



# The Gurob Harem Palace Project

## **Report to the SCA on archaeological survey undertaken at Gurob (3-17 April 2006)**

### **Introduction**

The Gurob Project is a preliminary study of the urban and funerary remains at the 'harim town' of Mi-wer (Gurob) in the Faiyum region. This is the first opportunity in modern times to assess the current state of the site, after its long period of military use. Our primary aim is to allow better sense to be made of the various late 19th- and early 20th-century excavations at the site by producing the first ever complete 1:1000 plan of the entire area (in a similar way to the survey of Amarna undertaken by Kemp in the 1970s and 1980s). The principal aims of the project are therefore (1) to produce an accurate 1:1000 map of the site as a whole, (2) to create more detailed plans of the main points of archaeological interest in the settlement and cemeteries, (3) to produce a basic modern corpus of pottery at the site, (4) to use satellite photographs, geophysical methods and core-drilling to gain a better understanding of the subsurface material and architectural remains, as well as the relationship between the site of Gurob and its landscape and environment.

In April 2005 we conducted a first two-week season of fieldwork at the site, comprising GPS mapping of key features of the site and surface collection of pottery from a small number of localities. The GPS points demonstrated that it would be possible to produce a new map of the site as a whole, using a total station, while the analysis of the pottery indicated that, although the vast majority of the ceramic material dates to the mid- to late New Kingdom, there is considerable potential to analyse chronological and functional patterns across the site through the study of such material. These two approaches have therefore been adopted as key elements in the strategy for exploration and analysis of the site in 2006 and future seasons.

The 2006 team consisted of fourteen members: Dr Ian Shaw (University of Liverpool, UK), Amir Kamal (University of Liverpool), Claire Malleon (University of Liverpool), Jan Picton (University College London), Hannah Petherton (University of Liverpool), Louise Bertini (University of Liverpool), Georgia Xekalaki (University of Liverpool), Sarah Burns (University of Liverpool), Robert Billington (University of Liverpool),

Marine Yoyotte (Sorbonne, Paris), Dr Tomasz Herbich (Polish Centre, Cairo), Dawid Swiech (Polish Centre, Cairo), Ashraf el-Senussi (Curator of the Kom Aushim Museum, SCA), our inspector Mrs Inas Mohammed Talaat.

I would like to thank Dr Ahmed Abd-el Aal, the director of the Faiyum branch of the SCA, Dr Magdi el-Ghandour in the SCA Documentation Centre, Cairo, and our inspector Mrs Inas Mohammed Talaat for their generous assistance and advice in our work at Gurob in 2006.

### **The nature of the site and the strategy of the 2006 work**

Gurob (or Medinet el-Gurob) primarily comprises a New Kingdom settlement and cemetery site at the south-eastern end of the Faiyum region, which was occupied from at least the early Eighteenth Dynasty until the late Ramessid period. It was first excavated by Flinders Petrie in 1888-9. Gurob has been identified with the town of Mer-wer ('great channel/canal'), which was established by Thutmose III (1479-1425 BC) as a royal 'harim', and appears to have flourished during the reign of Amenhotep III (1391-1353 BC). During the Ramessid period, the presence of house remains above the palace enclosures suggests that the Tuthmosid harim palace phase was succeeded by a later phase of settlement during which the community may have been of a somewhat different character. Barry Kemp synthesized the results of the various excavations to construct an impression of the New Kingdom harim-town which might have superseded the earlier village, but was itself eventually transformed into a small Ramessid town.

Our principal aims in the 2006 season of survey at Gurob were to seek confirmation of the overall layout and chronology of the settlement area of the site. We are also aiming to gain a better understanding of the duration and nature of settlement at the site, and its relationship with the surrounding landscape. The three basic strands of work at the site in 2006 were therefore pottery surface collection, topographical survey and proton magnetometry survey.

### **Pottery surface collection**

During the 2006 season at Gurob we conducted a systematic pottery surface survey, collecting over 26,000 potsherds (total weight c.370kg, including c.1600 diagnostics) from a number of locations throughout the site. The diagnostic sherds comprised rims, bases, handles, decorated body sherds and 'gaming counters', nearly all dating to the New Kingdom (particularly the late 18th and 19th dynasties), and consisting of a variety of types and fabrics. A few late Old Kingdom diagnostic sherds were found in squares I20d and L7a, suggesting that the surface survey may have some potential not only to reveal patterns of New Kingdom urban life at Gurob but also some of the patterning of the pre-New Kingdom cemeteries. See Figures 1 and 2 for barchart and distribution.

