

The fourth box: Material from Lahun in the Collection of the Australian Institute of Archaeology

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Abstract: In 1949, the Australian Institute of Archaeology (the Institute) received a large consignment of objects from Egypt and Tell el-'Ajjul. A recent audit of the Institute's Egyptian collection drew upon the detailed packing lists prepared by Hilda Petrie, tags, packaging, and published excavation reports to ascertain the provenance of the material. Many small finds and much pottery from the Fayum site of Lahun were identified. This paper describes processes and practices adopted, the results of the investigation, and a sample of key objects. It appears that the Institute holds the largest collection of artefacts from Lahun in Australia, which can now add to our knowledge of the site and its excavation history.

Keywords: Lahun, Fayum, Hilda Petrie, Middle Kingdom, Foundation deposits.

This paper is dedicated to the memory of Lady Hilda Petrie – the authors like to think that she would be happy with their work.

Introduction

In 1949, the Australian Institute of Archaeology (the Institute) received a substantial consignment of objects from Egypt and Tell el-'Ajjul (Palestine), packed in boxes marked 'TY I-IV'.1 This material represented a division of finds from stored material, primarily associated with excavations conducted by the British School of Archaeology in Egypt (BSAE), under the directorship of Flinders Petrie (1853–1942).² Most of the Egyptian material from this division was sourced from the Fayum sites of Tarkhan, Harageh, Lahun, Gurob, and Sedment (Petrie et al. 1913; Petrie 1914a; Engelbach & Gunn 1923; Petrie et al. 1923; Brunton & Engelbach 1924; Petrie & Brunton 1924) (Figure 1).³ The Institute's collection of material from these sites is considered to be the largest in Australia. Many of the objects from both Egypt and Tell el-'Ajjul were recorded in detailed packing lists sent by Hilda Petrie (1871–1956) to the founder of the Institute, Walter Beasley (Davey 2017: 20-21). These lists form part of the Institute's digitised archives, and are referred to as AIA Doc. 4902 (hereafter Doc. 4902).⁴ Egyptian material from this division included pottery, shabti figures, stone vessels, amulets, and beads. A variety of other objects in flint, bronze, stone, faience, and organic materials were also represented.

An audit of the entire Egyptian collection commenced at the Institute in 2022, as a collaborative project with graduate and undergraduate student volunteers.⁵ The project aimed to identify uncatalogued or missing items, enhance existing catalogue entries, and undertake detailed legacy and site provenance research. As a collection management process, the accession register, Excel artefact database, and the division lists were used to identify the location and description of the Egyptian objects, although Doc. 4902 was the primary source used to track this division. Amongst the handwritten and typed lists that constitute Doc. 4902 were references to objects from Lahun (Figure 2). These objects were packed and sent to the Institute in Box TY IV. Some of the smaller objects were further stored in cigarette or match boxes labelled with references to tomb numbers or find-spots, or were themselves annotated with 'L' or 'Lahun' (Figure 3). These invaluable



Figure 1: Map of Egypt, showing the location of Lahun in relation to other sites mentioned in the text. Drawn: Emily Tour.



Figure 2: Handwritten and illustrated packing list made by Hilda Petrie (AIA Doc. 4902), recording items included in a division of finds sent to the Institute in 1949. Items mentioned in-text have been highlighted.

details were used to identify objects, tombs, and other locations in the original excavation report, *Lahun II* (Petrie et al. 1923). It was initially thought that the amount of Lahun material held at the Institute was small, however, research to date has identified 142 objects from the site, dating from the First Dynasty (c. 3100–2986 BCE) to the early Roman Period (c. first century CE). This number is expected to increase as we continue to audit and work our way through the Institute's collection of Egyptian pottery (280+ complete vessels and fragments).

This paper outlines the identification of the Lahun material in the legacy and site documentation, and introduces a collaborative project, producing high-resolution threedimensional models via photogrammetry, which are being continually added to the Institute's Pedestal3D platform (https://aiarch.pedestal3d.com/).

Hilda Petrie and the 1949 Division

Following Flinders Petrie's death in 1942, Hilda Petrie began to wrap up the BSAE's affairs, which included distributing consignments of finds to the Institute, the University of Sydney, and the Bowen Bible Museum (Drower 1985: 426-427; Stevenson 2019: 184).⁶ The dwindling enthusiasm of museum curators in the UK towards acquiring ancient Egyptian material, declining memberships in Egyptian societies, and the passing of many sponsors who once supported the BSAE, meant there was little interest in the fate of artefacts stored in the basement of University College London (Stevenson 2019: 184–185).⁷ These objects were principally from the Egypt Exploration Fund and BSAE excavations conducted in the Fayum and Abydos, and from sites excavated by the Petries in Palestine. Notably, amongst this stored material was a large number of objects from Lahun (Stevenson 2019: 184). The exact reasons for storing this material for decades are unclear. Perhaps the objects were stored for future distribution when financial support of the BSAE was required,8 or were held back for study by Flinders Petrie. Although, between regular Egyptian excavations, report writing, sponsorship drives, exhibition displays, and public speaking engagements, it is unlikely that much time was left to arrange the distribution of all excavated objects. With diminishing support in the UK, it was time to look elsewhere for institutions willing to provide funding to acquire this stored material.

In a letter to Beasley dated 18 June 1946 (Figure 4; Doc. 4902), Hilda Petrie writes 'Australia has little of Flinders Petrie,+ a unique opportunity arises to have some of the odds + ends left by F. P.'9 The letter goes on: 'after a very lonely 4 yrs in a small room in Jerusalem, (I have not seen my children for 10 years). I must get home to edit – that is why I must part with everything here – also I so badly want money for publishing + some typing'.



Figure 3: Photograph of shell bracelet (IA1.940), and the original cigarette box used to store the item (IABox.0009). Note the corresponding annotation 'L.714' on both the bracelet and box lid. Photo: Emily Tour.

real of Research, Jenus Dear Mr Beagley, You knidly wrote an gested a contribution. A ustration has little Flinders Petrie, J a unique opportunity have some of the odds + ends left like, chiefly is assoc Their value is tion but if you caved to send me \$ 50. 1 could read your a few books, maps, pap some MS. perhaps, & copper block & fewish temple illustration from what he found in Delta a small plustos of excavation + 4P me negativis, some latitim-sticles. re proofs + phates (unto gaps) of his fo all are formbed) books (valuate now For another \$ 50 I could read you fifty back, want money for publishing , T scarabs, all of them discoursed on the my Typing Egyption borden of Palestine (A recent au manage to take over some of I have no other antra mities Gaza). ever some could be sold I write at once, & by quickest post as 1 - the scare bo , as pu realize Palestie show Hunking of leaving my daughter fetches me, & shall then site mly to into public masums - not momentip - 1 sh? be grad to feel That at home Joi 10 yrs ? & publish all his us Petus is represented a australia as supublished work which I am beginning his ellustrious granofation (alerse they rdit presented to australia) After a very lenely A yes wa envalues, (I have not seen my childrens 10 years) - I must get home to 20it -Cook, here, could put all is a box, if you thuild it worth while to pay is aling I must part with arrighting here - also I or please o you said

Figure 4: A page from one of Hilda Petrie's letters to Walter Beasley, dated 18 June 1946 (AIA Doc. 4902).

These comments are quite telling. She wanted nothing for herself from Beasley's prospective support, but was concerned with completing her husband's unfinished work. Fortunately, this opportunity was taken up by Beasley, who saw the potential of this material for public display and educational purposes in Melbourne.¹⁰

After accepting the offer, Beasley was sent numerous packing lists and letters. These documents demonstrate Hilda Petrie's awareness of the issues associated with sorting and organising such a large consignment. Indeed, as an archaeologist in her own right, and the major recorder of objects for her late husband's BSAE excavations, she was aware of potential errors in her recording and dating of the pottery in particular. In another letter to Beasley dated 24 October 1949 (Doc. 4902), this issue is addressed, as 'it is now 23 yrs since I left off my 30 yrs' work in Egypt, so I have got rusty + can no longer tell a dynasty at sight'. She also clarified that pencil marks on the pottery indicate 'L' meant Lahūn, and 'G' or Gh was Ghurob, 'H', Harageh. No mention was made of any Lahun material specifically, so it is presumed that further explanation was unnecessary, given the meaning of any alphabetic letters in the lists was already clear.

