a very deep cut (12354), oval in shape that cut through the northwestern corner of Burial F.2187 at a sharp angle. Fragments of Roman/Byzantine tiles were placed on the sides, while on the bottom traces of possible postholes were observed. The dimensions and shape of the cut suggest it was a constructional feature and its proximity to the foundations of Building 41 suggests a hoist or scaffold emplacement during the construction of Building 41. There was no stratigraphical relationship to support such an interpretation but true it would date Building 41 as later than grave F.2187 which is most likely Late Roman/Byzantine.

Two late burials were excavated in the northern most sector of this year's excavations. Towards the east of the midden area Space 271, was a late burial F.2120 containing the skeleton of a juvenile (12336) lying extended with the head to the west. A glass vial had been placed next to the right side of the head and a single coffin nail was recovered from the fill. A little to the north, over the footprint of Space 254, cutting through the infill (10312) was a grave cut (10315) was for a late grave F.1571 containing the skeleton (10314) of an adult male lying in the extended position with the head to the west buried in a coffin. The grave truncated the southern side of a pit (10328) containing an ashy fill (10327) and although this as relatively sterile it was probably a late pit.

Neolithic Sequence / Neolitik Sıralama

Abstract

As was established last season the different zones of buildings in the 4040 Area, which had first been interpreted as contemporary neighbourhoods delineated

by streets (2003 Archive Report), were, upon excavation, identified as different occupation phases (2004 Archive Report). Although overall there was a paucity of artefacts by which to date the buildings excavated, the occupation phases (termed as Levels) presented last year fitted with this seasons work too. As such the latest Neolithic activity was identified in the central cluster of buildings, which is equated to Levels IV –II, bounded by midden areas Space 271 to the north and Space 275 to the south. No work was conducted on the Neolithic sequence in the southern most sector of this year’s 10x40 strip, but judging from last seasons results the activity here is likely to represent Levels VI – V, whilst the latest is represented in the northern most sector of buildings, dated to Level VII – VI .

Özet

Geçen sezon caddeler tarafından ayrılan mahalleler olarak yorumlanan (2003 Arşiv Raporu)4040 alanındaki binaların farklı bölgeleri, kazı sonucunda farklı yerleşim evreleri olarak belirlenmişlerdir (2004 Arşiv Raporu). Şu anda kazılan binalarda, bir buluntu durgunluğu olmasına rağmen, geçen sene sunulan yerleşim evreleri (Tabaka) bu sezondaki çalışmalarla uyuşmaktadır. Tabaka IV-II ya yerleştirilen merkezi bir bina kümesi içinde belirlenen Geç Neolitik aktivite kuzeye doğru Alan 271 ve güneye doğru Alan 275’ deki çöplük alanlarıyla bağlanmıştır. Bu senenin 10x40’lık şeridinin güneyindeki birçok kesimdeki Neolitik sıralamada bir çalışma yapılmadı. Ancak geçen sezondan anlaşıldığı kadarıyla bu alandaki aktivite Tabaka VI-V yı verirken, kuzeydeki birçok kesimdeki geç aktivite Tabaka VII-VI’ ya tarihlenmektedir.

Buildings in the central cluster Spaces 267 and 268 - *Lisa Yeomans*

Abstract

Space 267, a midden area to the west of the central cluster of buildings was defined by wall F.2029, (10379) and a layer of eroded mudbrick (10378) and extended to the west beyond this years excavations. A lack of associated floors within Space 267 suggests that these wall remains are the footings to a now eroded building. The wall footings and erosion of Space 267 overlay two infants positioned at the interface of a pit fill (10380). Space 267 replaced an earlier and larger midden area Space 268, which also extended to the west of the limit of excavation. In a number of places the midden had been truncated by Neolithic pits which where themselves backfilled with layered midden material or more homogeneous dumps of waste. The midden deposits were typically layered and rich in finds and environmental data. Work was conducted in this area as far as to release the buildings to the north, east and west. Future excavation will take place when more of the area can be defined to the west.

Özet

Merkezi bina kümesinin batısına yönelen bir çöplük alanı olan Alan 267, duvar F.2029, (10379) tarafından belirlenmiştir. Ayrıca aşınmış bir kerpiç tabakası (10378) bu sezon batıya doğru uzatılmıştır. Alan 267’deki ilişkili olmayan zeminler bu duvar kalıntılarının şu anda aşınmış olan binaların temelleri olduğunu önerir. Duvar tabanları ve Alan 267’deki erozyon, bir çukur dolgusunun(10380) bulunduğu yerde uzanan iki çocuk iskeletini birbiri üzerine yerleştirmiştir. Alan 267, daha erken ve geniş bir çöplük alanı olan ve kazı sınırının batısına doğru uzatılan Alan 268 ile değiştirilmiştir. Bazı yerlerde çöplük alanı, tabakalanmış çöplük malzemesi ve daha

karışık artıklarla doldurulmuş olan Neolitik çukurlar tarafından kesilmiştir. Çöplük depositleri tipik bir biçimde tabakalanmıştır ve buluntu ile çevresel veri açısından zengindir. Bu alanda yapılan çalışma, binaları kuzey, doğu ve batıya doğru ortaya çıkarmak içindir. İlerki kazılar alan batıya doğru daha fazla ilerlediği zaman devam edecektir.

Space 267

The latest Neolithic deposits in this area were the remains of wall foundation F.2029 (10379) and a layer of eroded mudbrick (10378). These were located to the west of the 10x40S forming parts of three sides to Space 267 and extending beyond the western limit of excavation for 2005 (Figure 13.). The northern wall was partly truncated by a pit (10376) which contained a burnt, bone rich deposit and although a Neolithic date to this feature seems probable, it cannot be proved stratigraphically. A lack of associated floors within Space 267 suggests that these wall remains are the footings to a now eroded building. The other possibility is that it was an external retaining wall but since they form three sides of a space with a possible fourth side identified in 2003 it seems unlikely. Identifying other spaces that may have formed part of the same building is difficult, the 2003 exposure of the area showed no walls immediately to the west and it seems more likely that Space 267 formed a narrow side room to an eroded building above Building 57. This is interesting because it suggests that the building phase above Buildings 55, 57 and 58 (which appear to be relatively contemporary), witnessed a significantly different alignment with buildings not being constructed directly above the previous and some areas converting to use as midden (see below).

The wall footings and erosion of Space 267 overlay two infants positioned at the interface of a pit fill (10380) located at the north-western corner of Building 57 (see below). No burial cut was visible and it cannot be certain whether the bodies were laid into a cut in the top of pit F.2034 or if they were dumped or left just before the erosion/destruction of Space 267. Although it cannot be proved stratigraphically, the evidence is best explained by the known practice of burying infantile bodies under the floors of 'dirty' side rooms. The location of the skeletons (10384) and (10388) places them at the northern edge of Space 267 in the location where such burials are frequently found suggesting that they were interments made during the use of Space 267.

Space 268

Space 268 is a large external midden area extending to the west of the limit of excavation for 2005. Much of the midden is to the west of the foundation cut for Building 41 but it also extends to the east and to the north of an internal wall foundation. The midden was therefore excavated as three equivalent units, visible on sections 05/311 and 05/323 with each comprised of relatively finely layered dumps excavated as composite units (10348), (10369), (10396). In a number of places the midden had been truncated by Neolithic pits which were themselves backfilled with layered midden material or more homogeneous dumps of waste. A cut against the northern wall of Space 270 was a large pit (10381), its fill was prioritised for specialist analysis which indicated that it contained discarded obsidian which was not dissimilar from the underlying midden but botanical remains were from limited activities and a high density of faunal remains with good preservation including a notable quantity of carnivore remains. It is difficult to provide an explanation for why the pit was dug; perhaps it allowed the retrieval of something outside Building 57. After it had served its purpose it was backfilled with rubbish, perhaps partially from the midden and partially from waste that had since been generated. The infilling process was fast as in section the fill was not made up from the fine tip layers visible in the underlying midden.

A smaller pit (10325) was cut into the midden to the north, the only thing to differentiate this cut was that it contained redeposited midden material and was cut into layered midden. It is therefore possible that it merely represents a final, homogeneous infilling of pit (10387) (see below) rather than a distinct re-cut. In either case the fill was midden type deposit from which a small figurine (10324.x3) was found.

The layered midden in all separate units divided by Building 41's foundation trench was rich in finds and environmental data. Therefore the midden was completely dry sieved as opposed to the room fills that were usually fairly sterile. Amongst the finds from the midden was a bone fish hook, numerous bone points and worked

beads.

The northern part of the midden was partially sitting in a large cut (10387). Where the layered midden fills were within the cut it was partially excavated as unit (10386). The cut extended to the north, truncating the northern part of the western wall of Building 55.

No further work was conducted in this midden area this season. The aim had been to release the outline of Buildings 55 to the north and 57 to the east for further excavation. Whilst post dating the construction of these buildings Space 268 may well have been in use simultaneously.

Building 54 - Doru Bogdan

Abstract

Located on the eastern side was a well-defined rectangular building with double outer walls, divided into three spaces by two interior walls and with internal measurements of 4m E-W and 8.5m N-S. Abutting / abutted by, adjoining Buildings 58 and 57, its sequence to these buildings will not be established until complete excavation but at this stage looks to be the latest. Being very close to the surface most of the interior features had suffered erosion leaving only some sequence of floors, a bin and a clay lined cut in the northern room Space 264, and a number of burials. In the northern room six babies were interred under the floors, while in the eastern one, three adults were found. In the largest space of the building another neonate was buried, as well as a juvenile.

Özet

Çift dış duvarlı olan çok belirgin bir dikdörtgen bina, iki iç duvar tarafından ölçüleri 4m D-B ve 8.5m K-G olan üç alana bölünmüştür. Bina 58 ve 57 ile birleşik olan bu binanın tabaka sıralaması kazı tamamlanana kadar kesinleşmeyecektir. Ancak şu an için geç olduğu düşünülmektedir. Yüze çok yakın oldukları için iç özelliklerin bir çoğu sadece bazı zemin sıralamaları, bir ambar, kuzey odadaki Alan 264'de bulunan kille döşenmiş bir kesim ve bir çok sayıda gömü bırakarak aşınmaya uğramıştır. Kuzeydeki odada altı adet bebek iskeleti zeminin altına yerleştirilmiş halde bulunmuşken, doğudaki odada üç yetişkin iskeleti ortaya çıkmıştır. Binanın en geniş alanında başka bir yeni doğmuş bebek ile çocuk iskeleti gömülmüştür.

Building 54 lay to the SE of the central zone of buildings, which has also been identified as possibly the latest building excavated this season see Fig. 13). No stratigraphic link was made to Spaces 267 and 268 however. Due to its proximity to the surface, Building 54 was badly affected by erosion leaving only the basal courses of the walls preserved. Some small areas of floor survived and all burials under the floor horizon survived. The layout of Building 54 is not a typical architectural layout formulated by most of the buildings previously excavated on site. It is a 4m x 8.5m rectangular building with the inner space divided into three rooms. The partition walls are narrower than the outer ones and they define three different size rooms. The largest, Space 265 occupies the southwestern part of the building, with an 'L' shape wall (F.2138) creating a small Space 266 to the northeast. An E-W aligned wall (F.2167) to the north creates a further space, Space 264, the northern room of the building.

The western wall of Building 54 (F.2163) is set against the eastern wall of Building 57, while the northern wall (F.2164) was built directly against the southern wall (F.1566) of Building 58. This indicates that these three buildings were constructed within a relatively restricted time range and that they co-existed at least for a while. The fact that the floor horizon within Building 54 is a lot higher than that of the other two buildings, could argue that it was constructed when Buildings 57 and 58 were already extant. Both Buildings 54 and 58 were postdated by the Level IV-II Building 47 (excavated in 2004), which partly overlays their walls. To the east the midden area Space 226 (excavated 2004) abuts Building 54.



Figure 18. Building 54. Facing West.

The outer walls of Building 54 are substantial, constructed with reddish brown mudbricks bonded with dark gray mortar. There were double walls on the midden side and single walls where they abutted walls of other buildings. Therefore the south wall F.2166 and the east wall F.2165 were both 0.6-0.8m wide double walls, while the north wall F.2164 and the west wall F.2163 were narrower single walls. The internal walls were also narrower but the construction material was similar. This indicates that they were all erected at the same time but that the outer walls may have been double faced for additional support or as retaining walls on the midden sides.

Space 264

The north room of the Building 54 was the best preserved of the three. Within Space 264 some of the floors together with other features were still present along the southern side of the room. Probably the floor level within this room was slightly lower than in the other ones and that was how these features escaped the erosion. Space 264 is a medium size rectangular room with internal measurements of 3.7m E-W and 1.9m N-S.

During the occupation phase of the house, the western end of this room was probably higher, possibly in the form of a platform. The floors (F.2036) stretch about 1.2m from the west wall, sustaining the presence of a raised western platform. The floors were made of fine greenish white plaster in multiple layers, which clearly indicates the use of the building over a long period of time. Along the northern wall of the room, as well as at the eastern end, the floors were affected by the erosion process and turned into a mixed non-layered deposit.

Above the floor level, along the southern wall of the room, a storage bin was preserved. F.2033 was constructed against wall F.2167, with thin outer walls made of mudbrick and plaster. The storage space was divided in two by one N-S brick placed in the middle of it. The plaster floors of Space 264 also cover the walls of the bin indicating that this was built at an early stage of the existence of the house. The bottom of the feature was probably plastered as well, but only the eastern half of it was found covered with plaster. No indicative items of use were found inside the bin, only a few bones and some stones were present in the fills (11945) and (11946), but these could have been part of the backfill at the time of closure of the building.

In the northeastern corner of the room, a very interesting feature was excavated. F.2019 was a 0.3m square cut

lined by white clay, forming a type of sub-floor 'box' (Figure 19). There was no stratigraphical evidence for where the feature was cut from as the floors in the area were entirely eroded away. The cut (11942) was lined with 40mm thick greenish white fine plaster, which formed the inner lining (11932). At the base were some stones while the fill (11931) contained a few dog bones. Interestingly, a similar feature was excavated in nearby Building 47 during the 2004 excavations (fill (10250), lining (10251), cluster (10257)), which also contained dog bones. The dimensions and the appearance were identical, the only difference being that F.1556 from Building 47 was cut through on the base of a 1m deep circular pit, while F.2019 from Building 54 seems to have been very close to the floor.



Figure 19. Square plaster lined cut F.2019 contained few dog bones.

The interment sequence of the six neonate burials in Space 264 was impossible to establish due to the lack of intact floors through which the burials may have been cut. They were found in the infill layers below the floor horizon of the room. It is however possible that these represent foundation burials as was presented in a similar sequence excavated in Building 1.

F.2154 is the burial of one neonate in a very small circular cut (12362). The skeleton (11975) was found facing down, tightly flexed with the head oriented to south. The location of the grave is interesting, the burial appears to pre-date bin F.2033, being dug into the wall and room-fill of the earlier house and located under the bin. This is either evidence for a foundation burial or evidence that the bin was not a primary feature of this space.

F.2159 is the second grave of a single neonate, buried in the make-up layer of the raised western end of Space 264. Poorly preserved the skeleton (11973) was found tightly flexed on the right side in a very small grave cut.

As excavated, F.2037 is recorded as the common cut for four neonates interred in the same raised area at the western end of Space 264 as burials F.2154 and F.2159. The absence of four distinct grave cuts, one for each individual skeleton, lead to the hypothesis that they were either buried at the same time in one common grave, or buried within a relatively restricted time range, as they were also all spatially isolated from one another. All of the skeletons suffered more or less from borrowing rodents but enough was intact to show that all were anatomically articulated. The four bodies formed a N-S row, skeleton (11979) being the southernmost of them. This was severely disturbed by post-depositional actions, but it seemed to have been placed on its stomach, probably in a flexed position. Skeleton (11957) is the northernmost of the four and it was found flexed on its right side, identically to skeleton (11971). The last of the four was skeleton (11972), which was buried on its left side, tightly flexed at hip and knees.

Space 265

This was the largest room of Building 54, measuring 6.4m N-S and a maximum of 5m E-W at the southern end. The 'L' shape of the space was created by an internal wall F.2138, which created a small room Space 266 in the northeast quadrant of Space 265. This southern room was totally denuded of internal features and occupation deposits through erosion exposing only the underlying infill and the lower courses of walls. Cutting through the fill however, were a number of burials.

F.2158 was the burial of one neonate located in the northern end of Space 265, next to the internal wall F.2167 and therefore close to the six in the northern room of the house, just on the other side of the wall. Skeleton (11996) was placed in a very small cut, on its back with the head to the west and tightly flexed.

F.2156 is a burial immediately to the south of F.2158. The skeleton (11982) of a juvenile was found lying on its back with the legs tightly flexed at hip and knees. The skull of this individual was found first, about 50mm above

the rest of the bones and the first indication of disturbance to the burial. As more of the individual was exposed there were other bones identified in dis-articulated positions. No reason for the disturbance was apparent but which might come to light through the analyses of the individual who was 14-16 years in age at the time of death and with very well developed bones in terms of length for an individual of that age.

Space 266

Once again, due to its proximity to the surface, this small internal room was bare of its internal features and floors. Surface scrapping exposed the underlying infill (11993), which was cut through by burial F.2030 that contained the remains of three individuals. No evidence to indicate the function of this room were preserved, but its internal dimensions of 3.7m N-S and 0.9m E-W, make it a very small room.

Burial F.2030 was defined directly below topsoil and was in a very poor state of preservation. Despite the fact that the bones were very disturbed and fragmentary, three skeletons were identified. It was not possible to trace cuts for the burials, which have been recorded as being place in one grave cut, but it cannot be stated for certain that the burials were not individually interred. The skeletal remains were of three adults, skeletons (11926), (11927) and (11935), which were probably interred under the floors of Space 266 during the occupation of Building 54.

Little can be said about the occupation sequence of Building 54 due to erosion. Abandonment was probably a deliberate closure as is the case of most of the buildings on the site. No traces of burning were visible on the walls or on the internal features preserved within the northern room. Unit (11924) in Space 264 stood out as it had the appearance of a mixed dump deposit probably deliberately placed on the floor of the room. It contained large quantities of pottery and some stones, but it was difficult to say whether all of these were part of the fill or some of them were on the floor at the moment of abandonment and the fill just covered them. The dating of the artefacts in this unit however, represent the last phase of activity within Building 54.

Building 58, Spaces 227, 258 & 274 - *Shahina Farid, Candemir Zoroğlu.*

Abstract

Probably earlier than, and located to the north of Building 54 lies Building 58. In its latest phase it comprised three spaces, a larger Space 227 with a narrow room, Space 258 along its western length. To the south of Space 227 was a small Space 274, which was probably originally an access between Spaces 258 and 227 but in the buildings latest phase it was blocked and formed a small enclosed room Space 274. The internal space measures c.6.5m x 4.0m.

The internal layout in Space 227 formed three cell like areas along the western wall, the northern and central housing platforms with retaining kerbs facing into the room. The southern most cell forming the later Space 274. Along the eastern wall was a double platform with a southern bench and against the south wall was a rectangular oven with associated large square hearth constructed on top of a platform in the southwest corner. This oven was deliberately infilled prior to closure of the building and a final conclusion event appears to have been the placement of a cattle skull and dog into the mouth of the oven.

The occupation sequence in Space 258 was heavily truncated with minimal survival of features but four neonate burials were found cut through the floors in the northwest corner and three in southwest corner.

Özet

Bina 54'den daha erken olan Bina 58, Bina 54'ün kuzeyinde bulunmaktadır. Geç evresinde üç alana sahip olmuştur: dar bir odası olan Alan 227, batıya doğru uzanan Alan 258. Ayrıca Alan 227'nin doğusuna doğru, orjinal olarak Alan 258 ve 227

arasında bir geçiş olan Alan 274 bulunmaktadır. Ancak bu alan, binaların geç evresinde kapatılmış ve ufak bir alan olan Alan 274 haline getirilmiştir.

Alan 227'deki iç düzenleme, batı duvarı boyunca uzanan üç hücre tipi alandan ve odaya doğru bakan kenar taşlı kuzey ve merkez ev platformlarından oluşmaktadır. En güney hücre daha sonraki Alan 274'ü oluşturmuştur. Doğu duvarı boyunca yerleştirilmiş, güneye bakan bir sekisi olan çift bir platform bulunurken, güney duvarına dayalı büyük ocaklı dikdörtgen şekilli bir fırın, güneybatı köşesindeki platformun üzerine yerleştirilmiştir. Bu fırın, özellikle bina kapatılmadan doldurulmuş ve bir sığır kafatası ile köpek fırının ağzına yerleştirilmiştir.

Alan 258'deki yerleşim sıralaması çok az nitelik bırakan bir şekilde kesilmiştir. Ayrıca kuzeybatı köşesindeki zeminin içinde dört ve güneybatı köşesindeki zeminin içinde üç adet yeni doğmuş bebek iskeletine ait gömü bulunmuştur.

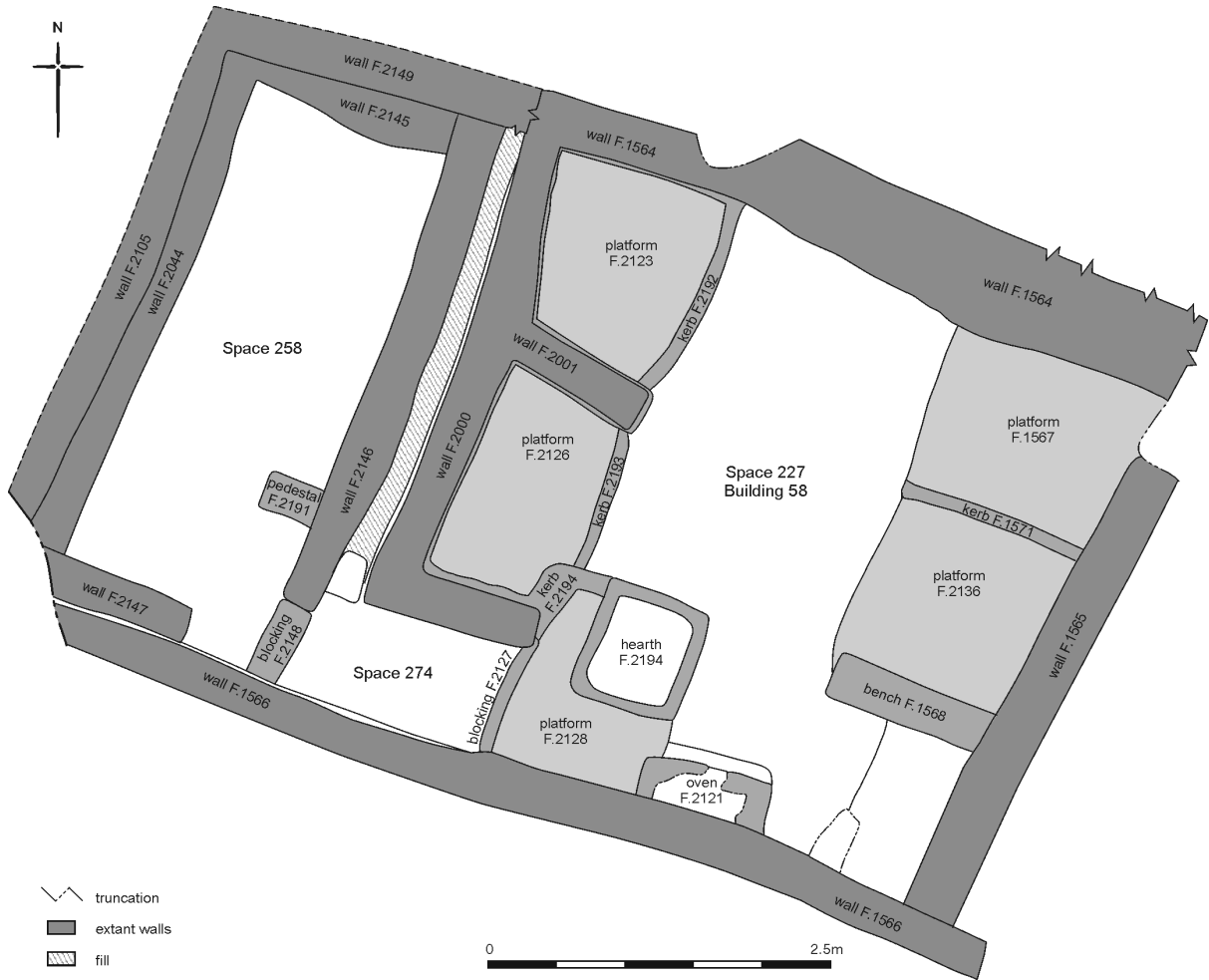


Figure 20. Plan of Building 58.

Space 227

As excavated last year (Archive Report 2004), Space 227 revealed a double platform, with a bench at its southern end along the eastern wall. An initial post-occupation infill deposit was a thin layer of organic material, possibly

coprolite, over which the body of an infant was placed under an overhang in the north wall. The infant was buried by the building infilling process as opposed to the more common practice of burial in a cut. The initial deposit across the floor was rich in artefacts, possibly a 'feasting' deposit, from which marble figurine 10264.x1 was found (Fig. 32 Archive Report 2004) as well as a number of animal bone and obsidian items.

On completion this year the internal area of Space 227 measures approximately 4.0m x 4.0m (Fig. 20). The plan consisted of a double platform along the eastern wall, to the north F.1567 and F.1572 to the south with a central kerb F.1571. The platforms terminated with a bench F.1568 to the south. This configuration against the east wall was mirrored along the western wall but where the platforms were contained within small cells formed by internal walls the width of the platforms, F.2123 to the north and F.2126 to the south and kerbs delineating them from the main floor area. The opposing southeast and southwest corners, whilst mirroring in plan were different in use. To the southeast, the floor appears to be associated with oven and hearth rakeout deposits with a shallow depression that may locate the ladder emplacement. To the west, the space to the south of the cells, Space 274, reconfigured through time and as defined at its latest phase is blocked off (see below).



Figure 21. Oven F.2121. Carefully infilled at 'closure' of the building with a dog and cow mandible placed in the opening.

Centrally located against the south wall stands oven F.2121. This is one of two ovens found this season with an appearance of a fireplace. Rectangular in shape 0.9m x 0.45m, and c.0.6m in height with a semi circular mouth opening onto a small ledge-like platform (Fig. 21). At the building's closure phase the oven was fully preserved by deliberate infilling and a final statement made with a complete dog (11980) and cow mandible stuffed in to the oven mouth. Partially enclosing the oven structure to the west was a platform F.2128 on which a roughly square rimmed hearth sat positioned towards its northeast corner. The northern rim of the hearth extended west to join to the retaining kerb for platform F.2126 in the southern cell along the west wall.

The central area of the room therefore is a slightly sunken floor space of just under 4.0m x 2.0m. All the internal wall faces are plastered but more heavily or repeatedly within the cells where traces of red pigment has also been observed.

The basal fill (11985) was rich in fauna and pottery and is probably equivalent to (10260) excavated from the western half of Space 227 last season. Rich throughout the concentration of this deposit, however, seemed to be concentrated to the southeast which was excavated as cluster (10264) dug last year from where it and radiated

and thinned out. A cluster of animal bone (11930) included an articulated calf humerus 11930.x3, bent and leaning against the east end of wall F.2001, along with other large faunal remains. Whilst this was traced when excavating a higher fill layer (11938), it is likely that the cluster represents part of the initial deposit equivalent to (11985) and (10260). Immediately above and therefore probably including some of the primary deposit was (11995), which contained a higher content of identifiable fragments of plaster and mudbrick. The upper fills (11955) and (11938) were the more recognisable, modified fill. Further fill units were (10341) and (10337).

An unusual deposit was found over the northwest platform F.2123 (11995) was a heap of grey-greenish white fine sandy textured material with small crystalline inclusions. Not unlike natural sand below the level of lake marl it may be a stock of raw material for renovation or construction.



Figure 22. Building 58, looking SW.

Spaces 258 & 274 - Lisa Yeomans

Later activity

There were traces of an overlying building over the western side room Space 258. This later structure consisted of two courses from a northwestern corner of a building footing in the southeastern corner of Space 258. There seems to have been a change in the positioning of buildings after Space 258 had gone out of use as similarly seen with the remnants of building remains in Space 267 and the midden over Building 55. The remaining corner above Space 258 was given feature number F.2018 (brick-(10354), mortar-(10355). North of the wall remnant, much of the room fill in Space 258 had been eroded/truncated away with an eroded depression/cut (10352) filled with a deposit (10351) consisting of a friable material with frequent rootlets suggesting that the deposits formed whilst water had naturally collected and formed temporary puddles of humic material. The pottery within the fill suggests that it had accumulated in the Byzantine period.

Building sequence in Space 258

The layout and the entrance (space 274) between Spaces 258 and 227 changed a number of times during the course of the building's use. It cannot be certain how the building phases altered until the spaces are completely excavated but the following description describes the basic changes in four phases that would explain the building remains visible at the end of its use (see Figure x).

Phase 1: Initially Space 258 would have been entered from a separate entrance. The west side of the room would have been wall F.2105 and hence this wall may have been used in both Buildings 55 (neighbouring to the west), and 58. The southern wall of Space 227 (F.1566) would have been the original southern wall. The eastern wall was F.2000 and a thick (30mm) layer of plaster on the Space 258 side suggests that the Phase 1 layout continued for some time. The northern wall was F.2149 and together these walls formed a room approximately 4.05m x 2.04m.

The bricks in wall F.1566 at the western end were poorly defined (as shown by section 05/311). It was therefore uncertain if the wall continued up to the section or if the wall only formed the southern side of Space 227 and not Space 258. To investigate the relationship between the walls a small part (12343) of wall F.1566 was removed. This proved that the wall continued and was the original southern wall to Space 258. The investigative slot also demonstrated that the wall had been built on a foundation comprised of stones (12344). At the interface of the two units was a stone mace head (12343.x1) (Figure x) probably placed amongst the stones as part of the foundation but lifted with the above unit and therefore ascribed to (12343).

Phase 2: A second phase of building saw the wall F.2000 removed at its southern end so that an internal access (Space 274), between Space 227 and Space 258 was created. At this time the walls of Space 258 may have been suffering from some structural problems solved by an additional internal wall F.2147 abutting the original south wall of the building to reinforce it. This new wall did not extend all the way along the building and would have originally been c1.60m in length before being truncated on its western side by the foundation cut for Building 41.

The eastern wall of Space 258 was also replaced F.2146, but the new eastern wall was not built directly abutting wall F. 2000. These new walls were in use for a some time before the 3rd phase of building change was carried out because traces of the plaster, which extended round the eastern edge of wall F.2147, could also be seen at the intersection of the wall and the new western wall (built in phase 3).

Phase 3 and 4: In phase 3 the western wall was rebuilt with F.2044 and the northern wall with F.2145. It seems that this did not solve the structural problems for in the last phase Space 258 appears to have been blocked off all together by F.2148 and F.2127. Space 227 probably continued in use though as F.2127 was plastered on its eastern face.

Use of Space 258

Few internal features are visible in Space 258 to indicate its function. Floors were formed from 'dirty' trampled material as is typical for the side rooms. Where the later erosion/cut had removed the room fill or where the fill was not easily defined some neonatal burials were disturbed. These were investigated and proved to be the remains of many infantile skeletons buried under the floors close to the northern and southern walls. The burial F.2020 by the southern wall contained the bones of three neonates. The last one buried (10361) was lying on its left side in a crouched position. The definition of the burial cuts was not clear but it appears that (10361) was interred at the same time as the skeleton underneath (10370) with a third skeleton (10391) buried slightly earlier. By the northern wall two clearly defined burial cuts contained a single neonatal skeleton each. The eastern of these was F.2027 contained skeleton (10366) lying on its front with legs splayed. The western was F.2038 containing skeleton (10390) lying on its back. Underneath these two burials were two further neonates; the upper of these skeletons (10368) had been badly disturbed by rodent activity. This burial may have been placed in the same cut as skeleton (10389) but it is difficult to be sure. Overall, Space 258 contained four neonates buried against the northern wall and three against the southern. As with the thick plastering around the walls in Space 227, the number of neonatal

burials in the side room could be an indication of the length of time that the building remained in use.



Figure 23. Skeleton (10366) in burial F.2027.



Figure 24. Skeletons (10361) and (10370) in burial F.2020.

Building 55 - Lisa Yeomans

Abstract

Building 55 would have been a large building comprising of a main square room, Space 256 with a northern storage room, Space 247. The larger room contained an oval oven abutting the southern wall with surrounding dirty floors contained by a kerb extending from the eastern side of the oven.

The oven would have been a domed structure with an opening on its western side. A large platform extended from the NW corner of the building. In the NE corner another platform was connected to a third platform built against eastern wall. The surface of the eastern platforms was slumping considerably into two hollows suggesting that the platforms had been opened many times for the burial of individuals below. The eastern side of Space 256 also contained two benches; one was a mudbrick construction parallel with the eastern wall, and the other at the southern end of the eastern platforms. A post retrieval pit was located approximately mid-point along the northern wall.

There was no internal entrance between the main room and the storage room to the north. Where approximately one third of the internal area of the room was taken up with three storage bins built against the southern wall but concentrated on the eastern side of the space. Two opposing postholes at the western end of the bins is evidence for a possible partition that defined 'clean'-plastered floor to the west where another type of food or material good was stored.

Özet

Bina 55, kuzeye bakan bir saklama odası (Alan 247) olan kare şeklinde bir ana odanın da (Alan 256) içinde bulunduğu geniş bir binadır. Büyük olan oda, doğu kenarındaki bir kenar taşının içerdiği kirli zeminlerin çevrelediği güney duvarına dayanan oval şekilli bir fırına sahiptir. Bu fırın, batı kısmında bir açıklık olan kubbeli bir yapıdır. Binanın kuzeybatı köşesinden geniş bir platform uzanmaktadır. Kuzeydoğu köşesinde bulunan bir diğer platform doğu duvarına dayalı olarak inşa

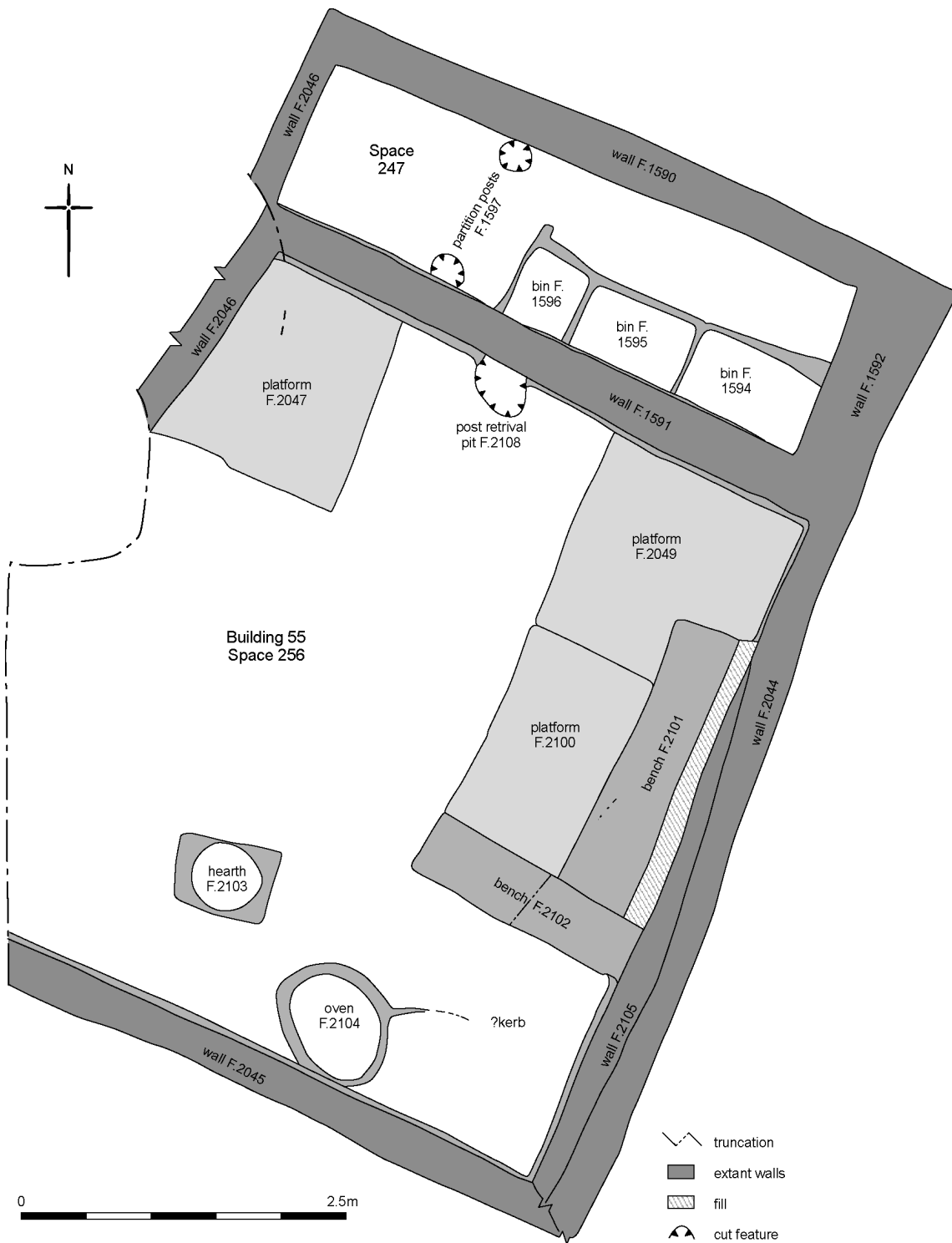


Figure 25. Plan of Building 55.

edilmiş olan üçüncü bir platformla bağlanmıştır. Doğu platformlarının yüzeyleri dikkati çekecek şekilde iki boşluğa yığılmış olduğu için, bu platformların gömü için birçok kez açılmış olduğu düşünülmektedir. Alan 256'nın doğu kenarı, bir tanesi doğu duvarına paralel kerpiçten bir yapı, diğeri ise doğu platformlarının güney bitiminde olan iki adet seki içerir. Kuzey duvarının orta noktasında bir direk çukuru bulunmaktadır.

Ana ve saklama odaları arasında kuzeye açılan hiçbir iç giriş noktası bulunmamaktadır. Odanın hemen hemen 1/3'ü güney duvarına inşa edilmiş olmasına rağmen, alanın doğu kenarında yoğunlaşmış üç adet saklama ambarı vardır. Ambarların batısında bulunan karşılıklı iki direk çukuru, başka yiyecek ve malzemelerin saklandığı, batıya doğru uzanan 'temiz' alçı zeminli odayı ayırıyor olabilir.

Space 256

Despite its large size (c5.46 by c4.72m), the layout of Space 256 (Fig. 25) follows many of the conventions for internal arrangements within Çatalhöyük buildings. An oval oven F.2104, surrounded by dirty floors was attached to the southern wall. The southern wall, however, had been painted at some points during the phases of replastering. A plaster lip extending from the eastern side of the oven is possibly the traces of a kerb to contain the ashy rakeout deposits of the oven. The oven would have been a domed structure with an opening on its western side. Tight along the edge of the oven, where the narrow gap between the oven and the wall could not be easily cleaned, was a cluster of animal bones (12303) probably from the original processing of meat around the dirty floors by the hearth. Close to the oven was a hearth F.2103, this was probably a more temporary installation as the only trace of its presence are burnt floor surfaces.

A large platform F.2047 extended from the NW corner of the building. In the NE corner another platform F.2049 had been abandoned with a basket left on its surface leaving behind the phytolith impressions (12304) of its base (Figure x). A third platform F.2100 had been built against the southern edge of the NE platform. The surface of the platform was slumping considerably into two hollows suggesting that the platforms had been opened many times for the burial of individuals below. The eastern side of Space 256 also contained two benches; F.2101 was a mudbrick construction parallel with the eastern wall. South of this feature and platform F.2102 was a more typical bench, plastered many times with much of the wall plaster lipping around its southern side suggesting that it was an early addition to the room layout.

The roof would have been supported by a large post set into a posthole along the northern wall at approximately the mid-point (F.2108). All of the wall plaster lipped away from the scar left on wall F.1591 indicating that the post had been necessary from the outset. After the extensive clearing out and abandonment of the building, the room started to infill (10395/12301). After this initial infilling the post was dug out and the hole infilled with compact clay deposit.

Space 247

The northern storage room to Building 55 measures c 4.45 by c 1.30m. There was no internal entrance between the main room and the storage room in Building 55 so Space 247 must have had a separate roof entrance. Only the southern wall was thinly plastered perhaps suggesting a purely storage function to the room with no attempts made to aesthetically improve the room. One scapula found just above the floor may have been used as a hand-shovel but in general no finds associated with the use of the space were found.

Much of the internal area of the room (approximately one third) was taken up with three storage bins (F.1594, F.1595, F.1596) built against the southern wall. These were on the eastern side of the space and separated from the western side by a partition (see below). Most of the eastern side was given over to the storage bins with a narrow (c 0.70m) gap where the occupants of the building could have gained access to their stored goods from a 'dirty' floor. All of the bins had been completely cleared out at the abandonment of the building. The evidence for a partition F.1597 is presented by two opposing postholes backfilled with a clay deposit on either side of the room separating

of the western third of the room. This partition may have been in the form of a 'hanging' between the two posts or something a little more substantial, such as a 'screen' wall, but for which there is no further evidence. To the west of the partition the floor was a 'clean'-plastered floor. It seems probable that this part of the room stored another type of food or material good but again no remains were left to indicate what they would have been.



Figure 26. Building 55 looking south.

Subsequent use of Spaces 256 and 247

The room fills of Space 256 (10349/10357/10377/10382/10398) and Space 247 (10326/10323/10321) contained more bone than other infills of buildings. Additional lenses of charcoal were visible in section 05/311 suggesting that the building was infilled relatively slowly allowing bone to be discarded in its fill and ashy waste dumped in formed lenses visible in section. The subsequent use of the space as a midden may be related since there was no hurry to consolidate the ground for the construction of a new building.

Building 57 - Shahina Farid, Lisa Yeomans, Ulrike Krotcheck

Abstract

Heavily truncated by the foundation trench of the Classical structure, Building 57 comprised two rooms a small Space 270 to the north and larger Space 269 to the south. The smaller was possibly used for storage, but only contained a double basin feature and a niche in the eastern wall. No crawl-hole was found between Spaces 269 and 270 although any evidence of such a feature may have been truncated away by the late foundation trench. Although the floor sequence was not excavated, the room does contain a number of infantile burials that were seen in section of the foundation trench.

The larger room was furnished with the usual suite of features, platforms along

the eastern wall with a bench at their southern end. More platforms were located in the northwest quadrant of the room too, but these appear to be set within alcoves created by two short wall buttresses, similar to those in Building 57 but not as cell-like. A unique feature was found in the northwest quadrant of the room, which was a freestanding, plastered, mud-core pillar. It stood c.0.5m high and its basal plaster was continuous with a kerb linking the pillar and platform, creating a partition. A small basin or truncated bin stood in the southwest corner of the building, but built against the centre of the southern wall was perhaps the most attractive feature, an upright, rectangular oven with a semi-circular oven mouth opening on to a relatively large square kerbed hearth. The whole was heavily plastered and above the opening was a shallow mantle or ledge with deeply incised parallel waves creating a decorative feature, very similar to the wavy designs on clay stamp seals.

Özet

Klasik yapının temel açması tarafından kesilmiş olan Bina 57, kuzeye bakan iki odalı küçük Alan 270 ve güneye bakan geniş Alan 269'dan oluşmaktadır. Küçük olan alan büyük ihtimalle saklama için kullanılmış olup çift bir leğen ve doğu duvarı içinde bir niş içerir. Alan 269 ve 270 arasında bir emekleme çukuru bulunmadı. Eğer böyle bir özellik varsa bile geç temel açması tarafından kesilmiş olabilir. Zemin sıralaması kazılmamış olmasına rağmen oda, temel açmasının bir kesiminde görülen bir sıra çocuk mezarı içerir.

Geniş olan oda, doğu duvarı boyunca uzanan platformlar, bunların güney bitiminde bulunan bir seki ve olağan olan özelliklerle döşenmiştir. Odanın kuzeybatısındaki dörtte birlik bir alanda bulunan platformlar, Bina 57'dekilere benzeyen ancak hücre şekilli olmayan iki adet kısa duvar desteği tarafından oluşturulmuş girintilerin içine yerleştirilmiştir. Odanın kuzeybatısındaki dörtte birlik alanda bulunan alçılanmış çamur içli sütun üniktir. Bu sütun c.0.5 m yüksekliktedir ve taban alçılı sütunla platformu birbirine bağlayan bir kenar taşı ile devam ederek bir ayırma özelliği oluşturur. Küçük bir leğen veya kesilmiş bir ambar binanın güneybatı köşesinde bulunurken, güney duvarının merkezine dayalı olarak inşa edilmiş olan dikik, dikdörtgen şekilli, ağız kare kenar taşı olan bir fırına açılan, yarı dairesel bir fırın dikkate değerdir. Fırının tümü alçılanmış olup ağızın hemen üzerindeki sığ çıkıntının üzerinde, kil mühürlerin üzerindeki dalgalı motifleri yansıtan birbirine paralel oyulmuş dalga dizaynı bulunmaktadır.

Building 57 is located to the south of Building 58, abutted / overlain by Building 54 to the east and abutted by midden area, Space 268 from the west. At this stage of the excavation it would appear that Buildings 55, 57 and 58 are contemporary. Heavily truncated by the foundation trench for Building 41, Building 57 is a long linear building with an internal area nearly 7.0m x 3.5m. It comprised two spaces, Space 270 to the north and Space 269 to the south. It appears similar in size and almost a repeat of the internal layout to its neighbouring but later, Building 54 to the east.

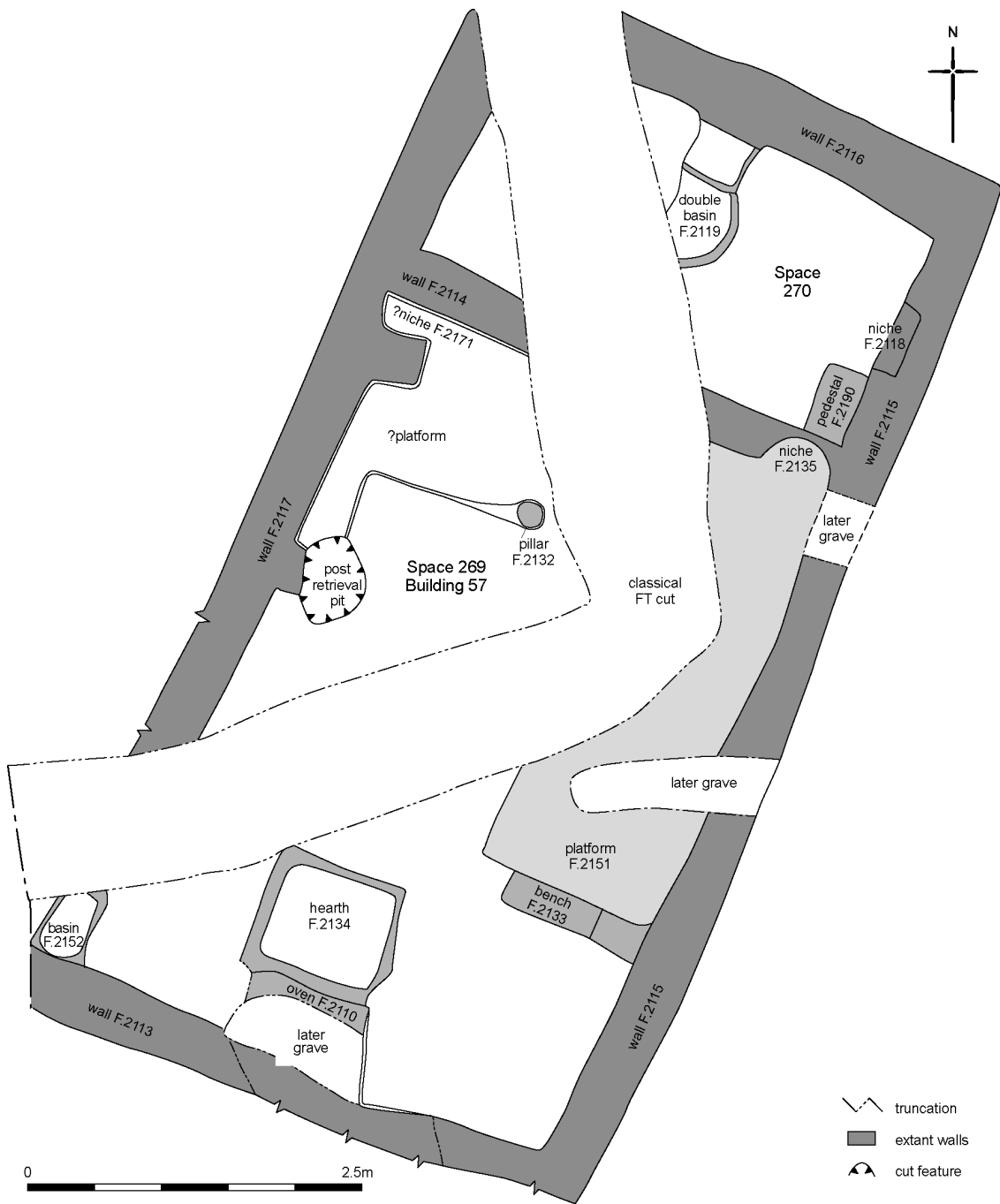


Figure 27. Plan of Building 57.

Space 270 - Lisa Yeomans

Space 270 is a northern side room of Building 57, measuring 3.5m x 1.7m. It extends across the foundation trench of Building 41 therefore much of the northern and southern walls have been lost. The fact that this northern room is partially plastered on the western side may be an indication that it was used for more than just storage. It contained a double basin feature F.2119 extending from the northern wall. Cattle horncores were partially used in the construction of the double basin. In the centre of the eastern wall is niche F.2118, which had been cleaned out at the abandonment of the building.



Figure 28. Space 270 in Building 57. Looking NW.

No crawl-hole was visible between Spaces 269 and 270 although any evidence of such a feature may have been truncated away by Building 41. Although the floor sequence was not excavated, the room does contain a number of infantile burials. The foundation trench was deeper than the floor level in Space 270 and it had disturbed a number of neonatal burials. These were found as the fill of the

foundation trench was removed and in section one of the burial cuts (10331) was clearly visible under the plaster floor. The disturbed bones at the base of the foundation trench were excavated, although the remains that extended into the section were left *in situ*. The burial F.1585 contains the remains of three neonatal skeletons. It is impossible to indicate if the burials all went in at the same time because much of the cut(s) have been truncated away by the foundation trench. The burials were probably individual interments that have become mixed together and then disturbed when the foundation trench was dug.

Space 269 - Shahina Farid & Ulrike Krotcheck

The larger room to the south, Space 269 is just over 5.0m in length. It is from this room that the second form of fireplace-like oven was found this season and is considered a unique type of oven to Çatalhöyük. Constructed centrally positioned against the south wall oven F.2110's rectangular form measures about 1.0m x 0.7m preserved to a height of ca 0.5m. Severely cut by a late infant burial F. 2042 (see above), its fabulous form is still evident. The semi-circular 'mouth' opened on to a relatively large square kerbed hearth, similar construction to oven in Building 58 but because of the hearths positioning directly in front of the oven opening, the whole gave a more convincing fireplace appearance. The similarities to a 'victorian fireplace', as it was coined on site, did not stop with the construction form but was also seen in its decoration. Entirely and heavily plastered, a shallow ledge or 'mantle' was modelled above the oven mouth and further embellished with deeply incised parallel wavy lines creating and not dissimilar to the wavy designs on clay stamp seals (photo and of seal). Large fragments of collapse (12130), partially overlay the oven structure and a large rectangular plaster block with slightly raised

lips around the top perimeter (12131) lay in the vicinity, all of which probably derived from the collapse of the oven superstructure and hint at possibly a more elaborate suite of features at this end of the house. To the west of the oven in the southwest corner of the room is the remains of a small basin F.2152 whilst the southeast corner appeared to contain ash rakeout deposits.



Figure 29. Space 269 in Building 57 looking south. Oven F.2110 against the south wall and pillar F.2132 in the centre of the photograph.

Due to the truncation by the foundation trench for the classical structure, Building 41, it was difficult to articulate the features along the eastern wall. However, the thick plaster floors appear to be a platform F.2151, possibly two, with a bench F.2133 at the southern end, which retained the ash rakeout area to the south of it. At the northern end of the platform, cut into the party wall dividing the two rooms was a plastered semi-circular niche F.2135.

Once again, because of the truncation by the foundation trench the features on the western side of the room were also difficult to define. Two short buttresses were constructed in the west wall, one fairly centrally positioned with a post retrieval pit in front of it and another buttress a mere 0.25m in from the party wall, creating a 1.3m gap or niche between the two F.2171. The floor level within this tiny space (niche?) appeared to be separated by a low plaster ledge or kerb and the infill of this area is recorded as different to the infilling across Space 269, as dark grey silty nature with a high concentration of organic residue. Contained within the 'niche' was a cluster of finds (12129) / (12124) which comprised a flint core, several intact clay balls, a cow mandible, a ground stone tool, one small bead, and various other ground stone tools.

A possible platform F.2150 lies in the northwest corner of the room formed around the northern buttress and the plaster on its southern edge was contiguous with a kerb, which connected to another unique feature in this building, a free-standing circular pillar F.2132. This was constructed with a 'mud' (unstructured clay-silt) core and plaster outer facing. It is 0.2m in diameter and cut down to a height of 0.65m, roughly the same height to

which the building walls were cut. This could likely have formed a screen wall, creating a small space around the northwest platform?

The fills of the building were typical of deliberate closure, infilling and preparation for the construction of the next building. At the top (12114), was fairly sterile of artifacts, but contained large amounts of mudbrick

Open areas to south and north of central cluster of buildings - Shahina Farid

Open areas bound the central cluster of buildings to the north and south. To the south Space 275 is a continuation of Space 226 excavated in 2004, and to the north space 271, a continuation of Spaces 232/240 also excavated in 2004. These 'open' areas were initially presented as streets between discrete blocks of buildings when first exposed through surface scraping in the 4040 area in 2003 (ref 2003 archive). However, upon excavation it was established that these open areas delineated occupation periods as opposed to contemporary building zones or neighbourhoods. Minimal excavation was conducted in these areas, only as far as to articulate the buildings targeted for excavation and to gain enough of a sequence and characterisation of these areas. Dating of these external areas was therefore no further elaborated from 2004.

External Space 275 to the south

On the 2003 scrape plan, Space 226 excavated in 2004 abutted Building 54 to the west and apparently connected through a narrowing to Space 275 excavated to the south of Buildings 54 and 57. Minimal excavation of these deposits was required to release the southern wall of Building 57, which were midden units (12101)-(12108). These included loose, dark midden containing a high concentration of debris. Unit (12101) was a harder, nearly sterile, packed midden, which might have been used as a walking or living surface.

South of this midden area the southern sector of buildings was only investigated in the last few days of excavations in 2005 in order to define further the walls that were exposed through surface scrape in 2003. In doing this a number of late burials were exposed which have been reported on above. No further work was conducted in this area .

External Space 271 to the north - Lisa Yeomans

To the north of the latest cluster of buildings, separated by a double wall, was an external space (Figure x). The fact that a double wall enclosed Buildings 55 and 58 indicates that it probably functioned as an outside space for some time. The space is probably a continuation of Space 232/240 excavated in 2004.

Immediately to the east of Space 247 of Building 55 and its eastern retaining wall F.2131 were two probably Neolithic external hearths. These were close to the surface and had not survived in good condition, most of what was left of the two features was the fire-hardened bases. The southern of the two, (12315) was slightly larger measuring 1.00x0.9m and had the remains of two consecutive bases lying above one another. The northern hearth (12316) was smaller (0.8 x 0.7m) and perhaps not in use for as long as there was no evidence that it had been repaired with a new base. The function of the hearths is not clear and although the burnt bases were prioritised for analysis, this also failed to provide any evidence for their function. Nevertheless, the hearths are interesting as they demonstrate that it was probably fairly common to heat food/materials outside the buildings.

The two hearths were built upon a layer of building collapse/erosion (12318) that had accumulated between the buildings. This layer was only partially excavated on the eastern side, the western side of the layer extended across to the west where it appears to have been cut by (10387) indicating that the midden was later what?

Northern sector buildings

Up to four structures are represented in this northern sector of buildings of which Building 51 represents the latest followed by Building 52 and then structures to the west called Space 90. The construction sequence is based on the stratigraphic relationship of the buildings exposed but no dating was possible because of the paucity of finds. A tentative date of Levels VI – VII is based on the meagre dates retrieved from last years excavations.

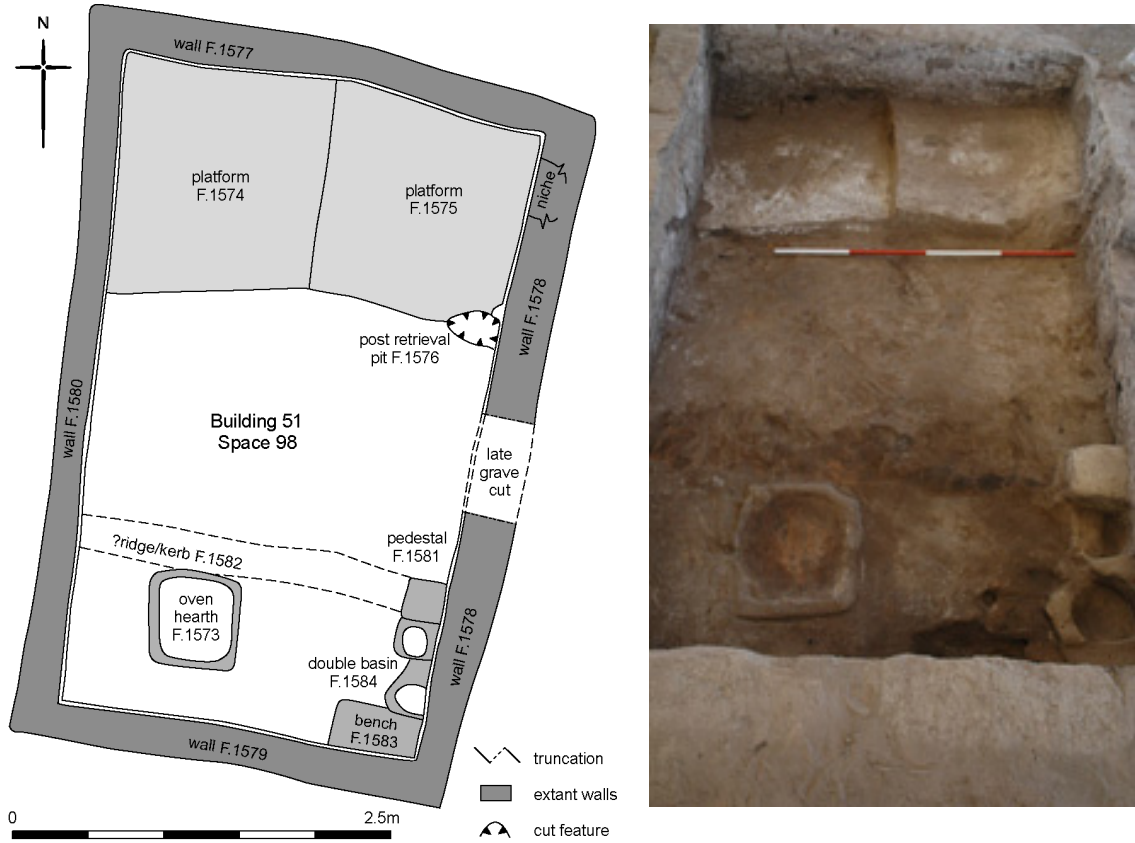


Figure 30. Building 51 in plan and photograph.

Building 51 - Lisa Yeomans

Abstract

Building 51 comprised a single small room Space 98. Two stepped platforms lay against the north wall with a niche cut into the east wall leading on to the NE platform and a post pit at the southern end of it. Phytolith traces of a woven mat were also clearly preserved on the surface of the NE platform. The southern area of the building functioned as the food production area with a hearth surrounded by a raised boundary. There was no oven but the hearth was set relatively close to the southern wall in the position where ovens are frequently positioned and is the likely location of the entrance ladder. Positioned in the southeastern corner were a bench, a pedestal, and a double basin.

The most important piece of information about this structure is that it appears to have been built as a replacement for Building 52, which was destroyed by fire. Building 51 was constructed within the walls of a cleared out area of the burnt building in the northeast corner. A debate within the team analyses whether the fire was deliberate or accidental.

Özet

Bina 51, küçük bir oda olan Alan 98'i içerir. İki basamaklı platformlar kuzey

duvarına, kuzeydoğu platformuna doğru uzanan doğu duvarı içine kesilmiş bir niş ile güney bitimindeki bir direk çukuruna dayanmaktadır. Örülmüş bir hasırın fitolit kalıntıları kuzeydoğu platformunun yüzeyinde çok iyi bir şekilde korunmuştur. Binanın güney alanı, yükseltilmiş sınırlı bir fırını olan bir yiyecek üretim alanı olarak kullanılmıştır. Fırının olmamasına rağmen ocak, güney duvarına yerleştirilmiş olup, fırınların genel olarak yerleştirildiği ve giriş merdiveninin yerinde bulunan bir noktadadır. Ayrıca güneydoğu köşede bir seki, kaide ve çift bir leğen bulunmaktadır.

Bu binayla ilgili en önemli bilgi, yanmış olan Bina 52'nin yerine yapılmış olmasıdır. Bina 51, yanmış binanın temizlenmiş bir alanının duvarları içinde, kuzeydoğu köşesinde inşa edilmiştir. Yangının kaza mı veya özellikle mi çıkartılmış olduğuna dair tartışma hala devam etmektedir.

Building 51 comprised of a small room (Space 98) that was originally seen in plan during the surface scrape of 1993. The building was self-contained within one room (Figure x) constructed within the northeastern area of Building 52. After a fire destroyed Building 52 (see below), Building 51 was erected above the fire-damaged floors. This is clear because none of the walls to Building 51 were damaged in the fire despite abutting the severely fire damaged internal walls of Building 52 and the burnt floors of Building 52 extended under the wall of Building 51. The extent to which the northeastern part of Building 52 was cleared to make way for the new building is uncertain until Building 51 is fully excavated but it seems that some of the burnt brick material was partly shovelled into Space 254 which contained a concentration of burnt material in the fill at its northeastern end.

As yet there is no definite indication of how much time had elapsed after the destruction of Building 52 before Building 51 constructed but it was probably relatively short. Perhaps one reason for the construction of such a small building (4.3 x 2.7m) could be that after the fire a new building was needed quickly or that, for whatever reason, only a smaller building was required. However, it should also be mentioned that Building 49 to the east of Building 51 was also a small structure and the two appear to have been roughly contemporary. This could indicate a new practice of constructing smaller buildings although more buildings will have to be excavated to explain why these buildings were so small.

Despite the small size of Building 51 it was probably occupied for a moderate length of time allowing some 1-2cm of plaster to build up on the walls internal surface. A post was positioned along the eastern wall at the southern end of the NE platform. This may either been for structural support or allowing access into the building.

Other features of the internal arrangement of Building 51 are a NW platform (F.1574) stepping up to a NE platform (F.1575). A small semicircular niche was also located cut into the northern end of the east wall opening onto the NE platform. The NE platform had been covered in a clearly woven mat left at the abandonment of the building leaving an obvious phytolith impression on the plaster surface (10319). This weave of the matting ran diagonally across the platform covering much of its surface (Fig 31).

The southern area of the building functioned as the food production area of the building with a hearth F.1573, surrounded by a raised boundary. There was no oven but the hearth was set relatively close to the southern wall in the position where ovens are frequently positioned and is the likely location of the entrance ladder. As with the matting on the NE platform, the hearth was not completely cleaned out at the abandonment of the building. Above the hearth was a charcoal rich, ashy deposit (10317) from its last burning. A number of other features abutted the wall in the southeastern corner were a bench F.1583, a pedestal, F.1581 and a double basin F.1584.

The floor in the middle of the building was approximately 0.1m lower than the NW platform and had not been plastered. However, there does not appear to have been an extensive built up of 'dirty' floor layers because at the same level as the base of the hearth, traces of the underlying building (Building 52) started to become visible.

Initially F.1582 was interpreted as a destroyed partition wall but it now seems that this may be the trace of an

underlying wall. At floor level in Building 51, the western part of wall F.1582 appeared to be robbed out and the eastern side showed signs of burning. This scar of a wall showing in Building 51 is therefore probably an internal wall in Building 52 (with plaster on the southern side) that was partially burnt in the fire and dug out before the construction of Building 51. After the abandonment of Building 51 it was infilled with a sterile deposit [unit]



Figure 31. Woven mat impression (10319) on NE platform F.1575 had been covered in a clearly woven mat left at the abandonment of the building leaving an obvious phytolith impression on the plaster surface (10319). This weave of the matting ran diagonally across the platform covering much of its surface.

Building 52 - *Doru Bogdan*

Abstract

Building 52 is a burnt building and the question of whether the fire was deliberate or accidental is still under debate amongst the team members. The complete plan of the building is obscured by the location of Building 51 which is constructed within the walls of Building 52, but the plan exposed appears to consist at least six rooms. The two western rooms, Spaces 91 and 92 were probably a later addition. To the south the stratigraphic relationship of two small rooms, Spaces 254 and 255 has yet to be investigated. Space 93 to the north was a storage room with four bins arranged against the north and east walls. Large quantities of carbonized cereals, almonds and cruciferae seeds were found in the bins. There were also a number of groundstone artefacts and faunal remains found across the floor and within the burnt debris filling the space, which indicates that the space may have been used for house-hold production of food and implements.

The revealed part of the central room (the western half), Space 94, was occupied by two raised platforms with a centrally positioned E-W bench. The bench had three right sided cattle horn-cores fixed in a row on the northern side of it, adjacent to a cattle skull with horns installation set within a niche in the western wall, and facing into the room.

Özet

Bina 52 yanmış bir binadır ve bu yangının kaza mı veya özellikle mi çıkartılmış olduğuna dair tartışma hala devam etmektedir. Binanın tamamlanmış planı, Bina 52'nin duvarları içinde inşa edilmiş olan Bina 51'nin yeri tarafından kapatılmaktadır. Ancak ortaya çıkmış olan plan en az 6 oda içerir: İki batı odası, Alan 91 ve 92 büyük ihtimalle daha sonradan eklendi. Güneye doğru, iki küçük oda olan Alan 254 ve 255'in stratigrafik ilişkileri hala çalışılmaktadır. Doğuya bakan bir saklama odası olan Alan 93 kuzey ve doğu duvarlarına dayalı olarak düzenlenmiş olan 4 adet ambar içerir. Bu ambarlarda çok sayıda karbonlaşmış tahıl, badem ve turpgiller tohumu bulunmuştur. Ayrıca zemin boyunca ve alanı dolduran yanmış birikinti içinde bulunan bir çok öğütme taşı buluntusu ve zooarkeoloji kalıntıları, bu alanın yiyecek ve alet üretimi için kullanıldığını gösterir.

Merkezi odanın açılmış olan kısmı (batı yarısı) olan Alan 94, iki yükselteli platform ve merkeze yerleştirilmiş doğu-batı pozisyonlu bir sekiye sahiptir. Sekinin kuzey tarafına, sağ taraflı üç adet sığır boynuzu sırayla yerleştirilirken, bunların hemen yanındaki batı duvarı içindeki bir nişe yerleştirilmiş olan boynuzlu bir sığır kafatası odanın için doğru bakmaktadır.

Introduction

Building 52 postdates two structures defined to its west. As was discovered by the end of the season, this building was not fully defined being obscured by the later building, Building 51 which was constructed inside it to the east. The layout of the building in the last phase of occupation appears to have been divided into at least six rooms, of which the two western ones (Spaces 91 and 92) were probably a later addition. The floor horizon inside these very narrow rooms was higher than in the others and due to their proximity to the surface, very few of the internal features survived erosion. The central rooms of the house communicated with these through a crawl-hole.

Space 93 to the north was a storage space with four bins arranged against the north and east walls. Large quantities of carbonized cereals, almonds and *cruciferae* seeds were found in the bins. There were also a number of

groundstone artefacts and faunal remains found across the floor and within the burnt debris filling the space which indicates that the space may have been used for house-hold production of food and implements.

An L-shaped central space 94 was the largest of the six rooms. The western half was occupied by two raised platforms with an E-W bench between them. The bench was positioned along the northern side of the southwestern platform in which three right sided ? horn-cores were fixed in a row on its northern side adjacent to a cattle skull and horns facing east into the room which was set in a niche cut into the western wall above the northwest platform.

At this preliminary stage of excavation and field analyses the evidence suggests that the destruction of Building 52 was caused by an accidental fire. The question of deliberate closure through fire remains open to debate and further analyses. After the collapse of the roof and walls inside the rooms, the eastern half of the house was emptied and Building 51 was built on the floors of Building 52. On top of the wall collapse, a cluster of horn-cores and bull skull fragments, probably collected from the demolished debris, was placed directly above the cattle skull emplacement.

Building 52. Survival and Form

The internal configuration of the building is incomplete due to the placing of Building 51 in the northeastern corner. The 6m E-W dimension of the building is fairly certain, which incorporates Building 51 within the footprint of Building 52. The length of the building of over 8m N-S is debatable however, dependent on whether the southern most rooms, Space 254 and 255 are taken as part of this building.

As is evident to date and upon which this report is based, the internal configuration is a large central space 94, which houses platforms, a bench with horncores and cattle skull emplacement. To the north of it lies Space 93 that houses storage bins. To the west lie narrow rooms, Space 91 to the north and Space 92 with a communication passage between Spaces 91 and 93 (via access F.2186) as well as a possible passage between Spaces 91 and 92. The idea that the four spaces are part of the same house is sustained by the fact that the western rooms are separated from Space 94 by a single, common wall. Nevertheless, these two western smaller rooms appear to be a later addition to the building as the floor horizon is a lot higher and the fact that access F.2186 was blocked up to that height, but continued to function. The blocking of the passage also shows that the two new rooms replaced earlier ones as became apparent with the partial removal of the floors of Space 91. The two southern rooms proposed to be part of this building, Spaces 254 and 255 lie south of Space 94 and Building 51. Whilst an access hole exists between Spaces 94 and 254, the walls to the small eastern room Space 255 to the east, forms a double internal wall and an unusual overall plan, and therefore unclear until further excavation (Fig. 52).

Space 254

Space 254 formed an L-shaped, southern room to Building 52 infilled with (10312). In the northwestern corner of the room fill was a neonatal burial F.1588. The burial cut was difficult to define and this skeleton (10333) was either remains of a Neolithic burial put within the room fill or cut down from a now eroded building.

A cluster of obsidian points (10342) was deposited within the room fill in the southeastern corner of Space 254. Based on the typology of these points, they suggest a date equivalent to Level VI (Carter pers. comm.). Also within the fill was a large, unfinished ground stone axe (10312.x1). Overall there is a lack of diagnostic finds to compare to the typology of the pottery and obsidian sequence from the South Area but the few that there were would not be inconsistent with this approximate date. At approximately this level of the infilling a small circular cut (10344) filled with a dark grey sandy silt (10343) was dug into the room fill. The purpose of the cut is not clear, perhaps it was a temporary posthole.

As the floor horizon was approached a platform (F.2009) was identified to the northwest with wall F.2013 to its east. No corresponding floors were found but the deposit exposed was fire affected. It became apparent that this space 254 communicated with Space 94 through an access hole F.2181. The passage was cut into wall F.2012 and it was made evident by the existence of remains of a post and a stone placed in the gap, as well as plaster on

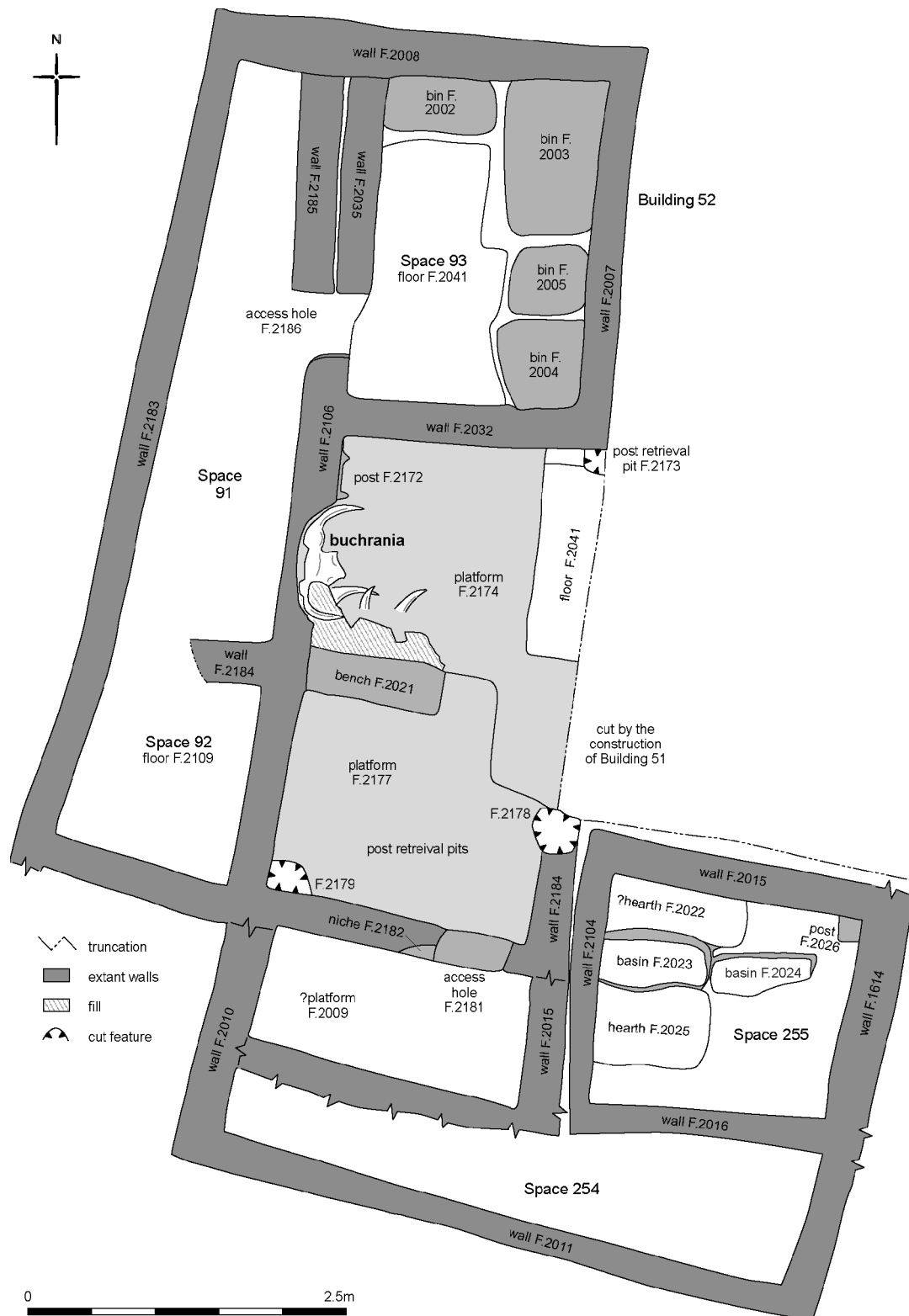


Figure 32. Plan Building 52.

the sides. The platform (F.2009) was therefore built against wall F.2012, above which, niche F.2182 was cut half way into the wall from Space 254. This was plastered with multiple layers of fine white clay, but it seems to have become disused when access hole F.2181 was cut.

At this stage it is unclear as to whether the southern side of Space 254 was marked by wall F.2011 or if the remains of a wall underneath fill (10312) (see plan) and immediately to the south of platform F.2009 formed the original southern wall to the space with F.2011 added as an additional retaining wall to the external area Space 271.

Space 255

Further excavation in the northeastern area revealed Space 255. This is a small, square side room probably used for food preparation since it was furnished with a number of basins and a hearth (Fig. 32). The relation of this space to other rooms remains unclear but it is possible that it forms part of Building 52, as the walls are heavily burnt and the floor horizon corresponds to the floor horizon of Space 94. This would therefore make the sequence as recorded in Space 254 as raised platforms or later.

Rooms to the west

The western part of Building 52 consisted of two small rooms, the access into which was made from Space 93 via access-hole F.2186. As shown above, this passage had at least two phases of use, in the early stages of its existence making the connection between Space 93 and a potential western room other than Space 91, which overlays it now. This early room of Building 52 must have had its floor roughly at the same level with that in Space 93 as the sides of the access-hole F.2186 are plastered all the way to that level. It appears that at some stage the passage was blocked with the same material that raised the horizon in the newly added rooms Spaces 91 and 92. This material was placed directly against the wall plaster of the crawl-hole, creating a step, but still making the access possible from the main rooms of the house to the narrow ones to the west. The clay of this step/blockage was highly burnt indicating that it was in situ during the fire that destroyed the house. The argument for this change in form of Building 52 is sustained by the existence of traces of two walls showing through the floors of Spaces 91 and 92, one of them parallel with F.2183, western limit of these rooms.

Space 91

Space 91 is a long narrow room with internal measurements of max. 1m E-W and 4.48m N-S. It was separated from Space 94 by a single common wall F.2106, but between space 91 and Space 93, north of the crawl-hole, two short parallel walls were built. This might have been done for stability reasons, but it is also possible that wall F.2185 was added only when Space 91 was created. The west wall of the room is not parallel to the east one, running at a slight angle with the rest of the house and as a result the southern end of Space 91 is wider. No traces of wall plaster was visible probably due to their proximity to the surface of the mound and they seemed to have been severely affected by the fire as well.

The floors of Space 91 (10306) sustained severe damage from the fire as well as from erosion. The floor horizon within this room was indicated by the presence of thirteen ground stone artefacts all on the same horizon. These were probably on the floor at the moment of the fire, most of them presenting signs of exposure to high temperatures. The floors themselves were burnt and turned into a highly friable layer of fine ashy clay, which was very difficult to maintain during excavation, and as a result earlier features were exposed out of stratigraphic sequence.

A burial F.2006 was found under the floors at the northern end of the space. It was impossible to establish where the grave was cut from. The infant skeleton (11913) was very disturbed in a sub-circular pit, facing down in a flexed position.

Space 92

The southwestern space of Building 52 is a very small square room measuring only 1.4x1.4m. It is separated from Space 94 by a party wall F.2106. Spaces 91 and 92 are divided by a short wall F.2184, with a gap, probably an access point at its western end.

The floor (F.2109) of this small square room was affected by the fire just like all the other features within Building 52, but the intensity of the burning might not have been as high as in Space 91 and therefore the floor plaster layers were preserved. The presence of these white plaster floors within Space 92 is very important as they clearly cover the entire room and contiguous to the wall plasters too. It can therefore be proven that the Spaces 92 and 94 were in use contemporarily at least at some later stage of the building and therefore both Spaces 91 and 92 were rooms of Building 52.

The function of these two small rooms is not very clear, but the presence of the group of grindstones found in Space 91 and its direct connection with Space 93 which was clearly a food storage and processing room, might recommend this northwestern space as similar or related activities. A cluster of sheep bones (10291) were found on the floor of Space 92 some of which may have been articulated which might bear some relation to the cluster of sheep bones (11965), found in Space 93.

Space 93

This northern room of Building 52 was initially believed to have occupied the northeastern corner of the house until it became obvious that Building 51 was built within Building 52. The walls were all plastered on the inner face with multiple layers of fine whitish plaster, showing that the house was occupied over an extensive period of time. The north wall (F.2008), most likely an outer wall is the widest at 0.5m, as opposed to the east and west walls (F.2007 and F.2035) which are only 0.35m thick. It is true that F.2035 is doubled by parallel wall F.2183 to the west, but this was most likely a later addition. These three walls as well as the partition wall F.2032 that separates Spaces 93 and 94 were all built in the same time since they clearly interlock structurally and the plaster layers are all continuous.



Figure 33. Space 93 and bins F.2002, F.2003, F.2004, F.2005 fully excavated.

F.2032, the wall that divides the central area of Building 52 into rooms Spaces 93 and 94, is a 0.35m wide wall, very similar to the other internal walls of Building 52 in terms of dimensions, but different in terms of construction technique. Only the eastern end survived up to a height of almost 1m while the western half was either collapsed or the gap was a passage way but there is no clear evidence as yet, that the two spaces were inter accessible. The western section of the partition wall was preserved up to 0.15m high with a relatively even surface to suggest that the wall was only ever built up to that level. Furthermore, evidence for an access point in wall F.2032 is represented by (11967), a solid wedge of clay, which may have been the collapsed superstructure of the opening.

The lower courses of wall F.2032 comprised mudbricks, plastered on both sides with multiple white plaster layers, and perhaps the upper wall was of another construction material. Ironically, the fire that destroyed Building 52 preserved large fragments of the upper parts of walls, which are generally not seen at Çatalhöyük. This was mainly the case in wall F.2032, which was exposed to fire from both sides while Spaces 93 and 94 probably burnt simultaneously. Within the room fill (10285) of Space 93 and (10286) of Space 94 large clay bricks plastered on both faces were found. It is very possible that these were actually the upper part of wall F.2032, which may have

got thinner towards the roof of the house as it was still plastered with the same number of layers on both sides as the lower part of the wall. The burnt clay bricks also preserved numerous wood imprints suggesting the use of a timber frame and possibly of wattle in the construction of at least part of the building but most likely represents roof debris. There was clear evidence that the wall had posts at both ends, preserved only as carbonized timber voids in the clay at the western end, probably on the side of a crawl-hole, but with the plaster layers still going around the burnt post at the eastern end.

Space 93 is a medium size room with internal measurements of 2m E-W and 2.5m N-S but the floor and therefore working surface was reduced by the presence of the storage bins along two of the walls. Floor F.2041 was an even surface made of clay sloping slightly eastwards. The original colour of the floor is unknown since it turned dark brown as a result of burning. The floor was in a very poor state of preservation having been riddled by rodent activity. But the objects found on the floor appear not to have been disturbed and preserve evidence of the last activities taken place before the fire and represent an accurate window into the daily activities that took place in that room.

At the northern end of the room a quantity of stones (11978) were deliberately placed on the floor firmly packed against the outer walls of the storage bins and partially covered by a large flat stone, which also rested on the floor. The intention of this layer of stones remains to be analysed but they were severely affected by the fire, which caused a lot of them to fracture into small pieces.



Figure 34. Artefacts (11978) on floor in Space 93. 'Wattle' basket (?) F.2040 with contents in vicinity of bin F.2004.

F.2040 was believed to be a wattle basket when first exposed, which seems to have been some sort of enclosure made with branches within which a collection of objects was stored. The feature is located directly on the floor F.2041, in the southeastern corner made by the partition wall F.2032 and the outer wall of the bin F.2004. The content of the feature was very diverse, including two fragments of an obsidian blade, some stones and a large quantity of animal bones and antlers. Some of the five antlers and the two ribs presented signs of working and the presence of twenty seven *metapodia* of sheep and goat can only be interpreted as a deposit of raw material for the production of bone objects. These long bones were taken from at least eleven different

young animals, which show an unusual availability of resources that so many individuals were killed before reaching maturity. Also within the wooden enclosure was a relatively large quantity of carbonized food remains (barley, peas and almonds), which could indicate that the feature was used for food storage as well, or, it is also possible that these could have been displaced from the surrounding storage bins by borrowing rodents?

The notion that the sheep/goat bones found within F.2040 were stored prior to their transformation into bone tools is complemented by the presence of a large quantity of stones on the floor around the feature. Some of these stones, specially a large flat stone 10304.x15, showed clear markings made by hard objects, sustaining the hypothesis that the bone objects were produced inside Space 93. Other items found on the floor along with the stone assemblage were clay balls a worked antler and one obsidian blade. This layer on the floor of Space 93 contained a lot of burnt material and ash, but this was probably produced in the early stages of the fire that destroyed the house. Associated with this initial fire debris were three pockets of cereal grains and *cruciferae* seeds found amongst the stones on

the floor. These concentrations could be the remains of fallen bags of foodstuffs that hung from the rafters of the roof when the fire started.

Also on top of the thin layer of ash and stones on floor F.2041, next to the partition wall F.2032, were fragments of a very damaged cattle skull and one horn (11944). These may have been in this location before the fire started inside the room. It is also possible that the skull and the horn were somehow attached to the wall and fell on the floor in the early stages of the fire.

Over the western end of the partition wall between Spaces 93 and 94 was a large solid fragment of layered clay and plaster with some wooden structure within it (11967). It formed a rectangular slab with rounded corners and was possibly the remains of a collapsed shelf that had been attached higher up one of the walls. One surface, perhaps the upper, had a raised edge. It may have been fixed one side into the wall while the other side was either supported by timber uprights set on the floor, or it was hung down from the ceiling with rope.

The artefacts found on the floor of Space 93 give a good insight into the function of this room. It is very probable that the room was used for storage and production of raw material into bone, stone and maybe wood objects, as well as being used for food storage indicated by the location of the four bins and their content aligned along the walls. The bins appear to have been constructed piecemeal over time as the bin walls were constructed against several layers of plaster that already existed on the walls of the room, but the sequence of bin construction will only be clarified on complete excavation, for now it is apparent that all the bins have common walls but as has been illustrated elsewhere on the site, storage bins are agglutinated over time.

Storage bins

F.2002 is the rectangular bin built in the northwestern corner of the room, against walls F.2008 and F.2035. This bin was the smallest, measuring 0.85m E-W, 0.38m N-S and 0.28m in depth. It must have been full when the architecture around it collapsed that gave it the necessary stability for its thin walls to stay intact as is seen by the survival of its eastern wall which formed the western wall of bin F.2003, as this survived only for the length of bin F.2002, which indicates that probably the northeastern bin was empty and the wall was destroyed by the roof and walls collapse. The sides of the bin were covered with patchy fine white plaster on the walls of the room and on the thin outer bin walls. On the bottom of the bin were a number of obsidian blades together with a bone tool over which were dense deposits of wheat grains, barley seeds and almonds with minimal fragments of burnt building material, probably fallen inside during the fire. The seed remains were perfectly preserved through being carbonised by high temperatures of the fire. They were however, found in small concentrations maybe caused by collapsed building material, but storage in some sort of bags is not to be excluded.



Figure 35. Artefacts (10292) in bin F.2003 included a large antler tool, a stone grinder, an obsidian blade and two bones - a cow tibia and a sheep horn.

F.2003 is the largest of the four bins, placed in the northeastern corner of the space. Its internal dimensions are 0.68m E-W, 1.16m N-S and it was preserved for a depth of 0.35m. It was probably almost empty at the time of the fire, which caused the collapse of its west wall. The southern wall of the bin survived intact, probably due to the fact that bin F.2005, to its south, was packed, which gave support to this common wall. Both the internal and external sides of the bin were rendered in several layers of white plaster (11922). The upper fill excavated from within bin F.2003 was collapsed architectural debris. In situ at the base of the bin was a large antler tool, a stone grinder, an obsidian blade and two bones - a cow tibia and a sheep horn. The contents suggest that the bin was used for

storage of raw materials prior to tool manufacturing.

F.2004 is a rectangular bin with rounded corners built against walls F.2007 and F.2032, in the southeastern corner of Space 93. It is a medium size bin measuring 0.56m E-W, 0.72m N-S and its outer wall (11954) was only preserved up to a height of 0.38m. This was clearly broken by the collapse of burnt building material on top of it, suggesting that the bin was just half full when Building 52 was destroyed. The interior and exterior of the bin were plastered with multiple layers of fine white clay that turned reddish orange and black through the exposure to high temperatures. Bin F.2004 seems to have been the most affected by the fire from the four bins, suggesting that the burning was more intense at the southern end of Space 93.

Similar to the half empty bin F.2003, the upper layer excavated from F.2004 seems to have been formed in the moment of disuse of the feature, rather than being placed there intentionally. In other words, fill (11904) is the result of collapsed architectural features around the bin. Traces of wheat and other cereals within this fill, mainly comprised of burnt building material are probably the result of collapse and subsequent dislodging during the fire. Two items found on top of the fill, a very heavy piece of stalactite and a calcined bore skull, are most likely fallen into the bin from somewhere above. The fact that they were found on top of burnt clay mixed with ash and

charcoal strongly suggest that they were not inside the bin when the walls around started to collapse, but they fell in during that process. The bore skull was severely affected by the fire and that sustains the hypothesis that it was somewhere outside the bin at least in the first moments of the burning of Building 52.