In total, we collected pottery from fourteen 10x10m squares selected from within the grid of 20x20m squares laid out as a preliminary to the topographic and magnetometry surveys. These squares were chosen systematically in order to try to obtain a number of samples from a diverse range of functional areas within the site, e.g. square I20d from the

area occupied by the temple of Thutmose III in the southwestern sector of the town, square H14a from within the area of the northern palace building, and N7a from within the 'glassworking' area to the northeast of the main town and to the west of the so-called 'fort'. The rationale behind this strategy is to test the hypothesis that even after extensive excavations in the late 19th and early 20th centuries, together with subsequent severe disturbance during the late 20th-century military use of the site, it should still be possible to utilise the basic spatial patterning of different pottery types and fabrics to reconstruct certain aspects of human activities at the site during the pharaonic period. Appendix 1 (below) presents the raw data from each of the pottery collection squares, and the sketch plan below shows their distribution across the site.

### **Topographical and architectural survey**

The mapping of the topography and surface features of the site began with the creation of an alphanumeric grid across the site, comprising over 150 wooden pegs and 9 iron pegs set at 20-metre intervals along grid-lines oriented east-west (numbering from the number '1' upwards) and north-south (labelled from the letter 'a' upwards through the alphabet). Thus the main station point beside the modern gaffir's hut (ST1) is located at the point J11. The mapping of features, surface collection squares and small finds took place within this grid, and with the total station set up at five different station points (ST1-5). The image below shows the current extent of the grid, which can be expanded in future seasons but is currently covering only those areas where mapping, surface collection and magnetometry survey are currently focused. The principal features mapped so far (see Fig. 3) include:

- The visible sections of the possible outer enclosure wall of the town
- The visible sections of the northern palace building
- The circular mud-brick features within the northern palace building (perhaps column emplacements or tree-pits)
- The circular kiln features/depressions in the 'glassworking' area to the west of the fort
- The previously undetected two-roomed building with large tower in the southeast corner, at the southern end of the site

Within the same map, the locations of small finds (mainly stone tools and fragments of faience vessels) have also been recorded, alongside the positions of pottery surface collection squares and four small planned areas (see Fig. 4).

### **Proton magnetometry survey**

For four days (8-11 April), Dr Herbach undertook a proton magnetometer survey covering 2.34 ha of the site. He focused on two principal areas (see Figs 5-6):

1. The area occupied by the two 'palace' buildings,
2. The area to the northeast of the main town area, where Brunton and Engelbach excavated a 'glassworking' area.

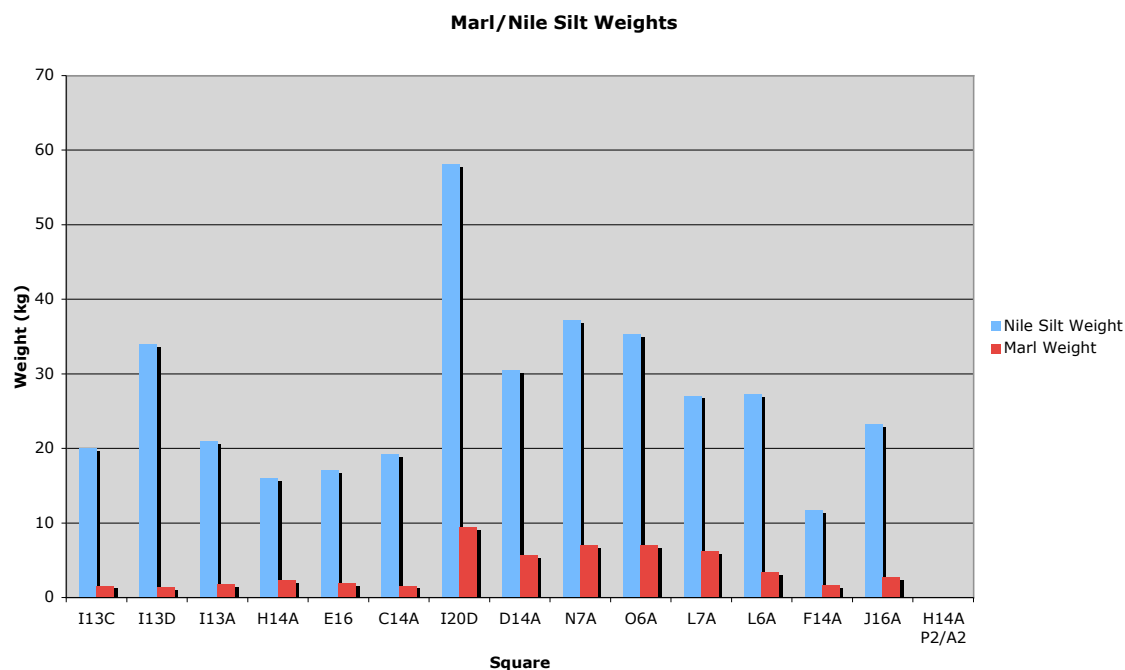
Figures 5-6 present the preliminary visual results. In the case of Area 1, it is possible to discern many of the internal walls of the northern palace building that are not clearly visible on the surface. With regard to Area 2, several of the presumed glassworking kilns are highly visible in the survey, including one unexcavated example to the west that is only indicated on the surface by a light scattering of slag.