Beasley was also advised not to open the four packing cases until the object list arrived (air-letter, dated 22 October 1949; Doc. 4902). Further instructions for unpacking the materials were provided: 'A very long run of table, bench or planking would take them best in their groups or layers. It is essential to keep the groups

together, by tallying with the lists as you remove them... The separate small boxes are filled either with a group, or where they are obviously odds, it is because they are fragile, or in bits, or because they are rare'. It is unclear how well Hilda Petrie's instructions were followed. In the subsequent years, Institute staff were fully engaged in teaching, and had neither the time nor the specialist knowledge to research the objects contained in the consignment. Some objects from Lahun were catalogued, such as the seal impression and reed trays discussed below, but the significance of this material went unrecognised until the commencement of this current research project.

Following BSAE excavations, finds from Lahun were distributed to museums in the UK, USA, Europe, and Australia (Petrie et al. 1923: 44-45).¹¹ The movement and accounting of Egyptian objects was complex, and the distributions were not permanent, with many artefacts being deaccessioned and further dispersed onto other museums (Stevenson 2019: 185-195). As the Institute began as a private organisation and not a traditional museum, understanding its role as a supporter of archaeological excavations is crucial to building a more comprehensive picture of the distributive pathways and final locations of the many Egyptian artefacts uncovered by early twentieth century excavators. As Stevenson (2019: 1) notes, the 'history of this material diaspora can be told from any number of perspectives'. We have decided therefore to focus our story on the Lahun material sent by Hilda Petrie across the world to Melbourne and the Australian Institute of Archaeology.



Figure 5: Outline plan of Lahun from the original excavation report. Locations discussed in-text have been highlighted, after Petrie et al. (1923, pl. II).

Lahun - site overview

Lahun (also known as Kahun or Illahun) is situated in the Fayum, over 100 km south-west of Cairo (Figure 1).¹² The site includes numerous discrete cemeteries and quarries, together with a pyramid complex, associated temples, and a state-planned settlement of the Middle Kingdom ruler Senusret II (fourth pharaoh of the Twelfth Dynasty, r. 1887–1878 BCE) (Quirke 2005; Mazzone 2017; Moeller 2017; Grajetzki 2024). During the Twelfth Dynasty (c. 1991–1802 BCE), Lahun formed part of a network of important Memphite-Fayum sites, including Dahshur, Lisht, and Hawara (Quirke 2005: 7–10) (Figure 1).

Lahun was one of several Fayum sites excavated by Flinders Petrie during a period of patronage by Jesse Haworth (1835–1921) and Martyn Kennard (1833–1911), and then under the auspices of the BSAE.¹³ Petrie, alongside Guy Brunton (1878–1948) and their respective teams, was at the site for several seasons between 1889–1921 (Petrie 1890, 1891; Brunton 1920; Petrie et al. 1923).¹⁴ Objects from the last two seasons (late 1919–1920 and 1921) are represented in the Institute's collection, and many are published in some way in *Lahun II* (Petrie et al. 1923). The archaeological evidence, as recorded by these early excavators, demonstrates that the site served various mortuary, settlement, administrative, and ritual functions from the Predynastic and Early Dynastic periods through to the Roman and Coptic periods, and had a complex history of re-use over time (Quirke 2005). The Lahun material in the Institute's collection reflects this long connection between people, practices, and landscape.

Objects and inorganic materials in the collection were excavated from various areas across the site, including the larger Bashkatib (see below), West Hill and West Dyke cemeteries, Cemetery 900, and the smaller burial grounds identified as Dameshqin, Kahun Wady, and the group north east of the pyramid (Tombs 50, 52 and 57).¹⁵ These locations can be identified on the relevant site maps (Petrie et al. 1923: pls II-III, XIII, XXIII, XL) (Figure 5). Harder to pinpoint are broad locations or spoil heaps such as 'S.W. Chips' (outside the walls of the pyramid), 'pits to water' (west of the Bashkatib cemetery), and some of the quarry areas. Foundation material from an enigmatic structure referred to as the 'Sed-Heb Chapel' to the north of the pyramid, and beads from Royal Tomb 7 in the pyramid complex, represent important additions to the collection (Petrie et al. 1923: pls III, VIII) (Figure 5). A variety of pottery vessels left as offerings on a platform to the east of the pyramid temple, within the foundation deposits of the Sed-Heb Chapel and Queen's pyramid, and as grave goods in several tombs and mastabas, were also included in the 1949 division. The pottery from Lahun

is not discussed here, but is listed in Appendix 1, Part D. Due to the size of the Egyptian pottery collection, site identification for this material is an ongoing project. In total, material from 38 tombs and at least 15 locations across Lahun have been identified to date.

Bashkatib Cemetery

The Institute holds material associated with 17 tombs from the Bashkatib cemetery, 15 of which are listed on Doc. 4902 (Figure 2; Appendix 1, Part A). This cemetery was located to the south-west of the pyramid of Senusret II, and takes its name from the nearby station of Bashkatib (Petrie et al. 1923: 21) (Figure 5). The chronological importance of the cemetery, covering the 'first three dynasties', was noted in the excavation report (Petrie et al. 1923: 21). Based on the recorded data, principal use of this cemetery can be assigned to the First to Third Dynasties (c. 3100-2575 BCE), with evidence of grave chamber re-use during the Third Intermediate Period (c. 1070-644 BCE) (Petrie et al. 1923: 24; Quirke 2005: 124). Most of the Bashkatib material in the collection can be associated with the earlier (First Dynasty) or later (Third Intermediate Period) phases of cemetery use, which covers a period of nearly two thousand years (Quirke 2005: 124).

Material in detail

Our audit of the Institute's Egyptian collection grew naturally into a large-scale rediscovery and reassessment event. With the Lahun material now under a microscope, we have been able to better identify, classify, and research objects. Notable examples include some interesting beads, amulets, a clay or mud sealing, and organic materials.

During the audit, small tags were found attached to some of the objects. These tags were annotated with tomb numbers and other information. Based on comparisons with Hilda Petrie's handwriting on Doc. 4902 (Figures 2 and 4), most of these tags appear to have been written by her. This similarity extends to the handwriting found on some of the Lahun objects, as seen on the shell bracelet from Bashkatib Tomb 714 (Figure 3). While the object annotations were probably done at the time of excavation, or at the field house, it is not known when the tags were created. It is possible that these were made once the objects reached the UK, or even later when Hilda Petrie was organising the material for distribution to the Institute. Original storage boxes annotated with Egyptian object and provenance information were also identified, but most of these had become separated from the objects since receipt into the collection. Again, similarity to Hilda Petrie's hand is seen on this material (Figures 2 and 4). There is certainly scope to widen our project to include a comparative handwriting analysis, in order to confirm our thoughts about these tags.

In 2023, an ephemera project was established to catalogue the storage boxes, and connect this information with the artefact catalogue. We recognise that the term 'ephemera' may imply that this material is of little importance, or peripheral to our research. This is not the case. We have been actively attempting to combat the loss of core archaeological information through documenting these boxes (Davey and Mawdsley forthcoming). Most associated with the Lahun objects are cigarette and match boxes, which we consider to be key documentary evidence of excavation activities. Finds were probably placed in the boxes at the site, which provided convenient storage for small objects (Figure 3). It is presumed that the boxes were then annotated with descriptive information at the same time. A samples database was also established to record any small fragmentary material or residues found either in the boxes, or with the objects as currently stored. This material has been linked to the artefact catalogue, and is available for scientific testing. Currently, we have catalogued boxes as IABOX.[Object #], and samples as IASample.[Object #]. The information provided by these ephemera has helped us confirm provenance, as we demonstrate below, particularly with the beads. It also offers a historical perspective, providing a unique physical connection to early excavations.

The material presented in the following section represents a sample of key objects in the Lahun collection. These objects were selected for discussion on account of their importance for understanding the complicated distributive pathways (from Lahun to the Institute) associated with archaeological material, and for their contribution to our knowledge of the site and its excavation history. For a full list of Lahun material, accurate as of the time of publication, refer to Appendix 1.¹⁶ References to specific objects follows the Institute's registration format of 'IA[Region #].[Object #]' (for example, IA1.1028), and any such numbers present in this paper refer to material listed in Appendix 1.

