



RESEARCH ARTICLE

Revisiting Petrie's Excavations at Naqada

Cross-matching the available documentary evidence and new digital map

XAVIER DROUX^{1,2,*}

¹Laboratoire d'archéologie africaine et d'anthropologie, University of Geneva, Switzerland

²Fondation Gandur pour l'Art, Geneva, Switzerland

Published: 13th September 2024

Abstract

When W. M. F. Petrie published the results of his archaeological fieldwork at Naqada in 1895, he included a single map on which over 2,200 tombs are shown at a tiny scale, with most left unnumbered. A series of sketch-plans included among the pages of excavation notebooks preserved at the Petrie Museum, UCL, are all presented here in facsimile and compared with the published plan of the cemeteries. Together with other occasional notes, they provide the basis for a new, digitised, searchable, and zoomable map of Naqada's cemetery N (Great Cemetery), B, and T. These cemeteries are also re-situated in their landscape using freely accessible aerial images, since most of this archaeological area has been destroyed and is today under cultivation.

This article demonstrates the usefulness of thoroughly analysing manuscript documents written during excavations to correct and supplement published material; this approach can be applied to other archaeological sites.¹

Keywords: Naqada, archives, mapping, digital map, Predynastic

إعادة النظر في حفائر بيتري في نقادة: التماثل بين الأدلة الوثائقية المتاحة والخريطة الرقمية الجديدة.

الملخص

عندما نشر و.م.ف. بيتري نتائج أعماله الأثرية في نقادة عام ١٨٩٥، تضمن خريطة واحدة تُظهر أكثر من ٢٢٠٠ مقبرة بحجم صغير، دون ترقيم لمعظمها. فقد تضمنت صفحات دفاتر الملاحظات المحفوظة في متحف بيتري بجامعة كوليدج لندن على سلسلة من الرسوم التخطيطية، وهي مقدمة هنا بنسخ طبق الأصل ومقارنة بالرسم التخطيطي المنشورة للمقابر. توفر هذه الرسوم التخطيطية جنباً إلى جنب مع غيرها في بعض الأحيان، الأساس لخريطة جديدة، رقمية، قابلة للبحث والتكبير لجبانات نقادة N (المقبرة الكبرى)، B و T. وقد تم إعادة تصوير هذه المقابر في بيئتها الطبيعية باستخدام الصور الجوية المتاحة حالياً، حيث أن معظم هذه المنطقة الأثرية اليوم قد دمرت وأصبحت أرض مزرعة. تُظهر هذه المقالة فائدة التحليل الدقيق للوثائق المخطوطة المكتوبة أثناء الحفائر في تصحيح وتكميل المواد المنشورة، مع إمكانية تطبيق هذا النهج على مواقع أثرية أخرى.

الكلمات الدالة: نقادة، أرشيفات، رسم الخرائط، خريطة رقمية، قبل الأسرات

¹I dedicate this article to the memory of Stan Hendrickx, whose tireless work on predynastic relative chronology not only followed in the footsteps of W. M. F. Petrie, but has also lent prestige to the site of Naqada.

*Corresponding Author: xavier.droux@unige.ch

1 Introduction

In the late nineteenth century, several archaeologists and Egyptologists published excavation reports within months of concluding their work at a given site. This allowed a wealth of new data to be disseminated rapidly. William Matthew Flinders Petrie was an early advocate for the scientific recording of all archaeological endeavours, and the extensive reports he published are testament to his dedication to a new way of considering archaeology. He, like several of his colleagues, often complemented their descriptive essays and analysis with maps, plans, photographs, and drawings, giving an overview of the sites, architecture, and material culture examined.

While these reports were crucial for the rapid development of the field, they allowed limited time for thorough consideration of all details, leading to inevitable omissions and errors. These shortcomings have often never been corrected since; yet, as this article demonstrates, when archival material produced by the excavators while excavating is preserved, there is huge potential for enhancing our knowledge on these sites investigated over a century ago. For example, the contents of notebooks can be compared with published information to highlight differences, while modern technologies, such as aerial images available freely online can help suggest precise locations for ancient sites while shedding light on the modern history of these areas and on the impact on heritage caused by the development of agriculture, roads, electric grids, canals, and expanding population and settlements.

To demonstrate the usefulness of both archival material and modern technologies, this article focuses on the archaeological joint mission that took place during the winter months of 1894–95, when Petrie, James E. Quibell, a few colleagues and a team of Egyptian workmen took part in the most significant archaeological expedition ever carried out in the Upper Egyptian region of Naqada (Figure 1). They surveyed a four-kilometre-long stretch of land on the west bank of the Qena bend of the Nile (PETRIE et al., 1896: pl. IA) and excavated at several locations, including numerous cemeteries, a temple, and settlement areas. Quibell was in charge of investigating the northern part, nearer the villages of ed-Deir and Ballas on behalf of the Egypt Research Account, while Petrie and his team worked further to the south, nearer the village of Naqada. Ever since the publication of the excavation report (PETRIE et al., 1896), the sites became eponymous with these two villages, despite the actual distance between the former and these modern settlements (Figure 2).

In modern Egyptological literature, 'Naqada' is commonly used to denominate the Upper Egyptian culture and different phases of the chronology of the fourth Millennium BCE (HENDRICKX, 1996; HENDRICKX, 2006; M. DEE et al., 2013; M. W. DEE et al., 2014) thus becoming one of the most famous predynastic sites. However, very few attempts have been made in the last century at revisiting the original, preserved, excavation documentary material. Elise J. BAUMGARTEL (1970) and later Joan C. PAYNE (1987) are the only researchers to have tried to list exhaustively all artefacts found during this excavation that are preserved in museums. This list and its corrections are organised in a tomb-by-tomb manner, with references to some of the notebooks that had been found at UCL shortly before Baumgartel's publication (BAUMGARTEL, 1970: 6).

Recently, renewed interest in the general region of Naqada, and in particular in the work carried out by Petrie and his colleagues, led to a new publication (STEVENSON & VAN WETERING, 2020) that investigates several aspects of the sites and adds new, original records that greatly enhance our knowledge of the expedition.