### **Summary**

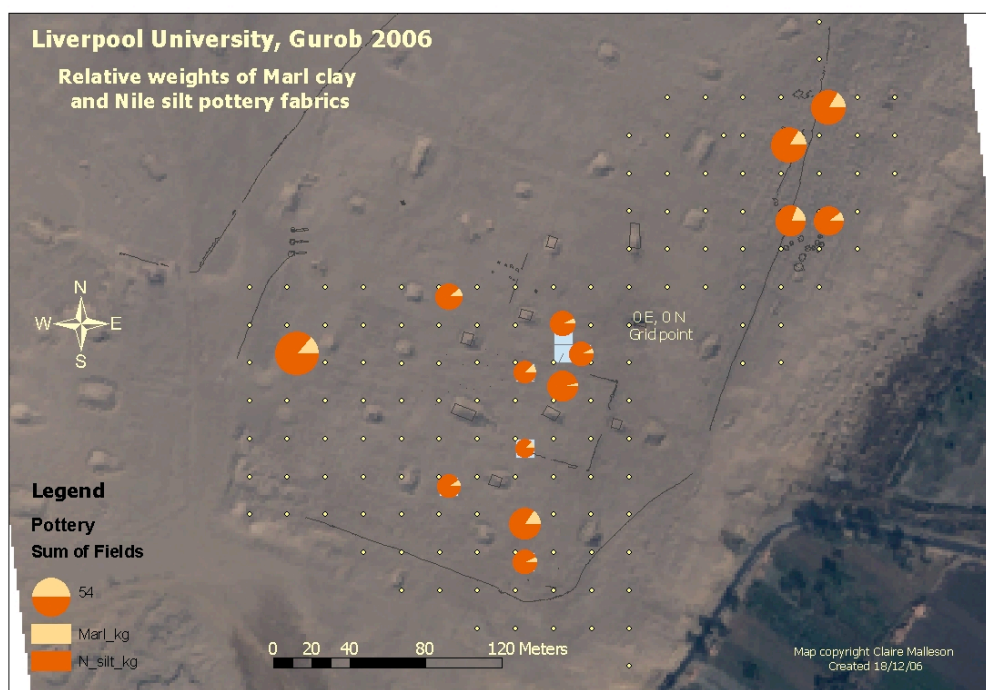
In the second season of work at Gurob we have made excellent progress on three elements of our overall plan for the site: mapping, pottery surface collection and geophysical survey. As well as mapping some of the basic features of the town site, we have also begun to produce more detailed plans of some of the best surviving architectural features, such as the enigmatic circular mud-brick constructions in the northern palace building and a section of the town wall to the north east of the main palace area. We are also now well advanced in producing a fundamental corpus of the characteristic fabrics and forms of pottery vessels at Gurob, which can then be compared with the existing New Kingdom corpora at Amarna, Memphis and other urban sites.

In future work at Gurob we will aim to produce further detailed plans and also begin to map the rest of the town and some of the visible features of the various cemeteries. A major aspect of the site still to be tackled in a future season is the location and investigation of the 18th-Dynasty workmen's village noted by Loat c.500m to the south of the main town enclosure. It will also be necessary to expand our pottery collection areas over a much wider area of the site, including the cemeteries.