Figure 36. Basal deposit within bin F.2004 comprised Sheep and goat tibias and horns were placed next to a pig mandible, a cow hoof and some antlers.

The lower fills represent the primary inventory of the bin in the last phase of its existence. It comprised an interesting combination of bone, worked bone and food remains all placed on the bottom and against the sides of the bin. A large quantity of peas (11911) was found concentrated in a pocket, and some *cruciferae* seeds were inside the bin as well. It seems that the bin was used for primary food storage as most of the remains were un-processed. There was also evidence that it was infested with mice, whether this was a normal occurrence or where the rodents scurried at the time of the fire is unknown but there were the remains of burnt mice inside the bin.

A large number of bones were also stored inside the bin, some of them burnt entirely or just partially. Sheep and goat tibias and horns were placed next to a pig mandible, a cow hoof and some antlers. This

collection comprised unworked bone as well as four polished and pointed cattle ribs that were found stuck against the sides of the bin. Other objects of interest included a piece of obsidian, which is argued to represent a significant 'abandonment' object and therefore evidence for the building to have been deliberately burnt as opposed to accidental by the lithics specialist. This will be further discussed below.



Figure 37. Bin F.2005 with (left) *in situ cruciferae* seeds (11956) and excavated right.

F.2005 is the square bin with rounded corners placed against the eastern wall of Space 93 between bins F.2003 and F.2004. Internally it measures 0.55 x 0.55m and its walls were preserved up to a height of 0.5m from the floor level despite the fact that they were very thin and fragile. The survival of the bin was only possible due to the fact that it was full at the time when the house burnt down. A thick layer of clay (11936) was packed in the upper part of the bin, against the internal wall plaster. Several plaster applications indicates that this bin was in use for quite a long time. This upper clay fill sealed fills (11956) and (11958). The primary bin fill therefore was clay (11958) but which was only packed, or constructed in the eastern half of the bin. It created an internal ledge with very neat and vertical side and surface and possibly served a purpose of reducing the storage capacity of the bin or, represents an attempt at controlling mice infestation by creating a thick barrier which mice would not be able to penetrate. The remaining space of the bin contained more than 40 literes of *cruciferae* seeds (11956). This deposit was of clean seeds, sealed from possible rodent infestation by clay fill (11958) and clay ‘lid’? (11936) may represent a storage practice or a processing method.

Space 94

Only the western part of this large central room of Building 52 was exposed during the 2005 excavation season, the rest of it being overlaid by the later Building 51, which was constructed “inside” Space 94 (Fig. 32). The special characteristics of the installations within this room as well as its dimensions strongly suggest it as the main area of the house. It measures 3.5m N-S and 2m E-W up to the west wall of Building 51 but probably extends to 4.5m to the eastern side of the later building. This central room communicated with the southern room (Space 254) via accesshole F.2181 (see Space 254) and it was very likely that a gap in the wall F.2032 made possible the passage from Space 94 into Space 93 (see F.2032). Along the western wall were two platforms, F.2177 to the south, F.2174 to the north and with a central bench F.2021.



Figure 38. Bench F.2021 in Space 94 with horns set in northern side.

The slightly narrower platform F.2177 is 1.8m square and stands 0.3m higher than the platform to the north of it. This height difference is unusually high. The platform was covered by multiple layers of fine plaster (10300) which all turned dark brown-black because of exposure to very high temperatures. It seems that at least in the last moments before the house burnt down, this southern platform was a clean area. An obsidian piece (10299.x 4),

and three ground stone one of which was a large flat quern-stone 10299.x1 were found on top of the platform. This large stone protected the area underneath from the fire and when lifted phytolith impressions of platform matting were revealed (10300.s1).

F.2021 is an E-W bench along the northern edge of platform F.2177. This is a 1.05m long and 0.4m wide structure built with clay and covered with white plaster. The bench was repeatedly plastered the thin layers of fine clay (11902) reaching a depth of at least 60mm. These plaster layers were continuous along wall F.2106 and the bench. When exposed F.2021 was no longer *in situ*, but broken and slipped towards north. This probably happened because of the intense burning that turned red the clay within the bench, causing it to crack and dislodge. It is also possible that the bench was partially destroyed by the collapse of the roof and surrounding walls. Despite the slippage of the northern edge of the bench, three large horn-cores were preserved with their lower ends still



Figure 40. F.2175 is the bull head with horns set into a niche in the western wall to the north of bench F.2021.

fixed in the bench construction and partially plastered contiguous with the bench. All three were the left horns of large animals. There was no evidence for symmetrically opposed horn-cores set on the other side of the bench, either they were completely destroyed in the fire or symmetry was not a necessity. The horns had large parts of the skull still attached imbedded deep into the structure of the bench, which is an argument against the presence of three horns on the right side of the bench, which showed no signs of supporting such large fragments of bone and horn.



Figure 39. One of the objects, a stone mortar 11928.x2 on floor of platform F.2174.

Initially the northwestern platform F.2174 was believed to be the floor of the room until the edge was defined and floors F.2176 were exposed in the small slot to the east and up to the wall of Building 51. The room fill above this floor was obviously affected by the construction of Building 51, being more fragmentary than that in other parts of this space. A thin layer of burnt room fill was preserved on floor F.2176 which can be traced under the wall of the later building. The floors consisted of more than one layer of plaster, slightly thicker than those on the walls and sides of the bench. The fine clay that made the floors was probably white originally but it turned red and very friable because of exposure to very high temperatures. It seems that the highest intensity of the fire was concentrated on the floor F.2176 and on the eastern half of the adjacent platform F.2174. Future excavation under Building 51 might indicate the exact point where the fire was initiated and what caused it.

F.2174 is the northwestern platform of Space 94, approximately 0.15m higher than floor F.2176 and 0.3m lower than the abutting southern platform F.2177. The 1.6m square platform was built against walls F.2032 to the north and F.2106 to the west, and the plaster render (11934) was contiguous with the wall plasters. The surface of platform F.2174

appears to have been discriminately exposed to fire with only the northeastern half of it rubified and friable, while the other half was less fire exposed and similar to the heat exposure to the rest of the building and surfaces. This differential burning pattern probably occurred because of the initial collapse of an architectural structure (11937) that protected the southwestern corner of the platform from the fire. This part of the house seems to have been quite clean, the large quantity of charcoal retrieved from the floor probably being formed in the moments of initial destruction. There were three objects on the surface (11928) of F.2174 in these last moments, a very fine stone bowl and a grinder were found one next to the other, not far from a third stone tool (Fig. 39). All these items were severely affected by the fire, which caused the bowl to crack into many fragments.

F.2175 is the bull head with horns set into a niche in the western wall to the north of bench F.2021 (Fig. 40). This emplacement was set approximately 0.2m above the platform (F.2174) surface. The state of preservation of the feature was relatively good, despite the obvious exposure to the fire. It was not uniformly heat affected it and so the tips of both horns were calcined and white, while the bases of both the right and left horn-cores appear to have been subjected to a mixture of high and low temperatures, being grey and white, calcined as well as carbonated. The frontal of the cranium was fire blackened.

The skull and horns were set in a low bench in a semicircular niche cut into wall F.2106, it was therefore clearly not freestanding and only horns and snout protruded. It appears that the nasal area was transformed by sectioning the snout, prior to the installation of the feature into the wall. The tip of the snout was very close to the floor, almost making contact with it. The fact that the skull was fixed into the wall with plaster layers up against it and behind the eye sockets, provided great stability to the entire feature, and therefore it survived *in situ* despite the collapse of walls and roof. It must be noted that the skull and horns were not plastered in this case unlike many bucrania excavated in the 1960s. A few centimeters north of the niche that accommodated the bull's head were found a pair of goat horns, placed on the floor and against the wall.

Within the burnt debris above the installation F.2175, a large number of horns was found together with another very fragmentary bull skull but none of these appeared to have been in their original location, being placed on top of the room fill (10286) (Fig. 41). The question of how and why this pile of horns existed above the intact installation will be discussed in depth further on but it is possible that they existed as installations elsewhere in the room prior to the fire, which were gathered post fire, perhaps when Building 51 was under construction, and placed / protected/ preserved in this location as a significant deposition?



Figure 41. Stacked calcined horncores within the burnt building rubble. Deliberately (?) placed above the cattle skull and horns F.2175.

wall F.2180 that enclosed the eastern side of the southern platform F.2177. A fourth was located in the southwest corner of Space 94 in platform F.2179.

A post F.2172 against wall F.2106 was located immediately north of the bullhead and horns. This was identified by charcoal found in a shallow posthole cut into the floor of the northwestern platform and more visible was the imprint left by the post the wall plaster as multiple plaster layers that covered the pillar and the wall in a continuous line. F.2172 was probably a timber semi-column attached to the wall and plastered over every time a new thin layer of plaster was added. It was 0.26m wide but the posthole in the floor, only 80mm from the wall, indicates that the pillar didn't have a very pronounced relief.

Other posts that were also found in Space 94 survived as negative features, burnt in situ. Post F.2173 was located in floor F.2176 against wall F.2032 mirrored by post F.2178 to its south at the northern terminus of

As a central room none of the walls of Space 94 are external, so all of them have roughly the same width of 0.3m. The inner faces of these walls were rendered with multiple plaster applications over a period of time.

The layout and the inventory of Space 93, with its storage bins and ground stones next to worked bone tools, strongly suggested the functionality of the room. Unlike that, the function of Space 94 is not so easy to establish, despite the special features present within. Certainly great attention was given to the division of the internal space, and lavish installations were employed all around, but only the careful study of all the collected data will bring more light on the activities that took place inside. The multiple layers of plaster observed on the walls and the sides of the bench, up to 60mms thick, clearly suggest that Space 94 was in use for a very long period of time. Even after the collapse of the building, this central area seems to have been given special attention and another smaller house being constructed inside half of the Space 94.

Destruction of Building 52 and subsequent activities in the area

Having described the layout and inventory of Building 52 above the sequence of events that led to its destruction and subsequent treatment will be assessed by collating all of the excavation data and analyses. The important question concerns the nature of this abandonment. Was the fire an accident or was it an intentional closure ritual?

From the initial stages of excavation it became obvious that the collapse of Building 52 was caused by fire. The room fill was very different from that of houses around, being entirely filled of burnt red clay, mixed with charcoal and burnt plaster and daub –like fragments. Large fragments of fire-baked intact building material were recovered which suggests that the fire inside Spaces 94 and 93 flared for a long time before the complete collapse of the building.

Burnt debris was found inside the two small southern spaces of Building 52 as well, but it seems that there was no fire within Spaces 254 and 255 prior to their demolition. Walls F.2015 and F.2012 that separated these spaces from Space 94 were clearly affected by fire but it appears that the fire was located within the main room, most probably in the location where Building 51 was constructed. It would appear that the burnt debris within Spaces 254 and 255 was the result of the pushing in of the fire-damaged walls. This could explain the presence of a cluster of obsidian deposited within the infill of Space 254, in the southeastern corner. Not far from that, a large unfinished ground stone axe was found. In the northeastern corner of the room fill was a neonatal burial F.1588. The burial cut was difficult to define and this skeleton (10333) was either remains of a Neolithic burial put within the fill or cut down from a now eroded building. The burnt walls and the burnt collapse within the southern rooms of Building 52 show that these were disused after the fire, but the items found within the room fill testify for more activity in the area before all the walls were demolished.

The floors and features of the other four rooms of Building 52 were affected by high temperature and direct fire, so clearly there was fire burning within all of them before the architecture around collapsed. The western spaces 91 and 92 had burnt infill inside and the few stones found on the floors were clearly subjected to intense heat, but due to their proximity to the surface of the mound subsequent events were not traceable.

The fire source was probably close to Spaces 93 and 94, which caused the two rooms to burn, but with most intensity occurring over the dividing wall F.2032 for the mudbricks to bake preserving their complete structure and properties. The fire initial debris was in the form of ash and charcoal that fell on to the floors of the two rooms forming the lower layers (10299), (11928) and (10304). On the floor of Space 93, three very distinct pockets of cereals were identified and it is possible that these were the remains of cereals stored in bags hanging from the roof rafters, which fell down during the fire.

The floors of Space 94 were unevenly exposed to high temperatures. While floors F.2176 and the northeastern half of platform F.2174 turned red and became very friable, the rest of the floor horizon turned dark-brown but kept its integrity. This area was probably protected from direct flames by the collapse of part of the building superstructure relatively early after the start of the fire. This is represented by debris (11937), composed of the same material as the rest of the room fill, but differentially burnt. It therefore seems that a wall or roof section fell down before

the entire platform surface was subjected to heat long enough to turn red and solid and it also protected the floor underneath from extensive exposure to fire. Another feature protected against severe burning by the layer (11937) was the bull's head and horns F.2175. This is a proposed situation, which would allow for the survival of the skull and horns during the fire that engulfed the building.

One of the features that suffered intense burning was the bench with the horns F.2021. This cracked and slid northwards on top of debris (11937), being subsequently covered by the collapse of the entire building. It is also possible that the collapse of the walls and roof caused the destruction of the bench. Fragments of horns were evident throughout the burnt room fill, perhaps indicative of many horn installations.

Objects found on the floor or in the bins that can be demonstrated as being part of the initial collapse in Space 93 can be reconstructed into nearby locations. At the southern end of the room fragments of a cattle skull and a horn were found on top of the thin layer of ash on the floor. This could have been its initial location, but it could also have been attached to wall F.2032. The clay shelf (11967) broke and fell on top of this wall, probably when the rest of the architecture around collapsed. Inside the four bins along the walls of Space 93, besides the small fragments of daub, other objects were found which clearly made their way there during the fire. A large fragment of stalactite and a boar skull fell on top of wall debris inside bin F.2004.

To summarize, the source of the fire is probably under Building 51 but spreads to Spaces 93 and 94. As the fire burns in both rooms a thin layer of ash and charcoal forms on the floors. A roof or wall fragment falls in the southwestern corner of platform F.2174 in the early stages of the fire protecting the floor from intense burning. The fire continues to burn and bake the walls and roof and parts of the superstructure collapse. Bench F.2021 cracks and slides northwards on top of layer (11937). In Space 93 various features fall on floors or inside bins. As the fire rages, parts of the building collapse into the burnt shell and after the fire remains of fire damaged walls are pushed in and the area levelled?

Intentional or Accidental Fire

Evidence of intentionally burnt buildings can be reconstructed from Building 45 excavated in 2004 at the southern end of the 4040 Area. Clear signs of prepared abandonment were in evidence. First of all the rooms were cleared of all portable items with the odd item left intentionally, whether significantly, is debatable. This 'closure' activity included the removal of the supporting posts, very important construction elements for new constructions. There are other signs of intentional abandonment; floors and features were scoured clean so as to remove all occupation traces, sometimes the oven was similarly destroyed, in other cases the last oven was intentionally preserved. The west walls were often 'defaced' interpreted as the significant removal of the west wall installation. A possible closure pattern has also been identified as the significant placing of an obsidian point or arrowhead placed in post retrieval pits, which are clearly associated with the disuse of that living space. The fact therefore that an obsidian arrowhead was found in one of the bins (F.2004) of Space 93, Building 52 has led to the speculation that this house was intentionally set on fire.

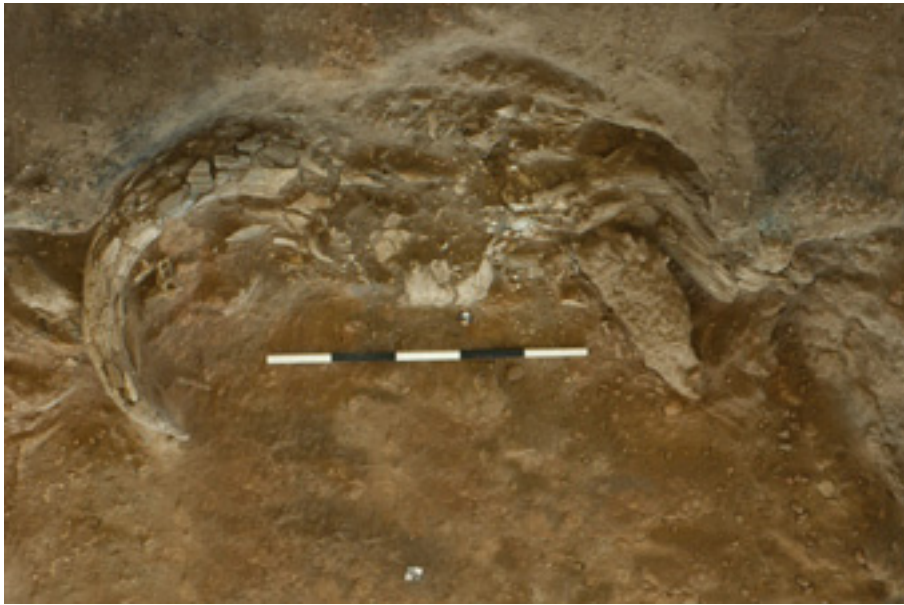


Figure 42. Stacked horns on skulls (10281).

Without undermining the possible association of arrowheads placed in post retrieval pits at the time of abandonment, the obsidian in question from Space 93 was not from an equivalent context, it was found in a bin together with other worked objects of four polished and pointed cattle ribs and another bone tool. Furthermore, found stored at the base of bin F.2002, were more than ten obsidian blades. In general storage bins of deliberately ‘closed’ buildings do not yield many objects nor traces of primary use, Building 52 is clearly unusual and all evidence suggests its abnormality is due to the preservation of Neolithic life caught unawares – by an accidental fire.

In comparing Building 45 and other intentionally abandoned houses, it becomes clear that the situation of Building 52 was very different. While Building 45 was emptied of all portable things large amounts of food, tools and other objects were found in Spaces 94 and 93 when the house burnt. Timber posts were not retrieved but left to burn in situ. Conversely, there were no carbonized wooden artefacts as were found in the 1960s excavations of burnt buildings, but perhaps these items may be in other parts of the buildings. All the internal features that suffered damage inside Building 52, like the bench F.2021 or the thin walls of the bins, were clearly destroyed by the high temperatures or by the collapse of other walls on top of them. No traces of intentional destruction can be observed. There were no traces of introduced fuels or other accelerators inside the house that would set the building ablaze.

Difficult as it is to prove accidental fire, which is generally argued for by the lack of evidence for an intentional fire, in the case of Building 52 the deposits and deposition strongly suggest an accidental fire. Excavations of more burnt buildings will of course bear more light on this dilemma.

Post-fire

The main event that occurred was the construction of Building 51, which was literally built inside Building 52. A large area to a depth of over a meter was cleared through the burnt debris in the northeast footprint of Building 52. The location of Building 51 appears to have been carefully chosen. The west wall aligned along the eastern wall of Space 93 and along the alignment of posts F.2173 and F.2178. The southern wall was built against the north wall of Space 255. The walls and floors of Building 51 rest just above the floor horizon of Building 52.



Figure 43. Top of picture Building 51 is clearly seen to sit within Building 52. Spaces 93 and 94 mid excavation in the foreground.

It appears that the group of bull horn-cores and skulls (10281) were placed on top of room fill over the location of the bull's head installation F.2175 after the collapse of walls and roof of Building 52 (Fig. 41 & 42). Possibly placed in a shallow cut, or covered with more collapse debris as the horn cores were gathered from elsewhere, possibly retrieved whilst the northeast corner of the room was being cleared to house Building 51, and piled in this location. The location of this cluster of objects was clearly not accidental and it probably occurred shortly after the destruction of Building 52 by fire, when the memory of the bull's head fixed in the wall was still fresh in the minds of the occupants of the house. More than ten horns were found above the fragments of two skulls with their additional horns. The skull of a pig was also found right above F.2175. The ten individual horns were all rights and the main question to be answered is where were they collected from? Since they all presented signs of burning they were most likely inside Building 52 during the fire. Their exact location in the rooms of the house can only be estimated, but they were probably lying on the surface when the fire ended or they were found covered by the burnt debris removed when Building 51 was constructed. These were no regular objects and it was their special significance that probably required them to be buried exactly above the bull's head left in the wall of Space 94.

Little by way of dating this structure was evident except the obsidian points found in Space 254 that suggest a date equivalent to the South Level VI (Carter personal comm.). The stratigraphic relations with the surrounding structures sustain that proposed date.

A burial was cut through the infill of Space 91 probably from a now eroded building. The skeleton (10282) was very poorly preserved due to its proximity to the surface, but the flexed position indicates that it was a Neolithic grave. The body was placed in a circular cut, lying on its right side with the head to the west. The presence of this burial along with a pit found in Space 255 indicates that possibly one building horizon has been lost from the surface at this location through erosion of the last 9000 years.

Space 90

The earliest structural activity in this northern cluster of buildings lies to the west of Building 52 and first exposed through surface scrape in 1993-4. Space 90 appeared as a well-defined room with walls on three sides, the western side lying beyond this year's 10x40m strip, and with a potential internal partition wall (Fig 44). However it soon became apparent that the walls were an agglomeration of several phases of activity and most importantly, earlier than Building 52, so as much was recorded as was necessary before concentrating on excavation to the east in phase.

After the removal of the upper layers believed to be house fills, it became clear that the walls seen as part of a single space were in fact not contemporary and belonged to different buildings. The walls and platforms exposed at the northern end of Space 90 (F.2142, F.2143, F.2144 and potentially F.2141) were part of the earliest building in the area. The infills excavated that established the above sequence were (10298), (10303) and (10307). These layers contained a number of animal bones (the average quantity normally present in any house infill) as well as two zoomorphic clay figurines.

Contemporary with the building described above, or built immediately after the disuse of it, was the wall F.2140, part of a building that probably extended eastwards. The clear relation between the two structures was not available because of the fact that wall F.2140 was truncated by the construction of Building 52 and a further wall F.2139. The existence of a house that extended eastwards with wall F.2140 as western wall of it, is only hypothetical at this stage, only the unlikely removal of Building 52 being able to confirm or refute this.

The construction of the E-W wall F.2139 seems to be contemporary with that of walls F.2012 and F.2183 since they clearly interlock structurally. This is strong evidence for the fact that this wall is part of the construction phase of at least one phase of Building 52. The most probable scenario is that of wall F.2139 to be built at the moment when Spaces 91 and 92 were added to the house. It is obvious from the internal features that these two rooms, in the shape they were found, were a later addition to Building 52. It is therefore very likely that in the last phase of its existence, two new rooms were added to Building 52, possibly replacing two existing ones, as well as a retaining wall (F.2139) in the open area to the west. This wall was exposed for a length of 2.6m during the 2005 excavation season, the western end of it being outside the excavated area. As excavation continues in this area it might be proven that it is part of a house, but for the moment it appears to be a freestanding wall with the role of retaining either the sloping layers formed against it to the north, or the potential “street” south from it. Despite the fact that it is plastered on both faces, this 0.25m wide wall doesn’t seem to define any internal space. It retains Space 271 to the south and the remains of the earlier houses mentioned above to the north. F.2139 is clearly later than all the other walls in the area, being built on top of F.2140, as is Building 52 with which it is contemporary. The layers excavated north from this wall had the appearance of room fills, but with a lot more charcoal within, so they could also be formed over a longer period of time, without having the exact same composition as the midden deposits.



Figure 44. Walls of the earliest structure found this season, Space 90.

South Area

Buildings 44 & 56 - Roddy Regan

Site Assistant: Alex Pryor

Abstract

This seasons work in Building 44, attributed to Level IV, focused on the completion of the primary phase of the building and its construction phase which was found to be intricately linked with the closure activities of the underlying Building 56. As was defined in 2004 the internal layout of Building 44 consisted a series of platforms and benches laid out along the eastern wall, a platform in a northern bay area and a platform in the southwestern corner. An oven cut into the southern wall of the structure. Up to eight burials were found cut through the central east platform, along with disarticulated infant bones.

The underlying earlier building 56 (attributed to Level V) mirrored the layout of Building 44 only diverging in the northwest corner where a blocking in the wall leads into a 'room' and a wall niche close by. On the floor in front of the niche was a concentration of shell, possibly a necklace and possibly a 'closure' deposit.

A number of interesting closure / construction events and deposits illustrates the continuity and possible 'ritual' nature of moving from one house and into another. One such item, which may mark a transitional event, is the clay stamp seal (Fig. 2) that was found in room-fill between Buildings 56 and 44.

Özet

Tabaka IV'ya tarihlenen Bina 44'de bu sene yapılan çalışmalar, binanın ilk evresi ve alt kısımdaki Bina 56'nın kapatma aktiviteleriyle inceliklerle birleşen yapım evresinin tamamlanmasına yoğunlaşmıştır. 2004'de belirlendiği gibi, Bina 44'ün iç düzenlemesi güneybatı köşesindeki bir platform, kuzey alana yerleştirilmiş bir platform ve doğu duvarı boyunca yerleştirilmiş bir sıra seki ve platformlardan oluşmaktadır. Yapının güney duvarı içine bir fırın yapılmıştır. Merkezi doğu platformu içine kesilmiş alanda 8 adet gömü ve eklemsiz çocuk kemikleri bulundu.

Tabaka V'e tarihlenen alt kısımdaki Bina 56, kuzeybatı köşesinde bulunan bir odaya açılan kapatmaya ve hemen yanındaki bir duvar nişine doğru ayrılması haricinde, Bina 44'ün iç düzenlemesini taklit eder. Nişin hemen önündeki zeminde büyük ihtimalle bir kolye veya kapatma birikintisi olan bir kabuk topluluğu bulundu.

İlginç olan bir seri kapatma, yapı evreleri ve birikintiler, büyük ihtimalle bir evden başka bir eve taşınma olayının devamlılığını ve dinsel doğasını yansıtır. Geçişsel bir olayı simgeleyen bir buluntu, Bina 56 ve 44 arasındaki oda dolgusunda bulunan kilden yapılmış mühürdür.

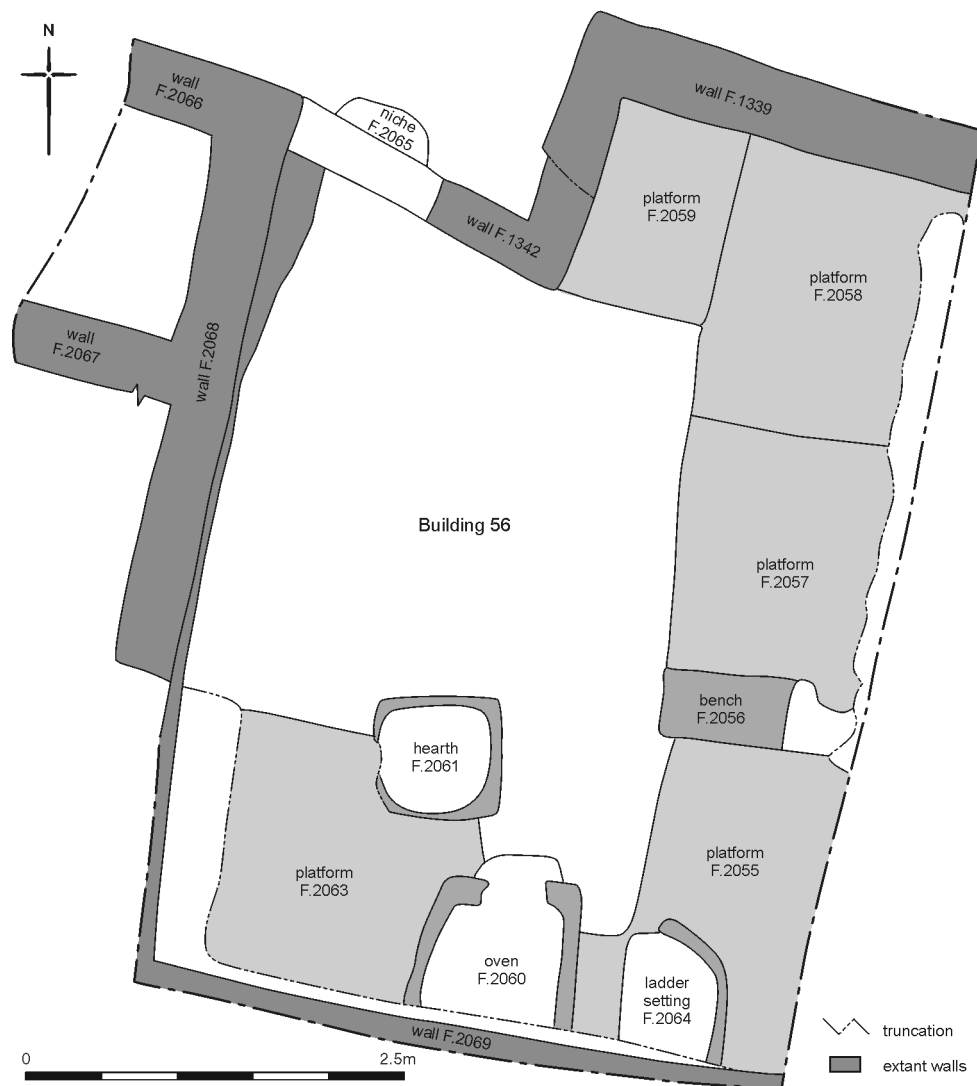


Figure 45. Plan of Building 56.

Building 44

Excavation re-commenced on Building 44 in the South Summit area on 4/7/2005. Last season saw the removal of much of the internal architecture of the structural sequence and we believed that over much of the excavation area we had reached the level of upper 'room fill' of the building below. However, the discovery of several burials beneath the central east platform meant that the removal of the primary platform sequences along this eastern side of the building had to wait until this year.

Excavation of course, has led to a reappraisal of some of the assumptions made about Building 44 last year. This has led to a reallocation of some feature numbers, or contexts within features and these will be discussed within the text. Along with these changes the floor areas within Building 44 have now been allocated a space number, Space 120, in order to group any activities, patterns or artefacts recurring on these surfaces. It is also now apparent that Building 44 continues to the east beyond the current edge of excavation, access probably gained by a disturbed crawl-hole in the south-east corner of the building.

Last season it appeared that the burials were sealed beneath the primary plaster surfaces and levelling deposits that made up the central platform F.1320. Removing these remaining surfaces enabled contemporary deposits to be simultaneously removed from bench F.1310 and platform F.1321, respectively lying south and north of F.1320. This in turn, allowed the removal of surfaces from wall F.1340 and pilaster F.1308 lying to the east of platform F.1320 and the removal of the remnants of platform F.1312 within the south east of the building. As with last years archive report the stratigraphic chronologies revealed within each feature are best described separately followed by a brief discussion on the sequential relationship the features to one another.



Figure 46. Features along the eastern wall of Building 44. Platforms F.1321, F.1320, F.1312 and bench F.1310.

Platform F.1321

Last years excavation stopped at a point where a distinct division was seen running east west across the platform surface, effectively dividing the platform into northern and southern areas. Initially this was thought to be the emergence of another bench mirroring bench F.1310 to the south of Platform F.1320. The removal, however, of a sequence of plaster surfaces and associated make up deposits from the platform indicated this was not a bench, although the demarcation of northern and southern areas of the platform appeared real. It is possible that this division within the surfaces represented a physical separation of the two areas, perhaps by a screen? Within last years archive report the supposed ‘bench’ was allocated a feature number F.1343 and the ‘platform’ to its north numbered F.1344, these numbers have now been reallocated to other features. Removal of the primary plaster facing of the platform (1161/11606/11637) revealed a small pit or backfilled post hole (11618). The fill (11617) consisted of the same plaster material as the primary surface of the platform and contained several obsidian fragments along with painted shells, the latter possibly the remnants of a necklace, bracelet or armlet. Below the primary plaster surface were two further make-up/levelling deposits that may indicate the final moulding of the platform in preparation for plastering. The construction of the platform in its initial phase consisted of infill/levelling deposits (11642) and (11643), these retained by a mud-brick wall construction (11640)/(11641).

Platform F.1312

Most of this platform had been removed during last seasons’ excavation, apart from the primary levelling deposit of (11626). This deposit was possibly contemporary with oval ladder slot (11624)/(11625), and suggests that a ladder placement was present at this early stage of the buildings’ construction. The need for a ladder perhaps suggested that high walls surrounded Building 44, either from other buildings or that the walls of Building 44 had

been completed at this early stage. If the later then it may be that the roof had also been built and was integral to this early construction phase, this is a point to which we will return later in the discussion.

Bench F.1310

The removal of the early surfaces within platform F.1320 enabled contemporary surfaces to be removed from bench F.1310. Plaster surface (11601) sealed make-up/preparation deposit (11602), the later the same as deposit (11603) that filled a small 'depression' (11604). This 'depression' was situated along the northern upper edge of the bench was matched by a similar feature on the south of the bench excavated last season ((11477)). What these shallow depressions represent is open to question, but it is possible that they held some form of screen structure. The position of the bench within the room mirrors a division seen within the floors lying to the west that divided 'clean' and 'dirty' areas of the building. It is possible that this division extended along the bench to the eastern wall.

The primary plaster surface on the bench was (11612) this sealing the mortar and mud-brick core of the bench construction (11614)/(11615). The mixed nature of the mud-brick and the fact that one brick displayed burning on its underside suggests some of the bricks had been reused. The discovery of reused burnt mud-brick has also led to a reappraisal of what was considered the remnants of an oven or hearth (F. 1337). Rather than representing the remains of an oven feature the burnt mud-brick may be a reused brick utilised in the raising/levelling of bench F.1321.

Pilaster F. 1308

As with platform F.1321 and Bench F.1310 the removal of the primary surfaces from Platform F.1320 meant Pilaster F.1308 could also be fully excavated. Plaster surface (11627) and preparation deposit (11636) were removed revealing moulded mud brick deposit (11637) that provided the constructional core of the pilaster.

Platform F.1320

Last year it was suspected that the burials discovered within the platform were potentially under the platform and not cut through the surfaces of the platform. This hypothesis was tested with the careful removal of the final vestiges of the platform surfaces and make-up deposits left in situ last season, (11470), (11472), (11466), (11468) and (11499) the later the primary surfacing of the platform. As also noted last year obsidian catches had been deliberately placed along the northern and southern edges of the platform within several of these surface and make-up deposits, cluster (11492) in (11466) and cluster (11498) in (11468).

The edge of the platform consisted of a mud brick and mortar construction (11495)/(11629) built around the underlying and probably slightly 'heaped' burial deposits, the edges of this deposit effectively straightened or tidied up prior to the construction of the platform edging (11607).

Cutting into the edging of the platform construction and sealed by the construction core of bench F.1310 was the placement of a child or infant skull within a small pit or possible redundant post position (11620), (1621), (11622).

Excavation has revealed that the initial construction of platform F.1320 was first in the sequence of the architectural features built along the eastern wall of the building. Probably soon after platform F.1321 was added to the north with bench F.1310 to the south. The construction of these were no doubt quickly followed by the addition of platforms F.1312 and F.1332 respectively to the south and northwest, along with pilasters F.1308 and F.1309. It must be stressed that all these architectural features appear to have been 'roughed out' within this early construction stage prior to the 'finishing' levelling deposits and primary plaster surfaces being added. So while a sequence is discernible in which feature came first, it would appear that the arrangement of architectural features we see throughout the life of the building was set out from the start.

Burial Sequence

While it became clear that all the burials were located beneath the construction phase of Platform F.1320, the distinguishing of any burial cuts continued to allude excavation of the homogenous 'burial soil' (11608). As perhaps to be expected, located throughout this deposit were numerous disarticulated human remains. Many of the disarticulated bones can be accounted for as being the result of later burials disturbing earlier ones, with the bones redeposited and dispersed throughout the fills of the latest burials. Many of the disarticulated bones may ultimately be allocated to an individual burial as represented by disturbed or partially articulated remains. The presence, however, of numerous infant or neonate bones within the 'burial soil' are more difficult to explain as no partially articulated or complete remains of children of this age were discovered within the excavation. It is possible that these baby burials had been wholly disturbed by later burials and it waits to be seen how many individuals these remains represent. It is also a possibility that the remains are the products of secondary deposition, the disarticulated neonate remains entering the grave fills alongside the primary burials.



Figure 47. Skeletons (11608) in burials F.1343 & F.1344 cut through platform F.1320.

Despite this problem of defining the burial cuts the presence of articulated remains suggested the presence of at least eight burials within the sequence. Several of the burials had obviously cut into and removed parts of earlier burials and because of this at least 4 phases of burial could be discerned, although this does not preclude the possibility that all burials were inserted individually over time. The earliest burials were F.2052 and F.2051. F.2051 was cut away by two later burials F.1348 and F.1349, these in turn cut by F.1346 and F.1343. The last burials in the sequence were F.1344 and F.1347. Most burials appeared to be of older juveniles or adults. All burials appeared crouched although the extremely truncated nature two of the burials makes this speculative although likely. Another repeated occurrence within the burials was that the heads were all placed to the west of the presumed grave cuts.

The difficulty of distinguishing the burial cuts was also reflected in recognising which layers the earliest burial actually cut. While it is probably safe to assert that some of the burials cut upper room-fill deposit (11416) it still remains a possibility that earlier burials may have cut the underlying deposit (11652). This may not seem an important point in itself but it is the authors' belief that the burials were being inserted as the lower building was being levelled prior to the construction of Building 44. Even if this was not the case a certain degree of longevity is suggested by a burial sequence, indicating a break in time between backfilling the lower building and the

construction of the internal architecture of Building 44.



Figure 48. Skeleton (11657) with beads of bone, dog teeth and stone found around the ankle bones.

The levelling deposits (11416) interesting questions. These fairly homogenous clay silt and in the room-fill sequence or deposits of the construction their function both deposits areas of burning/scorching, (11661) on underlying layer the same position, to the west of fragile nature of these burnt had been left open to weathering ash-like material would surely have dispersed. Equally the clean upper levelling deposits (layers (11416) and (11652)) displayed little evidence of having been left 'open' for any length of time. Rapid sealing may explain the survival of (11661) but it cannot explain the survival of (11451) which was not rapidly sealed but cut into by the burial sequence. If, as mentioned above, there is the possibility of walls existing at an early stage of construction, as suggested by a ladder base, then it is also a possibility that the area was at least partially roofed or covered prior to the beginning of the burial sequence.



and (11652) also pose some levelling deposits consisted of a either represent the final deposits represent the primary levelling phase of Building 44. Whatever displayed evidence of discrete (11451) on deposit (11416) and (11652), both events situated in the burial area. The relatively areas is interesting in that if they for any length of time the loose

Foundation and 'room-fill' Sequence.

Beneath layer (11652) were two large levelling/consolidation deposits or 'room-fills', (11662) proceeded by (11670). These events were separated by a thin ash deposit (11644) and a possible post hole (11668)/(11669), the former possibly representing one ash dump the latter more difficult to explain in the sequence. The larger dumps appeared to have been deposited fairly rapidly and while consistent were probably composed of numerous dumping episodes. These deposits consisted mostly of mud-brick material with some darker ashy midden-like patches. The presence of some burnt and/or broken mud-bricks suggested that at least some of the material was demolition derived. These deposits also appeared to have been deliberately packed in against the foundation walls of Building 44, as this material was much more compacted and less mixed than the material placed away from the foundation walls. This no doubt was done to strengthen the walls and counteract the slumping that appeared to have been a problem within the earlier building (Building 56). Both deposits displayed this characteristic; the main difference between deposit (11662) and (11670) was that the latter appeared to contain more midden-like material as represented by increased presence of ash, charcoal, bone, pot etc.

Prior to the deposition of the levelling deposits, some major consolidation preparations had to be undertaken, as represented by mud-brick and mortar foundations. It was at this point in the excavation that only became clear that some of the walls of lower Building 56 had been reused within Building 44, with some strengthened by internal foundation supports. This consolidation work may have been deemed necessary prior to the construction

of the superstructure of Building 44 as Building 56 appeared to have suffered from severe weakness at its southern end, as evidenced by slumping of the floors and features. What appears to have happened, and this will need confirmation by excavation, is that the southern and eastern walls of Building 56 had collapsed or been demolished and replaced by foundations F.2053 and F.2054. In addition to this the south west corner of the building was strengthened by foundation wall F.1345, while the west wall of Building 56, F.104, is supported by the addition of foundation wall F.2062. Thus part of wall F.104 from Building 56 is re-used within Building 44, along with walls F.1323, F.1342 and F.1339, with new walls constructed at the south and east, F.1340 and F.1341, these built on the new foundations.

The foundations of Building 44 are partially cut into Building 56 where they don't directly overlie the architecture, and suggest the walls and floors of the building were exposed when the foundations of the new building were constructed.



Figure 49. Foundation walls F.1345 in SW corner of 'closed' Building 56 in preparation for the internal refurbishment of Building 44.

The construction of rectangular foundation F.1345 in the south west corner of the building was of considerable interest. The foundation followed the line of and is directly constructed over a platform within the south west of Building 56. The foundation in turn forms the basis for platform F.1314 in Building 44. Lying directly on the surface of the platform of Building 56 but contained within foundation F.1345 was deposit (11648). This deposit is perhaps of some importance as it contained numerous objects of stone including, rub stones, smooth stones and grind stones, along with a pair of stone axes. Also present were burnt clay objects that may represent fragmented pot stands and numerous pottery fragments. These deliberately placed objects lay in a matrix of ash/charcoal that contained bone and obsidian fragments. The importance of this deposit is that it may represent the collected objects and midden material of the final phase of occupation of Building 56. There is no doubt this deposit was deliberately placed and sealed within the foundation. That it derives from Building 56 is perhaps suggested by the pristine nature of the floors and surfaces uncovered in that building, indicating the building had been 'cleaned'.

Sealing deposit (11648) was (11644), which differed in that it mainly consisted of a mud brick/mortar like material not too dissimilar to the 'room-fill' deposits seen within the rest of the building. The deposit, however, contained several bone tools and fairly frequent obsidian tools, these, perhaps, conspicuously absent from (11648). It now seems clear that deposit (11295) removed last year was part of this deposit, as are (8004) and (10603).

It is possible the interment of baby burial F.1334 in the top of this deposit, and lying under the primary surface of

Platform F.1314, represents the marking of the end of the ‘foundation’ phase and the beginning of the ‘building’ phase of Building 44.



Figure 50. Deposit (11648) within foundation F.1345 contained numerous objects of stone including, rub stones, smooth stones and grind stones, along with a pair of stone axes. Also present were burnt clay objects that may represent fragmented pot stands and numerous pottery fragments. These deliberately placed objects lay in a matrix of ash/charcoal that contained bone and obsidian fragments.

Building 56

The layout of Building 56 was very similar to Building 44. The main internal part of the building consisted of a rough rectangular shape measuring 4.40-4.60m E/W and 4.60-5.40m N/S. A small rectangular ‘bay’ measuring 2.60m by 1.40m lay at the northeast of the structure.

The west wall of Building 56 consisted of wall F. 104, while the southern and eastern walls structure are cut away, demolished or lie beyond the edge of excavation. As with Building 44 walls F.1323, F.1342 and F.1339 comprising the arrangement of walls to the north.

The internal layout of the building consisted a series of platforms and benches laid out along the eastern wall, from south to north; Platform F.2055, Bench F.2056, Platform F.2057 and Platform F.2058. Another platform, F.2059, occupied the northern bay area of the building. The southwestern corner was occupied by a platform, Platform F.2063. An oven, F.2060 was centrally placed along the southern wall of the structure and either abutted or cut into the wall, although this relationship is unclear as the wall and back of the oven were cut away by the foundation of Building 44. To the north and west of the oven and positioned over the north east corner of platform F.2063, was square plinth hearth F.2061. A plaster/mortar floor occupied the central area of the building beyond the oven and platform areas. Where the building differs in layout from Building 44 is the addition of a blocked ‘room’ to the north west as delineated by walls F.2067, and F.2066. Also set within wall F.1323 at



Figure 51. Concentration of pierced shells in front of blocked niches.

the north east of the building was a blocked niche. The blocking of the niche was removed this season and while the niche was empty of artefacts a placed deposit of a concentration of pierced shells was found directly below the blocking, which may have been strung as a necklace.



Figure 52. Building 56, phase immediately before construction preparation for B.44.

Continuity and Patterns

Excavating within specified limits has meant that we are able to discern changes or continuity within spaces or areas of the site over time. At present our concentration has been on one building or one building space, as reflected in the excavation of Buildings 10, 44 and now Building 56. It is difficult to say much about Building 10 beyond that it would seem to have occupied the same space as the lower buildings, as later erosion and truncation had removed much of its internal features. Buildings 44 and 56 display a remarkable similarity in layout, with the later building even reusing some of the walls of the earlier structure. Differences are of course apparent, as Building 44 does not appear to reuse the space of the north western room of Building 56, as this was deliberately blocked prior to the construction of the later building. As yet we do not know whether Building 56 extends to the east, like Building 44, beyond the current edge of excavation. If it does, then the limitation of necessary artificial edges of excavation become apparent, but that is always going to be the way at Catal, as other than complete excavation some connected archaeology will always lie beyond.

The connections between the two buildings however, go beyond the similarities of the internal layout, although this perhaps indicates a relationship between the builders/inhabitants of both structures. Why Building 56 was abandoned is of course open to question, but the severe slumping of the building at the south may indicate the deterioration of its structural integrity. The cause of this is as yet unknown but it may have been built over/into a midden or an equally unstable deposit. Whatever the reason Building 56 appears to have been deliberately 'cleaned' at its abandonment stage as its surfaces were remarkably pristine, in fact the only object lying directly on any feature was a grindstone fragment located on hearth F. 2061. At this point a decision was made to reuse part of the building and rebuild, but this time with strengthened walls and foundations. If our assumptions are correct then items collected from Building 56 at its final phase of occupation were placed within foundation F.1345 and the internal area of the building was backfilled/levelled. Foundation F.1345, however, not only reflects the platform below but also pre-empted the one that is yet to be constructed in Building 44. This sequence possibly indicates that the internal arrangement of Building 44 had already been decided at this early stage. Of course intention is hard to prove in archaeology, but it is perhaps further evidenced in this case by the burial settings,

which appear to have been placed as to ultimately lie under Platform F.1320. What we seem to have is a series of events; abandonment – consolidation – burial - re-building – habitation, that are connected beyond the physical archaeological sequence. This might be seen as an idea, intention or plan spanning archaeological events and time albeit on at a relatively local or family scale. Basically it would appear that the construction of Building 44 was envisaged as Building 56 was being abandoned. Which might not be surprising if this was your home or your family plot. If the same group/clan/family occupied the structures, then the question has to be asked of how long a time elapsed between abandonment of one building and the construction of a new one? While the foundation construction and levelling could have happened relatively quickly, the insertion of a sequence of burials suggests a slightly longer time scale. Does the building/space take on a different aspect during this burial phase? Also if the buildings are connected through a single-family group then where are they during this time?

Throughout the excavation several deposits appear to have been deliberately placed, possibly marking individual events or delineating spaces within the building.

The obsidian deposits situated around the edge of platform F.1320 can not really be explained as casual discard and the fact there was more than one such deposit would tend to point to deliberate intent. One possibility is that these deposits delineate the ‘burial’ area when the platform is resurfaced/repared. This interpretation is of course open to question, as is the purpose of other apparently placed deposits. Another example is the possible necklace and obsidian cache placed in a small pit again placed at the northern edge of the central platform F.1320. As the pit was also filled with plaster it is possible this deposit was associated with a primary plastering event. Similarly placed along the edge of platform F.1320 but this time on the south was the skull of a child, this placed between the construction cores of platform F.1320 and bench F.1310.

The objects placed within foundation F.1345 in deposits (11644) and (11648) may be marking a transitional phase between Building 56 and Building 44. The placing of a baby burial between deposit (11648) and the primary surfacing of platform F.1314 may also mark a stage in this structural transition. If seen in this light the impressive clay stamp unearthed in ‘room-fill’ deposit (11652) may also mark a transitional event within the construction of Building 44. In this case the end of backfilling and the beginning of constructional levelling. Of course it could be argued that the stamp was just dumped as part of the backfilling process, its neatly clipped hands/paws suggesting that the object itself had undergone a transition. The stamp, however, was recovered from a deposit of relatively few finds and appeared to have been ‘placed’ face downwards hinting at more than casual loss.



Figure 53. Back of clay stamp seal 11652.XI.

As mentioned above the only object on the otherwise clean and apparently pristine surfaces of the features of Building 56 was a grindstone fragment on hearth F.2061. This has to be seen as a deliberate placement and can perhaps be seen as part of an established pattern at Catal of worked stones being left in/near ovens or hearths at transitional phases within their use-life. Another placed deposit seen within Building 56 was that of a shell necklace placed beneath the blocking of the niche in north west wall F.1323, this possibly representing a closing deposit.

These ‘placed’ deposits can only hint at the true nature of their deposition, but if seen as repeated actions and in specific relationships then some understanding of their purpose may be gleaned.

Recognised only at the end of this season was the presence of human remains outside of strict ‘burial’ contexts, being within ‘roomfill’ deposits. Analysis of both the faunal and human bone assemblages are at an early stage, but the recognised human remains so far appear to consist of small bones and that of small children or babies. Why these bones ended up where they are is as yet unclear but is one of many questions thrown up by this year’s excavation.

Buildings 42 & 53 - Simon McCann

Site Assistants: Elizabeth Tien Ha, Kelsey Traher

Abstract

This season saw the completed excavation of Building 42, the building which yielded two of last seasons exciting finds, the marble figurine and the painted plastered skull. Within the eastern foundation trench that cut through underlying midden, was surprisingly the silicified remains of a timber plank. The underlying midden area Space 260, extended over both an earlier building, Building 53, to the west and another area of extensive midden Space 261. The repeated cycle of occupation and middening appears to be a theme connected with this area. Midden in Space 261 yielded interesting deposits, which have been suggested to relate to feasting activity and celebratory events, possibly related to the construction or abandonment of a house.

Özet

Bu sezon, geçen sezonun en heyecan verici iki buluntusunu (mermer figürin ve boyanmış alçılı kafatası) veren Bina 42'nin kazısının tamamlanması üzerinde çalışıldı. Alt kısımdaki çöplüğü kesen doğu temeli açması içinde ahşap parçaları bulundu. Alt kısımdaki çöplük alanı olan Alan 260, daha erken bir bina olan Bina 53'ün batısına ve bir başka çöplük alanı olan Alan 261'e doğru uzatıldı. Tekrarlanan yerleşimler ve çöplükler bu alana özgü bir tema gibi görünmektedir. Alan 261'deki çöplük, bir evin yapım veya terkedilmesiyle ilişkili olan bir çeşit kutlama aktivitesi yapıldığına kanıt olan ilginç birikintiler sunmuştur.

Space 259

The initial task for the 2005 season was to complete the excavation of B42 of which only the eastern wall F826 remained. In order to achieve this several midden deposits and the remains of a wall, all heavily eroded, were excavated on the eastern side of F826. Wall F1070, consisting of barely four courses, running N/S for approximately 1m was excavated and was shown to be sitting directly onto midden. These midden deposits were excavated in broad stratigraphic bands following clearly defined tip lines until the foundation trench, (first noted in 2004 excavations as [11345]) for wall F826 was revealed. These deposits produced quantities of obsidian, pottery, bone and stone. Among these were an obsidian point and a blade fragment. Two beads were also recovered.

Building 42

The remaining wall of B42 was excavated revealing a foundation trench (11345) cut into the midden below. At the base of this foundation cut, traces of phytolith and wood impressions (11363) suggest that a timber plank was used to provide a level and stable surface prior to construction of the wall. This is the first example of this construction method found at Catalhoyuk. This suggests that the effects of subsidence were known to the inhabitants and that attempts to counter this were explored, indeed subsidence appears to have affected this building during its lifetime as was noted during last season. The siting of Building 42 at this particular location, on a midden, knowing the inherent problems presented may have been far outweighed by the statements being made, connected with grave F1517 and the plastered skull.

Space 260

This space consisted of midden deposits below B42 and extended over much of the area on this eroded island. These deposits consisted of the usual domestic waste material and contained animal bone, pot, stone and obsidian finds as well as several beads and some figurine fragments. The removal of these deposits gradually revealed the eastern wall of a building below, B53. They appeared to spread over the wall both filling the upper part of B53 and overlying the midden of Sp261 to the east. Their thickness was not great, as part of this wall was already

visible prior to excavation of this space possibly indicating that this middening was short lived. This episode of activity represents a hiatus in the construction of buildings, and potentially, the habitation of this particular part of the mound.

Space 261

This area is on the external, eastern side of building 53, below Sp260 and consists of further midden deposits overlying a dump of building material (11379). Within and below this deposit were two animal bone clusters; one containing predominantly cattle and deer (11393), the other a mix of cattle, ovicaprid, pig, horse and deer, including fallow deer (11392). Both clusters contained large bones such as scapula, pelvis and horn cores as well as antler. It has been suggested that these are related to feasting activity and celebratory events, possibly related to the construction or abandonment of a house.

Building 53

Excavation of this structure was not completed this season. Its western limit is eroded away and to the south is the shelter foundation. However, its east and north walls are well defined. An internal wall divides it into two spaces, 257 and 272.



Figure 54. Overview of Space 257 of Building 53 with Space 272 just to the left of the photograph.

Space 257

Midden and room fill deposits were removed revealing the internal features. Notable finds include several clay balls as well as an immaculate bone hook, probably a fastener of some kind. Unfortunately, a large animal burrow has extensively damaged the interior of this building and both the eastern and northeastern platforms have been severely truncated. Mellaart's excavations have also truncated the north wall. Both platforms and the walls are plastered. The floor appears to have been scoured clean and plaster only remains in patches. On the eastern wall is a small pillar or post scar.

Space 272

The western part of the building has been truncated/ eroded but a dividing wall F1527 remains and it is to the west of this that a small space was excavated. Within this space a cluster of ground stone tools was recovered. Below

this is an unexcavated deposit containing quantities of stone and bone. The quantity of artefacts in this space contrasts with the almost total lack in Sp257 and echoes similar discoveries on the south summit area this season. This possibly represents notions of clean and dirty spaces within the house.

The exposed sections of this building appear to show only one or two phases of plastering suggesting it may not have been occupied for long. There also appears to be extensive areas of midden beneath indicating that this area was used for the disposal of rubbish for some time before the construction of B53.

Excavation in the South this season seemed to be in part about the distinct episodes of building within midden layers. B53 is apparently constructed on a midden and is abutted by midden on its eastern side. After abandonment the area was once again used as midden until the construction of B42 when the area of midden is reduced but still in use. B42 is not constructed on the walls of B53 below suggesting a break in continuity of occupation. This may suggest that these structures are on the periphery of the mound and implies fluctuations in the density of dwellings caused by the expansion and contraction of the site and its population.

Concluding remarks - *Shahina Farid*

On-going excavations have shown that there is a great emphasis on uniformity and repetition of activities throughout the occupation sequence at Çatalhöyük. However, we also trace many subtle changes traced both spatially and temporally that take place through the evolution of the settlement, some of which were highlighted in this season's work.

Throughout the sequence there is a marked uniformity and continuity in the settlement plan. This is due to the construction of building over building and can be explained by the restrictions imposed on expansion within the confines of the settlement; houses were generally built independently of neighbouring houses and rebuilding was therefore restricted to the footprint of the vacated and dismantled house plot. Unless a household moved out entirely and settled elsewhere on the mound there was little room for expansion. Some house plots were vacated or abandoned to use as waste ground, instances where change in plan may occur, but these areas were eventually redeveloped maintaining the general arrangement. Thus the plan of the settlement barely changed through time.

Inside the houses however the uniformity and repetition of the internal configuration is not so easy to understand. A predefined or 'best-fit' layout seems to have been adopted early on in the settlements history, certainly from at least the Level X buildings excavated thus far. However the origins of this arrangement of features has not yet been excavated at this site.

The examples of continuity and gradual development in features and configurations found this season spanned from Level VII to about Level IV-II and were visible across the East mound in the South, TP and 4040 Areas (see Fig. **). One example was the typical configuration of a double platform terminating against a bench along the eastern wall of the larger room of a house. This arrangement can be identified from at least Level VII (Mellaart, 1964. *Anatolian Studies* 14, Fig. 11) to Level IV – II in Buildings 58, 57 and 55 in the central cluster of buildings excavated in the 4040 Area, as well as Building 44, Level IV and Building 56, Level V in the South Area. In some instances we find elaboration of this arrangement, such as the setting of horn cores in the sides of the benches as in Mellaart's Shrine A VI, 1 or Building 52, c. Level VI in the 4040 Area. In fact in Building 52 we see a divergence in this arrangement, as the platforms and terminal bench are arranged along the western wall instead of the east. It may be possible to trace this pattern of platforms and bench into a later form of internal division as seen in two buildings (Building 58 and Space 229) from the 4040 Area. This later arrangement and its progression is best illustrated in Building 58, Level IV – II. The internal plan of this building comprised a double platform along the eastern wall with a terminal bench. The platforms are delineated by a central ridge, possibly defining 'use-zones' and kerbs separating them from the central floor zone. This arrangement is mirrored along the west wall but here they are represented as walled cells and ridges delineating them from the central floor area. This cell arrangement is also encountered in Space 229, c. Level VII – VI. The question is therefore, do cell-like structures develop from and later replace the platform arrangements?

Another example of feature evolution is found in oven forms. Each defined house contains an oven in its suite of

‘furniture’. From the earliest excavated buildings of Level XII in the South Area (Mellaart, 1966, *Anatolian Studies* 16, Fig 3) we trace that the typical location of ovens is against the south wall. To date two examples have been found where the oven was initially located in the NE corner of the house (Building 6, Level VIII and Building 17, Level IX) but by the end of the house-cycle the ovens had been relocated to the south wall. Generally ovens are rounded constructions with a domed roof. They are either circular or oval in plan although the size varies. They are generally set into the south walls, either in deep cuts or in shallow cavities; or the notion of a cavity is created by building up the surrounding surface of the wall with numerous plaster applications to create an overhang over the oven. Through to Level IV and probably later the south wall location is used, but with one example to date where the oven is placed in the centre of the building in Building 47 tentatively attributed to Level II (Bodgdan, 2004 Archive Report). This Level II East mound building could represent a transition period from Late Neolithic to Chalcolithic, evidenced by the location of a central oven found on the Chalcolithic West mound excavations (Gibson & Last 2003 Archive Report).

All ovens excavated this season were found against the south wall; however, the ovens excavated in Buildings 58 and 57 were rectangular and constructed flush against the wall. Oven F. 2121 in Building 58 was the smaller with a small front ledge and a squarish hearth close by but to the NW. Oven F.2110 in Building 57 was slightly deeper and taller with its hearth directly in front, so that the oven mouth opened on to a kerbed hearth, rather like a Victorian fireplace, leading to its nickname through the excavation. Furthermore it was suitably elaborated with a heavily plastered ledge, rather like a mantle along the top, and ‘decorated’ with incised parallel wavy lines. Whilst these two ovens illustrate a stylistic development they could also indicate a transitional phase of the ovens moving out from the wall to a more prominent position in the centre of the house and becoming a more dominant central household focus.

A remarkable feature excavated this season is also found in Building 57. This is a plastered, mud-core, free-standing pillar (F.2132). It is not centrally located to the room and its location does not suggest it was a structural support but it could represent a partitioning support. Arrangements of internal partitions have been found throughout the sequence in different forms such as wooden posts set on post-pads (Building 23, Level X), or wooden posts set in pits (Building 17, Level IX) and upright posts within a plaster ‘screen wall’ (Building 3, Level VI – VII). The plaster of this mud column is contiguous with a platform kerb and therefore could have supported a partition around the NW platform mirroring the arrangement of the cell-like structures of Building 58 and Space 229 (see above). Whilst this is the first mud pillar found, the form had been hinted at in Building 45, 4040 Area, where two post-pad features F.1417 and (10116) were interpreted as ‘pillar’ bases (Yeomans, 2004 Archive Report). The arrangement of these would have created a ‘screen’ divide to the south of the northern platforms. Interestingly, although the building is still under excavation, there are no traces of post retrieval pits, the few small posts that were found are associated with the SW platform. Is it possible that the use of internal walls and mud pillars indicate less of a reliance on wood posts, perhaps indicative a scarcity of wood?

It is likely that these variations in styles of features represent trends through time and if we continue to see these new introductions in other contemporary buildings we should be able to group, date and trace developments across the site.

Finally, there was much debate this season about the cause of the extensive fire debris found in Building 52, 4040 Area. Was it a deliberate act or a catastrophic accident? To date at Çatal we have partially excavated two burnt buildings (Buildings 52 and 45 both in the 4040 Area) and a burnt room in Building 1 (North Area), although we also have Mellaart’s reports of burnt buildings. An argument for intentional burning of buildings was recently argued by Cessford & Near (2005). However this was based on data recorded prior to the excavation of Buildings 45 and 52. Mellaart’s general interpretation was that of accidental fires and ‘conflagrations’ but with a marked appearance at Level VI. It is therefore no surprise that with such a paucity of data the topic continues to rage across the site.

The evidence for intentionally burnt buildings can be elucidated from Building 45 excavated in 2004 at the southern end of the 4040 Area. Indications of prepared ‘closure’ were in evidence in Building 45 based upon the

pattern of 'closure' found in many other excavated buildings at the site, which is synchronous with the infilling processes.

First of all the rooms are cleared of all portable items. In some cases items are left behind which can be interpreted as intentional and significant. The 'closure' activities include the removal of supporting posts; floors and features are scoured clean so as to remove all occupation traces. The ovens are similarly 'closed' either by partial dismantlement or complete preservation by careful infilling. The west wall is sometimes 'defaced'. Mellaart interpreted this as significant removal of 'art' installations, which are more commonly found on the west wall of buildings. A further suggested closure pattern is the placing of an obsidian point or arrowhead at the base of post retrieval pits, which are clearly associated with the disuse of that living space (Carter, Chipped Stone, this Report). The walls are then dismantled and the vacated building infilled with the crushed debris of upper walls until an even horizon is reached over which the subsequent new building is constructed.

It was clear from the onset of excavations of Building 45 that it was burnt and the seat of the fire was eventually traced to the west room (Yeomans, 2004 Archive Report). Although there were a few charred timber remains of small posts associated with the SW platform (Harrison, 2004 Archive Report), all other activities in the building fitted the 'closure' processes outlined above; including placing parts of modified animal heads on the floor, which were possibly taken off the west wall of this building.

It was also clear from the onset of excavations of Building 52 that it was burnt. However it was soon apparent that the infill process was very different to Building 45; the infill in Space 93 and northern part of Space 94 (possibly the seat of the fire), largely consisted of burnt rubble and debris and had built up in a haphazard way, as it would in a burning and collapsing house. This, along with the amazing inventory of artefacts that were found left behind including the intact bulls head on the west wall, clearly differentiated it from Building 45 and suggests an accidental fire. In contrast, the presence of an obsidian arrowhead in one of the bins of Space 93, despite being part of a larger assemblage of artefacts, possibly leads to the conclusion that this house was intentionally set on fire (see Carter, Chipped Stone, this report). However, Carter's argument that obsidian is not normally associated with bins is ambiguous as because bins are generally scoured clean as part of the closure process, we do not have a clear idea of what is and what is not associated with bins through their use. Another important argument for intentional fire is that if Building 52 is correctly attributed to Level VI-VII it fits Mellaarts pattern of site-wide conflagrations at Level VI.

In further support for the accidental fire argument we should view the post-fire activities. Whilst there is currently no indication of how much time elapsed after the burning of Building 52 and the construction Building 51, there is a clear absence of ground preparation for a new construction. A sense of immediacy is presented first by the fact that the new building was set into a 'cleared' corner of the previous building as oppose to on top of the levelled walls and infilled space of the previous house, and secondly by its small and simple structure at a mere 4.3 x 2.7m. Could this represent a very quick fix it solution; that a new building was needed quickly, that there was no time for the foundations to be laid correctly, or even perhaps it was the wrong season for building (Fairbairn et al. 2005), but that a replacement building was required quickly could indicate a non-planned event? This could also give a plausible explanation as to how the pile of bull heads and horncores were placed directly over the in situ bull head installation whilst being interleaved with rubble, the explanation being that as the NW corner of the building was under clearance to make way for the new building, the bull heads and horncores were collected, stacked and buried in the area of the building which was no longer used.

It should be noted that Building 51 neighbours, and is roughly contemporary to Building 49 to the east, which was also a small structure but more elaborate internally and as such could represent a 'fashion' of smaller compact houses.

It may well be significant that all the evidence we have for burnt structures at Çatal are roughly contemporary and therefore a strong argument for the deliberate burning of houses. However, other explanations are plausible of course; for instance there may have been a change in construction materials at roof level that made houses more

at risk to fire?

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TP Area - Lech Czerniak, Arkadiusz Marciniak

Site Assistants: Patrycja Filipowicz, Adam Golanski, Lukasz Klima, Arkadiusz Klimowicz, Katarzyna Regulska, Kludia Sibilska, Kinga Vorbrich.

Abstract

One of the major objectives of this season was to correlate walls and buildings in the TP area with those of Mellaart Area A from the 1960s to be able to relate excavated Neolithic structures to the Mellaart chronological scheme. This goal was satisfactorily achieved by analysing a sequence of mudbrick walls in the west sector of the excavated area. These were further identified on the Mellaart plans from his Anatolian Studies report published in 1962 as originating from Levels I and II. Consequently, after careful stratigraphic analysis of all deposits in the excavated trench, it proved possible to distinguish three late Neolithic phases corresponding to Levels 0, I, and II according to the Mellaart scheme. All structures dated to Level 0 in the TP area were excavated in the 2005 season.

This season also involved recognising and lifting the remaining elements of the late occupation phases of this part of the mound. These comprised five Byzantine burials (one adult and four infants), localised in the northern part of excavated area, in addition to twenty pits of different function including large storage pits as well as postholes and other unspecified features, most of them probably Hellenistic or Roman in date. A majority of them were discovered in the southern and western sections of the trench.

Özet

Bu sezonun en önemli objektiflerinden birisi, Mellart'ın 1960 lı yıllardaki kazılarında bulunduğu duvar ve binaları, TP'de bulunan duvar ve binalarla bağdaştırarak,

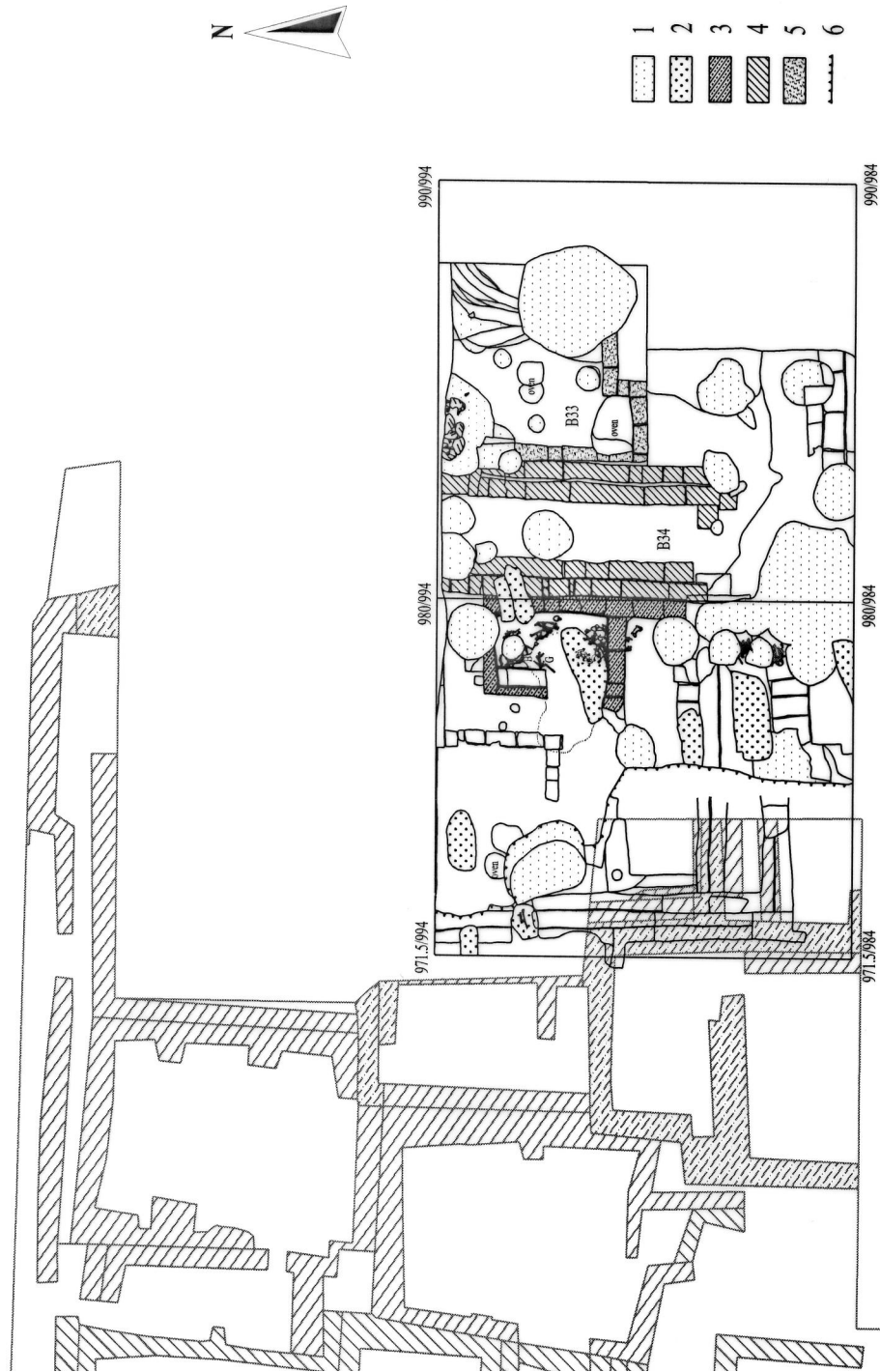


Figure 55. Plan of Levels I & II in TP Area and 1960s Area A.

980/994

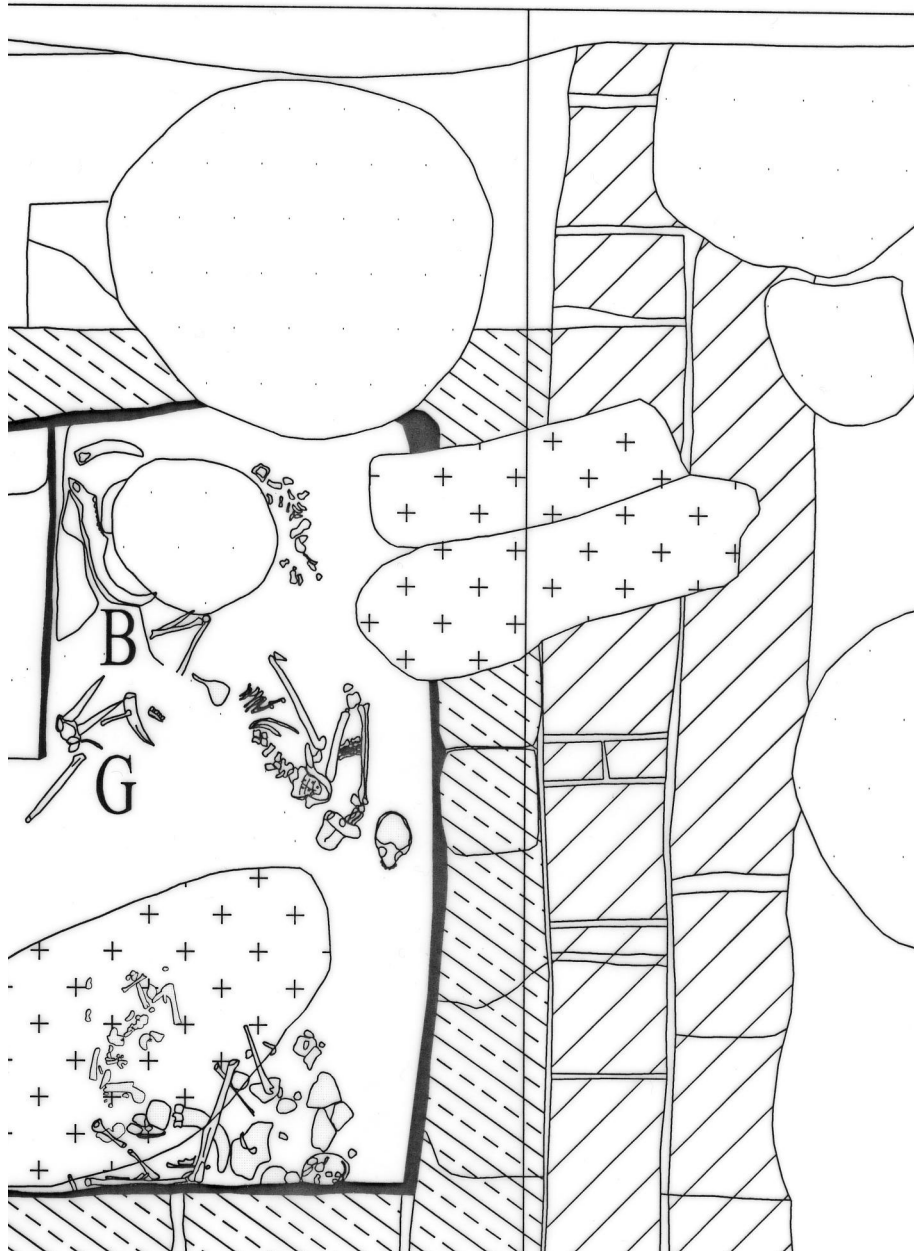


Figure 56. Plan of Space 248.

kazılmış olan Neolitik yapıları Mellart'ın tarihsel şemasına uydurmaktır. Bu amaç kazı alanının batı kesimindeki kerpiç duvarları analize ederek gerçekleştirildi. Bu duvarlar, Mellart'ın 1962'de Anadolu Çalışmaları'nda basılan raporundaki planlarla karşılaştırılarak, Tabaka I ve II'ye ait oldukları belirlendi. Kazılan alandaki tüm birikintilerin stratigrafik analizi sonucunda, Mellart'ın şemasına göre Tabaka 0,I ve II'ye tarihlenen üç geç Neolitik evrenin ayrıştırılması yapılabildi. TP alanında Tabaka 0'a tarihlenen tüm binalar 2005 sezonunda kazıldı.

Ayrıca bu sezon höyüğün bu kısmındaki geç yerleşim evrelerinin geriye kalan kısımlarının belirlenip kaldırılması çalışmaları da yapıldı. Bu kısımlar, kazı alanının kuzeyinde yoğunlaşan 5 adet Bizans gömüsü (1 yetişkin, 4 çocuk), bir çoğu Hellenistik veya Roma dönemine tarihlenen belirsiz nitelikler, direk çukurları ve saklama çukurları gibi farklı gereksinimlere hizmet eden 20 çukurdan oluşmaktadır. Bunların büyük bir çoğu kazı alanının güney ve batı kısımlarında ortaya çıktı.

Introduction

The TP team (Team Poznan) team made of twelve archaeologists and students of the Institute of Prehistory, University of Poznan and the Institute of Archaeology and Ethnology, Polish Academy of Sciences in Poznan conducted its fifth field season at Çatalhöyük between July 7 and August 3, 2005. The excavations this year continued in an extension trench 5 by 10 meters on top of the East Mound, in a strip between the main TP trench excavated in previous seasons, and the east trench dug by Mellaart in the 1960s.

One of the major objectives of this season was to correlate walls and buildings in the TP area with those of Mellaart Area A from the 1960s to be able to relate excavated Neolithic structures to the Mellaart chronological scheme. This goal was satisfactorily achieved by analysing a sequence of mudbrick walls in the west sector of the excavated area. These were further identified on the Mellaart plans from his Anatolian Studies report published in 1962 as originating from Levels I and II (Fig. 55). Consequently, after careful stratigraphic analysis of all deposits in the excavated trench, it proved possible to distinguish three late Neolithic phases corresponding to Levels 0, I, and II according to the Mellaart scheme. All structures dated to Level 0 in the TP area were excavated in the 2005 season.

This season also involved recognising and lifting the remaining elements of the late occupation phases of this part of the mound. These comprised five Byzantine burials (one adult and four infants), localised in the northern part of excavated area, in addition to twenty pits of different function including large storage pits as well as postholes and other unspecified features, most of them probably Hellenistic or Roman in date. A majority of them were discovered in the southern and western sections of the trench.

Late Neolithic sequence

Level 0

A major discovery from this phase was a room recorded as Space 248 (Fig. 56). It is a rectangular structure 2.7 m long and 1.7 m wide. This room was probably used as a burial chamber as indicated by remains of at least six individuals (two infants and 4 adults) in its south part and three to four individuals (all adults) in the north (Fig. 57). The south part of the space contained mostly disarticulated remains, predominantly skulls, while the north part was dominated by articulated skeletons. All these individuals or their remains were interred on the floor and then deliberately plastered. The bodies were buried in at least two episodes/phases, each of them marked by a layer of silty plaster.

The Space 248 had four relatively well preserved mudbrick walls (units 7827, 10918, 10982, 10985). All of them were plastered. Preserved remains of the walls comprised two to three courses of mudbricks. The walls were made of dark brown bricks of good quality, especially in its south part. The walls were placed on a levelled infill/dump layer. The east wall extended beyond a line defined by the south wall, which may indicate the existence of yet another room/space from this phase south of the space. However, no other remains were discovered which may

indicate a considerable destruction due to unspecified post-Level 0 construction activities, assuming this tentative interpretation is plausible.

A well preserved plastered bench (11573) was placed against the western wall of the space. It was constructed of three courses of horizontally placed greyish mudbricks (Fig. 58). Bricks were made of coarse silt and silty clay. Microstratigraphic analysis of this part of Space 248 indicates that the bench is younger than the space itself and was a later addition during one of the episodes of its rebuilding. The outer surface of the bench was plastered. A small bin (?) (11574) was placed in the northern part of the bench. It was probably plastered.



Figure 57. Space 248 looking S.

A narrow entrance to the space was located against the north section of the west wall. Due to later destruction, its overall shape and size are impossible to define. A solid floor (11752) of Space 248 was preserved next to the entrance and in its central part. It was pretty homogenous and made of compact greyish silty sand. Unfortunately, its state of preservation was poor. The floor was built on a sequence of two deposits – think silty/white make up layer (12234) followed by a bricky make-up layer. The latter layer was probably deposited after abandonment of the older floor from phase or Level I. The floor from Level I, placed directly underneath Space 248, is a solid grey and very homogenous layer constructed on white pebble make up layer. It will be excavated in the 2006 excavation season.

A cluster of animal and human bones comprising goat horn corn, cattle horn core, sheep/goat tibia and human femur (?) as well as a few sheep/goat mandibles were placed directly underneath the floor of Space 248 (12239, 12240 & 12263). Lumps of plaster were also found in its infill, which is indicative of a practice of plastering similar to the one discovered within Space 248. The deliberate character of this cluster and its location indicate that it may have been a foundation deposit. Individual elements of this cluster may have been dismantled from other locations and placed deliberately here. This cluster belongs to the earliest phase of Space 248.

The most important element in the north section of the space is an installation composed of a cattle skull (11562) and human skeleton (skull 11566) (Fig. 59). Both elements were placed directly on the floor of the space in some sort of deliberate act. It was only after this deposition took place that the adjacent bench (11573) was plastered,

probably together with this installation. The cattle skull is smallish with horns, but within the female aurochs range.



Figure 58. Bench (11573) in Space 248.

This partial skeleton of a young female (?) (11566) was largely disturbed by the post-Neolithic pit (F. 1903). The body was flexed on its right side, oriented with head to the west. The skull abutted a bucranium (11562) which was against the bench attached to the west wall of the space. Most of the skeleton had been removed when the pit was dug. The head, the spine, pelvis and feet were the only elements present as they were outside the pit. The spine and pelvis occurred in the northern section of the pit and connected with the head and feet clearly showing that this was the same individual.

It is not clear whether the bucranium was in the burial, the burial cut through a pre-existing deposit with the bucranium, or both were placed in during the filling process. If it was deliberately placed with the skull, it is a quite different use of bucrania from earlier levels. It seems hard to imagine that such a precise placement with respect to the bucranium was accidental.

The entire Space 248 had multiple individuals, all incomplete. The majority of individuals (perhaps all) appear to be female and children. It is highly probably that these skeletons were between layers of plaster. A large number of disarticulated human remains were recorded as X-finds within the upper layer of the space infill (10986).

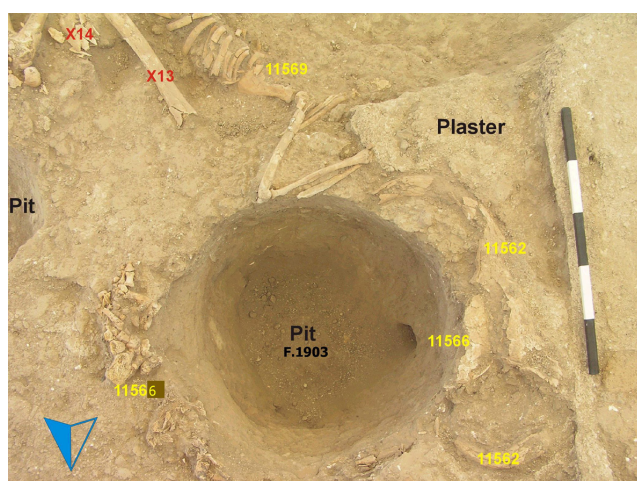


Figure 59. Cattle bucranium (11562) and human skeleton skull (11566) in Space 248..

The most completely preserved skeleton was recorded as (11569) in the central part of Space 248 (see Fig. 59 & 60). The left side of the body was missing. The body was on its stomach with the right arm extended over the head. The right lower arm was bent with the right hand going under the plaster. The burial was disturbed by the excavation of a Byzantine burial pit (F. 1921). It is possible that bones of this skeleton were disturbed after their deposition.

Another skeleton (11571) was represented by the left femur and tibia and it was placed against the south wall of the space (Fig. 61). The femur is noteworthy as it had a healed fracture with a large

bony callus in its mid-shaft. This was probably a result of spiral fracture and the nature of the healing suggests this injury occurred when this individual was adolescent. The disarticulated skeleton of an infant was found in SE corner of Space 248, directly after the proximal tibia of skeleton (11571). A string of beads was found near this concentration of bones but was not found in direct association with this individual. A cattle horn core (11704) was also found in the southern part of Space 248 in association with disarticulated human remains (see Fig. 57).

Bucrania and disarticulated human bones in Space 248 were deposited in most instances in two layers, each covered by a thin white plaster (Fig. 62). It is indicative of a deliberate act of sealing off subsequent deposits.

Floor deposits (10986 & 11740) in Space 248, stratigraphically belonging to Level 0, were composed of light & mid grey silty clay with a small number of constructional materials and lumps of plaster. Animal bone deposits in (11740) contained undiagnostic remains of small ruminants, mostly sheep size bones. A small part of the bones (a few long bone shaft splinters, mostly sheep-size) were burnt at low temperatures. Generally speaking, the bone deposits in Space 248 were fairly processed and re-deposited. A number of fresh fragments of lithics along with uncharacteristic palaeobotanical material containing fragments of dung and food processing weeds and chuff were also discovered.



Figure 60. Details of human remains deposition in (11569), Space 248.

Space 248 was placed directly above an earlier platform, later intentionally truncated, from Level I (see below), which itself comprised the NE part of an older, yet unexcavated, building from that phase. Only a small fragment of this platform was preserved. The presence of the burial chamber, undoubtedly of considerable significance, in the place of the NE bench of an older building, may indicate that the chamber retained a special importance inscribed to this space from the earlier phase. A significance and meaning for the NE platform of an older building has certainly been remembered but manifested and articulated in a different way in this last episode of the Neolithic occupation of the mound. It facilitated a creation of this burial chamber, recorded as Space 248, which is totally different from earlier levels.



Figure 61. Fragments of skeleton (11571) in southern part of Space 248.

Unfortunately, Space 248 was badly truncated by later pits (especially Byzantine burial – F. 1921) from different periods making a detailed observation of its overall layout impossible.

Level I

Other discoveries of the 2005 season in the TP Area comprised elements of a late Neolithic building in the west section of the excavated area dated back to Level I. The building was rebuilt at least twice as indicated by two types of floor as well as a number of partition walls. Its overall shape and size have not yet been defined. The two-phased floor was built up on a white pebbly make-up layer, which is the first discovery of this kind at Çatalhöyük (Fig. 63).

Some elements of the building were excavated this year. These included a largely truncated oven with adjacent rake out area (F. 1918) located in the southern part of the solid floor (12244). It had probably a domed superstructure as indicated by fragments of its construction. The rake out area was composed of ashy sand. The oven was badly destroyed by the Byzantine burial (F.1921) making impossible a detailed recognition of its construction. A large pot from this phase was found in a pit dug into the floor in its northern part.



Figure 62. White plaster on human remains in Space 248.

A sequence of deposits on this building's floor in its eastern section (12244) was also excavated. An infill/dump deposit between the wall directly underneath the bench of Space 248 (11792) and a partition wall in the central part of the building (11715), both of them sitting directly on this floor, was recorded as (12219). It contained a rich lithics assemblage typical for infill/dump deposits. The material was quite fresh with only a few dull/scratched pieces. It is one of the richest deposits in terms of its relative quantities of material in the TP area. It was considerably varied and contained a wider range of debitage including a lot of prismatic blade end-products with the presence of cores. Floors of this building were not excavated in the 2005 season.

Two burials from this phase were found in the south part of the excavated area (Fig. 64). Both burials were badly truncated by later pits making analysis of their context virtually impossible. F. 911 was a largely destroyed burial that sat atop a long east–north wall, probably dated back to the Neolithic Level II. The burial of one adult individual has been disturbed such that its lower body was missing. It has been truncated by two post-Neolithic pits (F. 1175 & F. 1909). As a result of these destructions, no burial cut was distinguished. The body was so tightly flexed that the knee was at the forehead. The bone would probably have been disarticulated (at least in part) to achieve this kind of flexure. The right side of the body was more clustered than the left.



Figure 63. White pebbly make up layer under floor from Phase 1.

F. 912 was a largely destroyed human burial found at the base of a large pit (F. 1909). The bones were the disturbed remains of two Neolithic individuals. There was a small gap between the two individuals although the burial fill appeared the same. Several body parts were in articulation (e.g. shoulder, hand, foot, knee), which indicates that the body was at least partially fleshed when it was placed here, although both bodies were disarticulated in terms of their anatomical position. The remains may have been removed from another location and placed here. The skeletons were also truncated by post-Neolithic activities by the excavation of pits to the north, south, and east of the skeleton.



Figure 64. Human burials from Phase I (F.911 & F. 912)

A cluster of human bones (F. 912) is younger than a homogenous layer placed directly underneath, which is composed of mid brown and light grey. Stratigraphic analysis of this section of the excavated area indicates that both burials are contemporary and are certainly younger than Level II. A position of these burials in relation to other elements of architecture, in particular the walls, may indicate extramural burials from Level I. Fragments of broken mudbricks in the infill of (11767) above F. 911, resulting from destruction of wall (11503), probably of Level I, may imply that the burial is older than both (11767) and this adjacent wall.

A sequence of infill deposits south of the southern wall of Space 248 was also excavated. It is younger than Level I and it may have been deposited either in the period contemporary with Space 248 or after its abandonment. (11772) & (12200) were typical bricky infill/dump layers deposited directly south of the south wall of Space 248. They had a lot of prismatic blade end-products. Faunal material was pretty worn with little integrity, mostly sheep/goat with some dog and cattle size bones. The adjacent unit (12205) was quite similar, however it had a higher proportion of blade material than (12200). It was also characterised by very low density of seeds and had no chaff and food processing material. It was more like midden crop processing waste. Animal bones from this deposit look worn and for the most part were slightly weathered, however they were not highly reworked/redeposited since there were some relatively delicate pieces present (e.g. a large cattle sacrum fragment). The bone deposit included mostly sheep/goat bones, with some cattle and a little bit of dog and mustelid. **There was a moderate amount of burning bone** in mostly low-temperature and a fair amount of digestion and gnawing.

Level II

The season also led to the recognition of a number of solid mudbrick walls from Level II. They were found in the west and south part of the excavated area as well as at the bottom of cuts of older pits. The layout of these walls may tentatively suggest a size of building as being 9 meters long and 7 meters wide. The most straightforward stratigraphy was in the west section of the excavated trench, directly between the TP Area and the Mellaart trenches from the 1960s

(Fig. 65 & see also Fig. 55). Two walls from Level II, recorded as (12229) and (12230), were later replaced by a wall recorded as (11583) from Level I. No elements from this phase were excavated in this season.



Figure 65. Mudbrick walls from Phase I & II between TP Area and 1960s Area A.