The present article focuses on the archaeological work done by Petrie and his team at the cemeteries of 'Naqada'. There, in the course of just over two months, more than 2,300 burials dating to the Predynastic and Early Dynastic periods were excavated in what was then considered four cemeteries (Figure 3): the Great Cemetery (or Cemetery N, after Naqada, here subdivided in four areas I–IV, at least 2087 tombs), Cemetery B (named after Kom Bilal, at least 148 tombs), Cemetery T (named after the two tumuli investigated nearby, at least 70 tombs), and Cemetery G (likely named after Bernard P. Grenfell, see below). These necropolises are spread over more than one kilometre along the edge of what was, in the late nineteenth century, still a low desert landscape free of agricultural and settlement developments.

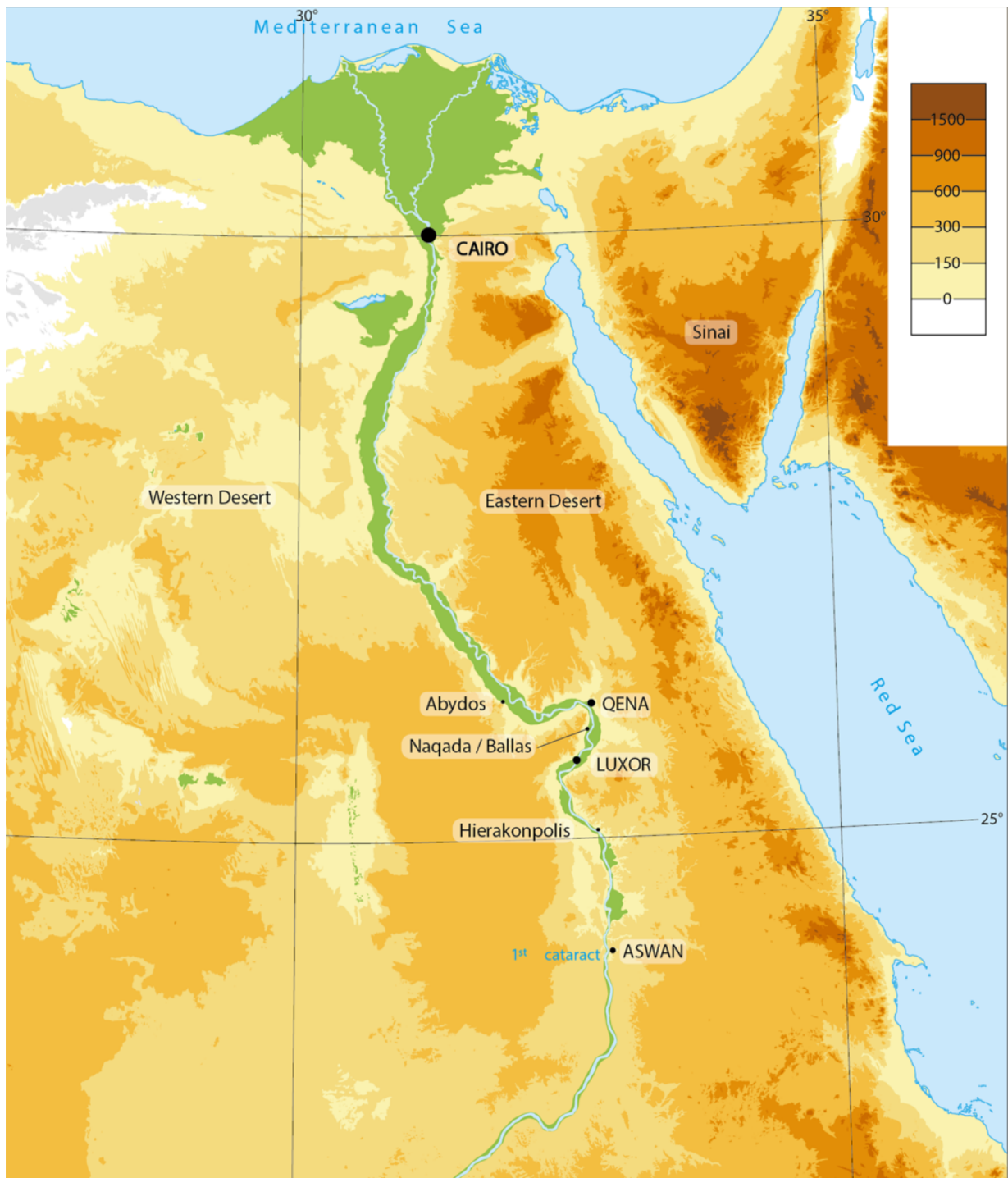


Fig. 1: Map of Egypt with location of the region of Naqada in northern Upper Egypt. © IFAO, M. Gaber - D. Laisney. Used with permission. *Image adapted by the author.*