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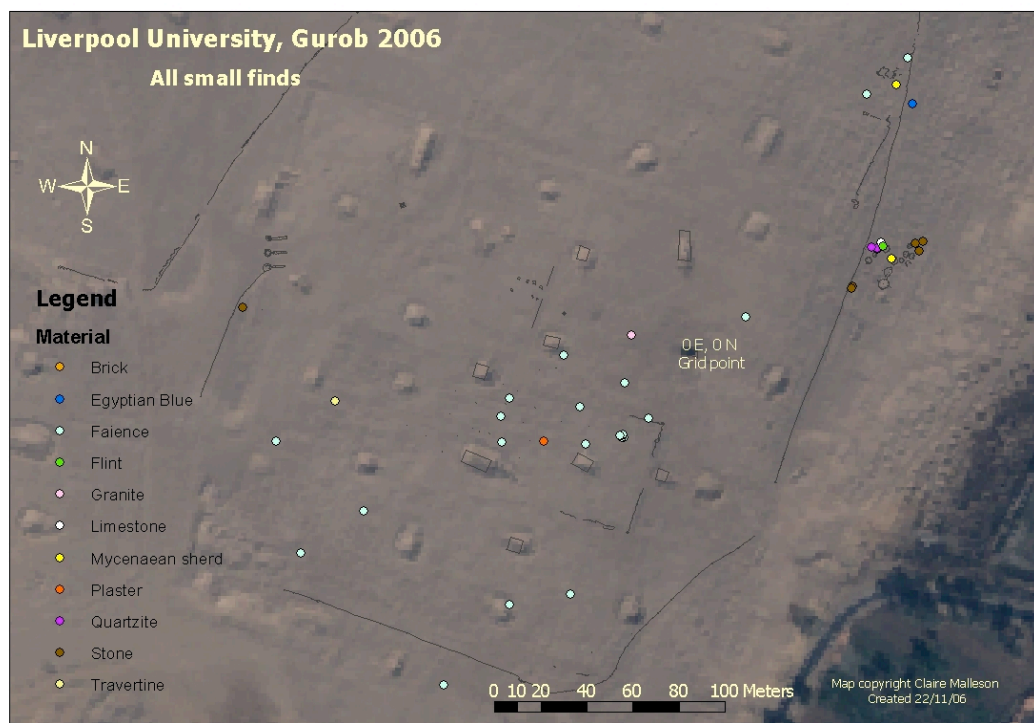
**Fig.1: Marl/Nile silt weight ratios in the pottery surface collection squares**



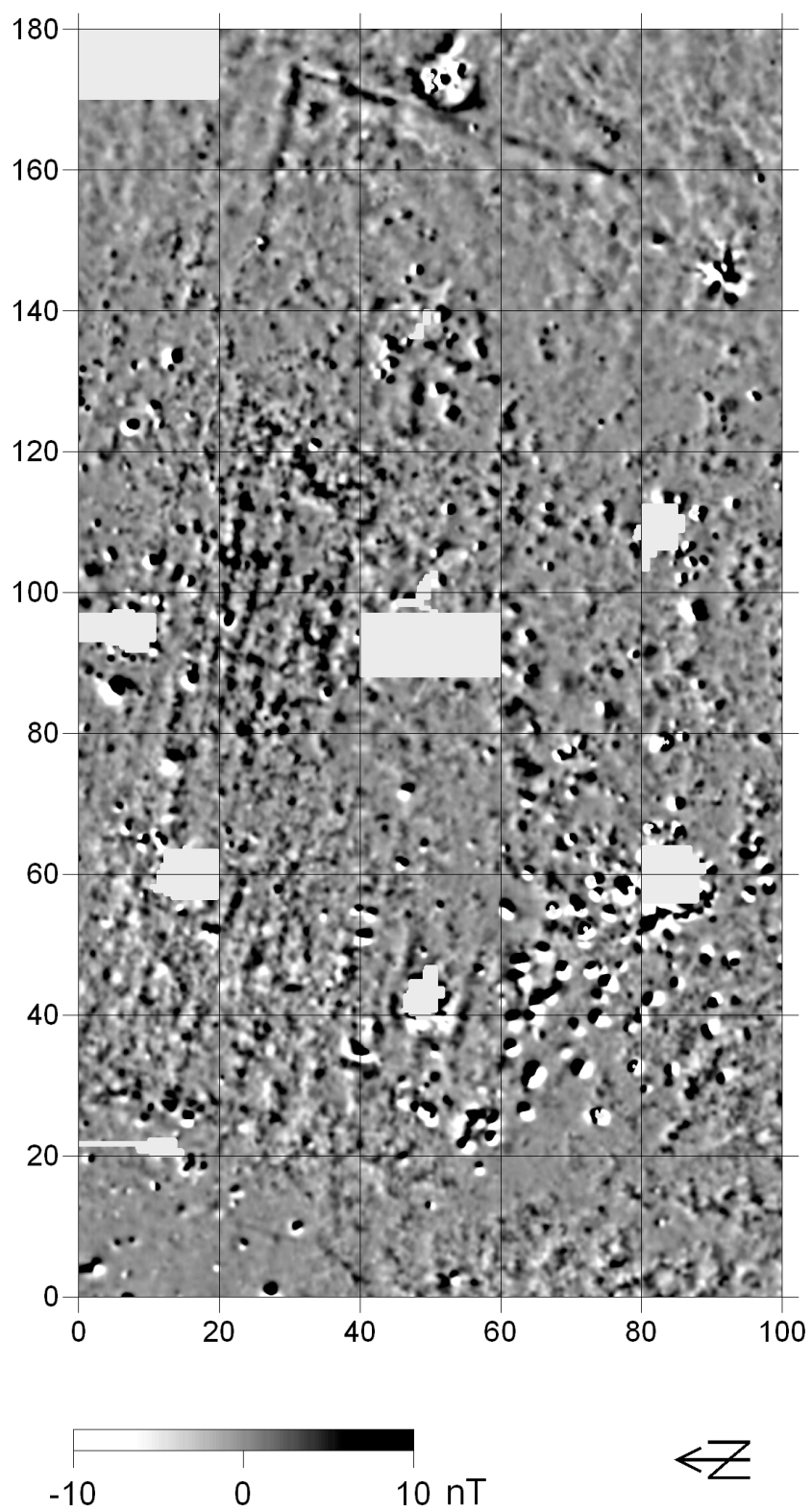
**Fig. 2: Locations of the principal pottery surface collection squares at Gurob, with pie-charts indicating quantity and proportions of ceramic types.**