Hellenistic/Roman and Byzantine phases of occupation

Hellenistic/Roman pits

The 2005 season brought about excavation of twenty pits of different function including large storage pits as well as postholes and other unspecified features, most of them probably Hellenistic or Roman in date. They were located almost in all parts of the trench. However, they are mainly concentrated in its west and south sections. Twelve pits were regularly and irregularly oval in shape and had length varying from 1.00 to 2.10 m and width from 0.24 to 1.25 (F. 1186, 1189, 1193, 1195, 1904, 1909, 1910, 1920, 1925, 1927, 1928, 1929). Both their cuts and infills were usually easily distinguishable. In the majority of cases they were relatively deep (up to 0.85 m), which resulted in a considerable destruction of earlier Neolithic structures. F. 1909 was the largest pit excavated in this season. It was located in the south part of the excavated area. Its base was made of six small circular and relatively shallow flat-bottomed pits. They may have been used to place large vessels such as pithos or jars. It had the following dimensions: 1,50 x 0.70 x 0.63 m. Another deep pit recorded as F. 1910 was placed next to F. 1909. It was trapezoid in section with c. 1,3 m in diameter at the bottom and c. 110 cm in diameter at the top. It had the following dimensions: 1.05 x 0.85 x 0.78 m.

Another category of pits comprised circular features (F. 1194, 1196, 1197, 1900, 1903, 1922 and 1924). They were regular and irregular in shape and had diameters ranging from 0.60m to 0.80 m. They were shallower than large storage pits.

One of the pits recorded as F.1923 was certainly Byzantine or post-Byzantine in date as it cut through a large Byzantine burial (F. 1921). It was a large feature of the following dimensions: 3,00 x 1,70 x 0.72 m.

Byzantine cemetery

The work in the 2005 season concentrated also on uncovering remaining parts of the west section of the large Byzantine cemetery, which was identified and excavated extensively in the 2001 season. Altogether five Byzantine



Figure 66. Byzantine burial F.1097.

The western part of the burial was probably discovered and excavated in the 1960s campaign. The discovered elements of the skeleton comprised foot and leg bones. The burial cut was largely destroyed. F. 1919 was a child burial in a relatively shallow burial cut oriented E-W with the head facing west. The human remains were well preserved lying supine with arms extended to the side and legs extended. F. 1921 was the only Byzantine adult burial excavated this season with bones lying supine with arms extended to side and legs extended. The upper extremity remained slightly disturbed and positioned away from the body. The burial cut was substantial and truncated a Neolithic wall and floor deposits of Space 248.

Conclusions

The season resulted in a complete recognition and excavation of this youngest phase of the Neolithic occupation of the mound. The work in the next season will focus on excavating Level I and defining and excavating various architectural elements from Level II. It will aim at analysing and reconsidering stratigraphic relationships between midden deposits and the roof excavated in the 2004 season and architectural elements discovered this year in order to understand the complexity of the late Neolithic sequence in this part of the mound (Fig. 67).

burials were identified and excavated (four infants and one adult).

F. 1097 was a child burial with complete preservation. The skeleton was lying E-W with head facing west. Remains were supine and extended full length with left hand at the hip and right arm at the side. The burial cut had truncated the Neolithic floor (Fig. 66). F. 1908 was a partial Byzantine child burial truncated by Mellaart's trench in the 1960s. Only the lower extremities were preserved. The burial was in a defined burial cut with the skeleton oriented E-W with head facing west. The cut was made through two Neolithic walls from Levels I & II recorded as (11583) and (11229). F. 1915 was a burial of an infant dug into one of the Neolithic walls from Level II (12229) defining the western edge of the excavated area.

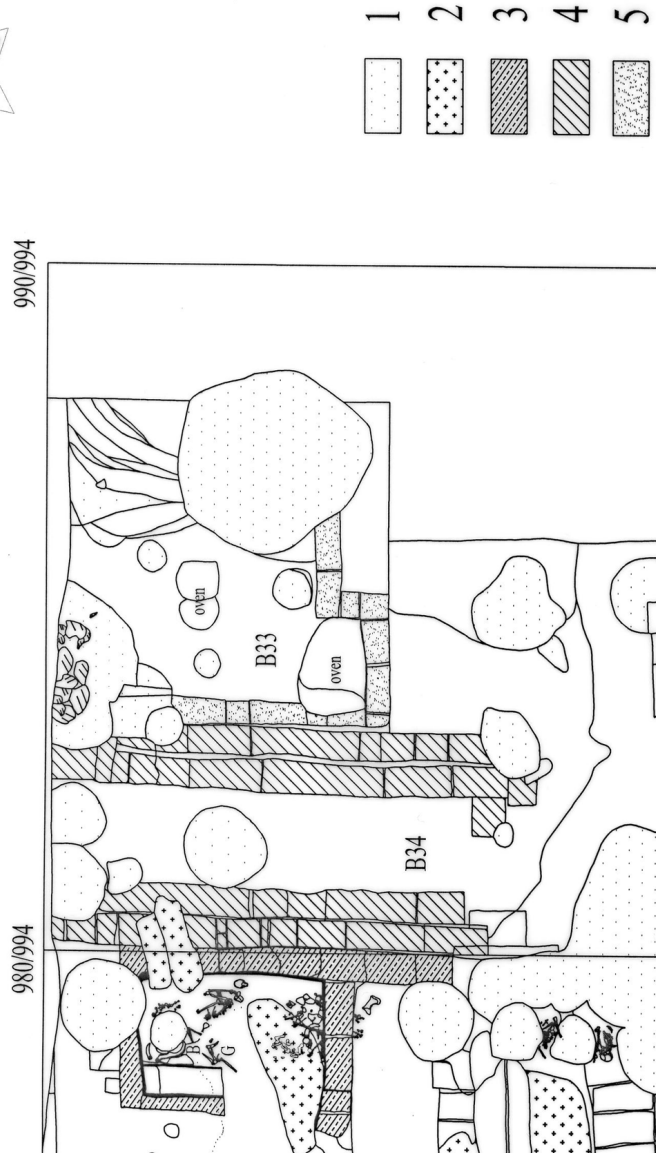


Figure 67. Neolithic deposits in TP Area.

IST Area - *Mihriban Özbaşaran*

Field Supervisors: Mihriban Özbaşaran, Güneş Duru

Site Assistants: Heval Bozbay, Turhan Ülgür, Nejla Kurt, Filiz Şeker

Abstract

The aim of Team IST focuses on the investigation of the earliest levels at Çatalhöyük. The area chosen for this objective was the southwest slope of the mound. In 2005 an area of more than 300 sq m was scraped; buildings, open spaces, *kerpiç* pavements (?), *kerpiç* walls, and a midden area(?) were documented and planned, and excavations were carried out mainly around a burnt building Space 252. The area as a whole is dated to Level IV/V by the pottery and the chipped stone.

Özet

IST Ekibinin Çatalhöyük'teki çalışmalarının ana amaçlarından biri yerleşmenin erken tabakalarını araştırmaktır. Bu hedef doğrultusunda höyüğün güneybatı yamacı çalışma alanı olarak seçilmiştir. 2005 yılı çalışmalarında 300 m² yi aşan bir alan bu amaçla yüzey toprağı atılarak, sıyrılmıştır. Tüm/tüme yakın binalar, bina arası açık alanlar, geçitler, kerpiç döşeme ve duvarlar, olası bir çöp alanı, sıyırma neticesinde ortaya çıkarılan yapı ve yapı öğelerini oluşturur. Kazı çalışmaları 252 no ile adlandırılan yanmış yapı ve çevresinde yürütülmüştür. Çanak çömlek ve yontma taş laboratuvarı uzmanları tarafından çalışılan alan ilk gözlemler doğrultusunda Çatalhöyüğün 4/5. tabakalarına tarihlendirilmektedir.

IST Area

Fieldwork in the IST Area started on July 7th and ended on August 3rd 2005 with an average of six archaeologists and students and seven local workers. Due to the objectives of the work of Team IST, the area south of the South Area shelter was intentionally chosen for two main reasons: the slope and the proximity to the South Area. The idea and the ideal of excavating the earlier levels in wide areas pushed us to work on the slope, where in general, it is suitable to apply various excavation methods to reach the lower layers. The work of the present team on the other hand had also confirmed the existence of the earliest levels on this part of the mound. Therefore, if we could reach the early levels and expose substantial architectural remains in the newly excavated area, it would be possible to establish a good stratigraphy in relation to the South Area.

So, scraping started ca. 20/25 m south of the South Area (Fig. 68). At about 0.1m below the surface soil (1007.775m) architectural features started to appear (eg. a *kerpiç* wall, F.1950) (Fig. 69). Work continued towards the south, east and west where a complete building (Space 251), *kerpiç* walls, possibly a large platform - paved with *kerpiç* blocks - were exposed. Space 251 is located in the middle of the scraped area, lying in a NE-SW direction. Although the building was cross-cut because of the slope, it presented a quite complete plan. The building measured ca. 4.5 x 5.5m; identifiable *kerpiç* blocks measured 0.35 x 0.72 / 0.88 x 80mm. There is a projection on its inner east wall, which could be an internal dividing wall, and a possible platform in its southeast corner. The floor of a fire installation was exposed in the middle of the southern half making up the preserved inner architectural elements. The floor of the building was very close to the surface and its fill was almost totally mixed with later disturbances. Scraping continued by extending the area more to the east. The state of preservation was better in this area, moreover the room fills seemed thicker and more intact when compared to the northern area and also there was a burnt area. These reasons motivated us to put our test trench in this location.

Excavations

Besides the burnt building (Space 252), the area chosen for excavation displayed an open space (E of Space 252), which could be related to the building. Moreover, the position of the walls implied two different levels. A difference in the *kerpiç* between the northern examples with that of the south (in size and colour) signalled the



Figure 68. Plan of Çatalhöyük with location of Area IST.

possible existence of superimposing levels tempting us to start digging in this area.

Space 252

Space 252 is a *kerpiç* building, lying in NE-SW direction (Fig. 69). It is partially exposed; its east and north walls are in the unexcavated area. It is also a partially preserved building in that the south wall was destroyed by late pits and disturbances and the building itself by a fire.

The already exposed part of the building has a partition wall (F.1964) in the north. The wall itself was destroyed in the middle. The wall (its east face) once had nice fine white plaster, renewed at least four times. However, the state of preservation was very poor. A small clay box (F.1980) with its well preserved exterior plaster lies in the south part, adjacent to the east face of the wall.

In the south part of the room, south of the partition wall, lay two bins (F.1967 on the west, F.1984 on the east) and a destroyed (by two late pits) fire installation east of the eastern bin. The bins are roughly rectangular in plan (both are app. 0.4 x 0.3m) bordered by thin and fragile plasters. While one of them (F.1967) had abundant amounts of carbonized barley the other one did not present any significant remains/seeds.

It seems that the building was partially burnt. It includes many fragments of *kerpiç*/mud plaster, most probably used in the roof construction. Burnt, negative impressions of reeds and/or branches were found often especially in the southern part of the building at different elevations. A collapsed *kerpiç* wall (F.1965) with nine courses of blocks was exposed in the eastern half of the room. However its original location and its stratigraphy need to be reconsidered next season. Various finds on the other hand came from the fill just above the floor level, at around 1005.8m. One of the most interesting finds of the building is a clay female figurine (12401.x7) with her head missing (Fig. 4 & 70). She seems to be pregnant on the front with an exaggerated belly. Her back on the other hand represents her skeleton. While her vertebrae, scapula and probably pelvis (?) were shown in relief and by incision, the ribs were only incised. It was found close to the west wall of the building, in the burnt fill, ca 0.3m above the floor level. Other finds in the same area include worked stones, polishing stones, ground stones, a shaft straightener (?) and a finely worked mace-head (?) made of limestone.

Their positions in general do not indicate their original position/location. When the building is excavated as a whole next season it is hoped that the inner structures and the architectural elements will be better understood and the position of the finds will be better interpreted.

Space 253

Space 253 is the most southern building so far exposed in the scraped area (Fig.69). Although the general characteristics, the location and the orientation look similar and in accordance to the above mentioned structures some differences were recognised in the size and the colour of the *kerpiç* used. Such differences tempted us to include the building in our excavation area and compare it to Spaces 252 and 251.

The first results showed that the building was cross-cut by the slope down to its floor level (at 1005.45m, the floor appeared in the northeast corner) and cut on its west by the village road. Therefore it did not yield any intact fill at all which hindered dating the building on the basis of the archaeological material. It was truncated on its northeast by intrusive late pits where its stratigraphical relation to Space 252 was blocked. Therefore the stratigraphical and/or the chronological position of the building remain unsolved and need further investigation.

The importance of this partially preserved building is that it is the most southwest building excavated on the mound which proves that the settlement extends beyond the modern limits of the mound. It continues beyond the fences, probably on the other side of the road (Fig.68).

Open space

The fill of the area east of Space 253 had a non-domestic character. No architectural features were found. While

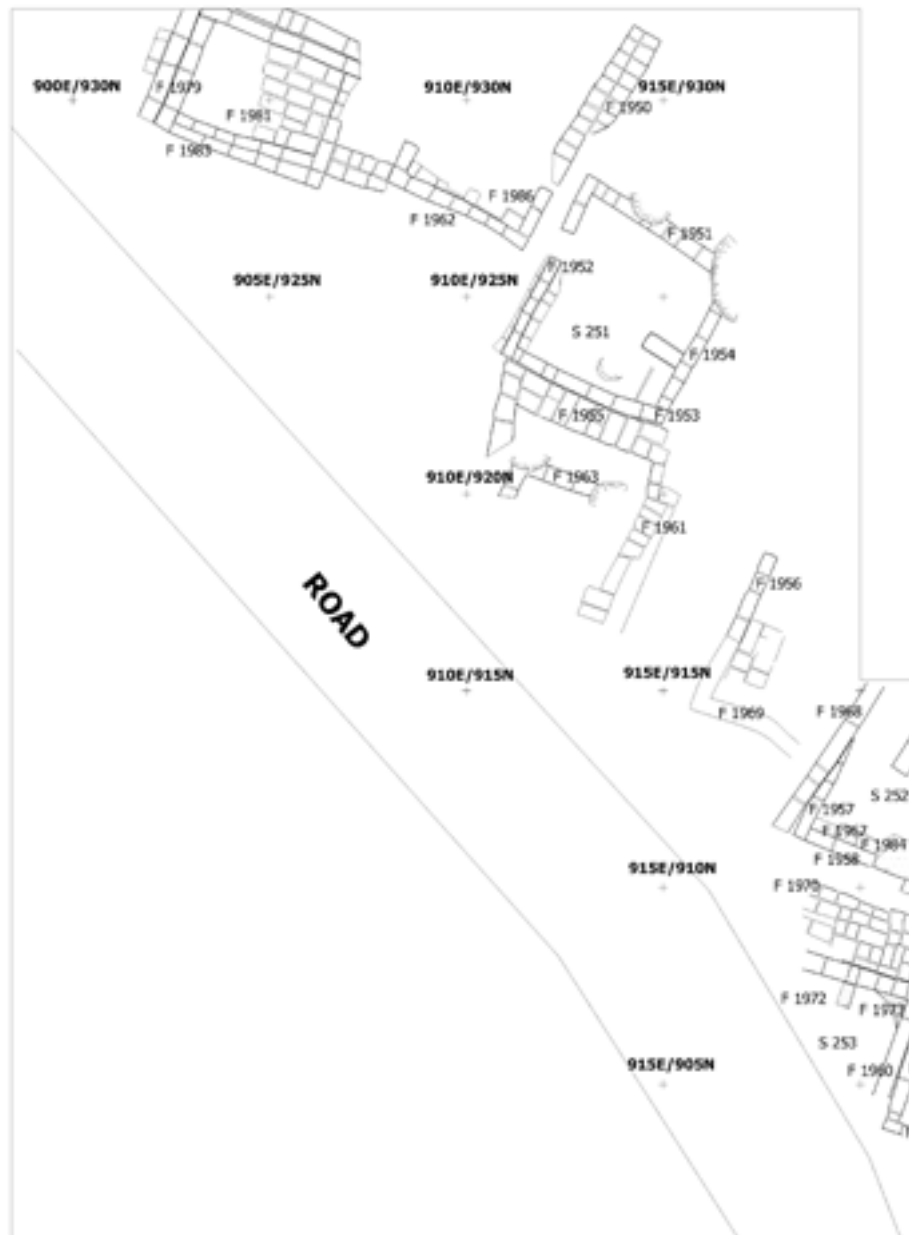


Figure 69. Plan of the IST Area in 2005.

the uppermost layers (11855, 11859) gave the impression of eroded soil in prehistoric times, the lower layers (11874) seemed to be the open area in relation to Space 253. A cluster of 21 clay balls (11861) found in this area was most probably related with Space 253.

Conclusive remarks

The preliminary results of the work in Area IST can be summarised as:
The southwest slope of the mound was densely inhabited by terracing.

The southwest limit of the settlement continues further to the southwest, beyond the present village road/fences indicating that the settlement was much larger.

The excavated area can provisionally and relatively be dated to a settlement phase later than Level VI.



Figure 70. Female figurine (12401.x7) found in fill of Space 252, close to the floor horizon.

Acknowledgements

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SEL Area- Dr. Asuman Baldıran, Arş. Gör Zafer Korkmaz

Directors: Prof. Dr Ahmet Tırpan, Yrd. Doc.Dr. Asuman Baldıran, Arş. Gör Zafer Korkmaz
Site Assistants: Dilek Coşkun, Vildan Konaç, Sevgi Gürdal and Şenay Öcal

Konya İli Çumra İlçesi Küçük Köy sınırları içinde bulunan Çatal Höyük doğusunda, III. derece sit alanı içinde 2005 yılı yüzey araştırmaları ve jeofizik etütleri 09.09.2005 ile 22.10.2005 tarihleri arasında belirlenen üç alanda S.Ü. Fen-Edebiyat Fakültesi Arkeoloji bölümünden Yrd. Doç. Dr. Asuman Baldıran, Arş. Gör. Zafer Korkmaz, Dilek Coşkun, Vildan Konaç, Sevgi Gürdal ve Şenay Öcal'dan oluşan bir ekip tarafından yürütülmüştür.

- I- Höyüğün doğu yönünde bulunan 105x80 m ölçülerde ki I. parselde
- II- Höyüğün yaklaşık 500 m güneydoğusunda bulunan doğu-batı doğrultusunda sulama kanalının 300 metrelik bölümünde
- III- Efe Köy mevkinde.

Bu alanlar dışında: Küçük Köy, Karkın Kasabası ve Çumra merkez Sırça Höyükte mimari elemanların ve heykeltıraşlık eserlerinin tespiti yapıldı.

Höyüğün doğu yönünde bulunan ilki 48x100 m ve ikincisi 48x50 m ölçülerde iki parsel, rezistivite (özdirenç) ve Jeoradar denilen jeofizik yöntemleri birlikte kullanılarak toprağın dokuz metre derinliğine kadar tarandı. İki parselin belirlenmesinde yüzeyden toplanan seramik malzemenin dağılımı göz önüne alındı. Jeofizik etütleri T.K.I. Genel Müdürlüğüne bağlı Jeofizik Yük. Müh. İsmail Ergüder, Jeoloji Mühendisi Abdulkadir Sucu ve Jeoloji Mühendisi Öner Özdemir tarafından yapıldı. Yapılan etütlerde her iki parsel içerisinde farklı anomali veren alanlar tespit edildi (I.-II. Parsel).

Jeofizik raporunda da belirtildiği gibi her iki parselde de düşük özdirenç değerleri bu alanlar içindeki plaket, marn, mermer ve kireç taşı gibi yüksek özdirençli kayalardan oluşan, kültür varlıklarının göstergesi olamayacağı şeklinde yorumlansa da, Neolitik döneme ait alan içinde yapılan test ölçümlerinde elde edilen verilerin ışığında değerlendirildiğinde olası arkeolojik nesnelere işaret edebileceği de göz ardı edilmemelidir. Jeofizik raporunda gösterildiği gibi, saptanan anomalilerin neyi ifade ettiğinin kesin olarak belirlenmesi amacıyla önümüzdeki 2006 yılı kazı sezonunda, önerilen kazı lokalizasyon haritalarında kırmızı renkli taralı alanlarda sondaj çalışması planlanmaktadır.

Höyüğün doğu eteklerinde bulunan arazilerden toplanan malzeme yukarıda belirtildiği üzere üç bölgeden gelmektedir.

I. Bölgede yapılan yüzey araştırmalarında cam, obsidiyen, taş aletler ve seramik malzeme toplanmıştır. Seramik malzeme geniş bir zaman dilimine ve çeşitliliğe sahiptir. Toplanan parçalar açık ve kapalı kap tipleri ile ince ve kaba yapıda hamura sahip seramiklerden oluşmaktadır. Seramik malzeme; yerel üretim veya taklitler ile gerçek sigillata örnekleri, düşük sıcaklıkta gevşek yapılı pişmiş ve üzerinde dalga kazıma süslü geç antik çağ ince seramikleri ile günlük kullanıma ait olduğu düşünülen bir çok kaba yapılı seramik ve pişirme kabı örneğine rastlanmıştır. Malzeme M.Ö. 1. yy dan geç antik çağa kadar dağılım göstermektedir. Bu alanda ele geçen malzemeler içinde en eski tarihli olanı, obsidiyen mızrak ucudur, ayrıca aynı bölgeden çok sayıda küçük obsidiyen parçalarda toplanmıştır. Belirtilen malzeme dışında siyah ve açık kahve renkte boyalı ve yivli fresk parçası dikkat çeken ilginç bir örnektir.

II. Bölgede yapılan araştırmada malzeme çeşitliliği cam, obsidiyen ve seramikten oluşmaktadır. Toplanan seramik malzemenin dağılımı I. Bölgede ile benzerlikler göstermesine karşın bu alanda elde edilen malzemenin tarihsel dağılımı I. bölge örneklerine göre farklılık taşımaktadır. Bu alandan toplanan seramikler içinde yer alan, içe dönük kenarlı tipteki çanaklar ve boya bezekli örnekler Hellenistik döneme ait malzeme bulunduğunu göstermektedir. Bu dönem eserlerinden başka I. bölgede olduğu gibi Geç Antik Çağ'a ait günlük kullanım seramikler de bulunmuştur.

III. Bölgede yapılan arařtırmada seramik malzeme toplandı. Malzemenin dönem olarak dađılımlarının çeřidi Demir Çađından Geç Antik Çađa kadar günlük kullanım malzemesi vermiřtir.

Her üç bölgede bulunan arazilerde yıllardır tarımsal faaliyetin yapılması, rüzgar erozyonu ve 1990'lı yıllarda bu arazilerin tesviye iřleminden geçirilmesi sebebi ile gerçek anlamda yüzey malzemesinin nasıl bir dađılım gösterdiğini net olarak anlamak maalesef mümkün deđildir.

Höyük çevresinde bulunan Küçük Köy, Karkın Kasabası ve Sırça Höyükte tespiti yapılan mimari elemanlar ve heykeltırařlık eserlerinin Geç Roma Dönemi ve sonrasına ait olduđu düşünölmektedir. Küçük Köy içinde bulunan eserler: sütunlar, kaideler, altar, yazıt ve parapet duvarına aittir. Karkın Kasabası içinde de benzeri özelliklerde ve Geç Roma dönemine ait, yazıtlı mezar stellerine rastlanmıřtır. Çumra merkeze bađlı Sırça Höyük üzerinde ise Tařkent-Ermenek yöresinden getirildiđi belirtilen heykeltırařlık eserleri incelenmiřtir. Bu eserler arasındaki sađlam durumdaki, ostotek ve kapađı incelenmeye deđer tek parçadan oluřan ve ölü gömme adetleri ile ilgili önemli bilgiler veren bir örnektir.

Introduction

The 2005 season archaeological survey and geophysics work were undertaken between the 09.09.2005 and 22.10.2005, by Yrd. Doc.Dr. Asuman Baldiran, Arř. Gör Zafer Korkmaz, Dilek Cořkun, Vildan Konaç, Sevgi Gürdal and řenay Öcal (all from the Selçuk University, Science and Literature Faculty, The Dep. Of Archaeology), in three areas within the 3rd degree SIT area which is on the east of Çatalhöyük.

I-On the subdivision of a land (105x 80m) which is on the east of the mound.

II- On the 300m part of the water channel which is about 500m south east of the mound (east-west direction).

III- Around Efe Köy.

A part from these areas, architectural and sculpture fragments were identified in Küçükköy, Karkın and Sırça Höyük (Çumra central).

Two subdivisions of the land that are on the east of Çatalhöyük (48x100m, 48x50) were surveyed down to the 9m depth of soil, by using *resiztivite* and *Jeoradar* methods. The distribution of the ceramics collected, determined the areas of subdivision. Geophysics work was undertaken by the Geophysics engineers Ismail Ergüder, Abdölkadir Sucu ve Öner Özdemir (all from the T.K.I General Directorate). During the survey, different anomalies were identified within the both subdivisions.

As it was mentioned in the Geophysics report, even though the low value of *resiztivite* in the both subdivisions was explained as the reason for the non-indication of any archaeological material which is made of plaket, marn, marble and lime that have high *resiztivite*, when the test results within the Neolithic area were examined in relation to those, the existence of the archaeological material might be possible. In order to extract a meaningful result from the collected anomalies which are presented in the 2005 survey report, it is suggested that some sondage work need to be undertaken during the 2006 season, on the red marked areas that were drawn on the excavation localisation maps.

The materials that were collected from the eastern skirts of the mound are derived from three areas.

A lot of glass, obsidian, stone tools and ceramics were found during the survey undertaken in area I. The ceramic material presents a variety and fits in a larger time scale. They are in the form of open and close vessels as well as are made of both fine and coarse clay. We have come across locally manufactured or faked ceramics, real sigillata examples, low fired, late period ceramics with an incised wave decoration and many coarse ceramic vessels which were possibly for the daily use.

The dating of the ceramic material ranges between the 1st century BC and the late antiquity. The oldest material that was found in this area was an obsidian arrowhead. A large number of small obsidian fragments were also collected from the same area. A part from these materials, a fragment of black and light brown coloured, grooved fresco was considered to be an interesting find.

The survey of Area II presented glass, obsidian and ceramic materials. Even though the distribution of the ceramic material was similar to those collected in Area I, the dating of the material differ between the two areas. Some of the concave rimmed and painted pottery can be considered an evidence of the Hellenistic period. Moreover, a number of late, daily used ceramics were found.

The survey of Area III only presented the ceramic material. The material dates between the Iron age and the late antiquity.

Due to all three areas being exposed to the agricultural activity, wind erosion and the ploughing for many years, it is difficult to understand the distribution of the surface material in real terms.

Architectural and sculpture fragments that were found in Küçükköy, Karkın and Sırça Höyük are thought to be from the Late Roman period and later. The fragments examined in Küçükköy possibly belong to the columns, pedestals, altars, inscriptions and a parapet wall. There were also some inscripted stelae found in Karkın which are dated to the late Roman period. In Sırça Höyük, we examined some sculpture fragments that are known to be brought from the Taşkent-Ermenek region. One of these fragments was identified as an ostotek which presents an important information in relation to the burial practices around the region.

Summary Geophysics survey report

Abstract

This report aims to present the geophysical work undertaken in three areas within the 3rd degree SIT area that is on the east of Catalhoyuk, between the 17.08.2005 and 20.08.2005.

1. Introduction

T.C The ministry of Culture and Tourism, The general directorate of the Cultural Heritage and museums, the directorate of Lagina excavations has requested a geophysical study in Konya-Catalhoyuk excavations in order to undertake archaeological surveys in this area. TKI General Directorate was in charge of the project.

The geophysical work was undertaken in two subdivisions of the land within the 3rd degree SIT area that is on the east of Catalhoyuk, between the 17.08.2005 and 20.08.2005.

During this project, rezistivite and jeoradar methods, which are the most sensitive techniques, used for tracing the archaeological material.

The geophysical study was undertaken in Area I (4800M2, 48x100) and in area II (2400 M2, 48X50). 5332 electric measurements were taken on total 62 cross sections (Area I, southeast-northwest directed, 41 cross-sections(CH1-CH41) and Area II, 21 cross section (CH42-CH62)). Moreover the measurements were taken by the jeoradar, on total 6 cross-sections (CHR1,1A , 3, 39, 48 and CHR57-61) in both areas which have anomalies.

The project was run by the Geophysical engineers Ismail Erguder, Abdulkadir Sucu and Oner Ozdemir.

Yrd. Doc.Dr. Asuman Baldiran and her team (Selcuk University, Science and Literature Faculty, The Dep. Of Archaeology) was also contributed the field work.

5 workmen were also employed by the project.

Previous geophysics reports of Catalhoyuk were also available as a reference.

2. The Field Work

The work was undertaken in about 10km east of Cumra town. Catalhoyuk is connected to the Cumra Town via the Catalhoyuk-Cumra road. It is possible reach the field in every season.

The mound is in the form of two hills. Due to these hills, it is named after Catal (fork). The geophysical work was undertaken in two subdivisions of the land on the east of Catalhoyuk. The test measurements for the later evaluation work was taken in the south excavation area.

3. General Geology

Konya and its surrounding have collapsed due to the block fault lines during the late Miosen-Pliosen period and resulted the creation of a large lake (Akgol and Hotamis Lake). The Cumra plain was formed as the land and lake sediments of this large lake filled the area.

- The stratigraphical layers of Cumra and its surrounding (from bottom to the top) present the following:
- Miosen wet limestone, Pliosen wet clay, sand, pebble, Kuaterner wet clay, sand and pebble.
- The two subdivisions, which the geophysical work was undertaken, have clay and clay-sandy alivional units.
- The underground water levels of the Cumra, Eregli and Aksehir plains that are located around Cumra, are between 20-100 metres, as the water also causes artesian in some areas.



TÜRKİYE KÖMÜR İŞLETMELERİ KURUMU GENEL MÜDÜRLÜĞÜ
ETÜT PROJE VE TESİS DAİRE BAŞKANLIĞI

ÇATALHÖYÜK JEOFİZİK (ÖZDİRENÇ-JEORADAR) ETÜDÜ RAPORU



EKİM 2005/ANKARA

İsmail ERGÜDER
Jeofizik Yük. Müh.

Abdulkadir SUCU
Jeoloji Müh.

Öner ÖZDEMİR
Jeoloji Müh.

İÇİNDEKİLER

- 1.GİRİŞ
- 2.ÇALIŞMA SAHASI
- 3.GENEL JEOLJİ
- 4.UYGULANAN JEOFİZİK YÖNTEMLER
 - 4.1 Özdirenç Yöntemi
 - 4.1.1 Pole-Dipole Elektrod Dizilimi
 - 4.2 Jeoradar (Yer Radarı) Yöntemi
5. DEĞERLENDİRME VE YORUM
 - 5.1 Test Ölçülerinin Yapıldığı Alan
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Bu rapor, Konya İli Çumra İlçesi Çatalhöyük kazi alanının doğusundaki eteklerinde bulunan ve III. derece arkeolojik sit alanı içerisinde yer alan 2 ayrı parselde, antik yapıların varlığını araştırmak amacıyla 17-20 Ağustos 2005 tarihleri arasında yapılan jeofizik etütleri içermektedir.

Bu çalışmalarda rezistivite(özdirenç) yöntemi ve jeoradar yöntemi birlikte kullanılmıştır. Arkeolojik nesnelere aranmasında en çok kullanılan ve en duyarlı jeofizik yöntemlerden biri olan rezistivite yöntemi, elektrik profili ölçüsü şeklinde uygulanmıştır. Antik yapı, mezar, yol ve duvar gibi arkeolojik nesnelere, içinde buldukları ortamdaki daha yüksek özdirenç değerlerine sahip olması bunların aranmasında jeofizik özdirenç yönteminin kullanılmasını olanaklı kılar.

Çalışmanın amacına uygun olarak her iki parselde 2.5 metre aralıklarla birbirine paralel olarak oluşturulan 48 metre uzunluklu toplam 62 profil(kesit) üzerinde, her 2 metrede bir bulunan ölçü istasyonlarından pole-dipole elektrod dizilimi kullanılarak, n=4 seviye(derinlik) için otomatik özdirenç cihazıyla ölçüler alınmıştır. Bu ölçülerle yüzeyden 3, 5, 7 ve 9 metre teorik derinliklere ait özdirenç değerleri tespit edilmiştir. Böylece yer içinin hem düşey hem de yatay yöndeki özdirenç yapısı hakkında bilgi edinilmiştir. Ayrıca jeoradar cihazıyla 200 MHz frekansında antenler kullanılarak kayıtlar alınmış ve değerlendirilmeleri yapılmıştır.

Jeofizik etütlerle elde edilen özdirenç değerlerine göre bilgisayar ortamında özdirenç grafikleri, yer-elektrik kesitleri, eş-özdirenç seviye haritaları ve 2-B ters çözüm kesitleri yapılarak hedeflenen yüksek özdirençli olası anomaliler belirlenmiştir.

Jeofizik değerlendirme ve yorum çalışmaları için gerekli olan test ölçüleri, İstanbul Üniversitesi tarafından 2005 yılında kazı yapılan alanda, 48 m. uzunluğunda ve birbirine paralel 2 kesit ölçülerek yapılmıştır. Bu kazıda bulunan Neolitik döneme ait kerpiç duvarların devamlılığı ölçülen her iki kesitte de belirlenmiştir. Kerpiç duvarların bu kesitlerdeki görünür özdirenç değeri; diğer arkeolojik alanlardaki Geometrik, Klasik, Helenistik ve Roma dönemlerine ait kültür varlıklarının sahip olduğu özdirenç değerlerinden çok daha düşük olmasına karşın, üstünü örten killi-kumlu örtü tabakasına göre daha yüksek çıkmıştır.

Her iki parselde de egemen olan düşük özdirenç değerleri; bu alanlar içerisinde plaket marn, mermer ve kireçtaşı gibi yüksek özdirençli kayaçlardan oluşan, arkeolojik bir nesnenin göstergesi olamayacağı şeklinde yorumlanmıştır.

Buna karşın her iki alanda yapılan jeofizik ölçüler, Neolitik döneme ait alan içerisinde yapılan test ölçülerinde elde edilen verilerin ışığında analiz edildiğinde; bu alanlar içerisinde, çevresine göre daha yüksek özdirençli olan yerlerin, olası bir arkeolojik nesnenin göstergesi olabileceği şeklinde yorumlanmıştır. Belirlenen bu olası anomaliler hazırlanan haritada gösterilmiş olup rapor ekinde sunulmuştur.

Kazı yapılması planlanan her iki parselde; bu etütlerle elde edilen ve rapor ekinde sunulan tüm haritalardaki bilgiler ile arkeologların bu sahadaki deneyimi ve bilgileri birleştirilerek kazı öncesi planlama yapılmalı, kazı sırasındaki bulgulara göre de kazı yönlendirilmelidir.

1. GİRİŞ

T.C. Kültür ve Turizm Bakanlığı, Kültür Varlıkları ve Müzeler Genel Müdürlüğü, Lagina Kazisi Başkanlığı 08.08.2005 tarih ve 60/5 sayılı yazı ile, TKİ Genel Müdürlüğünden Konya-Çatalhöyük kazı alanında, yüzey araştırmaları için jeofizik etütlerinin yapılmasını talep etmiştir.

Konya İli, Çumra İlçesine 10 km uzaklıktaki Çatalhöyük kazı alanının doğusundaki eteklerinde bulunan, III. derece arkeolojik sit alanı içerisinde yer alan ve arkeologlar tarafından belirlenen 2 ayrı parselde, antik yapıların varlığını araştırmak amacıyla, 17-20 Ağustos 2005 tarihleri arasında jeofizik etütleri yapılmıştır.

Arkeolojik kazılarda da jeofizik yöntemler kullanılarak kazı yapılacak alanın, kazı öncesi yol gösterici haritası elde edilebilmektedir. Yurdumuzda ilk uygulamaları 1960'li yılların sonlarında başlamış ve 1980'li yılların bitimine doğru arkeolojik yerleşmeler üzerinde yoğun bir biçimde denenmiştir. 1990'li yıllardan günümüze etkili bir şekilde kullanılarak, arkeolojik aramacılığın vazgeçilmez yöntemlerinden biri olmuştur.

Bu çalışmada arkeolojik nesnelere aranmasında en çok kullanılan ve en duyarlı jeofizik yöntemlerden biri olan

rezistivite(öz direnç) yöntemi ve jeoradar yöntemi birlikte kullanılmıştır.

Jeofizik çalışmaların yapıldığı birinci alan 4800m²(48x100), ikinci alan ise 2400m²(48x50) dir. Birinci alanda birbirine paralel 48 metre uzunluklu güneydoğu-kuzeybatı doğrultulu 41adet Profil(CH1-CH41), ikinci alanda da aynı şekilde 21 Profil(CH42-CH62) olmak üzere toplam 62 adet profil(kesit) üzerinde 5332 adet elektrik ölçü alınmıştır. Ayrıca jeoradar cihazıyla anomalilerin bulunduğu her iki parselde toplam 6 kesit (CHR1, 1A, 3, 39, 48 ve CHR57-61) üzerinde, kayıtlar alınmıştır. (EK-1, 2, 3, 4, 5 ve 6).

Jeofizik Etüdün arazi çalışmaları ile saha ölçülerini ve tüm verileri harita, kesitlere aktarip değerlendirip yorumlayarak raporunun hazırlanması, Jeofizik Yük. Müh. İsmail Ergüder, Jeoloji Mühendisi Abdulkadir Sucu ve Jeoloji Mühendisi Öner Özdemir tarafından yapılmıştır.

Selçuk Üniversitesi Fen-Edebiyat Fakültesi Arkeoloji Bölümünden Yrd. Doç. Dr. Asuman Baldıran ve Ekibi tarafından arazi çalışmalarına katkıda bulunulmuştur.

Ayrıca Kazi Başkanlığının 5 arazi işçisi çalışmalara katılmıştır.

Çatalhöyük kazı alanı içerisinde önceki yıllarda yapılmış, jeofizik-manyetik etüdüne ait rapor mevcuttur.

2. ÇALIŞMA SAHASI



Çalışma sahası Çatalhöyük, Konya İline 43 km uzaklıktaki Çumra İlçesinin 10 km doğusunda yer almaktadır. Çatalhöyük kazı alanının Çumra İlçesine bağlantısı Çumra-Çatalhöyük yolu ile sağlanır. Her mevsimde sahaya ulaşmak mümkündür (Şekil 1).

Şekil 1: Yer Bulduru Haritası

Höyük, farklı yükseklikte iki tepe düzü olan bir tepe şeklindedir. Bu iki yükseltisi nedeniyle çatal sıfatını almıştır (Resim 1). Jeofizik etütler Çatalhöyük kazı alanının doğusundaki eteklerinde bulunan iki ayrı parselde yapılmıştır. Değerlendirme çalışmaları için gerekli olan test ölçüleri ise güney kazı alanında yapılmıştır.



Resim 1 : Çatalhöyük Kazı Alanının Havadan Görünüşü
(Kaynak: Çatalhöyük Araştırma Projesi Kataloğu 2002)

3. GENEL JEOLojİ

Konya ve çevresi Geç Miyosen-Pliyosen döneminde blok faylanmalarla çökmeye başlamış, bu ortamda bugün de kalıntıları görülen büyük bir göl (Akgöl ve Hotamış gölü) oluşmuştur. Çumra ovası, bu gölün karasal ve göl sel sedimanter tarafından doldurulması sonucunda oluşan ovalardandır.

Çumra ve civarında birimlerin stratigrafik olarak alttan üste doğru dizilimleri, Miyosen yaşlı kireçtaşı, Pliyosen yaşlı kil, kum çakıl ile Kuvaterner yaşlı kil, kum ve çakıl şeklindedir.

Jeofizik etüt yapılan her iki parselde kil ve killi-kumlu alüvyonel birimler hakimdir.

Konya ve çevresindeki Çumra, Ereğli ve Akşehir ovalarında yeraltı suyu seviyesi, 20-100 metre arasında olmakla birlikte bazı yerlerde de bu su artezyen yapmaktadır.

4. UYGULANAN JEOFİZİK YÖNTEMLER

Bu çalışmada elektrik-rezistivite (özdirenç) yöntemi ile jeoradar (yer radarı) yöntemi birlikte kullanılmıştır. Bu yöntemlerle ilgili özet bilgi aşağıda verilmiştir.

4.1 Özdirenç Yöntemi

Özdirenç, bir materyalin elektrik iletkenliğini gösteren öziletkenliğin tersidir ve birimi ohm-m dir. Özdirenç yöntemleri ; yere verilen suni bir akımın, yer altında yarattığı elektrik alanın potansiyelini ölçerek, potansiyel-akım şiddeti bağıntısından yeraltındaki katmanların rezistivite ve kalınlık değerlerinin hesaplanması prensibine dayanır.

$$ra = k (DV / I)$$

[1]

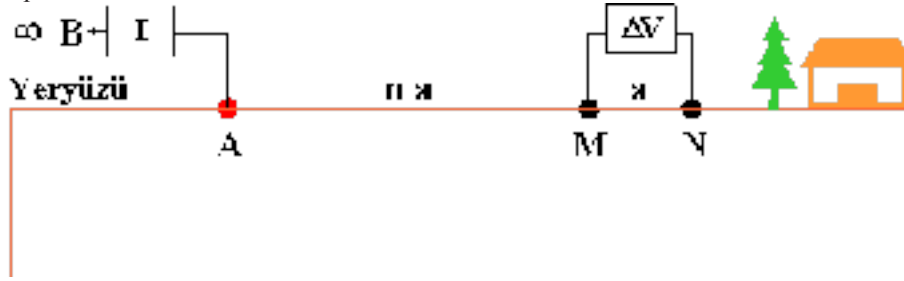
k = Geometrik Faktör (Elektrod dizilim tekniğine göre değişir)

ΔV = Ölçülen potansiyel farkı (mV)
I = Yere verilen akım (mA)
Pa = Görünür Özdirenç (ohm-m)

Bu yöntemle yeraltındaki kayaçların özdirençlerine bağımlı olan görünür özdirenç [1] bağıntısından belirlenerek, yer içinin jeolojik yapısı elektrik (özdirenç) özelliğine göre haritalanır. Yöntem maden, petrol, su, jeotermal, arkeolojik aramalar ve mühendislik jeolojisi problemlerinin çözümünde kullanılır. Arkeolojik nesnelere içinde buldukları ortamdaki daha yüksek özdirenç değerine sahiptir. Boşluklar, mezarlar, taş duvarlar ve tümülüs içindeki koridorlar içinde buldukları ortamdaki daha yüksek özdirenç gösterirler. Arkeolojik nesnelere yüksek özdirenç değerlerine sahip olması, bunların aranmasında jeofizik özdirenç yönteminin kullanımını olanaklı kılar.

Bu çalışmada özdirenç-elektrik profil yöntemi pole-dipol elektrod dizilimi kullanılarak 4 seviye (n= 1, 2, 3, ve 4) için yapılmıştır (Şekil 2).

4.1.1 Pole-Dipole Elektrod Dizilimi



Bu dizilimde akım elektrotlarından biri, AM mesafesine göre sonsuz sayılabilecek bir mesafeye, arazinin durumuna göre profil doğrultusunda veya profile dik olacak şekilde irtibatlandırılır.

Şekil 2: Pole-Dipole Elektrod Dizilimi

Bu dizilimde geometrik faktör k, [2] bağıntısından hesaplanır.

$$k = 2 \pi n (n + 1) a \quad [2]$$

A ve B Akım Elektrotları
M ve N Gerilim Elektrotları
MN = a
AM = n a
n = 1, 2, 3, 4,.....
 $\pi = 3.14159$

Elektrik profil ölçülerinde pole-dipole elektrod dizilimiyle, yüzeyden 3, 5, 7 ve 9 metre teorik derinliklere karşılık gelen seviyelerde, ölçümler yapılarak profiller boyunca özdirenç değişimleri incelenmiştir. Ölçümler, Kanada mali Scintrex-Saris çok elektrotlu özdirenç cihazı ve çok kanallı kablo düzeneği kullanılarak yapılmıştır. Kullanılan akımın değerleri 500 volt-1 amper, ölçü istasyonları arası uzaklık 2 metredir (Resim 2).

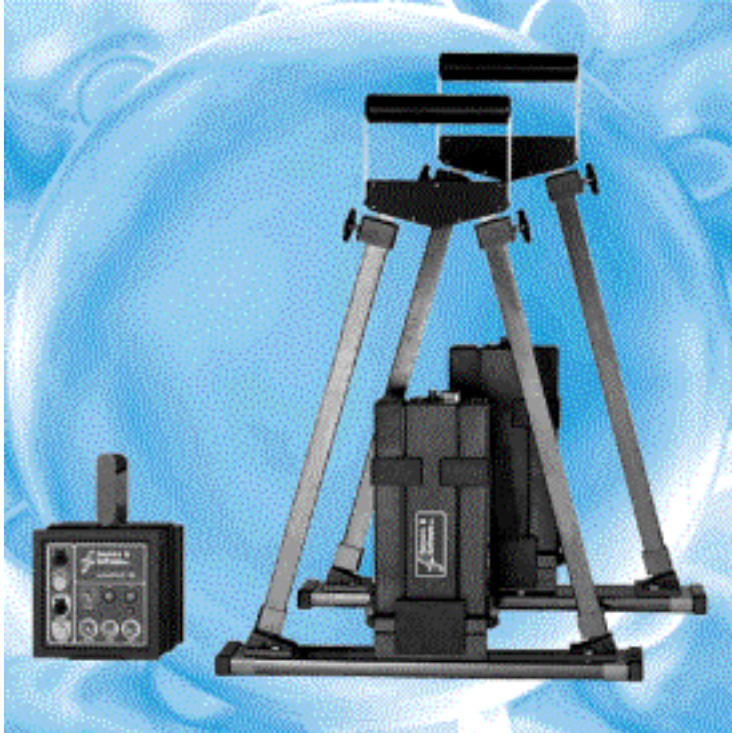


Resim 2 : Otomatik Özdirenç Cihazı ve Çok Kanallı Kablo Düzenegi

Ölçü başlangıcında, ölçülecek profile ait gerekli parametreler cihaza girilir ve ölçü başlatılır. Profilin tamamı kısa sürede otomatik olarak ölçülerek elde edilen veriler daha sonra kullanılmak üzere hafızaya depolanır.

4.2 Jeoradar (Yer Radarı) Yöntemi

Yer radarı son yıllarda mühendislik ve arkeolojik arařtırmalarda yaygın olarak kullanılmaya başlanmıřtır. Yurdumuzda da Topkapı Sarayı avlusu, Gaziantep-Zeugma, Tekirdağ-Kamaradere, Efes, Yatağan-Eskihisar vb. arkeolojik kazı alanlarında ve mühendislik arařtırmalarında başarı ile uygulanmıřtır.



Yer radarı zaman ortamı bir elektromanyetik yöntemdir. Radar sistemi bir sinyal üreticisi, verici ve alıcı antenler ile kayıt biriminden oluşur. Bu yöntemde yer içine gönderilen yüksek frekanslı elektromanyetik dalganın bir kısmı farklı dielektrik sabitine sahip tabaka veya kütle ara yüzeylerinde yansımaya uğrar. Yansıyan bu dalgalar alıcı anten tarafından algılanır. Elektromanyetik dalganın gidiş-geliş zamanının ölçülmesi ile yeraltındaki katmanların konumu, fay, kırık ve çatlakların varlığı, yapay veya doğal gömülü oluşumların, kütlelerin ve boşlukların belirlenmesi yapılabilmektedir.

Yer radarı yöntemi Çatalhöyük kazı alanındaki arkeolojik amaçlı jeofizik etütlerde, özdirenç yöntemi ile birlikte kullanılmıřtır. Bu çalışmalar özdirenç çalışmaları sonucunda belirlenen anomaliler üzerinde yoğunlařtırılmıřtır.

Resim 3 : PulseEKKO 100A Jeoradar Cihazı ve Antenleri (200 MHz)

Yer radarı çalışmalarında, Kanada mali PulseEKKO 100A cihazı ile 200 MHz frekansında antenler kullanılarak kayıtlar alınmıştır (Resim 3). Bu kayıtlar Win_EKKO bilgisayar programı kullanılarak değerlendirilmiştir.

5. DEĞERLENDİRME VE YORUM

Verilerin araziden toplanıp işlenmesinden sonra değerlendirme (verilerin jeofizik, jeolojik ve arkeolojik yorumu) çalışmaları yapılmıştır. Bu bölümde arazi verilerinin nasıl kesit ve harita haline getirilmesi konusunda da kısaca bilgi verilmiştir.

Değerlendirme çalışmaları için gerekli olan test ölçüleri için kazi alanının içerisinde, antik yapıların varlığını araştırmak amacıyla, Çatalhöyük kazi alanının doğusundaki eteklerinde bulunan, III. derece arkeolojik sit alanı içerisinde yer alan ve arkeologlar tarafından belirlenen 2 ayrı parselde yapılan jeofizik ölçüler sonunda elde edilen özdirenç değerlerine göre tüm kesitlerin SURFER, MATLAB, iki boyutlu (2-B) ters çözüm (Loke 1999, Res2dinv Semi Demo Version) bilgisayar programları kullanılarak G.Özdirenç Grafikleri, Yer-Elektrik Kesitleri, 2-B Yapma-Kesit ve Ters Çözüm Kesitleri ile etüt alanlarının Eş-Özdirenç Seviye Haritaları, 3-B Özdirenç Anomali Haritaları yapılmıştır.

Özdirenç grafikleri yeraltının yanal değişimlerini belirlemek için yapılır. Her seviye (derinlik) için hesaplanan r (özdirenç), profil boyunca x' (metre)in fonksiyonu olarak çizilir (Şekil 3).

Yer-Elektrik Kesiti ve Yapma-Kesit, kesit boyunca ölçülen derinliklere ait özdirenç değerlerinin yerlerine yazılıp konturlanması ya da bu değerlere göre renklendirilmesiyle elde edilir. Profil uzunluğunun düşey düzlemindeki özdirenç değişimini gösterirler. Bu kesitler, katmanların doğrultu ve eğimleri, cevher oluşukları, süreksizlikler, boşluk, blok, mezar vb. yeraltı yapılarının belirlenmesini sağlarlar.

Eş-Özdirenç seviye haritaları ait oldukları seviye (derinlik)deki yatay özdirenç dağılımını gösterirler. Bu haritalar da, özdirenç değerlerinin yerlerine yazılıp konturlanması ya da bu değerlere göre renklendirilmesiyle elde edilir (EK-1, 2, 4 ve 5)

Bu haritalar; cevher oluşukları, süreksizlikler, jeotermal sular, yer altı boşlukları, blok, mezar vb. yeraltı yapılarının belirlenmesini sağlarlar.

2-B Ters Çözüm ise yeni bir veri işlem tekniğidir. Olası yapının konumu, derinliği ve boyutları hakkında bilgi verir. Eş-Özdirenç seviye haritaları ise çizdikleri seviye (derinlik)deki yatay özdirenç dağılımını gösterirler (Şekil 4, 5 ve 6).

Bilgisayar ortamında yapılan tüm bu jeofizik kesit ve haritalar arkeolojik açıdan değerlendirilip yorumlanarak, antik yapıların buldukları ortam içerisindeki göstergesi olan olası yüksek özdirençli zonlar belirlenmiştir (EK-3 ve 6).

5.1 Test Ölçülerinin Yapıldığı Alan

Jeofizik değerlendirme ve yorum çalışmaları için gerekli olan test ölçüleri, İstanbul Üniversitesi tarafından 2005 yılında kazi yapılan alanda alınmıştır.

Kazi alanının sınırında oluşturulan birbirine paralel, istasyon aralıkları ve kesit aralıkları 2 metre, uzunluğu 48 metre olan 2 adet deneme profili (DNM1- DNM2) üzerinde pole-dipole elektrot dizilimi kullanılarak elektrik ölçüleri alınmıştır (Resim 4-5).

Bu kazıda bulunan Neolitik döneme ait kerpiç duvarların devamlılığı, ölçülen her iki kesitte de belirlenmiştir. Kerpiç duvarların bu kesitlerdeki görünür özdirenç değeri; diğer arkeolojik alanlardaki Geometrik, Klasik, Helenistik ve Roma dönemlerine ait kültür varlıklarının sahip olduğu özdirenç değerlerinden çok daha düşük

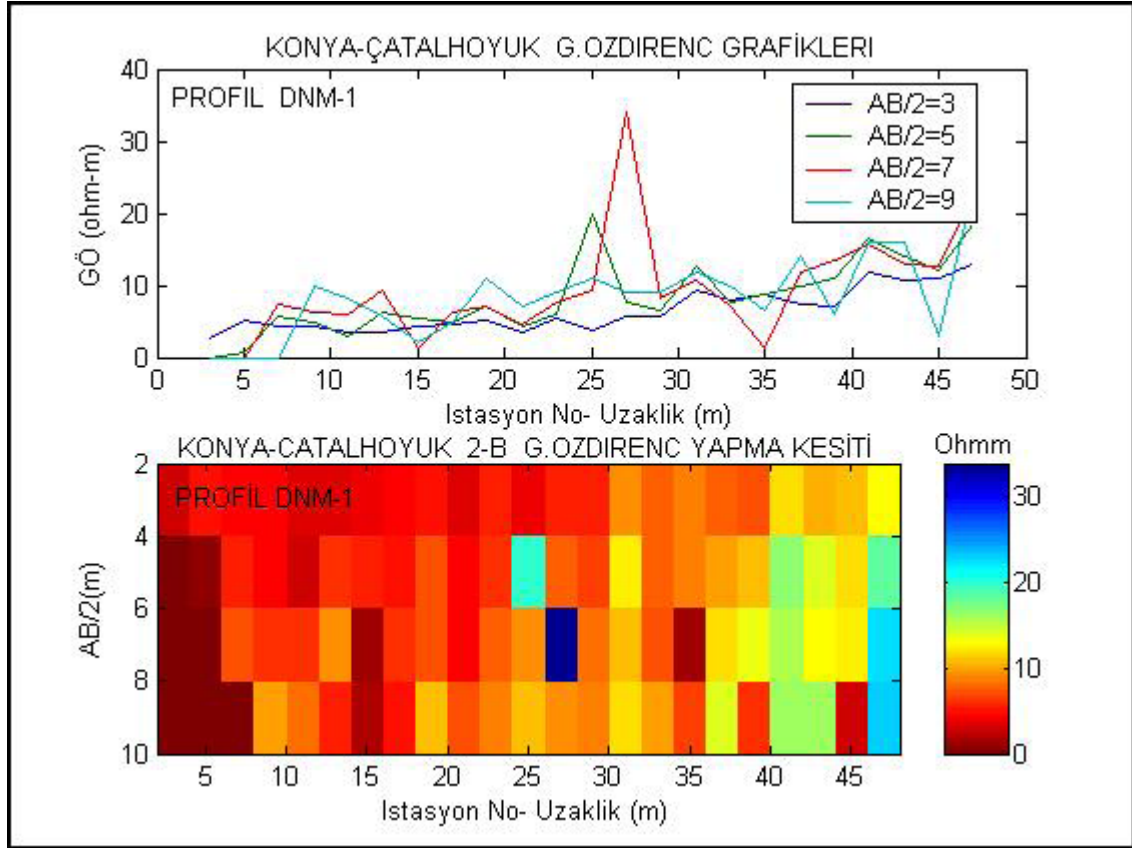


olmasına karşın, üstünü örten killi-kumlu örtüye göre daha yüksek çıkmıştır (Şekil-3 ve 4).



Resim 4 : Test Ölçülerinin Yapıldığı Alan ve DNM-1 Profili (Güney'den Bakış)

Resim 5 : Test Ölçülerinin Yapıldığı Alan (Kuzey'den Bakış)



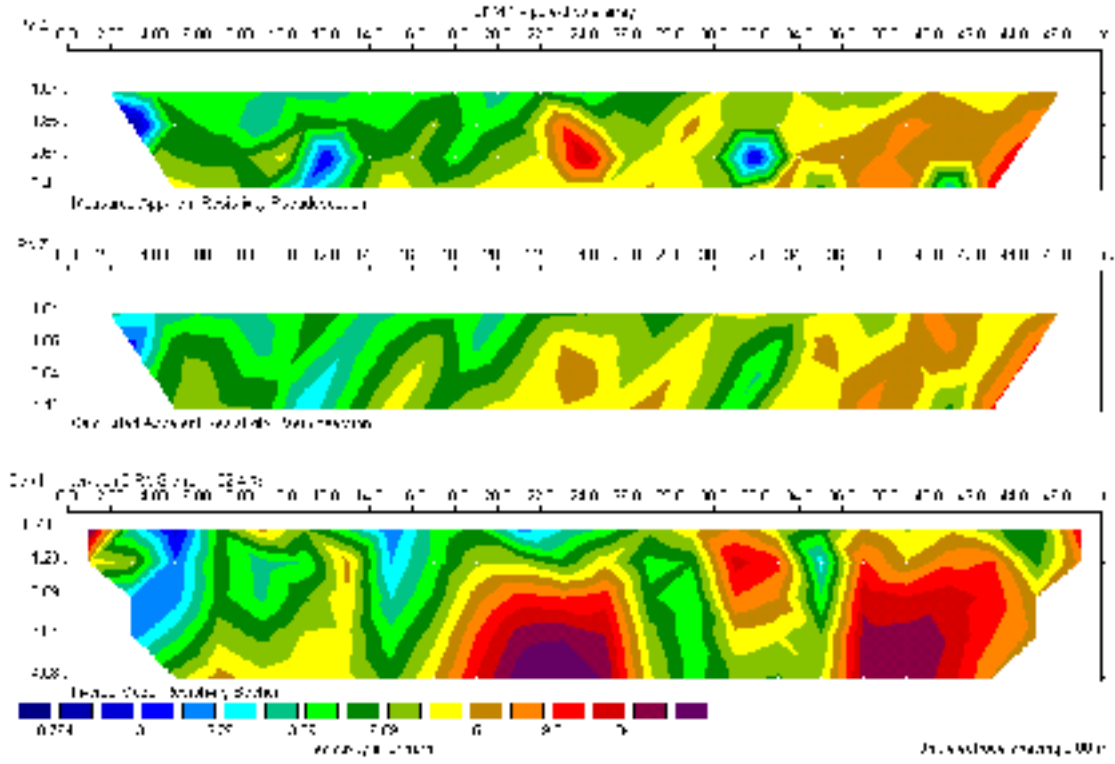
Şekil 3: Öz direnç Grafikleri ve 2-B Yapma-Kesiti Profil DNM-1

DNM-1 Profilin MATLAB 6.5 programi kullanılarak yapılan görünür öz direnç grafikleri ve 2-B Yapma-Kesiti Şekil 3 de görülmektedir.

Arkeolojik kazılarla belirlenen kerpiç duvarların yerleri ile jeofizik kesitlerdeki anomalileri örtüşmüştür. Kerpiç duvarlar çevresine göre daha yüksek öz direnç değerleri vermiştir.

2-B yapma-kesit de bu anomalilerin açık yeşil, açık mavi ve koyu mavi renk gösterilen ve çevresine göre yüksek öz direnç değerine karşılık geldiği görülmektedir.

Ayrıca aynı profilin 2-B ters çözüm programi (Loke 1999, Res2dinv Semi Demo Version) ile yapılan, görünür kuramsal ve ters çözüm öz direnç kesitinde de, çevresine göre yüksek öz dirençli olan kerpiç duvarların verdiği anomaliler (kirmizi renk) Şekil 4 de görülmektedir.



Şekil 4 : Profil DNM-1 Görünür, Kuramsal ve Ters Çözüm Elektrik Kesiti

5.2 1. Parsel



Bu sahada istasyon aralıkları 2 metre, kesit aralıkları 2.5 metre ve uzunluğu 48 metre olan 41 adet profil (CH1-CH41) üzerinde pole-dipole elektrot dizilimi kullanılarak elektrik ölçüleri alınmıştır.

Resim 6 : 1. Parselin Kuzeydoğudan Görünümü

48 metre eninde, 100 metre boyunda olan dikdörtgen sahanın köşe noktaları demir kazıklarla belirlenmiş, üzerine



1, 2, 81 ve 82 köşe numaraları verilerek sabitlendirilmiştir. Demir kazıkların yerleri ve numaraları yapılan haritalarda gösterilmiştir. Bu alanın 1 ve 2 nolu köşe noktaları arasından (kuzeydoğu) çekilen resmi Resim 6 da, yapılan jeofizik çalışmaların güneydoğudan çekilen resmi Resim 7 de görülmektedir.

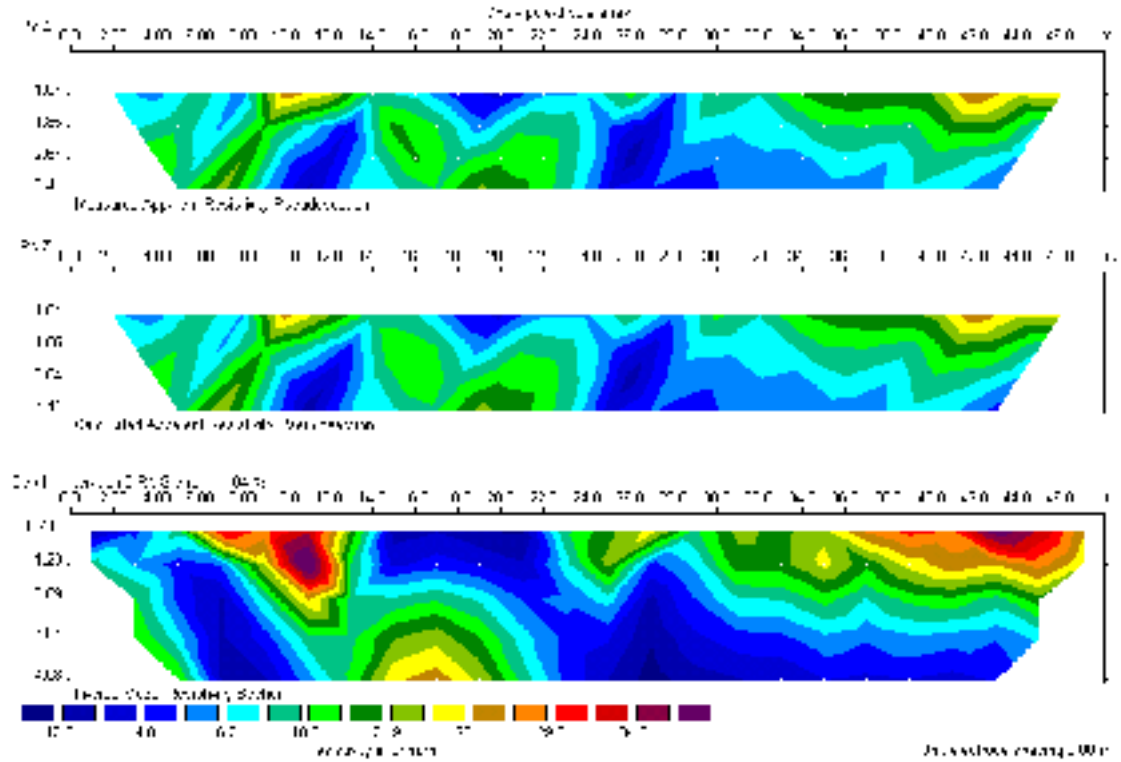
Resim 7 : 1. Parselde Yapılan Jeofizik Çalışmalar

Bu parselde ölçülen tüm kesitlerde elde edilen öz direnç değerlerine göre bilgisayar ortamında, öz direnç grafikleri, yer-elektrik kesitleri, 2-B yapma-kesitleri ve 2-B ters çözüm kesitleri yapılmıştır. Ayrıca jeoradar cihazıyla 200 MHz frekansında antenler kullanılarak kayıtlar alınmıştır. Şekil 5 de Profil CH 2'in 2-B ters çözüm kesiti örnek olarak verilmiştir. Bu kesitin yatay mesafedeki 6. ile 14. metreleri arasında çevresine nazaran daha yüksek öz dirençli bölgenin konumu kırmızı renk ile görülmektedir.

Bu ölçüler sonunda sahanın 4 seviye (derinlik) için 1/300 ölçekli Eş-Öz direnç Seviye Haritaları yapılmıştır. Rapora örnek olarak birinci seviye haritası konulmuştur (EK-1).

Eş-Öz direnç Haritaları SURFER programı kullanılarak 3, 5, 7 ve 9 metre teorik derinliklere ait görünür öz direnç değerlerinin harita üzerindeki profillerdeki yerlerine yazılıp 1 ohmm kontur aralığı ile konturlanmasıyla elde edilmiştir. Bu haritalarda konturların sıklaştığı yerler, olası arkeolojik nesnelere işaret edebilecek yüksek öz dirençli zonalardır.

1/300 ölçekli 3-B Görünür Öz direnç Anomali Haritası da aynı şekilde SURFER programı ile yapılarak renklendirilmiştir. Bu haritada ölçülen kesitler ve ölçü istasyonları gösterilmiştir. Çevresine göre yüksek öz dirençli zonlar, sarımsı-açık kahverengi ile görülmektedir. Yeşil renk ise sahada egemen olan daha düşük öz dirençli bölgeleri belirtmektedir (EK- 2).



Şekil 5 : Profil CH 2 Görünür, Kuramsal ve Ters Çözüm Elektrik Kesiti

1. Parsel tüm bu verilerin denetiminde analiz edilerek arkeolojik açıdan değerlendirilerek yorumlanmıştır. Buna göre 1. parsel, 2. parselde göre daha homojen bir yapıdadır. 1. Parselde egemen olan düşük öz direnç değerlerinin; bu alan içerisinde plaket marn, mermer ve kireçtaşı gibi yüksek öz dirençli kayalardan oluşan, arkeolojik bir nesnenin göstergesi olamayacağı şeklinde düşünülmektedir.

Buna karşın 1. parselde çevresine göre daha yüksek öz direnç değerlerine sahip zonlar, tüm haritalarda görüldüğü gibi genellikle kuzeydoğu-güneybatı doğrultusu boyunca sıralanmıştır. Bu alanlar olası bir arkeolojik nesnenin göstergesi olabilir. Belirlenen bu alanlar 1/300 ölçekli hazırlanan 'Çatahöyük 1. Parsel Önerilen Kazi Lokasyon Haritası'nda gösterilmiş olup, rapor ekinde sunulmuştur (EK-3).

5.3 2. Parsel

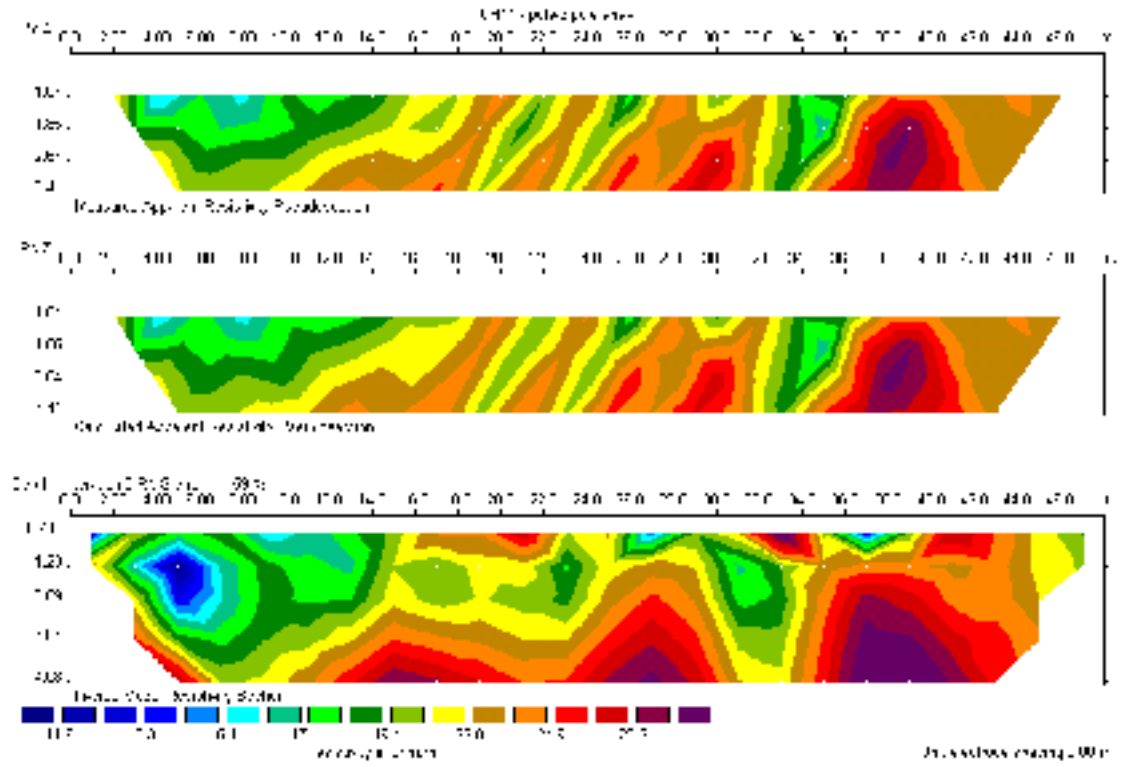
Bu sahada da istasyon aralıkları 2 metre, kesit aralıkları 2.5 metre ve uzunluğu 48 metre olan 21 adet profil (CH42- CH62) üzerinde pole-dipole elektrot dizilimi kullanılarak elektrik ölçümleri alınmıştır.

48 metre eninde, 50 metre boyunda olan yaklaşık kare şeklindeki sahanın köşe noktaları demir kazıklarla belirlenmiş, üzerine 83, 84, 123 ve 124 köşe numaraları verilerek sabitlendirilmiştir. Demir kazıkların yerleri ve numaraları yapılan haritalarda gösterilmiştir. Bu alanın 83 ve 123 nolu köşe noktaları arasından (güneydoğu) çekilen resmi Resim 8 de, yapılan jeoradar çalışmalarının güneyden çekilen resmi Resim 9 da görülmektedir.



Resim 8: 2. Parselin Güneydoğudan Görünümü

Bu parselde de ölçülen tüm kesitlerde elde edilen özdirenç değerlerine göre bilgisayar ortamında, özdirenç grafikleri, yer-elektrik kesitleri, 2-B yapma-kesitleri ve 2-B ters çözüm kesitleri yapılmıştır. Profil CH 44'ün ters çözüm kesiti Şekil 6 da görülmektedir.



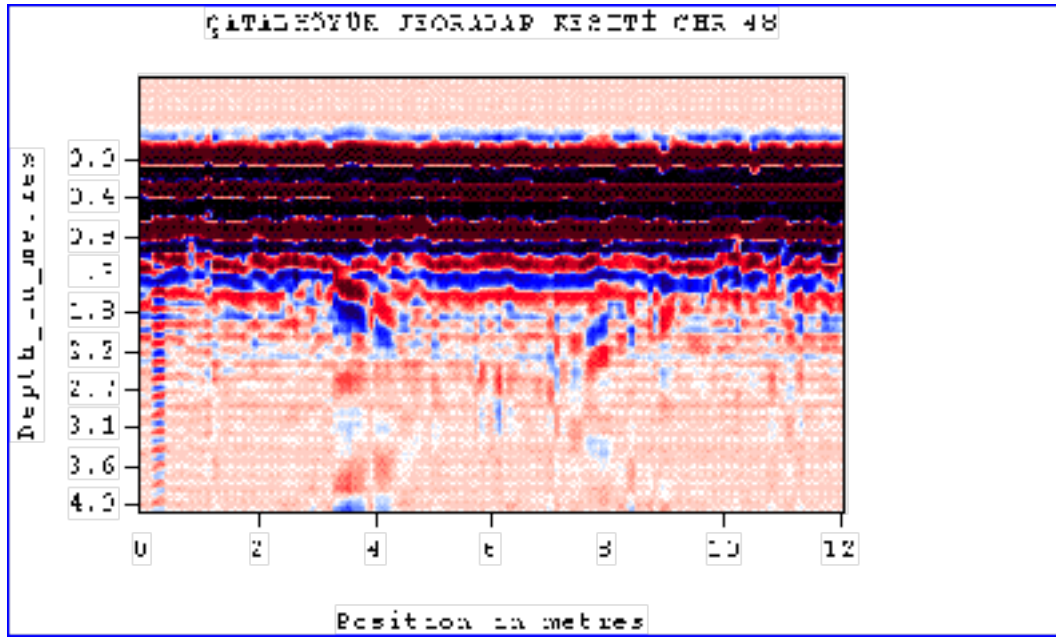
Şekil 6 : Profil CH 44 Görünür, Kuramsal ve Ters Çözüm Elektrik Kesiti



Profil CH 44'ün 2-B ters çözüm kesiti örnek olarak verilmiştir. Bu kesitin yatay mesafedeki 26. ile 29. metreleri ve 35. ve 45. metreleri arasında çevresine nazaran daha yüksek öz dirençli olan bölgenin konumu kırmızı renk ile görülmektedir.

Resim 9: 2. Parselde Yapılan Jeoradar Çalışmaları

Ayrıca bu alanda da jeoradar cihazıyla 200 MHz frekansında antenler kullanılarak kayıtlar alınmıştır (Resim 9).



Şekil 7 : Jeoradar Kesiti CHR 48

Alınan jeoradar ölçülerinin, Win_EKKO programi kullanılarak elde edilen kesitlerine örnek Şekil 7'de verilmiştir. Profil CHR 48'in radar kesitinde yatay mesafede, 3.-5. metreler ve 7.-10. metreler arasında görülen yansımalar, öz direnç ölçüleriyle belirlenen anomaliler ile çakışmıştır.

2. parseldeki öz direnç ölçüleri sonunda sahanın 4 seviye (derinlik) için 1/200 ölçekli Eş-Özdirenç Seviye Haritaları yapılmıştır. Raporla örnek olarak birinci seviye haritası konulmuştur (EK-4) Eş-Özdirenç Seviye Haritaları 3, 5, 7 ve 9 metre teorik derinliklere ait görünür öz direnç değerlerinin harita

üzerindeki profillerdeki yerlerine yazılıp 1 ohmm kontur aralığı ile konturlanmasıyla elde edilmiştir. Bu haritalarda konturların sıklığı yerler, olası arkeolojik nesnelere işaret edebilecek yüksek öz dirençli zonlardır.

EK- 5 de verilen renklendirilmiş Öz direnç Anomali Haritasında mavi-yeşil renk, sahada egemen olan daha düşük öz dirençli bölgeleri belirtmektedir. Sarı renk düşük öz direnç değerlerinden yüksek öz direnç değerlerine geçişi, kırmızı renk ise yüksek öz dirençli bölgeleri göstermektedir.

2. Parsel tüm bu verilerin denetiminde analiz edilerek arkeolojik açıdan değerlendirilerek yorumlanmıştır. Buna göre 2. parsel, 1. parselde göre daha heterojen bir yapıdadır. 2. Parselde de egemen olan düşük öz direnç değerlerinin; bu alan içerisinde plaket marn, mermer ve kireçtaşı gibi yüksek öz dirençli kayaçlardan oluşan, arkeolojik bir nesnenin göstergesi olamayacağı şeklinde yorumlanmıştır.

Ancak 2. parselde de çevresine göre daha yüksek öz direnç değerlerine sahip zonlar, olası bir arkeolojik nesnenin göstergesi olabilir. Belirlenen bu alanlar hazırlanan 1/200 ölçekli “Çatalhöyük 2. Parsel Önerilen Kazi Lokasyon Haritası”nda gösterilmiş olup, rapor ekinde sunulmuştur (EK-6).

6. SONUÇ VE ÖNERİLER

Konya- Çatalhöyük kazı alanının doğusundaki eteklerinde bulunan, III. derece arkeolojik sit alanı içerisinde yer alan ve Arkeologlar tarafından belirlenen 2 ayrı parselde, antik yapıların varlığını araştırmak amacıyla, 17-20 Ağustos 2005 tarihleri arasında yapılan jeofizik etütlerde (öz direnç-jeoradar) aşağıdaki sonuçlar elde edilmiştir.

Jeofizik ölçülerle elde edilen verilerden, bilgisayar ortamında amaca uygun çeşitli jeofizik kesitler ve haritalar yapılmıştır. Çalışma sahası tüm bu verilerin denetiminde analiz edilerek arkeolojik açıdan değerlendirilmiş ve yorumlanarak aydınlatılmaya çalışılmıştır.

Etüt edilen her iki parselin hem düşey, hem de yatay yöndeki öz direnç yapısı ortaya çıkarılmıştır. Buna göre 1. Parsel, 2. Parselde göre daha homojen yapıdadır.

Neolitik dönemin yapı malzemesi olan kerpiçten yapılmış duvarların öz direnç yöntemi ile belirlenebileceği, İstanbul Üniversitesinin 2005 yılında kazı yaptığı alandaki, test ölçülerimizde ortaya çıkarılmıştır. Bu kazıda bulunan Neolitik döneme ait kerpiç duvarların devamlılığı ölçülen her iki kesitte de belirlenmiştir. Kerpiç duvarların bu kesitlerdeki görünür öz direnç değeri ; diğer arkeolojik alanlardaki Geometrik, Klasik, Helenistik ve Roma dönemlerine ait kültür varlıklarının sahip olduğu öz direnç değerlerinden çok daha düşük olmasına karşın, üstünü örten killi-kumlu örtü tabakasına göre daha yüksek çıkmıştır.

Her iki parselde de egemen olan düşük öz direnç değerleri ; bu alanlar içerisinde plaket marn, mermer ve kireçtaşı gibi yüksek öz dirençli kayaçlardan oluşan, kültür varlıklarının göstergesi olamayacağı şeklinde yorumlanmıştır. Buna karşın 1. ve 2. parsel, Neolitik döneme ait alan içerisinde yapılan test ölçülerinde elde edilen verilerin ışığında analiz edildiğinde; bu parseller içerisinde çevresine göre daha yüksek öz dirençli olan yerlerin, olası bir arkeolojik nesnenin göstergesi olabileceği şeklinde yorum yapılmıştır.

Belirlenen bu olası anomaliler, ‘Önerilen Kazi Lokasyon Harita’larında kırmızı renkli taralı alanlar olarak gösterilmiştir. Tetkik kazılarına, taralı alanlar içerisindeki öz direnç konturlarının sıklığı yere, en yakın yönden başlanmalıdır.

Kazi yapılması planlanan her iki parselde; bu etüt ile elde edilen ve rapor ekinde sunulan tüm haritalardaki bilgiler ile Arkeologların bu sahadaki deneyimi ve bilgilerinin sentezinde, kazı öncesi planlama yapılmalı, kazı sırasındaki bulgulara göre de kazı yönlendirilmelidir.

03.10.2005,

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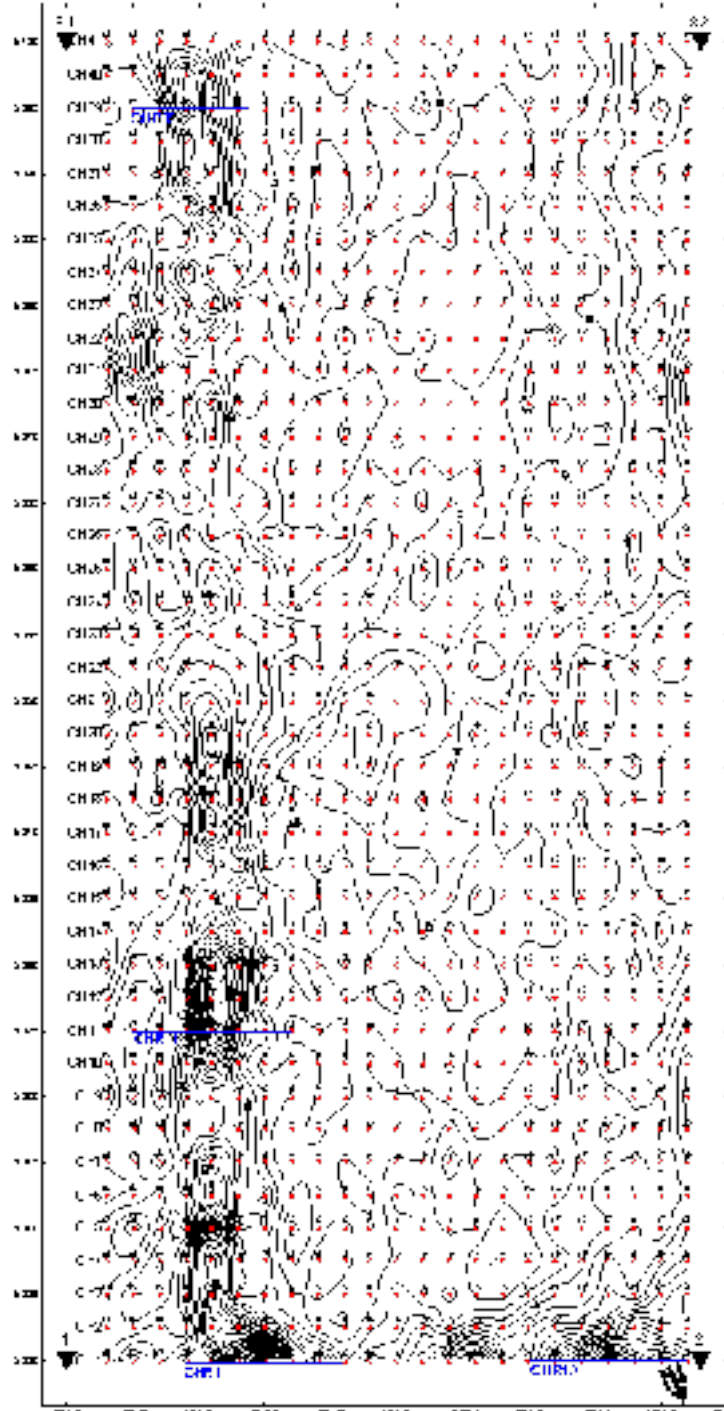
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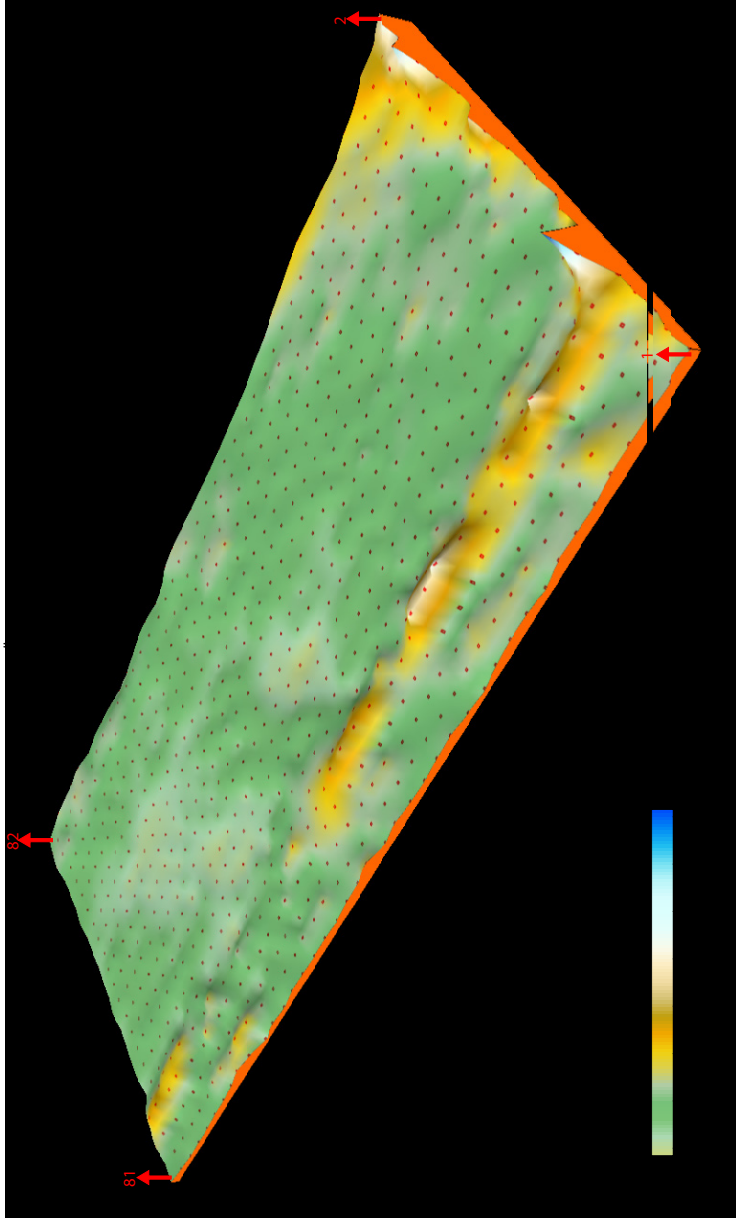
ÇATAL HÖYÜK 1 PAZISI - FŞ-DZİHENC SEVİYE HARİTASI
 1:5000 ölçekli harita Ç.1:200



- AÇIKLAMALAR**
- Çukurluk, Çukurluk Minimumu
 - Çukurluk
 - Çukurluk Deline Değeri (çukurluk)
 - ≡ Çukurluk Deline Değeri (çukurluk)
 - CHP1 Çukurluk Deline Değeri (çukurluk)
 - ▼ Çukurluk Deline Değeri (çukurluk)

10

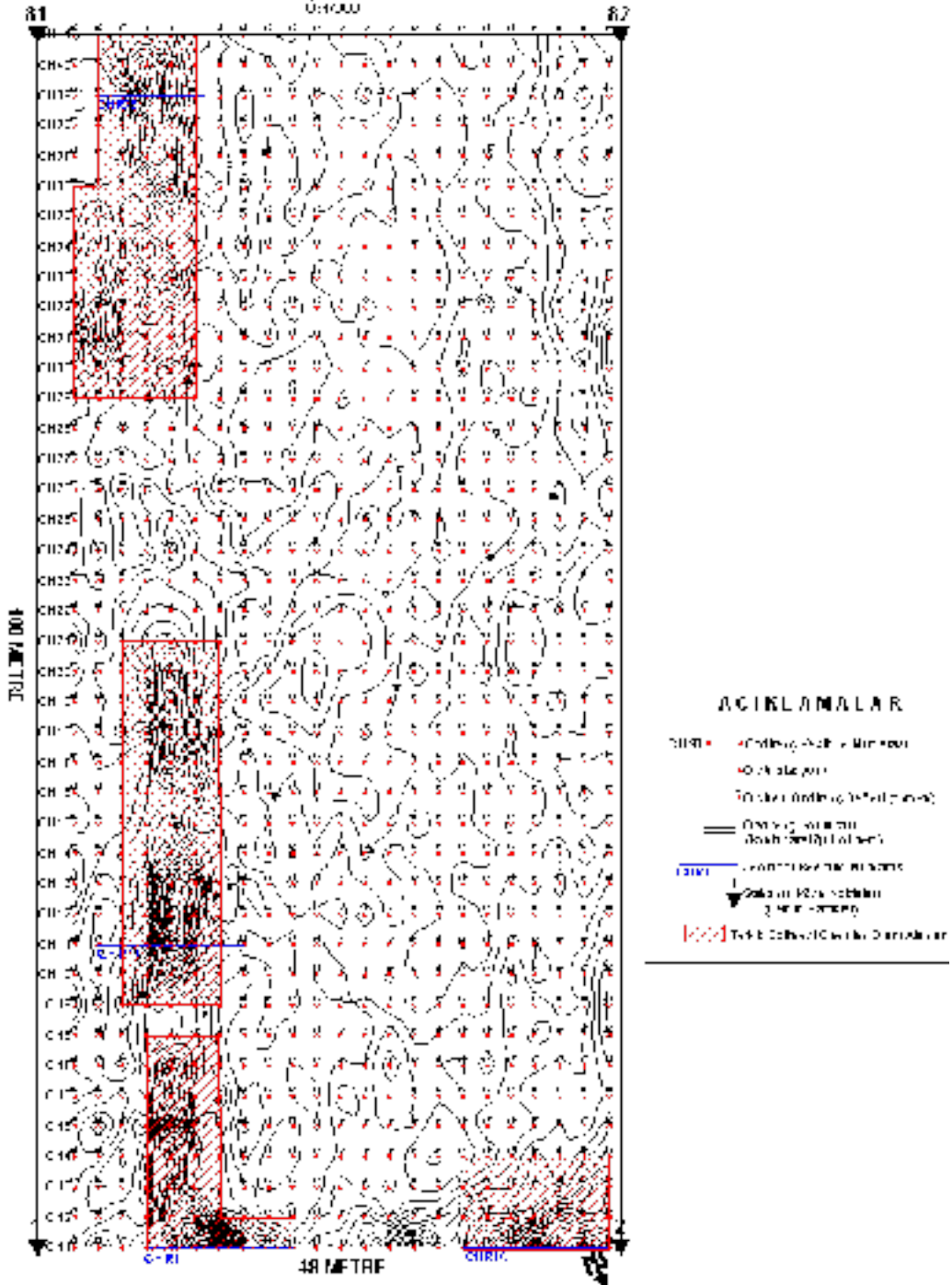
ÇATALHÖYÜK 1.PARSEL 3-B ÖZDİRENÇ ANOMALİ HARİTASI (a=2m, n=1 Pole-Dipole)



EK-2

CATALHÖYÜK 1.PARSEL ÖNERİLEN KAZI LOKASYON HARİTASI

1:2000 F.J. D.p.k.
ÖLÇEK

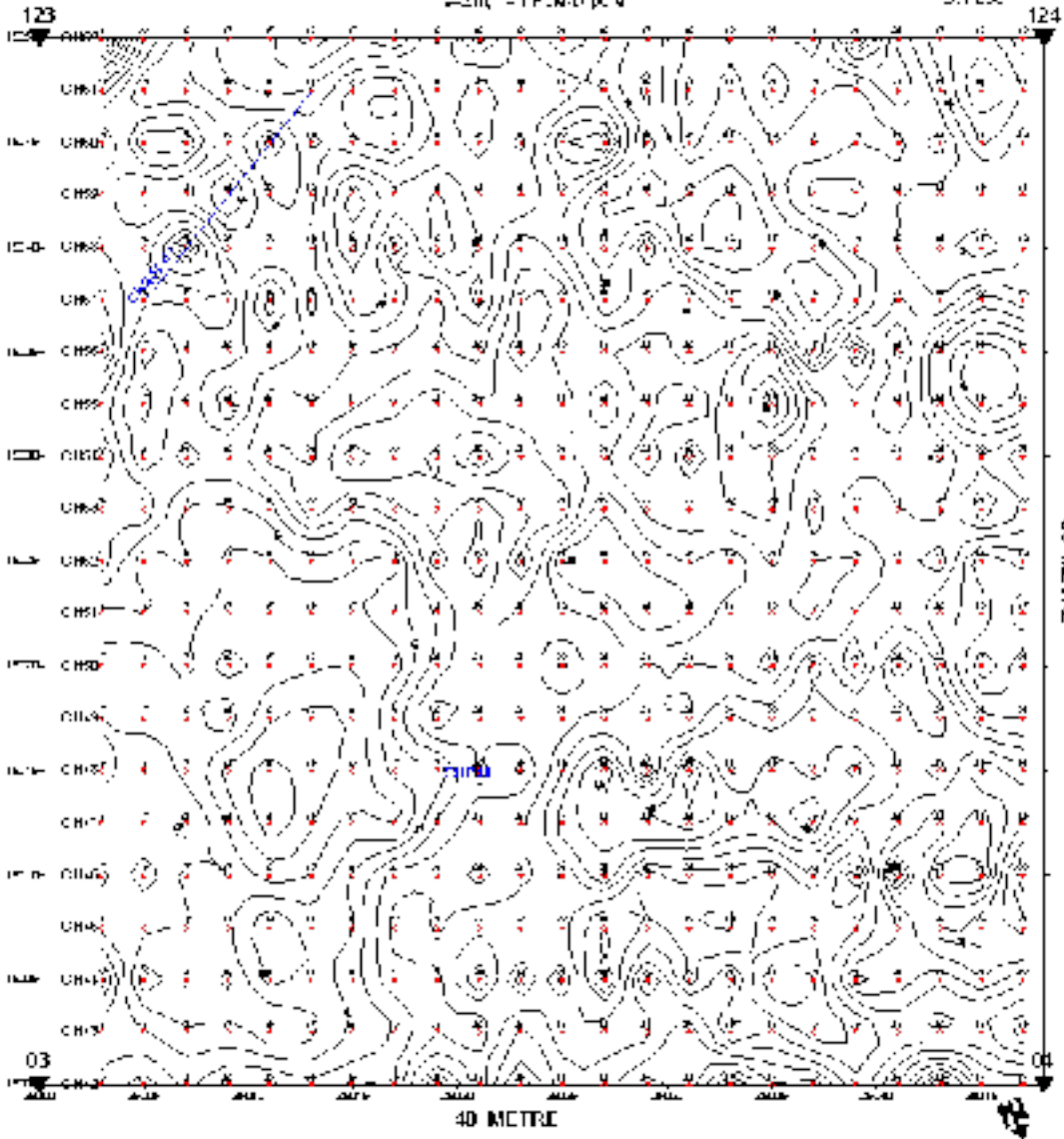


100

ÇATALHÖYÜK 2.PARSEL EŞ-ÖZDİRENÇ SEVİYE HARİTASI

1:200 -1 F. K.D. p. v

0:1000



SU NEHİRİ

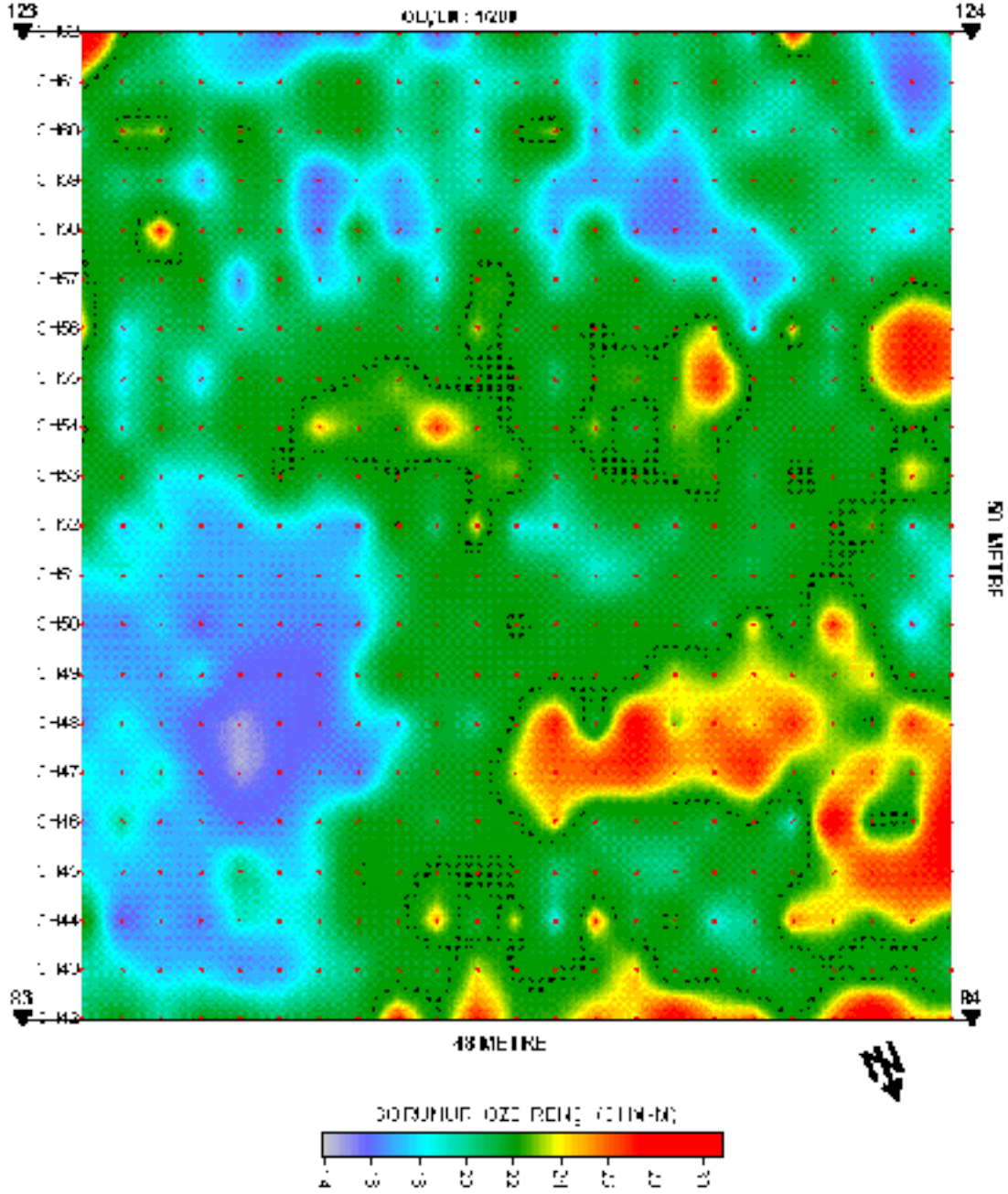
40 METRE

ACIKLAMALAR

- Çukurluk yüksekliği
- Çukurluk
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m

ÇATALHÖYÜK 2. PARSEL ÖZDİRENÇ ANOMALİ HARİTASI (a=2m, n=1 Pale-Dipol)



0-46

CULTURAL AND ENVIRONMENTAL MATERIALS REPORTS

Animal Bone - *Katheryn Twiss, Louise Martin, Kamilla Pawlowska and Nerissa Russell*

Assistants: Hylke Buitenhuis, Ian Cameron, Rebecca Daly (Worked bone), Marina Lizarralde, Adam Watson, Rhian Mayon-White (Amphibian & small mammals)

Abstract

Faunal analysis in 2005 concentrated on remains from the 4040, South, TP, and IST Areas. Notable deposits include a rich midden as well as a cattle skull and a dog crammed into a disused oven in the 4040 Area. Also in the 4040, Building 52 yielded several remarkable finds, including a complete bucranium next to a bench with embedded horn cores and beneath a cache of horn cores; a store of raw material for bone working; and a bin containing assorted unusual remains. TP produced remains from the latest levels of the East Mound that expanded our still-limited knowledge of animal exploitation in the later Neolithic. We are increasingly confident that the animal economy of Çatalhöyük changed pronouncedly as the Neolithic progressed.