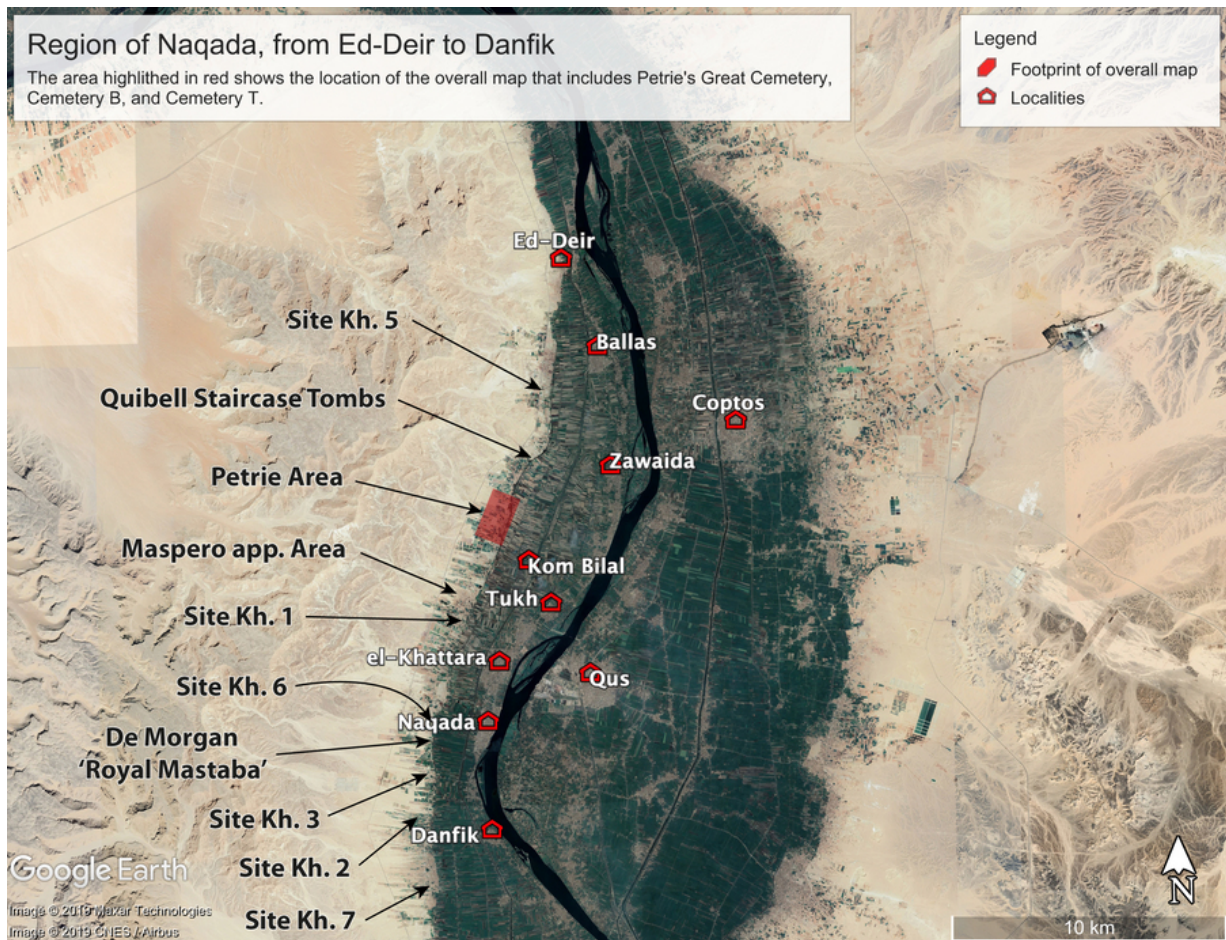




Fig. 2: Bird's eye view of the region between Ed-Deir in the north and Danfik in the south; the location of the sites investigated by Petrie in 1894–95 is indicated by the red square. Image courtesy of Google Earth, ©Maxar Technologies, and CNES/Airbus, 2019.

The results of the work at Naqada were published summarily the following year (PETRIE et al., 1896). Although of a high standard for the time, this monograph hardly makes justice to the mighty extent of this archaeological endeavour (see STEVENSON, 2020). One unfortunate shortcoming of the publication, no doubt driven by the necessity to keep printing costs down, is the small and incomplete map of the cemeteries: the tombs are cramped on a single plate at the end of the book with less than half the tomb numbers indicated (PETRIE et al., 1896: pl. LXXXVI). Several mistakes have been noted (VAN WETERING, 2017: 527) and many tombs were not drawn at all.

The main aims of this article are threefold: first, to re-situate the cemeteries in their modern, heavily changed landscape (see Section 2); second, to publish all information from original documents relating to the organisation of the four Naqada cemeteries, and to offer a new, digital map of the Naqada cemeteries (Figure 3;² Section 3); and third, to present all the known references to Naqada tombs in manuscript excavation records, published reports, museum artefacts, and a digital map, in a centralised table (Supplementary Tables 5–7 (see Supplementary Information ).

Additionally, we reviewed all available information relating to the tombs from the elusive 'Cemetery G', which had not been indicated on the published plans and maps of the excavation report (PETRIE et al., 1896: pls. I, LXXXVI). We can determine that this cemetery was likely larger than presumed (BAUMGARTEL, 1970: 6) and located elsewhere than previously suggested (see Section 5; contra VAN WETERING, 2017: fig. 1; contra VAN WETERING & TASSIE, 2020: 71, note 14). Finally, we analyse a set of tombs that were accidentally mis-numbered during the excavation and can determine that these tombs were located at Ballas, and not at Naqada (Section 6).

The new, downloadable digital map  in PDF format allows to easily find the location of tombs. We hope that it will help researchers in better taking into consideration, e.g., the spatial distribution of tombs, the chronological development of the cemeteries, or the spread of specific types of material within the cemeteries, than has been possible until now. Whether a tomb is located on the map or not, and whether information about a tomb exists in either the original excavation documents, the publication, or among museums artefacts can be easily found out from the exhaustive, centralised table (Supplementary Tables 5–7; see also Supplementary Information).

2 The cemeteries of Naqada: landscape and setting

A modern-day traveller visiting the region of Naqada would be forgiven for finding it difficult, if not impossible, to (re-)locate the cemeteries excavated by Petrie and his team during the winter of 1894–95. This is in part due to Petrie's decision to name the cemeteries after the village of Naqada, which is in fact more distant than other localities such as Kom Bilal, Tukh, or el-Khattara (Figure 2). The attribution of the same name to several archaeological areas complicates the matter. Indeed, over a decade before Petrie, Gaston Maspéro had already led investigations in this region and excavated in 1882 a cemetery 'opposite' Qus, which he had named 'Naqada', from the eponymous village located in the area. Although the exact location of Maspéro's work was not recorded and remains unknown, it was likely to the south of Petrie's area. Further confusion was later added when Jacques DE MORGAN (1897: 147–202) excavated an early royal mastaba tomb in 1896–97 in yet a different area, which he also called 'Naqada'. To his credit, the mastaba is located due west of the village of Naqada and near it, so that his use of the name was certainly more appropriate than Petrie's. The relocation of the royal mastaba helped clarify the situation (VAN WETERING, 2012) and more recent publications shed new light on the dense archaeological history in the region (STEVENSON & VAN WETERING, 2020: xvi, table 0.1) partly reflected in Figure 2.

²A high-resolution version of this map can be downloaded at: http://files.int-eg.org/AdditionalContent/10.25365.integ.2024.v3.4/RevisitingPetrie_Fig.03.pdf. Future research may add further corrections and additions to the map; these will be reflected in an up-to-date version of this digital map, that can be downloaded at <https://ponda.org/naqada-map-xd>.