Amulets

During the audit, three large boards were found with numerous objects attached, including faience amulets, beads, small bronze figures, a miniature stone vessel, and a large wooden Ptah-Sokar-Osiris figure. The objects were selected and mounted by Institute staff for display purposes at Ancient Times House, a sinceclosed antiquities museum established by Beasley in 1954 (Davey & Mawdsley forthcoming). Following this discovery, efforts were made to safely remove the mounted artefacts and catalogue them accordingly; this included cross-referencing the material against the Fayum excavation reports (Engelbach & Gunn 1923; Petrie et al. 1923; Brunton & Engelbach 1924; Petrie & Brunton 1924). This process facilitated the identification of 15 amulets likely originating from Lahun. Unfortunately, due to a lack of clarity in some of the report drawings, coupled with minimal descriptive detail in both the tomb registers and Doc. 4902, we have been unable to positively identify all the Lahun amulets. Likewise, tomb provenance was recorded for some, including a 'Lizard' (Nehebkau, see below) and wedjat eyes, but most were listed as 'L (loose) amulets' (Figure 2).¹⁷

Nehebkau

A blue-green faience amulet of Nehebkau was described by Hilda Petrie as a 'Lizard amulet, gr. glz.' (IA1.1028; Figure 6). This amulet is depicted in the round, with the head of a serpent on a human body, supported by a snake's



Figure 6: Amulet of Nehebkau (IA1.1028) and associated faience beads (IA1.2767) from Tomb 601 in the West Ridge Cemetery. The amulet has its original tag attached, with a tomb number and find date. Photo: Chloe Rankin.

tail. The serpent's face is elongated, with clenched hands raised to its mouth. Nebhebkau is often shown in this anthropomorphic style, but can also be depicted with a serpent head and body, coupled with human arms and hands (Petrie 1914b: 49, pl. XLVII.254d; Shorter 1935: 42; Andrews 1994: 25, fig. 22).

Nehebkau was a chthonic serpent deity, whose name first appeared in the *Pyramid Texts* of the Old Kingdom (Shorter 1935: 41–44). In the *Book of the Dead*, Nehebkau was one of 42 judges of the dead, and considered a protective deity (Petrie 1914b: 49; Wilkinson 2017: 224). Nehabkau could not be harmed by water or fire, nor be subjected to harmful magic, so it is unsurprising that these qualities were channelled through amulets, most of which are associated with burials of the Third Intermediate Period or Late Period (Shorter 1935: 41; Andrews 1994: 25–26; Wilkinson 2017: 224–25). There is a loop for threading at the back of IA1.1028, so it is possible that the piece was once worn in life, before it was deposited as a grave good.

Notably, Nehebkau was attached to a string of 11 faience beads (IA1.2767; Appendix 1, Part B), along with a tag annotated with '601 1919' (Figure 5). This information appears to have been written by Hilda Petrie, and a later transcription error on her part can be seen on Doc. 4902, where 601 is listed as '109' (Figure 2). An examination of the excavation report confirmed that the Nehebkau amulet was not associated with Tomb 109 in the Kahun Wady. This particular tomb was unfinished, with rough-cut rooms and no grave goods (Petrie et al. 1923: pl. XLVIII). Rather, the tag clearly identifies the amulet as coming from Tomb 601 in the West Ridge Cemetery, and provenance is further confirmed when cross-referenced with the excavation report (Petrie et al. 1923: pls XLVIII, LXVIII.33). This tomb was cut during the Twelfth Dynasty, and later reused in the Third Intermediate Period. Whilst the exact find-spot of the amulet is unknown, it is associated with the later phase of use (Petrie et al. 1923: pl. XLVIII). IA1.1028 was also one of nine Nehebkau amulets tabulated in the register of Twenty-Second Dynasty amulets by Guy Brunton, one of which was recorded for Tomb 601 (Petrie et al. 1923: pl. XLIX).¹⁸ It is also interesting to note that the original tag is annotated with '1919', indicating that the discovery of this amulet occurred in the December 1919 phase of the excavation of Tomb 601

Thoth

The Institute has two Thoth amulets (IA1.1064 and IAI.1066), which are considered part of the 'loose amulets' mentioned on Doc. 4902 (Figure 2). Thoth has two manifestations: as an ibis or ibis-headed man, and as a baboon (Stadler 2012: 2; Wilkinson 2017: 216). IA1.1064 is depicted in the round as a squatting baboon, with forepaws resting on the knees, and a lunar disc and crescent on his head, in light green faience (Figure 7). This theriomorphic form is thought to represent Thoth in his guise as a lunar deity (Stadler 2012: 3). Thoth is best



Figure 7: Thoth amulet in the form of a seated baboon with lunar disc and crescent (IA1.1064) from Tomb 746 in the Bashkatib Cemetery. Photo: Chloe Rankin.

known as the god of writing, wisdom, and education, as well as the protector of scribes and priests (Andrews 1994: 27; Stadler 2012: 1). Thoth also played a significant role in funerary culture, appearing as the recorder in judgement scenes associated with the *Book of the Dead* (Stadler 2012: figs. 4–5; Wilkinson 2017: 216).

There was a distinct absence of any reference to Thoth or baboon amulets on Doc. 4902. Despite this, a drawing of a squatting baboon amulet, with a lunar disc and crescent, was identified and attributed to Tomb 746 in the Bashkatib Cemetery (Petrie et al. 1923: pl. LXVIII.41).¹⁹ The features of this baboon, and more specifically, the marks above the knees, can be seen as lines on the faience of IA1.1064 (Figure 7). This was considered enough corroborating detail to connect the amulet with Tomb 746. IA1.1064 is associated with the Third Intermediate Period use of the tomb, and is listed as a generic amulet in the general register entry for Tomb 746 (Petrie et al. 1923: pl. XLVIIIA).

Interestingly, this amulet appears as one of three monkeys listed in the register of Twenty-Second Dynasty amulets (Petrie et al. 1923: pl. XLIX). The other two amulets are attributed to Tombs 610 and 618 from the West Ridge Cemetery. It seems that no distinction was made between a baboon and a monkey, and this is confirmed by a drawing of a small monkey with hands to its mouth from Tomb 618 (Petrie et al. 1923: pl. LXVIII.40). This leads to thoughts about the Institute's other baboon amulet, IA1.1066, which is also depicted as a squatting baboon with hands on the knees, but with what appears to be a solar rather than lunar disc on the head (Figure 9).²⁰ This form may reference Thoth's role as an agent of Ra (Stadler 2012: 9). Despite the lack of a drawing, IA1.1066 is considered to be one of the three monkey amulets tabulated for Lahun, and part of the grave goods deposited in Tomb 610 during the Third Intermediate Period (Petrie et al. 1923: pls XLVIII, XLIX). A small brown envelope was also found amongst the Institute's ephemera, annotated with 'figure of Thoth in the form of



Figure 8: Thoth amulet in the form of a seated baboon with sun disc, and storage envelope annotated in Hilda Petrie's handwriting (IA1.1066). Possibly from Tomb 610 in the West Ridge Cemetery. Photo: Emily Tour.



Figure 9: Beads from Tomb 705. L: Restrung beads (IA1.2793), with tomb number written on original tag; R: individual limestone bead (IA1.2800), with tomb number annotated directly on it. Photo: Alexis Green.

a baboon with sun disk. Saite/Ptolemaic Period', probably in Hilda Petrie's handwriting (Figure 8). This envelope has since been reunited with IA1.1066.

Beads

The Institute has a selection of strung and loose beads from Lahun, dating from approximately the First Dynasty through to the Roman Period. These beads can be attributed to seven different burials (see Appendix 1, Part A–B).

Most of the Lahun beads reflect a rounded typology (spheroids, rings, and cylinders), which were standard throughout much of Egyptian history, allowing for shifts in popularity over time (Harrell 2017: table 2). Many of the beads are made of blue or green faience, this material and these colours being amongst the most commonly used (Kaczmarczyk & Hedges 1983: table XXIII; Xia 2014: 104). Some strings also feature soft stones like steatite and limestone, or hard stones like amethyst, garnet, and carnelian. All these materials were consistently popular choices for bead manufacture, and could be locally sourced (Xia 2014: 84: 103; Harrell 2017: table 1).

During the audit, some beads were linked to specific burials with relative ease. This is because they featured small, handwritten tags or marks with references to Lahun, grave numbers, and sometimes the year of excavation. Where possible, these tags have been crossreferenced with other legacy and accession data (Doc. 4902) to provide further archaeological and historical context for the Lahun objects. For instance, IA1.2793 has a small green tag with 'Lahun 705' written on it, whilst IA1.2800 has 'L705' annotated on the bead itself (Figure 9).²¹ These annotations associate both items with Tomb 705 from the Bashkatib Cemetery.

It is worth noting that it can be difficult to put these finds in context with their origins. Tomb 705 was a mid–late First Dynasty burial, but the excavation report does not discuss it in detail, nor do we have tomb cards from Lahun (Petrie et al. 1923: 22). Whilst this greatly impacts our understanding of the material's placement within the tomb itself, relative to the burial and other finds, it also limits the use of these sources to verify finds and provenance information listed on Doc. 4902. In their absence, we needed to look elsewhere. Although the distribution list states that finds from Tomb 705 were sent to Melbourne (Petrie et al. 1923: 44), this refers to objects housed at the National Gallery of Victoria - there is no connection between the initial distributions and the 1949 division. Instead, it was the tags and annotations found on the beads, coupled with the tomb register and bead corpus in the excavation report, that helped to positively attribute the Institute's material to Tomb 705 (Petrie et al. 1923: pls XLV, LXIII).