Özet

Zoarkoloji ekibi, 2005 sezonunda TP, 4040, IST ve Güney Alanları'ndan çıkarılan zoarkeolojik malzemenin kaydı üzerinde yoğunlaşmıştır. Zengin bir çöplük (midden), bir sığır kafatası ve kullanım dışı bir ocağın içine tıkmış şekilde bulunan bir köpek dikkate değer malzemeler arasındadır. Ayrıca 4040 alanındaki, Bina 52'de bulunan tüm haldeki bucranium ve hemen yanındaki sekinin içine yerleştirilmiş olan boynuzlar, kemik yapımında kullanılan ham malzeme deposu ile değişik kalıntılar içeren bir ambar, sezonun önemli buluntuları arasındadır. TP alanında ortaya çıkarılan ve Doğu Höyük'ün en geç tabakalarına tarihlenen kalıntılar, geç Neolitik dönemdeki hayvan yetiştiriciliğiyle ilgili kısıtlı olan bilgimizi çoğaltmıştır. Çatalhöyük'de hayvan yetiştiriciliğine bağlı ekonominin, Neolitik dönem sürecinde önemli bir gelişim gösterdiğine daha güçlü inanmaktayız.

Introduction

The 2005 excavations at CH produced a wealth of faunal discoveries, including midden deposits, bone clusters, raw material stores, and special installations. Zooarchaeological research therefore proceeded along multiple lines this season. 58,269 specimens were recorded this year, from the TP, 4040, South, IST, and BACH Areas. This brought the total number of analyzed specimens from the current excavations to 708,448. We completed recording of the Bach Area material for its upcoming publication, and will not discuss it further here. We also spent considerable time on site, collaborating with excavators to assess and handle noteworthy faunal specimens. Finally, we hosted a pair of studies examining our analytic methodology. Issues that particularly intrigued us this year included diachronic variation in the site's faunal remains and the strong but polymorphous cultural emphasis on cattle skulls and horns.

TP Area

During the 2005 season, 2102 remains from Levels I and 0 in the TP Area were analysed. Out of them, only 7% were determinate. On the one hand, the available material was scarce, however if a preliminary reference were to be made, the proportion is smaller than that in earlier levels. The excavated bones were mostly those of mammals, although human (9.3%) and bird (2%) bones were also identified. Among the mammals, most of the bones belonged to small ruminants - 78.2%. There were also some cattle bones - 20.3%. In the group of indeterminate remains, fragments of sheep/goat-size prevailed.

Taxon	NISP	NISP %	DZ	DZ %
Sheep/goat	102	76.7	10	62.5
Sheep	2	1.5	1	6.2
Cattle	27	20.3	4	25.0
Mustelid	1	0.7	0	0
Canid	1	0.7	1	6.2
Total	133		16	

A very interesting discovery made in the current season in the TP zone was a cattle bucranium (11562) found with a human skull placed in the centre, below the cut-off frontal. The postcranial skeleton was damaged by a Hellenistic pit with the exception of selected elements (backbone, foot bones) placed around the contour of the pit. It was near the surface and under a plastered layer, but no cuts were found. **The relation of the human skull and the bucranium is likely to be intentional, but there are no signs of plaster on either skull. It is not clear whether the bucranium was in the burial, the burial cut through a pre-existing deposit with the bucranium, or both were placed in during the filling process.** If it was deliberately placed with the skull, it is a quite different use of bucrania from earlier levels. It seems hard to imagine that such a precise placement with respect to the bucranium was accidental. The cattle skull is on the small side for Çatalhöyük, but within female aurochs range. **Comparing the dimensions of the horn core (total length = 280 mm, length of the outer curvature = 399 mm, length of the interior curvature = 324 mm, greatest diameter = 68.5 mm) with others from Çatalhöyük bucrania, they are the most similar to 1347.X1 (respectively: 275 mm, 343 mm, 263 mm, 58 mm), which was considered to be a small wild female. However, this particular bucranium is actually somewhat larger. The intercornual breadth was roughly 166.0 mm.**

Under the layer surrounding the bucranium there were several human burials and floor deposits (11740) in space 248, stratigraphically belonging to Level 0. **This was a rather low-density unit (269 pieces of bone from 101 liters of soil). The bone deposit contained remains of small ruminants and human bones. Ten pieces of human bone (fragments of ribs, cervical vertebrae, first and second phalanx of the hand), fairly complete and relatively unweathered, are dissimilar from the remaining part of the unit. Perhaps they are from Byzantine burials. Among the animal bones, small (mostly about 3 cm, but up to about 5-6 cm) pieces of mostly sheep-size bone were predominant. There were also several diagnostic elements of sheep/goat bones, including teeth, a mandible fragment, an intermediate carpal, ulna and femur. There was only one cattle-sized long bone (shaft fragment). The age of the animals to which the bones belonged varied: infantile and mature. Fragments of ribs and vertebrae were digested. A small part of the bones (a few long bone shaft splinters, mostly sheep-size) were burnt at low temperatures. Generally speaking, the bone deposit in space 248 discussed here looks heavily processed and redeposited.**

In the western section of the excavation area, Level I, 434 bones were recovered from (11725), described as a layer directly on top of the Neolithic floor. The bone sample contained very few diagnostic pieces, including fragments of teeth and bones: tibia, radius, calcaneum, **belonging exclusively to sheep/goat. Remarkably, there was a complete sheep sacrum, which is probably associated with sheep lumbar vertebra. In the group of non-diagnostic remains, there were mostly sheep-sized fragments with some cattle-sized pieces (long bone, rib and skull fragments). The bone is quite fragmented, with most pieces in the 2-3 cm range, but with some much larger (7 and 9 cm). Surfaces of bones are in relatively good condition. They are slightly weathered, but much of the bone is covered with manganese staining, obscuring real surfaces. About a quarter of the fragments are burnt at low temperature. There are no gnawing marks in the analysed material, however a very little is digested.**

As for material stratigraphically younger than Level 0, a total of 49 fragments (11721 and 11727) were obtained in the current excavation season, coming exclusively from a flotation sample. This is a small amount of bones. The deposit consists solely of sheep-sized material, predominantly indeterminate, but also had a few long bone shaft fragments. Diagnostic elements included only the upper and lower deciduous teeth of sheep/goat. The bones, 1-2 cm long, showed slight to moderate weathering. Ca. 8% of the material was burnt, which is evidenced by the grey colour of the bones. This resembles reworked material found in construction or fill deposits.

In the centre of this year's excavation area, 1349 bone fragments were described from (12205), a layer in a sequence of infills. They are worn and for the most part are slightly weathered, but they were not highly reworked/redeposited since there are some relatively delicate pieces present (e.g., a large cattle sacrum fragment). The bone deposit included mostly sheep/goat bones, with some cattle and a little bit of dog and mustelid. Among the caprines, a range of body parts is present. There were also remains of birds (long bones, including a tarsometatarsus) and, in addition, human bones (hyoid, humerus and the first phalanx of the hand). The sizes of the taxa subjectively appear similar to those of earlier levels. There was a moderate amount of burnt bone and a fair amount of digestion and gnawing.

Thus, apart from the bucranium found with a human skull, the animal bone recorded from the TP Area this year appears to derive from earlier deposits incorporated into fills and construction material. It is uncertain what relation this material has to the levels in which it was found.

4040 Area

While eventually we plan to record the animal bone recovered from the rich midden deposits excavated in the 4040 Area in 2005, so far our effort has been chiefly expended on some of the special deposits and recording previously excavated midden from the area. In particular, we analyzed several distinctive animal bone concentrations from Building 52, which should aid in the interpretation of the building's history.

Middens

Middens are an important and interesting type of bone deposit at Catalhöyük, differing in character among the various excavation areas of the tell. A detailed analysis of these will be a topic of a separate study, however attention should be paid to the midden 8864 from the 4040 Area, containing 24,396 animal bones. This was a large midden with much diagnostic material, including mostly mammal remains, but also those of reptiles and birds (represented by bone and eggshell). In the mammal group, sheep/goat bones were predominant, but some cattle, equid (teeth and one metapodial), pig (teeth and calcaneum), and carnivore (mustelid and canid) bone remnants were also present. In addition, microfauna remains recovered from the dry sieve and human bone and also a coprolite were identified. Ca. 86% of the material was indeterminate. The scrap is largely sheep/goat size, but small to cattle-size animals are also represented.

There were remains of animals representing age classes ranging from perinatal to adult in all size categories. A conspicuous feature is a generally even distribution of body parts for sheep-goat and cattle but low on vertebrae and rib heads. Gnawing marks are present on both determinate and indeterminate bones. Some of the bones (vertebrae, metapodia, astragali, phalanges) were digested. It is interesting that several pieces of sheep/goat mandible have polish on the coronoid process and some rounded edges, possibly from trampling or water wear. Only a few of the bones are burnt. Moderate weathering (3-4 degree in the classification) appears most consistently, but this varies.

(8864), which generally appears to be the typical large midden of mostly sheep/goat derived from multiple activities, but not a street, has little coherence. While much of the assemblage appears heavily processed big pieces of fragile elements have survived. This unit was located below (8859). In reference to it, it is similar in the density of the bone material but less fragmented, with more digested pieces of bone but not much burning or cut marks.

Space 227

(11980) is a kind of deposit not previously seen at Çatalhöyük. Although both cattle and dog remains have been found in special deposits, particularly the former, unit (11980) shows some form of association between the two, in and around an oven of an abandoned building.

The oven, built into the south wall of a room in Space 227, had a roughly square base and ledge protruding into the room. After it fell into disuse, it seems to have been backfilled rather than truncated. As part of this backfilling, or maybe later, a cattle skull was crammed into the oven mouth, although because it was so large, it was partially lying

on the outer oven ledge. The skull had its basioccipital (back of the skull) facing down, and frontals (forehead) up. The right horn core was extending out of the oven. It was in poor condition, but was clearly incomplete at time of deposition, and was fairly heavily weathered, suggesting a considerable time had passed between the death of the animal and its final deposition in the oven. Maybe it had served as an installation.

Almost wrapped around this cattle skull - both on top, adjacent to and below it - was much of a skeleton of a dog. The dog's vertebrae, part of the pelvis and a tibia were on top of the skull, the dog's skull was next to the cattle skull, and the humerus (lying beneath an ulna and radius) and another tibia were beneath the skull. Many other skeletal elements were present, from both sides of the body; some were in articulation but many were not. Notably, there was an absence of certain elements – all the neck and tail vertebrae, all the paws, and most of the other foot bones – showing that parts of the dog carcass had been lost prior to its deposition here. Some carnivore gnaw marks hint that an animal may have scavenged parts away, but also suggest that while the bone seems quite fresh, the dog must have lain dead somewhere for at least a short while before being redeposited with the cattle skull.

The dog itself was a sub-adult or young adult: all bones were fused except one proximal humerus, which had an epiphyseal line visible. Metrical analyses have not yet been undertaken, but bones and teeth seem on the medium-small side, surely dog rather than wolf. Two lumbar vertebrae and one lumbar transverse process are pathological on their left sides. They show signs of infection subsequent to trauma, as if the animal sustained a blow to its left side near its hip that broke a couple of transverse processes off, and the injured area got infected.

None of the bones that formed the deposit (11980) were burnt, although they were in an ashy charcoal fill (11985) that could have been associated with the use of the oven, and served as backfill. No cut was found down from higher deposits, so presumably (11980) is synchronous with the general infilling of Space 227.

(11980) is clearly open to various interpretations. It is tempting to see the cattle skull as part of a former above-ground installation, and its placement in the oven as an act of closure of the building and its features. The dog may have been associated with the building and seems to have died naturally somewhat before (but not long before) its abandonment, being left somewhere unprotected (where it got partially scavenged) before being returned to the building. There are precedents for dog remains being incorporated into abandoned buildings, e.g. in a post-retrieval pit in Building 2, and another nearly-complete skeleton on top of a platform in Building 3.

Building 52

Perhaps the most astonishing zooarchaeological finds of the 2005 season came from Building 52 in the 4040 Area, which contained a wealth of extraordinary faunal remains when it burned.

Several interesting finds came from inside a bin (Feature 2004) in Space 93, the northern of the two spaces excavated in Building 52. Near the top of this bin excavation revealed an upside-down moderately weathered and calcined boar mandible (11904.X1), with fragmentary teeth still in their sockets. The animal was a medium-sized male wild boar. An antler tine as well as an assortment of calcined deer and caprine- and cattle-sized bone fragments were also recovered from the fill in the top portion of the bin.

More remarkable was the lower fill of the same bin. Dense concentrations of both faunal and botanical remains were discovered here. The bones, which were in excellent condition and appeared quite fresh, were also burned to varying extents: most were carbonized, some were calcined, and some were merely burned brown. Interspersed with the bones were pockets of botanical remains, including peas and small, oil-rich seeds that created a greasy sheen on some of the bones.

A special faunal cluster (11923) was identified in this fill. It consisted of several very large pieces (up to approximately 30 cm in length) of bones from large animals. Many of these bones were worked, including five cattle-sized rib fragments (11923. F1, F2, F3, X1, X6). These all included only rib shafts, no rib heads or distal ends. Portions of all were highly polished, and the specimens had been modified in a variety of ways. One had been narrowed towards a flat, blunt point at one end, and another to a narrow point; two others displayed concave scallops along a long edge. Perhaps they were burnishers, for plaster or for ceramics. The rib fragments did not

appear to have been arranged within the bin.

Also in this cluster was a second pig mandible (11923.X2), which lay on its right side at an angle in the southeastern corner of the bin. All of the left side of the mandible and the anterior of the right side were present. There were tooth roots in all of the alveoli, but only the left M2 and M3 were found complete. When measured, these teeth indicated that the animal had been a female medium-large wild boar. A loose pig incisor was also found in the cluster and is probably associated with the mandible.

Other bones in the cluster included two big pieces of juvenile caprine tibias (one clearly belongs to a sheep); a goat horn core splinter; a red deer antler tine; a cattle-size mandible fragment, and a caprine metacarpal fragment. There were also some non-diagnostic fragments: sheep-size ribs, cattle- and sheep-size cranial fragments, hare and sheep-size long bone shaft splinters. A single fish bone was also retrieved from the >4mm flotation, and more may be found when the >2 and >1mm samples are analyzed. The non-diagnostic and fish bones may be assigned to the unit enclosing the cluster, as the boundary between the cluster and the surrounding unit was not clear.

This is partly because the fill (11907) surrounding the cluster was also noteworthy. The bones in this fill are almost all caprine or caprine-sized. Several large caprine fragments reflect minimal processing, including a more or less complete innominate, a distal humerus, an unfused humerus head, a largely complete scapula, an articulating proximal radius and ulna (they do not articulate with the humerus), and metacarpals. Interestingly, the sheep/goat proportions are much more equal than is typical of later levels of Catalhoyuk. This may be illusory, though, as it is unclear if the remains in the bin represent multiple bones from a single goat or the remains of multiple animals.

In addition, the fill contained a pair of long chunks of red deer antler beam. These were found lying side by side and parallel. The tines had been removed from one of them, making it prepared raw material for working. The two pieces were similar in size. Also present were a complete Bos 3rd phalanx and assorted non-diagnostics from animals sheep-size and larger. However, non-diagnostics are few and mostly quite small even in the flotation samples.

Outside the bin, a cluster of bones (11965) was found on the floor in the southern part of Space 93, apparently having originally been stored in some form of container. The bones were probably a cache of raw materials being saved for future working. They include 31 caprine metapodia: 23 metacarpals, 5 metatarsals, and 3 indeterminate metapodia. (Two additional metacarpals and three metapodial fragments were excavated as part of the surrounding unit (11944) but are surely part of this cluster.) Many of these metapodia retained their articulating carpals and tarsals. Almost all of these metapodia were unfused and lack their distal epiphyses, but all were from essentially fully grown animals. A couple do appear older; one (11965.X11) in particular had bony exostoses above the fused distal condyles. The metapodia thus suggest slaughter of juveniles plus occasional older, lame animals.

There was a dearth of cutmarks on these metapodia, which raises the question of how these animals were dismembered and skinned. Perhaps the absence of cutmarks, in combination with the lack of distal epiphyses and phalanges, reflect a dismemberment strategy wherein the feet were simply broken off the legs with little or no cutting.

Other bones in this cache include single pieces of equid and cattle-sized ribs as well as six pieces of antler, of which at least two showed signs of working. Although virtually all heavily burned, the bones in the cluster were generally in extremely good condition.

The unit in which the additional metapodia were found (11944) also contained a large cattle skull fragment, including a lengthy horn core. This highly calcined and very fragmented find lay under burned collapse in the southern portion of Space 93.

Such burning was typical of the faunal remains from the more southern space in Building 52, or Space 94. Essentially all of the faunal remains in this space were heavily burned. Near the surface in Space 94 numerous cattle horn cores were discovered in the fill (10281, 10286). Intriguingly, the topmost horn cores were all in a very

tightly packed bunch, as if someone had gathered them all in their arms and put them down together. They were also placed so that they would appear to be right-side cores.

Additional horn cores and fragments lay below and around this pile. All of the horn cores that could be assigned to one side or the other were indeed rights. Yet there was no uniformity to the horn cores themselves: curvature and morphology varied, and some came from males and some from females.

At least two very fragmentary cattle skulls were also found here, more or less on top of each other. One possessed both its left and right horn cores; the other was too fragmentary to allow portion assessment.

The skulls and horn cores were highly burned, but they displayed generally good surface conditions and did not look as if they had lain exposed for long periods of time. A minimum of 13 horn cores is present, based on a count of tips. It is quite possible that the original number was higher.

Below this cluster of cattle skull and horn cores was found the first complete bucranium of the current excavations. This bucranium (11963.X1) is a partial skull set into a niche. It sits at an angle, with the flat top of the skull and the horns the portions facing onlookers standing inside Space 94. The back of the skull and horns rest on the base of the niche, while the plastered front edge of the wall/niche surrounds the base of the skull and fills the eye sockets to hold the installation in place. The nose hangs out over the floor. The bucranium has been conserved and left in situ.

Just south of the bucranium was a bench with three left cattle horn cores (11940.X1, X3, X4) set into the side of it next to the bucranium. The bench had slumped, and if any right horn cores were originally embedded in its other side, they were no longer in place at the time of excavation.

Additional special faunal finds were also discovered in this area. Along with the wealth of horn cores above the bucranium excavators found a nearly complete cattle scapula, while behind the bucranium in the back of the niche there lay a highly calcined and badly fragmented pig mandible (11969.X1) and a cervid antler tine. A goat frontlet (11976) was also uncovered beneath the bucranium cluster on top of the raised floor. Further horn core fragments (e.g. 11928) also occurred elsewhere in Space 94, but there was virtually no other animal bone in the room.

In sum, the two spaces in Building 52 (Spaces 93 and 94) contained an unusual assortment of faunal remains, all of which burned in situ at high temperatures. At least some of this burning appears to have been unintentional, which means that the apparent atypicality of Space 93's rich bin and cache of raw material for bone working may be at least partly illusory. Perhaps such faunal stores were relatively common at Catalhöyük while houses were occupied. Houses that were abandoned by choice rather than destroyed by accidental fires, like the great majority of those found at the site, might have been cleared out prior to that abandonment. If so, the caches in Space 93 may represent the relatively normal stores of a building in use. Yet if the quantities and arrangements of material in Space 93 may be reasonably standard, the taxonomic contents of the caches are not, and indicate that there was something special about Building 52.

This impression is strongly reinforced by the extraordinary assortment of faunal remains recovered in Space 94. A complete bucranium was installed in a niche next to a bench with cattle horns embedded in it. Directly above and aligned with this bucranium were two crushed and fragmentary partial bucrania, along with a tight heap of several additional horn cores. There are indications that side may have been important here, as all of the sideable horn cores above the bucranium proved to be rights, whereas all of those embedded in the bench were lefts. Other remains in this niche are also thought to have had special significance at Çatalhöyük and include a cattle scapula, a pig mandible, and a goat frontlet. Few commonplace faunal remains were recovered from this space. If the contents of Space 93 appear unusual, the contents of Space 94 are truly exceptional. *South Area*

In Space 261 two animal bone clusters, (11392) and (11393) (which may represent the same depositional event) were found at an interface between fills, and their character appeared quite different from surrounding deposits.

The fill within which they sat – (11379) – has not yet been recorded for faunal remains, so instead, the clusters are here compared to (11366), a unit interpreted as dumped midden-like deposits in Space 260 which is next to the clusters, and of the same approximate time period.

Taxon	11366 NISP	11366 NISP%	11366 DZ	11392 NISP	11393 NISP
Hare-size	3	0.3			
Sheep-size	646	63.5	4		
Pig-size	15	1.5			
Cow-size	136	13.4		2	5
Cattle	21	2.1	3	5	10
Equid				2	
Lg/Med Cervid				3	4
Boar/Pig	2	0.2	1	1	2
Sheep/goat size	7	0.7			
Sheep/goat	158	15.5	23.5		
Sheep	20	2.0	13.0		1
Goat	5	0.5	0.5		
Small carnivore	2	0.2			
Fox	2	0.2	1.2		
Human	1	0.1			
Total	1018	100.2	46.2	13	23

(11366) has a lot of well-preserved animal bone pieces, mostly unburnt with high fragmentation (most being in the 2-3 cm range). There is very little gnawing, but a little digestion, which is typical of midden deposits. As can be seen from the table, most of the material is sheep-sized, and most of the identified fragments belong to sheep/goat, with cattle constituting a lower proportion, and pig and small carnivores being far fewer. Much of the material is unidentifiable to taxon, but only animal size class. For the two main size classes (cattle and sheep) all body areas are represented, although there is an under-representation of horn core, which appears to be being deposited elsewhere. The unit is consistent with the idea of fairly intensive processing of bone for marrow and grease, with bone coming from multiple sources, but all being fairly rapidly buried.

An interesting observation about the (11366) material in general (not relating to a comparison with the clusters) is that there appears to be an under-representation of vertebrae (for sheep/goat size) for the amount of ribs and long-bones. Also there are some sheep neck vertebrae that seem to have been chopped longitudinally, which has not been observed before at Çatalhöyük at earlier levels of the site, and which may relate to different butchery/carcass division techniques in this period.

By contrast, (11392) and (11393) have far smaller quantities of material, with most of it identified to taxon. Fragments appeared to be lying on a 'surface' – an interface between fills of an external midden, together with some stones, and pieces were relatively large and unfragmented. (11392) included a chunk of fallow deer antler (probably European fallow), three right hand scapulae (from pig, equid and cattle), a large equid pelvis and some cattle skull and horn core pieces. (11393), which appears to have been deposited synchronously but with some spatial separation, contains similar large chunks of bone with stones. Taxa represented here are mainly cattle and cervid (seemingly both red and fallow), a couple of boar/pig fragments, and one wild sheep and a (?) wild goat horn core. There are lots of horn core and antler fragments and one red deer pelvis, fairly complete.

From both units, there were no burnt animal remains, and no evidence of cut marks, although much of the material appears smashed (flattened, not fragmented). Much of the material is fairly weathered as if it was left exposed for some time. The clusters certainly seem to represent special deposits of some kind. Maybe some of the material is consumption debris (e.g. the pelvis) but if so, they have only seen meat removal and no intensive processing for marrow and grease. Other pieces, like the horn cores and antlers may have derived from installations (there is no evidence for working of the antler). Together, they may represent a commemorative deposit, similar to (11897) in Istanbul Area described below.

Istanbul Area

Work began this year in the new IST Area. A limited number of Neolithic contexts have as yet been excavated, of which only a subset were dry-sieved. Statistical analysis of the IST fauna is therefore premature. However, the

fill inside a new structure yielded an interesting cluster of large bones (11897). Most remains are from cattle: an atlas and axis, three humeri fragments, a complete calcaneum and a scapula, none of which were in articulation. In addition, there are two cattle skulls (X1 and X3), each of which include frontals plus about half of both horn cores but lack inferior skull elements. The skulls were squashed rather flat and were in poor condition, which may be post-depositional, but the destruction of their horn cores leaving part of the corpus is pre-depositional. Cervid remains are represented by a large antler chunk probably with a shed base (raw material for working?) and a femur head, and there is a goat horn core and scapula. There are several other small fragments of bone, two worked pieces, and also quite a large fragment of human sacrum.

The cluster is characterised by lots of relatively large chunks of bone that are in rather poor condition, which may result from the heavy clayey matrix and being quite close to the surface. Some bones look like consumption debris (the cattle and cervid postcranials), some like raw material (antler), a couple are worked, and the cattle skulls may either represent destroyed installations or butchery/consumption debris – although the missing horn core parts fit the former interpretation better. The human sacrum adds to the picture of a re-deposited mix of remains that were important for one reason or another, that were included as a cluster within the fill of (11863) (similar to the earlier deposits from B.42: (11392) and (11393)).

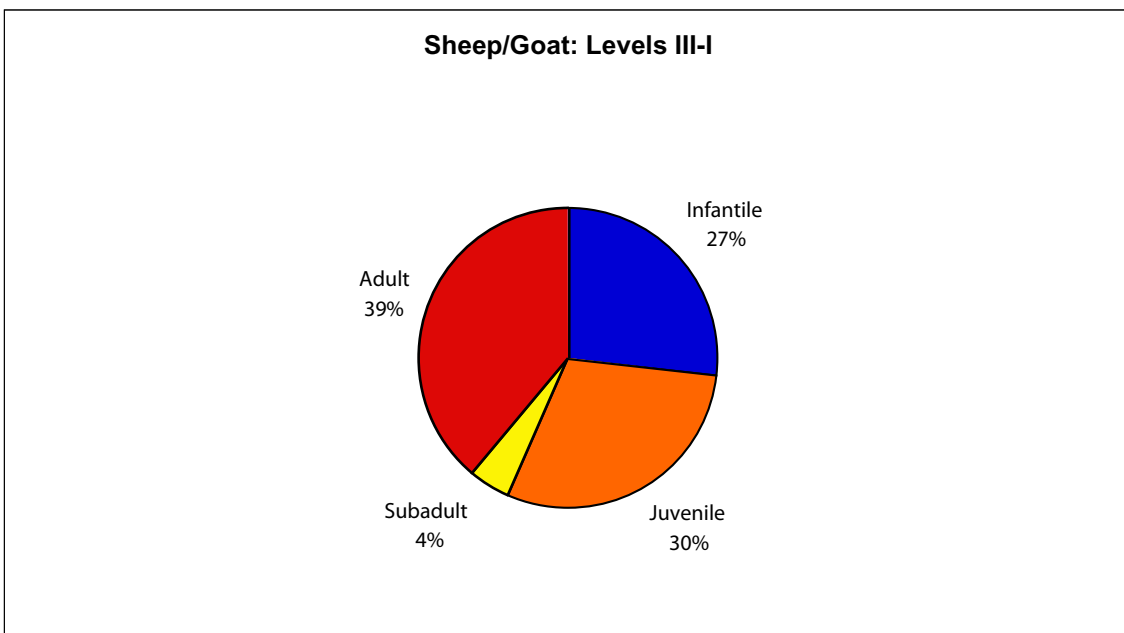
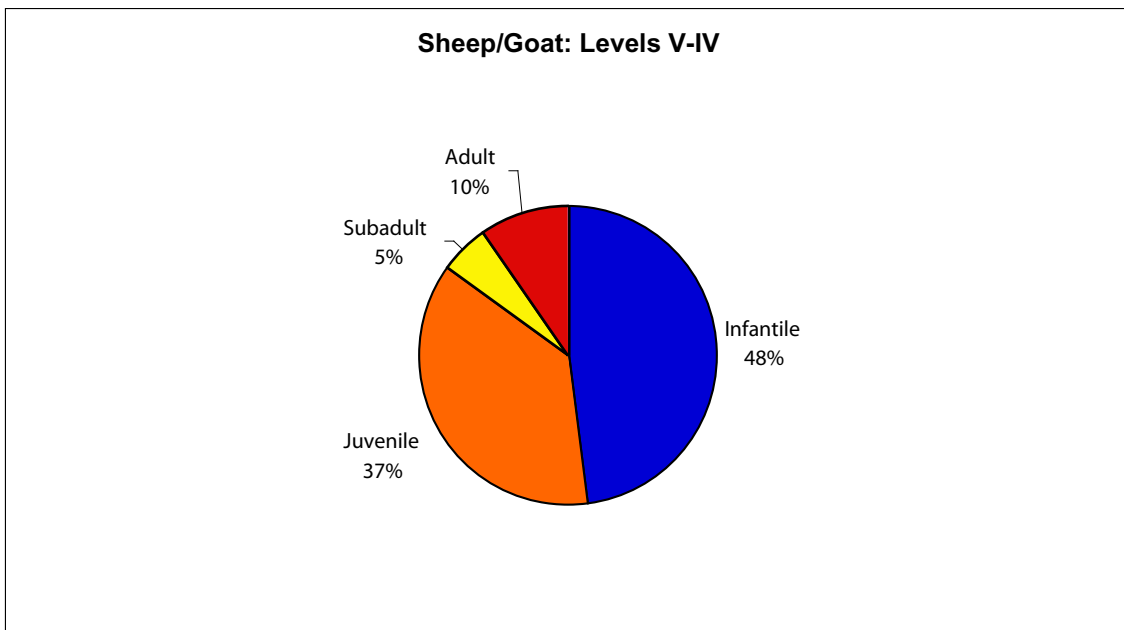
Later Neolithic levels: summary to date

After the 2005 season, we can update our preliminary observations on the animal remains from the later Neolithic levels of the East Mound. Since there are uncertainties about the level assignments of many units, we have lumped them into two approximate periods: Levels V-IV (South, 4040, and Building 42) and Levels III-I (TP). In all cases, we have tried to omit from the analysis units containing post-Neolithic material. We use Watson's (1979) diagnostic zone method for quantification.

Taxon	L. V-IV DZ	L. V-IV DZ %	L. III-I DZ	L. III-I DZ %
Sheep/goat	726.0	82.5	304.5	83.6
Cattle	85.5	9.7	36.5	10.0
Red deer	1.0	0.1	0	0
Fallow deer	0	0	1.0	0.3
Pig/boar	16.5	1.9	4.0	1.1
Equid	13.0	1.5	10.0	2.8
Dog	25.4	2.9	5.2	1.4
Other carnivore	7.2	0.8	3.0	0.8
Hare	4.0	0.5	0	0
Hedgehog	1.0	0.1	0	0
Total	879.6		364.2	

These two groups of levels are fairly similar in the proportions of taxa represented. However, they stand in contrast to the earlier levels (Russell and Martin 2005), where sheep and goat consistently form ca. 65-70% of the diagnostic zones, cattle 20-25%. From roughly Level V on, sheep/goat exceed 80% and cattle drop to about 10%. Other taxa drop less dramatically. This shift is striking, as there was little change in proportions of taxa in the earlier levels. Assuming these are representative samples, there would seem to be a fairly abrupt shift to increased reliance on caprine herding (already the main contributor to the faunal assemblage). This could mean either larger herds of sheep and goat or less hunting of wild animals. In any case, it probably involved a shift in the organization of labor. The ratios of sheep to goat, however, remain within the ranges observed in earlier levels (5:1 to 11:1), with 9:1 in Levels V-IV and 7:1 in Levels III-I.

To explore possible changes in herding practices, we can compare mortality profiles, here calculated in terms of age stages, with those from earlier periods. The age class distribution from Levels V-IV is similar to that from earlier periods, and suggests a herding strategy oriented to meat production (Russell and Martin 2005). The distribution from Levels III-I is dramatically different, with substantially more adults represented. This might indicate a switch to use of dairy products. However, we should remember that while the Levels V-IV material is derived from a broad range of contexts from both the northern and southern lobes of the tell, the Levels III-I material comes exclusively from a single area. Thus it is more likely that it represents only part of the herding strategy at that point. Nevertheless, it is an intriguing preliminary finding that we hope to explore further in the future using other approaches to possible dairy use or changes in herding practices.



Special Studies

Additional research conducted in the faunal laboratory during 2005 included a pair of studies concerning zooarchaeological methodology. Adam Watson investigated the potential utility of applying Outram's (1999, 2001, 2002) fracture freshness index (FFI) to the Çatalhöyük macromammalian assemblage. The FFI is designed to evaluate the role played by human processing in the formation of a given faunal assemblage, based on analysis of each specimen's fracture angle, surface texture, and outline. Watson compared FFI results for three units (Watson n.d.). These units had been previously analyzed using the existing Çatalhöyük system and identified as a midden, a feasting deposit, and room fill.

The FFI results were consistent with those provided by the earlier analyses (Watson n.d.). Outram's method

also proved easy to use (Watson n.d.). However, little new information was gained by adding FFI analysis to the already extensive Çatalhöyük assessment strategy. It was therefore agreed that FFI evaluation would not be incorporated into the standard Çatalhöyük faunal methodology at this time.

Ian Cameron undertook a study of the Çatalhöyük equid remains for his Master's dissertation (submitted to the Institute of Archaeology, UCL). His project undertook to test the application of methods for separating equid species, and built on work already done on the samples which tentatively identified the presence of three wild species at Çatalhöyük - *Equus hemionus*, *Equus hydruntinus*, *Equus caballus ferus* – using the morphology of dental enamel folds (following Davis 1980, Martin and Russell in press, Russell and Martin 2005). Cameron's study confirmed the presence of the three species, and focused particularly on the separation of the two smaller wild asses (*E. hemionus* and *E. hydruntinus*). He did a detailed metrical recording of the equid teeth (Buitenhuis 1991, Payne 1991) although sample sizes were too small for analysis. He compared measurements of postcranial bones of the Çatalhöyük equids with those of other sites in the broad region, and undertook an original morphological study of the first phalanx (with Buitenhuis and Martin), since this is the most common element. Results of the latter analyses show intriguing patterns of morphological and proportional variation within skeletal elements (Cameron 2005). Interpretation is hampered, however, because at this stage it is not known to what extent patterning represents anterior/posterior phalanx variation, or species variation. Larger samples of equid remains, and comparison with as yet unpublished material from other sites, may allow further refinement of our understanding of the representation of different equid taxa at the site.

Conclusion

During the 2005 season much of our time was spent excavating and recording cattle horn cores and other remains from multiple excavation areas. As a result, we now have a fairly substantial sample of cattle horn cores from various contexts on the site. These will form the basis for analyses over the next year, to be reported initially in a paper at the meetings of the Society for American Archaeology in April 2006.

In addition, we are gradually increasing our knowledge of the later Neolithic levels (V-0) of the site. The trend toward greater representation of sheep/goat seen last year is confirmed. On present evidence this seems to happen fairly suddenly ca. Level V. However, the mortality profile of the sheep/goat herds appears to change later, ca. Level III. We also have evidence for the continuing occurrence of special deposits of animal remains through these later levels, although perhaps the nature of these changes ca. Level III. Thus as we continue to record faunal data from the later prehistoric periods, we look forward to addressing many interesting questions concerning changes in herding, hunting, and the meaning of animals at Çatalhöyük.

Meanwhile, the large corpus of data accumulated so far is proving fertile ground for special studies. In addition to the two studies carried out at the site in summer 2005, Jessica Pearson collected samples for an expanded program of isotope analysis that is intended to clarify herding practices and the mobility of sheep and goat (see below).

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Microfauna – Rhian Mayon-White, University College London

Abstract

Microfauna offers a rare insight into the past, especially concerning how humans interacted with their environment. When compared to the macrofauna, the microfauna of Çatalhöyük are not only more sensitive to any changes and variations within the environment (Evans and O’Connor 1999), but also have a greater chance of being over-looked by even the most industrious of pre-historic cleaners. Their presence and distribution is, therefore, of particular interest to those trying to reconstruct the settlement and its people.

Microfaunal material was removed from the 1mm, 2mm and 4mm fractions of the heavy residue during the 2005 season at Çatalhöyük. This microfaunal material encompasses amphibian, reptilian and micro-mammalian remains, which were subsequently exported to University College London for further study. In total 254 bags were exported, each representing a separate unit. Nearly half of these units were derived from the BACH excavation, some representing the 4mm fraction of microfaunal material exported in 2004. The remaining units came from the excavation areas of South, West, 4040, and TP, and all represent priority units.

Özet

Küçük hayvan kalıntıları, insanların yaşadıkları çevreyle olan ilişkileri hakkında önemli bilgiler sunar. Büyük hayvanlar ile karşılaştırıldığında, Çatalhöyük’deki küçük hayvanlar hem yaşadıkları çevredeki değişikliklerden çok fazla etkilenmişlerdir (Evans

and O'Connor 1999) hem de prehistorik temizlikçiler tarafından görmemezlikten gelinmişlerdir. Bu sebeple küçük hayvanların dağılımları, Çatalhöyük'deki halkın ve yerleşmenin yapılanması ile ilgilenen kişilerin ilgisini çekmektedir.

Küçük hayvan malzemesi, 2005 sezonundaki kaba kalıntının 1mm, 2mm ve 4 mm'lik kesimlerinden alınmıştır. Bu malzeme, hem karada hem suda yaşayan hayvan, sürüngen ve küçük-memeli hayvan kalıntılarını içerir ve daha ayrıntılı bir çalışma için University College London'a getirilmiştir. 254 adet poşet halinde transfer edilen malzemenin her biri ayrı bir birimden gelmektedir. Yarısı BACH kazısından çıkarılan birimlerin bazıları, 2004 yılında toplanan küçük hayvan malzemesinin 4 mm'lik bir kesimini simgelemektedir. Diğer birimler ise Güney Alanı, Batı, 4040 ve TP' den toplanmışlardır ve hepsi öncelikli birimlerdir.

Aims

The microfaunal material will provide invaluable information concerning the environment, the taphonomy of the site, and the perceptions and behaviours of the people.

Microfaunal bones are small, fragile and relatively light-weight, even during life, which makes them prone to modification. The fragmentation and surface condition of the bones, in particular, are useful taphonomic indicators. Such aspects can be used to differentiate between the taphonomic agencies, such as humans and water, as well as identify the potential predators and scavengers (Andrews 1990, Avery 2002). This becomes more important when considering primary deposition, i.e. where the animal actually died and, therefore, where they lived, as opposed to secondary or tertiary deposition, i.e. where its remains ended-up by the time of excavation. This may identify intrusive material, mainly caused by the burrowing action of many microfaunal animals, which could have a significant impact on the interpretation of the site.

Once the taphonomy and stratigraphy are clarified, the identification of the species present can provide a wealth of environmental information - even if the bones can only be identified down to family (Montuire 1999). Changes in the number of species (Fleming 1973, Andrews and O'Brien 2000), their presence or absence (Davis 1987) and their relative population sizes (Montuire 1999, Montuire et al. 1997) will be used to determine and clarify the proposed environmental change from wet to arid conditions within the life-time of the settlement. Furthermore, the spatial distribution of the microfauna within each time period will be investigated using GIS. This information may be used to directly reflect the human use of space. Concentrations, for example, may identify midden areas or abandonment, and may even reflect the tolerance that humans exhibited towards the different microfaunal populations.

Conclusion

Microfaunal research is still developing, and its potential has still to be fully realised. In the case of Çatalhöyük, the information that will be gained by microfaunal investigations encompasses not only the environmental and structural aspects of the site, but may also delve into the very minds of the people who lived there.

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Worked Bone - Rebecca Daly, Stanford University

Abstract

During the 2005 season 210 worked bone items were recorded, both from backlog and from current excavation. This brings the total of recorded worked bone items to 1451. The worked bone items were mainly of types found in previous seasons, but one new type, a flat plaque or palette, was found as well as a few distinctive but unidentifiable pieces. Points continued to be the dominant type, accounting for 100 (or 48%) of the total worked bone items, followed in importance by beads at 28 (or 13%), and needles and preforms at 11 (or 5%) each. All types found at Çatalhöyük are listed in Table 1. Of those, only seven will be discussed below, as they provided new information. These are: Points, Burnishers, Miscellaneous Perforated Tools, Pallettes, Beads, Preform/Waste, and Unidentified. The other tool types found were very similar in detail to the same types as discussed earlier.

Özet

2005 sezonunda, hem geçen senelerden kalan, hem de yeni sezonda ortaya çıkarılan 210 adet işlenmiş kemik kaydedildi. Bu sayı, şimdiye kadar kaydedilmiş olan işlenmiş kemik sayısını 1451'e ulaştırdı. İşlenmiş kemik eserler, geçmiş senelerde bulunan örneklerle benzerlikte beraber, düz şekilli paletle benzeyen ve tanımlanamayan bir kaç belirgin parça göze çarptı. Sivri uçlu aletler, işlenmiş kemik buluntuların % 48'ini oluştururken (100), boncuklar %13 (28) , iğneler ile performlar ise %5'ini (11) kapsamaktadır. Çatalhöyük'de bulunan tüm örnekler Tablo 1'de listelenmiştir. Yeni bilgi sunmaları açısından bu örneklerin yalnızca 7 adeti bu raporda tartışılacaktır. Bu örnekler: Sivri uçlular, cila aletleri, delikli aletler, paletler, boncuklar, artıklar ve betimlenemeyenler. Bulunan diğer örnekler, daha önce tartışılan örneklerle benzerliktedirler.

Introduction

During the 2005 season I recorded 210 worked bone items, both from backlog and from current excavation. This brings the total of recorded worked bone items to 1451: these are broken down by type for both the current season and overall in Table 1. The worked bone found up to 1999 is discussed in the excavation volumes (Russell, in press), so I will not go into great detail about each type of item here, instead concentrating on new information. The usual faunal information was recorded for each of the tools (although modification often makes identification difficult by removing diagnostic characters). In addition to noting morphological data, the tools were examined for microwear under a binocular light microscope at magnifications 25-150X.

Tool types

The worked bone items were mainly of types found in previous seasons, but one new type, a flat plaque or palette was found, as well as a few distinctive but unidentifiable pieces. Points continued to be the dominant type, accounting for 100 (or 48%) of the total worked bone items, followed in importance by beads at 28 (or 13%), and needles and performs at 11 (or 5%) each. All types found at Çatalhöyük are listed in Table 1. Of those, only seven will be discussed below, as they provided new information. These are: Points, Burnishers, Miscellaneous Perforated Tools, Pallettes, Beads, Preform/Waste, and Unidentified. The other tool types found were very similar in detail to the same types as discussed earlier.

Point

Points accounted for just under half (48%) of the assemblage analyzed this year, continuing the trend from previous years. Points made with heavily abraded distal metapodials continued to appear all over the site, again indicating that they are indeed appearing before the Chalcolithic period, as Russell speculated in the archive report for 2003. The most interesting point tools are the antler pieces - there are 7 antler points (10384.X2, 11588.X3, 11905.X4, 11924.X4, 11965.X6, 10396.F2, 11862.F124), two of which are listed as points, four of which are rounded points, and one of which is a blunted point. These antler points are very similar in appearance to the pieces described last year as pressure flakers: however, they were not found in similar contexts (in several locations across the site), or with closely associated obsidian, and nor did they show distinctive enough wear to be clearly identified as pressure flakers based on that alone. 11924.X4 and 11965.X6 were found near the cattle rib burnishers discussed below, and those with 11965.X6 especially may have represented a bone toolkit.

Burnisher

Six burnishers, most likely for use with pottery, were found this year. Five of these (11923.X1, 11923.X6, 11923.F1, 11923.F2, 11923.F3) were definitely made from cattle ribs and were found in the same context in Building 52, and the sixth (11892.F1, found in the South) was made from a large mammal rib that is most likely cattle. The five cattle rib burnishers that were found in the same context were in close association, and had been burned in situ, along with antler points that might have been pressure flakers, a sizeable quantity of oil rich seeds, and several unmodified metapodials that could have been stored as raw material for point manufacture.

Miscellaneous Perforated Tools



Figure 71. An antler bullroarer 11910.X1.

There were three miscellaneous perforated tools analyzed this year. One, 11910.X1, is an antler bullroarer. The bullroarer shows significant polish and wear inside the perforation, on the edges near the perforation, and on one side, indicating that it might have been worn when not in use as a bullroarer. The bullroarer was found in a bin in Building 52, which also housed the

burned rib burnishers, the unmodified metapodials, and the possible pressure flakers.

The other two miscellaneous perforated objects were 11812.X37 and 11802.X15. They come from related contexts, arbitrary levels containing eroded and slumped deposits that have no clear plan. They are extremely similar to each other, but not to anything else found thus far. Each piece is around three centimeters long, and has three perforations running along the long axis. In both case, the perforations do not appear to have been made at

the same time, as they were not made using the same techniques: some are unidirectionally perforated and others bidirectionally, and they use different types of drill. Both are highly polished in all sides but show little sign of wear within the perforation. It is tempting to suggest that they might be gaming pieces of some sort, but no evidence exists to suggest that this is the case.



Figure 72. Miscellaneous perforated objects 11812.X37 and 11802.X15.

Pallettes



Figure 73. Palette 12238.X1.

A single palette, item 12238.X1, was found this year in TP near a cluster of human and animal bones, unit 12240. It is a flat plaque or plate made from a split large aurochs rib. The rib was flattened, smoothed and polished on both sides. Edges were formed on the two long sides by retaining the sides of the rib, creating small lips. The short sides are not contained, but do have a small rounded protrusion at each corner. On microscopic examination, small traces of an orange/red

pigment were found in pores on the original inner rib surface. This piece is strikingly similar to items Mellaart described as wrist guards for archery, but the presence of pigment and the lack of any means of attachment indicate that it was most likely not used as such.

Beads

Twenty-seven of the 28 beads came from a single child's burial, on two strands of anklet. They were all perforated mustelid teeth, and were present on the anklets interspersed with turquoise and carnelian beads. While the teeth all came from the same kind of animal, they probably did not come from the same animal. They had also not been on the same suspension system from the start of their lives as beads. Some of the beads had perforations that were nearly worn through (11657.F1, 11657.F15, 11657.F23, 11657.F25), and had obviously been in use for a long period of time, much longer than the child buried with them had been alive. However, other beads had very new perforations and did not appear to have been worn much, if at all (11657.F2, 11657.F4, 11657.F8, 11657.F9, 11657.F21, 11657.F22, 11657.F27), while still others had low to moderate wear (11657.F3, 11657.F5, 11657.F6,

11657.F, 11657.F10, 11657.F11, 11657.F13, 11657.F14, 11657.F19, 11657.F20, 11657.F24, 11657.F26), and so could have been used by the child throughout its life, or have been in use prior to its birth. The single bead not from this burial was an extremely long tubular bead made from the shaft of a large bird long bone, and was not excavated this year.

Preform/Waste

There are quite a few different preforms, but the only really notable ones are the three large chunks of antler, 11907.X4, 11907.X3, and 11874.X3. The first two are from the context partly covering (11923), which contained the rib burnishers, the possible pressure flakers, and the unworked curated metapodials, while the third is from the South shelter. 11907.X3 and 11907.X4 are very large chunks of antler (11907.X3 at just over 31cm and 11907.X4 at nearly 41cm long as preserved) that were in the process of becoming smaller tools when they, along with the rest of house 52, burned heavily. They preserve many of the traces of early work, but had clearly not been significantly modified other than general shaping.

Unidentified

The unidentified bones included one late period (Roman or Byzantine) gaming piece, four severely broken antler tools, at least one of which might have been a point and one of which might have been a spatula, a sheep metapodial and sheep/goat metacarpal and tibia that were worn on the remaining, handle area, but broken in such a way as to completely remove any distinctive traces of their working ends, an oddly flattened and shaped piece of scapular blade, and 11357.X1 and 5381.F2, from an earlier excavation season. Both of the latter two are shaped from large mammal long bones. 5381 is a spoon-like shape, while 11357.X1 is more interesting, with a rounded point at one end and a spatula-like blade at the other. One side is flattened while the other retains the natural roundness of the outer surface of the long bone.



Figure 74. Flattened and shaped piece of scapular blade 5381.F2.

Discussion

While many of the tools found during the 2005 season are types previously recorded, more types continue to appear. These new types tended to come from unusual contexts, such as the burned Building 52, or from slightly problematic near surface/near intrusive later burial deposits. The removal of Building 51 should allow access to whatever remains of Building 52, which should help to clarify the context of these finds.

	2005		Total	
	#	%	#	%
Point	100	48%	697	48%
Rounded point	7	3%	17	1%
Blunted point	3	1%	4	0.03%
Needle	11	5%	106	7%
Harpoon	0		1	0.01%
Pick	0		2	0.1%
Hammer	0		2	0.1%
Pounder	0		1	0.01%
Chisel/gouge	7	3%	24	2%
Chopper	0		1	0.01%
Scraper	0		8	0.6%
Punch	0		1	0.01%
Pressure flaker	0		4	0.3%
Soft hammer	0		6	0.4%
Pottery polisher	0		17	1%
Burnisher	6	3%	13	0.9%
Plaster tool	0		12	0.8%
Haft/handle	0		8	0.6%
Fishhook	2	1%	11	0.8%
Weight	0		1	0.01%
Spoon	1	0.1%	4	0.3%
Spatula	10	5%	15	1%
Bowl/cup	0		2	0.1%
Knucklebone	3	1%	18	1%
Ornament	0		15	1%
Pendant	1	0.1%	25	2%
Bead	28	13%	99	7%
Ring	5	2%	106	7%
Belt hook/eye	0		5	0.3%
Collar	0		6	0.4%
Preform/Waste	11	5%	102	7%
Miscellaneous perforated tools	3	1%	3	0.2%
Flute	0		1	0.01%
Palette	1	0.1%	1	0.01%
Indeterminate	11	6%	116	8%
Total	210		1451	

Table 1. Type representation for both 2005 items and all items

Isotopic research at Çatalhöyük - Jessica Pearson, Liverpool University

The first phase of isotopic (C and N) research, led by Mike Richards, was designed to address simple questions having arisen from publications based on both Mellaart and Hodder's discoveries such as the importance of cattle versus caprine meat. The results culminated in a chapter included in the 'inhabiting Çatalhöyük' monograph.

The second phase of isotopic research formed a significant part of a D. Phil. thesis of Jessica Pearson based at the Research Laboratory for Archaeology at Oxford University. In this work, the question of dietary protein sources at Çatalhöyük was incorporated in the wider view of Neolithic Anatolia comparing and contrasting the evidence from key sites. A series of articles outlining the findings of this research are currently in progress.

The future of isotopic research at Çatalhöyük is two-fold; to refine questions arising from previous research, and to ask more complex questions of the current data through further analysis of material. Specifically future approaches include :

- 1) dietary variation between houses, areas of the site and even between individuals
- 2) continuity and change in animal diet focused on hunting and herding strategies and
- 3) how many of these results compare with nearby sites such as Pınarbaşı.

Isotop Çalışmaları

Çatalhöyük'deki isotop araştırmaları (C ve N) sığır etinin keçi etine göre olan önemi gibi basit sorular sormak için dizayn edilmiştir. Alınan sonuçlar Çatalhöyük İnceleme Yazıları serisinin 4. cildinde yayınlanmıştır. Bu çalışmayı, Neolitik Anadolu'nun önemli merkezlerindeki kanıtlar ile Çatalhöyük'deki protein kaynaklarının karşılaştırıldığı bir soru takip etmiştir. İlerki çalışmalar, önceki çalışmalardan ortaya çıkan soruların değerlendirilmesi ve materyallerin analizinden alınan verilerle ilgili soruların sorulmasını amaçlamaktadır. Gelecek çalışmalar 1) evler, kentin farklı alanları ve farklı kişiler arasındaki diet farklılığını, 2) Hayvan dietindeki, avcılık ve gütmeye metodlarına bağlı olan devamlılık ve değişmeyi, ve 3) elde edilen sonuçların kaç tanesinin Pınarbaşı gibi komşu merkezlerle karşılaştırılabileceğini dair sorulara cevap bulmayı amaçlamaktadır.

Human Remains - *Lori D. Hager with contributions by Başak Boz, Jim Gosman, Simon Hillson, Tomasz Kozlowski, Clark S. Larsen, and Marin Pilloud*

Abstract

The 2005 field season at Çatalhöyük yielded many new Late Roman/Byzantine and Neolithic skeletons. A total of 71 individuals were recovered during excavations on the East Mound of Çatalhöyük: 17 dating from the Late Roman or Byzantine time periods, and 47 from the Neolithic. The 47 Neolithic skeletons found this season were from the 4040, TP, South Summit excavation areas. Isolated human remains were recovered from the area under excavation by the IST team. The skeletons were found in different variations of the crouched position typical of Çatalhöyük burials of this time period. Orientation of the body varied. The most striking element about the human remains recovered at Çatalhöyük in 2005 is the high number of neonates, infants, and children found in the Neolithic deposits. In the 4040 area alone, 21 neonates were found this season, 14 of which were found in relatively close proximity to one another. The total number of individuals who died before adolescence (i.e., neonates, infants, and older children) found this season comprises 55% of the Neolithic sample.

The 17 late skeletons were found in the 4040 and TP areas of excavation. Nearly all individuals displayed the typical pattern of this time period in their position and orientation. The bodies were in an extended position with the heads to the west and the feet to the east. There was one exception to this pattern where the feet were to the west and the head to the east. Most of these skeletons were extended on their back but five individuals were extended on their right side. These five individuals were clustered together in the south part of the 4040 in well-defined graves.

Özet

2005 sezonunda çok sayıda Geç Roma, Bizans ve Neolitik döneme ait iskelet bulundu. Doğu höyüğünde toplam 71 insan iskeleti ortaya çıkarıldı. Bunların 17 tanesi Geç Roma veya Bizans, 47 tanesi ise Neolitik döneme tarihlendi. Bu 47 iskelet, TP, 4040 ve Güney Alanı'ndan çıkarıldı. İzole edilmiş insan kalıntıları, IST alanından çıkarıldı. Bulunan iskeletler Çatalhöyük'e özgü olan büzülme pozisyonunun değişik biçimlerini almışlardır. Vücutların yönleri de farklılık göstermektedir. 2005 yılında ortaya çıkarılan insan kalıntılarının en çarpıcı yanı, Neolitik kalıntı içinde bulunan, en yüksek sayıdaki neonat, bebek ve çocuklardan oluşmasıdır. 4040 alanında ortaya çıkarılan, sadece 21 neonattan 14'ü birbirlerine çok yakın biçimde bulunmuşlardır. 2005 sezonunda, ergenlik çağına gelmeden (neonat, bebek ve büyük çocuklar) ölenlerin toplam sayısı, Neolitik örneklerin % 55 ini oluşturmaktadır.

4040 ve TP alanlarında geç döneme ait 17 adet iskelet bulunmuştur. Bu iskeletlerin pozisyon ve yönleri o döneme özgü olan bir örnek göstermektedir. Vücutlar uzanmış biçimde olup, başları batıya, ayakları ise doğuya doğru yönlendirilmiştir. Bu örneğe ters düşen tek bir iskeletin ayakları batıya, başı ise doğuya doğrudur. Bu iskeletlerin çoğu sırt üstü uzanırken, 5 tanesi sağ tarafları üzerine yatmaktadır. Bu 5 iskelet, 4040 alanının güneyinde ortaya çıkan belirgin mezarların içinde bir küme halinde bulunmuşlardır.

Introduction

The 2005 field season at Çatalhöyük yielded many new Late Roman/Byzantine and Neolithic skeletons. A total of 71 individuals were recovered during excavations on the East Mound of Çatalhöyük: 17 dating from the Late Roman or Byzantine time periods, and 47 from the Neolithic. The chronological age of seven individuals is indeterminate until further analysis has been completed. The multiple secondary burial from the 4040 is particularly interesting given that the burial fill context is clearly from later times although the bones themselves could be from either Neolithic or later times. If the bones are deemed to be late (i.e., late individuals disturbed by late individuals), then this is our first instance of a secondary multiple burial in late times at Çatalhöyük. A preliminary assessment of this burial complex is given below. The discussion that follows is the result of our field and lab work during the 2005 field season. Additional analysis will be done on these materials in the near future to clarify some of the issues raised.

Type of Burial	4040	TP	South	Total
Late Roman/ Byzantine	13	4	0	17
Neolithic	26	11	10	47
Indeterminate	6	1	0	7
Total	45	16	10	71

Table 1. Summary of Late Roman/Byzantine and Neolithic Burials Recovered

Neolithic burials

The 47 Neolithic skeletons found this season were from the 4040, TP, South Summit excavation areas. Isolated human remains were recovered from the area under excavation by the Istanbul team. The skeletons were found in different variations of the crouched position typical of Çatalhöyük burials of this time period. Orientation of the body varied. Some bones were in better condition than others. The skeletons which had been in the areas of greatest erosion and those which had been disturbed by later peoples tended to be poorly preserved. Distinct burial cuts were evident for some but not all of the Neolithic graves. Several instances of multiple individuals buried in small spaces were encountered. One multiple burial of adults and one juvenile was excavated in the South Summit. In the 4040, multiple neonates were found together in several instances.

The juvenile from the South Summit had a magnificent string (or strings) of beads mixed with animal teeth wound around its ankles. Otherwise, the Neolithic individuals found this year were devoid of grave goods or personal belongings directly associated with them. Beads and other objects were sometimes found in the burial fill without direct association to an individual. For instance, a string of multi-colored beads was found in Space 248 in the TP area but they were not directly related to any specific individual.

The most striking element about the human remains recovered at Çatalhöyük in 2005 is the high number of neonates, infants, and children found in the Neolithic deposits. In the 4040 area alone, 21 neonates were found this season, 14 of which were found in relatively close proximity to one another. The total number of individuals who died before adolescence (i.e., neonates, infants, and older children) found this season comprises 55% of the Neolithic sample.

The contexts in which the children were found are varied. Most were found under the floors in rooms. Seven neonates were laid in two corners of one small room, others were found abutting the west wall, some were located near the north or south walls, and two were found in midden deposits. Understanding the various house contexts in which these children were placed is one focus of our post-season research on these children.

Descriptions of Neolithic burials

Area: 4040

F. 1572 (10282) (1 young adult)

This individual was a young adult found near the northern edge of the 4040. Sex was indeterminate. The head and other elements of the upper and lower body were missing. The skeleton was close to the surface and suffered from erosion. Animal burrows were also present throughout the grave pit which contributed to the disturbed nature of the skeleton. The body was found between two Neolithic walls of different buildings.

Age	4040	TP	South	Total
Neonate/infant	21	2	1	24
Child				
Adolescent	1		1	2
Adult	4	9	8	21
Total	26	11	10	47

Table 2. Neolithic Burials by Age

F. 1585 (10330), (10335), (10336) (3 neonates)

F. 1585 consists of three neonates found in a Neolithic wall which had been truncated by the large Roman foundation trench in the center of the 4040. Several bones were found to be eroding out of the east wall when the trench was emptied of the infill. Excavation of the bones yielded the remains of three neonates found tightly clustered together in what appeared to be a single burial cut. All three were of approximately the same age. Their burial together likely represents a single event.

F. 1588 (10333) (1 neonate, Space 254)

The partial remains of a single neonate were found in the northwest corner of Space 254. The burial cut had been made in the floor of the room. The body was lying on its left side, probably in a crouched position. The pelvis and lower limbs were missing. Animal disturbance was noted in the area.

F. 2006 (11913) (1 neonate)

This skeleton was represented by the partial remains of a neonate. Located near the surface, the skeleton suffered from a high degree of erosion. Several elements were out of articulation or missing. The inferred burial position is flexed. The burial cut was between two Neolithic walls.

F. 2020 (10361), (10370), (10391) (3 neonates)



Figure 75. F.2020, skeletons (10361) & (10370).

Found in the southwest corner of Space 258, three neonatal skeletons were found in close association with each other in a small burial pit. There appeared to be at least one, possibly two, burial cuts in the southwest floor of this small side room. The burial fill was homogenous for all three skeletons. All the neonates were in a tightly flexed position. Skeletons (10361) and (10370) were found at the same level. Their burial positions initially suggested they had been buried at the same time. However, (10370) was not disturbed while the right arm, left leg and hips of (10361) had been. A third neonate was found to be partially under (10370). The legs of this third neonate (10391) extended towards (10361). This suggests (10361) was buried before (10391) and that the disturbance to (10361) probably occurred at the time of

the interment of (10391). The last neonate in the pit was probably the relatively undisturbed (10370). It is

interesting to note that four additional neonates (see below) were found in the same floor in the northwest corner of the same space.

One possible sequence of burial events for F. 2020 is as follows (latest event on top):

(10370) third (last) interred, possibly disturbs left arm of (10391)

(10391) second interred, disturbs left leg and hips of (10361)

(10361) first (earliest) interred

F. 2027 (10366), F. 2028 (10368) (10389), and F. 2038 (10390)

Four neonates were found in northwest corner of the small side room known as Space 258. This is the same space and floor where three neonates (F. 2020) were found in the southwest corner. All of the four neonates from the northwest have articulated elements but they have also been disturbed to some various degrees. The northwest area was characterized by high animal disturbance which may account for the nature and extent of most of the disturbance to the burials. In one instance, the interment of a later burial (10390) may have disturbed an earlier burial (10389). The burial cut for (10390) appeared to have partially cut into the grave of the (10389). In this case, (10389) would have been buried prior to (10390), and (10389) may then represent the first individual to be placed into the corner. (10390) would likely have been the second neonate in the pit given its depth. However, it is also possible that (10368) was second in the pit given that this neonate lays directly above (10389), and then (10390) might have been third (vs. second). In this case, (10366) was the last individual to be put into the pit.

The possible sequence(s) of the burial events for F. 2027 are as follows (latest event on top):

(10366) fourth (last) interred

(10368) third interred (possibly second)

(10390) second interred (possibly third), partially disturbs (10389)

(10389) first (earliest) interred

F. 2027 (10366) (1 neonate, Space 258)

This neonate was the last of four neonates to be buried in the northwest corner of Space 258. The body was placed on its stomach in a tightly flexed position. The burial is up against the north wall of the space. The skeleton was incomplete, probably due to animal activities.

F. 2028 (10368) (10389) (2 neonates, Space 258)

(10368) was the third of four neonates to be buried in the northwest corner of Space 258. The burial abuts the north wall and lies next to (10366) and directly above (10389). Flexed and placed on its stomach, (10368) was oriented in a similar manner as (10366).

F. 2038, (10390) (1 neonate, Space 258)

(10390) was tucked in the northwest corner of space 258. The body was at the lowest level of the burial pit in a clearly defined cut. The nearly complete body was lying on its back, flexed at the knees with the legs on the thorax. The arms were flexed and by the head. The interment of (10390) may partially disturbed (10389).

F. 2030 (11926), (11927), (11935)

Three adult Neolithic skeletons were found in an area that was highly eroded. The skeletons are poorly preserved, incomplete, and highly fragmented. It is possible the three skeletons were placed within the same burial cut. Neolithic walls were visible to the west and south.

F. 2030, (11926) (1 adult)

The partial remains of this individual suggest this is an adult of indeterminate sex. This individual was the most gracile of the three individuals.

F. 2030, (11927) (1 adult)

This is the fragmentary remains of an adult.

F. 2030, (11935) (1 adult)

The disturbed remains are from an adult. The skull of this individual was lying on its right side.

F. 2031 (10384), (10388) (2 neonates in midden, Space 268)

Two neonates were unexpectedly found in a midden context in Space 268. One individual (10384) was directly above the other (10388). Both were oriented with their heads to the west. (10384) had been disturbed during excavation. (10388) was lying on its back with the arms to the side of the body. The legs were flexed backwards and were positioned alongside the lower body. The lower legs were crossed. While there was no burial cut in evidence, it is possible these two neonates had been buried at the same time in the midden given the similarity of their positions and close proximity to one another. It is also possible that they represented redeposited midden.

(10388) appeared to be slightly older than (10384).

F. 2037 (11957), (11971), (11972), (11979)

Six neonates were found in Space 264. Four of these neonates (11957), (11971), (11972), and (11979) formed a north-south line along the west wall. Three of these neonates (11957), (11971), and (11972) may have been buried together in a single burial event even though there was not a distinct burial cut to provide evidence for this. They were all at approximately the same level. One neonate (11979) had its own burial pit. This was also the most disturbed of the neonates and probably represents an earlier burial event relative to the other three neonates.

(11973) (F. 2159) and (11975) (F. 2154), also neonates, were in close proximity to these four neonates of F. 2037. All six neonates appear to have been associated with burial cuts in the same floor of Space 264.

F. 2037, (11957) (1 neonate, Space 264)

This neonate was on its right side in a flexed position. The right arm was extended in front of the face; the left arm was missing. Although many of the lower limb bones were present, it was clear some disturbance had occurred. In addition, leg bones from another neonate were found under the skull of (11957). These bones probably represent an earlier individual who had been disturbed during the interment of (11957).

F. 2037, (11971) (1 neonate, Space 264)

Flexed tightly at the hip, this neonate was on its right side. The right arm was extended in front of the body and bent at the elbow. The knees were bent 90 degrees with the lower leg extending in front of the body. The feet extended towards (11957). While some disturbance was evident, the skeleton was the most complete of the four neonates in this feature.

F. 2037, (11972) (1 neonate, Space 264)

This neonate had been placed on its left side in a tightly flexed position. The right arm was extended next to face and the left arm extended alongside the body. The hip and knees were flexed with the knees drawn to the front of the body. The left leg had been disturbed.

F. 2037, (11979) (1 neonate, Space 264)

The neonatal skeleton was partially disturbed although the bones present were in articulation. The body was probably on its stomach in a flexed position with the legs alongside the upper body. The right arm was bent at the elbow with the lower arm extended away from the body. A distinct burial cut was evident towards the lower levels of the fill. This burial was likely disturbed during the interment of (11972).

F. 2154, (11975) (1 neonate, Space 264)

This neonate was found in a distinct grave adjacent to the south wall of Space 264. The burial pit was quite small, accommodating only the tightly flexed body of the neonate. The body was placed on its stomach with the hips and knees flexed. The head was against the south wall. The arms and the legs were alongside the head and body. The hands and feet were to the sides of the head. A small bin had been found in the level above (11975) but does

not appear to be related to the neonate.

F. 2156, (11982) (1 adolescent, Space 265)

The remains of a juvenile aged between 15-17 years were found in Space 265. Sex was indeterminate. The individual was on its back in a tightly flexed position with the knees on the chest. The body was inclined to the left. Some disturbance was evident since the right lower arm, right foot and part of the left foot were missing. The skull may have been displaced from the rest of the skeleton given that it was found several centimeters above the post-cranial elements. The burial cut was not distinct from the surface although the burial fill became more distinct as the excavation of the skeleton continued, particularly at its basal boundary.

F. 2159, (11973) (1 neonate, Space 264)

This neonate was located in Space 264 at the same level as the four neonates in F. 2037 and the one neonate in F. 2154. (11973) was in a distinct grave. Lying on its right side, the body was tightly flexed. The right arm was bent at the elbow with the hand in front of the face. The left arm was displaced. The legs were flexed at the hips and knees. Additional bones from another neonate were found immediately beneath (11973). These bones will be excavated at a later date. Animal disturbance was present in the basal area of the burial pit.

F. 2158, (11996) (1 neonate, Building 54, Space 265)

The fragmentary remains of a neonate were found in the near the northern wall of Space 265. The burial cut and burial fill were distinct from the surrounding soils. The body was on its back in a tightly flexed position. It is possible this neonate is from the same level as the other neonates from Space 264.

Area: South

Building 44, East Platform (F. 1320) and its foundation layers



All the 2005 South Area skeletons at Çatalhöyük are from a multiple burial complex in Building 44. The burials were found in the east platform (F. 1320) of the building which has been placed in Level IV/V. The multiple nature and complexity of these burials was first apparent near the end of the 2004 field season (see archive report 2004). The excavation of the skeletons from F. 1320 was completed during the 2005 field season.

One individual, an infant skull (11621) was found in the east platform outside of the multiple burial pit. The rest of the skeletons are part of the multiple burial in the east platform. The multi-layered burial pit had been cut into

Figure 76. Multiple burials in east platform F.1320.

the floor of the east platform, extending into the platform's foundation layers. Preliminary study of the material suggests an MNI of 10 individuals. Throughout the platform, the soil was homogenous in color, extremely compact, and difficult to excavate. Burial cuts were not clear in all instances. Nearly all the bones were in poor condition.

The platform had been opened and closed several times by the Neolithic people for the purpose of human burial. It is also possible that the platform was opened and closed by Neolithic people in order to retrieve body parts. Each cut and interment of an individual impacted the ones below it. That is, many of the individuals buried earlier in the platform had been disturbed, or partially disturbed, for the burial of a later individual and/or for the retrieval of body parts. The resulting disturbed bones appear as disarticulated bony elements that had been scattered

throughout the burial pit as part of the burial fill. Most of the larger disarticulated bones occurred in the upper layers of the burial fill. The non-articulated bones were given X-find numbers in the burial fill (11608) while the articulated elements were given skeleton unit numbers.

Six articulated skeletons were present in the east platform. Two of these skeletons were bodies without crania. Four isolated crania were found. One of these was a cranium with part of the upper neck and shoulder in articulation. One individual consisted an articulated left foot.

The location of the six articulated skeletons in the pit and the pattern of disturbance to the skeletons can be used to suggest a sequence of burial events. One possible sequence of events for the east platform in Building 44 is as follows (latest event on top):

Upper layer

Scattered disarticulated bones, including several leg bones, 2 disarticulated skulls (X 12, X 16), an articulated left foot (11646), partial skeletons of (11647), (11649), (11493) and (11494)

Middle layer 1

(11647) (nearly complete)

(11649) (disturbed lower body from pelvis to leg, probably during interment of (11647)

(11494) (complete)

Middle layer 2

(11493) (nearly complete but missing left hip and left leg, possibly disturbed during the interment of (11494)

(11657) (child with anklets; headless; may have been disturbed during interment of (11493 or even (11659)

(11655) (head, cervical vertebrae, upper right shoulder only)

Lower layer

(11659) (headless) (last articulated skeleton, may have been first individual in pit although it may have come after (11657) whose head was disturbed)

(11665) (head only; last major bony element in pit; fragment of plaster under skull)

Descriptions of South Burials

F. 1320, (11621) (1 infant)

The isolated skull of this infant was found in the make-up layer of the east platform. It appears that the skull was deliberately placed into the platform prior to the construction of the overlaying bench (F. 1310).

F. 1343, (11646) (1 adult)

Located in the top layers of the multiple burial, this was an articulated left adult foot. It is likely that the individual to whom this foot belongs was disturbed during the later interment of another individual (or individuals) into the pit. Because the foot was still articulated, it is clear (11646) was disturbed when it was not fully decomposed.

F. 1344, (11647) (1 young adult male)

Found as the first articulated skeleton on top of many others, this individual was a young adult male. Nearly complete, the skeleton was on its left side, flexed at the hips and knees. The arms were bent at the elbow with the hands near the head. During the burial of (11647), the lower body of (11649) was probably disturbed.

F. 1346, (11649) (1 old adult, possible female)

This is the incomplete skeleton of an older adult female. The head and upper body were present as was the right foot. Most of the lower body was missing and were probably represented in the disarticulated bony elements found scattered in the burial pit. (11649) was on its back with the upper right arm alongside the body. The position of the foot relative to the upper body suggests the hips and knees had been flexed, leaning to the left side. A later burial, (11647), overlays (11649) in this same area, and it is this burial event that likely accounts for the disturbance of (11649).

F. 1347, (11494) (1 middle adult, possible male)



This middle adult male was nearly complete. There was very little disturbance to the skeleton. On his back with the legs drawn to the chest and leaning to the left side, this individual was the northernmost articulated skeleton in the burial pit. The right arm was bent at the elbow with the lower arm extended across the chest. The right hand was under the right knee. The left arm was bent at the elbow with the lower arm flexed and the hand under the skull. This older adult suffered from degenerative joint disease and periodontal disease.

Figure 77, Skeleton (11494) in burial F.1347.

The interment of (11494) disturbed the skeleton lying immediately under it, (11493). The pelvis and left lower limb of (11493) was moved from the rest of the skeleton during the burial event of (11494).

F. 1348, (11493) (1 adult male)



This adult male was well-preserved relative to the other skeletons in the multiple burial pit. Lying on his left side in the center of the pit, the right arm and hand were articulated in front of the face. The left arm was bent at the elbow with the hand under the face. The right leg was flexed at the knee but not the hip. The left hip, leg, and foot were missing.

The skeleton was found partially under the head and upper body of (11494) and therefore must have been buried before (11494). The lower body of (11493) was probably disturbed during the burial event of (11494).

Figure 78. Detail of the skull of skeleton (11493) in burial F.1348.

The missing elements of (11493) are likely to be part of the disarticulated bones found throughout the pit. If we look below (11493), there is evidence to suggest that an earlier individual, (11657), was disturbed by the interment of (11493). The head of (11657) would have been in the area of the (11493) but it was missing.

In addition, the head and partial upper body of (11655) was found under the head and arms of (11493). It is possible the burial of (11493) disrupted (11655) also. However, if the skull and upper body of (11655) were *in situ*, then it is unlikely (11493) disturbed it since (11493) was oriented east-west and (11655) was oriented north-south. In other words, only their heads and partial upper bodies overlapped.

F. 1349, (11655) (1 middle adult)

This partial skeleton of a middle adult is represented by the head, some cervical vertebrae, and the left scapula of a single individual. The location of the rest of the body is uncertain at this time. Many disarticulated bones

were found in the burial pit as well as a few headless bodies. With closer examination we may be able to match these individuals together. At this point, however, this head does not appear to go with any of our headless ones in this pit. It is interesting to note, however, that the cervical vertebrae and the left scapula were present which suggests that this body was disturbed when some flesh and cartilage was still on it.

F. 2050, (11657) (1 child)

The remains of this individual (11657) were located in the southeast part of the burial pit. This was the headless body from a child of ~10 years of age. The head of (11657) has not yet been identified in the disarticulated heads associated with the burial pit. The body was in a tightly flexed position on its left side. The left hip was the only other missing element. The right arm was bent 90 degrees with the right hand at the left elbow. The left upper arm was alongside the body with the elbow slightly bent and the hand at the pelvis. The legs were loosely flexed with the ankles together. A string (or strings) of beads and animal teeth (possibly from a single animal; badger or dog), was found around the ankles of (11657). This is the only individual in the burial pit with grave goods associated with it.

(11657) may have been disturbed during the interment of another individual in the same area of the platform at a later date. The later burial of (11493) is the most likely candidate. It is clear that the head of (11657) was taken after the decomposition of the body had taken place since the uppermost cervical vertebrae are present, suggesting that the skull was taken when flesh and/or cartilage would not have been an issue

F. 2051, (11659) (1 middle adult female)



Figure 79. Skeleton (11659) in burial F.2051.

This was the headless body of a middle adult female. Resting on her right side, her legs were drawn to her chest and leaning to the right side. The arms were slightly bent at the elbow with the hands near the knees. The knees were loosely drawn to the chest and the ankles and feet were together. The head of (11959) has not yet been identified among the disarticulated skulls in the burial pit although further analysis on these bones will be done in future field seasons to more accurately assess this.

(11959) was the last articulated skeleton found in the burial pit. This woman likely represents the first individual buried at the base level of the eastern platform in Building 44. The location and nature of the articulated skeletons above (11959) suggest this individual did not disturb the other burials during its interment and therefore it was not the last individual to be put in the pit.

F. 2052, (11665) (1 young adult male)

A skull and mandible of a young adult was found in the northwest area of the burial pit. The head was lying on a

slab of plaster. This is the last major bony element to be found in the burial pit and signifies the end of burials in the eastern platform at the lowest levels of Building 44.

Area South: X-finds

Unit (11608)

- X5: humerus (lt.)
- X6: femur
- X7: femur
- X8: tibia
- X9: hipbone
- X10: skull
- X11: hipbone
- X12: skull
- X13: hipbone
- X14: humerus (rt.)
- X15: hipbone
- X16: skull
- X17: tibia
- X18: femur, mid-shaft
- X19: patella (lt.)
- X20: vertebrae (2 lumbar)
- X21: humerus, mid-shaft
- X22: femur
- X23: femur
- X24: ribs, small vertebrae fragments
- X25: humerus
- X26: possible tibia
- X27: hipbone
- X28: clavicle (rt.)
- X29: scapula (prob. rt.)
- X30: humerus (rt.)
- X31: humerus (prob. lt.)
- X32: ulna (lt)
- X33: probable radius
- X34: radius
- X35: possible ulna
- X36: fibula
- X37: clavicle
- X38: mandible

Area: Team Poznán (TP)

The TP area yielded several Neolithic skeletons this field season. Disturbance to the skeletons by post-Neolithic people was the common theme. All the skeletons recovered this season were partial. Adults and children were represented.

Space 248 (11566), (11569), (11570), (11571), (11700), (12265), (10986)

The disarticulated, partially articulated, and articulated remains of several adults and juveniles were found on one floor level of Space 248. The space had suffered considerable disturbance by post-Neolithic people. The skeletal elements were located in the eastern portion of the space where the north, south and east walls were intact. Most of the western portion of the space had been seriously impacted by later construction activities. The human remains appeared to lie between two floors. The plaster on the floors that remained was interrupted.

The human remains were all quite disturbed. Many disarticulated bones were scattered in the space although there were a few individuals whose bones were articulated. The articulated elements were given skeleton unit numbers. Non-articulated bony elements were assigned X-find numbers in the burial fill (10986). Laboratory analysis suggested several disarticulated bones belonged to a single individual and these bones were collapsed into one skeleton unit number (12265). Otherwise the bones could not be matched to one another at this point in our analysis. No skeleton was complete or even nearly complete. No burial cuts were evident for any individual. Adults and children are represented.

One individual (11566) was found in direct association with a bucranium (F.11562) in the northwest area of the Space 248. Most of this individual was missing due to the excavation of a large pit in post-Neolithic times. The head was clearly in close approximation to the bucranium.

The burial event or events that account for this distribution of human remains are intriguing. Is the distribution of the bones the result of Neolithic or later activities? If Neolithic, then this may have been a mass burial. Certainly (11566) whose skeleton was found in association with the bucranium, and (11569) looked to be *in situ* from Neolithic times. They did not look like discarded skeletons put there in later times. It is not clear if this can be said of the other skeletons. An additional argument for a Neolithic context of the bones is the presence of the plastering above and below the skeletal elements. In the area around the bucranium, the plaster was more intact than in the southern part of the space (except for the southern wall which was plastered). For (11569) the hand bones were clearly between two layers of plaster but it is not certain if all the other elements had plaster above also. The argument for a late disturbance of the burials is the clear sign of late activities throughout the area. It is possible that some of the burials were *in situ* and others were the result of disturbance by later post-Neolithic peoples.

Space 248, (11566) (1 adult, possible female)

This partial skeleton had been disturbed significantly by the excavation of a post-Neolithic pit. The majority of the skeleton was removed during later times. However, the cranium of (11566) was found and it was in direct association with a bucranium that had not been disturbed. This bucranium was in the west wall of the northwest corner of Space 248. While the majority of (11566) was missing, body position can be inferred from the bones remaining. The body was on its right side, flexed at the hip and knee. The head was to the west. This was an adult, possibly a female.