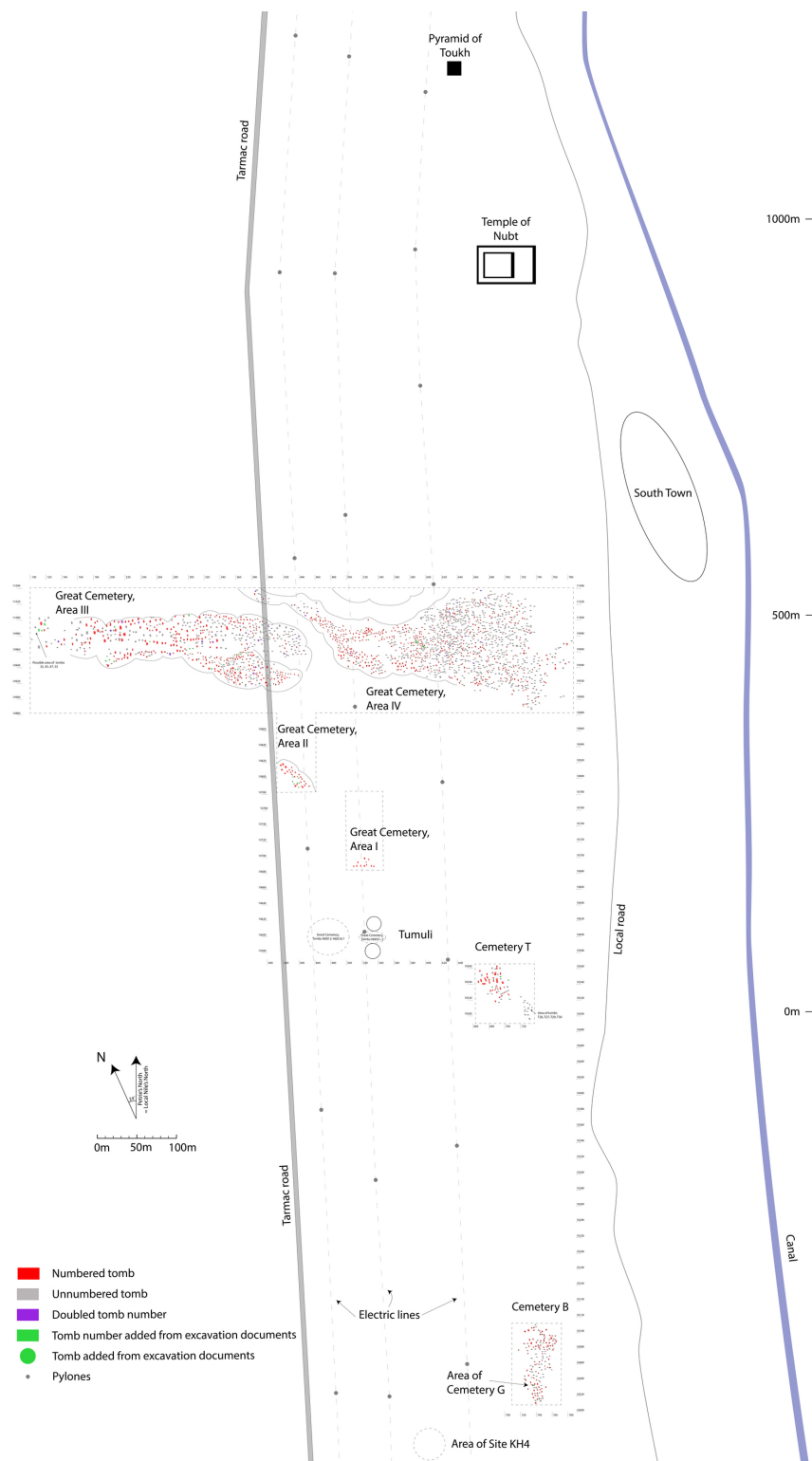


Fig. 3: Overview of the cemeteries excavated at Naqada under Petrie's direction: Great Cemetery, Cemetery T, and Cemetery B, in relation to notable landmarks, such as the tumuli, the pyramid of Toukh, the temple of Nubt, the tarmac and local roads, and the irrigation canal. © Xavier Droux. Downloadable digital map: [📄](#)

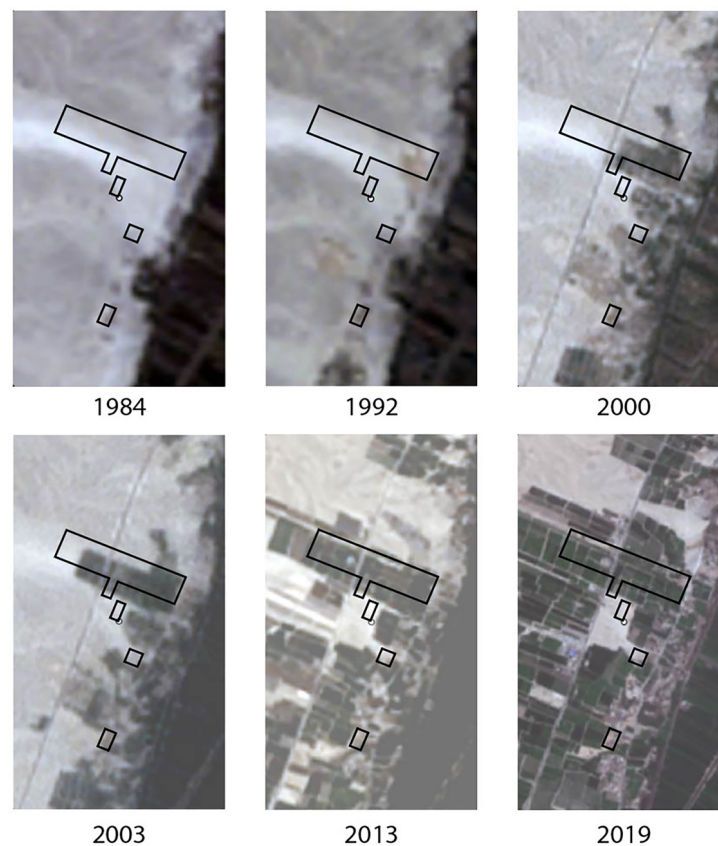


Fig. 4: Satellite imagery showing the gradual agricultural reclamation of the areas excavated by Petrie. Image courtesy of EOS Data Analytics Inc.