Bead-burial identification is already a tricky affair, so being able to confidently verify information across multiple sources, whilst still not necessarily straightforward, certainly makes the process easier. The annotated tags are a wonderful and welcomed element of the Lahun collection. They demonstrate the diversity of findspots for our material and provide crucial provenance information when it may have otherwise been lacking. To further this point, and illustrate some of the more interesting beads and burials associated with the Lahun collection, the following is a brief discussion of finds from Tombs N17 and 7.

Tomb N17

Tomb N17 in the West Hill Cemetery is thought to be one of the earliest Middle Kingdom burials at the site (Petrie et al. 1923: 33–34; Quirke 2010: 27) (Figure 5). Upon excavation, it was found to contain 'beads of many kinds', made of garnet, carnelian, amethyst, blue and green faience, electrum, lapis lazuli, and feldspar (Petrie et al. 1923: 34, pl. XLVIIIA). The Institute received a large number of beads from N17, including three boxes



Figure 10: A selection of three bead strings from Tomb N17. L–R: amethyst and carnelian (IA1.2787), garnet (IA1.2768), faience and fly amulets (IA1.2786). Original tags are attached. Photo: Chloe Rankin.

of loose, faience cylinder and ring beads (IA1.2794), and several bead strings (IA1.2768; IA1.2786; IA1.2787; Figure 10). Two of these strings – IA1.2768 and IA1.2787 – featured tags with 'L NN17', further confirming their provenance.

The N17 finds also included three strings of tiny lapis lazuli, carnelian, and feldspar beads (Petrie et al. 1923: 34). Whilst IA1.2787 does feature small amethyst and carnelian ball beads, it is unclear whether these are related to the three strings referenced in the report. The Institute also retains IA1.2768 – a string of tiny garnet ball beads (Figure 10). Garnet beads are mentioned for N17, but miniature ball beads are not; neither in the excavation report, nor the tomb register (Petrie et al. 1923: 34, pl. XLVIIIA). They are attributed to N17 because of an attached tag, which provides provenance data, and supplies information and evidence for objects that may not have been reported in the original excavation reports.

One of the more striking bead strings from N17 in the Institute's collection is IA1.2786 - a small set of blue-green faience beads with miniature fly amulets (Doc. 4902; Figure 10). Flies are a type of homopoeic amulet typically found on necklaces (Petrie 1914b: 9). They invoke protection from insects, persistence, and valour, but are not as commonly featured in Egyptian jewellery compared to scarabs or butterflies (Andrews 1990: 181; Andrews 1994: 112; Binder 2008, 52). Since the Predynastic period, they were made from a variety of materials, including gold, limestone, steatite, faience, lapis lazuli, and red jasper (Petrie 1914b: 12). Several Twelfth Dynasty fly amulets, some strung with beads, comparable to IA1.2786, are known from Lahun (see Petrie 1914b: pls II (19f) and XLIV (19g)).²² Interestingly, the excavation report notes that N17 contained an amethyst fly, with no mention being made of the faience ones (Petrie et al. 1923: 34).

As with IA1.2768, IA1.2786 was not associated with N17 through information provided by the excavation report. Rather, Doc. 4902 was the primary identifying



Figure 11: A string of green faience disc beads (IA1.2738) from Royal Tomb 7, with original tag attached. Photo: Chloe Rankin.

source. However, while Doc. 4902 clearly lists the faience fly amulets in association with N17, it is odd that they were not reported in *Lahun II* when similar finds (the amethyst fly) were. Further, whilst flies are referenced in the *Qau and Badari* amulet typologies, neither the N17 finds or any flies from Lahun were included (Brunton 1927; Brunton 1928: 11). The fly amulets from N17 therefore represent an important find, and further research is necessary. They also highlight a key issue with the inconsistency of archaeological documentation.

As researchers, we must acknowledge potential inaccuracies in documentary evidence - although it is possible that some artefacts were simply excluded from Lahun II for uncertain reasons, there is a chance that they were incorrectly attributed to N17 in Doc. 4902. In a similar example, Doc. 4902 indicates that the Institute received a gold hawk amulet from N17. Excavators attribute a carnelian hawk to the burial, but no reference is made to a gold variant, either in the initial description of N17 or the tomb register (Petrie et al. 1923: 33-34, pl. XLVIIIA). Considering that the Institute's Lahun material was received nearly 30 years after the initial excavations, and we have no information regarding how it was catalogued prior to shipment, potential errors in labelling and site attribution may be what is reflected in Doc. 4902. Though, given that it is a key provenance source, this remains purely speculative.

Tomb 7

Among the Lahun collection, we also identified a string of green faience ring beads associated with Royal Tomb 7 (IA1.2738; Figure 11). Like the 705 and N17 beads, the string featured a tag with 'Lahun 7 1919'. Located within the Lahun pyramid enclosure, Tomb 7 was a Twelfth Dynasty burial that had been looted in antiquity (Brunton 1920: 11; Petrie et al. 1923: 15). No inscriptions were found that could identify the tomb owner; excavators presumed that it belonged to a princess buried during the reign of Senusret II (Brunton 1920: 14). All finds from this tomb, including the beads, were noted as being typical of this period (Brunton 1920: 14). The excavation report states that a variety of beads were discovered, including several hundred faience ring beads (Petrie et al. 1923: 15). These are drawn on pl. LXIII and further described as 'light & dark blue glaze, many' (Petrie et al. 1923: pl. LXIII (type L)). They closely resemble the IA1.2738 beads which, despite some degradation, range in colour from a light green to darker shades of blue, and presumably represent a portion of the many faience ring beads from Tomb 7.

Following excavation, the Tomb 7 beads were sent to the Petrie Museum (Petrie et al. 1923: 15, 44); for example, see LDUCE-UC6766, which was supposedly recovered from the dust inside the sarcophagus (Petrie et al. 1923: 15; Stevenson 2015: 106). However, we have no indication that IA1.2738 was ever part of the Petrie Museum's collections. It is possible that they were separated from the Tomb 7 finds at some stage, and stored with other objects from the 1949 division. The presence of the tag suggests an active process of separation and storage. Again, we must exercise caution with this. As discussed above, we have no records relating to the treatment of the Lahun material following its initial excavation and export to London. False site attribution or, in this case, tomb attribution is plausible. It should be noted that we would have been unable to associate IA1.2738 with Tomb 7 in the absence of its tag - whilst Doc. 4902 references '7 tomb', indicating that objects from that location were included in the division, no specific items are listed or described (Figure 2). Therefore, despite the object tags having proved crucial in site and tomb identification, there exists the possibility of documentary error.

Sealing

During the initial Lahun excavations, several hundred sealings were uncovered. According to the excavation report, two were found either within or near the pyramid, another two in a pit beneath the quarry chips, and the remaining 226 within the town area of Lahun (Petrie et al. 1923: 41). Of this material, the Institute received multiple fragments from what is recorded as a single seal impression (or sealing) (IA1.991; Doc. 4902). This was drawn and described as a single seal impression in the original excavation report (Petrie et al. 1923: 19, 41, pl. LXV.342). The sealing was excavated from a pit at the south-west corner of the Sed-Heb Chapel, one of the four foundation deposits associated with this structure (Petrie et al. 1923: 19, 41).

Find context in the Sed-Heb Chapel

Four pits identified as foundation deposits were uncovered in the excavation of the Sed-Heb Chapel, one at each corner of the building. Three of the deposits – those located in the south-west, south-east and north-east – contained an array of finds, with only the north-west pit proving empty (Petrie et al. 1923: 19). The south-west foundation deposit was filled with 'clean sand' throughout, and held an array of items besides the sealing, including 32 small pots, a model brick, a bag of white linen, a small roll sewn up in white linen, a triangular piece of bone, a bull's head and haunch, and two reed trays (Petrie et al. 1923: 19). In terms of broad stratigraphy, the pit was overlain by brick, with the bull's head at the top of the deposit, and the two trays immediately beneath. The bag and small roll were found in association with the lowest layer of pots, which are described as having been 'broken anciently' (Petrie et al. 1923: 19). The sealing is recorded as laying at the bottom of the pit, beneath a saucer. Interestingly, excavators suggested that it 'must have broken off the string which was tied round the neck of the linen bag' (Petrie et al. 1923: 19); the potential relationship between these two items will be explored further below.