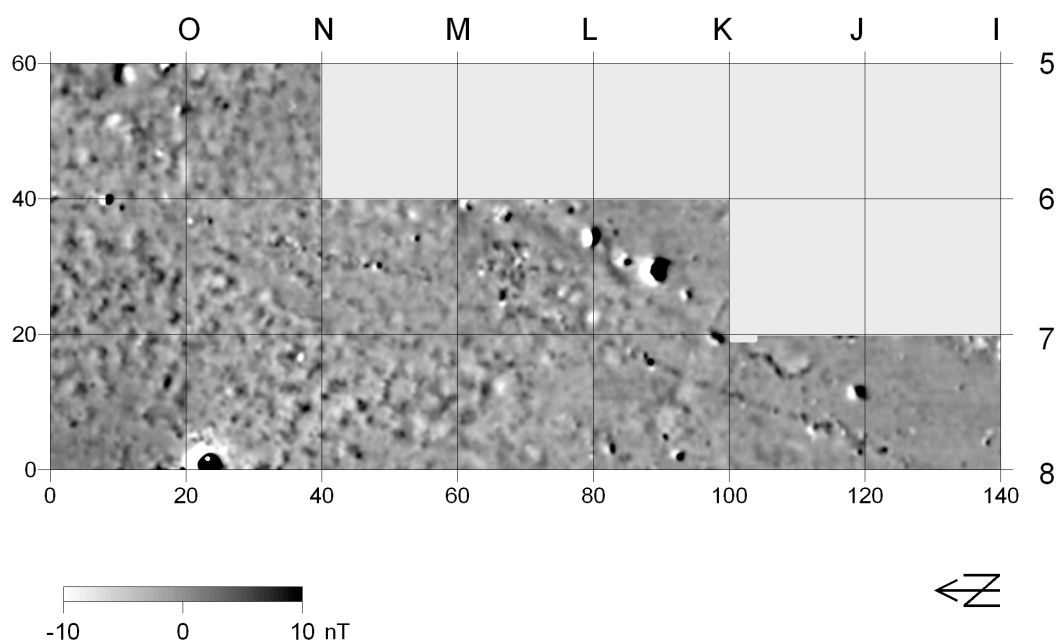
***Fig. 3: Area of Gurob over which University of Liverpool survey grid-lines have so far been extended***



***Fig. 4 Distribution of small finds so far collected at Gurob***



*Fig. 5 Proton magnetometry Area 1(the northern palace building)*



***Fig. 6: Proton magnetometry Area 2 (the glass-working area)***

## Appendix 1: Pottery: raw data

Register of gridsquares from which surface pottery was collected:

### I13C (04 April 2006)

Total diagnostics: 46  
Marl fabric weight: 1.6 kg  
Nile silt fabric weight: 20 kg

Bases (4): # 4, 9, 14, 45  
Handles (4): # 6, 12, 18, 32  
Rims (37): # 1, 2, 3, 5, 7, 8, 10, 11, 15, 16, 17, 19- 31, 33- 44, 46  
Decorated and miscellaneous: (1): # 13

### I13D (04 April 2006)

Total diagnostics: 62  
Marl fabric weight: 1.4 kg  
Nile silt fabric weight: 34 kg

Bases: (9): # 18, 24, 36, 42, 45, 46, 50, 55, 61  
Handles: (14): # 1, 3, 12, 14, 22, 23a, 23b, 26, 27, 29, 31, 37, 43, 58  
Rims: (32): # 2, 4-11, 13, 15, 15a, 16, 17, 19- 21, 28, 30, 32- 35, 39- 41, 44, 47, 49, 52- 54, 56, 57, 59, 60, 62  
Decorated and miscellaneous: (2): # 38, 48