This article focusses exclusively on the area worked by Petrie; [TASSIE](#) and [VAN WETERING](#) (2020: 2) suggest calling this area 'Nubt' to avoid confusion with other 'Naqada' sites; however, since it is the importance of Petrie's findings that gave the name its prominent place in the study of predynastic Egypt, and since the predynastic chronology is termed according to this site, we prefer to keep here the appellation 'Naqada' for the cemeteries excavated by Petrie. Including a map that clearly identifies the location of Petrie's work in relation to other sites prevents further confusion (Figure 2).

The present-day landscape bears little comparison with the scenery experienced by Petrie and his team in the winter of 1894–95. At that time, the cemeteries were located in the low desert, a short distance away from the floodplain and agricultural land ([PETRIE](#) et al., 1896: pls I–IA). Roughly a century later, a canal was built on a path that follows what used to be the limit between floodplain and desert. From the early 1990's on, this canal allowed the irrigation of the low desert, which was progressively and rapidly reclaimed for agricultural purposes. Satellite imagery (Figure 4) shows that the sites excavated by Petrie were, in essence, intact until the late 1980's–early 1990's at least, with preparation for cultivation starting to encroach over the eastern extremity of the Great Cemetery (Area IV) from 1992. In 1997–98, a tarmac road was built; it runs across the site in a north-south direction (mostly over Area III, but also over the extreme west end of Area IV). Cultivated fields gradually progressed westward from the canal and, for a time, stopped at that road. They crossed it in 2003; by 2010 hardly anything remained of the Great Cemetery, which is today entirely lost (Figure 5; contra [TASSIE](#), 2020: fig. 9.8, area with question marks—it remains to be determined if there were further tombs closer to 'South Town'). Cemetery B, to the south, was increasingly built over, while its west fringe was covered by fields. It appears that Cemetery T may be the least damaged of the cemeteries,

since the latest satellite images available on Google Earth (2024) show that its surface is still free of fields or houses. Three high-voltage electric lines follow a path parallel to the road; remarkably, only one of the pylons has been erected within the confines of the cemeteries, very near the tumuli, likely impacting the area where tombs N12–N16 and/or N51–N52 are located. Other areas investigated by Petrie appear to have better survived; the footprint of the temple of Nubt is still visible on satellite imagery, and the pyramid of Toukh is still standing in elevation.

To the south of the Great Cemetery and to the west of Cemetery T, Petrie investigated two large tumuli (PETRIE et al., 1896: 66); they are located in an area that has so far escaped agricultural development, which is very useful for our purpose despite the recent intrusion of the electric pylon. Indeed, Petrie's regional map shows that these two tumuli are located immediately to the south of the rectangular area that contains tombs N1–N11 of the Great Cemetery (Area I; PETRIE et al., 1896: pl. IA). Unfortunately, this map is drawn to a very large scale (1:15,000), and the tumuli were not included in the more precise map of the cemeteries (scale 1:1,500), so that in essence these maps alone are not helpful in pinpointing the precise position of Area I in relation to the tumuli in today's landscape. However, a recent aerial photograph (Figure 6) has sufficient resolution to show the tumuli, identifiable as two rounded shapes with traces of the 'wide trenches' dug by Petrie within them (see PETRIE et al., 1896: 34). Approximately 80 m to the north-northeast, we can recognise a group of eleven holes. They are located broadly where one would expect to find the south extremity of Area I. An overlay of the plan of Area I and the aerial view shows an exact match in position and orientation between tombs N1–N11 and the group of holes. This allows us to relocate with great precision the geographical position of tombs N1–N11 (Figure 6). Petrie's skills as a surveyor are well-recognised and it is testimony to his mapping ability that this part of the plan can still be identified in the ground today.³ By extension, it can be assumed that the rest of the tombs drawn in the published map are in correct relative locations, so that the other approx. 2300 tombs of the cemeteries can be re-placed in this heavily changed landscape by looking at their relation to tombs N1–N11 (Figure 3).

3 The cemeteries of Naqada: using archival material to establish a new digital map

It has always been clear from Petrie's published report and map that the area investigated 'near' Naqada in a single season covered several cemeteries. The excavator distinguished between the 'Great Cemetery', Cemetery B, and Cemetery T (see below for Cemetery G). In the second half of the twentieth century, several manuscript documents were discovered at the Petrie Museum of Egyptian Archaeology, UCL, including a set of eleven excavation notebooks⁴ written by Petrie and his colleagues James Quibell, Hugh Price, and John Duncan, at Naqada (see, e.g., BAUMGARTEL, 1970 for a detailed list; see STEVENSON, 2020: table 2.1). When a tomb was deemed worthy of detailed attention, its top-plan was usually sketched at an approximate scale with a rough outline, often with the precise measurements written down. The skeletons and disturbed bones are shown, together with artefacts considered by Petrie to have been found in their original position, undisturbed by the frequent plundering of the tombs. The team also often wrote short comments next to these top-plans that offer additional details about the discovered material and disturbed remains from the filling of the tombs. These data have been made available several years ago by the Petrie Museum in the form of a CD-ROM, but they have yet to be analysed to their full extent and published *in extenso*.

For the purpose of this article, we concentrate on two specific types of information that are found infre-

³Overlaying Petrie's map of the Naqada region and GoogleEarth imagery however shows a major discrepancy in the outline of the edge of the high desert plateau; notably, the semi-circular feature upstream of the northern-most drawn wadi is too large and about 1.5 km too far to the west.

⁴Throughout this article, specific excavation notebooks are referred to with the abbreviation *Nb* followed by their UCL number (note that each full inventory number includes the prefix PMA/WFP1/1/99/ before the notebook number (Anna Garnett, pers. comm.)); not all their pages are (fully) preserved, so the page numbers indicated here are indicative and therefore preceded by 'p'. (e.g., *Nb* 136: p. 9).