Space 248, (11569) (1 middle adult female)

This partial skeleton was one of the most complete skeletons in the group. This middle adult female was lying on her stomach with the right arm extended towards or above the head. The right leg was flexed at the hip and knee so that the leg was splayed to the right side of the body and the feet were at her hip. The head and left side of the body were missing. These were disturbed by post-Neolithic people as they dug pits into the floors of Space 248. The right hand was between two layers of plaster in the area of one horn tip of the bucranium which is directly associated with (11566). It is possible (11569) was also related to the bucranium.

An articulated left leg and both feet from another individual (11700) were directly under (11569). Other disarticulated bony elements were in the area immediately surrounding this individual.

Space 248, (11570) (1 infant)

This is an infant burial whose bones were mostly disarticulated when found. The body position was indeterminate. The infant was located in the south area of Space 248 where there was a concentration of skeletal elements. A string of beads was found near the infant but the bones did not appear to be directly associated with it.

Space 248, (11571) (1 adult)

This individual is represented by an articulated leg. The left femur and tibia were found in the south area of Space 248. The tibia was against the plastered south wall. The leg bones are from an adult. The femur displays a healed fracture with a well-developed bony callus. A horn core was found directly under the femur.

Space 248, (11700) (1 adult)

This individual consists of an articulated left lower leg and some bones from both feet. The rest of the body was missing due to later human activities in the area. The bones are from an adult. These lower limb bones were found directly under (11569).

Space 248, (12265) (1 infant)

This is a partial infant skeleton whose bones comprise some of the disarticulated bones found in the south area of Space 248. The bones were deemed to be the same individual by one of us (TK). Some of the bones were found pressed into the plastered south wall of the space with plaster on them. Overall, the bones are poorly preserved.

(11561) (no feature number) (1 adult, possible female)

This is a partial adult skeleton consisting of a partial cranium, mandible, cervical vertebrae and some feet bones. It is possible the feet represent another individual. This individual is a possible female. The bones are highly fragmented. No burial cut was noted.

F. 1911, (11720) (1 adult)

This adult was disturbed during later time periods. Large post-Neolithic pits are present around this burial. The body was on its left side and tightly flexed at the hip and knee. The left leg is flexed so tightly that the knee is at the forehead. The right side is missing more elements than the left. The remaining bones are fragmentary.

F. 1912, (11739) (1 adult), **(11762)** (2 adults)

This concentration of bones was multi-layered and complex. At least three individuals are represented in this cluster of bones. The bone concentration was surrounded by post-Neolithic pits. At first, it was thought the concentration of bones were Neolithic individuals who had been put into this concentration as the later people excavated their pits. On closer examination, several of the bony elements were articulated and it was clear that the pits actually cut into the concentration of bones. It seems unlikely that these bones are redeposited during later times but rather that they represent a multiple burial of Neolithic origins that had been severely truncated during late times.

All of these individuals are adults. One of these (11739) is a possible female. Preliminary lab analysis suggests an MNI of three individuals. Given that so many elements were articulated, it is probable that if these bones were moved at all, full decomposition had not occurred.

Area TP: Bone Clusters

(11592) and (11593)

These units consist of two clusters of human bones discovered during excavation in TP. (11592) consists of a radius and some vertebrae. These bones were located next to a wall and between a cluster of animal bones and another cluster of human bones (11593). (11593) is a lumbar vertebra. (11592) and (11593) may be the same individual. Additional analysis in the lab should clarify this matter.

(12203), Space 248

Several disarticulated human bones were found in this cluster. All were in a disturbed context. The bones included adult and juvenile materials from the cranium and post-cranium. These bones may have been disturbed at the same time as the other disarticulated and articulated Neolithic skeletons in the upper layers of Space 248. Fragments of plaster were also found in the fill. The bones were given X-find numbers in (12203).

Area TP: X-finds

(10986) (burial fill from upper layer of Space 248)

- X11: child's skull (could be same individual as X21, X33)
- X12: mandible fragments (right, ramus and condyle)
- X13: femur (possibly same as (11569))
- X14: tibia (possibly same as (11569))
- X16: hipbone (south area, near beads)
- X17: vertebra fragment (south area, near beads)
- X19: ulna (right) (could be same individual as X29)
- X20: scapula fragment (probable)
- X21: 1 deciduous tooth
- X23: adult skull (upside down)
- X24*: child's skull
- X25: ulna (right)
- X26: rib
- X27*: child's skull
- X28: child's skull
- X29: adult humerus (right) (could be same individual as X19)
- X30*: child's humerus (right)
- X31: lower arm bone (ulna?)
- X32: rib
- X33: juvenile sacrum (could be same individual as X11 and X21)
- X35: hipbone (adult, right)
- X36*: child's skull (probable infant)
- X37: distal ulna
- X41*: juvenile femur
- X43*: several infant bones

*X-finds later viewed as single individual (12265)

(11563)

- X1: rib and scapula fragments (probably same as (11566))

(11588)

- X1: parietal fragment
- X2: cranial fragment

(12203) (burial fill from lower layer of Space 248)

- X1: distal femur shaft
- X2: sacrum + hipbone
- X3: humerus (lt.)
- X4: distal femur (with condyle)
- X5: mandible (1): right and left sides of body
- X6: mandible (2): right body + symphysis
- X8: femur (left)
- X9: cranial fragments
- X10: ulna (right)
- X 14: frontal fragment (lt.)

(12235)

- X1: subadult mandible

(12240)

X4: femur (rt.) and rib fragments

Area Istanbul Team: Isolated Remains

The human bone recovered during the first season's excavation by the Istanbul team were isolated remains. A few bones, including one burnt femur, were found at or near the surface in possibly disturbed contexts. Other isolated bony elements were discovered in spaces or rooms. Cranial and post-cranial elements were found. The majority of the isolated remains were adult. The subadult material includes one cervical vertebra and one metatarsal.

Late Burials (Late Roman/Byzantine) from 2005

The 17 late skeletons were found in the 4040 and TP areas of excavation. Nearly all individuals displayed the typical pattern of this time period in their position and orientation. The bodies were in an extended position with the heads to the west and the feet to the east. There was one exception to this pattern where the feet were to the west and the head to the east. Most of these skeletons were extended on their back but five individuals were extended on their right side. These five individuals were clustered together in the south part of the 4040 in well-defined graves.

Distinct graves were in evidence for many of the late burials. They varied in size and in depth. One of the deep graves was nearly 2 meters long and was longer than the individual in the grave was tall. One other nearby grave was empty. In nearly all instances, the late graves disturbed earlier Neolithic deposits.

For the Late burials, few grave goods were uncovered this field season. A glass vial was found near the left ear of one child and stone beads were found around the neck of an adult. Otherwise, only coffin nails and coffin wood were associated with the late burials.

Several of the late burials were in areas close to the surface and suffered the same degradation from erosion as did the Neolithic skeletons in these areas. The condition of the bones in these instances is poor.

Age	4040	TP	Total
Neonate/infant	2		2
Child	3	3	6
Adolescent	1		1
Adult	7	1	8
Total	13	4	17

Table 3: Late Roman/Byzantine Burials by Age

Descriptions of Late Skeletons

Area: 4040

F. 1571, (10314) (1 middle adult male)

The skeleton was of a middle adult male. The body was extended on its back with the arms were alongside the body. The skeleton was partially disturbed on its right side. The grave was clearly defined with coffin wood and nails present. The individual demonstrated evidence of structural scoliosis of the thoracic spine.

F. 1598, (10339) (1 adult female)

This individual was an adult female. The skeleton was truncated at its midsection by later building activities. Only the lower portion of the skeleton was present. Dorsally extended on its back, the body was in a well-defined grave.

F. 2042, (12123) (1 infant)

The well-defined grave of this one-year old infant was located between two Neolithic walls. The body was on its right side in an extended position. The legs were slightly bent at the knees. The left leg was on top of the right leg. Some disturbance to the burial had occurred. Animal disturbance was high in this area. Some coffin wood

Macro Botanical Remains / Makro – Botanik Buluntuları - Amy Bogaard, Mike Charles, Müge Ergun, Glynis Jones, Kim Ng, Marek Polcyn & Nicola Stone

Team leaders: Amy Bogaard (University of Nottingham), Mike Charles (University of Sheffield)

Team Poznan archaeobotanist: Marek Polcyn

Flotation officer: Nicola Stone

Archaeobotanical assistants: Müge Ergun, Kim Ng

Abstract

The team processed 373 samples – a significant increase from last year, due largely to modifications in the excavation system (i.e. we now receive a 30 litre flotation sample from *all* contexts unless they are of a ‘sterile’ type – see Farid, ‘Excavation: overview’, 2004 Archive Report). A total of 22 samples were prioritised for archaeobotanical feedback during the field season. Most of these were either poor in archaeobotanical remains or were rich in the usual ‘waste’ components (e.g. glume wheat chaff, sedge seeds and tuber).

A burnt building (Building 52) in the 4040 area revealed a small room (space 93) at the north end of the building that contained concentrations of charred plant remains. These concentrations resemble stored plant food of various kinds: cereal grain (naked barley, einkorn, emmer), peas, tiny crucifer seeds and almonds (kernels still in the shell). The contrast with the usual ‘waste’ deposits is very clear:

Özet

2005 sezonunda Arkeobotani ekibi, geçen seneye göre belirgin bir artış olarak 373 örnek analize etmiştir. (Bu sezondan itibaren, sterile tipi örnek olmadıkça, her kontextden 30lt tarama örneği almaktayız. Farid, 2004 Arşiv raporu, Kazıya genel bakış). Sezon boyunca, arkeobotani çalışmasına destek oldukları düşünülen, 22 örneğe öncelik tanındı. Bu örneklerin çoğu arkeobotani kalıntısı açısından zayıf, fakat artık parçaları açısından zengindi (örneğin saz tohumu ve yumru).

4040 alanında, yangına uğramış bir bina olan Bina 52'nin kuzeyinde bulunan küçük bir odada (Alan 93) yanmış bitki kalıntılarına rastlanmıştır. Gıda olarak depolanmış olan

bu kalıntılar çeşitlidir: Taneli tahıl (arpa, einkorn ve emmer buğdayı), bezelye, minik turpgiller tohumları ve badem (taneler hala kabuğun içinde). Artık kalıntıları ile aradaki kontrast çok açıktır.

Introduction

This report focuses on the following topics: results from this season; the on-site scanning/assessment system; and work on a new database.

Archaeobotanical results for 2005

The team processed 373 samples – a significant increase from last year, due largely to modifications in the excavation system (i.e. we now receive a 30 litre flotation sample from *all* contexts unless they are of a ‘sterile’ type – see Farid, ‘Excavation: overview’, 2004 Archive Report). The samples break down by area as shown in Table 1. We carried out level 1 assessment (a quantitative assessment of major categories of crop and wild plant remains – see 2003-2004 Archive Reports and below) on all samples from the 4040 area, the South area (including South) and the new IST area. (Level 1 assessment was not carried out for TP samples, since Marek Polcyn will export and sort all of the samples in Poland; TP samples designated as priorities in the field, however, received level 2 assessment – see 2003-2004 Archive Reports and below).

Area	No. samples	Priority samples
40x40	178	11
Istanbul	24	0
South (including Summit)	71	4
Team Poznan	100	7
Total	373	22

Table 1

A total of 22 samples were prioritised for archaeobotanical feedback during the field season and so received level 2 assessment. Most of these were either poor in archaeobotanical remains or were rich in the usual ‘waste’ components (e.g. glume wheat chaff, sedge seeds and tuber). Several of the priority samples, however, and a significant number of other units were of a very different nature and these are described briefly below.

‘Stored food’ deposits from the 4040 area

Excavations in the 4040 area revealed a burnt building (Building 52). At the north end of the building, a small room (space 93) was excavated that contained concentrations of charred plant remains. These concentrations resemble stored plant food of various kinds: cereal grain (naked barley, einkorn, emmer), peas, tiny crucifer seeds and almonds (kernels still in the shell). The contrast with the usual ‘waste’ deposits is very clear:

-seed concentrations occur within or next to three to four bins in a small (storage?) room

-these concentrations often contain one predominant species; some concentrations include fused lumps of charred seeds, including examples consisting of naked barley and crucifer seeds, indicating that ‘caches’ of seeds were charred together

-sedge seeds, tubers and chaff are mostly absent; there is no evidence that *Scirpus* seeds or tubers were stored as food, implying that these tend to enter the archaeobotanical record by other routes (e.g. dung fuel)

-the associated wild seed assemblage (aside from concentrations of oil-rich crucifer seeds, e.g. *Descurainia*-type or Flixweed) overlaps with, but is distinct from, the usual wild seed flora found in ‘rubbish’ deposits. We hope to be able to gain an unusually clear view in these deposits of the arable weed flora, which will yield information on the nature of crop husbandry practices

The precise nature of the contexts rich in plant ‘foods’ from space 93 – including one bin containing over 30 litres of crucifer seeds – is still being discussed, as is the issue of accidental versus deliberate burning of the building. It is clear, however, that we will have the opportunity to explore a full spectrum of archaeobotanical deposition in the 40x40 area, ranging from stored food to routinely deposited ‘rubbish’, and the contrast between the two will be instructive. Extensive remains of stored plant food have not been uncovered at the site since Mellaart’s excavations (Helbaek 1964). Recent re-analysis of the Helbaek material (Fairbairn et al. in press; Fairbairn et al. forthcoming) will further enhance a full appraisal of wild and cultivated food, crop husbandry practices, animal feeding, dung fuel and so on.

In addition to detailed scanning and some sorting of rich units from space 93, we also returned to promising samples from the 4040 area processed in 2004. None of these 2004 samples (including other burnt room fills) appears to represent stored food preserved *in situ*, but they also diverge from the usual ‘midden rubbish’. Identification of some unusually grain-rich samples from 2004 confirmed the common presence of two-grained einkorn, a cereal type previously unreported from the site. This finding further underlines the diversity and significance of glume wheats, the chaff of which is among the most ubiquitous charred plant components at the site.

Considering all of the units processed in 2005 and assessed at levels 1 or 2, around 130 contain at least 100 items and are potentially rich enough to warrant full analysis. Over 30 of these samples are also very high in density, containing hundreds or thousands of seeds per litre soil. These dense units mostly derive from the 40x40 area, especially space 93, but one unit worth noting is from the new area excavated by the Istanbul team. This deposit consists almost entirely of barley grain and derives from a probable burnt bin fill. Further excavation in this area next year will clarify the context of this feature.

Methodology for scanning/assessment of samples on-site

A scanning system ('level 1 assessment') designed to yield basic information on the composition and richness of all samples was implemented in 2003, with minor modifications in 2004 (see 2003-2004 Archive Reports).

The scanning system is still being refined. An opportunity to gauge the accuracy of richness estimates based on scanning was provided by ongoing analysis of West Mound samples (see also below). Full sorting of around 80 rich West Mound samples in the spring of 2005 gave us accurate counts of items with which scanning-based richness estimates could be compared. The richness estimates from scanning were based on non-random 5 ml subsamples (see Table 1, 2004 Archive Report). The comparison showed that, while the 2004 system provided reasonably accurate estimates for most samples, increased accuracy would be useful.

It was decided, therefore, to begin taking *random* 5(-10) ml subsamples (of the 1 mm size fraction) using a riffle box. Though sample splitting with a riffle box is more time consuming than taking a non-random subsample, the resulting richness estimates should be more accurate. In addition, material sorted out of the random subsample is labelled and kept separate in a capsule or tube and used as a basis for future sorting and id work.

Table 2 compares the current Level 1 and 2 assessment methods. The major differences are the treatment of the 4 mm size fraction and the size of the 1 mm subsample. Overall, the two levels yield a similar quality of information, on the basis of which we will select samples for full archaeobotanical analysis.

	Level 1 assessment	Level 2 assessment
Target samples	All	Priority
Subsampling	Random c. 5(-10) ml of >1 mm flot, scan of 4 mm	Random c. 10(-15) ml of >4 mm and >1 mm flot
Method	Scanning (4 mm) and sorting (1 mm)	Sorting

Table 2

West Mound

We received a British Academy Large Grant in the spring of 2005 to analyse rich samples from the West Mound archaeobotanical assemblage, recovered from 1998 to 2003. The sorting and preliminary identification is being carried out by Nicola Stone under the supervision of Amy Bogaard, Mike Charles and Glynis Jones.

A central question to be addressed in our study concerns continuity or change in the use and husbandry of plants across the Neolithic to Chalcolithic transition at Çatalhöyük: to what extent were changes in social organisation and material culture linked to changes in the use of staple crops and gathered wild plants and in the management of these resources? This issue is important not only for understanding the economy and routine of the Early Chalcolithic community but also as a new vantage point from which to evaluate the growing archaeobotanical dataset available for the East Mound.

Çarşamba field trip

In 2004 we collected modern cereal material along a broad transect extending from the site to the source of the Çarşamba river. One aim was to determine whether cereal plants growing in different geological zones differed

in their isotopic characteristics, and to assess the archaeobotanical applicability of this method. We are currently working with Dr. Jane Evans at the NERC Isotope Geosciences Lab (Keyworth) on preliminary analyses.

Database

We worked with Mia Ridge to devise an archaeobotanical database that can be fully integrated with the rest of the excavation data. We now have a 'core' Access Table of flint logbook data (sample number, unit number, soil volume etc.) going back to the beginning of the current excavations. This file will be linked to our level 1 and 2 assessment data files. With regard to compositional data from the 1996-2002 excavations, we are currently in touch with members of the previous team, in order to obtain all sample-by-sample data on the North, South and Kopal excavation areas. Once the BACH data are available, they can also be linked into the database.

References

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The Phytoliths - Emma Jenkins (University College, London)

Abstract

Samples for analysis were recovered from deposits that promised to be rich in phytoliths as well as from middens and pit fills and from a variety of artefacts. The analysis of the phytoliths from these units will be done at the Institute of Archaeology, University College London over the coming months.

Two bins sampled from Building 52, 4040 Area (F. 2002 and 2004) appeared to have been used for food storage.

Two 'building infill' units were sampled and six midden samples, which were selected to gain an overview of the plants that were exploited at the site and of the plants that were present in the area surrounding the site to gain an understanding of the local environment.

Finally, a number of artefacts were sampled. The first of these was a basket (11970) that was excavated from the 4040 area. This was sampled to try and determine what it was made from. A similar feature was found which was a roughly constructed basket which appeared to be made from some kind of 'woody' material and unworked metapodials were found within this structure. In the TP area two samples were taken from pottery vessels (11544) and 12259) to try and determine what they were used for.

Özet

Analiz için alınan örnekler, fitolit açısından zengin olan kalıntılardan, çöplüklerden, çukur dolgularından ve çeşitli eserlerden gelmektedir. Bu örneklerin analizleri önümüzdeki aylarda Institute of Archaeology'de yapılacaktır.

4040 alanında bulunan Bina 52'deki iki ambarın (F. 2002 ve 2004) gıda saklanması için kullanıldığı belirlendi.

İki bina dolgusundan ve Çatalhöyük ile çevresindeki bitki üreticiliğini anlamak için 6 çöplükten örnek alındı.

Ayrıca, bazı eserlerden de örnek alındı. Bunlardan ilki 4040 alanında bulunan bir sepetdir (11970). Amaç, sepetin hangi malzemeden yapıldığını anlamaktır. Bu sepete benzeyen başka bir sepetin, ağaca benzeyen bir malzemeden yapıldığı ve bu malzemenin içinde işlenmemiş metapodials bulunduğu ortaya çıkarılmıştır. TP alanında bulunan seramik kaplardan, bu kapların ne amaçla kullanıldıklarını öğrenmek amacıyla örnekler alınmıştır.

Introduction

The collection of samples for phytolith analysis and the processing of priority samples for on site feedback continued for a two week period over the 2005 excavation season. During this time, units were uncovered that promised to be rich in phytoliths and samples were taken from these units. In addition, units were sampled from middens and pit fills and from a variety of artefacts. The analysis of the phytoliths from these units will be done at the Institute of Archaeology, UCL over the coming months.

Phytolith rich features

Excavation of Space 53, Building 52, 4040 uncovered two bins (F. 2002 and 2004) that appeared to have been used for food storage. F. 2004 contained four fills (11904, 11907, 11911, 11923). (11904) was the top fill of the bin F. 2002 and contained cereal grains. (11907) had glume wheat chaff and cereal grains (including wheat and barley), and peas. (11911) produced lots of peas, and Crucifereae seeds and charred rodent droppings were found in this unit. Finally, (11923) was a continuation of the pea concentration and also produced Crucifereae seeds, almonds, and more mouse pellets. Phytolith samples were taken from (11911) and (11923).

F. 2002 was the other bin that was excavated from Space 93, Building 52. This feature contained a greater number of fills: (11900, 11903, 11906, 11908, 119190, 11918, and 11919). Phytolith samples were taken from: (11900) and (11903) which appeared to be concentrations of barley and (11906) which was rich in almonds. In addition, to these storage features, (10284) was excavated from the 4040 area which was a cluster of barley seeds and this was also sampled for phytoliths. A further storage bin was excavated from the Istanbul Area which contained carbonised barley seeds (11866) and this was also sampled for phytoliths. A final bin fill (11956) was sampled from 4040.

Midden and fill units

Two units were sampled that were described by the excavator as 'building infill'. One of these was from the 4040 (10297) and the other was from the TP area (10986). Six midden units were sampled: 1 from the 4040 Area, (10369); 4 from the South Area (11358), (11359), and (11360); and one from the TP Area (12219). These samples were selected to gain an overview of the plants that were exploited at the site and of the plants that were present in the area surrounding the site to gain an understanding of the local environment.

Artefacts sampled for phytoliths

Finally, a number of artefacts were excavated that were sampled for phytoliths. The first of these was a basket (11970) that was excavated from the 4040 area. This was sampled to try and determine what it was made from. A similar feature was found which was a roughly constructed basket which appeared to be made from some kind of 'woody' material and unworked metapodials were found within this structure. The fill of this feature (11970) was sampled for phytoliths. In the TP area two samples were taken from pottery vessels (11544) and (12259) to try and determine what they were used for.

Pottery - Nurcan Yalman (Istanbul University)

Abstract

The pottery this year has helped date the deposits excavated. The pottery from Spaces 254, 255, 256 shows the features of Level V. The east sector of 4040 (eg. Space 227) is very important as this area may represent periods rather insufficiently described previously at Çatalhöyük, such as Levels IV – III. The layers of TP join up with Mellaart's Levels I and II. These sherds differ from the well defined wares studied up to now. They are very important in learning about the pottery of the latest levels of Çatalhöyük and the transition between late Neolithic and Chalcolithic. While pottery from the South Area excavated this year has the features of Level V, South Summit provides the features of the transition between Layers IV and V. IST has pottery which has very strong indicators of Level IV although some sherds show some features of Layer V.

GİRİŞİ

2005 yılı kazı sezonunda, ayrıntılı olarak incelenerek kaydedilen unitlerin (toplama birimleri) alanlara göre dağılımı, aşağıdaki gibidir.

: 54 Unit
IST : 17 Unit
SOUTH : 41 Unit
Toplam 112 Unit

Bu alanların unitlerine ek olarak TP alanında da 11 öncelikli toplama birimi (priority unit) incelenmiştir.

Yapılan çalışmaların sonunda elde edilen bilgiler aşağıda özetlenmektedir.

4040

2005 yılı kazı çalışmalarında, 4040 alanında, Mekan (Space) 93 ve Mekan 94 dolguları, hiç çanak çömlek vermemiştir. Boynuzlu mekanın da aralarında bulunduğu bu bölgede, hiç çanak çömleğin olmayışı, daha erken tabakalara ait dolgulara işaret ediyor olabilir. Bununla birlikte, tabaka VII-XII'i arasında konumlandırılabilir özellikli bir parça da ele geçmemiştir.

4040 alanının 2005 kazılarında en kuzeybatıda açılan alan dolgusunda (unit 10297) bulunan bir adet daralan ağızlı parça ise, tabaka VII ile V arasında herhangi bir tabakayı işaret ediyor olabilir.

Bu alanın güneyindeki Mekan 254, 255 ve 256 alanlarında, "midden" (çöplük) ve geç dönem (tarihöncesi olmayan) çukur tahribatları nedeniyle bazı karışıklıklar mevcuttur. Ancak her ne kadar tabaka belirlemeye olanak veren parçalara rastlanmadıysa da, yine de ele geçen parçalar arasında yaptığımız görece değerlendirmeye (özellikle TP alanından tanıdığımız geç Neolitik dönem özellikleri ve formları ile erken Neolitik dönem çanak çömleği formları arasındaki yelpaze) dayanarak tabaka V olma olasılığı üzerinde durulmaktadır.

Mekan 227, 2005/4040 alanının en doğu kesiminde kalmaktadır. Gerek Mekan 227 ve gerekse Mekan 264, bu alanın en geç neolitik dönem çanak çömleğini vermesi bakımından önemlidir. Buradaki mekan dolgularından gelen çanak çömlek, TP'nin tabaka I ve II'sinde bulunanlardan farklıdır. Buna ek olarak, söz konusu malzeme, Mellaart'ın V ve IV. tabaka özelliklerinden de bazı farklılıklar göstermektedir. Bu nedenle yapım özellikleri açısından özgün niteliklere sahip (yüksek ısıda pişme ve kaba hamurlu oluş) bu grubun tabaka IV-II arasında kalan bir döneme ait olabileceği düşünülmektedir. Bu parçalar ile ortak özelliklere sahip çanak çömlek, önceki senelerde TP alanının tabaka III olduğu öne sürülen unitlerinden de gelmiştir.

Bu kesimdeki en belirgin özellikli çanak çömlek buluntuları veren unitlerden biri, 11985'tir. Bu toplama biriminde, açık renkli (yeşilimsi beyaz) yüzeylerinde pişme sırasında oluştuğu düşünülen siyah noktacıkların bulunduğu, özgül küçük kaseler ile birbirinden farklı biçimlere sahip 6 minyatür kaba ait parçalar ve halka biçimli bir dip ele geçmiştir. Minyatür kaplardan üç tanesi "beyaz renkli" mala aittir.

Bu alan için, tabaka IV'te sıkça rastlanan minyatür kap geleneği ile farklı özellikleri birlikte değerlendirdiğimizde, belki de, tabaka IV-III geçişini de göz önünde bulundurmak yerinde olacaktır.

Yukarıda bahsedilen bölgelerin birbirinden farklı tabakalara işaret ettiği düşünülmektedir. Buna ek olarak, özellikle batı kesimdeki tabaka IV ve II arasına işaret eden mekan ve dolgular, bugüne kadar Doğu Çatalhöyük'te ayrıntılı olarak tanımlanmamış tabakalara ait olabileceğinden ötürü ayrı bir önem taşımaktadır.

TP

TP alanı 2005 yılı kazılarında, çanak çömlek bakımından en önemli bulgular, 11772, 12200 ve 12205 Unit'lerinden gelen parçalardır. Özellikle 12200 ve 12205 unitlerinde belirgin bir biçimde artış gösteren krem renkli parçaların hamurları, duvar sıvalarında kullanılan "marl" ı düşündürmektedir (Batı Çatalhöyük'te de sıva malzemesinden yapılmış bir kase tüm olarak bulunmuştur [ÇHW 2000 6571/x.1]). Sayısı artan diğer bir grup ise, kırmızı astarlılardır. Stratigrafik olarak daha geç olan 11772 unitinde, Batı Çatalhöyük tipli, boya bezekli bir parça bulunmuştur.

Krem renkli bu mallar, bitkisel katkıdır ve biçimleri açık ağızlı, kalın kenarlı çanaklar biçimindedir. Bu form ve yapım şekli, bize en alt tabaka mallarını şaşırtıcı bir şekilde anımsatmaktadır.

Bu özel malın dışında, parçaların geneli, ağız formları ve yapımları bakımından, Batı Çatalhöyük'te nadiren karşılaşılan monokrom mallara benzemektedir. Ancak bu mallar, Doğu Çatalhöyük'te, özellikle 4040'ın geç Neolitik olduğu düşünülen Mekan 227 dolguları ile TP'de, daha fazla miktarda karşımıza çıkmaktadır.

South

Bina 44'ten elde edilen parçalar arasında çoğunluğu oluşturan koyu renkli, mineral katkılı kapalı ağızlı parçalara eşlik eden orta büyüklükteki sığ kaselere bakıldığında, tabaka IV-V geçişi dönemine ait olduğu düşünülmektedir.

Bina 43'te kazılan midden alanlarında ele geçen çanak çömlek, her ne kadar çoğunlukla tabaka V'e işaret etmekte ise de, batı kesimdeki "midden" dolguları, non-prehistorik/geç dönem çukurları ile tahrip edilmiş olabilir. Buradan elde edilen parçalar, geç dönem çanak çömlekleri ile birlikte karışık olarak geldikleri için, güvenilir değildirler.

IST

Bu alanda, kazısına başlanan kesimlerin Mellaart tabakalanmasına göre yerini tespit edebilmek için yoğunlaşılacak iki unit, 11855, 11874 ve 11892 dir. Özellikle 11874 ve 11892'den elde edilen çanak çömlek, genellikle aşınmamış, büyük ve diagnostik parçalardan oluşmaktadır. Parçalar arasında en dikkat çekici olanlar: Çizi bezekli parçalar, kırmızı astarlılar ve yukarı kalkık yatay kulplardır. Bu özellikler, tabaka IV ve belki tabaka V'i işaret etmektedir.

Sonuç:

Genel bir özet yapacak olursak, Doğu Çatalhöyük'te, bu yıl yapılan kazıların yürütüldüğü beş genel alanlardan ele geçen çanak çömleğin ifade ettikleri şu şekilde özetlenebilir:

4040 kuzeydoğu kesim (örn. mekan 93-94), kazılan diğer alanlar içinde en eski tabaka özellikleri göstermekte.

4040 güneybatı kesimi (örn. Mekan 254,255,256) , tabaka V özellikleri vermekte.

4040 güneydoğu kesimi (örn Mekan 227), tabaka IV-III gibi, Çatalhöyük'te bugüne kadar oldukça yetersiz tanımlanmış bir dönemi temsil ediyor olabileceği için oldukça önemli.

TP'nin Mellaart tabaka I ve II ile birleşen tabakalarından elde edilen ve şimdiye kadar belirgin bir biçimde tanımlanan mallardan farklılık gösteren parçalar, Çatalhöyüğün en üst tabakalarına ait çanak çömlek özelliklerini

tanımamız açısından çok önemlidir.

South, tabaka V özelliklerine sahipken, South Summit, tabaka IV-V geçiş özellikleri göstermektedir. IST, oldukça güçlü göstergelerle tabaka IV 'e işaret ederken, tabaka V özellikli parçalar da mevcuttur.

Introduction

In the season of 2005, the distribution of units that were examined in detail and registered are given below.

: 54 Units
IST : 17 Units
SOUTH : 41 Units
Total : 112 Units

Additionally 11 priority units from the TP area were examined.

The results of these studies are summarized below.

4040

During the season of 2005, the deposits from Space 93 and Space 94 in the 4040 Area did not produce any pottery. In this area, where also "the space with horn" occurs, the fact that there is no pottery may mean that the deposits are early since pottery is rare between the levels VII and XII.

In Unit (10297), at the very north-west part of the 4040 Area, one sherd of "hole-mouth" pottery may suggest a layer between VII – V.

The parts of Space 254, 255 and 256 that are to the south of (10297), some kind of mixing occurs due to the midden and late period (non-prehistoric) pits. However, according to the relative evaluations among the sherds, we may say that these deposits possibly belong to Level V..

Space 227 is located in the very east part of the 4040 Area. Space 227 and Space 264 are important as they provide the pottery indicating the latest Neolithic of this area. The pottery from these spaces' deposits is different from the layers I and II of TP. In addition to this, the material in question has features which are different from the material of Mellaart's Levels V and IV. Therefore this group of material should probably be located somewhere between levels IV –II with its original features such as being fired in high temperature and having rough paste. This kind of pottery has the same features as were found in the Level III units of Area TP in previous years.

One of the units that provides the most well defined pottery is (11985). In this unit some small bowls were found which have small black dots from firing on a light colored (greenish white) surface. These bowl fabrics have no cores. In addition, some sherds that belong to 6 miniature bowls which have different forms and also one ring base sherd were found. 3 of these miniature bowls belong to "The White Ware".

The tradition of making miniature bowls is common in Level IV but in this unit there are other features which may indicate a rather later stage. Consequently, we may have to consider the transition between Levels IV and III.

The locations/spaces in the 4040 Area discussed above are considered to belong to different levels. In addition to this, the units and the deposits between Layers IV and II have special importance as they might belong to layers that have not been defined so far in detail..

TP

In the TP area, the most important discoveries of pottery were provided from the (11772), (12200) and (12205). The paste of the cream colored sherds which were especially common in (12200) and (12205) recalls "the marl" that was used for wall plasters. (One whole bowl made from solely plaster material was found at West Çatalhöyük

(ÇHW 2000 6571/x.1)). The other group that increases numerically in these layers is called Red Slipped Pottery. There is 1 paint decorated sherd found in (11772), which is stratigraphically late, and indicates Chalcolithic pottery.

The cream colored ware has vegetable temper. The forms are open mouth and thick sided pot forms. This type of form and the manufacturing process surprisingly remind us of the wares from the lowest levels.

Some rim forms and manufacture techniques resemble the monochrome wares from the later West Çatalhöyük that are rarely seen on the East Mound. However such wares do occur at East Çatalhöyük in greater number than at West Çatalhöyük in the deposits of Area 4040 at Space 227, which is considered Late Neolithic.

South

According to the sherds produced from Building 44 that are mainly dark colored, mineral tempered and “hole-mouth” forms and middle sized shallow bowls, this area is considered as the transition between the Layers IV and V.

Although the pottery provided from the midden areas in relation to Building 43 shows that this material is mainly from the Layer V, the midden deposits from the west section might have been destroyed by the non-prehistoric / late period pits. The sherds provided from this area are not reliable as they were mixed with the late period pottery sherds.

IST

There are 3 units called (11855), (11874) and (11892), intensively excavated in this area. Particularly the pottery from (11874) and (11892) consists generally of well preserved (not much abrasion), big and diagnostic sherds. The most striking sherds are incised decorated, red slipped and raised horizontal handled sherds. These features indicate Level IV and maybe Level V.

Conclusion

As a general summary of this year’s studies, the meanings of the pottery provided from the 5 general excavated areas, are given below.

Spaces 254, 255, 256 show the features of Level V.

The east sector of 4040 (eg. Space 227) is very important as this area may represent periods rather insufficiently described previously at Çatalhöyük, such as Levels IV – III.

The layers of TP join up with Mellaart’s Levels I and II. These sherds differ from the well defined wares studied up to now. They are very important in learning about the pottery of the latest levels of Çatalhöyük and the transition between late Neolithic and Chalcolithic.

While pottery from the South Area excavated this year has the features of Level V, South Summit provides the features of the transition between Layers IV and V.

IST has pottery which has very strong indicators of Level IV although some sherds show some features of Layer V.

Çatalhöyük Figurines - Lynn Meskell (University of Stanford) and Carolyn Nakamura (Columbia University)

Abstract

This year the figurine team focused on recording basic information for all of the 1526 objects in the miniature shaped object corpus. As a result we were able to perform some preliminary spatial analyses, which allowed us to begin discussing notions of process, context, and circulation of figurines at the site. In addition to finding more of the common abbreviated and zoomorphic types, excavators uncovered some less common and new forms. The 4040 and IST surface scrape uncovered two very small unsexed human clay figurines with protruding stomachs and buttocks (11324.X3, 11848.X1). Another anthropomorphic stone figurine was found in a midden in 4040 (12102.x1), similar to 10475.X2 from last season, but with the head and neck sawed off. Another midden unit, (10396), in the 4040 produced 11 figurines/fragments (most zoomorphic). Finally, the IST team found a very atypical human clay figurine (12401.X7) that depicts a robust female on the front and a skeleton on the back; the neck has a dowel hole and the head is missing.

Given the diversity of this collection, we seek to explore the various assemblages and materials as figured lifeworlds. A notion of figurine as *process*, rather than object or end product is therefore central to our project. Given their specific materiality (portable, three-dimensional, miniature), figurines can render multiple levels of representation and participate in, or even anchor, storytelling activities that mediate issues of memory and identity. We find the wider practices of embedding materials, and the circulation, plastering and defacement of body parts to be evocative gestures that intersect with many figurine practices. These may embody and express particular notions and relations of life and death cycles and we plan to explore these issues and connections more fully in future seasons and publications.

Özet

Bu sene figürin ekibi, 1526 adet ufak buluntunun basit verilerinin kaydı üzerinde yoğunlaştı. Bu çalışmanın sonucu olarak, Çatalhöyük'deki figürin dağılımı, kavramsal methodlar ve kontext gibi ilk analizlerin sonucu olan verileri tartışma imkanı bulduk. Genelde bulunan daha kısaltılmış, hayvana benzer örnekler ek olarak, bu sene daha farklı, yeni şekiller bulundu. 4040 ve İST alanlarındaki yüzey kazımaları sonucunda iki adet, çok küçük boyutta, seksi belli olmayan çıkık, göbekli ve kalçalı insan figürinleri bulundu (11324.X3, 11848.X1). Geçen sene bulunan figürine benzeyen 10475.X2 ve 4040'daki bir çöplükte bulunan bir başka insan betimli taş figürinin başı ve boynu kırıktır. 4040 alanındaki diğer bir çöplükte, 10396, 11 adet figürin ve parçaları bulundu (Çoğu hayvan betimli). Ayrıca İST ekibi, ön tarafı kadın, arka tarafı iskelet olarak betimlenmiş, boyun kısmı delikli ve başı olmayan, olağan dışı bir kil figürin ortaya çıkarıldı.

Introduction

This year we continued to build up the database archive and refine the system implemented last year in 2004. Although much work remains to be done, we were able to compile basic data (material and form) for nearly all objects and fragments in the collection in terms of material and form, enabling us to perform some preliminary spatial analyses. The findings from these analyses now allow us to discuss notions of context and circulation of figurine materials at the site and thus address and challenge some popular conceptions about the Çatalhöyük figurines offered by Mellaart and others who have studied the materials previously. We aim to present a more

comprehensive and representative range of figurines from the site, balancing out the sensationalized finds of the so-called ‘Mother Goddess’ images with the ubiquitous abbreviated figural and animal forms in clay. Our initial findings pose a challenge to the special status given to the category of figurine and its commonly assumed associations with art, women and religion. The diversity of the Çatalhöyük corpus alone demands that we examine a number of variables and interpretations beyond those specified, implicitly and explicitly, by the simple category of figurine.

An overarching goal of this research, then, seeks to make a decisive move away from the notion of figurine as thing; rather, we propose to view the figurine *as process*. As we emphasized last year, our database design process did not simply involve archiving the collection, but engaged a critical rethinking of analytical and interpretive categories oriented towards a more integrative approach to figurine studies. We suspect that certain types of figurines will find closer ties to wall art, representational architectural features, and to plastering activities in general than perhaps to other types of figurines. Refocusing figurine research towards such areas of overlap prompts a productive rethinking of our taxonomic framework in terms of processes of resource acquisition, technological and gendered production, and use rather than in terms of the end product. This approach broadly embraces the idea that technology is social before it is technical (Foucault), thus allowing us to consider the social processes involved material selection, preparation, fabrication, use, circulation and discard.

By developing these aims, the larger interpretative issues of self-representation — the negotiation of self and sexuality, and relations between human and animal worlds — might thus come into sharper analytical focus. We seek to move away from sterile attempts to deduce function and meaning from a visual reading — the ‘is it a deity or not’ type of equation? Instead we seek to look and maneuver around the objects, weaving together patterns of figurine making, technology, use, mobility and discard, coupled with the traversing of categories from figures to plastered features to wall paintings. In this way we hope to build up more of a lifeworld for the Neolithic community, taking into account the inherent visuality and materiality of a figured corpus.

Given our knowledge of representational spheres at Çatalhöyük, this prompts us to ask was there something special about settling down in tightly packed communities in the Neolithic that make its inhabitants more attentive to the contours of personhood and sexual identity, are they playing with classifications and categories that we might find unfamiliar? But first of all we have to balance the scales in terms of readily identifiable genders as the numbers of male, androgynous, phallic and ambiguously sexed figures needs to be recalculated. This is a task we have taken seriously over our first two seasons and are close to achieving a fuller picture of the entire range of material. A notion of *becoming* at this site might then have encompassed experimental imagery that incorporates various sexual symbolism, or combines innovative ways of viewing attributes depending on viewpoint, movement and circulation.

The following report will provide a brief discussion of the current status of our work, including the identification of some key issues, work completed, new finds, the presentation of some preliminary analyses and interpretive directions, and plans for future work.

Issues addressed and work completed

1. The Archive

At a fundamental level we need some dialogue between the two periods of excavation in terms of material culture — even if not the stated contexts, given the levels of specificity in recording during the 1960s (Todd 1976). The scale and speed of the early work uncovered a dazzling array of materials, yet lacked the benefit of the present project’s careful, contextual methodologies. This is evinced very clearly with the figurine corpus. If one were to take the Mellaart finds at face value, specifically the published pieces and thus ignore the wide variation in figurine types, then one might posit that two rather different sites had been dug (see Mellaart 1962; see 1964; 1965; 1966; 1967; 1975). Mellaart would have uncovered a large number of impressive stone and clay pieces, whereas conversely our project would have found more mundane clay examples of quadrupeds, bucrania, abbreviated human forms and so on. Though we have found impressive examples, the mundane dominates numerically. One

way to challenge this picture is to re-excavate Mellaart, to literally work in his areas and through his spoil. A training and educational excavation (TEMPER) under the aegis of the wider project carried out the latter and we now have a very good idea of what Mellaart missed, overlooked or even discarded. Our numbers indicate that he missed significant numbers of figurines (anthropomorphic and zoomorphic) along with fragments of them, non-diagnostic pieces, shaped clay pieces and scrap that is probably ceramic debitage.

One of our first tasks then was to investigate whether this discrepancy largely can be explained away by differences in excavation methodologies and goals or whether it, in fact, does present some kind of meaningful patterning. Others have previously made assertions concerning figurine patterning at the site (Hamilton 1996, in press; Voigt 2000), however, we remain highly skeptical of such analyses given that they have assumed a certain equivalence between the 1960's and current excavation collections and not taken differences in excavation methodologies into account. In order to make any meaningful comparisons, some attempt at balancing Mellaart's picture must be undertaken. Fortunately, we were able to address this issue somewhat by including materials from Mellaart's study (etutluk) collection (The project became aware of these materials last year when the Konya museum turned them over to the project to store on site after they were deaccessioned from the Ankara collection. To our knowledge these materials have not been studied previously), and materials found in his spoil heap dug by the TEMPER project (see archive reports 2000-2004). Materials from the current excavations in Mellaart's area (now called the South Area) also contribute to balancing out the Mellaart profile. The emerging figurine database will include these materials recorded in appropriate detail. Given that contextual information is missing or minimal for most of these materials, they cannot be used in analyses that look at patterning over time and space.

2. The Database

Initially, we designed an extensive database to accommodate a broad range of shaped objects to ensure that we did not overvalue the category of figurine. This decision has resulted in a database record of over 1500 objects, many of which are non-diagnostic fragments and scrap. After having become more familiar with the figurine materials we have decided to employ a tiered recording methodology. Although we have not yet worked out the specifics for this system, most likely it will involve fully recording all diagnostic figurines and figurine fragments, while recording only fabric and weight of the non-diagnostic pieces. Basic descriptive and contextual information for all objects will be recorded where possible. This season we accomplished entering this data for all objects present on site and all known objects from the Konya and Ankara museum collections. We focused on entering basic information that would allow us to perform some preliminary analyses of basic patterning across the site and over time:

- ID number
- Inventory number
- Unit
- Year
- Area
- Space
- Building
- Feature
- Level
- Location
- Object Type
- Material
- Form (representational)
- Type (representational).

These basic data also allowed us to investigate some of Naomi Hamilton's assertions (2005), and conclusions from the heavy residue report in Volume 6 (see discussion below). As mentioned last year, we have structured the database in such a way that allows for the recording of objects from the most general, descriptive terms to more specific, interpretive categories. We believe that this provides the most flexibility for a variety of analyses. Given this consideration, we are eager to dispense with previous terminologies used by Mellaart and Hamilton

such as humanoid, ex voto, schematic, mother goddess, fat lady, as they cannot be disassociated from problematic narratives from art and religion. Our process-focused approach challenges the idea of figurines as static, stationary objects to be viewed and kept in special areas. Hamilton herself presented alternative interpretations for some of the Çatalhöyük figurines, possibly as toys, or jewelry and adornment. While there is little evidence for such use, it is likely that figurines circulated throughout the site and we will put forth a few alternative possibilities.

3. Clay technologies

We continued to work with other clay material specialists, Mirjana Stevanović (building materials), Nurcan Yalman (pottery), and database specialist, Mia Ridge, to agree upon a common clay terminology that would enable better functionality of database queries. Although there are some basic commonalities between ceramics, figurines, building materials and clay balls, the fabric and firing technologies for each are quite specialized and substantially different. A broad aim of the project seeks to better understand the range of clay technologies employed at the site. The clay figurine fabrics are not uniform, although they do appear to cluster into a few different type groups ranging from coarse ‘dirty’ clay to very fine clean marl and plaster. Some fabrics do appear to be similar to miniature clay balls (see reports by Atalay) and possibly some ceramic fabrics (Yalman, pers. comm.) Next season, we plan to begin working out a methodology for the systematic recording fabric type and degree of heat exposure. Given that figurines are predominantly found in secondary contexts such as midden and fill, such work and the eventual comparison of fabrics across object types, will be important for getting at aspects of figurine production and fabrication, even if only obliquely.

4. Experimental Methods



Figure 80. Anthropomorphic/phallic forms. Left: 10474.X, Right: 79-799-65 (Ankara Museum).

Video and Multiple Perspectives. Given our interest in exploring embodied processes of crafting, decision making, material agency, and circulation involved in figurine practice (see 2004 Archive Report), we continued to document some of the figurines on video in order to emphasize the experience of these three-dimensional, portable objects as likely viewed from multiple perspectives. The theme of ambiguity, both in terms of form and sex, needs to be addressed within the Çatal figurine assemblage. As we reported last year, most of the figurines are unsexed and often cannot be assigned to any clear cut traditional category of male or female. This kind of ambiguity often exploits the three-dimensionality of a figurine, a form that can support multi-leveled and hybrid representations like the anthropomorphic and phallic forms in Fig. 80. This specific materiality of a

figurine also invites one to handle and manipulate it and view it from different perspectives. Given this capacity, figurines might likely have been engaged in interactive activities such as storytelling, wish fulfillment, didactic devices concerning transformation, and/or exploration of personhood and sexuality. Again, it is important to entertain the possibility that figurines operated outside of cultic and religious contexts, that it was not necessarily the object itself that was meaningful but the social activities their materiality anchored and supported.

Replications. We also brought some clay modeling material to experiment with re-creating some of the most ubiquitous forms found at Çatalhöyük (We acknowledge that there are differences between working with clay and working with oven-bake clay modeling paste, but given the sensitive issue of forgeries, we decided to use

a modern modeling compound. All copies were destroyed after the experiment). We all encountered various levels of difficulty in this task (Participants included ourselves, John Swogger, Mira Stevanovic and Marina Lizzaralde). We imagined that the simplest abbreviated forms would take only five or six moves to make. But we found that despite their apparent simplicity, the zoomorphic and abbreviated figurines are of a particular cultural style (although there is no standardization of form, there is a certain level of stylistic consistency visible within the various types). The forms were surprisingly foreign to us even though we were constantly handling and examining them. At the outset, even the most experienced person (John Swogger) took some 15 moves to make an abbreviated form but with practice quickly paired the process down to 6 moves. For the animal figurines, fashioning the entire head and body from a single piece of clay proved to be difficult for us, but could be done with a certain amount of practice.

Fingerprints. After reviewing the literature on fingerprint analyses on ancient materials, we decided that correlating fingerprint ridge breadth with height and age would provide the most fruitful avenue for such research (Kamp, et al. 1999). Determining any statistically significant differences in ridge breadth due to sex requires a “genetically close” sample group for comparison (Cummins 1941; Jantz and Parham 1978; Malvalwala, et al. 1990; Stinson 2002). We find do not believe that any modern population can provide such a sample and find studies that assume genetic proximity based only on geographic proximity problematic. Although counts of figurines with fingerprint impressions have not been finalized, we took a sample of 34 print impressions from horn, quadruped, abbreviated and non-diagnostic forms. To avoid leaving a residue from the vinyl polysiloxane dental compound (Patterson Dental Supplies) on the figurine surface, we took impressions of the fingerprints using modeling clay and then lifted the print images from the modeling clay. In future seasons we plan to collect prints from all field samples that have such impressions as well as obtain permission to life images from the figures in the Konya Archaeological Museum.

2005 Finds

This year the project recovered 47 objects from excavation and 26 figurines from Mellaart’s spoil heap. Basic counts for the excavation finds are presented in Tables 1a-1c below.

Object Form	Count
figural	32
figural, non-diagnostic	9
geometric	3
geometric, non-diagnostic	1
non-diagnostic	2
TOTAL	47

Table 1a. 2005 Shape Objects

Figural objects	total	non-diagnostic	Secure
anthropomorphic	14	2	12
zoomorphic	19	5	14
indeterminate	17	9	8

Table 1b. Form Distribution of 2005 Figural Shaped Objects

FORM	Total	Indeterminate	Secure
abbreviated	4	4	0
human	6	0	6
horns	9	2	7
quadrupeds	6	3	3

Table 1c. Type Distribution of 2005 Figural Shaped Objects



Figure 81. 12102.X1. This headless figure is a solid rounded base extending up to a wide horizontal groove indicating a waist that gives way to the upper torso.

12102.X1

Description. The figure comprises a solid rounded base extending up to a wide horizontal groove indicating a waist that gives way to the upper torso (Fig. 81). Two diagonal (shoulder to waist), deeply incised lines indicate arms and a single vertical line divides the chest down the center and may be suggestive of breasts. The neck and head are missing, but have been cut off, probably with obsidian and other stone tools, and perhaps even polished after removal (Karen Wright and Adnan Baysal, pers. comm.).

Context. This figurine derives from a midden context in the 4040.

Discussion. Although the neck and head are missing, it is likely that this piece is similar to the example found last year in space 227 (10475.X2). Another example of a removed limestone head occurs with a figurine now in Ankara (79-8-65). Although speculative at this juncture, the removal of heads is a provocative theme for discussion. Such practices occur in human burials, and we have seen the circulation of heads after death repeatedly at Çatalhöyük. Within the clay figurine assemblage there are several headless bodies that have dowel holes in the neck and also small spherical objects that resemble heads. Certainly, there is the technological consideration that forming the head and body separately is easier for those less skilled in figure modeling. We found this to be the case in our experimental work with fashioning figurines. But given the presence of dowel holes (which allows the easy removal and exchange of heads) and evidence for the intentional removal of heads across the site, we suggest that figurines might be involved in activities of myth and storytelling. Figurine worlds may have provided a rich vehicle to explore narrative and transformative experience — the exploits of individuals, encounters with animals, mythic or historic. The ability for figurines to be malleable, to change identities through the transfer of heads (or change of viewing angle), presents an interesting set of possibilities and leads us away from static forms into the notion of figurine as process (see discussion below).

11324.X3

Dimensions (H.xW.xTh.): 2.84 x 1.41 x 1.14cm; 2.5g.

Description. This figurine is a very small standing human figurine with well-delineated features carved from soft limestone (Fig 82). On the head, ears are indicated and the face depicts eyes, a large nose and mouth. The torso is relatively broad with arms hanging down at the sides. The figure shows a protruding belly with a large belly button incised in the middle. The belly slopes down and outward, then cuts in straight to the groin. The thick legs are divided both front and back and have well-formed feet. On the back the leg divide proceeds up the buttocks, which also protrude outward from a very straight back.

Context. 11324.X3 derives from space 202, building 42 in the 4040 area. The unit has been interpreted as some kind of infilling or leveling event to the south of the bench in this space.



Figure 82. 11324.X3. A very small standing human figurine with well-delineated features carved from soft limestone.

Discussion. This figurine is interesting both in terms of its miniature size and lack of clear sexual features. One other similar figure was recovered this year from the Istanbul surface scrape (11324.X3 Fig. 83). Such miniature objects can invite a much different range of use activities than the larger statuettes. While the latter are often (wrongly) envisioned as sitting in a shrine, being viewed but not circulated or handled, the former perhaps are more easily seen as more portable objects that can be carried, worn, exchanged, hidden, etc. The lack of any clear sex markers in these embodiments also compels us to reconsider the status of gendered representation within the figurine corpus. Although many take exaggerated buttocks and stomach to be indicative of femaleness, such features are necessarily ambiguous markers of sex. And we must consider the possibility that the emphasis of these traits invokes meanings beyond that of binary sex categories. Figurines whether sexed or unsexed may deal more with the exploration of identity and personhood than with categories determined or bounded by gender.

12401.X7

Dimensions (H.xW.xTh.): 6.51 x 7.37 x 6.44cm; 221g



Figure 83. 12401.X7. Hybrid representation perhaps of life and death.



Description. This figure depicts a human, hybrid representation perhaps of life and death. The front portrays the typical robust female with large breasts and stomach (provocatively, the navel appears to protrude (umbilical hernia) which sometimes occurs in pregnancy); very thin arms with delineated fingers (see Ankara 79-251-65) fold up to rest on the breasts (see Ankara 79-803-65 and 10475.X2). The front base of the figure is missing but it appears to be seated with legs crossed in front (Ankara 79-20-65; 79-656-65). Red paint is present around neck and between breasts in four concentric chains (Ankara 79-20-65), and on the wrists and possibly the ankles. The trace of red paint in lower area suggests painted decoration seen on the ankles of other figures. The back portrays an articulated skeleton with a modeled spinal column, a pelvis and scapulas that project above shoulders. Individual ribs and vertebrae are depicted through horizontal and diagonal scoring. A prominent dowel hole indicates that originally the piece had a separate, detachable head. A circular ‘footprint’ around the dowel hole suggests that the head fit snugly into this curved space. The figurine was plastered and shows evidence of undergoing secondary burning (darkened clay/yellowish plaster), which is especially visible on the front from arms/breasts down and diagonally down sides where plaster is missing.

Context. 12401.X7 was found by the Istanbul team in an ashy area of space 252 with a large amount of ground stone, grinding stone, and a mace head.

Discussion. We have found no parallel examples for this piece across the site, the Anatolian Neolithic or the European Neolithic for that matter. The skeletal representation indeed seems unique, but even the style of the female body, with its exaggerated breasts and stomach, is different from other known Çatal examples that portray the female body in more naturalistic proportions. Given that the head is missing, we asked John Swogger to make a few Çatal types from modeling clay so we could get an idea of what the figure might have looked like with a head. The most interesting example was one modeled after the plastered skull found in 2004. He suggested a link between the plaster/skull and living body/skeleton couplings of the two representations. This led us to think more about the act of plastering which we will talk more about in the general discussion.

Unit (10396)



Figure 84. Quadruped 10396.X2.

This unit is part of a primary midden deposit (truncated by a Roman foundation trench) in Space 268 in the 4040 area. Eleven figurine/ figurine fragments mostly comprised of zoomorphic forms (horns and quadrupeds) were recovered from this unit. One or possibly two abbreviated forms were also found (H3, H12). Most of these objects were recovered from screening. Only two X-finds were recorded. X1 is an obsidian point and X2 (Fig. 84) is a nearly complete standing quadruped with tail, R horn and rear R leg intact; all other legs are missing. There is a puncture mark through L horn x-section suggesting that the horn was intentionally broken off. Given the number of figurines found, this unit warrants closer examination.

Preliminary counts

The results of some basic object counts based on our new recording methodology are presented in Tables 2a–4b. As we are still in the process of refining our recording system, inputting unrecorded materials, sorting out exact numbers, and waiting for contextual information, *these results should be taken as preliminary only*. The counts were tabulated very quickly on site and there may be discrepancies among totals between different tables. We will sort these out later on when we publish a more complete and thorough analysis.

Shaped Objects	total	non-diagnostic	?	secure
figural objects	999	233	111	655
non-diagnostic objects	416	/	/	/
scrap?	110	/	/	/
Total number	1525	/	/	/

Table 2a. Overview of Shaped Objects

Representational Form	total	?	secure
anthropomorphic ¹	396	130	266
zoomorphic	508	170	338
indeterminate	205	0	205
geometric	51	12	39

Zoomorphic forms	total	?	secure
quadruped	192	15	177
horn	273	125	148

Horn types	total	?	secure
horn	273	125	148
straight horn	43	29	14
curved horn	175	57	118

Anthropomorphic Forms	total	?	secure
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human	120	15	105
abbreviated	207	53	154

Abbreviated Form Profile	total	?	secure
abbreviated_all	207	53	154
abbreviated_REC	16	1	15
abbreviated_Mellet	22	4	18
abbreviated_CHC	21	2	19
abbreviated_current_excavations	148	46	102

Figural Type	#	#	#	9	8	8-7	7-6	6-5	5	4	3	2	1	0	total
						(7?)	(6?)	(5?)							
anthropomorphic	1	0	1	24	33	3	25	48	84	5	4	6	5	14	253
human	0	0	0	4	9	0	6	5	30	0	2	4	5	11	76
abbreviated	0	0	1	15	16	3	15	33	23	5	2	2	0	0	115
zoomorphic	1	0	8	9	50	6	21	99	71	8	2	1	0	3	279
quadruped	1	0	1	2	27	1	8	45	35	8	1	0	0	3	132
horns	0	0	7	6	20	5	7	52	25	0	1	1	0	0	124
total no. figural objects	2	0	10	40	93	11	54	181	131	13	6	7	5	14	567
TOTAL no. shaped objects	5	-	#	#	##	#	17	#	313	##	25	7	7	5	830

Table 4b. Counts per Level

Table 2b. Type and Subtype Profiles of Figural Forms

1. Anthropomorphic includes abbreviated forms.

Mellaart figural object profile	CHC (museum)	MELLET (etutluk)	REC (spoil)	total
zoomorphic	96	38	20	154
quadrupeds	83	28	1	112
horns	3	5	15	23
anthropomorphic	113	30	18	161
human	65	5	1	71
abbreviated	36	22	16	74
Mellaart All²	205	81	73	359

REC Object Profile	totals
figurines, all	47
figurines ?	12
indeterminate	11
scrap	7
non-diagnostic	17
Total	73

Table 2c. Profiles of Mellaart Materials including his Spoil heap (REC)

2. Totals include indeterminate and non-diagnostic pieces not presented in this table.

DATA CATEGORY	Count
midden	212
fill	209
arbitrary	47
construction/make-up	46
floor	33
cluster	14
activity (penning or burying event)	7
natural	1
Total Number of Figural Objects	569

Table 3a. Figural Objects by Data Category

Features/ Unit Category	fill	floor	midden	construction	cluster	arbitrary	skeleton	Feature Totals
wall	21	0	2	21	0	5	0	49
burial	33	0	0	1	0	1	5	40
platform	1	13	0	9	1	0	0	24
bin	7	0	0	5	0	0	0	12
pit	8	1	0	0	0	0	0	9
fire installation	2	5	0	1	0	1	0	9
pit	7	1	0	0	0	0	0	8
roof	0	0	0	7	0	0	0	7
cut	6	0	0	0	0	0	0	6
basket fragments plastered elements	5	0	0	0	0	0	0	5
architectural	0	0	0	5	0	0	0	5
central "room"	0	2	0	3	0	0	0	5
niche	4	0	0	0	0	0	0	4
screen wall/room partition	1	0	0	3	0	0	0	4
wall opening	2	0	0	2	0	0	0	4
oven	1	0	0	2	0	0	0	3
cache (obsidian)	3	0	0	0	0	0	0	3
hearth	0	1	0	0	0	0	0	1
Category Totals	101	23	2	59	1	7	5	198

Table 3b. Figural Objects by Feature

Building	Level											
	XII	XI	X	IX	VIII	VII	VI	V	IV	III	II	I
1												
2												
3												
4												
5												
6												
7												
8												
10												
11												
16												
17												
18												
21												
22												
23												
24												
25												
28												
29												
44												
45												
47												
49												
2 bldgs.	0	4 bldgs.	6 bldgs.	5 bldgs.	5 bldgs.	5 bldgs.	4-6 bldgs.	4 bldgs.	3-4 bldgs.	1 bldg.	1 bldg.	0

■ = level present in building
 = ?

Table 4a. Buildings in Levels

Discussion

Becoming bodies

The new figurine project at Catalhöyük has taken a new direction in terms of embodied imagery and the concomitant rethinking of gender and sexuality. While this represents new work, it is also in a preliminary stage. We might approach the archive through various modes of viewing, leading to other ways of interpreting, and different viewpoints (literally and metaphorically), angles, and so on. On a primary level what seemed most salient at Catalhöyük was the presentation of being or personhood, not a specifically gendered being with discrete sexual markers, but an abridged version of the bodily form. The basic representation consists of a head and nose on cylindrical torso ending in a solid or divided base, but some are more elaborated with other incised and modeled facial features and head pieces or decoration (Fig. 85). Despite their simplicity there is some degree of variability in terms of shape or posture, size and style. Some are extremely small with appearing to have only a small head on a base. Many are bent forward and as they have disproportionately long pillar forms, begin to look rather phallic. This pillar can either end in a conical base or a divided pair of stumpy legs: the latter type also begins to represent male genitalia when viewed from various angles. The abbreviated types are generally made in much finer, cleaner fabrics such as marl, than the zoomorphic figures. Most show signs of uneven firing and were probably ‘passively fired’ near ovens or hearths during routine activity.



Figure 85. *Abbreviated Forms f.*

Other figurine makers took this trunk or pillar like style to another level, the cylindrical body and elongated neck assumed a phallic form and may have been evocations of sexual ambiguity—the blurring of sexual features or sexual complementarity combining differently gendered bodies (Fig. 80). Most of these forms are made of stone, a low quality marble found locally (10264.X1, 12102.X1). We have seen similar but perhaps more striking examples from prehistoric Mediterranean (Knapp and Meskell 1997) and Near Eastern contexts (Kuijt and Chesson 2005). We also see similarities in the worked bone assemblages, specifically items of personal adornment (Russell 2005), which show phallic forms specifically the pillar shape ending in a knob or groove. The abbreviated forms with stubbed limbs mentioned earlier, while reminiscent of a simple bodily form also evoke an image of male genitalia.

Many researchers at the site are beginning to ask why masculinity is so strongly demarcated across a range of imagery (Hodder 2006). For example in wall paintings of people and animals, maleness is very present. Animals being chased, teased or hunted seem to be male with erect genitalia. Our future research seeks to question whether the Neolithic was a sexual revolution, a period of ‘self’ exploration at a level not experienced before. Is the coming together of people in clustered communities a way of seeing the self differently, of exploring the contours of a

sexed self, of understanding self-fashioning in less than binary terms? From this perspective, figurines also could be part of a process rather than a finished and contained product. In coming seasons we plan to explore the nature of personhood as a visual category. How did the visual presentation of the self mesh or diverge from other spheres of selfhood, like that presented in the household, through the processes of burial and re-circulation, and across a range of experiential settings?

In our work we have discovered that using video to record the figurines as they are moved and handled provides a more embodied set of perspectives and viewpoints and allows us to begin to witness some of the visual punning that we think underlies many of the fabrications. Given the nature of representational practice within the figurine corpus, the theme not only of ambiguity in gender but also in form or being is emerging. We will therefore extend these broader discussions of self and personhood to include considerations of human and animal relations.

Questions of context

As a general premise at Catalhöyük the figurines and shaped clay objects as a collective are found in secondary contexts, they are primarily in room fill, fill between walls, middens, burial fill and rubbish areas. Occasionally they have been found on or near floors. In the new excavations we do not see the patterns that Mellaart's early work would suggest, that figurines (specifically anthropomorphic) are found in special or cultic areas associated with features such as platforms, shrines, grain bins and so on. For example, Mellaart (1964) described finding a 'goddess figurine' painted red in an associated shrine, we too have found red paint on clay figurines but none come from such grandiose contexts since the whole notion of what constituted a 'shrine' has been cogently deconstructed. Mellaart often claimed that figurines (goddess figurines no less) were found only in shrines, whereas the more rigorous excavations over the past decade have shown them to be consistently in rubbish and fill deposits, alongside vast quantities of animal bone, plant remains, ground and chipped stone and other small finds. Interestingly, when we have excavated rooms with plastered bucrania and benches with protruding horns (Building 52 2005, see Figs. 5, 38 & 40), there were no figurines to be found, human or animal. This space would have definitely been categorized as a shrine area for Mellaart. One of the rare instances where we may have evidence of purposeful deposition came from last season in Space 227 of Building 58 where a carved stone figurine seems to have been placed on a floor in association with a number of animal bones, worked bone, obsidian fragments, and worked stone. The excavator believes that this was not consistent with room fill but an assemblage purposefully left there after which the room was backfilled (Space 227, 2004). Continued excavation of the west half of this space this season has recovered information that changes the interpretation of this context slightly; the cluster of objects including the figurine were not on the floor but on a raised platform in the southeast corner of the room (Bogdan, pers. comm.). In the rest of the space, were found a lot of animal bone in the infill, on the floors and stuck in the oven, and (Building 58 2005). While such an event may be difficult to substantiate archaeologically in the end (Hodder, pers. com.), the finds recovered may relate to the closing of the house or related event. However, Shahina Farid (pers. comm.) has made the astute point that a 'closing' event could also be interpreted as an 'opening' event given the nature of building processes at the site. Again, perhaps such binary distinctions are unhelpful here and we might rather consider an emphasis placed not on clearly demarcated events but rather the liminal spaces or periods in between them. Multiple lines of evidence point towards more fluid ways of viewing the world as salient for the Çatalhöyük inhabitants.

This notion leads us to critically examine which of our categories might have been meaningful in the past. Are there substantive differences—in terms of manufacture, treatment, use and circulation—between female and male, stone and clay, human and animal in the figurine corpus? Contextual information might address such issues, however, the predominance of secondary deposition for all types complicates the picture. Figurines commonly evoke or have even become synonymous with notions of a 'mother goddess', the female domestic sphere, and ritual or cultic activities, but such ideas alone do not account for the striking diversity of the Çatalhöyük assemblage which features objects spanning a spectrum of highly elaborated to abbreviated forms, human and animal representations, and range from careful to quick disposal/depositional contexts. Although, some of the objects likely derive from ritual activities, the majority is associated with contexts suggestive of more everyday practices. Furthermore, a strict division between the 'everyday' and the 'magical' or 'ritual' might not have been operative in the past; allowing for this possibility marks another example of our concerted attempt to challenge

taxonomic structures or binaries in all levels of interpretation (Nakamura and Meskell 2004). Our recording and analysis attempts to unpack descriptive categories as much as possible and gives equally footing to a diversity of interpretive possibilities.

If we think of a range of uses or rationales for making figurines we arrive at the usual suite of suggestions: amulets, talismans, narrative devices, representations of individuals or ancestors, tokens, training devices, deities, gaming pieces, objects of magic or manipulation, initiation, contracts in clay, and so on. Does this really help us at Çatalhöyük? All of these possibilities have degrees of merit, yet since we lack the primary contexts, they can only be suggestive. However, we can potentially analyze across various media to try and ascertain a symbolic lifeworld — it is important to note that figurines did not exist in a vacuum for the people of the Neolithic, they must have worked in conjunction with other forms such as wall paintings and plastered features. They must have had symbolic resonances across these classes, perhaps even working cross-platform literally.

This enables us to say certain things. For example, wall paintings of an anthropomorphic nature do not generally resemble those images from the figurine corpus. The wall paintings generally show humans in active positions with their arms and legs clearly delineated. In the plastered wall features we typically have splayed individuals, arms upraised with all the limbs clearly delineated, and with no sexual features. This is quite different from the many anthropomorphic figurines in their abbreviated and sometimes sexed forms. In addition, quantitatively there are more males shown actively in wall paintings than female, and many figures show no sex characteristics at all. The human forms in painting are much more realistic, and more detailed. Again, this is at variance with the anthropomorphic figurine corpus.

There are a few examples that do resemble the larger, more detailed pieces from the figurine corpus. A female with upraised arms from Level IV looks remarkably like a robust figurine type, with small, undistinguished feet (Mellaart 1962). Another of the figures known as ‘leopard dancer,’ although we would not use such terms, has a painted area around his head comprised of dots. Interestingly there are several figurines of various types and shapes that have holes around or on the head indicating hair or a specific hairstyle or decoration (e.g., Figs. 86a-c.). Looking at ethnographic groups we often forget about paint for the face and hair, coupled with other decorative elements.



Figure 86a. 5043.X1.



Figure 86b. Creative reconstruction of 5043.X1 by John Swogger.



Figure 86c. Figurines with perforations and puncture holes.

Moreover, if we look at the wall paintings from Mellaart's excavations, they feature both humans and animals, some of which may assume mythical proportions. Leopards clearly have captured the imagination in two-dimensions (Hodder 2006) but have little resonance in the ceramic figurine assemblage. However, the famous red bull is shown (undoubtedly dead) in a wall painting surrounded by humans, and images of cattle and of metonymic bucrania are ubiquitous in the clay figurine assemblage as well as in plastered house features. Yet there is only one little known wall painting that shows animals in a form we would recognize from the figurine assemblage.

Mellaart claimed correctly that animal figurines could be pierced or maimed after modeling, but was largely incorrect in his assumption that they were placed in pits after use. Again, these animals look rather different from the representations in wall paintings. The majority of the figurines are cattle and domesticates (Fig. 87.), and there is a notable absence of the exotic fauna evidenced in the wall plastering of leopards and the painting of stags,

birds and so on. Moreover, we have several examples of pierced abbreviated and anthropomorphic forms noted which problematizes the notion that this action is simply about hunting magic. Previous interpretations somewhat narrowly posit that stab marks signify the killing of animals (and by association, people). This assertion is tenuous and requires closer scrutiny since although many of the animals appear to be very damaged, most do not show unequivocal evidence of ritual stabbing or maiming. Our future work on fragmentation patterns will address this issue in more detail.



Figure 87. *Quadruped forms.*

We do have tangible evidence that the skeletal elements from boars, vultures, goats, bulls, all get embedded into walls with plaster coatings and moldings (see Figs. 85). These probably have a stronger connection to the types of zoomorphic figurines we find. One possible interpretation is that ancestors or sacred beings were perhaps mediated through the animals, as cattle are today for the Zulus. In the South African case it is not that the specific animals are in any direct way the ancestors in question, but they are the medium through which they can be contacted – an embodiment of sorts. These plastered animal parts may also relate to real or mythic events and encounters with the wild, with powerful animals and equally powerful human hunters. Basically we should envisage other interpretations that move beyond simplistic notions of goddess and bull worship.

Off the pedestal

A central aim is to try and rethink the categories that Mellaart so successfully instantiated, to try and refigure the corpus: to take figurines out of the static position of religious statues, destined to spend their lifetimes sitting it out upon alters and pedestals. This was tacitly influenced by Mediterranean and Egyptian traditions of cultic statues and Mellaart's vision of Çatalhöyük was heavily influenced by his knowledge of these Bronze Age civilizations (Meskell 1998). In fact, Mellaart used these comparative data sets as analogous ethnohistory, his own type of ethnography through the vastly richer and more recent aesthetic and textual records. While we are not interested in identifying or using modern Turkish ethnographic traditions to understand the Neolithic, it is instructive to look at other cultural repertoires in order to, in a sense, defamiliarise and divorce ourselves from Mellaart's vision.

Today we also tend to represent figurines in the same static and unmoving genres, diligently producing technical drawings that place figurines in their sitting, upright postures. By showing various views of these objects we inhibit the possibilities that figurines were handled, moved and thus viewed in a variety of positions. Working with John Swogger we are currently attempting to re-imagine some of these clay figurines as being carried on the person, possibly within skin or textile bags, probably with a range of other portable items (organic and inorganic). And there is evidence of wear on the small anthropomorphic and zoomorphic examples in clay. It is more difficult to determine wear on stone examples as the process of manufacture also includes various forms of abrasion. It is difficult not to reflect on Zuni fetishes and the portability of those material beings, their need for food and

sustenance and so on. Like the Zuni example, it is possible that some figurines may have been worn about the body by means of string or twine, attached in some way to other things (Fig. 88). It should also be noted that the abbreviated anthropomorphic figures sit on bases for the most part, some of the stone examples do, but notable marble examples have no feet, never sit on stools or chairs nor do they have flat backs which suggest that may have been positioned in reclining postures or were circulated through the site and thus regularly handled (don't get the meaning of this point). Here again the use of hand held video provides another instructive layer of viewing as it challenges the static renderings we are familiar with and brings the figurines to life. It also allows us to recreate a process of handling, turning and circulating figurines, as was the case in antiquity.

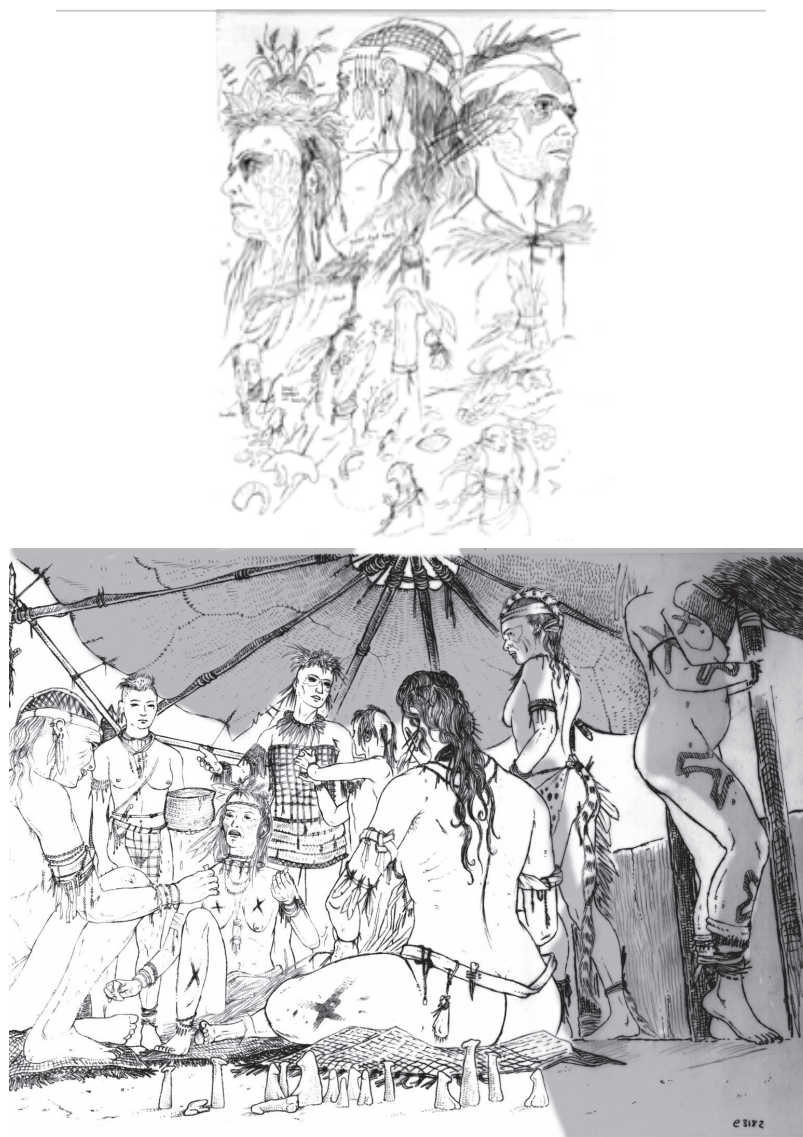


Figure 88. Creative reconstructions of figurine making contexts within households by John Swogger.

We tacitly imagine that the pieces retrieved, whether in clay or stone, *are* as they *were* originally — devoid of not only paint, but also the possibilities for beading, clothing, the addition of cloth, skin, twine, grasses and so on. All of these materials occur frequently at the site (and are readily identified in other ethnographic contexts). If we

look more closely at the carving, abrasion, and surface patterning we may see differences around areas such as grooved ‘waists’ on some of the stone figures, last season and this season. This year we may have found the tools, both obsidian and ground stone, which may have been for carving and working the stone figurines at the site, such as the example below.

In the 4040 Area this year another marble figurine (12102.X1) was excavated from a midden context. Similar to the example last year, this piece combined a solid base likely with a phallic neck. But in this recent case the long neck has been carefully cut off, probably with obsidian and other stone tools, perhaps even polished after removal (Karen Wright and Adnan Baysal, pers. comm.). Another example of a removed limestone head occurs with a figurine now in Ankara (79-8-65). It may be speculative at this juncture, but removal of heads also occurs in human burials, the circulation of heads after death as we have seen repeatedly at Çatalhöyük, also we have several clay figurines that have dowel holes for what appears to be detachable heads and also the small spherical heads which may have been used to complete some of the composites (Fig. 89). It is also possible that heads may have been made of different materials or highly abstracted forms (see Bailey 2005, Figure 7.4). What might this treatment of heads tell us about the construction of identity? The role of myth and storytelling may have been central and that figurine worlds may have proffered a rich vehicle to explore narrative and experience — the exploits of individuals, encounters with animals, mythic or historic. The ability for figurines to be malleable, to change identities through the transfer of heads, presents an interesting set of possibilities and leads us away from static forms into the notion of figurine as process.



Figure 89. 1056.H1, clay head.

Challenges to prior interpretations

In the past two seasons we have turned a skeptical eye toward many of the previous interpretations offered for the Çatalhöyük figurine assemblage. We believe that most of the assertions concerning any general patterning can not be regarded as significant given that they are premised on a very small sample sizes or incomparable sample groups. Furthermore, the number of figurines has been dramatically inflated by the inclusion of many minute, non-diagnostic fragments of shaped clay from heavy residue and we have attempted to rectify this problem this season.

We must also take into consideration the particular nature of excavation practices, which results in certain levels, buildings and areas being more represented than others. Various areas of the site have very different excavation goals. For instance, archaeologists in the 4040 have excavated a relatively large area dating primarily to Levels III/IV and VI/V, while certain buildings, such as Buildings 1 and 17, persist throughout several levels (see Table 4a). Previous interpretations have neglected to consider these factors and have tended to aggregate all materials and contexts together; consequently, these analyses do not present compelling arguments (Although Hamilton (2005) does discuss particular buildings and contexts, she does not take these subtleties into account in her assertions about general patterning). It is important to factor such issues into analyses of general patterning across the site and through time since they can potentially skew interpretation. Table 4b presents basics counts of figural object types found by level. Most of the objects cluster within Levels V-VIII with Level VI producing the largest number. The number of figurines declines dramatically from Level V onward. Rather than assume that this patterning is meaningful, we must at least investigate the possibility that it might result from the upper levels being

underrepresented in the excavated areas or other similar factors that might skew the numbers (contra Hamilton). We have begun to examine patterning across the site and over time in a more rigorous manner, but any assertion must be born out through appropriate data groups. For instance, to get a more representative idea of figurine patterning over time, we will focus on certain buildings that span multiple levels. Ideally, the materials require an integrated analysis, one that considers numerous variables at once. While we have not yet completed these analyses, it is possible to address and challenge some previous assertions made about the Çatalhöyük figurines.

In the most recent publication, Naomi Hamilton (in press) makes several assertions about contextual associations and changes in representational practices among the figurines. Regarding the anthropomorphic types, Hamilton (in press: 205) proposes that human representations become more common in Level VI and dominate in Level V, and ‘humanoids’ (what we call ‘abbreviated’) cease after Level V. However, at present count we only have 4 anthropomorphic (2 human, 2 abbreviated) and 2 zoomorphic examples from Level V. From Level V onwards there are few examples of any type other than Mellaart’s designated finds totaling to only 35 of 830 figural objects. Given such low numbers we feel her assertions cannot be justified at this time. Moreover, by our count, the largest number of anthropomorphic figurines come from Level VI (see Table 4b).

Hamilton (in press: 193) also asserts that there is a pattern with figurines being associated with ashy deposits interpreted as oven rake-out of occupation floors. But when we examined the details of those finds we found that many of these examples derive from heavy residue collections and are actually non-diagnostic pieces of clay or scrap and are indeterminate as figurines. Many pieces collected from heavy residue over the years are so small as to be unidentifiable even in terms of base material. This is a practice we have modified in the 2005 season at the point of collection and recording. Including the most recent seasons excavations, there are a total of 21 examples labeled ‘figurine fragment’, only two of which are secure figurines (curved horns); there are nine possible figurines, and the rest are scrap or shaped clay. She has also suggested that there is patterning to show figurines associated with in oven floors, and floors in general. In our recent counts only 33 figurines can be found in association with floors, 14 of which can be assigned with certainty. Again, the numbers Hamilton bases her assertions on are too small to be considered significant. She does, however, conclude that very little can be said about context through deposition given that most of the figurines derive from secondary contexts (in press: 195). On this point we concur.

Perhaps the most controversial assertion Hamilton has made concerns a change in gender ideology reflected through the figurines. She claims that ‘strongly sexed’ figurines are in a minority, particularly in the early levels, and that they become far more common in the latest levels of the site. Moreover, all the strongly sexed figurines are female, and the male and phallic figures all occur in levels VII and VI. She states, “the situation suggests to me that there is a change in sex/gender ideology during the lifetime of the site, and that the change is centered on Level VI although aspects of it started earlier” (in press: 211). She attributes this perceived change to other changes at the site such as increased specialization of production, major economic that had impacted on social and ideological spheres. There is a “loss of male and phallic figures after Level VI, indicate than an ideology related to sex/gender and possibly concerned with the role of women (but perhaps concerned just as much with the role of men) was altering, and that figurines were utilized to portray this ideology and perhaps to broker it” (Ibid). Given that clearly sexed figurines make up such a small minority of the entire figurine corpus, Hamilton is at pains to support her thesis that figurines ‘brokered’ an ideological shift. Certainly, we would expect to see signs of this in other assemblages if this were the case. Also, given the comparatively few number of male or phallic figurines in the first place, their disappearance from the archaeological record should not be overstated. In such cases, we believe that looking across representational media and material categories would better address such grand issues of gender ideology. But we are rather more interested in the ambiguously sexed and sexless representations that encompass most of the figural objects, which moves us into a different way of looking at sex and sexuality at Catalhöyük (see *Becoming Bodies*, above).

In the past two seasons we have found Hamilton’s atomistic style of listing multiple inventories of numbers of figurines by context, type, level, and occasionally by building or space is redundant and moreover, restricts a coherent picture of figurine practice and its complex associations. Although, she does identify some important

issues and themes, as a whole her assertions need to be closely reexamined and tested in order to differentiate the solid claims from the more tenuous ones.

Figurines as process at Çatalhöyük

The notion of figurine as process can refer to almost every stage in the life of a figurine. From its inception the gathering of materials for making represents a social process of procurement, whether sourcing local stone, clays or combining the plaster from regular wall plastering activities with marl to fashion figures of remarkably fine quality and light appearance. In all of these activities we could imagine a collective sphere where various individuals were present and where collaboration took place. In the case of ceramic examples, following on from retrieval were stages of preparation and cleaning of clays. Many but certainly not all of our examples are made from relatively clean clay with little chaff and small grained inclusions. If we turn to stone we think that most of the marble and calcite came from within a 15-20km radius of the site. As stated above, we also have in our lithic and ground stone assemblage the tools with which figurines were undoubtedly carved, suggesting too that these were completed on site. Karen Wright believes she has identified an area of Mellaart's old excavation that functioned as a stone figurine workshop. While it would be possible that figurine manufacture may be a secretive skill, shared by a few, our evidence suggests that the making of such pieces occurred in or around houses, certainly in a domestic context using materials readily at hand. That next process of making could be both formal, as in the case of carved stone, or more informal and everyday in the case of shaping anthropomorphic and zoomorphic images. In the case of the latter, the routinized making and individual variation suggest many people were fabricating figurines in and around settlement much of the time. They would have had easy access to the materials, and in the short space of time it takes to shape abbreviated forms people could have made them at regular intervals.



Figure 90. Plastered skull (11330) from Building 42.

Albeit difficult to reconstruct, we might posit that everyday social lives may have incorporated much image making, from the repeated layers of wall painting, embedding and plastering parts of animals, to decorate with stamp seals on skin or fabrics, crafting items personal adornment, and of course making figurines. Given the quantity of clay scrap and non-diagnostic pieces found in domestic contexts (over 500 on last count), we might suggest that figurine making occurred in and around houses and did not explicitly occur off site (Fig. 90). We have initiated a preliminary analysis of fingerprint size, and while it is too early for anything conclusive, we can conjecture now that these were not clay toys made by children as some have suggested. Since many are lightly fired, some have commented that they are 'passively fired' by hearths or ovens, again in domestic contexts. To date there is no evidence for specially built kilns at Çatalhöyük and, as with other clay objects, these were exposed to heat during other processes of cooking, burning, and heating or lighting houses. Again these were all public activities or at least household practices.

Given the time that has elapsed since Mellaart's publications and the evocative images he presented to the public, and the residual power of that imagery, its stubborn refusal to be vigorously challenged and replaced – we do need to call upon some radical ways of rethinking or refiguring the archive. Figures were probably moved about during their use lives as well and it is unlikely that they were static and sitting about, as outlined above many cannot stand unaided. Though we can say little about their original use lives from the excavation and contextual data retrieved, we know from their use-wear, damaged state and their final deposition in fill, that they were not like 'cult statues' that were separated from human affairs, spatially and temporally. These were incorporated into practice, a moving and mobile suite of embodied actions,

One suggestion we have is that the small clay human forms (and perhaps some of the animal figures) were collected together in small skin or woven bags, worn or carried, as evidenced in other ethnographic contexts. They could have been carried together with other evocative objects such as pebbles or stones, objects of amuletic value, organics, bone objects decorative and functional, or other types of miniatures. If we think of Native American fetishes, these were often carried or worn on the person and treated like the animal spirit that it represented, so they were fed ground turquoise from miniature pots. Natural products like sage were imbued with sacred valences and were carried in what is considered sacred bundles. The significance of these objects is formed through action not in isolation or distanced contemplation. They are *things* to be used.

We might posit that the people who made the clay examples were probably different to the individuals who fashioned the stone pieces. Perhaps the large complex stone and clay pieces really belong to another category. Researchers tend to put these all together under the heading of figurines, but perhaps the informal clay examples are really a different sort of *thing* – not simply because some would say they are 'crude' but rather because of their expediency or frequency, as opposed to the larger scale projects. A related point is because there are so few points of aesthetic contact between such groups of objects. What really are the visual overlaps, certainly the contexts are related since they are all (almost without exception) found in building fills and midden. The clay example found this year with skeletal features (see below) was also found in amongst collapsed building materials in decontextualised fill. While they are undoubtedly purposeful in their inclusion in such deposits for the most part, we struggle to reconstruct the contexts of their primary use. We have difficulty imagining that being placed in fill should be their *raison d'être* for manufacture of course, which may not be wholly incorrect in all cases. One thing that mitigates that idea is the practice of movable heads as mentioned above, and the general idea of transforming figurine identities by their appearance. They are things in process, in motion, and thus temporally situated. While this may seem an obvious statement, the various things we tend to call figurines may have had very different roles and purposes for people at Çatalhöyük and it may prove misleading to categorically lump them together.

Almost all of the clay figurines of this very general type have missing heads, although damaged we might posit that many also had dowel holes for detachable heads. One figurine that does retain the head is now in Ankara museum (79-803-65) though it has been restored (from the present state we cannot be sure, but this looked originally as if it were all one piece). The ears and nose is prominent, the eyes less so and there is little sign of a mouth. There is a head ring present and an incised line at the top of the forehead. Apart from this exception most clay figurines whether sexed or not are missing heads: stone heads remain intact in the main. However given that we have several marble examples that have been intentionally decapitated such as the example found this year in the 4040 region (12102.X1).