Foundation deposits in Middle Kingdom Egypt

Foundation deposits were votive offerings placed in or around the foundations of a building prior to its construction, often in the corners or beneath door thresholds (Weinstein 2005). They served as a form of sanctification and protection for the structure (Müller 2018: 189). The contents of the south-west deposit of the Sed-Heb Chapel, along with those from the south-east and north-east pits, appear typical of Middle Kingdom foundation deposits, which generally consisted of food offerings (including bovine sacrifices), pottery, objects associated with construction or foundation rituals (either miniature representations, or full-sized items), beads or other small items of value, and miniature bricks or plaques (Petrie et al. 1923: 19; Weinstein 2005; van Haarlem 2013). Comparable examples from the Twelfth Dynasty are found at the mortuary complexes of Amenemhet I and Senwosret I at Lisht, the Osiris temple complex at Abydos, and the pyramid of Amenemhet III at Dahshur (Weinstein 2005).23

Sealing description

Returning to IA1.991, the Institute holds five fragments associated with this single accession number. Three of the fragments are considerable in size, and bear visible impressions of seal motifs on one side. The largest measures c. 39 mm (length) by 20 mm (width), the second largest c. 21 mm (length) by 11 mm (width), and the third largest c. 18 mm (length) by 10 mm (width), although all are of a notably irregular shape (Figure 12: left, centre and right, respectively). The other two fragments are of a more diminutive size (each under 10 mm in length), and lack informative or diagnostic features; as such, they will not be considered further in this discussion. The fragments are all a light greyish-brown colour, and are made of either clay or mud. Embedded within them are remnants of a fibrous material, which appears to be a doublestranded string binding. The fragility of the fragments and preservation of the organic binding indicate that they have not undergone any accidental firing. Their surface appears lightly coated in a whitish powder, presumably applied by Petrie in the process of inspecting and drawing the seal motif, to enhance its visibility (Petrie 1904: 76).

It is possible that the item was fragmented by the time of its discovery. However, its condition was not clearly



Figure 12: Fragments of clay sealing or sealings (IA1.991) from the south-west foundation deposit of the Sed-Heb Chapel. Photo: Emily Tour.

specified in the excavation report, which only describes it as a 'portion of a very fine sealing' (Petrie et al. 1923: 41), indicating that it was potentially a single, larger fragment, which has since degraded over time. Indeed, a drawing in the excavation report depicts it as a single, whole item (Figure 13). However, it is customary to illustrate composite reconstructions of sealings from multiple fragments carrying impressions from the same seal, therefore this cannot be taken as definitive evidence of the find condition.²⁴ Its condition is not remarked upon in Doc. 4902 (which simply describes a 'seal' from the 'S.W. arch'), but the Institute's own accession records describe IA1.991 as 'seal imprints', with this plurality suggesting that they were fragmentary by the time they arrived in Melbourne.

Seal impression

As shown in Figure 13, the seal motif drawn by the excavators depicts a necklace with a seal (the hieroglyph S20 \Im) above a bird, surrounded by several tight coils. The two coils flanking either side of S20 end with uraeus



Figure 13: Reconstruction of clay seal impression, found in south-west foundation deposit, as drawn by Flinders Petrie, after Petrie et al. (1923, pl. LXV.342).

heads; an ending that is noted as unusual (Petrie et al. 1923: 41). In the excavation report, the bird is interpreted as a swallow, representative of sign G36 Sequence. As S20 \Im generally represents the ideogram *htm*, meaning 'seal bearer', and G36 often represents the ideogram *wr*, meaning 'great' or 'elder', it is suggested that these signs could be read as a single inscription – *htm wr*, or 'chief sealer' (Petrie et al. 1923: 41; Martin 1971, 147 no. 1895, pl. 44.11).

After re-examining the seal motif, and consulting with several colleagues, we would like to propose a re-reading of this inscription: the bird is a representation of sign G43 \mathbb{A} , which depicts a quail chick, and can be read as the phonetic complement w.²⁵ This would read as *htm.w*, or 'sealer'. Our suggestion is primarily based on the tail of the bird, which is notably pointed rather than wedgeshaped, and visually more similar to G43) than G36Se. Furthermore, according the Persons and Names of *the Middle Kingdom* database,²⁶ there are no known uses of *htm wr* as a title during this period, whereas *htm.w* is attested at least 135 times as a standalone title, and another 1,124 times alongside other qualifiers (for example, htm.w-ntr, 'sealbearer of the god'). There is only one tentative attestation of a title similar to Petrie's original reading, where the words have been reversed: wr htm.w. This is found on a Middle Kingdom limestone stela (E 516/C 236), currently held at the Louvre, directly to the upper right of the head of the seated figure; but again, it is difficult to confirm that the bird sign here is truly G36 s, based on the tail shape.²⁷ Regardless, as the preserved pieces of the Institute's sealing fragments appear to show a bird with a pointed tail, the new reading of *htm.w* appears well supported. However, this interpretation is still open to review, and could be revisited in our upcoming publication on the foundation deposits of Lahun, which will include a detailed consideration of the relevant Sed-Heb Chapel material in the Institute's collection (Tour et al. forthcoming). An updated illustration of the sealing may assist in re-analysis, the accuracy of which could potentially be enhanced by examining 3D models of these fragments (discussed below in Addendum: Digitising the Collection).

On the largest and third largest fragments, there are clear impressions of a bird of a comparable shape and size (G43), surrounded by coils, as depicted in the original excavation illustration (Figure 12: left and right). On the third largest fragment, the seal on a necklace (S20 Q), flanked by uraeus heads at the terminus of the coils to either side, is also visible, again in accordance with this illustration (Figure 12: left). Unfortunately, as the area above G43 [§] on the largest fragment is significantly degraded, it is not possible to confirm the presence of S20 Q here; however, it very likely once existed, given the other visual correspondences with the motif on the third largest fragment. It therefore seems that we have the same motif repeated on at least two sealing fragments. It is difficult to make out much of the impression on the second largest fragment, although there appears to be traces of the swirl or coil patterns visible (Figure 12: centre). Consequently, it is unclear whether we have multiple fragments of a single sealing, which has been repeatedly stamped with the same seal, or fragments of several sealings, all stamped with the same seal. We were unable to identify clear joins between any of the fragments. Given the degraded nature of the pieces, and possibility of missing fragments, this should not be taken to support one interpretation over the other.

It is also difficult to determine the exact size and shape of the seal used to make the impression, which could in turn be used to determine its type. Examining the largest fragment, a tentative length measurement of the seal impression (which would correspond to the seal base size) can be made at c. 33 mm, and there is a definite curvature to the borders of the impressions on the two largest fragments (Figure 12: left and centre). Typically, Middle Kingdom scarabs average c. 22–24 mm in length, and c. 15–17 mm in width, which places this seal impression well above the standard size range. Notwithstanding that some exceptional Middle Kingdom scarabs can reach larger sizes, c. 33–39 mm, it appears more probable that this impression was made by an oval stamp seal.²⁸

Sealing type and associated objects

It was put forward in the excavation report that the 'sealing' was initially attached to the small linen bag found in the same deposit (Petrie et al. 1923: 19). This



Figure 14: Linen bag found in south-west foundation deposit of the Sed-Heb Chapel, Lahun (LDUCE-UC6536). Image: courtesy of the Petrie Museum of Egyptian Archaeology, University College London.



Figure 15: Linen bag with sealing affixed to binding around neck (left item), found at Lahun in an unspecified location (LDUCE-UC7502). Image: courtesy of the Petrie Museum of Egyptian Archaeology, University College London.

linen bag is currently held at the Petrie Museum (LDUCE-UC6536; Figure 14). The bag remained unopened at the time of its discovery, but 'seem[ed] to contain nothing but folds of linen' (Petrie et al. 1923: 19); it remains in this condition today. However, there are some potential issues with the association of the two items. Firstly, it is unclear why the excavation report so emphatically connects the two objects. Although they appear to have been found nearby one another, they were clearly separate, with the linen bag at the lowest layer of broken pottery in the deposit, and the clay sealing at a similarly low level, but 'under a saucer' (Petrie et al. 1923: 19). There is no explicit mention of their exact proximity, nor any given reasoning for why it is believed the sealing had broken off the bag. Rather, the fact that the sealing was found beneath the saucer is evidence that it was deposited separately from the bag.

A linen bag with its sealing still affixed is known from Lahun. It is presently held at the Petrie Museum, and traces of its contents are noted to remain as a 'dark mass' (LDUCE-UC7502; Figure 15). Unfortunately, this item is not included in the excavation report, and no further details are provided by the Petrie Museum online catalogue, making potential comparison with our own sealing and its supposedly associated linen bag impossible in terms of find context. Further indirect evidence for the sealing of linen bags is provided by loose sealings at other Middle Kingdom sites. In particular, their reverse impressions can demonstrate what types of items the



Figure 16: Reverse impression of largest sealing fragment (IA1.991). Photo: Emily Tour.

sealings were impressed against, and the different binding types used. Many examples interpreted as being fixed to bags, both linen and otherwise, have been noted in a range of Middle Kingdom contexts, including Wah-Sut in south Abydos (Wegner 2004: 225; Picardo 2015: 260), the fortresses at Mirgissa (Foster 2001: 130, pl. 8), Shalfak (Foster 2000: 173, fig. D), and Uronarti (Reisner 1955: 29), and both the settlement and pyramid complex at Lisht (Aruz 2000: 133).