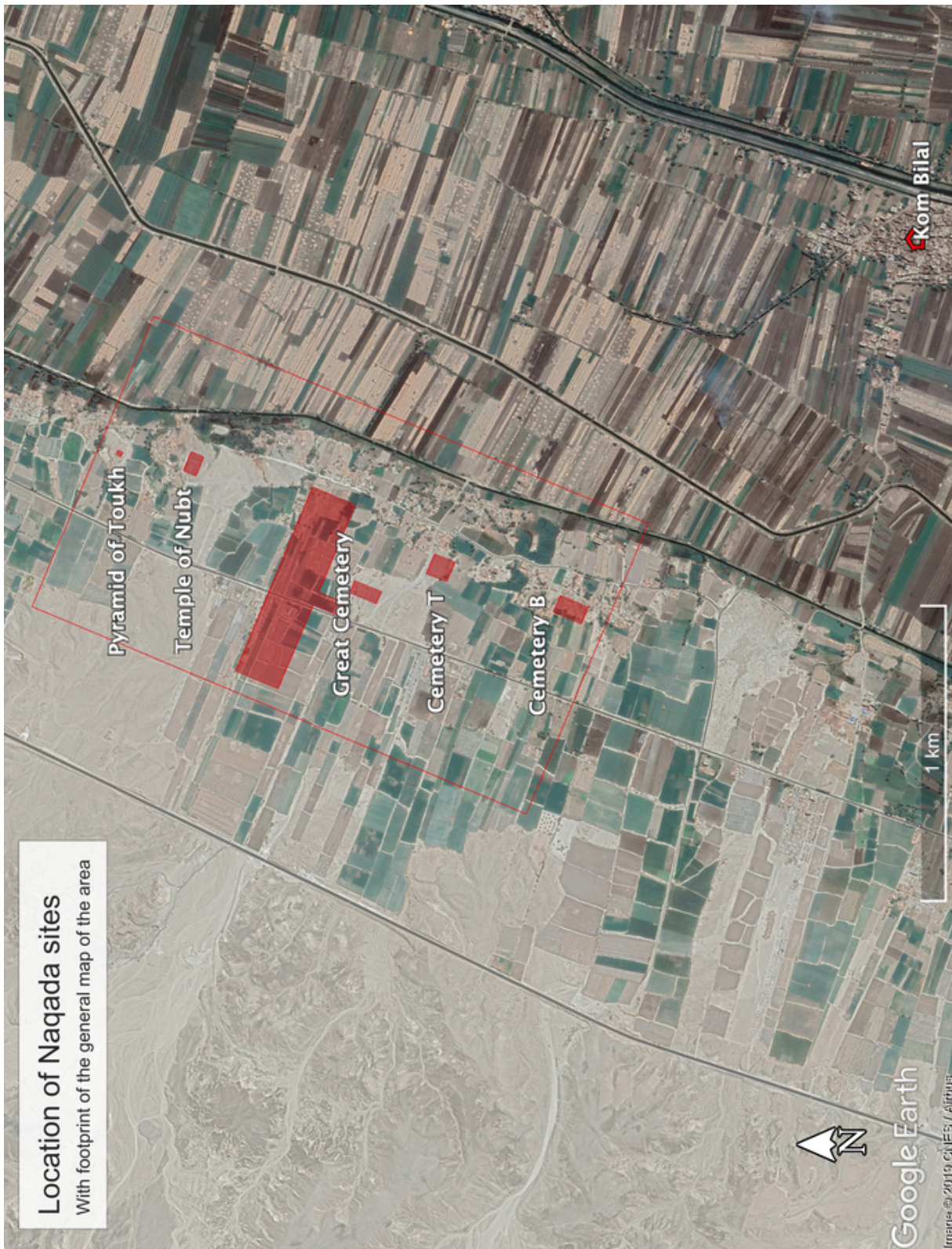


Fig. 5: Sites explored by Petrie in relation with their contemporary geographical setting. Image courtesy of Google Earth and ©CNES/Airbus, 2019.



Fig. 6: Bird's eye view over Naqada Great Cemetery Area 1 (tombs N1-N11) and tumuli. Image courtesy of Google Earth and © CNES/Airbus, 2019.

quently in the notebooks:

- Topographical comments: written down especially during the early days of excavation—they are rare but describe textually how a tomb spatially relates to another tomb (see Section 3.1);
- Sketch-plans: likely drawn in order to record as much topographical information as feasible in as short a time as possible. They are not drawn to scale and each covers only a small portion of the cemeteries (see Section 3.2).

Together, these two types of data proved to be a useful resource for revising the published map. They allow us to rediscover the identity of some of the tombs visible on the published map that had not been numbered, relocate a number of tombs not drawn at all, and correct several mistakes.

In a recent publication, **VAN WETERING** and **TASSIE** (2020) propose a new nomenclature for the different components of the 'Great Cemetery'; however, they incorrectly identify cemetery G as identical to tombs N1–N11 of the published map and thus called the southern-most part of the 'Great Cemetery' N G. For the new digital map, in order to avoid confusion, we adopt a neutral, straightforward numbering system that does not depend on interpretation. Each part of the cemetery is numbered as follows:

- AREA I: The southernmost area with tombs N1–N11 (van Wetering & Tassie's N G);
- AREA II: The smaller area to the north with tombs in the range N17–N54 (van Wetering & Tassie's N South);
- AREA III: The western part of the Great Cemetery (van Wetering & Tassie's N West (main) and N West (west));
- AREA IV: The eastern part of the Great Cemetery (van Wetering & Tassie's N East (main), N East (west), N East (far west)).

This numbering roughly follows the chronological progress of Petrie's work, although toward the end of the season, while still working in Area IV, he appears to have sent some of his team back to Area III to scout it for missed tombs (tomb numbers in the 1200's series). It is not the aim of this article to revisit the chronological development of the cemeteries of Naqada; to do so would necessitate a thorough review of the tombs' dates in light of the recently published pottery list (**STEVENSON**, 2020: 19–50) together with a close examination of the top-plans drawn in the notebooks, but we recognise that our Areas III and IV were originally separate clusters of tombs, or individual cemeteries.