Thinking through the figurine with other forms of representation at Çatalhöyük, such as the plastered animal parts, we have begun to think more about the idea of embedding, particularly the hard forms of bodies, the skeletal or horn and claw elements of animals that survive after fleshy decay. We see so many instances where cattle horns, boar tusks, vulture beaks, weasel and fox skulls are embedded in walls, platforms and features — all of which are the bony elements that both represent the individual animal and successfully survive death. With the addition of plaster and shaping: some retain their life like forms for perpetuity, others remain lumpy and hidden. So too with this figurine, the bony, skeletal part of the human body that survives death and burial is both embedded and revealed. The villagers regularly saw human skeletons as they dug down to retrieve skulls and objects from burials (Hodder 2006). Just like the embedding of real animal parts, this representation grapples with the embedding of

real human parts with a shaped human living form. The notion of embedding real human bones in some manner like the animal parts may have been taboo, as imaginable in many societies but obviously not all as the Maya circulation of worked human bone makes apparent (Meskell and Joyce 2003). So we are perhaps witnessing an extension of the community's treatment of animal world, more specifically the dangerous animal world, and an application to the human body. The aesthetics of fleshing out the skeleton can also be seen in the form of plastered skulls, the earliest of which for Anatolia was found last year at Çatalhöyük (Fig. 88). John Swogger has suggested that the heads of figurines, possibly even detachable ones come to represent the plastered skulls with their high foreheads and smoothed, minimal facial treatment, minus mouths and detailed features. Clays and plasters may have had a specific set of associations with bodily flesh as well, whether human or animal flesh, as the numerous examples from the site may suggest.

Keeping the dead close by and rendered permanent (at least in through living memory) was made possible through this process of embedding; whether burying them under platforms and plastering over them, plastering skulls and burying them with descendents, embedding the boney parts of animals as plastered protrusions, or perhaps even making clay images of the human form with protruding skeletal elements. Were these attempts to transform, display and render permanent the iconic and durable elements of human and animals: skulls, horns, beaks, claws and so on? Duration is a recurring theme in a great many human societies, both ancient and modern and, while being careful not to impose Egyptian notions (something Mellaart was very keen to apply) of death and burial, it would not be inconceivable to envisage that the Çatalhöyük residents were concerned with their own sense of history and memory. That making of history applied equally to the embedding of specific animals as well as people, to the rendering permanent of particular individuals, possibly even events such as the capture and killing of an aurochs or bear. The fabrication of history and memory might not have been focused solely upon human beings, but upon animal and spirit worlds as well. While these ideas are briefly sketched, our aim for future work is to link the figurine corpus more closely with these other materialities and to reconfigure the whole as *process* rather than inert objects of worship or contemplation.

Final thoughts

This report has attempted to cover many aspects of a figured lifeworld at Neolithic Çatalhöyük. While it is too early for us to draw many definite conclusions we hope to have laid the groundwork for analysis and interpretation in our upcoming seasons: what we have described above is all part of our ongoing work. We plan to continue to experiment with ways of embodying and representing figurines and their surrounding practices of making, circulation and deposition by using various new forms of media coupled with creative reconstructions. We also want to embed figurines themselves into wider visual and material worlds at Çatalhöyük and continue to rethink and refine the specific taxonomies that we readily construct and instantiate as archaeologists (Meskell 2004). We are already some way to rethinking certain material hierarchies and associations and sometimes inverting them.

We also have some very pedestrian tasks at hand, such as the balancing up of previous work with our own findings. This is particularly true in terms of species and gender categories where humans rather than animals, and similarly women rather than men, have been over emphasized in the corpus. This leads to a further rethinking of sexuality and self, particularly in the context of the Neolithic and given the myriad tantalizing images of a specific brand of masculinity from other sites such as Göbekli or Nevali Çori. There is much more to be done on the notion of community at Çatalhöyük, the site is a very specific locality that may have visual and material links to other sites in Central Anatolia, but retains a unique set of associations and practices. It may be that the experience of village life, and the choices of clustered housing and intramural burial tell us a great deal about social life at this time. The ubiquity of image making in general at the site suggests that what we would consider 'ritual' or 'religious' things and acts infused and comprised the everyday to such an extent that it might be impossible to parse out. Again the specificities of our categorical understandings are unlikely to mesh with the ancients.

To attempt a summary of the themes that we find most evocative at present first is the notion of figurine as *process* rather than end *product* must be the first. It is indelibly linked to the idea of circulation and mobility; figurines are not static but mobile and potentially shifting things. Part of that malleability is their inherent possibilities for identity changes and narrative, evidenced at Çatalhöyük by the detached heads and ceramic anthropomorphic bodies with dowel holes. In addition, we have the removal or severing of heads in the case of stone human

figurines. The idea of storytelling, coupled with memory and identity are evocative. And finally this connects to the wider practice across media of embedding skeletal parts and plastering or covering them with cultural materials that replace impermanent natural ones. In doing so both animals and humans were preserved, they survived death and decay, and were incorporated into the very fabric of houses and spaces at the site. They served as ever-present reminders, fleshed out, of their former selves and former existence, redolent with memories, stories or myths that are steeped in their attendant materiality.

Çatalhöyük Figurine and Miniature Shaped Object Database

CHfig_D8_current

new record duplicate record sort show all

ID no: 10396.H2 year: 2005 Unit no: 10396 Feature no:
 MEL No: Area: 4040 data cat: midden feature
 Sample no: Space: 266 unit loc: external Building no:
 space desc: unit desc:
 Level: phase: Location: CH: FG3 Inventory no:
 Object type: shaped object Period:
 Object form: figurinal
 DIMENSIONS
 max. h (cm): 1.32
 max. w (cm): 0.50
 max. th (cm): 2.07
 diam (cm):
 weight (g): 1.0

MATERIALS & MANUFACTURE

Method: hand-modelled Quality: fine
 Material: color: Munsell
 Primary: clay: dark gray 2.5 Y 4/1
 Secondary:
CLAY DESCRIPTION **TREATMENT & ELABORATION**
 heat exposure: medium baked primary secondary Adh'n fabric:
 uneven Adh'n color:
 fabric texture: fine Surface treatment: well smoothed Decor:
 inclusions: surface cross-section not visible
 inclusion type: surface color: 2.5 Y Misc:
 inclusion freq: paint color:
 core color: 2.5 Y 5/2 Fingerprints:
REPRESENTATION DESCRIPTION
 Reprnt Comp: sex features: none
 Form: zoomorphic sex interp: unknown
 quadruped: pose:
 body parts: horns:
CONDITION
 Preservation: fragment Condition: intact 1 piece(s)
 Fragmentation: broken at base
 Envir wear:
 Use wear:
 free-standing
CONTEXT DESCRIPTION AND ASSOCIATED FINDS
 Deposition:
 Description: primary midden deposit, truncated by roman foundation trench, but same as 10348 and 10369
 feature desc:
GENERAL
 Comments: curved animal horn found with 10396.H1
 Images:
 Image ID's: ESCN1422 ESCN1423 ESCN1230
 drawn: conservation treatment:
 Data Entry: complete incomplete Entered by:
 new record duplicate record delete record

Figure 91. The figurine and miniature shaped object database recording form.

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Clay Stamp Seals - *Ali Umut Türkcan*

Abstract

The numbers in seals is increasing with the momentum since. However, these results are not coincidental, rather depending on new macro scale excavation since 2003 and addition of one more new areas. Increasing number of stamp seals from every excavation section also reveal that the stamp seals were a common artefact group that had been widely used or manufactured in every parts of the settlements and probably most households of Çatalhöyük.

Eight stamp seals were recovered during the 2005 season. Stamp seals (5 of 6 seals) were recovered in the areas of 4040 (north), Summit and the recent exposed Istanbul (Ist) area. Combined with last season's recovery (Türkcan 2003), the 4040 Area is still giving many examples as in two years. All those found in 2005 are made of clay and majority seems to be baked. Three seals are from the 4040, three seals are from the Summit and two seals are from IST.

An exquisite seal (**11652.X1**, **Summit**), with an bear representation became one of the focus of 2005 research. And put forward a new discussion about the symbolic identities of the representations. It is the first presentation of a different mammalian that is not ever seen so far in stamp seals as well as in other Çatalhöyük representations (wall paintings, figurines). However, as stated in Press Release 2005.

“These plaster reliefs (upraised armed human deity representations) have often been interpreted as ‘mother goddess’ figures. But the heads and hands of the plaster relief examples have always been cut off, so it was never possible to say whether the figures were humans or not. But now the stamp seal provides a key. Here the head and the hind paws remain. They clearly show that the figure is an animal, probably a bear. So it is probable that the reliefs with upraised arms and legs are not goddesses but bears. Depicting animals, such as leopards, in houses is common at Çatalhöyük, and so it is not surprising that we should find a bear”

The representations on the walls of (Temple?)VII.1, VII.31, VI.8, VII. 45. VI.B.8, VI. B.10 forces us to think that the bear presentation seems not to be reserved only to the stamps in Çatalhöyük.

Özet

2005 kazı sezonunda 8 tane mühür bulunmuştur. 1993 Çatalhöyük kazılarında bu yana en fazla bulunan mühür sayısıdır. Geçen üç sene zarfında buluntuların, diğer buluntular (örneğin figürinler) gibi her sene çoğaldığı gözden kaçmamaktadır. Bunun nedeni doğal olarak, 2003 senesinde başta çok geniş bir alanda (40x40 Alanı) başlayan makro ölçekli kazılar ve yeni alanların da buna eklenmesidir. Bu sene bulunan mühürlerin hepsi kilden yapılmış ve pişirilmiştir.

Bu sene bulunan sıradışı amulet tipinde bir damga mühür, 2003 de bulunan leopar mührü gibi Çatal Höyük Tasvirli sanatının ağırlığını oluşturan Duvar Resimleri ve Kabartmaları ile ikonografik bir paralellik içinde ortaklıklar gösterirken, bir yandan Çatalhöyük Hayvan Simgeseliçiliğinin çözümünde önemli veriler vermeye başlamıştır.

12124.X1 (4040)

Non Complete (% lost?). H 0.95 cm, L 3.1cm, W. 1.5. Munsell 2.5 Y, 4.1 Dark Gray (Surface Color). 5.3/2.5Y light brown (Core Color). Medium To Well Baked. The broken piece seems to be a part bigger

figurative formed stamp seal. The seal's curving form and the grooved pattern are identical to each other. There are two grooves that recall toes at the edge of curving form.

10086 (Dry Sieve) (4040).

Clay. Non-Complete .H 1.8 cm, L 4.7 cm, W. 3.3. Medium To Well Baked. Munsell 7.5 YR 2.5 Black (Seal Face). 10YR 4.1 Dark Gray (Handle). The seal face is oval. The seal face is burnished. It is noteworthy that seal face is not true flat but a bit concave towards the inner side (center). The seal face smooth surface has been burnished. The patterns have been arranged in a symmetrical order with curving patterns filling every space of the frame. The basic scheme is composed of two antithetical curve set diagonally up and down below the curve in the center.

11938. X3 (4040)

Clay. Non- Complete. Low Fired. H.2.3 cm, L 2.7 cm, W. 1.6. Half of the seal has been lost with the handle. The general design of the patterns is not understood well because of the fragmentation of the stamp. The general design scheme is an unsymmetrical arrangement of curving patterns. The patterns are grooved and getting especially deeper in the center.

11670. X6 (South, Building 44 & 56).



Clay. Complete. H.2 cm, L 4.4 cm, W. 1.9. Munsell 2.5 Y, 7/4 Pale Yellow, 6/4 (Surface Color). Medium To Well Baked. 5.3/ 2.5Y light brown. The complete seal face form is curving ellipsoid that is also a common shape in the assemblage. The seal face is very flat. The seal face is composed of five grooved curving parallel patterns that are also identical to the seal face form. Two roundel grooves are set between the curving edges and the last curving linear pattern.

*Figure 92. Clay stamp seal 11670.
X3*

11632. X1 (South, Building 44 & 56).



Clay. Non-Complete. H.1.2 cm, L 4.2 cm, W. 3.3 cm. Munsell 2.5 Y, 5.4 Light Olive Brown. (Seal Face). 2.5Y 6.4light yellowish brown (Back side), 2.5 Y, 4.1 Dark Gray (Core). Low to Medium Baked. There is slip on the surface. The seal had been very much damaged and worn away in some parts that the complete seal form cannot be distinguished. The form seems to be composed of small projections with slight curve on their sides. Handle is broken and almost lost. The piece in such a condition seems to have been already discarded before its deposition. The seal face is decorated with three grooved spiral patterns of which one of them at the edge are set between other spirals.

*Figure 93. Clay stamp seal 11632.
X1.*

11652.X1 (South, Building 44 & 56).

(Konya Museum Env. 16). Almost Complete (Figs. 2 & 33) . Clay. Low to Medium Baked. H.2.7 cm, L 6.6 cm, W. 4.6 cm. Munsell 2.5 Y, 6/4 Light Brown (Front Side Body), 10 YR 7/4 very pale brown (Front Side Head Part). 10YR 7/3 very pale brown (Back Side). This is the second amulet type stamp seal with the other (Leopard Seal) from 2003. Despite this extraordinary piece have been found with a minor damage of the forelegs, it is possible to identify the missed parts and to make a reconstruction of the overall form. The all paws below the head seem to have been intentionally broken on the same level. The small tail is also emphasized between the legs.

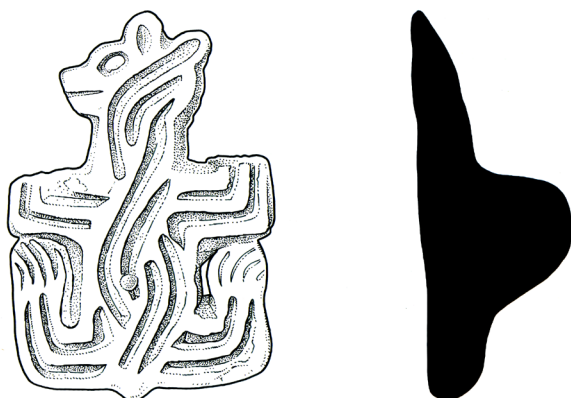


Figure 94. Drawing of clay stamp seal 11652.X1.

The overall form, the head, small tail and other features (the head and the paws) all shows that it is an bear representation. The design on the seal face is composed of double curving parallel lines confronting each other at the center (on the belly) and parallel curvings following the contours of the other body parts (forelegs, backlegs and head). One tint pebble is recognized as stuck just in the middle of the belly part. It makes a contrast with flat and smooth surface of the seals face side. It is also noteworthy that a similar spot is also emphasized on the bellies of upraised arm reliefs (in the spaces of VI 1, VII.31, VI.8, and VII. 45. VI.B.8, VI. B.10; see Meellart 1967). It is enforcing me to think the bera seal and the upraised arm figure reliefs seem to share the similar iconography.

This exquisite seal that recalls a royal signet, is so well designed that canons of every part have been balanced and also harmonized with the curving patterns on the seal face. Moreover, the naturalism of the details especially as seen in the head and paws, toes are also noteworthy. Therefore, the exquisite seems to be an artisan work as indicated in many of the seals.

By the way, the study on the Mellaart assemblage in 1997, one hand shaped seal with larger and bold toes in oval form was already distinctive (Level IV, Area E1; Mellaart 1964: Fig.41.4), so it had been considered as a paw as well as a human hand (Türkcan 2005; Seal No. 19). In earlier research, I am hesitant to say it was a bear paw, but, in the light of our bear representation, now it can be called as bear paw.

11849. X.17 (IST).

Clay. Non-Complete. Low to Medium Baked. H.3.1 cm, L 5.2 cm, W. 2.6 cm. Munsell 2.5 Y, 4/2 Dark Grayish Brown (Backside). 10YR 4/1 (seal Face). 2.5 YR 6/2 Light Brownish Gray (Backside). The seal face was oxidized due to firing. In contrast, the backside with the handle is not oxidized. Actually, this mottled surface on the seals is not a rare thing among the stamps. This is probably due to their positions during firing as one side is exposed to firing, other one is not (according to their positions during firing). The Some part of the seal (along one edge of the seal) is very much worn away and abraded. It seems to have been already discarded when it was deposited. The seal face seems to be divided into two zones by a grooved line at the center. The sides are composed of grooved curvilinear designs with a loop at their ends.

11858. X2 (IST)



Clay. Complete. Low Baked. H.1.6 cm, L 1.8 cm, W. 1.1 cm. Munsell 2.5 Y, 4/2 Dark Grayish Brown (Backside). 2.5Y 4/4 Olive Brown (Core Color). Burnished. The complete seal face form is oval. Some tiny pores can be distinguished on seal face as vegetative inclusion remains. The surface is crunchy because of low baked or maybe not baked. The seal face pattern is composed of two broad spiral patterns following each other. The center of grooved patterns has been cracked into 3 mm. Deep.

Figure 95. Clay stamp seal
11858.X1.

Chipped stone - *Tristan Carter, Stanford University, Nurcan Kayacan Istanbul University, and Marina Milić Belgrade University*

Abstract

The review of this year's material from the 4040 Area focuses entirely on chipped stone assemblages from secure Neolithic contexts, although excavation of later/disturbed contexts invariably produced some objects of note (as with last year's mirror from a Roman grave fill). This year's star find was a beautiful bullet-shaped prismatic pressure-flaked blade-core from a mixed, near-surface deposit of Neolithic and Roman material. Near complete, with only its platform removed (as a core tablet for purposes of rejuvenation), the nucleus had been worked around its entire circumference with 12 blade scars visible (12357.X2).

From the South Area excavation produced 792 pieces of obsidian and 'flint' from 155 excavated units that contained chipped stone. 496 of the artefacts came from Building 44 and 296 from Building 56. Only a limited amount of work was undertaken on Building 42 and the underlying deposits as this part of the site was seen to have suffered greatly from post-Neolithic animal disturbance that had served to mix the deposits by introducing later material, including Byzantine pottery.

Initial observations in the IST Area on the chipped stone industry show that the excavated area could be dated back to levels later than Level VI. The raw material used in the chipped stone industry consists of obsidian and flint, with the former used more intensively. Macroscopic examination of the obsidian suggests that it was brought to the settlement from various sources, including not only Cappadocian material, but also Eastern Anatolian.

Team Poznan [TP] excavations generated 959 pieces of chipped stone from a range of contexts, not all of them Neolithic of which 931 were obsidian and 28 'flint', the latter mainly in the form of tan/brown limnic-quartzites. This season's work provided us with our first assemblages of Level I and II date. Most of this material came from secondary contexts, specifically dump, midden and infill deposits, all of which produced much the same kind of assemblage in terms of relative density of finds.

Özet

4040 alanında bulunan bu seneye ait malzeme, Neolitik kontextler ve geçen sene bir Roma gömü dolgusunda bulunan ayna gibi, daha geç olan rahatsız edilmiş kontextlerin kazısında bulunan işlenmiş taş toplulukları üzerine yoğunlaşmıştır. Bu senenin en önemli buluntusu, karışık bir Neolitik ve Roma yüzey birikintisinde bulunan incelikle yapılmış, kurşun şekilli bıçak içidir. Sadece platformu ayrılmış olan bıçağın çekirdeğinin tüm çevresi, belirgin olan 12 bıçak izinden anlaşıldığı gibi, incelikle çalışılmıştır (12357.X2)..

Güney alanında, işlenmiş taş içeren 155 adet kazı ünitesinden, 792 adet obsidian ve çakmak taşı çıkarılmıştır. 496 adet buluntu Bina 44'den gelirken, 296 adet buluntu Bina 56'dan gelmiştir. Neolitik sonrasında, birikintilere geç dönem malzemesi karışmasına neden olan (Bizans seramiği dahil) hayvan zararından büyük ölçüde nasibini alan Bina 42 ve altındaki birikintilerde sadece ufak çapta bir çalışma yapılmıştır.

İşlenmiş taş endüstrisi üzerine İST alanında yapılan ilk gözlemler, kazılan alanın Tabaka VI'dan daha geç tarihlenebileceğini gösterir. İşlenmiş taş endüstrisinde kullanılan ham malzeme obsidian ve çakmak taşı içerir (Obsidian daha fazla kullanılmıştır) Obsidian üzerinde yapılan makroskobik inceleme, malzemenin buradaki yerleşmeye bir çok farklı kaynaktan getirildiğini (sadece Kapadokya'dan değil, Doğu Anadolu'daki kaynaklardan da) önermektedir.

TP alanındaki kazılar, hepsi Neolitik olmayan, (931 adet obsidian ve 28 çakmak taşı. Çakmak taşı kahverengi limnic quartz şeklindedir) bir çok kontextden gelen 959 parça işlenmiş taş ortaya çıkarmıştır. Bu sezonda yapılan çalışmalar bize Tabaka I ve II'ye tarihlenen ilk toplulukları verdi. Bu malzemelerin çoğu, hemen hepsi aynı yoğunlukta buluntu veren, özellikle çöplük, atık ve dolgu birikintisi olan ikinci kontextlerden geldi.

Introduction

This report represents a series of preliminary statements upon the chipped stone from 2005, discussing the material from the 4040 and South Areas, the Team Poznan [TP] excavations and the newly instigated Istanbul Area. With the latter area being opened up this summer we are delighted to welcome another new member to the chipped stone publication team, Nurcan Kayacan, who brings with her considerable experience of Anatolian Neolithic lithic technology, not least through her work at Musular (Kayacan 2000, 2003 *inter alia*). Beyond the fact that this report is preliminary it should be further appreciated that the three of us were working at slightly different levels of analysis and to an extent asking distinct questions. The most detailed study is offered by Milić who continued her analysis of the material from the South Summit's Building 44, providing far more quantified data than the other reports. On the other hand, much of Kayacan's work this summer was dedicated to ascertaining the date of the deposits being exposed, having only a limited amount of material from secure contexts generated in the last few days of the excavation, the opening weeks having invariably been spent in mixed and heavily eroded layers. Finally, Carter discusses the chipped stone from the 4040 Area, together with the first report on the material from the TP excavations at the top of the mound. It is intended that the other two members of our team, Sarah Delerue and Marcin Waś, will be rejoining us in 2006.

South 2005 - Marina Milić

This year's work on the South chipped stone involved the continuing analysis of the Building 44 assemblage, plus a study of new material from the structure that lay beneath it, Building 56. The data and interpretations presented in this report remain preliminary as neither structure has been fully excavated. The 2005 excavation produced 792 pieces of obsidian and 'flint' from the 155 excavated units that contained chipped stone. Most came from

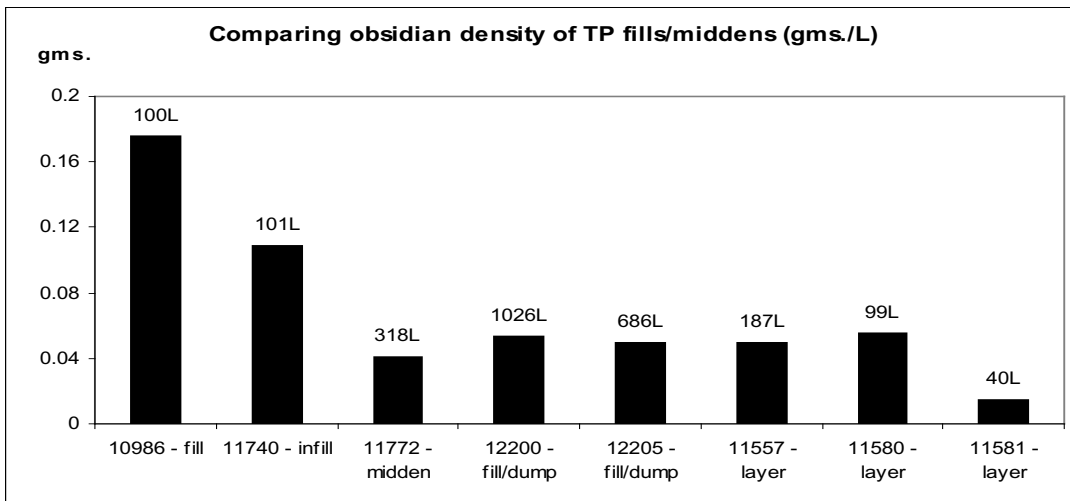
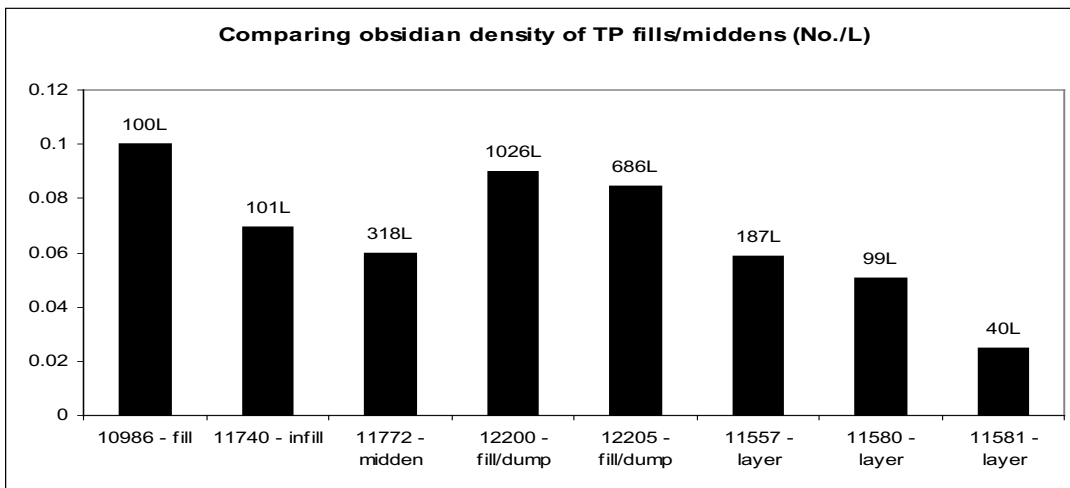
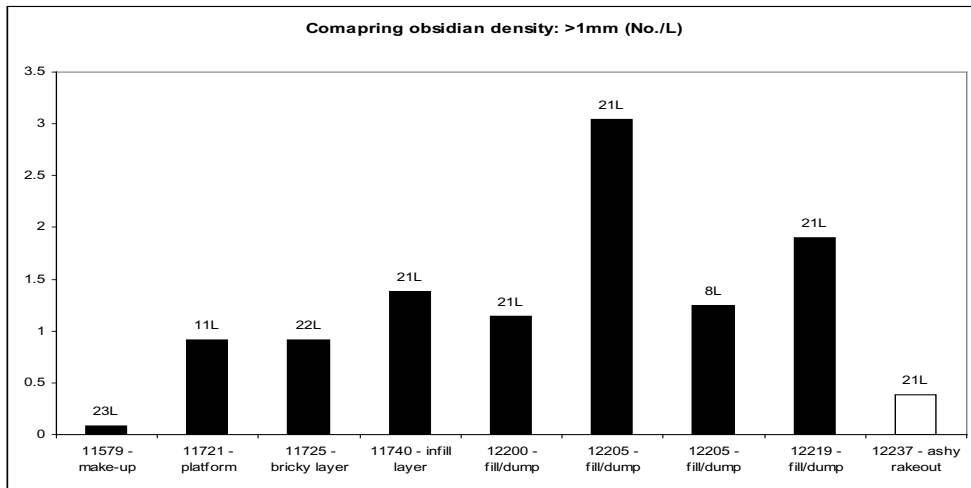


Figure 96: Relative density of obsidian from TP flotation samples, 2005 with focus on 12237 – the ashy rakeout of Level I.

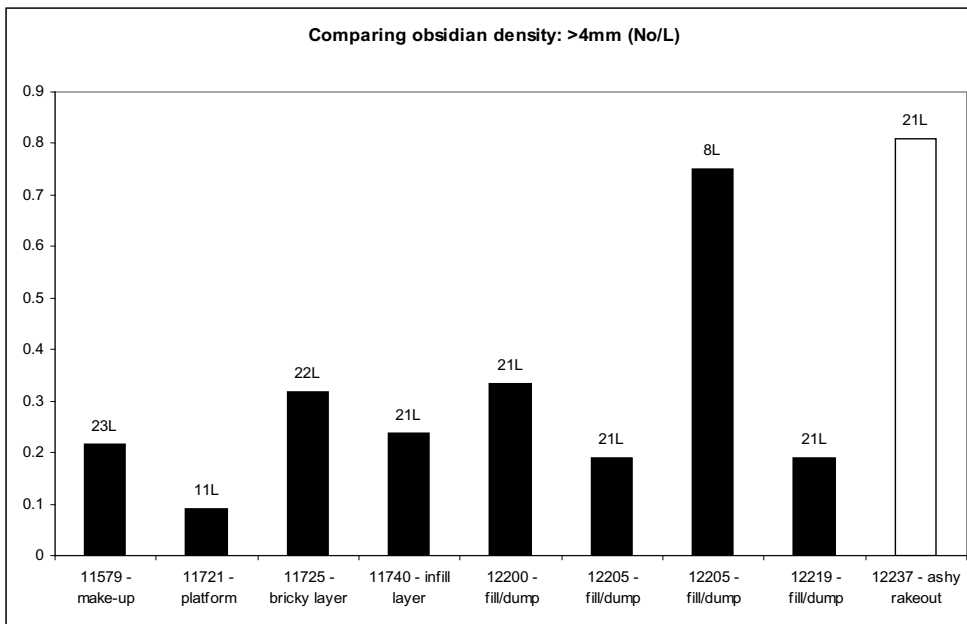
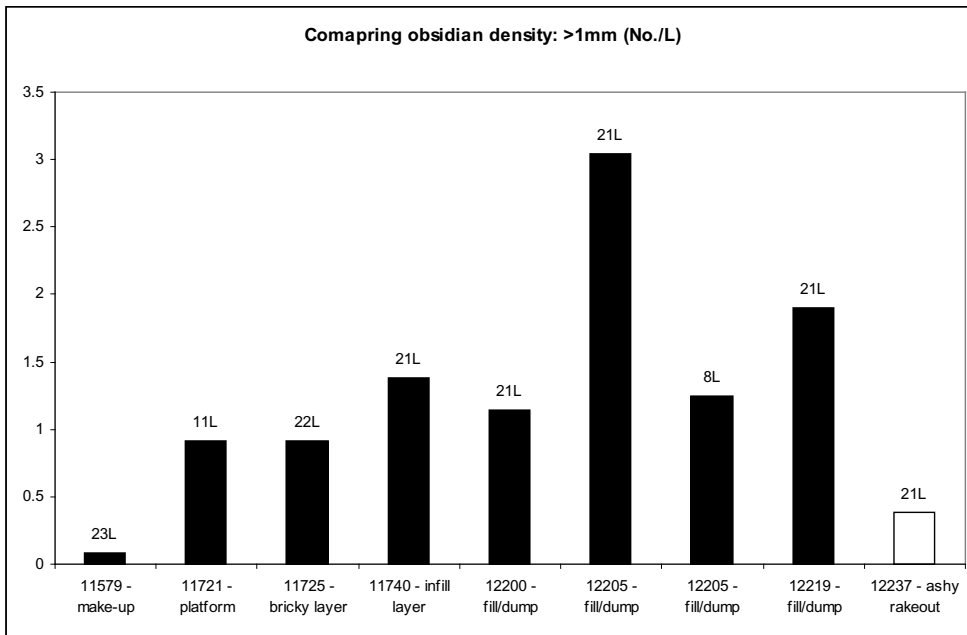


Figure 97: Comparing the relative quantity of obsidian from Level I-II fill/midden contexts in TP.

fast tracked and dry sieved sampling (n=754), while 38 pieces, all obsidian, derived from heavy residue samples; 496 of the artefacts came from Building 44 and 296 from Building 56. This report considers the typological and technological characteristics of the dry-sieved and hand-picked material from 2005, together with an overall review of industries and tool types excavated from all years.

The Building 44 assemblage

The total number of chipped stone thus far collected from Building 44 (all seasons) is 1155 pieces of obsidian weighing c. 1213.25g, plus 50 pieces of flint weighing 81.93g (Table 1). The dry sieve component comprises 741 pieces of obsidian (1165.93g) and 45 pieces of flint (79.67g). The 2005 assemblage comprised 496 artefacts, 458 from dry sieve and 38 from heavy residue (Only the dry-sieved material is discussed technologically and typologically). As expected, obsidian represents the main raw material, with the dry sieve assemblage having 432 pieces of obsidian (94.3%) and 26 of ‘flint’ (5.7%).

Raw Material	Total Number	% of Total	Total Weight (g)	Dry Sieve Number	% of Dry Sieve	Dry Sieve Weight (g)
Obsidian	1155	95.8	1213.25	741	94.3	1165.93
‘Flint’	50	4.2	81.93	45	5.7	79.67
Total	1205	100	1295.18	786	100	1245.6

Table 1: Chipped stone from Building 44 (all seasons) by raw material: number and weight of dry-sieved material

The most common *debitage* class is that of blades (n=285 Fig. 98), the vast majority of which can be categorized as centre blades / *plein débitage* (n=240, 82.2%). More than two-thirds of these blades are represented by medial sections, whereby it has not always been easy to discern the technologies responsible for their production. It would appear, however, that pressure flaking and percussion techniques were employed in tandem, on the basis of edge and dorsal scar (ir)regularity, plus the information accorded us by the bulb and bulbar scars. Characteristics common to both techniques are plain platforms, lip removal and the fact that they were knapped from unipolar cores.

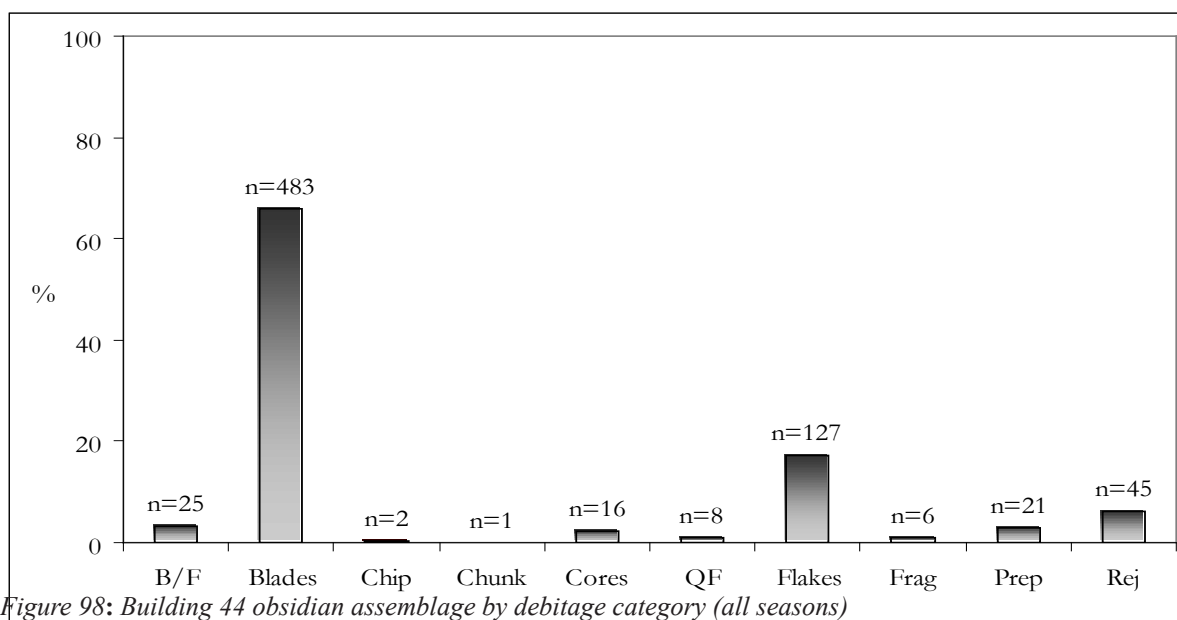


Figure 98: Building 44 obsidian assemblage by debitage category (all seasons)

While most of the Building 44 prismatic blades derive from unipolar technologies (97.8%), there are 16 blades from opposed platform (bipolar) cores, nine of which can be classified centre blades. Their average width/thickness is $1.45 \times 0.36\text{cm}$ while the average width/thickness of unipolar *plein débitage* blades is $1.16 \times 0.29\text{cm}$ (When all blade categories are lumped together, the widths range from 0.12-2.33cm (mean 1.19cm), while their thickness ranged from 0.04-2.28cm (mean 0.29cm). Most of the bipolar blades seem to have been made by percussion, with the majority retouched. Besides perforator 11662.A6, the assemblage included an end-scraper on a distal end (11608.A1), a thick side-scraper (11652.X2), plus four blades modified with denticulated, marginal and linear retouch. Finally, the assemblage also included two of the so-called ‘edge/burinated blades’, plus four blades knapped from the surface of projectiles (‘face blades’); last year’s archive report illustrated a projectile that had had a blade removed from its face (2659.A1).

The assemblage also included ten obsidian cores, nine categorized as blade-cores and one related to the manufacture of blade-like-flakes. All of the nuclei were in their final stages of reduction and/or exhausted, with most displaying slightly irregular bipolar scars indicative of percussive techniques. It appears, however, that these cores are only indicative of the last stages of what was an intensive reduction strategy. Core 11644.A52 offers us a good insight as to the overall process of the blade manufacturing sequence, its face having unipolar blade scars made by pressure-flaking technique, probably from the initial stage of reduction, while its back has opposed scars made by percussion. This suggests strongly that pressure and percussion techniques could be employed within the same reduction sequence, the cores initially worked by pressure until it was no longer possible to retain the required platform and *debitage* face, whereby a percussive technique was used in the final stages to maximise the number of blanks per core. The mean length of cores is only 3.08cm, width 1.58cm and thickness 0.95cm. Two-thirds of them were found in priority unit 11644, a construction deposit relating to platform F.1314 in the building’s SW corner.

It is also important to note that the Building 44 obsidian assemblage includes a number of preparation (n=14) and rejuvenation (n=22) pieces, including two core tablets. Most of rejuvenation pieces are knapped from the face of prismatic cores that were reduced by pressure techniques (**Figure 1).

Retouched material

A significant proportion of the Building 44 obsidian assemblage displays traces of modification (31.5%) and use-wear (59.6%). The wide range of retouched tools were made primarily on blades (82.7%), modified mainly with simple marginal (63.3%) and linear retouch (24.6%), together with a few denticulated pieces (2.1%), while invasive and covering retouch is largely restricted to projectiles (7.8%). There were also a significant number of backed and notched examples (Fig. 99). In 2005, four perforators were collected, one of which was made on a bipolar centre blade (11608.A1). End-scrappers and side-scrappers were usually made on big blades and large flakes (maybe on ‘quarry flakes’).

Building 44 has thus far produced 15 projectiles, six from the 2005 season. None were recovered complete, whereby it was not always possible to recognize their original form and size. Most of them have tip or tang preserved and modified with invasive and covering retouch on both faces. The original blanks for these objects and their origin is a matter of some interest. It is suggested that they are non-local products, namely the wider/thicker primary series blades of the industry whose *plein débitage* products are recorded in Building 44. For example, the distal end of a big blade from unit 11416, dimensions W: $1.47 \times$ Th: 0.41cm (11416.A2) matches the average size of projectiles (W: $1.34 \times$ Th: 0.3cm) suggesting that while the blanks for point production had been prepared outside Çatalhöyük (at the obsidian quarries) the actual shaping of the weapons happened locally, at the site.

‘Flint’

The non-obsidian component from 2005 is represented by 26 pieces, all from the dry sieve, a mere 6.01% of the overall assemblage. Virtually all of the raw materials could be described as types of limnic-quartzite, mainly tan / brown in colour, though four blades from 11644 (11644.A39, 11644.A40, 11644.A41 and 11644.A47) showed clearly that a single piece can display a range of different colours (see also the pre-formed core from 4040, below). There were also individual pieces of red (11497.X2) and green radiolarite (11466.A7).

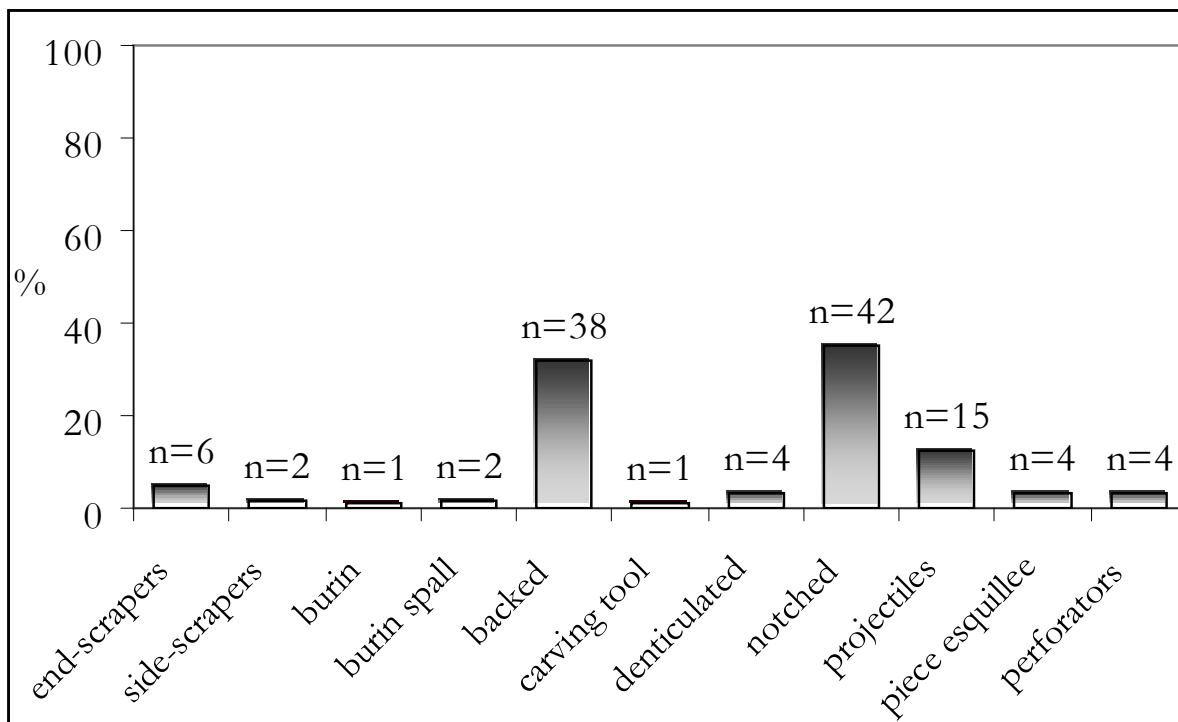


Figure 99: Building 44 obsidian tool types (all seasons)

Blades are once again the most common *debitage* category (n=15), ten of which can be categorized as *plein débitage*, their average width/thickness being 0.91×0.18 cm, i.e. on average narrower and thinner than the obsidian centre blades. Most of blades seem to have been made by percussive techniques, with plain platforms and their lips removed, i.e. analogous to the obsidian percussion blade industry. There is no evidence for opposed platform products amongst the ‘flint’. The assemblage includes only five retouched pieces (15.4%), with a round scraper modified with marginal abrupt around its entire circumference (11644.A50); it has no parallels in the obsidian assemblage. There is also a retouched blade, flake and one blade-like-flake of red radiolarite (11497.X2).

A most interesting piece is a microblade of green radiolarite, modified by linear abrupt retouch into an oblique triangular microlith that came from a construction fill of platform F. 1314 (11466.A7). This distinctive piece has exact parallels (form and raw material) from Çatalhöyük’s Aceramic Neolithic levels (Level Pre-XII.B-C [Carter, Conolly and Spasojević, *in press*]); given that the microlith has been found in a Level IV context one cannot simply talk about it being a ‘kick up’. Instead it suggests that some of the soil being used in construction fills was introduced to the building from elsewhere, perhaps dug up on the edge of the site, hitting cultural material in the process, specifically ancient deposits (one might think of them excavating in an ‘off-site’ area such as revealed by the KOPAL trench).

Contextual data

The excavation of Building 44 in 2005 represented a continuation of last year’s work, commencing with the removal of a series of platforms and benches next to the east wall (F.1310, F.1320, F.1312, F.1321) as well as the platform situated to the south-western corner of the building (F.1314 / F.1345). Approximately one third of the material collected from 2004 came from these features. Of special interest were a series of obsidian clusters from plaster surfaces and make-up deposits within the eastern platforms F.1320 and F.1321. The assemblage from cluster (11452) situated to the north of F.1320 (mentioned in report 2004) comprised 29 objects of obsidian, from what was described as an interface period between periods of reconstruction and re-plastering. One of the defining features of this group of obsidian is that it is made up entirely of end-products. This includes 20 pressure-

flaked blades from the *plein débitage*, one of which was recovered complete, measuring 7.87cm long (11452.A1) plus a complete projectile point and three end-scrapers. Another complete blade of 9.65cm in length came from one of the other clusters (11458.A1).

In 2005 the excavation of the platforms was completed revealing some new deposits of obsidian, especially along the edges of platform F.1320. A cluster to the north and east edge of platform (11490) comprised a center blade and one preparation piece, while a cluster to the south (11492) contained three blades, including a very regular medial section of a prismatic blade measuring 7.03cm long (11492.X1). Finally, cluster (11497) included another regular and almost complete *plein débitage* blade 7.65cm long (11497.X1) together with one of the only non-obsidian objects found in these contexts, a retouched blade-like-flake made of red radiolarite (11497.X2). When considering platform F.1320, (11466) is significant (the make-up layer that contained cluster (11492)), as it too produced a quantity of fine blade material, together with the aforementioned green radiolarite microlith (11466.A7). To surmise, these platform deposits/clusters are almost entirely comprised of obsidian (perhaps another depositional taboo being witnessed here) characterized by their predominance of blades from the *plein débitage* and finished tools (c.75.%), the latter including projectile points, end-scrapers, notched and backed pieces, virtually all of which are themselves made on blades. They are also typically well-preserved, the objects being whole/near whole and fresh, likely due to a combination of them having been deposited in 'clean' areas of building, the fact that they seem to have been deliberately placed along the inner edges of these platforms and that they then seem to have been buried not long thereafter.

Once the platforms were removed a series of construction and infill deposits were encountered down to the original floor / basal infill surface in the central part of Building 44 (11416, 11165, 11662). These were highly productive units, generating 297 artefacts in total (147 pieces from the central area, 150 from the SW platform infill). The first impression one gains from this assemblage is its freshness and preservation, or rather its lack thereof. Almost two-thirds are described as dull, while complete pieces are only limited on flakes and non-obsidian objects. Flakes are represented by 56 examples while blades number 180, of which 154 are from the *plein débitage*; all were broken. The bipolar blade industry is well represented in these assemblages, with eight examples including a perforator made a centre blade (11662.A6). The same area produced a large blade, a possible projectile blank (11416.A2). These deposits contained a significant group of tools with four broken points, two perforators, two *pièces esquillées* and only one end-scrapers (11416.A1).

Arguably the most significant of these deposits was (11644), a construction deposit relating to platform F.1314 in the building's SW corner. The platform appears to have in part been constructed as a support for the later structure built on top (Building 10), comprising an L-shaped mud-brick wall bounding off a rectangular space in the SW angle of Building 44. The lowest fill of this construction – (11644) – was an artefact-rich deposit, with notable amounts of ground stone and large quantities of chipped stone (n=150). This included quantities of non-cortical flakes, a few broken blades and six obsidian cores (pressure and percussion), two-thirds of the nuclei recovered this year, one of which is aforementioned example that was reduced by both by pressure and percussion techniques (11644.A52). The range and quantity of this assemblage is quite distinct to that from the platforms and it is here that we feel we have the residue of the knapping activities that took place within Building 44. It is argued that the material accumulated at the base of the platform fill had been collected up from the main part of the building where such activities as blade production had been occurring. The under-representation of end-products is due to the fact that the blades would have been collected for consumption elsewhere, with some of them no doubt forming part of the aforementioned platform clusters. It was attempted to refit the infill and cluster assemblages but we have had no luck thus far. Moreover much of the platform fill deposit had been used, in contrast to the platform clusters that were usually made up of extremely fresh and unused pieces. In terms of what particular knapping activities were taking place within the structure, it can be seen that the Building 44 assemblage has a significant proportion of the reduction sequences relating to the unipolar prismatic blade industries. We have cores, preparation and rejuvenation pieces, plus a quantity of undiagnostic non-cortical flakes that are assumed to be related to these *chaînes opératoires*. At the same time, blades of initiation / lateral blades tend to be missing, as do cortical blanks, indicating that knapping commenced with part-reduced cores, the preforming of the nuclei and their initial reduction arguably occurring up at the quarries. Conversely, the larger opposed platform blade tradition seems to be represented by end-products alone (*plein débitage*, plus a few initial/lateral blades), suggesting their

manufacture off-site, conceivably at workshops atop the sources.

IST Area 2005 -Nurcan Kayacan

The chipped stone industry of the IST Area had been evaluated by a database program developed by T. Carter, S. Delerue and M. Milić in 2004. The aim of the study of 2005 was to bring the system into effect and to transfer the former experiences into the new system. So, the differences in the raw material that were formerly studied and identified in the sites and workshops of Aşıklı Höyük, Musular and Kaletepe (all in Western Cappadocia), have been added to the system and put in practice on the material from the IST Area. The aim in making this classification was to find an answer to the question of how the people of Çatalhöyük had chosen their raw material and whether different raw materials were involved in different *chaînes opératoires*. In addition, the focus of this year's study was to understand the IST Area in horizontal and vertical contexts.

Raw Material

Raw material classifications have been applied on the obsidian of the IST Area macroscopically. At this stage the classifications are detailed, with 16 variants of obsidian determined (some of the distinctions being quite subtle). It is anticipated that some of these groups will be lumped when we have characterized representative samples using chemical analysis. A general result of this study was to confirm that the people of Çatalhöyük used multiple sources, primarily Nenezi and Göllü Dağ in southern Cappadocia (cf. Carter, Bressy and Poupeau 2001; Carter *et al*, *in press*). However, two obsidian pieces, one from the surface and another one from (11812), were visually similar to Eastern Anatolian raw materials. The same type of obsidian was observed in Level VII among the material from Mellaart's excavations. The existence of this material in such a small group and in three different contexts is striking. This is in addition to a blade core from the West Mound considered – on macroscopic examination alone – to be made of obsidian from one of the Lake Van sources (S. Delerue, pers. comm.).

In the 2005 season, 1477 pieces of chipped stone from 26 units were studied, of which 555 came from fast track, 22 of them from dry sieving, and 900 of them were collected by flotation methods (Table 2). Since it was excavated for the first time, a number of the IST Area's units from this season consisted of surface material (e.g. 11812, 11848, 11858 and 11878); the material was thus documented only by counting and weighing. There were also some intrusive pits that cut the upper levels from the top. The contents of these pits (units 11850, 11852, 11854, 11857, 11883 and 11889), were also documented by counting and weighing.

	Fast Track	Dry Sieving	Flotation	Total
Obsidian	544	21	898	1463
Flint	11	1	2	14
Total	555	22	900	1477

Table 2 - The material collected from 26 units.

The material from (11855, 11859, 11874) and (11892), belonged to an open area, a total of 179 pieces from fast track and dry sieving, plus 135 from flotation. The fast track and dry sieved assemblage is dominated by centre blades (59.2% [Table 3]). There were also 31 tools, 27 of which were made on blades. Seven of these tools are points, two of them are carving tools, and the others are retouched blades. The remaining four tools were made on flakes, two of them scrapers, one a splintered piece (*pièce esquillée*) and the other one a retouched flake.

The material collected by flotation was divided into two groups - chips and fragments - in order to understand their function. As a result of this study, it has been understood that the group that came from flotation consists of 49 chips. When one thinks that thousands of chips are to be scattered during the production of a tool - knapping an obsidian block - it would be more realistic to think that this place was not a knapping area (the original idea during the excavation). The exchange of ideas with the field team has encouraged us to think of the area as eroded (M. Özbaşaran pers. comm.) with the chips moved and transported by this erosion. Given obsidian's fragility, one could easily envisage it having been moved and broken (to 86 pieces) by natural causes.

Technical Class	Number	Percentage
Blade with natural surface	11	
Crested blade	3	
Blade with remnant crested	91	
Central Blade		
<i>Total Blade</i>	106	59.2
Flake	63	35.2
Fragment	1	
Core	4	
Core Tablet	1	
Rejuvenation piece	4	
Total	179	

Table 3 - Technological data of units 11855, 11859, 11874 and 11892.

Seventy pieces of chipped stone from (11863) and (11893) were also studied, of which 68 were obsidian, plus two flint flakes (Table 4). The obsidian is comprised of 68 blades (54.4%) and 33.8 % of them are flakes. The material included nine retouched blades, two retouched flakes and one splintered piece.

Technical Class	Number	Percentage
Blade with natural surface	6	
Blade with remnant crested	3	
Central Blade	38	
<i>Total Blade</i>	37	54.4
Flake	23	33.8
Fragment	1	
Core	2	
Rejuvenation piece	5	
Total	68	

Table 4 - Technological data of units 11863 and 11891.

Space 252: (11864, 11865, 11867) produced a total of 40 pieces from fast track and dry sieving, plus 25 pieces from flotation (Table 5). Aside from one flint flake the material was comprised entirely of obsidian. Of this, 39 are blades (59%) and 33% of them are flakes. Two blades and one flake had been retouched. Of the 25 pieces from flotation, 17 pieces were fragments, while eight pieces were chips.

Only two obsidian blades came from (11860), one retouched, while (11862) produced 107 pieces from fast track and dry sieve (Table 6), all obsidian aside from a single flint flake. Just under two thirds of the assemblage is made up of blades (59.4%), the remainder flakes (35.8%); in addition, there were two points and seven retouched blades and one semi round scraper was found. Of the 64 pieces from flotation, 37 pieces were fragments, while 27 pieces were chips.

(12400) is a cluster consisting of six pieces of chipped stone, with two blades, two obsidian fragments and two flint flakes; they do not form a technologically or typologically coherent group.

Technical Class	Number	Percentage
Blade with natural surface	1	
Blade with remnant crested	1	
Central Blade	21	
<i>Total Blade</i>	23	59
Flake	13	33.3
Blade like flake	2	
Core	1	
Total	39	

Table 5 - Space 252: technological data of units 11864, 11865 and 11867

Technical Class	Number	Percentage
Blade with natural surface	4	
Blade	3	
Blade with remnant crested	3	
Central Blade	54	
<i>Total Blade</i>	63	59.4
Flake	38	35.8
Fragment	1	
Rejuvenation piece	4	
Total	106	

Table 6- Technological data of unit 11862

IST Area 2005 – Conclusions

From a technological point of view the material of the IST Area indicates that there is a blade industry in this area. Previous studies have demonstrated that blade technology shows a significant increase after Level VI at the site (Conolly 1999, 75), whereby this year's IST Area can be dated either to Level VI or later phases. The chipped stone analysis focused on five different contexts, and the remainder of the material was not studied as it derived from surface contexts. When we consider the material technologically from these five contexts, it is seen that prismatic blade production from unipolar technologies is dominant. However, the knapping chronology and the raw material usage economy of this technology will be clarified by further studies in the following years. Points, retouched blades and flakes, scrapers, splintered pieces and carving tools were identified by typological analysis. However these results do not yet clearly indicate the function of the spaces investigated.

With regard to the variety of raw materials in this area, it appears that obsidian was supplied from the southern Cappadocian sources of Nenezi and Göllü Dağ. Of great interest, is that an obsidian type similar to the Eastern Anatolian obsidian was recognized in this area (yet to be proven by chemical analysis). This data forces us to ask in what form did these various obsidians arrive at the site and can we witness a preference of the raw material depending on the levels and/or technology? In the following years we aim to clarify these questions as part of the larger obsidian sourcing programme at the site (cf. Carter *et al*, *in press*).

Team Poznan – Tristan Carter

The 2005 Team Poznan [TP] excavations generated 959 pieces of chipped stone from a range of contexts, not all of them Neolithic (see below), of which 931 were obsidian and 28 'flint' (Table 7), the latter mainly in the form of tan/brown limnic-quartzites. This season's work provided us with our first assemblages of Level I and II date. Most of this material came from secondary contexts, specifically dump, midden and infill deposits, all of which produced much the same kind of assemblage in terms of relative density of finds (**Figure 4), its overall freshness (a few worn/scratched pieces) and the largely fragmentary state of individual pieces (only smaller, sturdier blanks being recovered complete).

	NUMBER				WEIGHT (g)			
	Obsidian		'Flint'		Obsidian		'Flint'	
Dry Sieve	713	74.35%	27	2.82%	579.61	85.5%	70.58	10.41%
Heavy Residue	218	22.73%	1	0.1%	17.409	2.57%	10.27	1.52%
Total	931	97.08%	28	2.92%	597.19	88.1%	80.85	11.93%

Table 7: Chipped stone from TP excavations 2005 by raw material and sample (data to be treated with care as derives all contexts, both Neolithic and post-Neolithic).

Other types of feature included a fill (11740) surrounding a cluster of human burials in Space 248; the 101 litres of dry sieved soil from the deposit produced only seven pieces of obsidian. Five were broken prismatic blades, the products of more than one knapping tradition; all had been used while four were retouched. One of the blades is particularly wide (2.53cm) and appears to come from an opposed platform (bipolar) technology. There was also a, non-cortical flake (used), plus a broken blade-like flake (unused). While the implements seem to display a high incidence of use and retouch, neither their state, nor form is suggestive of grave goods *per se*; instead the material is considered to have been redeposited from the midden that the burials were cut into.

Of particular interest was our first glimpse at an 'ashy rake-out' deposit from the uppermost strata, specifically (12237) of Level I date (Table 8). Our main interest in studying this deposit (it was prioritized) was due to the fact that these contexts were commonly some of the most productive units encountered within the buildings of the South Area (Levels X-VII). High quantities of obsidian microdebitage represent a core-component of those artefact rich deposits that comprise these structures' 'dirty areas', intermixed with ash, charcoal, other botanical material, fragments of bone from food and craft processing located next to the ovens and fire installations. However, the ashy-rakeout from TP was something of a disappointment when contrasted with these earlier examples, producing only 32 pieces of obsidian from 21 litres of soil (>1mm, >2mm and >4mm samples combined [Table 9]). Indeed,

the unit was not even particularly productive in the context of the other Neolithic deposits excavated by TP this season (**Figure 5). With regard to the samples from the >1mm and >2mm meshes, the unit was either poorer than most other units from TP this year or in the mid-range; it is only the >4mm sample that is notably productive. This is the opposite of what one tends to find with ashy-rakeout assemblages in the South Area, where the tiny shatter from knapping activities predominates, often comprising scores of pieces, sometimes in the hundreds (As with some of Building 17's ashy-rakeouts, most notably units **5021** and **5041**). In terms of the objects themselves, the >4mm sample included fragmentary pressure-flaked blades, a reduced/reworked thick (non-locally made) blade with remnant natural surface (a quarry product?), and a series of small and relatively fresh flakes. Overall the assemblage is structurally quite comparable to those from other types of contexts encountered this year.

Unit	Flot.	Vol.	Fraction	%	Weight	Wgt/L	No.	No/L
12237 - ashy rakeout	#2	21	>1	25	0.01	0.00	2	0.38
12237 - ashy rakeout	#2	21	>2	50	0.19	0.02	13	1.24
12237 - ashy rakeout	#2	21	>4	100	8.66	0.41	17	0.81

Table 8: Quantity of obsidian recovered from heavy residue sample, unit 12237 (Level 1).

Unit	Fraction	%	Vol. (L)	No.	No. / L	Wgt. (g)	Wgt. / L
11904 - bin fill	>1mm	12.5	26	1	0.31	0.01	0.00
11907 - bin fill	>1mm	12.5	26	3	0.92	0.01	0.00
11911 - bin fill #2	>1mm	100	1.5	1	0.67	0.01	0.01
11911 - bin fill #4	>1mm	100	0.5	3	6.00	0.02	0.04
11923 - bin fill	>1mm	25	15	5	1.33	0.04	0.01
Unit	Fraction	%	Vol. (L)	No.	No. / L	Wgt. (g)	Wgt. / L
11904 - bin fill	>2mm	50	26	0	0.00	0	0.00
11907 - bin fill	>2mm	50	26	0	0.00	0	0.00
11911 - bin fill #2	>2mm	100	1.5	0	0.00	0	0.00
11911 - bin fill #4	>2mm	100	0.5	1	2.00	0.01	0.02
11923 - bin fill	>2mm	100	15	15	1.00	0.23	0.02
Unit	Fraction	%	Vol. (L)	No.	No. / L	Wgt. (g)	Wgt. / L
11904 - bin fill	>4mm	100	26	0	0.00	0	0.00
11907 - bin fill	>4mm	100	26	8	0.31	1.32	0.05
11911 - bin fill #2	>4mm	100	1.5	0	0.00	0	0.00
11911 - bin fill #4	>4mm	100	0.5	1	2.00	0.12	0.24
11923 - bin fill	>4mm	100	15	5	0.33	3.96	0.26

Table 9: Quantities of obsidian from bin fill units within **F.2004**.

While we presently only have a single example of an ashy rakeout deposit from these upper strata, I suggest that the data from (12237) represents evidence for the radical reorganization of chipped stone production at Çatalhöyük in the latter part of the Early Neolithic sequence. It has already been suggested by Conolly (1999) that post Level VIB the working of obsidian became a far more exclusive affair than before, concentrated amongst only a few of the structures, as opposed to the building-by-building level of production we witnessed in Levels X-VII during 1995-99 (Carter, Conolly and Spasojević *in press*). Unfortunately these data exist in isolation; it is frustrating that we have yet to encounter any clear ashy-rakeout deposits from the 4040 Area to investigate the question more generally in a 'post-Level VI' context. It is hoped that the situation will be rectified in the 2006 season.

The TP chipped stone - technology and typology

The obsidian assemblages from the TP Area (Levels I-II) are typical of what one finds at Çatalhöyük during the latter part of the Early Neolithic sequence (The distinction allegedly appearing post Level VIB according to

Conolly (1999)), i.e. dominated by prismatic blades and their related production debris. Most of the TP blades appear to be pressure-flaked, quite narrow and originally c.6cm long, though there are also some notably wider products that likely derived from a different pressure-flaked tradition. There are also a few blades from a skilled percussive technique. Common to all of these blade technologies is the fact that they employed single platform cores [unipolar] and recurrently cleaned the core's platform/lip overhangs by flaking – as attested by the fact that the proximal sections of virtually all of these blades have their lips removed. Thus we have evidence for parallel modes of knapping, albeit sharing some common technical mechanisms, the inference being that these may have all been locally performed industries. The reasons these blade traditions existed in tandem is an intriguing one that requires the team's consideration between now and the next publication. In turn, there are a few notably wider obsidian blades that likely come by from an opposed platform [bipolar] technology (e.g. 12200.A13, some 2.36cm wide), as attested previously in Level II contexts by Bialor (1962, fig. **12:5). Finally, the TP material from 2005 also included one of our burin spalls / 'edge blades' (12200.A36), (**Industry 6 in the upcoming report – Carter, Conolly and Spasojević *in press***). i.e. a linear blank knapped from the edge of a retouched implement (usually the margin of a projectile, sometimes a scraper). This rather rare practice is attested in assemblages from the earliest levels at the site; it is uncertain at present as to whether this piece from TP indicates that the 'industry' continues throughout the East mound sequence. The habit of reducing / reworking projectiles receives further discussion at the end of this report.

The existence of parallel blade traditions, with pressure-flaking techniques and percussion products existing in parallel is not something we uniquely associate with the Level I-II assemblages of TP; indeed it appears to be a common feature of our post-Level VIB material (see below). Some distinctive features of these periods might be suggested, however. Firstly, pressure-flaked products seem to dominate these assemblages, with percussion products rarer than before. Secondly, a Level I pit produced the first genuine crested blades I have ever seen at Çatalhöyük (12200.A9); perhaps here we have evidence for a distinct Level I-II mode of core preparation/blade initiation within a pressure-flaked process.

Retouched tools seem to be relatively rare within the Level I-II assemblages; where attested, they - unsurprisingly – are made on blades, usually modified by simple linear retouch, with a few notched, denticulated, or backed pieces. Flake tools are even fewer, with a single scraper made on a part-cortical flake from a Level II context (12262.A1). Perhaps most surprising, is the fact that projectiles are virtually unknown from the 2005 TP assemblages, with a single, much reduced medial section of a bifacial point from floor layer (10977).

Turning to the Level I-II 'flint' assemblage, the material was dominated by a range of limnic-quartzites, usually tan/brown in colour. The assemblage includes a few narrow, unipolar prismatic blades, likely the product of a percussive technique; there are also a few mainly non-cortical flakes of the same raw material that conceivably relate to the on-site manufacture of these products. The assemblage lacks cores and produced only a single piece of limnic-quartzite from heavy residue, indicating that while the prismatic blades may have been produced on-site at this time, there is little evidence for knapping within those spaces investigated this year – unless one envisages the removal of blades from a fully prepared and part-worked core (though even this should generate more shatter). The assemblage also included one larger limnic-quartzite blade measuring 6.47cm long that relates to a different tradition, perhaps non-local; the piece had been notched and backed and was heavily burnt.

Once again the TP excavations produced a not inconsiderable quantity of chipped stone from mixed and post-Neolithic deposits, material that provides us with a source of frustration and very little else. Invariably one of our nicest individual objects came from just such a context, namely the hilt of a dagger made from a large of tan limnic-quartzite prismatic blade (12203.X1) from the fill of a Byzantine grave. The blade had been shaped with steep retouch along the edges and around the base, while its middle ridges and central dorsal scar seem to have been deliberately smoothed / polished. Daggers are rare at Çatalhöyük, produced on non-local blades, whose shaping often involved the time-consuming and delicate process of bifacial pressure-flaked retouch; as such these implements are considered prestige goods of their era, no doubt intended for display as much as use. The polished surface of the blade is interesting, as it suggests that the dagger had been in circulation for a long time, the polish likely a result of its contact with a leather cover (cf. Grace 1990), i.e. from being taken out to be brandished/used

and then re-sheathed on many an occasion. Parallels for this dagger are known from Levels VI and VIII (Mellaart 1963, 99, pl. XXVII,a, 1964, Figs. 46, 52,16), while the most recent excavations produced a bifacially worked example from the BACH excavations of Building 3 (Conolly 1997).

Summary of the TP Level I-II assemblage (2005)

In keeping with the chipped stone assemblages from every other level at Çatalhöyük obsidian is the dominant raw material from the Level I-II deposits thus far excavated (Table 7). In turn, the material includes precious little cortical debris indicating that the community was not in the habit of procuring raw nodules. As with the post-VIB assemblages from elsewhere on the site, prismatic blade industries dominate, with a number of traditions existing in tandem, including both pressure-flaked and percussion technologies, primarily from unipolar cores with the distinctive practice of lip removal by flaking. We also have a number of core-tablets - the distinctive rejuvenation pieces that are also known from later Early Neolithic assemblages elsewhere on the site.

Where the TP assemblages seem to differ from the later material in the 4040 Area is that pressure-flaking seems to have a more dominant role in blade production, with fewer diagnostic percussion products. The pressure-flaked tradition(s) of Level I-II also may have involved the process of cresting to initiate blade removal from the core; this is the first time that this mechanism has been seen by the author at the site and may be diagnostic of the uppermost levels. In turn, while opposed platform [bipolar] products were always a minority component of the post-VIB assemblages, they seem to be even less common in Level I-II contexts. Moreover, we seem to have fewer retouched pieces and a more limited repertoire of retouched tools, with a virtual absence of points and scrapers, in marked contrast to the 4040 assemblages of the past two years which have produced significant numbers of projectiles (see below).

This year's work in the TP Area has also been important for providing data that suggests a distinct spatial organization of production to that witnessed in pre-Level VIB structures (the intervening levels remaining something of a mystery at present). While the TP obsidian included a few cores, mainly in an exhausted state, we have little indication that blade manufacture was occurring in that part of the building that we have previously associated with production, i.e. the area around the ovens and fire installations. While quantities of obsidian were recovered from each of the heavy residue samples from the Level I ashy-rakeout (12237), the amounts involved were not dissimilar to those from other deposits (infill, midden etc.) and significantly less than commonly witnessed in earlier ashy-rakeouts.

In summing up this year's report on the TP a cautionary note is warranted, as it remains that this part of the site has been heavily truncated by later activities (not least human burials) and the scale and range of the Neolithic deposits thus far encountered is relatively limited. The ashy-rakeout mentioned above is the sole example of this kind of deposit we have from this area, nor do we have any comparanda from the 4040 Area at present. Similarly our apparent lack of projectiles might reflect a bias in the archaeological record, i.e. *maybe* we have been digging in the wrong places (of this I am less sure). We look forward to next year's work with the hope that some of these issues may be resolved.

The South Area – *Tristan Carter*

While work in the South Area in 2005 saw the completion of Building 42 and the opening up of Level V features, the archaeology of this part of the site was seen to have suffered greatly from post-Neolithic animal disturbance that had served to mix the deposits by introducing later material, including Byzantine pottery. Thus, only a limited amount of work was undertaken on what were quite often large assemblages of chipped stone, the badger burrows having dug into artefact rich midden deposits.

Building 42, Space 202

The excavation of Building 42, a Level IV structure first exposed in 2004 was completed this season; the chipped stone from these remnant units essentially replicated that generated the previous year. One piece of note was a mid-segment of a unifacially retouched projectile made on a blade that had been reduced after having broken, with

a blank removed from its dorsal surface (11351.A1).

Space 259

Space 259 is the midden east of Building 42 (Space 202), of later date, excavated as a stratified series of five units (from top to bottom: 11355, 11356, 11358-11360). The fast track sampling strategy, a combination of hand-picking and 30 liter dry sieve samples, reduced what are likely to have been quite artifact-rich contexts to a relatively small total of 81 pieces of chipped stone. Interestingly the material was comprised entirely of obsidian (with no 'flint') that typically for these secondary contexts was usually recovered in a fragmentary but often quite fresh state. As with the Building 42 material, the midden assemblages were dominated by prismatic blades produced by both pressure-flaked and percussive technologies; both traditions primarily exploited unipolar cores and removed the platform lip by flaking. The relatively small proportion of flakes from these assemblages might suggest that these middens represent, for the most part, accumulations of household implements, rather than knapping debris. However, the data have to be treated with caution as we do not yet have the heavy residue samples from these units.

The majority of the blades can be classified as true end-products (centre blades from the *plein débitage*), with only a very few examples relating to the stages of initiation (with part-cortical surfaces) and/or rejuvenation (one having bipolar scars from the nucleus having been inverted at a late stage of reduction [11360.A16]). A number of the blades (both pressure and percussion technologies) had been modified, almost exclusively in the form of simple linear retouch along a margin. There was, however, the medial section of a much thicker single ridged blade (the kind one associates with projectile manufacture) with limited semi-abrupt retouch bifacial retouch along margins (11355.A16), the piece is almost certainly a broken point, akin to the example from the bin in 4040's Building 52 (see below).

Space 260

Space 260 represents the midden under Building 42 and Space 259; unfortunately it had suffered considerable post-Neolithic disturbance in the form of a large animal burrow which has mixed the deposits. As such, there is little that we can do with this material aside from note that it produced nothing that was not represented elsewhere in the South Area this year.

Building 53, Spaces 257 and 272

Much of the archaeology of this Level V(?) structure and related midden deposits had similarly suffered considerably from the animal burrowing. (11391) (Space 257) was undisturbed room fill, producing three exhausted blade-cores, a 'face blade' from a projectile (11391.A17), an interesting large thinning flake (11391.A2) and the usual selection of centre blades. There was also a small quantity of chipped stone from undisturbed contexts in Space 272, with the mid-section of a bifacial projectile (11396.A1) and a square *pièce esquillée* made on what might be the mid section of a wide biface (11398.A1) being the only objects above and beyond the usual blade material.

Space 261

Space 261 comprises a series of three midden deposits (11370, 11377 and 11379) located east of Building 53. The assemblages were all quite typical of midden material in terms of their structural variability, breakage and surface condition. While there were a few exhausted blade-cores and quantities of non-cortical flakes, the remainder of the material was made up of prismatic blades from both pressure (dominant) and percussion technologies (mainly *plein débitage* with lip removal the norm). Typically only a minority of these blades were modified, usually with simple linear retouch, though there was also a notch (11370.A70), a possible denticulate (11370.A32) and one with direct and inverse backing (11370.A45).

There were also a handful of notably wider blades, usually retouched; a proportion, if not all of these products derive from a non-local opposed platform industry, though not every piece displays bipolar dorsal scars. One had been modified into an end/side-scraper (11379.A1), while another had been reduced as a *pièce esquillée* (11370.A5). It is these imported blades that tend to form the blanks for projectiles, of which there are a number of

examples (in contrast to the midden of Space 259). They included a complete, fresh and unused example of a type well known from Levels V-VI (Bialor 1962, figs. 3,1 & 5,1) (The Team Istanbul area also produced a very good parallel for this piece (see Kayacan, this report); made on a prismatic blade and measuring 7.94cm long, with fine covering retouch on both faces (11370.X1). Most of these points, where such information can be discerned, appear to have been bifacial, at least one of which had a tang (11377.A31), plus fragments of two others (11377.A40 and 11370.A93). The assemblages from Space 261 also produced a bifacial point had blades flaked from both faces (11377.A6), plus two of the related 'projectile face blades', one almost complete example measuring 2.81cm long (11370.A84). There were also two 'edge blades', one knapped from what appeared to be a scraper (11377.A22), a mode of reduction well attested in the site's Aceramic strata, but quite rare in later levels.

The final piece worthy of note from Space 261 is a possible fragment of a side-scraper/quarry flake (11370.A18), while the extremely small 'flint' component included a burnt fragment of a relatively large ?tan limnic-quartzite blade that had been backed on one edge and had linear retouch on the opposite margin (11377.A77).

The 4040 Area – *Tristan Carter*

While the following review of this year's material from the 4040 Area focuses entirely on chipped stone assemblages from secure Neolithic contexts, excavation of later / disturbed contexts invariably produced some objects of note (as with last year's mirror from a Roman grave fill). This year's star find was a beautiful bullet-shaped prismatic pressure-flaked blade-core from a mixed, near-surface deposit of Neolithic and Roman material. Near complete, with only its platform removed (as a core tablet for purposes of rejuvenation), the nucleus had been worked around its entire circumference with 12 blade scars visible (12357.X2). Measuring 10.49 × 1.91 × 1.41cm, it weighs 39.45g. Originally it would no doubt have exceeded 11cm in length, thus making it directly comparable to a group of four bullet cores from Level V's House 7, that ranged between 10.7 and 12.2cm long (Bialor 1962, 86, fig. 4,1-4).

Building 52 (Spaces 91, 93 and 94)

The building located towards the NW extension of the 4040 excavation area, appears to have been an important structure, as evidenced partly by its size and the elaborate series of bucrania set into a bench along the western wall of *Space 94*. It was destroyed by fire – possibly intentionally – with the contents of the bins in its northern room (*Space 93*) preserved in the process. After the fire a new structure (Building 51) was built over the top of the NE part, whereby we lack much of the fill associated with Building 52 and have yet to expose much of its floor surface (and likely area of fire installations etc.). This may help to explain why there is so little chipped stone currently associated with the building.

Space 93

The various fill deposits from this room were not particularly productive with regard to chipped stone. The main fill itself produced the proximal section of a large lateral prismatic blade (2.21cm wide); the lip is removed by flaking and has clear use wear (10285.A1), while 10304 generated a broken non-cortical flake, plus a 7.5cm long lateral blade of uncertain technology (10304.X1).

Turning to the various features in the room, the remains of a wooden box (11970) were found in the NW corner containing a collection of antler and bone, raw material for making bone tools, together with an 8.16cm long obsidian blade that was no doubt intended to be used to shape the material. The pressure-flaked center blade was unused and found in three pieces (collected as two X-finds: 11965.X38 and 11965.X39). This corner of the room also contained a complex of four bins (F.2002, F.2003, F. 2004 and F. 2005) between which were a series of plant-rich soils.

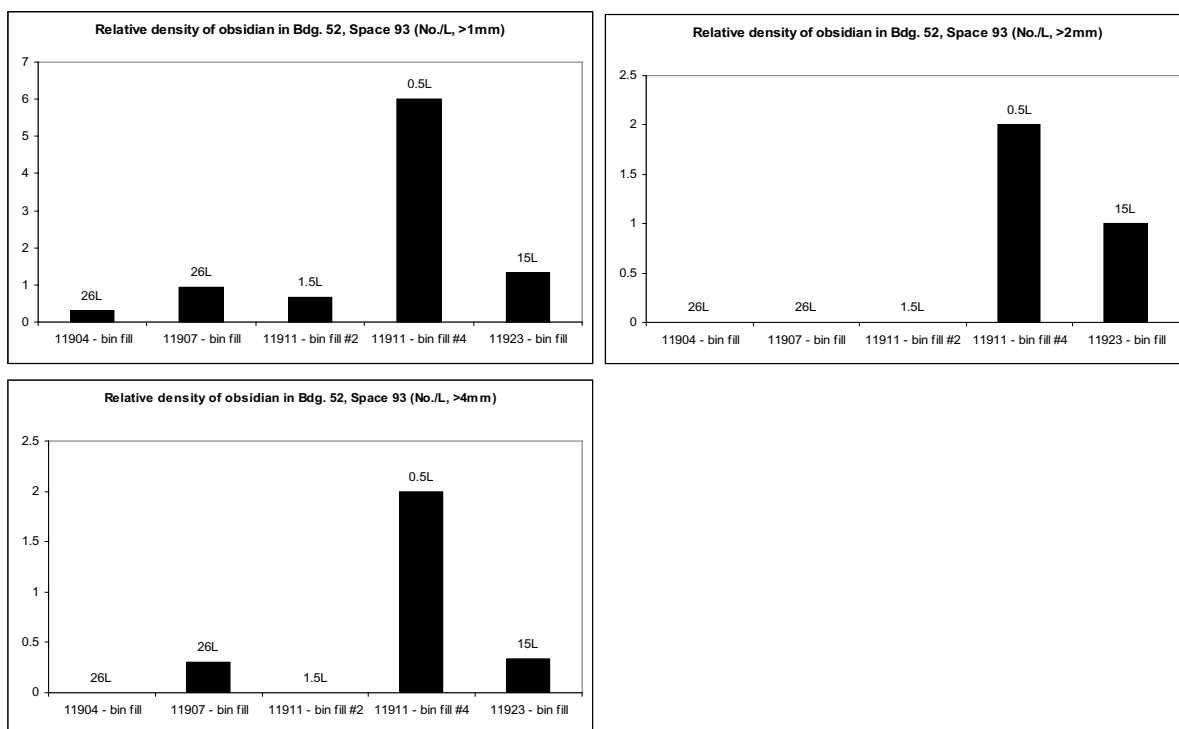


Figure 100: Comparing relative density of obsidian from bin fill units within F.2004.

It was the bin fills that produced the most significant – and contentious – chipped stone assemblages. Most of these units produced very little obsidian (Table 4,*** Figure 6)(**NB** - the anomalous quantities from 11911 #4 is probably a result of skewed data because the sample size was so small (0.5L), in keeping with what we have come to expect from Çatalhöyük, i.e. bins are not places we associate with chipped stone – they do not store the material, nor do they tend to use or work obsidian/flint in the vicinity of these features. Usually any obsidian that is recovered from bins is interpreted as being a general ‘background noise’ within the general infill which can usually be seen to be directly comparable to the levels of obsidian in surrounding infill.

The first bin (F.2002) contained the only fill (11910) that produced obsidian as a hand-picked sample, with 10 pieces, something of an anomaly in the context of the low quantity of material in the surrounding matrices. The material itself comprised four quite fresh non-cortical flakes, plus three blades: a complete and unused blade (3.52cm long) of slightly irregular form (11910.A1), an irregular remnant crested blade (11910.A3), the distal section of a slightly irregular form (11910.A2). Far more significant, however, was the remains of a bifacial, tanged projectile (missing its upper third) measuring 4.91 × 2.05 × 0.96cm (11910.A10). The point has good parallels from Mellaart’s Level VI contexts (Bialor 1962, fig. 3,2). There is also a flake that had been knapped from the face of a retouched implement (11910.A12), possibly a projectile, though it did not join the aforementioned example.

While the main fill of the next bin (F.2003) was typically unproductive, with only a small, fresh blade-like flake (10284.A1), it did contain a cluster of objects in a distinct matrix (10292). The finds included a piece of antler, a round pebble and other stone fragments, plus a 3.98cm used pressure-flaked obsidian blade (proximal section) laying lengthwise under the antler (10292.X3).

It was the third bin (F.2004), however, that produced the finds of greatest interest for us. While the uppermost fill (11904) contained virtually no obsidian (one tiny flake from the >1mm sample) it did produce the remains of a wild pig skull that appears to have been deliberately placed here (see arguments elsewhere in the 2005 Archive Report by excavator and faunal team). In contrast, the lowest bin fill (11907) produced three pieces of hand picked obsidian, two non-cortical flakes (both used) plus a very fine, complete – but used – tanged projectile measuring

8.72 × 2.76 × 1.34cm (11907.X7). The projectile essentially has the form of a Byblos point, made on a large prismatic blade (?bipolar), almost certainly a non-local product, probably from a Nenezi Dağ workshop. The ventral surface is 90% covered by invasive retouch while only the dorsal surface of the tang and tip is retouched. There are good parallels for such points from Level VI in the 1960's excavations (Bialor 1962, fig. 3, 8-9).

The inclusion of a fine projectile in a bin fill is an extremely rare phenomenon and deserves further comment. I would argue that the piece was deliberately placed in the feature as part of the activities (rituals) surrounding the abandonment of the house. My reasons for this are as follows:

Projectiles are generally the kind of objects that one sees being deposited in 'interesting' ways at the site. We have already established that projectiles were recurrently employed in abandonment rituals – there are now a number of instances where used projectiles have been recovered from the infill of post-holes (post-retrieval pits), specifically the central post-hole on the western wall, i.e. they took out the post and then placed a used arrowhead into the hole before backfilling. **Examples have been documented in Level X's Building 18, Level IX's Buildings 2 and 17, Level VIII's Building 43 and Level VII/VI's Building 1** – see Carter, Conolly and Spasojević, *in press*). We also have one other example of a chipped stone implement being placed into a bin as part of an abandonment ritual, specifically Level IX's Building 18 (South Area), where an ochre-stained finely worked perforator made from a prismatic blade of striped brown/white limnic-quartzite (4671.X1) was placed into bin F.515. One further notes the projectile from the first bin (F.2002), that while only two-thirds complete (its point missing, possibly lost through use-impact) and typologically distinct to that from 11907 (with covering bifacial retouch), offers a depositional parallel, i.e., it too may have been placed into the bin as part of an abandonment ritual.

The only other possibly relevant example involving obsidian and bin-fills / abandonment processes comes from last year in the 4040 Area in Space 100 (Building 49). Here we had a series of bins along the western wall containing distinct fills – with (7954) producing a 'background noise' of obsidian (i.e. the same amount as the general room fill), while (7957) contained a figurine cache and three to four times the amount of obsidian, a density comparable to some of the richest midden deposits dug in the 4040 Area last year. The objects themselves, however, did not seem that significant, i.e. they do not represent a direct parallel to the 11907 assemblage.

To conclude, I would argue against the building having burnt down accidentally and instead claim that what we are seeing here is a different type of abandonment process to that witnessed in the first half of the Early Neolithic sequence at Çatalhöyük, that involved leaving (placing) certain objects within the structure before setting fire to it.

Space 94

Space 94, the western room of Building 52 (south of *Space 93*) with the bucrania set into the bench was relatively unproductive with regard to chipped stone, with only a few blades from (10281), the collapse associated with the fire destruction, including unipolar pressure-flaked products and the medial segment of a fine bipolar blade with opposing two elongated notches (10281.A1). The contents of another room fill context (10287) were all quite scrappy, with a number of non-cortical flakes (one a *pièce esquillée* [10287.A7]), a part-cortical percussion blade (10287.A1), a possible thinning flake (10287.A3), a flake off the face of a much reduced blade core (10287.A2), and what appears to be a small and highly exhausted core / *pièce esquillée* (10287.A8). In turn, the lower room fill (11928) generated only three pieces of obsidian, including two medial center blades from a pressure-flaked technology, one with linear retouch (11928.A2), while the thin channel of burnt room fill running N-S between edge of platform and the later (west) wall of Building 51 (11984) contained only five non-cortical flakes and one slightly irregular blade. From the floor itself – or rather its last use pre-infilling – there was only one piece of obsidian albeit a very interesting one, namely a large non-cortical flake (7.71 x 6.13 x 2.08cm [10299.X4]) that may be a core platform preparation piece relating to the non-local opposed platform (naviform) blade technology of the Nenezi Dağ workshop(s). This is the kind of object that would not be out of place in a hoard context; unfortunately the 4040 excavations have yet to encounter any hoards.

Space 254

Space 254 is potentially the southernmost extension of Building 52, though this has to be ascertained in 2006. Of great interest is (10342), a cluster of objects from room fill (10312), a fantastic set of material including a huge limnic-quartzite part-cortical blade (from a tabular nodule), over 15cm long, retouched along the margins, with slight traces of sickle gloss along its straight edge (10342.X1). With its part-cortical surface the piece can be classified as an initial series blade, knapped by a percussive technique from a single platform core. The smoothing of the dorsal ridges suggests is either the result of it having been sheathed (the polish coming from its contact with the leather) and/or being in circulation for a relatively long amount of time. This huge blade was found alongside six complete obsidian projectiles, of different forms, each of which has a direct parallel from Level VI (Bialor 1962). One is a slightly longer version of the type seen in the bin of nearby Building 52 (11907.X7, see above), i.e. with only the tang and tip retouched on the dorsal surface but having most of ventral surface covered; it measures 10.17cm long, is unused and is made on a bipolar blade, almost certainly of Nenezi Dağ obsidian (10342.X2). The second point is similar in terms of retouch cover but lacks the tang; it measures 11.01cm long, is unused and made – once again - on a bipolar blade, likely from a Nenezi Dağ workshop (10342.X3) (One recalls the cache of bipolar / naviform blades from Building 1 of similar scale and sourced to Nenezi Dağ (Carter *et al*, *in press*), pieces that would have almost certainly been made into projectile had they ever been retrieved, should retrieval have ever been the intention of those who interred them in the first place (Carter *in press*; Conolly 2003). The most exquisite example is the longest (11.53cm), covered in very fine retouch and again unused; while the blade used to make the point also seems to be a Nenezi Dağ product, its dorsal scars have been obscured whereby it is impossible to state that it derived from a naviform core (10342.X4). The fourth and fifth pieces are both tanged and have bifacial covering retouch (measuring 7.8cm and 6.33cm); they are also missing their tips, though it is uncertain as to whether this was during use or when the assemblage was unfortunately hit by a pick (10342.X5 and 10342.X6). The final point has a slightly strange top-heavy form; it is also missing its tip (modern damage) and measures 8.46cm (10342.X7).

The final piece of note from Space 254 is the tip / upper body of another fine bifacial projectile, which also has the clear traces of having a 'face blade' removed from its surface (10327.A1).

Building 51 (Space 98)

Building 51 is the structure built atop the NE corner of Building 52 after the latter was destroyed by fire; it should date to Level V if Building 52 is Level VI. Very little chipped stone is thus far associated with the building; of note, however, is a fragmentary projectile preform (10310.A1), made on a large blade (3.01cm wide), with invasive – but not covering – retouch on both faces. Complete examples of these objects have been found in hoard contexts before now. Parallels for these biconvex pieces have until this point only derived from later contexts, notably Levels IV and III (Bialor 1962, 86, fig. 6,20 and 95 fig. 9). There was also a tip of a fine bifacial projectile made on a prismatic blade (possibly a willow-leaf type, or tanged), from another within wall context (10316.A1).

Space 268 midden

Space 268, comprised of midden deposits, is located on the western edge of the 4040 Area, overlain by midden (Space 212) and walls (Space 267); the Space 268 midden in turn overlays Buildings 55 and 57. The archaeology of Space 268 was excavated as four midden units (10324, 10369, 10386 and 10396), together with a pit (10380), whose contents appeared to all intents and purposes be redeposited midden material aside from an apparent higher concentration of bone. The assemblages appear to be quite typical of midden/fill material in that they are made up of mainly broken objects (aside from the smaller sturdier pieces), and mixed in terms of freshness and non-functional edge-damage. Half to two-thirds of these assemblages' contents could be categorized as end-products, specifically blades (and this is not counting those flakes that have use-wear), i.e. production debris is under-represented. The remainder is comprised of non-cortical flakes, plus a few blade-like flakes (related to blade knapping). There are a few rejuvenation pieces (including a number of core-tablets), but only a few actual cores, more often than not recovered in a highly exhausted state, some apparently re-used as small wedging/wood-working tool (*pièce esquillée*). In sum, we seem to be looking at an accumulation of used implements, not the dump of production debris.