This leads to the second issue in associating the sealing with the linen bag: the reverse impression does not resemble those on other known bag sealings. At Lisht, sealings interpreted as securing small bags are described as bearing 'a strongly curved profile and the impressions of material and cord' (Aruz 2000: 133, fig. 25). Those from Shalfak and Mirgissa have 'the impression of string or reed bisecting two areas which are smooth and undulating', representing the gathered fabric of the bag drawn together by bindings (Foster 2000: 173, fig. 3d, 2001: 130, pl. 8). These surfaces are often noted to be variously convex or L-shaped, depending on how they were affixed to the bag (Aruz 2000: 133; Foster 2000: 173, 2001: 130). Wegner (2018: 248, fig. 13.11) also emphasises the significance of fabric impressions on the reverse side of sealings used to secure bag openings in his depiction of different sealing types at Wah-Sut.

None of these examples bear any similarity to the reverse impressions on IA1.991. Instead, the impressions are all relatively flat and smooth, except in areas where the surface has degraded. On the largest fragment, there is a straight ridge across the reverse, running perpendicular to what appears to be a string channel (Figure 16). A second probable string channel is found across the front of the same fragment, although at a slightly different orientation to the one on the reverse. Similar channels are found across the back of the other larger fragments. None of these reverse impressions show any marks indicating that they were pressed against a woven, gathered fabric, as would be expected if it were ever attached to a linen bag. The flatness of the reverse side is also odd, given the rounded neck of the bag, and the string channels appear notably thick (c. 2.5 mm) compared to the fine string used to close it.²⁹

The most curious element is the straight ridge on the reverse of the largest fragment, which does not correspond to any visible element of the bag. This ridge strongly resembles examples of sealings attached to either the join between a wooden box and its lid, or on shrine door-slits. which bear a raised ridgeline from where clay entered into the slit between the two flat surfaces (Aruz 2000: 128, fig. 15; Foster 2000: 173, fig. 3k). Whilst Foster (2000: 173) notes that examples of this type from both Shalfak and Uronarti do not bear any string marks, those from Lisht are known to bear a cord impression running roughly perpendicular to the ridge, apparently capturing evidence of some sort of knob closure between the two surfaces (Aruz 2000: 128). This feature is shown clearly in the depiction of a chest/door slit sealing fragment from the pyramid complex in Lisht South (Aruz 2000: fig. 15). Consequently, it appears likely that the Institute's fragments were impressed against a hard, smooth, flat object, rather than a malleable linen bag, refuting the association made between these items in the excavation report. More specifically, the larger fragment preserves some more specific evidence for it being used as either a chest or door sealing, which possibly also incorporated some sort of knob closure using a string.³⁰ There are no objects described within the deposit that could have generated such an impression. Considering the totality of the evidence - particularly, the location of the sealing under the saucer, and the nature of the reverse impression - we can conclude that the sealing was deposited unattached to any object.

Significance within the deposit

The detached state of this sealing raises an important question as to its purpose within the deposit. Rather than considering it an accidental loss, or an opportune discard, it is interesting to consider parallel evidence from the Aegean that could indicate a more symbolic element to its deposition. This is Schoep's (2021: 262-64) interpretation of sealings discovered within a number of Minoan 'structured deposits', where seemingly ritually deposited material was sealed in sub-floor contexts - for example, the stone cists within the Temple Repositories at Knossos, or the Dépôt hiéroglyphique at Malia. A comparison to the Vat Room Deposit at Knossos is particularly striking, with a range of high-value items, including obsidian cores, ostrich shell, gold, rock crystal and faience inlays, and figurines alongside two clay sealings, entirely detached from any object (Schoep 2021: 264). It is possible that the sealing fragments within the Institute's Lahun collection held a similar place within their own context, as one element of a larger collection of objects intentionally taken out of standard functional circulation for ceremonial deposition at the Sed-Heb Chapel.



Figure 17: Reed tray (IA1.901) from the south-east foundation deposit of the Sed-Heb Chapel. Photo: Christopher Davey.

Organic materials

A range of organic materials have been identified in the Lahun collection, including wood and reed, shells, seed and nuts, bone and animal hair, ochre, and textile fragments. Of importance are two reed trays (IA1.901) and bovine skeletal material, which includes a mandible set and a pair of horns (IA1.941 and IA1.906, respectively). These items are referred to as 'reed canes' and 'ox-skull' under the subheading 'bottom layer' in Doc. 4902 (Figure 2). The material is associated with the Sed-Heb Chapel's south-east deposit (Petrie et al. 1923: 18), which also contained a linen bag, pith roll, and 33 pots, some of which held barley, seeds, and other food items (Petrie et al. 1923: 19; see IA1.1089, Appendix 1, Part B).

Three reed trays were found in the south-east deposit, of which two were sent to the Institute (IA1.901; Figure 17). This is confirmed by the original tags written by Flinders Petrie, reading 'arch S.E. 2nd Tray' and 'arch S.E. 3rd Tray' respectively (Figure 18). The tags were attached to the side of each tray, and provided the initial information used to track and identify the site provenance for these objects. The two trays each contain a base and four sides held together by twined papyrus and wax. The second tray measures 29 cm in length and 22 cm in width, while the third tray measures 30 cm in length and 23 cm in width, noting that the sides are slightly uneven. The trays are similar in design to the trays from the south-west deposit

(Petrie et al. 1923: 19). It is assumed that the photographs of the south-west deposit trays (Petrie et al. 1923: pl. XXVA.1) accurately capture what those from the southeast deposit would have looked like in complete form. Regardless, the trays are well preserved, suggesting that the environmental conditions of the site were stable and suitable for the preservation of organic materials.

During an assessment of the trays, it was noted that there were additional reeds, finer than the rest, and which lacked the same residue as the reeds of the two trays. Where the



Figure 18: Handwritten label that accompanied the above reed tray (IA1.901). Photo: Christopher Davey.



Figure 19: One of the bull horns (IA1.906) from the south-east foundation deposit of the Sed-Heb Chapel. Photo: Christopher Davey.

reeds of the trays had wax residue on the tips, some of the finer reeds had wax residue approximately 2 cm from the tips, while others lacked any clear evidence of residue. These reeds measure between 20-21 cm, with most 20.5 cm in length. These measurements are smaller than those of the two trays. It is possible then, that the Institute received a third tray (perhaps from the south-east deposit). Based on the placement of the residue, it is speculated that the reeds belonged to a tray that contained a base and two supports on the bottom. An example of this form was found in the south-west deposit, and photographed for the report (Petrie et al. 1923: pl. XXVA.2-3). Despite the number of finer reeds identified, a full third tray could not be reconstructed. Therefore, it cannot be confirmed if the Institute received a third tray, or if there were spare reeds that accompanied the other contents in the deposits.

Trace materials were also discovered, which likely accompanied the trays from Lahun. The trace materials (IASample.0011) contained pieces of dried wax, reeds, and papyrus, along with what is potentially decomposed organic matter and glazed fragments, some of which appear to be similar to faience. A review of the excavation report confirms that no faience objects were identified or recorded in the south-east deposit. It is possible that faience fragments became associated with the trays during a period of interaction, either prior to their placement in the foundation deposit or after excavation. This interaction could also have occurred during the transportation and storage of items. As the fragments are small and require further examination, no conclusions can be made at this stage. The presence of trace materials on the trays demonstrates a need for further scientific analysis



Figure 20: Cow mandible (IA1.941) from the south-east foundation deposit of the Sed-Heb Chapel. Photo: Christopher Davey.



Figure 21: Rough limestone stamp seal (IA20.3) from Tomb 52. L: Detail on the seal face; Middle: View of the seal body, including perforation, Photos: Christopher Davey; R: Drawing of the stamp seal from the excavation report, from Petrie et al. (1923, pl. LXIII.2).

of the material, which may provide crucial evidence of the potential associations between objects prior to their placement or abandonment in graves, fills, or deposits.