One of the most frustrating drawbacks of Petrie's published map is its small scale with hardly legible tomb numbers, which has been partly overcome by **VAN WETERING** and **TASSIE** (2020: figs. 4.1, 4.4–6, 4.8, 4.9, 4.11–13) including maps with typed tomb numbers. However, they are an exact copy of the published map; yet careful examination of the preserved excavation notebooks written during the work at Naqada has shown that many useful topographical information had been included. These data have so far remained unnoticed, and the new digital map integrates all this new information, described below.⁵

⁵On the digital map, the following colour and shape codes were used: tomb squares in red show identical numbers on digital and published maps; tomb squares in purple show tomb numbers that appear twice on published maps for which the issue could not be resolved (on the digital map, these tombs are individualised with letters [α] and [β]); tomb squares in green show tombs that were either not numbered or mis-numbered on the published map and corrected on the digital map; tomb circles in green show tombs that were not indicated on the published map but added on the digital map; tomb squares in grey show tombs that remain unnumbered; tomb circles in grey show tombs that were not indicated on the published map but added on the digital map despite their number remaining unknown. On the digital map, tombs that cannot be identified are given an 'NN', 'NNB', or 'NNT' number (i.e., 'Not Numbered'), so that, when necessary, these tombs can be clearly incorporated in the discussion.

To help locate the tombs, a grid that follows the same orientation axis as Petrie's map was created. Petrie had aligned the grid north on the local Nile direction, about 24 degrees eastward of magnetic north. On the digital map, the X axis is numbered from 100 to 800 from West to East, and the Y axis is numbered from 10000 to 11040 from South to North. The centre point of each tomb is recorded according to this grid, and each tomb's coordinates are listed in Supplementary Tables 5–7 (Supplementary Information). Only modern features that are likely to remain visible and identifiable in the medium to long term have been drawn on the digital map, in order to help situate the cemeteries in the landscape.⁶

3.1 Topographical comments

When Petrie started excavating the cemeteries, he first kept track of the location of the tombs by writing down some measurements (in inches) between a given tomb and one excavated earlier, together with cardinal directions, in an abbreviated form. These short comments figure at the top of the tomb top-plans in the excavation notebooks. For example, tomb N4 is located as follows: 'S[outh]E[ast] [corner]⁷ 80 [inches] W[est] 270 [inches] N[orth] of N[orth] W[est] of [tomb] 2'. On other occasions, the information is more succinct, such as, e.g., tomb N36 which is the '6th N[orth] on E[ast] edge', or N42, which is 'Next S[outh] of 34'. It appears that he did not draw a general map while working in the field but was able to do so at a later stage (perhaps at the end of each day?) by using these topographical comments, which are given for 133 tombs (Table 1).

Petrie kept systematic topographical records for Areas I and II. While he was still excavating in Area II, he started using a new way of recording the distribution of the tombs by drawing sketch-plans (see Section 3.2). By then, his work was already fairly spread, with tombs in the vicinity of the Tumuli (N12–N16) and likely in the extreme west end of Area III, as well as Areas I and II. Petrie may have felt that simple topographical comments were no longer sufficient to avoid confusion, or perhaps he progressively found it too time-consuming to measure and write down these comments. However, he did not stop recording them immediately. At first, a number of tombs shown in the sketch-plans still have topographical information, but these appear less regularly and nearly stop after tomb N195. Only three later exceptions are found in the preserved notebooks: tomb N601 is described as 'E[ast] of [tomb] 600';⁸ the page (*Nb* 136: p. 9) with the top-plans of tombs N1300–N1308 mentions 'East end';⁹ and tomb N1788 is described as 'to north of 1787 and continuous with it'.¹⁰

The topographical information shows that Petrie excavated tombs to the west of the tumuli as well as between them, and so outside of the footprint of Areas I–IV. For tombs N12–N16, he wrote 'behind' the tumuli before adding 'W' to indicate that they are to the west of these structures. Evidently, his perspective was influenced by the fact that he had just excavated Area I, from where the west side of the tumuli was 'behind' them. Tombs N51 and N52 are described as being 'between' the tumuli. Unfortunately, no further information is given as to their relative arrangements, and these tombs are only broadly indicated on the digital map.

⁶These features include the irrigation canal, the 'local road' (not asphalted), the Ezbet Abu Habashy–Nagaa al Hattabi 'Tarmac road' (i.e. the road that starts in the south from Ezbet Abu Habashy, on Luxor West Bank, and joins the main Luxor – Qena road to the east of Zawaida) and the three parallel high voltage electric lines with each pylon drawn.

⁷Petrie abbreviated 'corner' with the sign 'T'.

⁸Unfortunately tomb N600 is yet to be located and although it is likely that both tombs are located within Area IV, this cannot be confirmed.

⁹It is not clear if the comment applies to all or part of this group, but it is possible that all these tombs are in the vicinity of tombs N1301 and N1303, which are both numbered on the published map in Area IV. At that stage of the excavation, the team had only excavated a small number of tombs (in the N800's series) further to the east, but along the south edge of Area IV; it would therefore have seemed—from the excavators' perspective—that tombs N1300–1308 were indeed on the 'east end' of the work area (see *Sketch-plan* 14 below). Note however that none of the tombs N886–N1003 are located on the map and could be to the East of the area of *Sketch-plan* 16.

¹⁰This information is confirmed by the addition by Petrie of a square numbered '1788' on the top-plan of tomb N1787 (*Nb* 139: p. 46); this tomb has been added on the digital map.