Most of the blades are unipolar, the majority of which are likely to be pressure-flaked technologies; a minority seem to be products of a percussive technique. Few of the implements have been modified – there are a few blades with linear retouch, plus the occasional notched piece. There are, however, a number of notably larger products (wider/thicker/longer) that come from opposed platform [bipolar] technologies that we think were often being employed as blanks for projectile manufacture. Amongst the various points recovered from Space 268 (albeit none from the pit), there are two examples worthy of note from 10396. The first is complete, measuring 5.12cm long, with possible impact damage (10396.A203) made on a blade with an elongated tang; the piece has parallels from Level III (Bialor 1962, fig. 7). The second measures 6.42cm and has a less accentuated tang and is missing its very ends (10396.A12); it has parallels from Levels III and IV (Bialor 1962, figs. 6-7). There were also a few ‘face blades’ knapped from the surfaces of these points, with two from 10369 and three from 10396.

Building 55 (Spaces 247 and 256)

Building 55 is located due south of Building 52, separated by Space 271, an east-west street / open space. The structure is comprised of a narrow northern room (Space 247) that contained a complex of bins and a larger southern room (Space 256). The structure had been truncated by a large Roman foundation trench. Technologically the material from this structure essentially replicated that witnessed from each of the 4040 structures, i.e. the dominance of unipolar pressure-flaked technologies, with both pressure and percussion traditions represented.

Space 247

The uppermost fill of the larger southern room was made up of a midden deposit (10348) that produced a relatively small quantity of obsidian (n=24). The assemblage was dominated by pressure-flaked center blades (plus a few percussion), all unipolar with lip removal, a significant proportion of which had also been used; only one piece had linear retouch. One distal section of a blade came from an opposed platform technology. The midden also produced the upper body and tip of a used projectile (10348.A1); the piece is very straight sided, then tapering to a point (i.e. not the willow-shaped variant) with fine covering dorsal retouch, while the ventral surface has invasive but non-covering modification. The point has parallels from Level IV but it is not considered *that* diagnostic. (10349) the upper part of the room fill proper (sealed by 10348) was dominated by the same type of pressure and percussion center blades, while the lower room fill (10357) produced little of note except one tiny exhausted core. Related deposits to the west of the Roman foundation trench generated much the same type of material, in terms of breakage, surface condition and technology; (10377) (similar to 10349) did include what appeared to be the much reduced remains of a projectile (made on a non-local prismatic blade [10377.A1], while (10382) (under 10377) contained an excellent example of a wide ‘face blade’, i.e. one of those blanks knapped from the surface of a point (10377.A1).

The tip of another broken/used bifacial projectile (10323.A1) came from another infill deposit, typologically dateable to Levels IV-VI, while (10326) produced a worn and slightly burnt wide prismatic blade made of a tan-brown limnic quartzite (5.26 × 2.58 × 0.49cm), polish on dorsal ridges suggests in circulation (or kept in a sheath) for a long time, i.e. not necessarily contemporary with Building 55 (10326.A4).

Building 54 (Spaces 264, 265 and 266)

The structure due east of Building 57, heavily eroded / truncated, its floors were considered to be largely missing. It comprises three spaces, namely 265 (main room to south), 266 (small narrow space on east) and 264, an east-west room at north.

Space 265/266

The room fills excavated in Space 265 (11962 and 11998) were dominated by prismatic blades, as ever a mix of pressure-flaking and percussion, unipolar with lip removal commonplace. The remainder of the assemblage was made up of a few flakes, the occasional *pièce esquillée*. Both fills did include broken examples of notably thicker initial series blades, likely from an opposed platform technology and probably from Nenezi Dag; these blades are almost certainly represented the blanks for making projectiles.

Space 264

The one notable pattern that seems to be emerging within the excavation of the 4040 Area is that there seems to be less chipped stone circulating in these narrow rooms. Space 264 contained a number of neonate burials and a bin complex. The room fill (11924) produced much the same range of material as that recovered from Spaces 265/266, though the assemblage did also contain a possible ‘edge blade’ from the face of a point and a side-scraper made on the edge of a thick flake, *conceivably* a ‘quarry flake’, i.e. one of the thick blanks we associate with hoard material. The two bin fills 11945 and 11946 contained a handful of scrappy pieces of obsidian, while 11933 (a slightly strange plaster fill) produced a complete pressure-flaked centre blade (8.24 × 1.55 × 0.37cm) with lip removal, faceted platform and use-wear (11933.X1). The state and location of this piece suggests that it was deliberately deposited here; the ‘plastering in’ of blades and other objects is attested in earlier contexts from the South Area (Carter, Conolly and Spasojević, *in press*). Associated with the eroded floor itself were three centre blades and one thicker example with remnant natural surface, a possible projectile preform.

Building 58 (Spaces 227 and 258)

Located due east of Building 55 with shared double wall, it is oriented east-west with a narrow north-south room on the west (Space 258) and a main room to the east (Space 227). The diagnostics amongst the chipped stone assemblage have parallels from Levels III-IV, of which Level IV is considered the most likely date.

Space 258

The narrow western room of Building 55 has thus far produced very little chipped stone, with one room fill (10353) relatively clean aside from a few pieces of obsidian, though the fill of the SE corner (10356) did include a burnt chunk/exhausted core of limnic-quartzite and the proximal end of an orange limnic-quartzite lateral/part-cortical prismatic blade (10356.A1). The latter is retouched on right margin and seems to have gloss along both margins, making it one of the very few sickles we have thus found in the 4040 Area.

Space 227

Building 55’s main room has a series of platforms (F.2123, F.2130) and benches (F.2001) along its western side, with a central floor (F.2129) to the south of which is a hearth (F.2122), platform (F.2128) and an oven (F.2124). On the eastern side there are more platforms (F.1567, F.2136 and F.2137). This was part-excavated in 2004 and continued this year; the following comments deal with both sets of material.

Of the various fill deposits, (10202), made up of collapsed walls, unsurprisingly contained precious little material, while (10205, 10213, 10260, 10345, 11938, 11939) generated the usual range of fragmentary unipolar prismatic blades (pressure and percussion), a couple with linear retouch and a tiny exhausted blade-core fragment. Fill (10205) also contained three core tablets from prismatic blade cores (while (10260) produced a further example), highly distinctive pieces that relate to modes of platform rejuvenation within the pressure tradition; it is within the 4040 assemblages that we are now seeing these pieces for the first time in the new excavations (to my knowledge). Core-tablets such as these have also been recorded from Level IV contexts in the South excavations and Level I-II contexts in the TP Area (see above). The tip of a bifacial projectile was also recovered (10260.X10); made on a prismatic blade, it is not a particularly fine, or diagnostic example. Within the upper fill (10377) was recognised a cluster of animal bone (11930) amongst which were a few pieces of obsidian, mainly the usual mix of broken prismatic blades and non-cortical flakes, with the exception of 11930.X1, a used bifacial projectile (missing its tip from impact), made on a prismatic blade (6.08 × 1.85 × 0.95cm); this seems likely to be significant. It has an elongated tang and has invasive/covering bifacial retouch, with parallels from Level III (Bialor 1962, fig. 7,1), Level IV (*ibid*, fig. 6,1).

Defined as an artefact-rich basal fill / interface with the structure’s floor, (11985) produced 26 pieces of obsidian, 14 of which were blade products, mainly from the *plein débitage*, but also a lateral example (11985.A18), one with natural surface (11985.A2), and an example 2.49cm wide (11985.A3). The latter piece is interesting as it does not seem to be bipolar and also appears to be made of obsidian from Göllü Dağ-east; previously most of the notably wider blade products were seen to have derived from opposed platform technologies, likely performed at a Nenezi

Dağ workshop. The same context also produced a very large core-tablet of same purple-grey translucent material as the large blade mentioned above (11985.A1). The excavation also recorded a cluster of objects at the basal interface of fill and floor (10264), concentrated to the south, comprising a figurine, beads, bone, ground stone *inter alia* (possibly just an initial phase of dump, rather than a deliberate deposit), including a lateral blade, flake, two blade-like flakes and an end-scraper on a prismatic blade. A series of the obsidian finds were accorded X-finds (see also Delerue's report from 2004), with 10264.X13 - a slightly irregular proximal centre blade; 10264.X24 - a polished 'nail', or perforator (cf. Coqueugniot 1998); 10264.X26 a wide blade-like flake (off the face of large blade-core) with retouch along right margin and natural surface on left; 10264.X42 a near complete projectile with extremely fine bifacial retouch made on a prismatic blade (7.23 × 1.81 × 0.93cm), missing only its very tip from use impact. The point has parallels from Level VI (Bialor 1962, fig. 3,1&5), Level V (*ibid*, Fig. 5,1) and Level IV (*ibid*, Fig. 1), though the Level IV example is considered the best. In turn, there were also two centre blades (10264.X43 and 10264.X46), plus a tan limnic-quartzite blade/blade-like flake (10264.X16) retouched into an end/side-scraper with heavy use-wear and subsequent reworking (into a *pièce esquillée*).

Building 57 (Spaces 269 and 270)

Building 57 is due south of Building 55 and abuts Building 54 to the east; as with Building 55 it has been truncated by the large Roman foundation trench. The structure has two rooms, *Space 270* a narrow east-west room to the north and *Space 269*, the large room to the south. The associated chipped stone gives us a provisional date of Level IV.

Once again the smaller room is seen to be somewhat unproductive, with room fill (12302) generating a mere 22 pieces from dry sieve and hand-picked samples. The material is a typical mix of unipolar prismatic blades (one had been worked into a perforator), together with a handful of non-cortical flakes (one a retouched rejuvenation piece).

A number of separate, but likely related room fills were excavated in the much larger *Space 269* (12114, 12116, 12124, 12128 and 12140), all producing much the same range of material, i.e. pressure and percussion centre blades (unipolar, lips removed), non-cortical flakes and a few exhausted cores / *pièces esquillées*. A few of the blades had been retouched, with linear modification dominant, plus the occasional notch, perforator and end-scraper. Infill (12128) did also include a possible 'edge blade', and a core tablet. Of the other contexts investigated in 2005, (12132) is worthy of note, an obsidian cluster on the floor in the NE corner of *Space 269*, made up of three implements, with a slightly irregular (unfinished?) projectile and two long, retouched and used centre blades (8.34cm and 6.84cm long). The projectile was made on a relatively thick (0.83cm) prismatic blade, is unused and has covering bifacial retouch; it has parallels from Level III (Bialor 1962, Fig. 7,2) and Level IV (*ibid*, Fig. 6,4).

Finally, in the NW corner of *Space 269* the fill of a niche between the western and northern walls (12129) produced a small quantity of obsidian, an assemblage much the same as that from surrounding fills. However, the uppermost layers of the niche (12124) did produce a range of objects that seem to have been placed in this space deliberately (see elsewhere in 2005 Archive Report), including a preformed blade core of limnic-quartzite. This is the first time that we have found such a part-worked nucleus and is considered a highly significant piece for us, not least due to the fact that with such a large chunk of raw material (7.61 x 6.91 x 5.51cm) confirms what we have always thought, i.e. that classifying the raw material of our limnic-quartzite implements on the basis of their colour was flawed due to the likelihood of colour variability within a nodule. Indeed, as one turns the core around it can be seen to range from blue to 'planty-white' (Add photo).

Building 41 (Spaces 212 and 216)

Building 41, is located on the western boundary of 4040, due south of Building 55 and adjoining Building 57 to the east, it is the foundation trench of a ?Roman structure that cuts through the Neolithic deposits. The associated fill (10278) included significant quantities of chipped stone, including (unfortunately) lots of diagnostic material, with a complete tanged projectile (10278.A2) made on a percussion produced centre blade, plus the fragments of three other points of various forms (10278.A9, 10278.A4 and 10278.A32).

Midden area between Building 57 and Space 273

The open area and possible street (yet to be accorded a Space number) between Building 57 (to the north) and Space 273 (to the south) produced not inconsiderable quantities of chipped stone, tentatively assigned a Level IV date. Seven midden units were excavated (12101, 12102, 12106, 12107, 12108, 12110 and 12112), all of which generated quantities of unipolar prismatic blades from pressure and percussion technologies, the majority from the *plein débitage*, with lip removal common. Linear retouch was the main form of modification, together with the occasional notch and perforator/piercer. There was also another of our polished implements (12102.A1) made on a blade-like flake, with rounded edges that appear to be tapering towards a point on the (missing) distal end, i.e. the tool seems to have been used for boring through a stone.

Wider blades from an opposed platform technology (likely made of Nenezi Dağ obsidian) are a minority component. Where present, cores were typically in an exhausted state, though these midden deposits seem to be very end-product oriented, whereby one wonders if the inhabitants of the surrounding houses were consumers rather than producers (we need to see the heavy residue samples before we comment further on this). There are some rejuvenation pieces, specifically a number of the distinctive core-tablets from pressure-flaked blade cores, as well as a large flake off the face of a bipolar core. It is currently uncertain as to whether such blanks might have circulated as end-products in themselves, or whether we may have some evidence for the on-site performance of this tradition. Of some interest is a large ‘quarry flake’ from (12101) measuring $6.83 \times 6.75 \times 1.21$ cm, one of the very few example we have thus far encountered from the 4040 Area (though we have not yet encountered any hoards).

Turning to the more diagnostic retouched pieces, the middens produced a number of broken projectiles, two of which had a ‘face blade’ removed from it, as well as a large biface that has good parallels from Level III (Bialor 1962, fig. 9) and Level IV (*ibid*, fig. 6, 20 [all these pieces came from 12102]). The same assemblage also included a small polished perforator, a highly distinctive implement that we have only ever seen in the 4040 levels (and Building 44 of the South) thus far.

Conclusions

The above text can at times read like a tedious litany of blades, lips and margins, so it behoves us to make a few summary comments in conclusion. Firstly, while great progress was made on the 4040 Area material, we are left in a somewhat frustrating position. The excavation strategy employed over the past two years has been dedicated to revealing a large swathe of near-contemporary structures, waiting to then dig floor deposits in the following seasons, whereby we have yet to encounter any ashy rakeout deposits, or hoards. My frustration relates to the fact that we are gaining the *impression* that significant differences exist in the nature of production, circulation and consumption of chipped stone between the earlier and later halves of the Early Neolithic sequence. Firstly, following Conolly’s claimed shift in the organisation of production post Level VIB (Conolly 1999), it may be that we no longer recover obsidian-rich deposits related to knapping next to these buildings’ ovens and fire-installations. While we *may* continue to find clearly defined ‘dirty areas’ in these structures, with concentrations of ashy rakeouts, one wonders whether we will continue to find craftworking debris amongst this material on a building-by-building basis. Secondly, and likely to be a related issue, we have no idea as yet as to whether we can expect such a widespread distribution of hoards now that we are digging in the upper levels (and the same argument goes here for the South and TP excavations). In the South Area (Levels X-VII) we recovered hoards from most of those buildings that had not suffered major truncation from later activity and / or the 1960’s excavations (Carter *in press*; Conolly 2003). Thirdly, we appear to have lost our ‘obsidian industry 1’, i.e. the in house **manufacture** of small, unstandardized blades and blade-like flakes from opposed platform cores, that dominates our assemblages from Levels PreXII.D to VII in the South Area.

Where we potentially can (and arguably *should*) help to clarify these matters is through a continued excavation of Building 52 and other structures where we have burnt destructions in the 4040 Area. Another of this year’s frustrations was the apparent reluctance of the project to discuss the fire destruction with reference to Mellaart’s alleged ‘horizon’ of burning that separated Levels VIA-B. Here we have a perfect opportunity to examine this issue, through contrasting the lithic technology of the assemblages from the building sequences that span this fire

destruction. Alternatively, we may instead come to view the burning of this structure as evidence for a different form of household abandonment to that witnessed in the earlier part of the Early Neolithic sequence.

In terms of what we can say, the archaeology currently being exposed in each of the areas shares many technological features that we will loosely assign to a 'later' Early Neolithic tradition at Çatalhöyük (something that may, or may not ultimately correlate with the pre-/post Level VIB horizon as traditionally discussed). These features are:

A dominance of obsidian, if anything in slightly higher proportions than in the earlier levels (still to be fully quantified). A dominance of non-cortical obsidian blanks; the material(s) continue to be procured in an already worked state. A dominance of unipolar prismatic blade industries, both pressure-flaked and percussion, characterized by their plain platforms and lip removal. Pressure-flaked products always appear to be in the majority, their dominance becoming accentuated by Levels I-II (TP Area). These industries appear to have been performed on-site; numerous cores have been recovered, almost always in a highly exhausted state. The final stages of reduction are intense and less regular, thus serving to obscure the core's original form; the final stages of pressure-flaked core reduction seem to involve the use of percussion, sometimes turning the nucleus upside down to end the sequence with opposed platform scars.

While the unipolar blades are being produced on site, we do not have evidence for their entire reduction sequence. Specifically, we seem to lack the blades of initiation. We do note the crested blade from a Level I-II assemblage in the TP Area, whereby we may have a slightly difference in the latest phases of the East Mound occupation.

We do, however, have a number of secondary series blades (those removed from the core after the initial blade has been knapped and before the true *plein débitage* has been attained), with single dorsal ridges. These blades are thicker than the centre blades and have a triangular (rather than trapezoidal) cross-section; we are quite certain that these are the blanks upon which the community made their projectiles. We are not entirely certain, however, as to whether these blades were being knapped on site, or whether some of these are being imported ready-made from elsewhere (this may not have been constant through time). Hoards from the 1960's excavations have sometimes included blades of this form.

A small proportion of the prismatic (pressure and percussion) blades are retouched, usually with simple linear modification, plus the occasional notch or perforator.

Associated with the pressure-flaked blade technology, from at least Level V onwards, are the highly distinctive rejuvenation pieces referred to as core-tablets (a flake struck across the top of the core to remove the platform and upper face to regain the required knapping angle). We are not sure as yet as to whether any of these pieces derive from the unipolar percussion industry.

A minority component of all our later assemblages are notably wider (>2cm) unipolar blades, apparently made from Nenezi Dağ obsidian; these pieces are often retouched. These blades seem to be entering the site ready-made as we have no associated manufacturing debris, aside from an occasional large rejuvenation piece that could conceivably have been imported as an implement / blank in its own right.

Another minority component of our later assemblages are wide blades from an opposed platform technology, also apparently made from Nenezi Dağ obsidian (we have to examine as to whether the aforementioned industry is not actually a part of this one, i.e. segments of blades only displaying scars in one direction). These blades were imported ready made and were almost invariably retouched, a number possibly as large projectiles (spearheads), others as endscrapers.

Bipolar blades are much less common / absent in the latest levels (TP). We are recovering numerous projectiles in the 4040 Area, while Building 44 and the South Area middens have similarly generated a number of points; conversely, these implements are virtually unknown from the Level I-II deposits thus far encountered in TP. Typological variability is usually noted within the projectiles recovered from any one Space; the different forms from cache (10342) provide a case in point (no pun intended). Blades are always the blank employed to make projectiles (where it is possible to ascertain the original blank), albeit not the centre blades. Typically an initial series blade (thicker with triangular cross-section), or a larger bipolar product, will be modified. We are not

completely certain at present as to whether these blades were manufactured on-site.

A significant proportion of our projectiles display damage on the tip of a form that suggests they had been used. A number of points had also been knapped after their use/breakage. We have a number of examples where small blades/blade-like-flakes have been flaked from their dorsal/ventral *surface*. The meaning of this act is open to debate, i.e. as to whether one sees this as some form of curation/economising measure, maximising the raw material by squeezing the very last blank out of it, or alternatively view this as some mode of symbolic behaviour (drawing upon the point's original potent killing power). However, the knapping of points and other retouched implements (such as scrapers) is a long held tradition at Çatalhöyük, attested from the Aceramic Neolithic onward (see 'obsidian industry 6' [Carter, Conolly and Spasojević, *in press*]). What we can note with regard to this year's work, is that we now recognise that the practice of projectile-reduction changes through time. In the Aceramic Neolithic and Pre-Level VIB assemblages points have their margins removed in a form of burination (the resultant blanks being referred to as 'edge blades'); in contrast, the projectiles from the 4040 Area, South Summit and this year's South Area have their surfaces flaked (the resultant blanks being referred to as 'face blades'). Retouched flakes are not very common in the later levels; scrapers are virtually absent as a tool type.

We now have a number of polished obsidian 'carving tools' (Conolly 1999, 50) from the later levels, with an example from a Level I-II context from TP made on a blade (12219.A2), plus another blade with ground margins from Building 56 (Level V) in the South Summit (11670.A181), a blade from the IST Area (Fig. 101) and a blade-like flake borer/perforator from the midden area between Building 57 and Space 273 in the 4040 Area (12102.A1). These pieces now join the example from last year (Building 47, Space 237). These tools seem to have been used to work stone, conceivably figurines, to incise lines and perhaps also to bore holes.

Having only excavated a single hoard from a post-Level VIB context (Building 1), we still have little idea as to the various forms in which obsidian entered the site. Specifically, we are uncertain as to whether the part-decorticated/decorticated flat, thick 'quarry flakes' are still being brought to the site. This is a mode of procurement we associate with the exploitation of the Göllü Dağ-east sources during the earlier half of the site's occupation (Carter *et al*, *in press*) and the manufacture of our 'in house' obsidian industry 1 (see above). A few fragments of thick flakes were recovered this season, but it remains to be seen as to whether they represent part of the same phenomenon.

There is a lack of sickles from the later Early Neolithic levels; this is quite an interesting point as it correlates with Mellaart's original assertion that these implements were extremely rare at the site (Mellaart 1964, 105). Our work over the past few years seemed to contradict his comments as we recovered numerous examples, however, now that we are digging in the upper levels at the site, they do indeed seem to be very uncommon. Perhaps here we have evidence for a further shift in depositional practices, whereby these implements are no longer making their way into middens. Alternatively, there might be a shift from 'flint' to obsidian sickles; the latter are much harder to recognise at a macroscopic level. We did have one very obvious obsidian example, with denticulated retouch (both edges) and linear use-wear striae running parallel to the margins, albeit a surface find from the IST Team Area.

The non-obsidian component is dominated by a range of limnic-quartzites (with an *occasional* piece of radiolarite), present almost invariably in blade form. There appears to be a local percussion prismatic blade industry analogous to that in obsidian (e.g. Building 44), while much larger blades were imported ready-made. Some of the latter pieces were used to make daggers, as well as the occasional end-scraper, or large retouched knife.

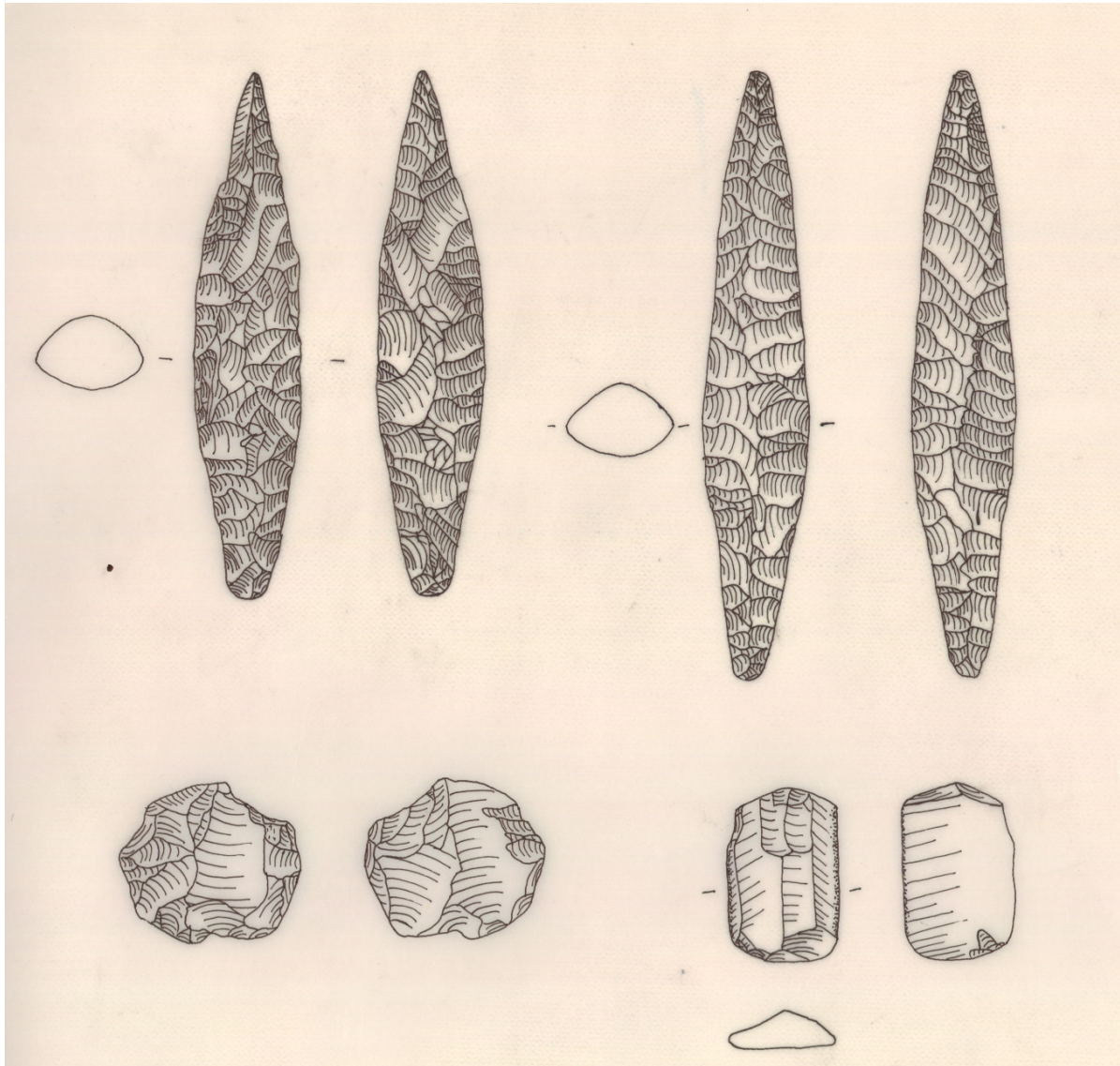


Figure 101. Two points, a splintered piece and a carving tool from IST Area (scale 1/1).

Other projects, presentations and publications

Alongside the on-site study of the chipped stone, there are two laboratory based projects currently underway focusing on the obsidian from the site, the first related to characterization studies, the second to hydration dating.

Obsidian characterization studies

Work continues on the chemical sourcing of our obsidians, the latest series of 100 samples (detailed in the 2004 report) having now been completed at Bordeaux (Centre de Recherche en Physique Appliquée à l'Archéologie; Institut de Recherche sur les Archéomatériaux (Belfort-Bordeaux-Orléans) UMR 5060 - IRAMAT - CNRS - Université Bordeaux). the analyses undertaken by Gérard Poupeau and Sarah Delerue employing a combination of PIXE and MEB. The results suggest that the Göllü Dağ-east and Nenezi Dağ obsidians were the primary resources exploited by the community throughout the Neolithic, albeit with significant differences in how these raw materials were exploited through time. Having now sampled artefacts from the Aceramic Neolithic levels and

the upper strata of the 4040 Area we now have a significantly longer chronological span covered by our analyses. Full details of this work will be presented in a forthcoming article; however we can state that the samples from the Aceramic levels are almost entirely assigned to the Gollu Dağ-east sources, while the later levels are dominated by Nenezi Dağ obsidian.

Of some interest is that during the past two years two of our team has spotted what they consider to be East Anatolian products. Last year Delerue noted what appears to be a blade core from an Early Chalcolithic level on the West Mound made of Lake Van obsidian (together with what Carter tentatively considers to be a blade made of Melian obsidian), while this year Kayacan has noted implements that she similarly considers to be made from East Anatolian raw materials. It is our intention to sample these objects next year.

One of the main issues that we expect to have to deal with in the future is to what extent we can discriminate amongst the various obsidians that comprise the Göllü Dağ-east field as defined by in the late 1990's by Poidevin (1998, 110-15). The ability to distinguish between these sources has already been claimed by Gratuze (1999) using LA-ICP-MS. Matters have since become somewhat more complicated however, in that renewed survey at the sources has demonstrated that we are in fact dealing with at least 10 spatially and geologically distinct outcrops on the Göllü Dağ massif, as opposed to the six discussed originally by Poidevin (Gratuze *et al* 2005). A recent study involving a combination of geo-chemical, geo-chronological and structural analyses allegedly permits a more fine-tuned discrimination of the sources, with four groups distinguished thus far (Gratuze *et al* 2005).

Our research group (At present involving primarily Gérard Poupeau and Sarah Delerue from Bordeaux, plus Nick Pearce from Aberystwyth). has indeed begun to approach this issue, further considering the analytical results from our archaeological samples (>200) alongside an expanded data-set from geological samples (Poupeau *et al* 2005). Our initial results suggest a *potential* ability to discriminate between the Kömürcü and East Kayırlı outcrops, however, we require an expanded set of geological samples – matching those discerned by Gratuze and colleagues – in order to proceed further with this matter. In November 2004 Carter spent 10 days with Poupeau and Delerue at the Archaeometaterials lab in Bordeaux in 2004 working on this and related issues and hopes to return in 2005 to develop these themes further alongside writing up our latest set of results. As well as the recent publication on the issue of Göllü Dağ source discrimination (Poupeau *et al* 2005), our larger research group displayed a poster at the *Archéometrie 2005* conference at Saclay, France ‘Cappadocian obsidians from Early Neolithic Çatalhöyük. Revisiting provenance studies’ – T. Carter, S. Delerue, G. Poupeau, N.J.G. Pearce, M.S. Shackley and M. Milić.).

Obsidian hydration studies

An increased number of samples have now been sent to the Oak Ridge National Laboratory (Tennessee) to be included in our obsidian hydration dating program, with artifacts from Early Chalcolithic I-II levels selected from the West Mound. At the time of writing analyses are being undertaken using Secondary Ionisation Mass Spectrometry; it is very much hoped that results will appear in the near future to enable us to include a report in the upcoming West Mound publication as well as within a specialist peer-review journal.

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Ground Stone Studies - *Katherine I. (Karen) Wright, Adnan Baysal*

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Katherine I. (Karen) Wright
Institute of Archaeology
University College London

Adnan Baysal
Department of Archaeology
University of Liverpool

Özet

Bu yılki kazı sezonu içerisinde yapılan çalışmalar çeşitli alanlarda yoğunluk ve artış kazanırken önceki kazı dönemlerinde belirlenmiş olan hedefler ve yöntemler aynı kaldı. İstanbul ekibinin yapmış olduğu çalışmalar bu yoğunluğu biraz daha arttırırken aynı zamanda gelecek sezonlardan itibaren öğütme taşı çalışmalarındaki bazı sorulara da ışık tutacaktır. Bu yılki önemli gelişmelerden biride 2002 sezonundan sonra Dr. K. I. Wright bu yılki çalışmalara tekrar katıldı. Bu katılım sayesinde sezonun büyük bir kısmında BACH alanından gelmiş olan tüm malzeme (1997-2003) bir kez daha ve detaylı olarak gözden geçirildi. Bu çalışma sonucunda BACH malzemesi yayına hazırlanacaktır. Bunun dışında diğer alanlardan ele geçen malzemelerde değerlendirilerek gerek kazı sürecinde gerekse aralıklarla, alan sorumlularına ele geçen malzeme hakkında bilgi verildi. Bu sezonda ağırlık verilen noktalardan bir tanesinde ekip üyelerine öğütme taşı çalışmaları ve bu konu üzerinde yakınođu ve anadoluda yapılan çalışmalar hakkında daha detaylı bilgi vermek oldu. Çatalhöyük öğütme taşı çalışmalarının bölgeler arası entegrasyonu hakkında ekip üyelerine küçük bir kesit sunularak bu konuda yapılan çalışmalarının sadece Çatalhöyük için deđil aynı zamanda tüm yakınođu arkeolojik konteksti içinde de yiyecek üretimi ve taş alet endüstrisi açısından son derece önemli bir yer tuttuđu bir kez daha vurgulanmış oldu.

In 2005, the methods and aims for the studies of ground stone artifacts at Çatalhöyük were refined and expanded, building upon those established earlier in the project. 'Team Ground Stone,' which since 2002 has been composed of Katherine (Karen) Wright and Adnan Baysal, engaged in several key activities in the summer of 2005.

Comprehensive study of the material from Building 3, excavated by the University of California at Berkeley (BACH), in preparation for the publication of this part of the project (Wright and Baysal 2007, in preparation). All of the ground stone material from this house and its associated deposits was pulled out and the ground stone artifacts were systematically analyzed and the data entered into a working database for this house. In weekly meetings with the BACH publication team, we discussed aspects of ground stone technology, artifact use-life, spatial distribution, contextual analyses and relationships of the ground stone to other categories of finds and features. The draft of the chapter for this part of the publication will be submitted in early January 2006 and publication should follow some months thereafter. Provisional results indicate that the materials from House 3 are somewhat different from those of Building 1 and the 355 priority contexts (Baysal and Wright 2005).

Intensive studies of raw material properties, sourcing and lithic technologies are continuing, with particular focus on ground stone cores and debitage, manufacturing technology and discard (Baysal 2006, in preparation; Wright 2005, in press; Wright 1993). In particular, we organized the raw material reference collection from geological surveys of past years, into a more systematic study collection, and we began to refine our initial assessments of raw materials used for ground stone at the site. We also added to the petrological reference collection.

We are in the process of organizing analyses of residues recovered from ground stone tool surfaces in previous excavations. Samples of inorganic residues have been conserved for integration with other such studies, eg by the micromorphologists and archaeochemistry specialists on the project.

The artifact database of material from across the site is being added to and refined. We also held discussions about coordination and linking of the ground stone database to the central site database, with Mia Ridge (Museum of London), Ian Hodder and other teams. It is hoped to have full coordination very soon.

We spent several days in the Konya Museum, studying material excavated during the Mellaart years and we are very grateful to the Director of the Konya Museum for the permission to undertake this important work. The Mellaart material revealed some important surprises.

To communicate our research and its early results, we presented a lecture in Turkish and English to the project members. This led to very useful discussions with other team members.

The start of new excavation areas on site (eg Team Istanbul) is shedding new light on spatial distributions, tool typology, tool production areas, and discard of ground stone artifacts in primary, secondary and other categories of refuse. Some general observations on the areas follow.

BACH Area

The excavations in this area were conducted from 1997 onwards by a team from Berkeley University, and consisted of a thorough investigation of Building 3. This excavation is important from the point of understanding the use life history of ground stones within a single household. Artefacts from this building displayed considerable evidence of re-modification and re-use. There was an emphasis on axe production and modification within this building, but not on the scale of a workshop. Other artefacts such as querns, handstones and sanders were also curated. One of the grinding slabs, however, seems not to have been used for a very long period before abandonment. More results about the building's tool use and life history will be reported in detail in the publication.

Area 40 40

The wider opening in the 4040 area produced very rich artefact clusters. An area apparently dedicated to food preparation was found next to several sets of bull horns in one burnt room. A large quern was found in situ next to the fire place or oven area. The other artefacts beside the quern in this room were broken pieces of handstones. Because this room was exposed to heavy burning, there seem to be some well preserved plant remains, and therefore this should permit us to investigate further examination of the role of the grinding tools and whether this was truly a food preparation area (Fig. 102). Of special interest is the fact that a mortar and pestle were found in front of the bullhorns. Both pestle and mortar were found in situ on the floor, under the debris of the burnt building. Further opening of the debris also revealed that the mortar was shattered by heat, but not scattered by the collapse of heavy building material. This made it possible to reconstruct the mortar and it allows us to capture detailed information on breakage patterns of andesite under intense heat. One of us (Baysal) is looking with particular care at how the fracturing contrasts with flakes from ground stone artifact manufacture. (See Fig. 103 for the pestle and Figs. 104 and 105 for the mortar reconstruction.)

on top of the use surface of the quern seems to suggest that it might have been used with the quern, for grinding; but the combination of clay and volcanic rock for grinding tools, whilst not unknown, is rare. A more likely explanation is that this is either a deposit with some ritual significance, or simply be a coincidence of storage or deposition of the objects. In any case this was the first instance of such a juxtaposition of objects.



Figure 102. Possible food preparation area showing bin and ground stone fragments.

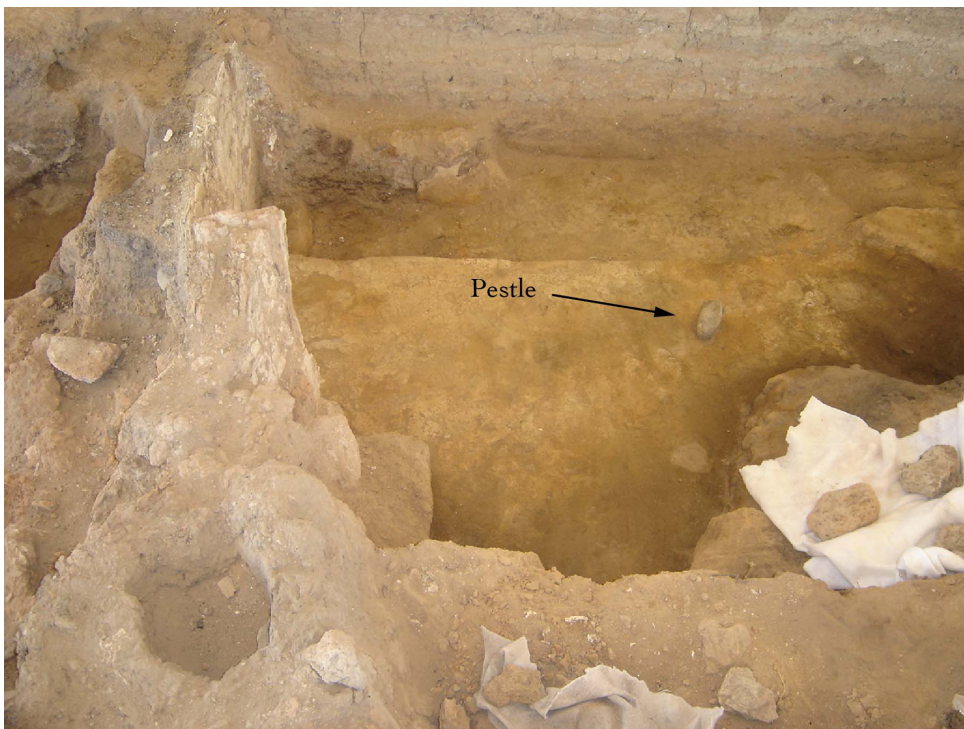


Figure 103. Pestle, in situ.



Figure 104 Mortar, shattered by the heavy building debris collapse onto it.



Figure 105. Reconstruction work on the heat-fractured mortar.

Istanbul Area

The Istanbul team have excavated a wide area in this season. The exposure of some of the buildings' walls also revealed some ground stone artefacts, some of which had been left as though they were ready to be used again at any time. Similar behaviour was also revealed in Building 1 in the North area where a slab with paint residue was left upside down within the building (Baysal and Wright 2005). One of the most important discoveries for us was an enigmatic object, made of very sandy clay, with two protruding extensions (Fig. 106). The shape could be interpreted as a pair of bull horns or a pair of breasts, but the object is particularly reminiscent of hearth decoration features ('andirons') such as are seen at Chalcolithic and Early Bronze Age sites in central and eastern Anatolia (eg, Beycesultan, Pular Sakyol) (Kosay 1976; Lloyd and Mellaart 1962). The careful placement of this object Area TP (Team Poznan)

The Area TP excavations continued this year and this is an area which generally produces large grinding tools. Amongst these tools the most noticeable thing is the size of the objects and fragments, so far, this area's excavations have revealed the largest tools and fragments, after those of the West Mound. Some of the artefacts, such as stone trays, are reminiscent of the west mound fragments, as well as being similar both technologically and typologically to the previous examples. Similar artefacts, stone trays, are also common in the late Neolithic and early Chalcolithic periods of other sites in the vicinity.



Figure 106. Clay object and grinding slab.

Conclusion

Thus, ground stone studies continue apace at Catalhoyuk and are taking us into new directions that should shed new light on the use of stone artifacts in the Neolithic. Provisionally, we can say that patterns of discard of ground stone artifacts vary widely within Catal itself and at other sites of this age (Wright 1993; 2000). These patterns at Catalhoyuk indicate systematic recycling and refuse removal, but sometimes in special ways that do not easily fit into the well-known categories of refuse disposal such as primary refuse, secondary refuse, de facto refuse, abandonment refuse or provisional discard (Hardy-Smith and Edwards 2004; Martin and Russell 2000). We will be addressing this issue in more depth in forthcoming publications.

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STONE BEAD TECHNOLOGY AT ÇATALHÖYÜK: SUMMER 2005 - *Katherine I. (Karen) Wright*

http://catal.arch.cam.ac.uk/catal/Archive_rep05/index.html

Katherine I. (Karen) Wright
Institute of Archaeology
University College London

In 2005, a new phase in the study of stone bead technology began at Çatalhöyük, building on the previous work of Naomi Hamilton and Brian Jackson, whose reports will appear in Volume 5 of the final report series (Hamilton 2005; Jackson 2005). Hamilton and Jackson completed an initial study of materials and typology of finished beads (mostly from burials). The sample with which they worked was composed of beads from the Mellaart excavations and from the current excavations, up to about 1999.

However, a database for the stone beads (and beads generally) has yet to be created for these data. In addition, investigation of flotation residues for micro-artefacts related to beadmaking has not yet begun. To date, detailed analysis of large micro-artefact assemblages containing debitage from stone beadmaking has been undertaken only at a very few Neolithic sites, mostly in Jordan (Wright and Garrard 2003; Wright *et al.* 2008, in preparation).

Thus, a new phase of research on bead technology at Çatalhöyük began in the summer of 2005. This initial focus was primarily on the beads made of stone.

However, an urgent task, now in progress, is to organize collaboration with other project specialists who can address the technologies of beads made from shell, bone and clay (Reese 2005; Russell 2005). Some very brief discussions about this were held with Nerissa Russell (concerning bone beads) and John Last (concerning clay), but getting a full collaborative team and programme up and running will be a key task in the summer of 2006

Activities concerning beads in summer 2005 were as follows.

First, I undertook an initial inventory and assessment of the collections of beads from the Mellaart and current excavations, to see what data have been recorded thus far. At the present time the written and photographic archive on beads consists of (a) field photographs of beads *in situ*, in burials; (b) records of beads now housed in the Konya Museum, which has in its keeping beads from both the Mellaart excavations and some from the current project. The latter records (of material in Konya Museum) were studied thoroughly and notes were made for purposes of creating the database on stone beads.

Second, the collections immediately available at the site for direct study were perused and it was found that these are in very good order. Using the publications of Hamilton and Jackson as a guide, I worked through the collection, to familiarize myself with the identifications of materials from which the beads were made.

The third task was to undertake comprehensive study of the stone beads from Building 3 excavated by the Berkeley team (BACH), and to build the database from this set of excavated beads (preparatory to the BACH publication, which is now in progress). Thus data on all stone beads were compiled (along with a brief inventory of other beads, eg of clay, shell and bone; full study of these will require collaboration with other specialists). These data are now being entered into a database and from this core, the stone bead database will be built. In this process, some modifications are being made to the typology created by Hamilton. Interim results will appear in the BACH publication (Wright 2007, in preparation), but at the moment, one can say that the range of bead types and raw materials is broadly the same as that of the sample studied by Hamilton and Jackson, with small disc beads of pink marble and greenish-brown schist being the dominant stone beads from Building 3. In terms of both bead forms and raw materials, thus far the range of variation of stone beads from the current project is not as wide as the range of variation of the stone beads from Mellaart's excavations. Mellaart's stone bead finds were seemingly more diverse.

Investigations of possible ground stone artifacts or other artifacts that might have figured in stone beadmaking are still at an early stage, but this has already been shown to be an important line of enquiry for understanding stone beadmaking (Wright and Garrard 2003; Wright 2005). Discussions were also held with Tristan Carter, chipped stone analyst, concerning the presence or not of drills, micro-drills, drill bits on burin spalls, etc., in the Catalhöyük chipped stone assemblages. In contrast to other Neolithic beadmaking sites (eg, those in Jordan), it does not appear that micro-drills – at least obsidian or flint micro-drills – were part of the Çatalhöyük repertoire (Tristan Carter, personal communication). However, there are plenty of other possibilities for how the stone beads of Çatalhöyük were made and study of these has begun in earnest.

A fifth activity was to prepare for the massive task (to come) of looking for debitage and other artifacts relating to stone beadmaking (and other crafts involving stone, not including obsidian and flint). This will require going through flotation residues (heavy and light fractions). These are already checked for other micro-artefacts eg bone, obsidian, flint, archaeobotanical remains, and the remaining ‘other’ stone microartefacts we have in hand, ready to be studied. It was decided to defer beginning the sorting of stone microartefacts from flotation residues until summer 2006. However, we will be targeting Buildings 16 and 17 in the first instance. These have given hints of possible stone beadmaking areas.

Studies of the full range of raw materials used for stone beads and the distributions of those materials will need to be undertaken and are planned. There will be a need for investigating unfinished bead blanks (pre-forms) and finished beads under low and high power microscopes, taking photomicrographs to study wear patterns. This will go hand in hand with experiments in stone beadmaking.

Conclusion

Analysis of the stone bead technology will be integrated with studies on other bead technologies and studies of other stone technologies at Çatalhöyük (Baysal and Wright 2005; Wright and Baysal 2007, in preparation; Wright 2007, in preparation). Meanwhile, building the basic database and beginning to investigate manufacturing tools and debris will undoubtedly keep us busy for some time to come.

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Architecture - *Mirjana Stevanovic with contributions by Ina St. George.*

Abstract

The 2005 season was a particularly productive year for research on architecture, especially regarding the finds, and in terms of data management and analysis. Numerous new houses have been excavated but one of them (building 52), which was heavily burnt, stands out in terms of richness of information on architecture and especially on building materials. Twelve bricks, one hundred and sixteen daub fragments, and five wall plaster fragments from this building were recorded and studied. The preliminary analysis of these materials enriched our understanding of how diverse the building materials can be at this site. A variety of mud brick shapes and sizes have been added to those that we have encountered before, as well as their manufacturing techniques. A completely new data set made up of fragments of daub with massive traces of timber and most likely belonging to the roof has been assembled. Building 52 also illustrates how fire can preserve clay-derived and other associated building materials that typically do not get preserved in un-burnt buildings. In addition, the members of the team worked on developing the data based systematic study of architecture. The database once fully established should be one of the most complex material corpora in the project. This season a major part of the database committed to building materials was developed. With the help of conservator Ina St. George work on the experimental house continued this season with the addition of a new wall painting, and the application of more layers of wall and floor plasters.

Özet

2005 sezonu, mimari araştırma, çıkan buluntular ile veri toplanması ve analizi açısından çok üretici bir sezonundu. Çok sayıda yeni ev ortaya çıkartılmasına rağmen, kötü bir şekilde yanmış olan bir ev (bina 52), hem verdiği mimari bilgi hem de bina malzemeleri açısından dikkati çekti. Bu binada bulunan 12 tuğla, 116 duvar astarı parçası ve 5 duvar alçısı kaydedilip, çalışıldı. Bu malzemelerin analizleri, Çatalhöyük'deki bina malzemelerinin çeşitliliğini anlamamızı sağladı. Daha önceden karşılaştığımız bir çok sayıdaki pişmiş toprak tuğla şekilleri, boyutları ve yapım teknikleri de bu çalışmalara eklendi. Büyük ihtimalle çatıya ait olan, ahşap kalıntıları ve duvar astarı parçalarından oluşan tamamen yeni bir data hazırlandı. Ayrıca Bina 52'deki yangın, hem kilden hem de ilişkili malzemelerden yapılan bina malzemelerinin yangına uğramamış olan binalara nazaran nasıl korunmuş olduğunu gösterir. Bu çalışmalara ek olarak, sistematik mimari incelemesine ait bir veri tabanı geliştirmeye başladık.

Deneysel evdeki çalışmalar, konservatör Ina St. George'un yardımıyla bu sezon da devam etti. Duvar ve zemin alçıları yenilenerek, duvarlardan birine farklı bir resim uygulandı.

Introduction

Prehistoric houses at Çatalhöyük are numerous and well preserved, and they physically comprise a large data set which is essential for understanding the social past of the site. In the new excavation Çatalhöyük houses have been studied in more detail than before and they are better understood in terms of building materials, construction techniques, and the use of space. However, a systematic and flexible recording of the multiple aspects of architecture followed by systematic sampling and analyses is yet to be developed. Initial work in this direction focusing on the building materials has begun during this season and will be continued and expanded in the future. This work is presented in the report.

Current focus on building materials is motivated by the role they have in architecture as the essential building blocks that must be understood well in order to illuminate fully other aspects. Sun dried mud brick and adobe are good artifacts for analysis for several reasons. They survive well over long periods. Their manufacture was closely connected to local resources of clay, and to local vegetation. The preservation of the organic materials, which were deliberately or accidentally captured by mud bricks is typically very good. Their manufacture technique also holds information on the level of technological knowledge applied, and individual and group choices that were made in the process. The existing even though limited research on prehistoric building materials derived from clay has shown that mud brick can also serve as ‘packets’ of data concerning the environmental conditions or state of agriculture when and where they were made.

In the new excavations at Çatalhöyük (since 1993) over 50 buildings have been completely or partially excavated including those excavated this season. The houses that were discovered this season are exposed to their latest phase (see excavation reports). Their complete excavation and analyses will take place in the coming years. From the point of view of building materials that were utilized in the production of these houses, and to the extent that the houses have been exposed, they appear to be ‘standard’ Çatalhöyük buildings. That is, featuring mud brick and mortar walls that are covered with multiple layers of white clay (marl), some with traces of paint, and with different features constructed on the plastered floors. In contrast Building 52 that featured exceptional interior elaboration, and which had been extensively burnt in a house fire, contained the elements of roof and higher portions of walls preserved in the fill (for more detail see excavation reports). These construction remains were carefully and systematically excavated and they form a significant corpus of data recorded in the newly established architecture database. Bricks and daub from this building appear to be of a new type, and they provide conclusive evidence for pre-manufacturing bricks in molds at Çatalhöyük.

It has been noticed also that some buildings from the 4040 and Istanbul Areas utilized for building material clays that could be regarded as inferior in quality, but this needs to be further investigated. Such is a very coarse, lumpy white clay (marl) that in these houses was used for floor and wall plasters; it was applied in a single, thicker layer; and was applied on a thick and coarse preparatory layer.

Work accomplished this season

Building 52 comprises two rooms - Space 93 with three large storage bins, and Space 94, with an installation of a bucranium on the west wall and additional cattle horns set in a bench above the platform. Both spaces were excavated to the level of their latest floor on which the features and the artifacts were found. Their fill (10285 and 10286) comprised burnt and collapsed remains of the upper portions of the walls and the roof. Due to firing the preservation of bricks and daub including their original surfaces was exceptional and extremely informative.

The following types of construction materials were noted:

Mostly complete but also fragmented burnt bricks in different sizes and with different finish;

- (ii) Large and small fragments of daub with massive wood impressions, and with small size impressions;
- (iii) Fragments of plaster of various types that are distinguished by clay texture, thickness of layers, and color including fragments of plaster on both sides of thick clay packing, which is extremely rich in organic inclusions;
- (iv) Numerous large and small fragments of moldings of various kinds, such as lips, ridges, cone-shaped, and ball-shaped fragments of construction that are likely parts of interior features and/or wall and ceiling construction.

Bricks

The examined bricks from Building 52 presented in this report all originate from the collapsed portions of the walls and possibly roof. The bricks in the walls which are still standing have not been examined yet and are not a part of this report since they are unexcavated and are covered with wall plaster. Their future examination with already excavated and examined bricks reported on here will be very interesting. It remains to be seen if these bricks will be equally varied or will be standard Çatalhöyük bricks.

The fill of Building 52 contained three distinct groups of bricks, which were incredibly well preserved and nearly intact except for being removed from their original location. Twelve bricks were recorded and sampled. All of

the bricks come in unusual sizes and shapes, and most bricks have a distinct surface treatment - characteristics uncommon for what we have seen until now at Çatalhöyük. In addition, their location in the collapse may provide a clue to their original location in the building. One group (A) of the bricks was found on the central floor of Space 94 in what is considered to be the center of the collapsed debris. The second (B) group of bricks was found in the debris on the south side of the partition wall (F.2030) between Spaces 93 and 94. The third (C) group of bricks comprise single, very small size bricks found isolated and in different locations on the floor of Space 94.



Figure 107. (A) group bricks.



Figure 108. Photo of brick ID65.



Figure 109. Photo of brick ID68.

The group (A) bricks comprise three distinct and superimposed bricks (Samples 3,4,5) (Figure 107). Their shapes and sizes are different as is their surface finish. The brick found at the top (S.3;ID65) is rectangular in shape (45x25x8cm) (length by width by thickness), with flat surfaces and sharp edges, well fired, and covered with unusually deep vegetal impressions from secondary drying over the entire surface (Figure 108). The long and narrow brick (S.4; ID68) (38x12x7cm), which was less well preserved was located under ID65 (Figure 109). The poorly fired brick (S.5; ID70) that has a special shape was found under and to the south of ID68.



Figure 110. Photo of brick ID70.

Made in coil technique it is long and narrow with the top-side arched and a groove on bottom side (65x20x22cm) (Figure 110). It had extremely flat and smooth sides, and was most likely plastered all over but plaster is preserved only on the long sides.



Figure 111. (B) group of bricks.



Figure 112. Brick ID69 from group (B).

Group (B) near the partition wall comprised four rectangular, similar size bricks (for instance ID69, 50x22x10cm), with smooth faces and sharp edges, which were equally well burnt (Figures 111, 112). Along the wall further to the east from these bricks there was unearthed yet another unusually shaped brick, which resembles the hand-shaped brick ID70 except for the fact that it was well fired. This is an elongated and narrow piece made in coil technique with an arch on one side and a groove on the opposite side. Due to its

location and size of the groove this brick might have been a part of the crawl hole between Spaces 93 and 94. This is further supported by the presence of a large fragment of carbonized construction wood, a possible lintel, found on the stepping part of the opening. The 12cm width of the groove is the same size as is the diameter of the wood beam (lintel).



Figure 113. (C) group brick.

Group (C) bricks comprise small size bricks that are so far unique at Çatalhöyük. Until this season we have not recorded bricks of such small size, for instance 28x16.5x9.7cm or 19x10.4x6.7cm. They also are manufactured with flat surfaces and sharp edges, which undoubtedly show that they were made in some kind of molds (Figure 113).

Daub

Daub is clay derived building material which also provides evidence for timber in the form of impressions in fired clay. It is a common building material in the Neolithic of Southeast Europe and at the period sites in northwest Turkey where mud brick architecture was not practiced. This material has not been commonly found at Çatalhöyük even though it was mentioned by Mellaart that buildings of the earliest levels were constructed using a wattle-and-daub technique. The new excavations at Çatalhöyük yielded small size daub fragments that have wood impressions of smallish size, which were found in the fills of buildings or features. This season, however in the fill of Building 52 we have encountered large daub fragments with massive impressions of planks and logs, which we believe belonged to a construction of considerable proportions, such as the roof. There were also smaller size impressions of twigs found, and surprisingly frequent and well preserved impressions of tree-bark and tree-grain suggesting split wood.

Daub represents the largest quantity of architectural materials recovered from Building 52. One hundred and sixteen fragments were recorded and sampled, whereas numerous fragments because of bad preservation were not recorded. The daub fragments are of different types and sizes and were excavated in characteristic locations. A distinct type of daub was found in dense quantities around and under the (A) group of bricks in the middle of Space 94 and surrounding the group (B) bricks near the partition wall. Different daub fragments were recovered from Space 93. Less numerous, they are of smaller size with small-size impressions of twigs (3,5-4cm wide) and rarely log type daub fragments (5-6cm).

All the fragments were burnt in the secondary house fire and that way have been conserved well. Numerous fragments have the original outer surface preserved, which allows us to see their original thickness. It varies from 6-10cm. In the clay matrix there is typically a large quantity of vegetal materials, such as grasses, chaff and straw, which served as stabilizers or binders for the clay. The remains of daub were especially interesting for their wood impressions, whose width varies from 0.5 to 11cm, the majority being between 2 and 6cm wide. The shapes of wood impressions and their representation in the sample also vary. The large majority (over 50%) are flat impressions, likely to be planks ranging from 1.9 to 11 cm in width. The most common size is 5-6cm wide. The second most numerous are round (half circle impressions likely to be small branches, reeds and logs. Their sizes range from 0.4-6.5cm in diameter. There are fewer examples of V-shape impressions, which indicate split wedge-shape timber and irregular shape timber ones (Figure 114a-h).



Figure 114a.



Figure 114b.



Figure 114c.



Figure 114d.



Figure 114e.



Figure 114f.



Figure 114g.



Figure 114h.

Figures 114a-h. Examples of daub with different shape and size impressions.

It was interesting to observe how much variety there was in the texture of the impressions ranging from unusually smooth ones to medium rough and very rough. There are a considerable number of fragments with either smooth (equally present in flat and in round timber) or very smooth (all round timber) impression surfaces. The majority of the impressions have a medium rough surface and this is mainly flat timber, even though other ones are present as well. There are nine fragments that have possible tree-bark impressions preserved and all are flat timber except for one, which is log-shaped (Figure 115a-b) bark or wood grain impressions). A number of fragments exhibit impressions of what seems to be wood-grain from a contact between clay and split wood or in some instances they have traces of a stone axe mark which were made when the axe was used for splitting the wood. In addition, in some fragments finger impressions have been detected.



Figure 115a.



Figure 115b.

Figures 115a-b. Possible tree-bark impressions.

Numerous characteristics of the examined daub recovered in the fill of Building 52 contribute to their interpretation as parts of the house roof. Firstly, there is no evidence for any of the walls of Building 52 being built in daub technique. Further, the daub is massive with large-size timber impressions of the kind that we would expect on the roofs at Çatalhöyük. There is a considerable uniformity in impressions which can also contribute to their having been roof timber. On the other hand there is a lack of characteristic wattle in the recovered daub fragments -- that is, lack of tree branches, which would be placed perpendicularly to the main timber and around it. This kind of wattle-and-daub would be necessary in case of wall construction and not needed in case of roof construction. Most of the large daub fragments had wood impressions turned down as they would have been in the standing roof. Several daub fragments have brick-like thickness (both brick and daub range from 5.5-10cm in thickness) and finish on one surface that looks like an outside surface, and have wood impressions on the other side. It is interesting that all these daub fragments were heavily burnt in the presence of oxygen which would be expected if they were on the roof.

As described here, the roof of Building 52 is different from the roof unearthed earlier in Building 3. It is considerably thinner, lacking the layering of the Building 3 roof and having the cover layer looking more like brick. On the other hand, the Building 3 roof remains did not contain preserved remains of timber. Another crucial difference between the two roofs is that the Building 3 roof was not burnt and it was preserved incompletely. The timber impressions in the case of an unburnt roof would be the first ones to be destroyed by compaction of the heavy clay layers from above.

Plaster

This season close attention was paid to differences that occur in plasters and an attempt was made to characterize them as much as possible in the field (see also the specialist report on plaster). The wall plasters inside one house can vary greatly. For example, in Building 52 the wall plasters differ from the plaster found on bricks, which likely were part of an installation, or from those on the bucranium, and from plaster on the partition wall. Variation in

color in these plasters is at least partially caused by the house fire in which they were caught but there are other dissimilarities due to variation in building materials and manufacture.

The plasters from Building 52 were preliminarily classified as:

Regular multilayered white wall plaster

A) Multilayered buff color plaster

B) Buff color single layer plaster on both sides of a distinct type of mortar

Multilayered light bluish grey color plasters

With an exception of white wall plaster these other plasters are not found in their primary position but in the collapsed remains. It is clear that some individual bricks that were discovered in the general collapse were plastered with the light bluish grey plasters and some with buff color plasters. The concentrations of light bluish grey plaster are noted in the areas close to the bucranium, and in association with the nearby group (A) of shaped bricks. The white plaster was found on the partition wall, and the buff color plasters on both sides of the partition wall.

The preliminary microscopic examination of the cross-section of selected fragments of plaster conducted in the field with a low magnification microscope *Leica MZ8* performed by the team member Ina St George allowed us to establish the following characteristics. Buff color (7.5YR8/3-6/3) plaster (2A) has two (5-8mm thick) preparatory layers, which are followed by thirty-nine paired ground and finishing layers (see Note 1 for terminology clarification). Another fragment of the same type of plaster shows a cross section 1.8 cm thick and contains a total of 134 layers. There are 67 paired ground and finishing layers. The pairs are uniform except for about 3 noticeably thicker ground layers in the middle of the section. Double-sided buff color plasters (Plaster 2B) in the examined sections had a mortar layer ranging in thickness from 5-8mm. The plaster layer on the mortar is a single, relatively uniform layer 3-4mm in thickness. Also noted was a lacunae from a grass inclusion, 1.5mm wide with parallel striations along the length. All of the plasters of this type were most definitely burnt in a house fire. A one centimeter thick cross-section of pale light bluish grey plaster (8/5B), (3) includes 42 pairs of ground and finishing layers. No preparatory mortar survived in the section. These layers are quite uniform in size except for one or two noticeably thicker finishing layers. Both faces are pale grey-blue plasters but the cross section shows a variation in color amongst the finishing layers from a pure white to a bluish white.

Note 1

Preparatory layer is a layer of mortar between brick and wall plaster.

Ground layer (one of paired layers) comprises buff clay, and vegetal inclusions.

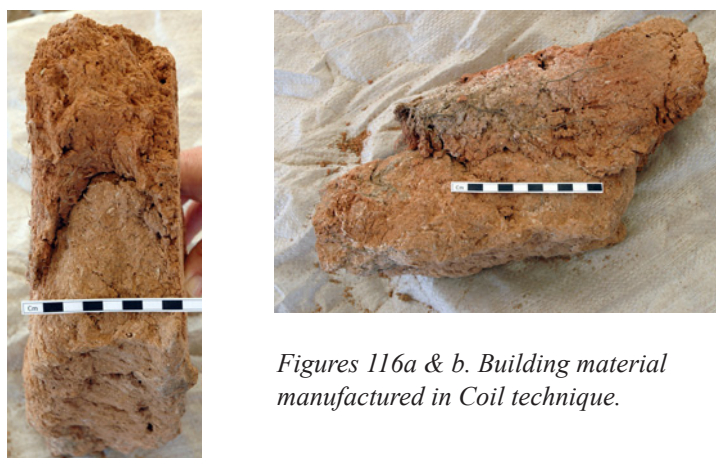
Finishing layer (one of paired layers) comprises white plaster clay with no inclusions and a binder, which is most likely water but could be some other binder.

Manufacturing techniques

The burnt building materials from Building 52 gave us an insight into different manufacturing techniques applied by the prehistoric builders at Çatalhöyük. The examined bricks were made in a *slab technique* by using molds for shaping. The rectangular bricks of regular shape and size were no doubt made in molds and dried in the open air prior to being used in the construction. All of the examined bricks of this type had upward burrs from mold-pull and compression dimples from secondary drying, as well as pronounced surface impressions of the ground on which they were drying. It seems that the smoothness and regularity of some brick surfaces could have been achieved only with the help of polished stone as a mold or as a polisher. The variation in size and surface texture as well as sharp and straight edges of these bricks pose interesting questions about the molds. Were they made for each brick or were they so adjustable to be able to accommodate more than one brick?

Other bricks were hand-shaped in which case the *coil technique* was used as in the case of two complete bricks of this type that were excavated in Space 93, one partially preserved brick, and a large number of additional pieces of similar size coils found in the collapse of Building 52 (Figure 116a-b). They are most likely parts of shaped bricks, which have fallen apart in the collapse. The coil technique was also detected in the case of other large but hard to define wall fragments preserved in the fill, which looked like part of the wall installation, and among

numerous pieces of clay ridges. Some of the fragmented clay ridges up to 5cm in height seem to have originally formed a circle.



Figures 116a & b. Building material manufactured in Coil technique.

Effects of house fire on the building materials

All the examined building materials were affected but to a different intensity by the fire that consumed Building 52. This is evidenced by discoloration of the bricks and daub fragments as well as the surrounding matrix. All the standard-shape bricks were fired throughout to a strong red color and were hardened in the process. One of the hand-shaped bricks in coil technique was fired to the same color and hardness as the bricks, whereas the other such bricks were much less affected by fire. The daub fragments were largely fired to the same or similar color as the bricks and were equally hardened. It is interesting that for the most part the daub fragments are uniformly baked throughout and not just on the side where the timber was attached to the clay cover. Indeed even the platform and house floor on which these remains were found had been burnt resulting in increased hardness of the plastered floors and change of color from originally white to orange-red. Such transformation of house floor occurred in the center of Space 94 and continued to the north in Space 93. The effects of the fire on the floor in other parts of Building 52, such as in the south part of Space 94 and north part of Space 93 made them lose their natural hardness of plaster clay and become soft and powdery, and light brown, dark brown or black in color.

The effects of combustion on the building walls also varied from intensely burnt and hardened surfaces closer to the fire center (west wall in Space 94, and interior walls) to less burnt walls on the periphery of the fire (north, south, and east walls). In Space 94 the south side is all black burnt remains that were consumed in a slow, burning fire; the north side is all red burnt remains generated in a very high temperature fire with a large presence of oxygen. The content of Space 93, most of which was at the periphery of the fire was burnt black and in a reducing atmosphere. The fill of the bins in it, which were full of organic materials, such as peas and tubers, was thoroughly charred and the seeds carbonized. Sporadic fragments of daub found in these contexts were at the top of the bins and they are mostly burnt black as well.

The stratigraphy of the collapsed burnt remains in Building 52 could indicate the sequence of the collapse, and could illustrate the conditions of burning of the building as well as the sources of fire. The stratigraphic sequence of the remains varies across the house but the most complex sequence comes from the center of Space 94. In plan view the remains show that the center of the most intense fire and the thickest heap of the collapsed building materials was in an area about 2.5m across, mostly in Space 94 but also in Space 93. This is the floor area north from the bench with horns, in the front of the bucranium, to the partition wall between the two spaces, and immediately to the north of it in Space 93. The very top layer of the collapsed remains (including those lying over the cattle horns) comprised large fragments of building material that held shape and looked like pieces of molding mixed up with heavily burnt fragments that have wood impressions (from roof timber). Below this there is a layer of heavily burnt large fragments of daub with massive wood impressions.

The highest temperatures in the fire seem to have occurred in the place of the post on the west wall immediately next to the partition wall, and along the west half of the partition wall on both its sides. This is also the location of the crawl hole. This conclusion is based on the fragments of burnt construction material which in the fire had gone through sintering and vitrification of clay in the heaviest burning. Additional indication comes from the burnt bone, mainly cattle horns which were found in these exact areas of heaviest burning. These horns became white in the hot fire, which is a very good indication of high temperatures. The building materials in the area in the fire center seem to have been in the combustion while standing up, that is, before they collapsed. That is how the oxidation could have made all the bricks and the daub so well fired and red-colored.

Database development

In order to be able to follow the complexity and intricacies of architecture at Çatalhöyük, and its change through time, a sophisticated and integrative architecture database is needed. However, creating a database that would encompass such a massive and ‘amorphous’ field as architecture and that could adequately address numerous issues in this field is a large undertaking. There are very concrete, i.e., material aspects, to architecture, such as building materials and construction methods, which can be more easily categorized, and this was the focus of database development this season. The spatial aspect of buildings and their feature arrangements are more difficult to categorize in ways that a database requires. This aspect of architecture record will be developed in the coming seasons in collaboration with other team members. Therefore it must be underlined that the present state of the database is a work-in-progress.

Until now building materials as well as the spatial characteristics of architecture have been systematically documented and sampled. However, this corpus of data is not organized in the way that makes them readily accessible and available for anyone to study. Indeed much of the data is only present in the basic documentation, such as field plans and sections, unit and feature sheets. Transferring this data into an architecture database will require more people and hours than we have had this season. Given this restriction, it was essential to begin the construction of a database with data entry restricted to this season’s excavated building materials with the addition of their photographs.

Visually a considerable diversity of bricks can be seen in their size, colors, textures, and compositions. The bricks vary in size, throughout levels, within each level and even within the same building. It has been noted that bricks of different properties were used at different locations within a wall. The variation in bricks can be classified as formal and compositional. In the database formal characteristics, such as brick shape, size, color, inclusions, and others are recorded (see Table 1). These characteristics should allow us to make a brick typology and be able to give more precise and systematic relationships between brick type and building level. Another significant area of analysis and recording where few data seem to exist, is the sedimentological composition of mud brick. Serena Love and Burcu Tung have accomplished this season a broad but systematic sampling of building materials in preparation for chemical and composition analyses to be carried out as their PhD research in the US. This corpus of data will become essential to the database and informative on variability of bricks in different houses and throughout the levels at Çatalhöyük.

In addition to the entries of bricks excavated this season other bricks, such as those from the walls in the Bach area were with the help of Valeriano Saucedo III added to the database. Nearly 400 entries for the bricks were made so far. Daub fragments have been carefully recorded in the database for their formal and compositional characteristics (Table 2). Potential areas for cross-categorization with bricks are taken into account. Daub is unique in that it has wood and other plant impressions, and the characteristics of those are made a very important part of the database.

The building materials at this site are largely in clay, which is also a source material for other artifacts, such as pottery, figurines, and clay balls. In collaboration with the team members who analyze these specific artifacts an attempt has been made to describe and analyze these different objects made in clay considering the cross-over between them. Therefore the recording systems for these different data sets overlap to an extent.

Future research

Buildings, their design, construction, and use at Çatalhöyük are fundamental to describing and understanding the prehistoric communities that lived in this place. Technological solutions chosen in this process are an important and intriguing aspect of architecture at Çatalhöyük. However, technology as a subject typically leads us to think in the first place of the objects rather than practices, and of artifacts or tools rather than the processes into which they are incorporated. On the contrary, our focus in the studies of technology of architecture at Çatalhöyük is on the material *processes* and *practices*, rather than on products. It is believed that technical actions, material techniques of artefact (including houses) production and use are embedded in the very matrix of culture. House production, maintenance, and closure can be seen as sets of technical activities but we know that these activities express personal and group concerns, interests, and other materialized cultural sensibilities.

It must be kept in mind that technology is central to human existence and to the way humans experience the world by transforming natural resources into a cultural product. Architecture is very much a materially grounded social activity, which at Çatalhöyük engaged the social actors daily in seemingly mundane activities. What inspires the studies of the material aspect of architecture here is curiosity about the ways this mundane, repetitive activity was situated within the social relationships. Questions asked are numerous, such as individual versus a communal mode of production in this process; role of knowledge and learning, and skill in the process of house construction and use; social interpretation and contestation of the knowledge about and practice of house construction.

The link between technology and social change has long been part of archaeology and anthropology. When applied to house construction and use at Çatalhöyük it provokes questions about the existence of a significant change in building materials and techniques, as house interiors and intra-settlement spatial arrangements change. Particularly, is there a presence of wattle-and-daub buildings in the early levels, as Mellaart hints? What is the role of wattle-and-daub technique throughout the history of the site in relationship to different building materials? How do bricks and other building materials change through time?

Technologies must be studied in rigorous and systematic ways. At Çatalhöyük as in other Near Eastern period sites mud brick was the most common construction material. Surprisingly limited information is available on the subject in the archaeological literature. The existing research shows that brick dimensions are most commonly used as chronological indicators and there are few studies of bricks in relation to environmental and agricultural issues. It has been suggested that an investigation of mud brick morphology can yield information on sedimentation processes and changes in the vegetation; land use patterns; and depositional characteristics of a site. Daub is completely understudied, typically dismissed as an artifact to the extent that it is not even carefully and systematically excavated. On this project we would like to draw more attention to the analyses of all the construction materials rather than analyze the bricks only. We believe that daub, mortars, and plasters used in the construction at Çatalhöyük are as important and informative as bricks are.

Indeed, they represent a fantastic repository of information on the variability of clay-derived building materials, adoption and appropriation of resources for exploitation; their accessibility and control, transformations of the source materials by inclusion of other agents; their manufacture, and a variety of technical solutions chosen in the construction process. In addition, there is a potential of interest to other specialists, such as information on tree species and their characteristics, such as size and availability. Both brick and daub hold a variety of impressions of plants such as grasses, pulses, cereal, which are often well preserved.

Finally, the role of clay as the dominant medium for manufacture and expression in the Neolithic has been noticed in relation to architecture, pottery, figurine and clay ball production. The choice and role of clay, and the process of learning to master it through the practice of house building in the societies developing a settled way of life has been a long term interest of the author of this report. At Çatalhöyük the studies in this direction will be a part of a joint effort with other specialists who study artifacts made in clay. It is our view that rather than submitting to the existing archaeological classification systems that separate artifacts by form and function we will adopt the possibility that materiality, expressed through the choice of clay(s), and the processes of its manufacture could be more informative.

F o r m a t
Characteristics

Context	Brick ID Unit Building Feature location
	Plan Section number Row location Wall completeness
Object description	Brick regularity Brick completeness Minimum Length (in cm) Maximum Length (in cm) Minimum Thickness (in cm) Maximum Thickness (in cm)
	Minimum Width (in cm) Maximum Width (in cm) Color (Munsell Soil Color Chart) Firing treatment Temperature of secondary firing (T °C) Texture Inclusions type
Object manufacture	Manufacturing technique Face A (Head face) Face B (End face) Face C (Front face) Face D (Back face) Face E (Top face) Face F (Bottom face)
General	Soil volume Sketch Photo record number Photo Storage Comment
	Soil Characteristics
	Sample number pH Grain size Mineralogical composition Nitrate CaCO ₃ , orthophosphate contents Strength and fracture test

Table 1: Architecture database. Brick data sheet.

	Context	Unit Year Area Space no. House no. Fragment ID
Formal characteristics	Object description	Material Length Width Thickness Face Presence Color Organic inclusions Inorganic inclusions Burning Temperature (T °C) Burning pattern Presence of impressions Impression width (in cm) Impression length (in cm) Impression depth (in cm) Impression shape Impression relation Impression completeness Wood type Impression Texture Comment
	General	Other analyses Storage Photo record number Photograph Drawing
Soil Characteristics		Sample number pH Grain size Mineralogical composition Nitrate CaCO ₃ , orthophosphate contents Strength and fracture test

Table 2: Architecture database. Daub data sheet

SUPPORT TEAMS REPORTS

Conservation - Duygu Camurcuoglu Cleere, Margrethe Felter, with a contribution by Ina M. St. George

Team: Duygu Camurcuoglu Cleere (previously *IoA), Mags Felter, Dominica D'arcangelo, Christie Pohl, Amy Drago, Glykeria Gkika, Jackie Zak (all currently IoA)

* Institute of Archaeology

Abstract

Site and artefacts conservation at Çatalhöyük was successfully carried out during the 2005 excavation season with the collaboration of conservation students, specialist teams and excavators. The main activities of the 2005 season were the careful excavation, lifting and treatment of a large number of horn cores, bucrania and other animal bones for laboratory analysis by the faunal team. By undertaking the methodology which was developed in the 2004 season, we were able to achieve successful results.

A significant discovery in the 2005 season was that of the first full Bucranium found by the current team. The bucranium was found in Building 52 in the 4040 area and as the excavations continued, a bench was exposed with horn cores set along one edge. This suite of artefacts was conserved and preserved in situ for eventual display when the 4040 area is covered in the near future.

Work was also conducted on a variety of small finds (horn core, animal bone, human bone, ceramic, clay, metal, glass, stone, wall painting) of which two important objects of the season, a clay stamp seal representing a bear and a 'mother goddess' figurine.

A thorough sampling program was designed for the newly excavated wall plaster. The intention for the program is to relate the painting and plastering of walls to other features in the building such as platforms, ovens, basins, and niches. This goal was carried out with systematic sampling of cross sections and dispersions as well as excavation of painted layers of wall plaster. This report summarizes the methodology and observations of wall plaster investigation program in the 2005 season. Presented here are details of the documentation protocol, preliminary sample observations, and results of controlled excavation of painted layers in Building 55.

Özet

2005 sezonunda Çatalhöyük' deki bina ve eser konservasyonu, öğrencilerin, uzmanların ve arkeologların katkısıyla başarılı bir şekilde sürdürüldü. Bu sezonun ana aktivitesi, zooarkeoloji ekibi tarafından analize edilen çok sayıdaki hayvan kemiği, bucrania ve boynuzların dikkatli bir şekilde kaldırılıp, korunması işlemini kapsadı. 2004 sezonunda geliştirilen yöntemleri kullanarak, başarılı sonuçlar elde edildi.

2005 sezonunun en önemli buluntusu, ilk tüm bucranium'du. Bucranium ve hemen yanındaki sekiden çıkan boynuzlar, 4040 alanındaki Bina 52'de bulundu. Bu eserler, daha ilerki senelerde 4040 alanında sergilenmeleri amacıyla in situ olarak

korundu.

Konservasyon çalışmaları değişik bir çok eserin (boynuz, hayvan kemiği, insan kemiği, seramik, kil, metal, cam, taş ve duvar resmi) koruma işlemlerini de kapsadı. Sezonun önemli iki buluntusu, üzerinde bir ayı betimlemesi olan kil mühür ile ana tanrıça figürünü idi.

Excavation and treatment of fragile and complex materials

The main activities of the 2005 season were the careful excavation, lifting and treatment of a large number of horn cores, bucrania and other animal bones. (Duygu Cleere, Mags Felter, Dominica D'arcangelo, Amy Drago, Glykeria Gkika, Christie Pohl). Like the previous years, the Faunal Remains team wanted these to be removed from the site in such a condition that they could be measured and studied in the lab. By undertaking the methodology which was developed in the 2004 season, we were able to achieve successful results.



A significant discovery in the 2005 season was that of the first full Bucranium at Çatalhöyük. The bucranium was found during the excavations of the Building 52 in the 4040 area of Çatalhöyük (see Figs. 5, 38 & 40). Initially, 12 burnt horn cores that had collapsed on top of each other were excavated and lifted with the joint effort of the Faunal Remains and the Conservation teams (Mags Felter, Christie Pohl). As the excavations continued, a bench was exposed with horn cores set along the edge of the room. Right next to it a very large bull head, lightly plastered, had been set into a niche. The base of the niche had been painted. Since this was a remarkable find, it was decided that it was to be preserved in situ and put on display,

Figure 117. The wooden box during construction

as the aim is to cover the 4040 area with a shelter in the near future. Even though the finds were consolidated with 25% Primal AC-33 (acrylic emulsion) in deionised water, they needed to be protected against the environment until the shelter could be constructed. It was decided that a wooden structure (2.20m x 1.90m, pine wood) which would be filled with clean sand, was the best option to cover the room (Fig. 117). Local carpenters were employed to build the structure. Firstly the floor was covered with a geotextile layer in order to protect it against any physical damage which may be caused by the structure. Once the structure was built, the surfaces of the bucranium and the horn cores were covered with aluminium foil as well as supported around with the small sized sand bags. Aluminium foil is easily obtainable and being inert and easy to use, it eliminates the risk of the long term effects of some conservation materials. The structure was filled with clean sand before its lid was attached. Finally, the wood was varnished to make it more durable against the climates and the whole structure was sealed along its base with the Polyurethane foam.

It is recommended that this room is not re-exposed until a shelter is built over the 4040 area since the wooden structure will create a micro environment for the finds inside and any interference may affect the condition of the finds as it will disturb the stable environment in the room (Fig.118).



Figure 118. The wooden box after construction

Conservation of small finds



Figure 119. The wall painting during conservation

The work on the variety of small finds (horn core, animal bone, human bone, ceramic, clay, metal, glass, stone, wall painting) was undertaken in the lab throughout the 2005 season (Duygu Cleere, Mags Felter, Dominica D'arcangelo, Amy Drago, Glykeria Gkika, Christie Pohl). Two important objects of the season, a clay stamp seal representing a bear (see Fig.2) and the mother goddess figurine, required careful cleaning in order to reveal as much of the original shape as possible.

An important treatment of the 2005 season was the conservation and the mounting of a wall painting to be displayed in Konya Archaeological Museum. This wall painting was discovered in the South Area (Building 2, Space 117) in 2003, in a niche on one of the walls which was slowly collapsing, but was lifted in two parts and semi conserved during the 2004 season. The upper part was highly damaged, so it was decided that even after conservation, it was not sound enough for the mounting process. The lower part was stronger and therefore it was considered to be able to withstand the mounting. After more stabilisation and aesthetic preparation, the wall painting was ready to be mounted (Fig.119).



Figure 120. The wall painting after mounting

The main aim of the mounting process was to use local materials which would be compatible with the object. Plaster supported with wooden planks was used as a backing material, by using a barrier layer of glass microballoons and 20% Paraloid B72 in Acetone applied on the back of the wall painting. The whole treatment was set in a painted wooden frame and the wall painting was displayed recessed in the plaster in order to represent the niche where it was found. Once the mount was ready, an illustration of the upper part of the wall painting was made by John Swogger in order to inform the visitors that the wall painting has an upper part (Fig. 120). An information text was also included, explaining about the wall painting and its conservation.

In addition, several horn cores and a variety of pots from the 2004 season were retrieved from the finds and the pottery labs in order to complete their treatments.

Conservation materials

During the 2004 season, investigations were carried out into the use of cyclododecane as a support material for lifting fragile objects from the field. Further work was undertaken this season and we found that, although cyclododecane was extremely useful as a temporary support, sublimation times tended to be quite long (2-3 weeks before complete sublimation) requiring careful scheduling of further work. Cyclododecane was therefore used more sparingly this season and only in cases where this was thought to be the best option.

Plastered and painted surfaces

When the extensive consolidation work undertaken during the 2004 season was re-assessed (4040 Area and Building 17), it was clear that an effective stabilisation of plastered surfaces may only be achievable by carrying out a continuous treatment every year. However, discussion took place of how treatment might cause hardening of the plaster layers and thus might affect the ability of the team to explore plaster layers to reveal paint and pigment if present. For this reason, the conservation team was asked to look at the different strategies for revealing paint in excavated plaster walls. After undertaking some experimental work in the 4040 area and in Building 17 (Dominica D'arcangelo, Amy Drago, Glykeria Gkika, Jackie Zak), some investigative work was done, with the following objectives:

- to identify particular walls to leave unconsolidated;
- to propose a strategy for local workers to remove plaster on these walls while searching for pigment which may compose a wall painting;
- to suggest a way of documenting this process.

There were several considerations involved with employing local workers in the search for paint within the wall plaster. It was likely that the workers would require clarification and details about the task that would require specialist knowledge. Because paint has never been systematically pursued by the conservation team it was felt that the workers should be supervised by a specialist (an excavator or a conservator) with experience of chasing possible paint and pigment layers. However, there was a concern that the supervision of this work would have taken up too much time both for the excavators and the available conservators. Therefore, it was agreed that Ina St George who has been working on the investigation of paint and pigment layers at Çatalhöyük for the last three years, would be the person to supervise the project. (The details of this project can be seen in the report written below by Ina St George.)

Whilst some plastered walls were chosen not to be consolidated so that paint layers could be chased, the rest was stabilised and covered with acid free tissue and geotextile before they could be reburied.

Re-assessment of the condition of Building 5 (Christie Pohl)

During the 2004 season, Trinidad Rico developed and implemented a monitoring regime for tracking the condition of Building 5. Digital images of the walls were taken in 2004 and a condition key was created using various colours overlaid in Photoshop to indicate problematic or damaged areas. During the 2005 season, the condition of the building was re-evaluated using Rico's regime and the overall system was assessed in terms of its efficiency and potential for use on other Çatalhöyük structures.

Overall the building is in relatively stable condition, considering the climatic fluctuations it endures. The extensive consolidation and conservation treatments which the building has received over the past several years have significantly helped with its maintenance and survival. Some of the most common issues from the 2004 evaluation included animal activity of various sorts, crumbling areas, selected cracks and areas containing multiple cracks. These four categories were also the most noticeable and frequent problems throughout the 2005 assessment. The conclusion is that the monitoring regime is a successful way of assessing the condition of Building 5. Future assessments should include a new set of photographs, taken of the same specified areas, with new coloured overlays added to these digital images in Photoshop.

There are, however, several suggestions for change and things which could be done to better maintain the structure during each season and throughout the course of the year.

The building should be dry cleaned twice yearly to remove any excess dirt, crumbled material and any dead insects or animals.

It may be helpful to have a ladder which can be lifted in and out of the building for those who need to access the inside. This would eliminate the current need to step directly on the mud brick and plaster walls. The shallow walls of the bins in the southwest corner are crumbling somewhat and should be consolidated again in the near future.

One of the Tyvek targets for performing the wall leaning measurements is missing off the top of wall 230 North. This should be replaced if continuous and accurate wall leaning measurements are going to be taken each year. There was one set of data from the 2003 season regarding temperature and RH levels inside of Building 5. It does not appear that these are being monitored currently, nor could any data be found from the 2004 season on the central database. It would be wise and beneficial to be consistent in the monitoring of temperature and RH levels in order to have a record of the fluctuations which are occurring and possibly having a detrimental effect on the building.

Regarding the monitoring regime, it was sometimes difficult to replicate the exact colours used by Rico on the overlays indicating problematic or damaged areas. In order to facilitate smoother condition assessments in the future, it may be beneficial to change some of the colours in the condition key to solid, primary colours. This would be especially helpful for future individuals who do not have in-depth knowledge of Photoshop or its capabilities.

Environmental assessment of the finds lab and the experimental house

We set up dataloggers in and outside the finds lab, as well as in the Experimental House which will monitor the RH and the temperature levels for a year. We aim to retrieve the results in the 2006 season to assess the environmental conditions in those areas.

Conservation advice

During the season, we collaborated with the Human Remains team in order to determine the best way to lift and preserve friable human bones. The future advantages and disadvantages of bone consolidation were discussed. It was agreed that every burial may present different conditions and the necessary consolidation treatment would be undertaken depending on the discussion between the conservators and the human remains specialists. We also discussed the need to improve the storage of the human remains archive, for example through the use of made-to-measure wooden boxes which would be able to provide more support than the current storage crates. This will need to be discussed further in the 2006 season.

Documentation of conservation

All artefacts were photographed before and after treatment, registered on the conservation photo log and passed to the media team for inclusion in the Çatalhöyük image database. The development of the conservation database is planned to continue throughout the year as we will collaborate with the Database team. It was also discussed that the conservation database should be made available for other conservators and archaeological specialists outside Çatalhöyük. The inclusion of student research projects, dissertation and portfolio reports which are related to work undertaken at Çatalhöyük will need to be discussed with the Conservation Department at the Institute of Archaeology.

Reflexive Conservation

Whilst Jackie Zak's PhD research on the interaction between archaeologists and conservators has continued (see separate report), Glykeria Gkika (MA in Principles of Conservation, UCL) carried out her dissertation research which examined a comparison of approaches to the provision of on site conservation and their effects on various aspects of the excavation. Her research involved distributing a questionnaire to the excavators working on site, talking to some of the people and observing the effects of full-time conservation on the professional relationship between archaeologists and conservators, on the condition of the excavated material, the research goals of the project and the success of the excavation.

Sourcing conservation materials

At the beginning of the season, we undertook a complete inventory of all items in the lab. This enabled us to compile a list of most used items and to highlight materials which need to be ordered for the 2006 season. We also started acquiring a number of conservation materials locally and from Istanbul which proved to be more efficient both in terms of resources and transportation. We were able to find the majority of the most used materials and this will reduce the need for bringing large amounts of these from the UK in the future.

Wall plaster and pigments 2005 season - *Ina M. St. George*

Abstract

A thorough sampling program was designed for the newly excavated wall plaster. The intention for the program is to relate the painting and plastering of walls to other features in the building such as platforms, ovens, basins, and niches. This goal was carried out with systematic sampling of cross sections and dispersions as well as excavation of painted layers of wall plaster. This report summarizes the methodology and observations of wall plaster investigation program in the 2005 season. Presented here are details of the documentation protocol, preliminary sample observations, and results of controlled excavation of painted layers in Building 55.

Özet

Ortaya çıkarılan yeni duvar alçıları için, yeni bir örnekleme programı dizayn edildi. Bu programın amacı, duvar alçı ve resimlerini buldukları binanın diğer özellikleri (platformlar, fırınlar, nişler ve leğenler) ile bağdaştırmaktır. Belirlenen program, duvar alçıları, boya tabakaları, kesit ve dispersiyon örneklerinin sistemli bir biçimde alınması ile gerçekleştirilmiştir. Bu rapor, 2005 yılında başlayan duvar alçısı araştırma programının ana hatlarını vererek, belgeleme metodu, örnek alma yöntemleri ve Bina 55'deki boya tabakalarının kontrollü kazısının sonuçlarını içerir.