The Institute also has a pair of horns (IA1.906; Figure 19) and a set of mandibles believed to be the remains of a bull's head (IA1.941; Figure 20). Examination of the mandible confirms that they belonged to a cow. This conclusion is based on the imagery and description from Fillios and Blake (2015: 5-9), which shows the diagnostic characteristics of a cow's mandible. These diagnostic features include a saddle-shaped condyle, a deep and rounded mandibular notch, and a long, high coronoid process (Filios & Blake 2015: 5-6). The teeth of the mandible suggest that the cow was young when it had died, as not all permanent molars had fully erupted - the M3 was still in the process of perforating through the bone at the time of death (Grant 1982: 95). An examination of the mandible wear stage (M.W.S) of the teeth resulted in an M.W.S score of 23 for one mandible, and 31 for the other. The higher an M.W.S is, the older an animal was at the time of death (Grant 1982: 96). Based on the M.W.S of the mandibles, the bull is assumed to have been between 18-30 months old when it died. Additionally, the Institute has the distal end of a femur, which matches the identification of a bovine femur (see IA1.949). There is also a fragment that could be the proximal end of the femur. Further, the Institute retains what appears to be three hyoid bones (also part of IA1.949), suggesting that the bones may be from more than one cow or bull.

Within Egyptian foundation deposits, a primary food offering consists of the sacrifice of a bovine, and the subsequent placement of its severed head in the foundation deposit (Weinstein 2005). Bovine skulls and other skeletal remains were also located in the south-west corner of the Pyramid of Senusret II, and the north-east foundation deposit of the Queen's pyramid (Petrie et al. 1923: 4, 8, 10, 12, pl. XV). Each foundation deposit of

the Sed-Heb Chapel, apart from the empty north-west pit, contained a severed bovine head (Petrie et al. 1923: 19). In the south-east deposit, the bull's head was accompanied by the reed trays. Indeed, 'one tray was just below the head' (Petrie et al. 1923: 19), suggesting that the tray may have carried the head during the foundation ceremony. At the time of excavation, the bull heads from the Sed-Heb Chapel deposits were well preserved. The bull's head in the south-east deposit had light hair, whereas those from the south-west and north-east deposits were dark haired (Petrie et al. 1923: 19). This is an interesting visual arrangement, which may have some significance when considering the rituals associated with establishing the chapel structure, and for Middle Kingdom ritual practices associated with the living or deified king.

A Problem Clarified Through Research

In this final section, we note that this audit, and particularly the review of legacy documentation, has allowed us to identify objects within the Institute's collection that were previously unknown to be part of the 1949 division. This is important in allowing researchers to clearly identify the provenance of these items, and to confidently tie them to contextual information within the excavation report. As the audit continues, it is probable that this list will expand.

One notable example that demonstrates the above is the attribution of a soft, chalky limestone stamp seal to the Lahun collection (IA20.3; Figure 21). The seal was previously thought to have been acquired by Beasley in 1935 from Edward Jawahery in Baghdad, and suggested to be Anatolian in origin by Merrillees (2015: 139–40), based on comparanda from the region. Merrillees also raised the possibility that the script pattern on the seal face depicted 'crude Hittite hieroglyphs', but concedes some similarity to Egyptian hieroglyphic signs (Merrillees 2015: 140). During the inspection of Doc. 4902, an entry recording items from Tomb 52 was noticed, which made mention of a 'stamp'. This prompted a review of the excavation report for further mention of this stamp, and both a short description ('a rough limestone seal') and an illustration confirmed that not only did this object indeed originate from Tomb 52 (Petrie et al. 1923: 33, pl. LXIII.2) (Figure 21), but it was IA20.3. This discovery also highlighted an error in the tomb register, where this stamp seal was mistakenly listed as a 'scarab', even though it is associated with the correct tomb (52) and illustration number (LXIII.2) (Petrie et al. 1923: pl. XLVIII). Whilst such inconsistencies in the original reports are understandable, given the volume of material and short period of time in which they were recorded, they impede accurately provenancing material, again demonstrating the value of legacy documentation in supplementing and enhancing such work.

Whilst no further information is provided in the excavation report on the stamp itself, its attribution to Tomb 52 is significant, and opens up potential lines of enquiry. Tomb 52 is part of a larger group of ten tombs (50-59) located at the bottom of a hollow in the pyramid complex (Figure 5). In many cases these tombs were unfinished, and in all instances they were interpreted by excavators as remaining unused, being filled with 'clean sand, which had been compacted with storm-water, and set hard' (Petrie et al. 1923: 33). It is also noted that items had apparently been 'thrown down' the various grave shafts after their construction, including a bead collar and wooden staves (Tomb 52), broken pots, painted sherds, 'workmen's débris', and a cylinder seal of Senusret III (the latter associated with Tomb 57) (Petrie et al. 1923: 33, pl. XLVIII).³¹

Unfortunately, it is difficult to determine the exact nature of this deposition, whether it be simply refuse, as implied in the report, or rather some kind of intentional ceremonial act, similar to what has been discussed above with regards to foundation deposits. Concerning the latter, the proximity of these tombs to the pyramid of Senusret II, and the inclusion of seals, is intriguing. It is also unclear whether these items represent a single or shortterm deposition event, or whether they accumulated over time, which renders the chronological attribution of items (including the stamp seal) difficult, although it should be noted that the manufacture of both the pottery and cylinder seal can be dated to at least the Twelfth Dynasty. Whilst the information provided by the excavation report adds little to our understanding of the stamp seal's function and ownership, its newly confirmed provenance calls for a re-evaluation against other known examples of rough limestone stamp seals (or those of comparable soft stone materials, such as steatite), both from Lahun, and the Middle Kingdom more broadly.

Conclusion

The Lahun excavations conducted by Petrie and Brunton from 1889–1921 produced a diverse assemblage of material that has since been dispersed to museums

throughout the United Kingdom, United States, Australia, and Europe. The Australian Institute of Archaeology holds 142 objects from the site, which remained largely unknown until the commencement of an internal auditing project in 2022. As the material was stored and only sent to the Institute in 1949, this division was not reflected in the published Lahun II distribution. This article raises awareness of the Lahun objects in the Institute's collection, which, to our understanding, constitutes the largest number of small finds and pottery from Lahun in Australia. It also represents the first extensive discussion of the Sed-Heb Chapel's foundation deposits, revealing new information about the material within them, and associated ritual practices. This has contributed to our understanding of foundation deposits in Egypt, and the Sed-Heb Chapel more generally. Of course, our work is far from complete. Not only does the audit continue, but there is the potential to embark on collaborative projects with other institutions, such as the Petrie Museum. Further research is required for many of the objects, including scientific testing and analysis.

Notably, this current work has demonstrated how a thorough interrogation of legacy data – including storage boxes, packing lists, excavation tags, and so on – is crucial in the review and understanding of archaeological collections. Not only do these sources supply information and evidence for objects that may not have been published in the original excavation reports, but they can reveal significant provenance information, and previously unknown or overlooked connections between objects and on-site locations. Most importantly, this research has enabled us to reconnect an otherwise little-known division with the people, practices, and landscape of Lahun, as well as the broader excavation and material distribution history of the site.

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Addendum: Digitising the Collection

Presently, we are in the process of digitising a representative selection of the Institute's Lahun material, producing 3D models via photogrammetry. These are progressively being loaded onto our publicly available Pedestal3D platform (https://aiarch.pedestal3d.com/), and include a number of items discussed in this article: the sealing fragments (https://aiarch.pedestal3d.com/r/Ht7_roeWys; https://aiarch.pedestal3d.com/r/fEJfXbUoNL; https://aiarch.pedestal3d.com/r/eTdyPtg1R2), the Nehebkau and Thoth amulets (https://aiarch.pedestal3d.com/r/RgYASDCTrq), and the limestone stamp seal (https://aiarch.pedestal3d.com/r/BOSYwy_Wo).

It is hoped that the availability of this material will facilitate research access for Egyptian scholars, and potentially engage local stakeholders from Fayum and Beni Suef communities in heritage-based education programmes. It will also provide Australian and international scholars alike access to new data and objects from Lahun. An in-depth discussion of this digitisation project is planned as a companion piece to the current paper, and will be published in the 2025 edition of *Buried History*. This article will explore the photogrammetry

process undertaken at the Institute, the capabilities of the Pedestal3D platform, the research advantages of 3D models, and our overall goal to foster greater access to, and collaboration on, this important collection.