### I13A (04 April 2006)

Total diagnostics: 58  
Marl fabric weight: 1.8 kg  
Nile silt fabric weight: 21 kg

Bases (9): # 1, 13, 20, 24, 40, 49, 58- 60  
Handles (11): # 3, 6, 14, 16, 23, 27, 35, 51, 52, 53, 56  
Rims (36): # 4, 5, 7- 12, 15, 17- 19, 21, 22, 25, 28- 32, 34, 36, 37, 39, 41- 48, 50, 54, 55, 57, 61, 62  
Misc. body sherds (3): # 2, 26, 33  
Decorated and miscellaneous: (1): # 38

### H14 A (05 April 2006)

Total diagnostics: 93  
Marl fabric weight: 2.3 kg  
Nile silt fabric weight: 16 kg

Bases (9): # 1, 4, 7, 14, 17, 23, 27, 33, 73  
Handles (7): # 6, 15, 22, 24, 32, 35, 91

Rims: (64): # 3, 5, 10, 13, 16, 19, 21, 25, 26, 29, 30, 31, 36- 42, 45- 56, 58- 72, 75- 90, 92, 93

Decorated and miscellaneous: (13) 2, 8, 9, 11, 12, 18, 20, 28, 34, 44, 57, 74, 78  
*[NB sherd # 38 & 43 unallocated]*

E 16 A (05 April 2006)

Total diagnostics: 46

Marl fabric weight: 1.95 kg

Nile silt fabric weight: 17.15 kg

Bases (10): # 4- 7, 10, 16, 20, 26, 30, 38

Handles (1): # 32

Rims (24): # 1, 8, 9, 11, 13, 14, 19, 22, 24, 27- 29, 31, 33- 37, 39, 40- 42, 44

Decorated and miscellaneous: (11): # 2, 3, 12, 15, 17, 18, 21, 23, 25, 45, 46

C14 A (05 April 2006)

Total diagnostics: 57

Marl fabric weight: 1.6 kg

Nile silt fabric weight: 19.25 kg

Bases (7): # 37-43

Handles (15): # 26-36, 53- 56

Rims (30): # 1-25, 48- 52

Necks (2): # 44, 45

Burnt sherds (1): # 57

Decorated and miscellaneous: (2): # 46, 47

I20 D (06 April 2006)

Total diagnostics: 139

Marl fabric weight: 9.4 kg

Nile silt fabric weight: 58.15 kg

Bases (14): #s 12-24, 58

Handles (10): # 1-9, 11

Decorated: (20): # 34- 53

Rims (76): # 59- 132, 139, 140

Necks and miscellaneous (6): # 54-57, 133, 138

Burnt sherds (2): # 136, 137

Blue-painted sherds (11): # 25-33, 134, 135

D14 A (08 April 2006)

Total diagnostics: 76

Marl fabric weight: 5.7 kg

Nile silt fabric weight: 30.45 kg

Bases: (8): # 30- 35, 69, 75

Handles: (23): # 1- 23  
 Rims: (34): # 40- 68, 70- 74  
 Decorated: (7): # 24- 29, 76  
 Necks and miscellaneous: (4): # 36- 39

N7 A (09 April 2006)

Total diagnostics: 263  
 Marl fabric weight: 7.05 kg  
 Nile silt fabric weight: 37.2 kg

Bases (35): # 1- 23, 37, 212- 222  
 Handles (5): # 24- 28  
 Rims (215): # 38- 211, 223- 263  
 Necks and miscellaneous: (8): # 29- 36

O6 A (10 April 2006)

Total Diagnostic Fragments: 182  
 Marl fabric weight: 7 kg  
 Nile silt fabric weight: 35.3 kg

Bases (16): # 153- 168  
 Handles (16): # 137- 152  
 Rims (136): 1- 136  
 Decorated: (14): # 169- 182

L7 A (10 April 2006)

Total Diagnostic Fragments: 201  
 Marl fabric weight: 6.2 kg  
 Nile silt fabric weight: 27.1 kg

Bases (16): # 182- 197  
 Handles (17): # 165- 181  
 Rims (164): # 1-164  
 Decorated and miscellaneous; (4): # 198- 201

L6 A (11 April 2006)

Total Diagnostic Fragments: 177  
 Marl fabric weight: 3.4 kg  
 Nile silt fabric weight: 27.25 kg

Bases: (11): # 16- 25, 165  
 Handles: (16): # 1-15, 160  
 Rims: (135): # 37- 159, 166- 177  
 Decorated and miscellaneous: (15): # 26- 36, 161- 164