Sampling program

This year, a thorough sampling program was designed for the newly excavated wall plaster. The intention of the program was to relate the painting and plastering of walls to other features in the building such as platforms, ovens, basins, and niches. This goal was carried out with systematic sampling of cross sections and dispersions as well as excavation of painted layers of wall plaster. This report summarizes the methodology and observations of wall plaster in the 2005 season. Presented here are details of the documentation protocol, preliminary sample observations, and results of controlled excavation of painted layers in Building 55.

Recording and documentation

For pigment and wall plaster samples, detailed information should be collected with each sample, in keeping with the recording practices on site (See Table 1 for 2005 Sample Log.) The importance of recording the context, especially of pigment samples, cannot be over emphasized. Basic information characterizing the nature of pigments and plasters is known (i.e. that the red pigment is haematite/goethite, or the plasters are silicate clays, etc.- (However, additional information regarding the type of carbonaceous material that comprises the black pigments is pending)). At this stage in the analysis, it is necessary to relate the variations within these materials to the archaeology. With detailed context it will be possible to understand varieties of pigment processing or layer frequency within each building, between buildings in the same level, and on the site as a whole. To accomplish this, thorough recording is vital.

As is appropriate for all samples from the site, the following information was recorded for the wall plaster: Area (i.e. South, 40/40, BACH), numbers for the building, space, feature, unit, and sample. The formal "sample number," which stays with the material as it goes through finds processing onto on- or off-site laboratories for analysis, is comprised of the unit and sample number (i.e. 12555.S3 was the third sample (S3) taken from unit 12555). Prior to giving a "sample number," check with the archaeologist working in that area. If other samples were taken in that unit, the sequence should follow from the last number used. This is especially important for units that are continued from a previous season.

More detailed information regarding samples needs to be recorded on unit sheets. The xyz coordinates, type of

material removed, and the reason for sampling should be recorded on the unit sheets and the Tyvek label that accompanies the sample when it leaves the site. If it is a pigment dispersion, label the glass slide with: Area, location, xyz, pigment color, and record all other information on the unit sheet. Other metadata to be recorded for wall plaster are: brief notes on the general layout, the samples' relation to room features, and archaeological interpretation of the room the sample came from (all provided by the supervising archaeologist). If painted wall plaster is sampled, all the same information as well as the frequency and color of pigmented layers should be noted.

Sampling Methodology

Most wall plaster investigation took place in the 40/40 Area where the majority of newly excavated buildings were exposed. Pigment samples were taken in all areas where traces were found. When the excavation of a building or space with articulated plaster was complete, sampling was conducted. Cross-sections of wall plaster were taken from at least two points in each wall and above areas with a feature. This methodology was applied to Building 51, 55 and Space 255.

In areas where excavation was in progress, the investigation, recording and sampling was conducted if pigment traces or painted areas were detected (Fig. 121)



Figure 121. Building 55, north wall. An area of plaster with pigment traces is seen here. This is typical of areas from which dispersion samples are taken.

Almost all pigments found on wall plaster in the last three years are either haematite/goethite or a carbonaceous black. Given the limited palette, it is vital to glean as much information as possible to distinguish pigment by characteristics such as morphology or mineral content in order to understand the variety in geological sources and pigment processing techniques.

Cross-section sample observations

Cross-sections from Building 52 were examined in detail to support the architectural research of Dr. Stevanović. The details will be published in the BACH publication in 2006. It is worth noting here that the fine-paired wall plaster layers that were examined had at least sixty-seven pairs (134 total) of plaster applications in a 1.8mm

section of plaster. In the examined samples, an average of thirty-nine pairs per centimeter was observed.

Modeled relief in wall plaster

Reliefs have been seen on the final plaster layers, such as the famous painted leopard reliefs found in the 1960's excavations. It appears at this stage that reliefs were created at any stage of the wall's existence and their shapes varied from representative or free-form shapes to simple straight ledges.

It is important to keep this in mind when interpreting wall surfaces. Although layers appear distinct because of a significant difference in depth, they can easily be part of the same application. And, because the shape of the wall could have been altered at any stage, the appearance of the wall face may give little indication of the complexity of underlying layers (Figure 122.)

As more painted wall plaster is found on site, it will be essential to examine the layer structure to prevent attributing different designs to the same application, or vice-versa.



Figure 122. Building 55, south wall. Prior to excavation, the wall face appears simple. However, it contains various reliefs applied throughout the life of the wall.

Building 55: An example of wall plaster investigation and recording

This area was excavated by Lisa Yeomans. She and Shahina Farid observed the painted plaster in this building and requested observation and sampling. The east, north, and south walls of this building contained pigmented wall plaster. The layers were visible in a section along the truncated walls. In addition to articulated wall plaster, a collapsed section with pigmented surfaces was investigated by Ms. Yates and myself. The collapsed section was lifted from the building to prevent additional delays to excavation and conserve it for further investigation. The lifting was skillfully planned and executed by site conservator Duygu Camurcuoğlu-Cleere.

Several painted layers were observed above the unusually shaped hearth on the south wall in this building. Unfortunately, only a small fraction of each painting survived. The rest of the designs were painted higher up on the wall and lost when it was truncated. This wall was investigated by recording the presence of painted elements on a plan of the wall. Instructions for drawing archaeological plans according to site protocol were provided by

Wall plaster and pigment sample log CH 2005

Area	Location	Unit.Sample #	Sample type	Reason for sampling	XYZ co-ordinates	Sample observations
4040	Building Space F.1580	51 10397.S1	98 plaster xsection	layer measurement and count	x = 1 0 4 7 . 5 5 1 y = 1 1 7 2 . 7 7 0 z=1012.644	sample from above shorter of two platforms
4040	Building Space F.1580	51 10397.S2	98 plaster xsection	layer measurement and count	x= 1047.40, y=1170.68, z=1012.57	sample from above floor
4040	Building Space F.1577	51 10392.S1	98 plaster xsection	layer measurement and count	x=1050.04, y=1172.68, z=1012.559	sample from above taller of two plaforms
4040	Building Space F.1577	51 10392.S2	98 plaster xsection	layer measurement and count	x=1048.41, y=1173.47, z=1012.67	sample from above shorter of two platforms
4040	Building Space F.1577	51 10392.S3	98 plaster xsection	layer measurement and count	x=1047.97, y=1173.05, z=1012.64	sample from above shorter of two platforms
4040	Building Space F.1578	51 10393.S1	98 plaster xsection	layer measurement and count	x=1050.19, y=1171.87, z=1012.60	sample from above taller of two plaforms
4040	Building Space F.1578	51 10393.S2	98 plaster xsection	layer measurement and count	x=1049.88, y=1170.47, z=1012.49	sample from above floor
4040	Building Space F.1578	51 10393.S3	98 dispersion	characterise pigment	x=1050.07, y=1171.42, z=1012.79	red pigment
4040	Building Space F.1578	51 10393.S4	98 dispersion	characterise pigment	x=1050.36, y=1172.65, z=1012.71	red pigment
4040	Building F.2045 S.256	55 12314.S1	dispersion	characterise pigment	x=1043.92, y=1156.71, z=1013.11	Black pigment
4040	Building F.2045 S.256	55 12314.S2	dispersion	characterise pigment	x=11044.51 y=1056.70, z=1013.35	red pigment
4040	Building F.2045 S.256	55 12314.S3	dispersion	characterise pigment	x=1044.88 , y=1156.70, z=1013.35	red pigment
4040	Building F.2045 S.256	55 12314.S4	dispersion	characterise pigment	x=1044.75, y=1156.72, z=1013.28	orange pigment
4040	Building F.2045 S.256	55 12314.S5	plaster xsection	layer measurement and count	x=1044.86, y=1156.79, z=1013.32	top of wall, where most pigmented layers are present. One red pigmented layer closest to mudbrick is not included.
4040	Building F.2045 S.256	55 12314.S6	plaster xsection	layer measurement and count	x=1044.36, y=1156.79, z=1013.21	lower down on wall. Again, one layer btwn endo fo that section and the mudbrick is not included.
4040	Building F.2045 S.256	55 12314.S7	plaster xsection	layer measurement and count	x=1044.36, y=1156.79, z=1013.21	lower down on wall. Again, one layer btwn endo fo that section and the mudbrick is not included.
4040	Building F.2045 S.256	55 12314.S8	dispersion	characterise pigment	x=1044.49, y=1156.86, z=1013.01	Black pigment compare this sample with S9 from same area, which are both from the same composition. Then, compare with S1 from a potentially different layer.
4040	Building F.2045 S.256	55 12314.S9	dispersion	characterise pigment	x=1044.18, y=1156.97, z=1013.11	Black pigment

4040	Building 55 F.2045 S.256	12314.S10	dispersion	characterise pigment	x=1044.43, y=1156.86, z=1013.00	red pigment
4040	Building 55	12314.S11	plaster xsection	layer measurement and count	x=1141.00, y=1157.17, z=1003.00	Section with full layer structure through to mudbrick.
4040	S.255 F.2014	12306.S1	plaster xsection	layer measurement and count	x=1047.15, y=1168.10, z=1012.60	
4040	S.255 F.2014	12306.S2	plaster xsection	layer measurement and count	x=1047.10, y=1167.50, z=1012.61	
4040	S.255 F.2014	12306.S3	plaster xsection	layer measurement and count	x=1047.05, y=1167.15, z=1012.60	
4040	S.255 F.2016	12339.S1	plaster xsection	layer measurement and count	x=1047.00, y=1166.45, z=1012.59	
4040	S.255 F. 2016	12339.S2	plaster xsection	layer measurement and count	x=1047.80, y=1166.40, z=1012.60	
4040	S.255 F. 2016	12339.S3	plaster xsection	layer measurement and count	x=1048.67, y=1066.20, z=1012.60	
4040	S.255 F. 2015	12338.S1	plaster xsection	layer measurement and count	x=1049.13, y=1167.90, z=1012.60	
4040	S.255 F. 2017	12340.S1	plaster xsection	layer measurement and count	x=1049.00, y=1166.75, z=1021.61	
4040	S.255 F. 2017	12340.S2	plaster xsection	layer measurement and count	x=1049.17, y=1167.49, z=1012.61	
IST		11862.S1	plaster xsection	layer measurement and count	x=, y=, z=	Very unusual plaster that looks to be pigmented with red pigment. Examine painted plaster in relation to pigmented plaster. See if these are connected to one another.
4040	B.55 F.2105	12341.S1	plaster xsection	layer measurement and count	x=160.50, y=1049.50, z=1013.16	Complete section through to mudbrick.
4040	F.2001	11981.S1	dispersion	characterise pigment	x=1048.40, y=1156.86, z=1012.97	
4040*	4040*	12125.S1	pigment with articulated plaster	characterise pigment		Collected by UK, 01.08.05
4040*	4040*	10396 dry sieve	pigment with articulated plaster	characterise pigment		Collected by LY, 30.7.05
4040*	4040*	10396 dry sieve	pigment with articulated plaster	characterise pigment		Collected by EAL and LY, 28.7.05, red and black, possible ochre sample included
South *	B.17 west wall		plaster xsection	layer measurement and count		Collected by GG, 26.7.05, from consolidated area
		10508*	plaster xsection			no other information
South *	B.17 west wall		plaster xsection	layer measurement and count		Collected by J.Z., 26.7.05, from consolidated area

TABLE 1

*Sample provided by archaeologist, not collected by researcher.

Lisa Yeomans. Each layer of painted plaster was recorded and then the underlying plaster was excavated to the next pigmented layer that was then plotted on another distinct layer. The south wall was planned in this way with a total of six painted surfaces found. All were fragmentary, most in haematite with traces of black. The painted layers directly above the hearth and under the truncated top of the wall were intact and thick, but only a few centimeters of design remained on the top of the wall. Traces of another design in red and black were found to the right of the hearth; however, the paint layer was extremely worn and damaged with no discernable elements of design.



Figure 123. Building 55, south wall, above hearth. Detail showing variations in the mineral content of haematite pigments, seen in color variations from red to orange-red.

Making archaeological plans of painted surface remains proved invaluable for understanding the chronology of the wall plaster layer structure. Also, the plans were the most effective way of noting the location of dispersion samples. Traces of painted black were found along the wall. Comparing the dispersion samples will determine if they belonged to the same application. Also, cross-sections from the painted areas above the hearth as well as unpainted areas ~1 meter to the right will be compared to see the continuity of layer structure along the wall. Although most painted areas were executed in haematite, in what could loosely be called “red pigment”, they contain varieties of yellow-red, pink-red, and orange-red. These color variations are caused by differences in mineral content in each application (Fig. 123).



Figure 124. Building 55, south wall, above hearth. The ledge with the first layer of wall plaster and haematite pigment applied to the mudbrick.

The fascinating part of this investigation was seeing changes in the relief of the wall. The aforesaid ledge was added when the wall was built and painted red (Fig. 124). Then, later in the life of the wall, successive layers were built up over the ledge in a more free-form manner. The wall appeared, prior to investigation, to have a uniform thickness with simple, successive plaster applications applied horizontally. This surface betrayed the underlying complexity and made an interesting study in the potential complexity of the wall plaster structure.

Çatalhöyük IT Team Archive Report 2005 - Mia Ridge

Team: Mia Ridge, Richard May, Dave Mackie.

Abstract

Our goals are to develop and improve applications that support the recording and analysis of the Çatalhöyük Projects archaeological research and data; and to improve access for the project team and the public to Çatalhöyük data.

The work of migrating stand-alone Access databases to a central form, migrating non-Access interfaces to the project format, and application development and enhancement continued in 2005.

We expanded on the work on artefact-led recording we began last year. This began with work towards using shared lists of values for recording different types of artefacts of the same material in preparation for the centralisation of previously unlinked databases. In conjunction with the development of the core/extension model and the increasing use of views to create new insights from existing data, this led to the re-thinking of the artefact recording model. This model has exciting implications for the project as a whole.

We work with a design philosophy that underlies all development and integration work for the Çatalhöyük project. The database is designed to be flexible, accessible and extensible.

Özet

Amacımız, Çatalhöyük'deki arkeolojik araştırma ve veri toplama bünyesindeki kayıt ve analiz çalışmalarını destekleyen uygulamaları geliştirmektir.

Access veri tabanı programını merkezi bir sisteme ve Access'in dışındaki alanları proje formatına bağlamayı amaçlayan çalışmalar 2005 sezonunda da devam etti.

Geçen sene başladığımız eser üzerinden yürütülen kayıt çalışmalarını genişletmeye devam ettik. Bu çalışma, önceden birbirine bağlı olmayan veri tabanlarının merkezileştirilmesi ve aynı materyalden olan farklı eserlerin kaydı için hazırlanan paylaşımlı değer listelerinin kullanılması ile başladı. Ayrıca, merkez bir model geliştirilmesi ve daha önceden varolan verilerin yeniden gözden geçirilmesiyle birlikte bir eser-kayıt modeli üzerinde tartışıldı. Bu model, Çatalhöyük projesi için önemli olacaktır.

Çatalhöyük projesiyle ilgili tüm geliştirme ve bütünleme çalışmalarının altında bir dizayn filozofisi yatmaktadır. Ulaşılabilir, değiştirilebilir ve geliştirilebilir bir veri tabanı oluşturmaya çalışmaktayız.

Background to MoLAS' partition

The Museum of London Archaeology Service (MoLAS) was invited to join the project because of our experience developing large archaeological database systems. The Çatalhöyük project had outgrown its existing IT infrastructure and needed a robust, stable and extensible database system.

Our goals are to develop and improve database applications for the recording and analysis of the Çatalhöyük Projects archaeological research and data, and to improve access for the project team and the public to Çatalhöyük data.

Mia Ridge is the Database Developer for the Museum of London Group, developing bespoke applications with Oracle forms and other technologies as appropriate. Rich May is the Network Manager for the Museum of London. Dave Mackie is a Senior Geomatics Officer at MoLAS. Tuna Kalaycı is a student who helped write and present training materials and helped with general support.

Initial investigation

The original database design and structure was well structured and much valuable work had been done on the database previously. Some problems had, however, arisen over the years as the database grew and different specialists brought their own systems based on a mixture of applications and platforms.

It was difficult for specialist databases to use live field or excavation data, as it was not available in a single central source. It had also become almost impossible to run queries across excavation seasons or areas, or produce multi-disciplinary analysis, as there were disparate unrelated databases for each area of study. Within many specialisms the data set has been broken up into many different files - for example, excavation was split into Bach, Team Poznan, Cambridge Teams etc - and some teams were creating separate files for different years.

In many cases, referential integrity was not properly enforced in the interface or database structure. While the original database structures included tables to supply lists of values to enable controlled vocabularies, the interfaces were using static rather than dynamic menus on data entry interfaces. Primary and/or foreign keys were not implemented in some databases, leading to the possibility of multiple entries, anomalous data or incorrect codes being recorded. There was little or no validation on data entry.

Infrastructure decisions

The existing infrastructure was Microsoft Access based, and after consideration for minimal interruption to existing interfaces, and for the cost to the project of completely redeveloping the forms on another platform, these applications were retained.

A decision was made, however, to centralise the back end serving of the full set of the databases. After investigation into the costs, available support and existing technical environment, Microsoft SQL Server was chosen.

Our first task was to implement an enterprise-strength database server, retaining the existing Access interfaces. We spent considerable time merging multiple disparate datasets and dealing with data integrity problems arising from un-validated data entry in order to produce a centralised dataset.

We also implemented (or re-implemented) relational integrity and worked on the import, validation, and integration of isolated data sets and forms. This work was largely completed in 2004.

After the 2004 season, we transferred the central database from the Çatalhöyük site server to the Cambridge server, and provided team members with versions of their familiar Access forms that connected directly to the Cambridge server. We provided online documentation for team members on setting up the connections necessary.

These forms were also used to access the central server over the on-site network in the 2004 and 2005 seasons. In accordance with our aim to provide multiple points of access to a single central data set, the database is accessible to a variety of applications over the internet. The central database server supports Open DataBase Connectivity (ODBC), a standard database access method so team members can also download raw or compiled data into any ODBC-compliant application, such as FileMakerPro, SPSS, Oracle, Access, Excel, Word, ArcView GIS, etc.

As a result:

- The integrated Çatalhöyük dataset is accessible across years, teams, and areas of research
- Live data is available over the internet for team members for download into any ODBC-compliant application
- Cross-discipline analysis is possible.

Current database development

The work of migrating stand-alone Access databases to a central form, migrating non-Access interfaces to the project format, and application development and enhancement continued in 2005.

In 2005, we expanded on the work on artefact-led recording we began last year. This began with work towards using shared lists of values and core data for recording different types of artefacts of the same material in preparation for the centralisation of previously unlinked databases. In conjunction with the development of the core/extension model discussed below and the increasing use of views to create new insights from existing data, this led to the re-conception of the artefact recording model. This model has exciting implications for the project as a whole.

We work with a design philosophy that underlies all development and integration work for the Çatalhöyük project. The database is designed to be flexible, accessible and extensible.

This year, our focus has been:

- Creating an extensible system architecture responsive to the Çatalhöyük methodology
- Improving Access forms to help improve the quality of data entry by continuing to implement referential integrity and validation
- Providing documentation and training to help team members use the database effectively
- Meeting with specialists to develop new applications
- Continuing the integration and centralisation of stand-alone data sources and applications
- Integrating image and other media databases with forms and reports

In order to accomplish this, we have worked on related matters such as reliability, validation, and permissions.

Permissions

As the central database is used more intensively, the project requires a formal permissions model. In general, most team members will have read and write access for all tables related to their specialism and read-only access for all other tables. This will be largely transparent to the user, as the permissions model relates to specialist teams, and their Access interfaces which present relevant interfaces from the centralised database as specialist databases will not appear to change.

Validation

Validation at the point of data entry improves the quality and reliability of data. It enforces the use of agreed terms, such as area lists, or data formats, such as date and numerical formats. Validation means that data is more consistent and consequently complex analysis is both easier and more reliable.

The increasing use of 'views' or queries to create new databases from existing content also relies on validation. To ensure search terms such as materials or find types are reported reliably they must be entered with consistent spelling and case, ideally using a list of agreed terms.

'Lists of values' (LOVs) are drop-down menus that allow users to select one of a set of terms in a data entry field. LOVs can be static, where the values are hard-coded, or dynamic, where values are drawn from another table or query.

While validation on data entry is important, the nature of the Çatalhöyük project also requires that validation is flexible and non-dogmatic. The correct implementation of dynamic lists of values means that new or amended terms added to the underlying code tables are immediately available to all users.

Validation will be enforced at both the back- and front-end, with user-friendly error messages on the front-end.

Extensibility

During the 2005 season, we formalised a model of core and specialist data, in response to the challenges of making basic data accessible to all team members while incorporating different recording methods for particular specialisms over the life of the project.

Core data can be defined as un-interpreted inventory level, excavation and field data. It is intellectually accessible and comprehensible to non-specialists. Core data should ideally include basic information like measurements. Core values must always be complete for a particular record.

Specialist data incorporates interpreted data or specialist technical analysis. Specialist data must always link back to core tables. Extension tables in one database may appear as core tables in another, enabling increasing levels of specialisation.

Code tables providing agreed terms for dynamic lists of values can be linked to core or extension tables as appropriate.

The model of core and extension data solves several of the problems we first discovered when investigating the Çatalhöyük databases, including rescuing incompatible or incomplete data sets. These are the result of different recording techniques and methodologies between seasons, specialists and teams.

The model allows us to rescue core inventory data from otherwise undocumented specialist data sets. It also allows us to compare core data recorded by different specialists with different research interests, so that the recording they do at a basic level is available for re-use by other specialists and team members.

Applying a core data structure within every application means that basic, inventory level information is available consistently within any specialist database, over time, areas and teams.

Extension data structures on core data allows for the needs of future specialists and research by allowing people to build specialist data on existing data sets without interrupting existing data or interfaces.

It also allows new teams to start recording inventory-level data quickly while simultaneously developing their specialist recording structures and interfaces. In previous years, we realised it was difficult for specialists to provide a definitive statement of their recording and analysis needs while still completing an initial survey of their material.

The core/extension model has benefits for interface design. Core fields can be designed to make inventory level data entry as efficient as possible, while specialist interfaces can be designed to prompt for more discussion based on previously entered data.

The model also suits the separation of interfaces. For example, different specialists can record completely different data about the same artefact using interfaces tailored particularly to their research, without concern for other interfaces onto the same content.

In practice, specialist applications might involve multiple layers of core/extension tables as their recording model develops but the same philosophy of core and (increasingly) specialist data applies.

The existing faunal database is an excellent example of model of core data with specialist extensions. All faunal finds are recorded to a certain level of detail, and some artefacts are recorded in minute detail. This means that faunal specialists have a complete basic data set for some forms of analysis, but they do not need to record every artefact in that level of detail.

The archaeobotany database is another example of the core/extension model. Several teams have worked on

archaeobotany data over the years, and each has used a different recording model. Working with the specialists, data from different years can be migrated into a structure that records baseline data based on the flotation logs, in core tables. Current specialist data can be recorded in tables that extend from this core data set. Storing subsets of specialist data recorded in different years in specialised extension tables allows this information to remain accessible without affecting the ‘completeness’ of the core data set.

Shared lists of values

Last year, as part of meetings with specialists about the normalisation and reconfiguration required before centralising their databases, it became apparent that certain core technical or material values were being recorded in several different specialist databases, often with overlap between the lists of values used to record those values. This meant that value lists, and potentially fields, could be shared between specialist databases when the databases were centralised.

For example, as we worked with clay artefact specialists last year, we realised that each specialist was recording similar technical data with similar value lists in their separate specialist databases, such as pottery, clay balls, stamp seals, and figurines.

Sharing agreed codes or lists of values between specialist databases enables a common language and creates the potential for more powerful cross-discipline analysis.

The implementation of shared lists of values as part of the recording of interpretative aspects of an artefact allows the direct comparison and analysis of artefacts of the same type and different materials. For example, the characteristics of stone, bone, shell, glass and clay beads could be analysed and compared, regardless of the material from which they were constructed.

The reverse is also true - it allows the direct comparison of artefacts of the same material without concern for different artefact types.

Shared lists of values becomes even more powerful when combined with views, allowing data to be re-contextualised and reconfigured regardless of the specialist database in which it was originally recorded.

Defragmenting artefact recording

This year we further developed our idea that artefacts can be recorded as core fields first, moving from technical or material recording to interpretative or specialist recording if and when it is supported by the characteristics of the artefact itself, rather than recording artefacts through the filter of specialist interpretation that look to fit it into a preconceived model.

Last season our decision to implement shared lists of values and discussion with specialists about the difficulties of recording indeterminate artefacts in databases designed for specialist recording lead to the development of a re-centralised model of artefact recording. As we work towards a completely centralised database, it will be possible to begin recording artefacts in core material and technical fields, moving onto specialist technical and interpretative recording if, and when, it is supported by the artefact itself.

Previously, artefacts were assigned to specialists and were subtly but implicitly labelled by the specialism and specialist application within which they were recorded. We discussed the difficulties of recording indeterminate artefacts in specialised databases with specialists during the 2004 season and discovered that beyond the data entry difficulties we were initially asked to investigate, the use of isolated specialist databases may bind the artefact to an implicit interpretation limited by the method or location used to record its materiality. Additionally, recording in individual isolated databases leads to a fragmented data set for the project as a whole.

Under the proposed model, artefact recording will begin with material-based recording. Core material tables record the existence of the artefact, link it to the finds and excavation databases, and record basic technical

information about the artefact. Information about the condition and dimensions should also be recorded at this stage. Depending on the characteristics of the artefact, more detailed technical and material information can be recorded in related forms. The recording process moves on to more specialised recording and analysis when it is supported by the properties of that artefact.

Recording all artefacts in core tables enables incomplete, miscellaneous and indeterminate artefacts to be recorded without affecting the quality of the entire dataset, rather than requiring incomplete recording in specialist tables.

It avoids forcing an interpretation on an artefact at an early stage for convenience during data entry. The recording and analysis moves from the objective to the subjective, the general to specialist, from technical to interpretative data. For example, this model saves recording an indeterminate blob as a 'figurine' or 'clay ball' when it may not have enough surviving characteristics to determine it as either.

Implementation of the model should also allow the probability of interpretation to be recorded.

Further advantages are that the model also allows for the inventory level recording of artefacts that are not being studied by a specialist. Inappropriately specialist data is not recorded 'just in case'. If a specialist comes to research on site, they will be able to make use of the inventory level data without throwing out specialist data that may not tie in with their particular research objectives. The core/extension model discussed earlier means they will be able to expand on the data recorded without affecting the overall data set.

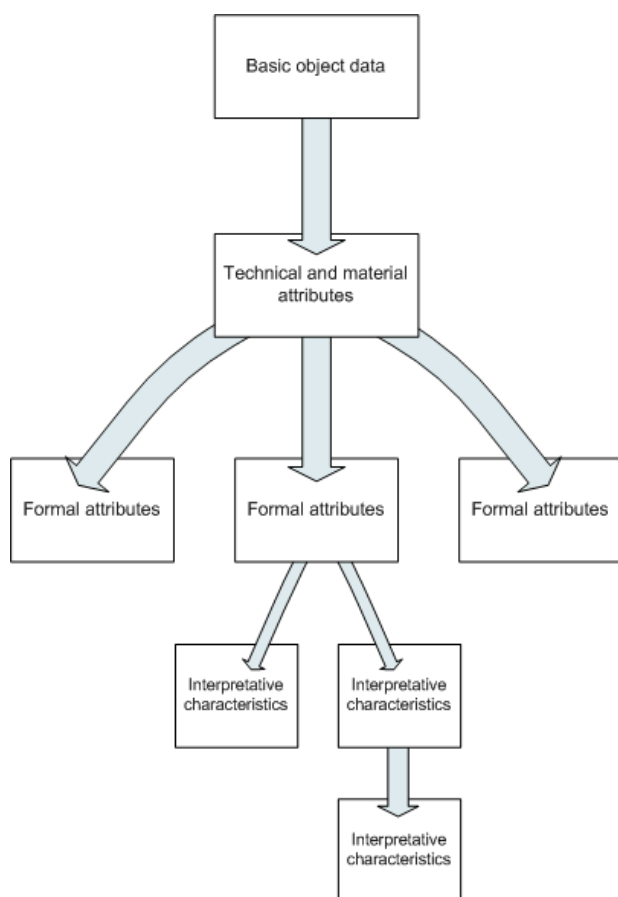


Figure 125: Diagram showing the defragmented recording model

The clay/ceramics teams will be the first to implement this approach. We held a meeting on site, and as a result they will discuss between themselves which fields are core, which are intermediate, and which are entirely specialist and form-based. In the interim, they were to keep recording in their existing applications (usually FileMaker Pro).

This approach is exciting because it helps us alleviate the worst symptoms of working with computers and archaeological data. Computers deal with structured information, but recording analogue data in digital form can force artificial restrictions and the fragmentation of data. Well-structured data is important for analysis but information and context can be lost as data is broken into component parts.

One implication of this model is that the existing model of how artefacts are assigned to different specialists must be re-conceptualised. In theory, any specialist in a particular material could begin the initial recording of an artefact. Ideally, as the characteristics of the artefact are recorded, it would guide the user towards using particular data entry forms, which would prompt for more information based on what has already been entered. The point at which an artefact would be handed on for specialist interpretative recording would be determined on an application-by-application basis in consultation with specialists.

One advantage of this recording model is that specialists with more skills and experience in technical aspects could help specialists with fewer technical skills.

New insights from existing data

An exciting development this year was the team members' use of views onto the central database to create new insights from existing data. While materiality may have been the primary basis for initial recording and analysis, views allow the grouping of materially unrelated artefacts by interpretative category, encouraging the reconstitution and re-contextualisation of artefacts.

While the technology behind views is of course not new, the ability to create views on the central database that span specialisms, teams and areas is a result of the previous centralisation work. It is closely related to our re-thinking of artefact recording in 2004.

Views ('queries' in Access terms) are like virtual windows that let users look at selected data from one or more tables. They allow users to create customised tables tailored to specialist requirements.

Queries can be saved within Access, and used as if they were traditional database tables. They allow users to build complex relationships and parameters into the design of a query, save it into their database, and view live data from the database each time they are run. New queries can be built on existing queries, allowing users to build complex queries without having to code complex SQL (Structured Query Language) statements. We created a new interface, the 'AllTables' database to help team members create effective queries.

Using views onto existing content, we can effectively create what appear to be new databases, which can be extended to allow the recording of specialist data, but does not require the re-entry of existing data from other databases. By putting existing data in a new context, fresh and innovative methods of analysis and engagement with the artefact are possible. Forms to record specialist data based on views can be added to new databases, encouraging further analysis.

For example, some team members began constructing databases based on views, such as an architectural analysis/building materials database based on queries for particular phrases in certain fields of the excavation database, with links to the diary and other databases. Team members were also looking at constructing a beads database, based on artefacts recorded in several different material-based applications. Views can also be used to reconstitute layers and contexts.

Views can become core tables and form the basis of new databases, linking to extension tables of specialist

interpretation and discussion.

The use of views relies on reliable data – the consistent use of terms, correct spelling, etc, becomes even more important. We will work with team members to clean existing data sets and implement validation and guidance on data entry interfaces as required.

Accessibility

The work we carried out last year means that team members have direct access to the entire data set via the ‘back-end’ database. This year we have worked on making the process easier and more accessible by providing examples, training and documentation.

The figure below demonstrates the range of applications that can be used to interrogate the central database.

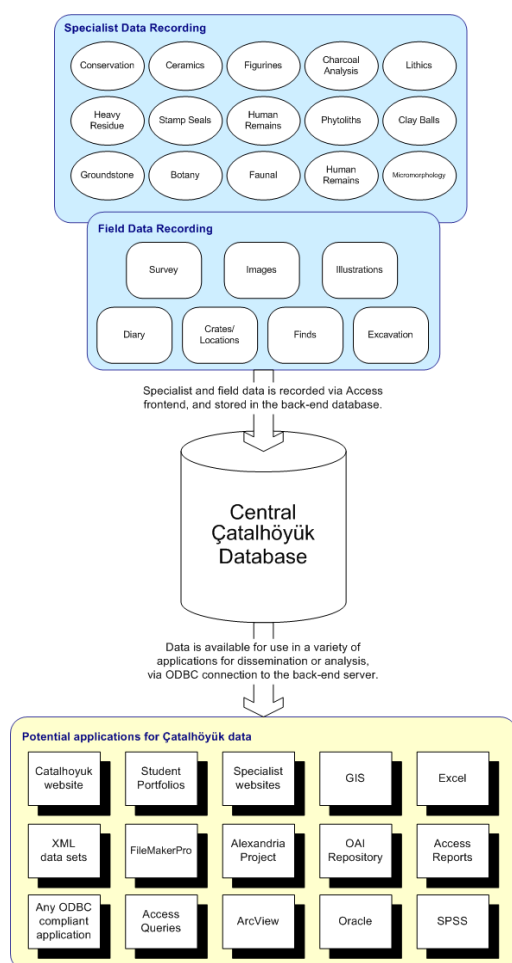


Figure 126: The central Çatalhöyük data is available online to a range of applications

The core-specialist design paradigm is vital for maintaining accessibility. As new database applications are developed, the use of core tables provides access to basic data for all team members.

As the back-end is exposed to the user, consistent naming conventions naming for tables has a new importance. Once users understand the development model, they should be able to find or guess the names of the tables they

need easily. To support this, table names should be clear, self-explanatory and consistent. Currently, table names are generally in the form of [Databasename: Basic: xxx], [Databasename: Data Type] and [Databasename: Code: xxx], where Databasename stands for the general title for the discipline and their associated database.

The existing naming convention allows spaces in table names and is therefore not ideal. However, at this stage the tables should not be renamed as they are used in existing queries and forms. The use of aliases is a possible future solution to allow phased re-naming should it be required.

Team members can download entire datasets or run queries to selectively return data. The user can tailor queries to meet their exact requirements. This back-end access means that users must have access to documentation so they can determine which tables contain the information they need, and which tables are required to link and create the relationships between those tables.

When using specialist data, team members may need to contact the appropriate specialist to discuss their recording methods in order to interpret their data correctly.

Training and documentation

While on site we, with Tuna Kalaycı, prepared and presented a training session for all database users on designing, creating and using Access queries. Training and documentation are crucial for making data accessible and usable.

We also prepared a training document that included the material covered in the training session and provided more detailed and more advanced information on using the Çatalhöyük database applications for query and analysis.

The 'All Tables and Queries' was built on-site in response to discussions with a range of team members. It allows project members to create cross-disciplinary queries and reports with user-friendly tools.

Overall, the aim is to produce a library of Çatalhöyük-specific training documents.

Having provided the infrastructure to enable team members to create, save and share queries, we hope they will continue to build a shared library of reports and queries.

We will also work with users to convert commonly used queries into views on the back-end server for better accessibility to all ODBC-compliant applications.

Public presentation of data

Website

A meeting was held with Ian, Shahina and team leaders to discuss the options for publishing site data online.

It was agreed that core data - defined as 'un-interpreted, inventory level, excavation and field data' up to the present date would be published online.

Some specialist and unpublished data will not be available on the website until it has been published elsewhere. Each team leader will be able to state the extent to which their data can be published, listing any restrictions by content area (table and field) and by date.

Possible website functionality including the ability for members of the public to comment on site data were also discussed.

There will effectively be two websites - the public website, and a team website, with different levels of access, and different content. The team website will be password-protected.

The publication of partial data sets will require a careful explanation to the public of the coverage of data published online, e.g. year, fields, extent of data, info on context, e.g. excavation data is initial impression only.

The password-protected team website will contain instructions on using the database forms over the internet, and downloadable versions of the Access forms.

Other formats

As the database are centralised, it becomes possible to publish data in a variety of ways. These methods include Geographic Information Systems (GIS), and presentational database applications such as ArchaeoML.

Selected summaries of database work on site

We had many meetings with specialists to determine their requirements for recording and analysis.

As discussed above, we worked on the overall application architecture in response to these meetings and to the project requirements generally. Development of specific specialist databases continued off-site and will continue throughout the year.

The following is a summary of some of the meetings held on site.

These notes are intended to provide an insight into the processes of database development and as such, any requirements, analysis or solutions discussed should be regarded as a work in progress.

Architectural Analysis/ Building Materials: this application will be a view onto existing data, possibly with new tables and forms to record specialist interpretative information and discussion.

All Tables and Queries database: this was built on-site in response to discussions with a range of team members. It allows project members to create cross-disciplinary queries and reports with user-friendly tools.

For example, team members interested in Building Materials can link from a feature to related units, find the heavy residue data for those units, and tie it together with the relevant diary entries

The training session on-site presented this database to team members, and provided information and examples of query construction. The implementation enables queries to be shared between users and we hope users will build a library of queries.

The database documents all tables in the database. It requires that new tables be added (as 'linked tables') as they are added to the back-end database, either as parts of new applications or newly integrated data sets.

Beads: initial discussions suggest this will be a view onto existing data, re-contextualising content from several different materials-based databases. It may require documentation for excavators filling out finds sheets to ensure consistency in terms used.

Archaeobotany: after discussions with specialists, it was agreed that a core table based on the flotation log containing with all samples, and extension tables for current and previous specialist data should meet their requirements and provide a core inventory. The specialists did excellent work to match structures and data across years and specialists.

Clay objects, including stamp seals, figurines, pottery, clay balls and geometric shapes: met with building material, figurines and pottery specialists to discuss progressing the work begun on core fields and shared codes in 2004. This work will continue off-site in 2005/2006.

Excavation: on-going changes include intensive work on implementing lists of values as source for validation on data entry, to ensure current values are always available to users and on implementing a flexible permissions

model. We also added the fields Fast Track, Not Excavated, Total Deposit Volume, and Dry Sieve Volume.

Faunal: an initial meeting was held with specialists about fixes, centralising, importing data and further functionality requests. Worked closely with the faunal team to implement fixes on codebook, relationships, the interaction between forms, defaults, and 0 vs. NULL issues. Also implemented help tips and buttons. Worked closely with a faunal team member who picked it up very quickly and was soon using the Access design view to implement value lists and input validation. We did some work in the VBA editor for more technical issues like carrying data between forms, button interactions and triggering saving when form loses focus. As most faunal team members used the updated version of the faunal database during the rest of the season, they had the benefits of improved layouts, updated codes, help screens, tighter validation and better workflow through the application.

Figurines: most of the requirements analysis and conceptual work was carried out last year. The initial goal was to redesign the existing data structures and interfaces for most efficient data entry, storage and analysis.

This entailed several meetings with the specialist to refine the data structures and to test and modify the application.

The specialist's original structure was reasonably good but required a lot of normalisation, as originally there was one single table with 83 fields.

The original database seemed to be recording at least two types of information - material and representational - about two types of objects - figurines and somewhat undefined 'blobs'. Rather than a simple conversion from FileMaker Pro, it was apparent that it was necessary to split the data structures and interfaces. This makes data entry simpler, reduces the chances of incorrect data entry, reduces the overall size of the database and makes searching more efficient. For example, tables recording data about clay and form representations should be split so that the user only records data for a form if it is a possible characteristic for that form.

After the initial meeting, a copy of the database was taken and the initial data set imported. A design showing proposed data tables and relationships was presented to the specialist to check assumptions about different relationships and types of information against her knowledge of the material. Once an initial design was agreed, interface design and application development began.

The interface and database designs went through an intense development period on site, with 12 iterations over 4 days. One of the reasons the design went through so many iterations was that the specialist was still conducting an initial survey of the material, and some initial assumptions about the information to be recorded changed as she got a clearer view of the collection. This affected her understanding of the recording requirements for the data structures, relationships and the forms interfaces.

Working under intense conditions had some interesting side effects. It became clear that specialists need time to consider and understand their requirements, especially when faced with a collection of objects for the first time.

At the end of the on site development work, the database was reasonably complex, and still requires further normalisation - the main table has nearly 40 columns, and there are nearly seventy tables in a three-tier relational structure, with one main form and several sub-forms ranging from core to specialist data, and displays from related central tables (such as unit sheets). This further normalisation will be carried out as of the overall design process for a centralised clay objects recording model.

The process of conducting requirements analysis for centralising all clay objects databases with a range of clay objects specialists gave a useful overview as to the shared recording requirements of clay specialists, which enabled the development of a new data model, as discussed above.

Finds, Crates and Locations, Finds Log: The system must have core tables to record the location of everything, but specialists can create their own tables to store specific information.

The Crates update has two parts - modifying it to allow non-crate locations such as museums, and adding extra fields for various specialists to record extra information and for museum accession numbers. Some work might also be necessary on the Finds Log database.

Post-season work includes combining the Finds, Crates and Locations, Finds Log databases into a single interface, called the Finds Register. It will include relevant forms from all previous databases. Extensive data cleaning will also be undertaken post-seasons.

Ground Stone: after discussion of the existing data sets, analysis and recording requirements, the specialist worked on matching existing data structures to her requirements. She produced a good structure for her data, which was normalised to resolve data integrity issues and achieve integration with the central database. Data sets will be integrated and this structure implemented before the 2006 season.

Human Remains: discussion about the recording and analysis requirements of this database began during the 2004 season and continued in 2005. The database must serve many different users - including excavators, archaeologists, specialists, and researchers - with potentially conflicting requirements.

This potential problem became an advantage, as these requirements lead to refinement of the core/extension model of data structures and recording for Çatalhöyük databases.

In summary, the core structure must be as simple and as closely related to the user's view of the data being recorded as possible. The basic data needs to be available for use by any specialist, without training in the intricacies of a more elegant but more abstract system. The human remains team have specific recording requirements, which necessitate specialised data structures. They also have limited time for recording each skeleton and wish to limit the number of times each skeleton is handled so the application must support efficient data entry, including simple effective ways to indicate the presence or absence of bones as well as field conservation, condition and metric information for bones that are present. The application must also allow researchers to record further specialist data in detail without affecting the overall efficiency of the application.

The application will be designed so that future research and analysis requirements can be supported by data structures that 'plug in' to the main application structures.

The data structures must also solve the problem of recording the remains present uniquely, whether single, multiple, co-mingled, articulated or disarticulated, while linking back to assemblage or burial records where appropriate, and to the archaeological context of the find.

The team would like a visual mark-up system and the ability to print reports that can be used to check over remains.

Lithics: a meeting was held with the specialist to discuss existing data sets and future recording and analysis requirements. Existing Excel data sets will need normalisation and core/extension structures determined, in work to continue off-site with all relevant specialists.

General: discussions with team members also pointed out the need for an IT cheat sheet for use when diagnosing basic problems, and to help people report problems with IT when there is no IT specialist on site. Instructions should also be sent to team members before they arrive on site, to ensure they have sufficient permissions on their computer to connect to the network, have installed required software, etc.

STUDY SEASON REPORTS

West Mound Project / Batı Höyüğü - by Catriona Gibson and Jonathan Last

Abstract

Following the study season in 2004, the West Mound Project team are in the process of drafting a publication text, which will now be completed during 2006-7. As part of this work, a brief visit to the site by the project directors was required to complete the recording of the large pottery assemblage, and to discuss the remaining programmes of analysis (botanical remains, groundstone) with the relevant specialists. Tentative plans for future investigations on the West Mound were also discussed.

Batı Höyüğü

2004 sezonunu takiben, Batı Höyüğü ekibi 2006-7 yılında tamamlanması planlanan yayının çalışmasını yapmaktadır. Bu sebeple, hem büyük seramiklerin kaydını tamamlamak hem de geriye kalan botani kalıntılarının ve öğütme taşlarının analizi konusunda uzmanlarla tartışmak amacıyla Çatalhöyük'e kısa bir ziyaret yapıldı. Batı Höyüğü'nde yapılması planlanan araştırmalar da tartışıldı.

Following the study season in 2004, the West Mound Project team are in the process of drafting a publication text, which will now be completed during 2006-7. As part of this work, a brief visit to the site by the project directors was required to complete the recording of the large pottery assemblage, and to discuss the remaining programmes of analysis (botanical remains, groundstone) with the relevant specialists. Tentative plans for future investigations on the West Mound were also discussed.

Chalcolithic Pottery

Further analysis was undertaken for selected units where only a small number of sherds had previously been studied. The programme of digital photography of sherds on a unit-by-unit basis to supplement the written *pro forma* sheets was extended, and the digital archive now comprises some 1960 images. The small assemblage of potstands was also analysed and photographed (87 images).

An additional task involved laying out as a whole the large assemblage of pottery from the small space 221 (units 7794, 9025, 9034) in order to look for sherd joins and reconstructable vessels. As a result a small number of pots could be restored by the conservators, including the basket-handled jar shown in *Fig. 1*.

Botanical Remains

Analysis of selected flots is currently being undertaken in Nottingham by Nikki Stone under the supervision of Amy Bogaard.

Groundstone

Following discussion with Karen Wright and Adnan Baysal, recording and analysis of the West Mound groundstone will be completed in 2006.

Future Plans

The publication of the West Mound excavations 1998 – 2003 concludes the first phase of work under the direction of Drs. Jonathan Last and Catriona Gibson.

In collaboration with Drs. Jonathan Last and Catriona Gibson, a new team has been appointed to the next phase of work under the direction of Dr. Peter F. Biehl from the University of Cambridge, UK in collaboration with Dr. Burcin Erdogu from

Dr. Jonathan Last and Dr. Catriona Gibson'ın da yardımlarıyla, Cambridge Üniversitesi'nden Dr.Peter Biehl ve Trakya Üniversitesi'nden Burçin Erdoğan başkanlığında bir ekip oluşturuldu.

2006 yılı için plan, Batı höyüğünde ilk olarak bir zemin radar araştırması yapmaktır. Bu çalışma sezon boyunca kazılacak alanların belirlenmesi açısından gereklidir. En iyi sonuçlar az bitki ve nemli zeminin bulunduğu baharın erken dönemlerinde alınmaktadır. Bu yüzden 3 veya 5 kişilik bir ekibin Mart ve Nisan ayları dönemindeki 10 günlük bir süreçte bu çalışmayı yapmaları gerekebilir.

Zemin radar araştırması sonucunda belirlenen ve özellikle gömü odaları formunda olan az dağınıklı Klasik ve Bizans yapılar hedef alınacak. Amacımız tüm Kalkolitik sıralamayı 4 açma açarak kazmaktır.

Second phase of excavation and research plans for the West Mound - Peter F. Biehl & Burcin Erdogan

An initial geophysical survey is planned to determine the presence of areas with intact Chalcolithic and possibly Neolithic architecture. On the basis of the results of this survey, two or three small-scale excavations will attempt to reach the lower levels of the site. In this first season, the plan is to assess the depth and nature of deposits in order to better understand the stratigraphy of the West Mound.

The two main research objectives for the project: first, to scrutinize the initial results of the West Mound research which suggests that a number of changes in material culture, society and economy occurred between the latest excavated levels on the East Mound (Level II, c. 6.300 cal BC) and the upper level at the West Mound (Building 25, c. 5.900 BC). Here the interesting question is how to contextualize the transition from the Late Neolithic to the Early Chalcolithic. This question is especially fascinating because there seems to be a period with two contemporaneous settlements in two circumscribed places. It will be crucial to explore how the settlement on the West Mound developed after the settlement on the East Mound ends. As we can see at ongoing excavations in East Central Anatolia (e.g. Tepecik-Çiftlik and Köşk Höyük), there seem to be some local cultural developments but also important changes between the Late Neolithic and Early Chalcolithic. The results from the West Mound and the excavations at Canhasan show that the Konya plateau is characterised by painted pottery and a dense architectural layout of the settlements. On the other hand, East Central Anatolia is characterised by relief decorated pottery (instead of painted pottery) and shows a different architecture as well (in North Central Anatolia - including the Salt Lake region - both painted and relief pottery don't seem to have been produced and used, though painted pottery is known from the Lake District region - e.g. Hacilar). All social, economic, technological and symbolic-ritual changes seem to start around 6.000 cal BC across almost Central Anatolia and the excavation of these layers at the Catalhöyük West Mound could therefore be pivotal to understand this time period within its Anatolian context.

The second, more long-term research objective is to explore the social changes within the settlement from its beginning to its final abandonment within the context of the economic, technological, social and religious changes that took place during the Neolithic and Chalcolithic within its Anatolian context but also in relationship to both adjacent regions in the East and south-eastern Europe in the West.

Bach Archive Report - *M. Stevanovic and R. Tringham*

Abstract

Bach team members participating in the final publication undertook at Catalhoyuk this season a study of the finds, the discussions of the issues related to the building 3 and accompanying spaces/rooms, and the writing up of the first drafts for the future volume. The publication of this volume is currently under consideration by the Cotsen Institute of Archaeology Publication, UCLA, USA.

Özet

Bu sezon, BACH ekibi tarafından hazırlanan yayınlara ilgili buluntu çalışmasını, bina 3 ve onunla ilişkili alan ve odalarla ilgili problemlerin tartışmasını ve gelecek ciltlerin ilk taslaklarının hazırlanmasını içeren bir çalışma yapıldı. Bu cildin basımı Cotsen Arkeoloji Yayınları UCLA, USA tarafından değerlendirilmektedir.

Bach team members participating in the final publication undertook at Catalhoyuk this season a study of the finds, the discussions of the issues related to the building 3 and accompanying spaces/rooms, and the writing up of the first drafts for the future volume. The publication of this volume is currently under consideration by the Cotsen Institute of Archaeology Publication, UCLA, USA.

This volume is intended to compliment the previous volumes of the Çatalhöyük Research Project published by the McDonald Institute of Archaeology. The focus of the publication is the excavation of Building 3, and spaces 87, 88, and 89, that was carried out by a team from the University of California at Berkeley (BACH team) during the summers of 1997-2003. The period of excavation mirrors to a great extent the period in which excavations of Building 1 and 5 and others in the South area were being carried out by the main Çatalhöyük project team, directed by Dr. Ian Hodder, whose reports are currently being published by the McDonald Institute of Archaeology.

The organization of the publication is similar in format to the in-press volumes (see the content below). The content similarly covers a detailed description of the methodology, excavation and analysis process, description and phasing of Building 3, and contextual summary of depositional events in the first four chapters. The excavation procedure in the BACH area was identical to that of the main Çatalhöyük project, so that these chapters do mirror those of the currently in-press volumes.

These are followed by chapters by specialists on specific analysis of materials and artifacts, or on specific topics. The Bach project addresses some excavation results which were not covered in the previous reports. These include the investigation of the roof remains, a plaster screen wall, and a correlation between phasing and burial events. In addition, there are chapters that investigate aspects of excavation, which were not covered in previous reports, including the detailed analysis of house construction and use-life by Mirjana Stevanovic, and the Sense of Seeing at Çatalhöyük by Michael Ashley. Building 3 had a complicated history and we gave careful attention to the process of collapse and abandonment of the building as well as its history of occupation.

Moreover, the BACH project was the part of the overall project at Çatalhöyük that developed earliest and most fully the use of digital media in recording the excavation process and results. Not only is there a chapter devoted to tracing the process of this development, but the conventional text volume is backed up by a detailed visual record of the excavation on CD-ROM. The impressive aerial photographs of the BACH area achieved by the photographer being suspended from the roof of the shelter have become one of the hallmarks of the BACH project.

Finally, the specialist analysis chapters are followed by four relatively short theme chapters which reflect the underlying themes of the BACH team participants and will be authored as a dialogue between several participants.

The accompanying CD-ROM will contain supplementary materials, including a detailed contextual record of the excavation, detailed charts and other data presentation that cannot be produced in a text, and numerous illustrations in color. We also intend to produce a catalog of the available digital still images and videos from the BACH excavations.

The volume content is presented here in a preliminary form.

Introduction: Project history and aims. By Ruth Tringham and Mirjana Stevanovic

Excavation methodology: process, organization, recording, history. Ruth Tringham and Mirjana Stevanovic

Description of Building 3 with phasing. Mirjana Stevanovic.

Dating evidence. Ruth Tringham, Mirjana Stevanovic, Tomas Goslar.

Specialist Chapters (not necessarily in this order)

The Byzantine Interlude.

a. Daniela Cottica: Finds in the Byzantine Burials

b) Lori Hager and Basak Boz: Skeletal material in the Byzantine Burials

Architectural materials and methods: bricks, plaster, floors, platforms, roof. House Construction at Catal .
Mirjana Stevanovic.

Faunal Analysis. Nerissa Russell et al.:

a) General:

b) Bird report

c) Bone tools

Palaeoethnobotanical analysis. Katy Killackey et al.

a) General

b) Wood analysis: Eleni Asouti

c) Phytolith analysis: Arleen Rosen and Emma Jenkins

Human remains: Neolithic Burials (Space 86 and Space 87) Lori Hager and Basak Boz.

Figurines. Carolyn Nakamura and Lynn Meskell.

Clay Balls. Sonya Atalay.

Ceramics. Jonathan Last.

Flaked stone.

a) Flaked Stone Analysis: Heidi Underbjerg;

b) Obsidian analysis Tristan Carter and Steven Shackley.

Groundstone. Kathrine Wright and Adnan Baysal.

Heavy Residue Analysis. Slobodan Mitrovic.

Micromorphology. Wendy Matthews.

The Replica House:

a) Experimental building at Catal. Mirjana Stevanovic;

b) The experimental house: a conservationist approach. Ina St George.

Sense of seeing at Catalhoyuk: Color, Light, and shadow. Michael Ashley.

Creating the media database and Documentation. Michael Ashley. Ruth Tringham, Jason Quinlan.

Theme Chapters

The Life-history of Building 3 and the other spaces. Temporality. Multiscalar time. Ruth Tringham and others.

Sensing the place of Building 3: color, light, shadow, sound, texture, smell etc. etc. (bringing in experimental house among other things). Ruth Tringham and others.

Building 3 beyond: landscape, ecology and cultural context.

The public face of Building 3: why Building 3 matters, includes media communication that we have had and want to have, how the Building 3 has featured in communication with the public. Ruth Tringham and others.

Accompanying CD-ROM will include:

Digital Image catalog (including photographs and drawings)

Digital Video catalog

Supplements to chapters in the volume.

OUTREACH PROJECTS

Çatalhöyük 2005: Site Presentation and Interpretation Archive Report / Ziyaretçi Merkezini Geliştirme Çalışmaları - Nick Merriman - Institute of Archaeology, University College London

Team Leader: Nick Merriman - Institute of Archaeology, University College London

Team: Erini Marouli, Yukiko Sasada, Milo Wakelin Merriman - Institute of Archaeology, University College London

Abstract

Work in 2005 consisted of three components, the redisplay of the Visitor Centre, the production of new panels in one of the shelters, and the production of an audio guide.

The entire Visitor Centre to a common standard. Following intensive discussions on the themes to be covered, most of the time was spent on researching content for the new panels, locating existing images, and designing all of the panels to a common standard. Panels were produced initially in English and then translated into Turkish so that each panel is bi-lingual. In addition, improvements were made to the appearance and layout of the Visitor Centre.

In order to develop a co-ordinated experience for visitors, it was decided that it was essential to provide audio guides in English and Turkish for visitors to listen to while they walk around the site. These players are now routinely offered to visitors as a way of enhancing their experience and are apparently proving popular.

As part of the process to produce new panels for the Visitor Centre, a series of new panels were produced for the Building 5 shelter, which related more closely to the remains that visitors see when they visit.

Özet

2005 yılındaki çalışmalar üç alanda yapıldı. Ziyaretçi merkezinin yeniden düzenlenmesi, Bina 5'deki panellerin yeniden hazırlanması ve sesli rehberlerin oluşturulması.

Ziyaretçi merkezinde uygulanması planlanan temalar üzerindeki derin tartışmalar sonucunda, yeni panellerin içerikleri hakkında araştırmalar yapılırken, halen varolan fotoğraflar uygun yerlere yerleştirilerek tüm paneller salonun genel standartına uyacak şekilde dizayn edildi. Paneller önce İngilizce hazırlanıp, daha sonra Türkçe'ye çevrildi. Aynı zamanda, salonun görünüşü ve düzeni geliştirildi.

Ziyaretçi deneyimini daha da geliştirmek amacıyla, Çatalhöyük'ü gezerken dinlenebilecek hem İngilizce hem de Türkçe sesli rehberler hazırlandı.

Bina 5 içinde yer alan paneller, kalıntılarla ziyaretçiler arasında daha yakın bir ilişki kurabilecek bir biçimde düzenlendi.

Work in 2005 consisted of three components, the redisplay of the Visitor Centre, the production of new panels in one of the shelters, and the production of an audio guide, undertaken simultaneously by a small team from the

Institute of Archaeology, UCL. The team was led by Nick Merriman and used the skills of three recent graduates in Museum Studies, Eirini Maroulis, Yukiko Sasada and Milo Wakelin.

Re-display of Visitor Centre



Although only on-site for two weeks, the team took the decision to redisplay the entire Visitor Centre to a common standard. Following intensive discussions on the themes to be covered, most of the time was spent on researching content for the new panels, locating existing images, and designing all of the panels to a common standard. Panels were produced initially in English and then translated into Turkish so that each panel is bi-lingual. The panels themselves were produced locally in Konya and were delivered and installed right at the end of the season.

Figure 127. Information panels have been redesigned to a common standard and produced in Turkish and English.



Figure 128. The introductory video was placed closer to the entrance in an area which is curtained off. Benches were purchased for visitors to sit on to watch the video.

In addition, improvements were made to the appearance and layout of the Visitor Centre. The introductory video was placed closer to the entrance in an area which is curtained off. Benches were purchased for visitors to sit on to watch the video. Other extraneous material was cleared from the room.

The overall effect is striking and evaluation will be undertaken via the visitors' book and on-site next season.

Audio Guide



Figure 129. The first visitors to try the audio guide.

visitors as a way of enhancing their experience and area apparently proving popular.

New Panels for Building 5 Shelter



Figure 130. New panels for Building 5.

Seminar

The team also held a seminar about the public interpretation programme at Çatalhöyük, to which members of the local community were invited. It provoke wide-ranging and intensive debate and seemed to have been enjoyed by all.



Figure 131. members of the local community were invited to a seminar about the public interpretation programme at Çatalhöyük.

In order to develop a co-ordinated experience for visitors, it was decided that it was essential to provide audio guides in English and Turkish for visitors to listen to while they walk around the site. In order to produce it, Ian Hodder was recorded whilst doing a site tour, and this was then transcribed and amended. The script was then tested several times for comprehensibility and pacing around the site. It was then translated into Turkish. Both English and Turkish versions were then recorded and transferred to .MP3 players. These players are now routinely offered to

As part of the process to produce new panels for the Visitor Centre, a series of new panels were produced for the Building 5 shelter, which related more closely to the remains that visitors see when they visit.

New Çatalhöyük Museum

The team also had an input into the plans for the proposed new museum at Çumra, commenting extensively on the draft plans in terms of visitor flow and spaces for different functions (see Introduction).

Summer School Workshop - *Gülay Sert*

Team Leader: Gülay Sert

Assistants: Kamile Kandal, Nuray Kaygaz

Abstract

An educational programme at the site sponsored by Shell and Coca-Cola has continued this year. The aim of the programme is to educate young people from the Konya region, and other areas of Turkey, about the importance of archaeology for Turkey and about Çatalhöyük. This year 500 children spent a day at the site. Each day 20 children spent the day learning about the site, doing some excavation of previously excavated earth, doing Çatalhöyük paintings and making models of Çatalhöyük houses. The programme is being run by Gülay Sert.

Ozet

Shell ve Coca Cola tarafından desteklenen eğitim programımıza bu sene de devam ettik. Programın amacı hem Konya çevresinden hem de Türkiye'nin diğer bölgelerinden gelen çocuk ve gençleri Çatalhöyük ve arkeolojinin Türkiye için önemi konusunda eğitmektir. Bu sene 500 çocuđu ađırladıđ. Herđün 20 çocuk, Çatalhöyük hakkında bilgi edinirken daha önce hazırlanmış toprakta kazı yapıp, Çatalhöyük duvar resimleri ile evlerinin maketlerini hazırladı. Eğitim programı Gülay Sert tarafından yürütölmektedir.

The interest generated by the TEMPER Programme of 2002-2003 and the day-long educational festival held at Çatalhöyük, involving pilot schools in Istanbul and in Çumra, Küçükköy in Konya, led to the idea of establishing a long-term workshop at Çatalhöyük and delivering the programme beyond the pilot schools.

Funding was raised from Shell and Coca Cola, and permission was granted by the relevant authorities. Transportation for students was provided by the Municipality of Çumra, and the Province of Konya paid for the children's lunch expenses, prepared by staff from Çumra district authority.

Workshops are held during the summer at Çatalhöyük concurrent with the excavations.

On arriving at the site groups are taken to the Çatalhöyük visitor centre where Çatalhöyük is introduced on a slide show. Students are asked to compare the similarities and differences between their own daily life today and that of Çatalhöyük. After the presentation, students are taken to the Çatalhöyük Experimental House and then on to the site to discuss the excavations.

On site, the groups have discussions about the formation of mounds and unintentional damage that can occur at sites. A discussion on modern architecture and constructions based on sun-dried mud bricks also takes place. Then the students visit the areas where excavations are in progress and are given information on the history of the excavations and results from each trench.

On reaching an excavation area specially prepared for the students and after receiving excavation tools, they are told how to excavate and find animal bones and obsidian pieces as well as some other significant findings such as clay and stone beads, obsidian arrow heads and figurines. After around 45 minutes of excavating students stop for lunch.

Following the lunch rest, the students are taken to the workshop to make pottery, figurines and models. They are seated around the tables in age groups and supplied with the materials. The workshop lasts about one hour and

students leave with their models, plus exhausted but happy faces.

The workshop, being a novel study in Archaeology and Education fields, has drawn much interest and was appreciated by the residents and authorities of Çumra, the Çatalhöyük excavation staff, educators and visitors of the excavation site. The staff received many phone calls from educators and parents of students from all around the country, praising them and asking for information about the workshop. The attention drawn to this workshop, which aimed to raise awareness of cultural heritage and the need for preservation among the adults of upcoming generations, is an indicator of the demand for a nation-wide practice in schools as well as at other archaeological sites.



Figure 132. A group of school children are toured around the South Area.

Experimental House 2005 - Ina St George

Maintenance

This season, the Experimental House research began with a condition survey and cleaning. To gain a better understanding of how to prevent damage during the off-season, it is important to note and photograph any incurred damage. This year, pest damage from tunnelling was noted on the exterior of the north wall. Also, holes (from water leakage) in the interior floor plaster were observed under the ceiling door and along the east wall (Fig 133). Many insects and animals reside in the house as well. Evidence of mice, birds and a variety of insects was present.

After documenting the initial condition, the house was cleaned. With the aid of Marina Russell and Tessa Hager, Dr. Stevanovic and myself removed the furnishings and dry brushed the house from ceiling to floor.



Figure 133. Exterior and interior of the experimental house in 2005. Note the matting impression left on the interior plaster floor .

Decoration



Figure 134. Wall plaster preparation.

The Experimental House also received another coat of clay plaster and a new painting. The house was re-plastered in two hours with the participation of at least fifteen excavators and specialists from the site. The plaster layer on the walls and floors consisted of the locally quarried white clay, water, and straw. The large amount of plaster sifting needed to produce material of the house was produced, again, with the help of Ms. Russell and Ms. Hager. (Figure 134.)



Figure 135. A replica of a geometric design in brown, red and white found during Mellaart's excavation in 1962 was painted in 2005.



Figure 136. The well known 'city plan' from the 1960s excavations.

The new painting is a replica of a geometric design in brown, red and white found during Mellaart's excavation in 1962. The figurative drawings of the Hunting Scene and the Volcano and City Plan are well known. (Figure 136) However, several of the extensively decorated houses revealed by Mellaart had repetitive, geometric designs that covered sections of walls. This year's design was chosen to illustrate the presence of these non-figurative paintings on site.

Binder Research

Experiments were carried out to test the effectiveness of potential binders on the pigment clay layers. After researching materials, which were available and utilized by the Çatalhöyük peoples, four test materials were chosen. Honey, gum Arabic, almond oil, and casein were all tested with the montmorillonite clay used on original paintings and in the Experimental House. Results of this work will be published next year in the BACH group.

Plaster Examination

To contribute to the understanding of the original wall plaster from the site, it was examined under low magnification in cross section. The technology used to manufacture the wall plaster and paintings is extremely advanced. Also this year, I began a recording strategy designed to continue to document the information contained in the wall plaster on site.

Sculpture for Çatalhöyük - *Michael Dan Archer*

Introduction

Michael Dan Archer is a British sculptor. He works on large scale public commissions, exhibitions and is also senior lecturer in Fine Art at Loughborough University School of Art and Design.

He has made work at International Symposia in Japan, S. Korea, Italy, Germany, Sweden, Spain, Dubai and the Czech Republic.

Archer became interested in the Catalhoyuk excavations after meeting John Swogger who has worked for many years on site. He subsequently talked to Professor Ian Hodder who directs the site and excavations. These conversations led to Archer exploring a number of factors relevant to the excavations and his own work, in particular the use of mud brick as a sculptural media.

In 2004, Archer was assisted by the British brick manufacturing company Ibstock in the preparation of a large body of work in unfired clay, for a solo exhibition at the Djanogly Gallery at Nottingham University in the UK. This sculptural installation referenced Catalhoyuk and included a large mud brick tower which contained a video projection and a sound sculpture.

Development of Ideas

In July of 2005, Archer visited the excavations at Catalhoyuk. He was struck in particular by the burial of the dead in the brick sleeping platforms within the houses. He was also interested in possible indications of dreamscapes in some wall paintings. Archer has been working on a series of sculptures and installations entitled Echoes, Memories, Dreams. In this series he explores his own dreams, investigates the fragmentary memory of these and parallels this to mankind's fragmentary memory and understanding of its distant past.

He decided to investigate the possibilities of a sculptural installation on site which would intuitively explore the way the proximity of the dead could affect the dreams of the living inhabitants of Neolithic Catalhoyuk.

Archer has designed a sculptural installation for the Catalhoyuk site which would include a structure in mud brick and a sound component recorded from the recollected dreams of people living near the site.

Sculptural Structures

The sculptural structures are detailed in the accompanying drawings and maquettes. A number of variations on the theme of single or multiple brick towers are illustrated. These towers are approximately 3 metres high and would be built to Archer's designs by local craftsmen using traditional techniques and materials.



Figure 137. Proposed installation is approximately 3 metres high multiple mudbrick brick towers These towers would be built to Archer's designs by local craftsmen using traditional techniques and materials.

Potential sites for these include the courtyard in the site buildings at Catalhoyuk and a site adjacent to the courtyard. The car park site would allow greater public access to the work. It is not intended to site the work on or near the Catalhoyuk mound.

Sound component to the work.

To explore and exhibit the aspect of the work dealing with dreams, Archer, with the assistance of Catalhoyuk researchers, will make recordings on tape of 3 generations of local villagers narrating their dreams. These will be transferred to CD and will be played quietly in the brick structures through small, concealed speakers. The speakers will be fed from 3 CD players in nearby buildings. The sound will be activated by sensors in the structure which will switch on the players at the approach of people. The voices of 3 generations of dreams will intermingle quietly as spectators walk in and around the structure. This work is intended to make visitors to the site consider aspects of its nature which are not apparent to the eye.

Memory, Objects.

A further element of the piece will occur during the making of the mud brick for the structure. Archer will request that local villagers and the archaeological researchers choose a range of small objects from their homes which hold some memory or significance for them. These objects will be integrated into the clay of the bricks and will be hidden within the structure. They will be revealed slowly over time by natural erosion. This relates to the archaeological process itself and more specifically to the practice by Neolithic occupants of the site of ritually burying small objects such as painted shells in the structure of the buildings and sleeping platforms.

Time scale.

It is envisaged that sound recordings will take place in early summer of 2006. The manufacture of the bricks to Archer's specifications would take place in early 2006. Construction of the towers and installation of the sound work will take place during Archer's next visit to the site in the summer of 2006.

RESEARCH PROJECTS

Mudbrick and Mortar Morphology: *Serena Love - Department of Cultural and Social Anthropology, Stanford University*

An insight into the social process of architecture

The purpose of my research this year was to test out a larger methodology of a ‘social geoarchaeology’, if such a thing is possible. Geoarchaeological investigations typically aim to understand and reconstruct environmental conditions of sediment sources rather than looking at cultural sediments as embodying notions of social norms and values. My research is investigating the social processes involved in house construction and question whether an individual, collective group or household constructed their own houses, illustrating a collective and shared knowledge, or whether house construction was specialist knowledge, possessed by a select few. Charting the morphology and composition of bricks and mortar will create a database of multivariate information from which to compare compositional similarities and differences across the site, through most occupational sequences.

Interpretations of the archaeology thus far at Çatalhöyük have suggested a social shift from community-based activities to more house-based and self-sufficient strategies. My research is structured to examine if brick and mortar compositions also change through time and if house building was altered, and integrated into, to a new or different social network. The variability of the construction process is observable and quantifiable, with possible inferences to the social organization of brick manufacture, distribution and use. The organization of labor, domestic economy and access to natural resources are visible in the variability and quality of mudbricks and mortar and how these variables change through time.

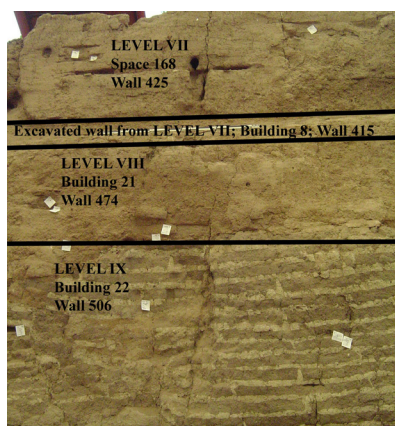


Figure 138. Three sequential houses illustrating differences in bricks and mortar between the levels and the accumulative sampling strategy.

The preliminary fieldwork also demonstrated spatial differences between bricks and mortar. I collected samples from 84 walls in the south area, from 19 different spaces, and compared them with 24 walls, from 8 spaces, in the 4040. The samples I collected had a high degree of variability. In the field, I recorded a few morphological variables, such as colour, composition, inclusions (temper) and texture. I exported 101 samples and will run tests on sediment density, grain size distribution, magnetic susceptibility, and X-Ray diffraction.

I will employ a robust sampling strategy to test for internal and external consistencies and differences, ultimately providing a wall by wall, building by building, phase by phase, area by area distribution of categories, allowing for a comprehensive interpretation of mudbrick architecture.

This accumulative approach, illustrated in Figure 138, begins with the morphological characteristics a single brick (color, size, shape, sediment density and grain size distribution), and then looks at whether similar bricks occur in one wall, in one house, in one part of the mound and gradually creates a classification. I begin with one house and ask if the other walls match then compare it to the immediate neighbors, then to every other house within the comparable occupational level. The identification of brick and mortar composition will chart the vertical and horizontal distribution of brick categories across the site.

Eventually, this analysis will lead to the social interpretation of architecture. I am interested not only in how people built houses but also how the houses built people, by contributing to the shifting identities associated with early

sedentary life. The social mechanisms of communities can be understood through studying Neolithic architecture, given that village construction is an inherently social activity. Through this, the intangible aspects of society can be accessed to extend beyond structural forms, economic and environmental explanations. Early village architecture in Central Anatolia is often discussed in terms of its functionality and practicality and less often as a product of human action and intention. Çatalhöyük has a complex network of similar buildings and an examination of compositional variability in mudbricks and mortar will provide information about the meaningful engagement of social actors with their material existence. My research question is to understand how the construction of a large village and the development of Neolithic communities are mutually constituted.

Off-site investigation of natural resources - *Burcu Tung, UC Berkeley*

The aim in 2006 is to conduct an off site sampling program to build upon Roberts *et al.*'s work (1996, 2004) to have a more complete understanding of the extent of activities carried out around the immediate landscape of the mound. To understand this, a coring program will take place on up to a 10km radius around the mound. After the first initial coring, 10 areas will be located for opening 2 x 2 m wide test pits within the initial 10km radius. Further work will be carried by opening two 2 x 15 m transects to uncover the Neolithic landscape. The locations for these strips will again be confirmed after the first coring results. These transects will need to be opened using a backhoe, as the later alluvial sediments that need removal (to reach the Neolithic surface) are extremely deep (3-4 m). Geological samples within these trenches will be collected for further laboratory analyses.

The aim of this project is to understand the geological depositional contexts that may have been used by the ancient settlers of Çatalhöyük. Mud and clay are essential materials modified and transformed at Çatalhöyük, used in the construction of houses to the production of figurines, clayballs, and pottery. Preliminary analyses conducted on pottery show that there is at least two different clay resources used in the production of pottery, both which have not been identified. Investigations carried on mud brick show different recipes used by different households. This information points to the existence of different mud/clay resources used in the settlement. Understanding the extent of access and control over these resources is an important step towards revealing the complex relationships amongst the different households that have been uncovered at the site.

Investigations carried out by Neil Roberts and his team, between 1996 and 1999, have revealed a complex sedimentation history of the Çarsamba River with interchanging periods of alluvial deposition and soil formation. Their research has also proven that the immediate landscape around the settlement had been modified through quarrying for marl.

Conservation within archaeology's "trading zone": an ethnographic study of on-site conservation practice - *Jaqueline Zak, Institute of Archaeology, University College London*

Abstract

Research undertaken during the 2005 field season extended a pilot study from the previous year to explore how knowledge of conservation is constructed as team members with different disciplinary backgrounds work together to meet project objectives. Ethnographic methods were used to observe conservators and archaeologists during activities in the lab and excavation areas, while they worked together and individually. With the consent of participants, some of these activities were captured on video. The report provides brief examples of themes to be explored further during the next few months of analysis.

Introduction and background

Archaeologists and conservators have been working at the recent excavations of Çatalhöyük since the earliest years of the project (Gallagher 2003, Falck 1999, Hales, Pye and Sully 2004, Matero 1999, Matero 2000, Matero and Silver 1995, Moss 1998, Myers 1999, Severson 1999, Severson 2000, Turton 1998). Over the past few field seasons, teams of conservators have been present throughout the entire excavation, presenting more opportunities for interaction and for the conservators to contribute to the growing body of knowledge about Çatalhöyük. However, the type of knowledge exchanged between the professions concerns more than the material culture of Çatalhöyük. Knowledge exchanged also concerns the material culture, or rules of representation, evocation and practice (Hodder 2003) of the archaeologists and conservators themselves. To extend Galison's (1996) concept, this knowledge is constructed through the "trading zones" of professional interaction, where disciplinary borders become porous and one type of knowledge impacts the formation of the other. Although porous, these borders are also demarcated through language, action and other means to define what the profession is and what it is not (Gieryn 1983).

Studies of professional practice based on the work of such sociologists such as Bourdieu (1977, 1998), Giddens (1991) and Goffman (1959) have often focused on scientific practice in the laboratory (Knorr-Cetina 1999, Galison 1987, Latour 1987, Lenior 1997, Longino 1990, Pickering 1992, Pinch 1984, Wolgar 1982, Galison 1996, Traweek 1988). Increasingly, scholars have begun to recognize the distinct nature of practice "in the field" (Crang 2003, Delyser and Starrs 2001, Kuklick and Kohler 1996, Marsh 2001). My work at Çatalhöyük follows from the work of these and other scholars, as well as research on discourse-in-practice (Foucault 1988, Drew and Heritage 1992, Gieryn et al. 1985, Gunnarsson 1997, Heritage and Greatbach 1991, Holstein and Gubrium 2000). In some ways, my research also extends the work of Hamilton (2000), since it relates to the creation of knowledge by archaeologists. However, my research focuses particularly on the borders between disciplines, and the mechanisms for constructing knowledge about conservation through interaction.

Methodology

Research during 2005 continued an earlier pilot study in July 2004 where I spent a brief period of time on site at the very beginning of the field season. During that time I introduced the aims of my research, talked with project members informally and more formally during interviews, and tested other elements of the methodology which involved video and audio taping. I observed the conservation team as it established its place within the context of the project -- setting up the lab for the season, and beginning to interact with each other as well as other members of the project. Many project members had not yet arrived, including student members of the conservation team who would succeed student members already on site as the field season progressed.

This year I arrived approximately mid-season and continued my study for three weeks until the last day of excavation. Therefore I was able to observe activities of the project while it was in full operation and as it prepared to end. As described in the 2004 report (Zak 2004), I employed ethnographic methods to observe activities that

included lifting objects, consolidating objects and wall plasters, touring the site and labs, and discussing project objectives. In addition I was also able to observe activities from the perspective of a participant as I helped to examine layers of plaster for the presence of pigments, prepare objects for transport, document a segment of painted plaster, transfer environmental monitoring data into electronic formats, sample brick and mortar, and prepare an inventory of brick samples for export and analysis.

Although I was interested in viewing as many daily activities as possible, I was particularly interested in observing conservators and archaeologists during discussion and activities they accomplished together, and with the participants' consent, many of these interactions were captured with a video recorder. Many scholars have described the advantages of this technique (Banks 1995, Collier and Collier 1986, Goodwin 1995, Ratcliff 2005, Shrum et al 2005). For instance, video recordings provide an opportunity to review events repeatedly, capture details more completely, and record the context of the event as well as the activity itself. Project members at Çatalhöyük are video recorded regularly for various purposes (Brill 2000, Stevanovic 2000), and somewhat accustomed to being on camera. Nevertheless the technique can seem intrusive, disruptive and intimidating for participants, at least at the beginning of the process. Therefore some interactions were deliberately not recorded by video, and participants were provided with written assurances about how the video would be used and that it would not be employed in a manner for which they had not given consent.

The intent of this process of observation was not to evaluate or judge the interaction, but to capture implicit mechanisms for co-constructing knowledge about professional practice through the archaeologists' and conservators' use of tools, language, and gestures during cooperative activities.

Discussion

This field season presented many opportunities for me to observe archaeological "trading zones." For instance, on several occasions I observed conservators and archaeologists as they discussed what objects to "lift" (remove from the specific location of discovery), who should perform this process, and what materials would be best to use. I was then able to watch the activity itself during all stages of the process. Of particular interest was observing how archaeologists and conservators operated in tandem to consolidate the object (apply materials to keep it together), identify the object's characteristics, establish its immediate context within the excavation unit, and determine what the next phase in the life of the object should be (for instance, whether it should be cleaned, sent to storage, or prepared for immediate display). Over the next few months I will continue to analyze field notes, video recordings and interviews to identify what specific knowledge was exchanged during activities such as these, as well as the specific mechanisms for exchanging this knowledge.

Another "trading zone" of interest involved requests that the archaeologists made of the conservators. These requests could be explicit ("Can you please help me with this?") or implicit (items could simply be placed in the lab), and served as an indicator of the archaeologists' general knowledge about conservation and specific knowledge about the conservators on site. How did the archaeologists come to know when to involve a conservator in a specific activity? How were conservation activities different from archaeological activities on site? How did the conservator construct a response to a request? How did the requests an archaeologist made shape a conservator's understanding of his or her own profession and place within it? How did a conservator's response shape the archaeologist's knowledge of conservation?

These questions hold particular significance for archaeologists and conservators working on large complex sites such as Çatalhöyük where architecture, painted surfaces, and objects are encountered. As in archaeology, conservation incorporates several sub-disciplines, each with a material culture of its own. For instance, conservators may consider themselves trained to work with objects, architecture or paintings, and within these fields, they may consider themselves expert or novice on a particular material. Where are the "trading zones" between these types of knowledge? How does a conservator navigate through these zones to meet all project needs? How does the archaeologist come to understand the complex nature of these specialized trading zones?

Current and Future Work

I will continue to explore these and other questions during the ongoing analysis of field notes, video recordings and interviews from the 2004 and 2005 field seasons. My intent is to provide a summary of my interpretations to participants, and to include their feedback in the study as well. This research represents partial fulfillment of my Ph.D thesis to be submitted to the Institute of Archaeology, University College at the end the 2006 calendar year. I consider this study to be exploratory, with the intention for it to continue over the next few years in various contexts. The underlying aim of this research is to foster a deeper understanding of the way that knowledge about conservation is shaped by conservators themselves and by others with whom the profession interacts. This understanding will contribute to more effective training, partnerships and collaborations between preservation professionals and all others with a stake in the past, present or future of the cultural heritage.

Acknowledgements

I owe any successes in the research from this season to the generosity of Prof. Ian Hodder, the many project members of Çatalhöyük, past and present, who participated, Liz Pye, Dean Sully and my advisor Clifford Price at the Institute of Archaeology, University College London, and to a grant from the American Institute for Conservation of Historic and Artistic Works.

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PUBLICATIONS

Çatalhöyük Research Project Volume 3

FORTHCOMING

Excavating Çatalhöyük: South, North and KOPAL Area reports from the 1995-1999 seasons

By Members of the Çatalhöyük teams

Edited by Ian Hodder

Çatalhöyük Research Project Volume 3

McDonald Institute Monographs/British Institute of Archaeology at Ankara

This volume represents the third major publication by the Çatalhöyük Research Project, following on from a first volume related to the initial phase of surface work (Hodder 1996) and a second volume dealing with methodological/theoretical issues (Hodder 2000). It is concerned with presenting the results of excavations of three areas at Çatalhöyük, known as South (Chapter 2), North (Chapter 3) and KOPAL (Chapter 4), between 1995 and 1999. Further volumes will present detailed specialist reports (Volumes 4 & 5) and thematic discussions (Volume 6) related to these excavations. This volume outlines the general aims and history of the Çatalhöyük Research Project between 1995 and 2002 covering the period of excavation and post-excavation work on the areas in question. It describes aspects of the excavation, recording and sampling methodologies that are necessary for an understanding of the results presented. Specific issues that affect the understanding of the results, particularly concerning dating, 'levels' and the relationship between material found in/on floors and activities that took place on those floors will also be considered. Finally the major implications and results of the excavations will be considered and placed in their regional context.

While at one level this volume presents the results of excavations, followed by volumes dealing with analysis of excavated data (Volumes 4 & 5), followed by synthesis and interpretation (Volume 6), at another level an attempt has been made to avoid the notion that data are presented followed by interpretation. Although this volume does describe the excavation of buildings, features and units, it also incorporates interpretive discussion. It brings in data from the study of animal bones, lithics, ceramics, micromorphology and the full suite of analyses conducted on the material, in order to make sense of the buildings, features and units. The 'descriptions' of the archaeological features are embedded within information and quotes from a wide range of specialists who have studied the material from the site. These commentaries, and the conclusions drawn from them, are developed forms of the 'priority tours' that took place around the trenches during the excavation. They mimic the process of collaborative interpretation that took place during the excavation and post-excavation process. The 'descriptions' of the archaeology are thus exposed as interpretations involving a balancing of a variety of different types of data. They are synthetic interpretations that take place in the generation of data

Çatalhöyük Research Project Volume 4

PUBLISHED 2005

Inhabiting Çatalhöyük: reports from the 1995-1999 seasons

By Members of the Çatalhöyük teams

Edited by Ian Hodder

Çatalhöyük Research Project Volume 4

McDonald Institute Monographs/British Institute of Archaeology at Ankara

Volume 4 deals with various aspects of the inhabiting of Çatalhöyük. Part A embarks on discussion of the relationship between the site and its environment, using a wide range of evidence from faunal and charred archaeobotanical remains to phytoliths, shells and charcoal (Chapters 2 to 10 & 23). Part B looks at the evidence from human remains which inform us about diet and lifeways, as well as wider issues of population dynamics and social structure (Chapters 11 to 16 plus 24 & 25). It includes a consideration of population size (Chapter 16). Part C looks at the sediments at Çatalhöyük, exploring ways in which houses (the term 'house' is used in a general sense for structure and is not meant to possess the implications of the term as used by Mellaart) and open spaces in

the settlement were lived in (Chapters 17 to 22). In all these ways, a picture is built up of the way in which people moved through and lived in the natural and cultural environment of the places we subsume under the heading 'Çatalhöyük'. A synthesis and synopsis of the conclusions is provided in this introductory chapter.

Çatalhöyük Research Project Volume 5

PUBLISHED 2005

Changing materialities at Çatalhöyük: reports from the 1995-99 seasons

By Members of the Çatalhöyük teams

Edited by Ian Hodder

Çatalhöyük Research Project Volume 5

McDonald Institute Monographs/British Institute of Archaeology at Ankara

Volume 5 deals with other aspects of the material culture excavated in the 1995-99 period. In particular it discusses the changing materiality of life at the site over its approximately 1100 years of occupation. It includes discussion of ceramics and other fired clay material, as well as chipped stone, groundstone, worked bone and basketry. As well as looking at typological and comparative issues in relations to these materials, the chapters explore themes such as the specialization and scale of production, the engagement in systems of exchange, and consumption, use and deposition. A central question concerns change through time, and the degree and speed of change. The occupants of the site increasingly get caught up in relations with material objects that start to act back upon them.

Çatalhöyük Research Project Volume 6

PUBLISHED 2005

Çatalhöyük perspectives: themes from the 1995-9 seasons

By Members of the Çatalhöyük teams

Edited by Ian Hodder

Çatalhöyük Research Project Volume 6

McDonald Institute Monographs/British Institute of Archaeology at Ankara

Volume 6 is synthetic, drawing on material from Volumes 3 to 5 to deal with broad themes. Data from architecture and excavation contexts are linked into broader discussion of topics such as seasonality, art and social memory. Rather than assuming that the work of the project is finished once the basic excavation and laboratory results have been presented in Volumes 3 to 5, it has been thought important to present more synthetic accounts that result from the high degree of integration and collaboration which the project has strived for at all stages. In this synthetic volume we most clearly describe the 'stories we have been telling ourselves' during the data recovery/interpretation process. This volume thus provides a contextualization of the work carried out in Volumes 3 to 5 – it records the framework of thought within which the data were collected and studied, but it is also the result of the interpretation that occurred in the interaction with data.

The Çatalhöyük Biography – Michael Balter

PUBLISHED 2005

The Goddess and the Bull, the "authorised" biography of Catalhoyuk, has been selling steadily since its publication in January 2005 in the USA and April 2005 in the UK. It has been reviewed, nearly always favorably, in Science, Nature, New Scientist, Antiquity (short review), British Archaeology, Current Archaeology, and other specialty publications, and has been the subject of an article in the Times (London). The literary journal Books in Canada gave it a rave review, and several US newspapers have reviewed it as well. There have also been several online reviews, all of which have been very kind and positive. The year 2006 will bring more important developments for the book: A paperback edition will be published in the spring by Left Coast Press, the new publishing house created by AltaMira founder and archaeological publishing legend Mitch Allen. This should make the book more widely available and ripe for course adoption. In addition, a Turkish edition will be published by Homer Kitabevi, slated for September, and a Bulgarian edition by NSM Media. Other foreign language editions are in the works. As always, I am grateful to the many team members who helped with the book and have supported its publication.

A Novel - by Rob Swigart

IN PREPARATION

My novel 'Stone Mirror' is set at a fictional site called Ayna Tepe, or Mirror Hill, similar to, and contemporary with, Çatalhöyük. My mission is to illustrate both the process (and post-process) of archaeology, the culture under examination (to the extent possible for a fiction writer), and the difficulty of archaeological interpretation. The business of putting it all into an entertaining and interesting story that is also accurate would be impossible without the help of all the specialists.

Özet

Ayna Tepe adındaki kitabım, Çatalhöyük ile çağdaş olan kurgu bir arkeolojik şehri anlatıyor. Amacım arkeolojik yöntemin öncesi ve sonrasını, gözlem altındaki bir kültürü (yazarın gözlemleyebildiği yere kadar) ve arkeolojik yorumlamanın zorluklarını açıklamaktır. Gerçekliklerini kaybetmeden, bu konuları hem eğlenceli hem de ilginç bir hikaye altında toplamak için bütün uzmanların yardımına ihtiyacım olacak.

I am writing a novel called 'Stone Mirror' for Left Coast Press to be published as a textbook introducing Neolithic archaeology to university students. The story is set at a fictional site called Ayna Tepe, or Mirror Hill, similar to, and contemporary with, Çatalhöyük. I visited the site for five days beginning July 18 at the beginning of the season and for two days in August just after the season ended.

My mission is to illustrate both the process (or post-process) of archaeology, the culture under examination (to the extent possible for a fiction writer), and the difficulty of archaeological interpretation. The business of putting it all into an entertaining and interesting story that is also accurate would be impossible without the help of all the specialists. Many of them were generous with their time and expertise, especially John Swogger, who was more than willing to speculate about daily life in this place 9000 years ago. Among the many others generous with their time were Louise Martin, Tristan Carter, Mihriban Özbaşaran, Mirjana Stevanovic, Clark Larsen, Michael Charles, Arkadiusz Marciniak, Adnan Baysal, and Ali Türkcan (who let me help him photograph stamp seals and figurines). Especially helpful too were Shahina Farid and Michael Balter, with whom I many of my ideas over lunch in Paris before going to Çatalhöyük.

I can't tell you how important the visit there was for this project. Impossible without it.