Appendix 1

Online at:

https://www.bhjournal.au/bhattachments/Mawdsleyetal_Lahun_Appendix

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Endnotes

- 1 Most of the material in this consignment was Egyptian. A smaller selection of objects from Tell el-'Ajjul included scarabs, jewellery, objects of bronze, stone and flint, and imported Egyptian calcite vessels.
- 2 Two other consignments of stored material were sent to the Nicholson Museum, now the Nicholson Collection at the Chau Chak Wing Museum, University of Sydney, and the Bowen Bible Museum, now the Bowen Collection of Antiquities at the Museum and Gallery, Bob Jones University, South Carolina.
- 3 For further information on these sites and excavation seasons, see https://egyptartefacts.griffith.ox.ac.uk.
- 4 Hilda Petrie refers to the British School of Archaeology in Egypt (BSAE) as the British School of Egyptian Archaeology (BSEA) on documents sent to the Institute (AIA Docs. 3606, 3701, 4901, and 4902). In 1926, the work of the School was formally transferred from Egypt to Palestine, and the name change was probably intended to reflect this shift (Drower 1985: 363–64; Alice Stevenson, pers. comm).
- 5 Apart from the 1949 division, two earlier divisions of Egyptian material were received in 1938 (AIA Docs. 3703-3704) and 1947 (AIA Doc 4702). Beasley obtained a collection of Egyptian antiquities through the Australian High Commission in Cairo, which were selected and documented by British archaeologist Alan Rowe (1891-1968). This included scarabs, necklaces, amulets, pottery, stone vessels, and stelae. The material was shipped in December 1937, and received by Beasley in 1938. A smaller division was received in 1947 from British archaeologist John Garstang (1876-1956), and included necklaces, flint blades, scarabs, and nine small faience and stone amulets (Davey 2017: 18-19; Davey and Mawdsley forthcoming). As priority has been given to researching the 1949 division, provenance and object research for the 1938 and 1947 material remains ongoing.
- 6 The material sent to the University of Sydney was from Tell el-'Ajjul (Palestine). The Institute received the largest collection of Egyptian artefacts, with a smaller number sent to the Bowen Bible Museum. The Institute and the Bowen Collection of Antiquities are in the process of comparing and verifying distribution lists. We wish to thank Candace Richards (University of Sydney) and Rebekah Cobb (Bowen Collection of Antiquities) for providing information about these collections.
- 7 Crates of Egyptian and Palestinian materials were stored in the Zoology Department basement at University College, London (Stevenson 2019: 184). 'Boxes in Zoology Basement, Foster Court, University College' is also written on one object list sent to the Institute (Doc. 4902).
- 8 For information on the funding problems encountered by the Petries and the BSAE after shifting excavations from Egypt to Palestine, see Sparks (2013: 1–15).
- 9 Abbreviations follow the format used by Hilda Petrie, and have been maintained here. These letters form part of the Institute's archival documentation as Docs. 4901 and 4902.
- 10 For more on the 1949 division, Walter Beasley, and the history of the Institute's Near Eastern collection, see Davey (2012; 2017: 18–21).
- 11 Objects from Lahun, such as stone vessels, can be found in the collections of the National Gallery of Victoria

and the Australian Museum, Sydney. These institutions were the only collections in Australia to receive material from the last two excavation seasons at Lahun. They are listed as Melbourne and Sydney in the site distribution list (Petrie et al. 1923, 43–44). The Australia Museum received 16 stone vessels from Lahun (E026824–27, E026829–37, E026851, E026799 and E026851). We would like to thank Stan Florek and David Chan, World Cultures Collection, Australian Museum for information about this division. For information on the distribution of objects from Lahun to other museums, see the various pages relating to the site at https://egyptartefacts.griffith.ox.ac.uk/excavations-index.

- 12 For information on the site, with a bibliography, see https://egyptartefacts.griffith.ox.ac.uk/node/1129.
- 13 For a list of excavations under the directorship of Petrie, and the principal sponsors of these excavations, see https://www.ucl.ac.uk/museums-static/digitalegypt/ archaeology/petriedigsindex.html. On Jesse Haworth and Martyn Kennard, and their support of Egyptian excavations, see https://egyptartefacts.griffith.ox.ac.uk/ people-index.
- 14 Further archaeological investigations have been undertaken by: Ludwig Borchardt (1899), a Canadian mission directed by Nicholas Millet from the Royal Ontario Museum (1988–1997), a mission from the Museum of Fine Arts in Budapest (2008–2012) (Moeller 2017: 188), and an Egyptian team in 2009 (Gehad et al. 2022). On the Egyptian workforces at Lahun, see Quirke (2010: 38–39, 74–77, 135–136, 159–160, 227–228, 301–302).
- 15 The current location of the original tomb cards for these cemeteries is unknown. As Brunton undertook most of the excavation work at Lahun, the cards were probably taken to South Africa upon his retirement in 1948 (Wolfram Grajetzki, pers. comm.).
- 16 Appendix 1 is arranged as follows: Parts A and B list objects by tomb/location, and object description is based on Doc. 4902; Parts C and D list objects following the Institute's registration format.
- 17 While tomb numbers were listed for some of the wedjat eyes, we have not been able to positively identify these against the illustrations in the excavation report (see Appendix 1, Part C).
- 18 The eight remaining examples of Nehebkau include single amulets from Tombs 602, 603, 620, N2, and Dome North, and three from Tomb 609 (Petrie et al. 1923: pl. XLIX). Most of the tabulated examples are seated, or have the body supported by the tail (Petrie et al. 1923: LVA.7, LXVIII.32-34). Some of these amulets have been identified in museum collections, including at The ISAC Museum, University of Chicago, E11848 (Tomb 620), and E11893 (Tomb N2). At least two further Nehebkau amulets were found earlier at Lahun (Petrie 1891: 25, pl. XXXIX.12-13), one of which is held in the collection of the Petrie Museum (LDUCE-UC6609; Petrie 1891: pl. XXXIX.12). A parallel to IA1.1028, also from Lahun, can be found in the collection of the Manchester Museum (6160.a), although exact tomb provenance is unknown. We would like to thank Campbell Price for information relating to material from Lahun held in the collection of the Manchester Museum.
- 19 Numerous examples of Thoth as a baboon with the lunar disc can be found in museum collections, see examples in the Museum of Fine Arts, Budapest (51.2177), The Met

(68.170), and the Art Institute of Chicago (1894.759). See also the painting of Thoth on papyrus from the Book of the Dead of Nakht (British Museum, EA10471,11).

- 20 Thoth as a baboon with the crescent moon, or as a seated baboon without lunar or solar discs, appear more frequently in collections, although an example of Thoth with a solar disc and a uraeus can be found in the collection of The Met (10.130.1940). Another seated baboon with a solar disc from Lahun was drawn in an earlier excavation report (Petrie 1891: pl. XXIX.41), but does not match the style of IA1.1066. Further, while a baboon amulet from Lahun was recorded and photographed in Petrie's (1914b: 48, pl. XLV.206m) amulet typology, it is not published in any of the Lahun reports. This amulet is very small, threaded with beads, and lacks either a lunar or solar disc.
- 21 We would like to thank Rachael Sparks for reviewing IA1.2800, and providing further clarification regarding site provenance.
- 22 A fly amulet from Tomb 603 is currently held at the Glasgow Museum (see 1914.64), and several originating from Lahun form part of the Petrie Museum's collections (see LDUCE-UC51856 and LDUCE-UC7547).
- 23 See also Petrie et al. (1923: 4, 8, 10) for a summary of Middle Kingdom foundation deposits from other areas of Lahun, particularly Senusret II's pyramid, and the associated 'Queen's pyramid'.
- 24 We would like to acknowledge and thank Alexander Ilin-Tomich for this observation.
- 25 We would like to acknowledge the invaluable expertise and guidance provided by Alexander Ilin-Tomich and Camilla Di Biase-Dyson in this interpretation of the reading.
- 26 To access the database, see https://pnm.uni-mainz.de/info/.
- 27 For an image of the stela, and more information, see the Louvre online catalogue: https://collections.louvre.fr/en/ark:/53355/cl010022521.
- 28 A comparable example would be a late Twelfth–Thirteenth Dynasty ivory stamp seal of the scribe Sehetepibrê, measuring 38 mm in length and 20 mm in width (Morfoisse et al. 2014: 85, 276 (item 44)). We would like to thank Alexander Ilin-Tomich for the information regarding average seal sizes, and his suggestion of a possible sealing type identification.
- 29 A more accurate measurement of the string width may be sought from the Petrie Museum to verify this observation.
- 30 The Institute's accession records make note of the reverse of these sealing fragments: 'Seal imprints – Note papyrus binding marks'. This suggests the fragments were impressed to a papyrus document that had been bound with string or fibre. Comparison with other known reverse impressions from papyrus documents offers little to support this interpretation (Foster 2001: 3a; Wegner 2018: 13.11); there are no clear papyrus marks on IA1.991, nor does it account for the ridge.
- 31 Material from Tombs 52 and 57 were sent to Edinburgh. The staves from Tomb 52 are listed in the National Museum of Scotland's records (as 'Portions of Staves') but were deaccessioned in 1960. We would like to thank Daniel Potter for this information.