F14 A (11 April 2006)

Total Diagnostic Fragments: 67  
 Marl fabric weight: 1.7 kg  
 Nile silt fabric weight: 11.75 kg

Bases: (7): # 50- 54, 57, 58  
 Handles: (2): # 55, 56  
 Rims: (49): # 1- 49  
 Decorated: (7): # 59- 65  
 Miscellaneous (2): # 66, 67

#### J16 A (12 April 2006)

Total Diagnostic Fragments: 105  
 Marl fabric weight: 2.8 kg  
 Nile silt fabric weight: 23.3 kg

Bases: (7): # 63- 66, 79- 81  
 Handles: (6): # 67- 72  
 Rims: (86): # 1-62, 82- 105  
 Decorated: (6): # 73, 74- 78

#### H14 A Plan 2/ Area 2 (12 April 2006)

Total diagnostics: 21  
 \*No body sherds collected.

Bases: (2): # 1, 2  
 Handles: (1): # 3  
 Rims: (12): # 10- 21  
 Decorated and miscellaneous: (6): # 4- 9

#### K8 D Plan 4/Area 4 (13 April 2006)

Total diagnostics: 13  
 \*No body sherds collected.

Bases: (0)  
 Handles: (1): # 11  
 Rims: (8): # 2-10  
 Decorated and miscellaneous: (3): # 1, 12, 13

## Appendix 2: Small finds

GU06/SF1      Small body fragment of black-painted blue faience vessel

GU06/SF2      Small body fragment of black-painted blue faience vessel

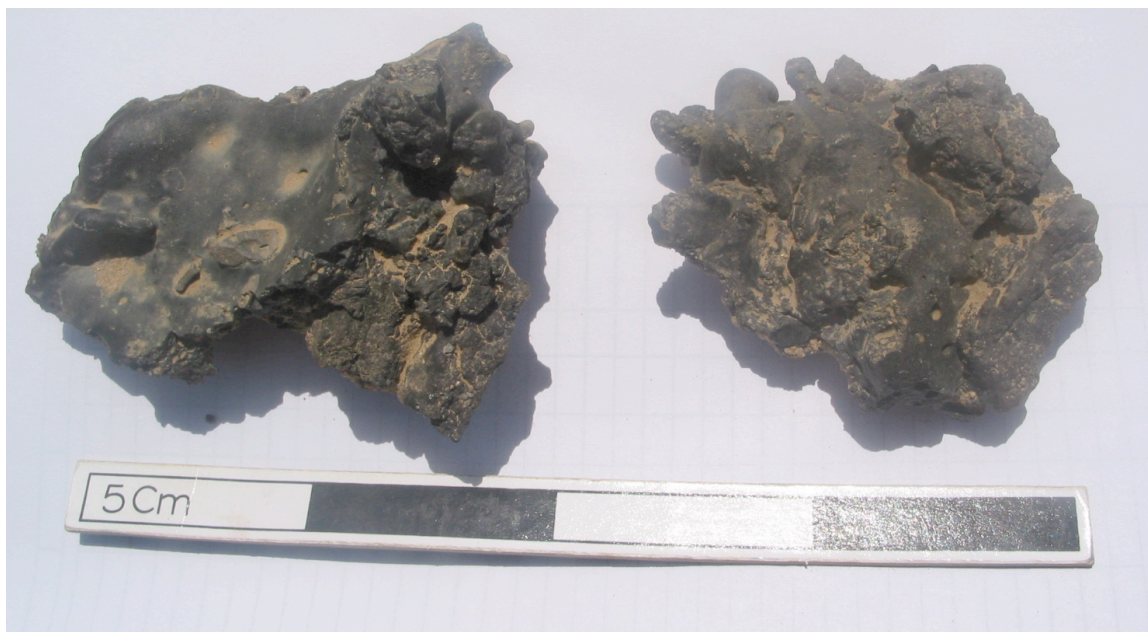
GU06/SF3	Small body fragment of black-painted blue faience vessel
GU06/SF4	Small body fragment of black-painted blue faience vessel
GU06/SF5	Small trapezoidal fragment of painted wall plaster (2.1 x 1.5 x 0.8 cm)
GU06/SF6	Small triangular body fragment of black-painted blue faience vessel (2 x 2.1 x 0.4 cm)
GU06/SF7	Small fragment of faience vessel: exterior green and black, interior white/yellow (1.4 x 1 x 0.4 cm)
GU06/SF8	Large fragment of a white faience cosmetic bowl in the form of a fish; the fragment preserves a fin decorated with parallel brown lines (7.0 x 6.0 x 1.8cm).
GU06/SF9	Small fragment of a black-painted blue faience vessel (3.6 x 2.5 x 0.7cm).
GU06/SF10	Fragment of a thin, pinkish white travertine disc of unknown function (6.0 x 3.7 x 0.4cm).
GU06/SF11	Small fragment of a black-painted blue faience vessel (2.3 x 0.9 x 0.4cm).
GU06/SF12	Small fragment of a black-painted blue faience vessel (3.2 x 2.8 x 0.7).
GU06/SF13	Small fragment of a black-painted blue faience vessel (2.2 x 1.7 x 0.5cm).
GU06/SF14	Small fragment of a black-painted blue faience vessel (3.0 x 2.6 x 2.6cm).
GU06/SF15	Small fragment of a black-painted blue faience vessel (1.7 x 0.8 x 0.2cm).
GU06/SF16	Worked and perforated limestone; probably a loom weight (7.5 x 5.5 x 2.3cm)
GU06/SF17	Hemispherical chert hammer stone (diameter 5.0cm)
GU06/SF18	Fragment of Egyptian blue pigment (3.0 x 1.6 x 1.0cm).
GU06/SF19	Trapezoidal limestone artefact, probably a loomweight with incision around top probably for cord (7.0 x 5.0 x 3.0cm).
GU06/SF20	Fragment of glass slag still adhering to brick from kiln (6.0 x 5.5 x 3.0cm).
GU06/SF21	Fragment of worked red quartzite (3.8 x 2.0 x 1.5cm).
GU06/SF22	Flint artefact with serrated edge (7.0 x 2.0 x 0.2cm)

- GU06/SF23 Fragment of worked quartzite (6.5 x 3.5 x 2.5cm).
- GU06/SF24 Fragment of worked pink granite (4.9 x 4.5 x 2.5cm)
- GU06/SF25 Chert artefact, polished along all four sides to form a rectangle (5.2 x 5.0 x 0.9cm).
- GU06/SF26 Discoid chert artefact (diameter 7.5cm)
- GU06/SF27 Ovoid polished stone artefact (9.0 x 7.5 x 2.5cm).
- GU06/SF28 Mycenaean sherd
- GU06/SF29 Rim fragment of a black-painted blue faience vessel (0.5 x 0.4 x 0.2cm).
- GU06/SF30 Rim fragment of a black-painted blue faience vessel (2.6 x 1.2 x 0.5cm)
- GU06/SF31 Body fragment of a black-painted blue faience vessel (1.9 x 1.7 x 1.4 cm)
- GU06/SF32 Body fragment of a blue faience vessel – no visible traces of black-painted decoration on either side (1.6 x 2.0 x 5.0cm)
- GU06/SF33 Rim fragment of a blue faience vessel – no visible traces of black-painted decoration on either side (3.1 x 1.9 x 1.0cm).
- GU06/SF34 Body fragment of Mycenaean pottery vessel – yellowish brown, with two red/orange bands and blue details (2.6 x 3.7 x 0.4cm)
- GU06/SF35 Dolerite hammer-stone, spherical (8.0 x 6.5 x 5.0 cm)
- GU06/SF36 Fragment of a dolerite hammer-stone, spherical (7.8 x 8.8 x 5.5cm)
- GU06/SF37 Body fragment of a blue faience vessel – no visible traces of black-painted decoration on either side (1.5 x 1.8 x 0.5cm)
- GU06/SF38 Body fragment of a black-painted blue faience vessel (1.9 x 2.2 x 0.5cm)
- GU06/SF39 Rim fragment of a black-painted blue faience vessel, probably burnt (2.7 x 2.4 x 0.4cm)
- GU06/SF40 Body fragment of a large thick-walled blue faience vessel (9.0 x 3.0 x 4.0 cm)
- GU06/SF41 Two very small fragments of blue faience (0.9 x 0.6 x 0.4cm & 0.6 x 0.4 x 0.2 cm)

- GU06/SF42 Heavily eroded body fragment of a blue faience vessel (1.4 x 1.9 x 0.6 cm)
- GU06/SF43 Body fragment of a black-painted blue faience vessel (1.9 x 0.9 x 0.4 cm)
- GU06/SF44 Unworked fragment of travertine (6.5 x 5.0 x 8.0 cm)

### **Appendix 3: Glass slag from the ‘glassworking’ area: weights per square**

- N7 A (09 April 2006): Slag weight: 1.1kg
- O6 A (10 April 2006): Slag weight: 0.2 kg
- L7 A (10 April 2006): Slag weight: 0.2 kg
- L6 A (11 April 2006): Slag weight: 1.35 kg



## **Appendix 4: Proton magnetometry survey results**