Tomb number	Notebook reference	On Petrie's plan	Topographical comment (dimensions in inches)	Sketch-plan	Comments
AREA I					
N0002	69, p. 57	Yes	118 [-3m] W of 1		No discrepancies between the topographical comments and the published map
N0003	69, p. 54	Yes	SE corner 110 [-1m] W of NW of 2		
N0004	69, p. 54	Yes	SE corner 80 [-2m] W, 270 [-6.9m] N of NW of 2		
N0005	69, p. 53	Yes	SW corner 200 [-5m] N, 200 E of NE of 3		
N0006	69, p. 52	Yes	NE corner 10 [-1.7m] W of NW corner of 3		
N0007	69, p. 51	Yes	W end of 2nd row from 5		
N0008	69, p. 50	Yes	70 N of 9		
N0009	69, p. 49	Yes	SE corner 200 [-5m] W, 20 [-0.5m] S of NW corner of 2		
N0010	69, p. 48	Yes	6th in South row		
N0017	69, p. 43	Yes	In valley shoal		
N0018	69, p. 42	Yes	SW 190 [-4.8m] E, 20 [-0.5m] N of NE corner of 17		
N0019	69, p. 42	Yes	NW corner 200 [-5.8m] E, 100 [-2.5m] SE corner of 17		
N0020	69, p. 41	Yes	SE corner 90 [-2.3m] N of NW of 18		
N0021	69, p. 40	Yes	SW corner 130 [-3.3m] N of NW of 17		
N0023	69, p. 41	Yes	In line S of 18, E side in line E of 18, W of 19; S 130 N of N of 19		
N0024	69, p. 38	Yes	Next NE of 22		
N0025	69, p. 37	Yes	Next N of 20, 5th N in row		
N0026	69, p. 36	No	Mid E side 90 [-2.3m] W of NW corner of 24		
N0027	69, p. 35	No	SW corner 50 [-1.3m] E, 20 [-0.5m] N of NE of 24		
N0028	69, p. 34	Yes	180 [-4.5m] E of 31		Tomb added to digital map, after topographical comment
N0029	69, p. 33	No	Next W of 25, SW 60 [-1.5m] E, 30 [-0.75m] N of NE of 26		Tomb added to digital map, after topographical comment
N0031	69, p. 31	No	60 [-1.5m] N of 27; From 28: 180 [-4.5m] W of 28		Tomb added to digital map, after topographical comment
N0032	69, p. 32	No	30 [-0.75m] E of 27		Tomb added to digital map, after topographical comment
N0033	69, p. 30	Yes	Next SW of 28	Sketch-plan 1	
N0034	69, p. 29	Yes	Next SE of 33	Sketch-plan 1	
N0036	69, p. 27	Yes	8th N on E edge		Tomb added to digital map, after topographical comment
N0037	69, p. 26	No	W end one S end		Tomb added to digital map, after topographical comment
N0038	69, p. 25	Yes	Side by Side [to 39], on N end	Sketch-plan 1	
N0039	69, p. 24	Yes	From 34: Next NW of 34; Side by Side [to 38], on N end	Sketch-plan 1	
N0040	69, p. 23	Yes	Next E edge		
N0041	69, p. 22	Yes	Next S of 33		
N0042	69, p. 21	Yes	Next S of 34	Sketch-plan 11	
N0053	69, p. 301	No	E of 117; (Top of page damaged but lower part of number 37 preserved)		
Tumuli Area					
N0012		No			Tombs not located with great accuracy and not added precisely to the digital map, although their general area is indicated.
N0013		No			
N0014	69, p. 47	No	Bodies behind W of tumuli		
N0015		No			
N0016		No			
N0051	69, p. 35	No	Between tumuli		
N0052	71, p. 102	No	Next W [Top of page damaged, number not preserved]		
AREA II					
N0035	69, p. 28	No	On N side valley ridge		Lead workman is the same as the one excavating tombs N45-47, so tomb N35 is perhaps in the vicinity of N46 [west end of AREA III]; general area indicated on the digital map
N0045	69, p. 18	No			Lead workman is the same as the one excavating tombs N45-47, so tomb N45 is perhaps in the vicinity of N46 [west end of AREA III]; general area indicated on the digital map
N0047	69, p. 16	No			Lead workman is the same as the one excavating tombs N45-47, so tomb N47 is perhaps in the vicinity of N46 [west end of AREA III]; general area indicated on the digital map
N0055	71, p. 97	No	N of 35-45		So in "N side valley", perhaps vicinity of tomb 46 [west end of AREA III]; general area indicated on the digital map.
AREA III					
N0056	71, p. 96	Yes	7th from E in N row		Extreme East of AREA III
N0058	71, p. 94	Yes	End of shaft N		Extreme East of AREA III
N0059	71, p. 92	Yes	6th from E in N row		Extreme East of AREA III
N0060	71, p. 91	Yes	S of 56 - 59		Extreme East of AREA III
N0091	70, p. 110	No	This tomb lies next West of 87		Tomb number added to digital map, after topographical comment
N0092	70, p. 109	No	This tomb lies next north of no. 88		Tomb number added to digital map, after topographical comment
N0093	70, p. 108	No	This grave lies next West of no. 91		Tomb number added to digital map, after topographical comment
N0097	70, p. 107	No	NW of 87		Tomb number added to digital map, after topographical comment
N0098	70, p. 106	No	Next West of 93 [not located yet]		Tomb N93 not located yet; location of N93 further depends on N92
N0099	70, p. 103	No	A tomb in Group 5		Group 5 not precisely identified
N0101	70, p. 104	Yes	Shoal Group; Group 4, north of Tumuli	Sketch-plans 2, 3, 5	
N0102	70, p. 102	Yes	Group 4 [crossed over]; This tomb lies next E of no 101	Sketch-plans 2, 3, 5	
N0107	71, p. 35	No	West of 106		Tomb N106 not located yet
N0109	71, p. 29	No	North of 108	(not numbered on Sketch-plan 2)	Tomb number added to digital map, after topographical comment
N0110	71, p. 28	No	West of 109	(not numbered on Sketch-plan 2)	Tomb number added to digital map, after topographical comment
N0114	71, p. 39	No	This grave is the 4th due E of the LARGE tomb 100		Tomb N102 not located yet
N0116	70, p. 98	No	Lies next NE of 108	(not numbered on Sketch-plan 2)	Tomb number added to digital map, after topographical comment
N0117	70, p. 96	Yes	Group 4 [crossed over]	Sketch-plan 2	
N0118	70, p. 95	Yes	Group 4 [crossed over]	Sketch-plan 2	
N0119	70, p. 94	Yes	Group 4 [crossed over]	Sketch-plan 2	
N0120	70, p. 93	Yes	Group 4 [crossed over]	Sketch-plan 2	
N0121	70, p. 92	Yes	Group 4 [crossed over]	Sketch-plan 2	
N0122	70, p. 91	No	Group 4 [crossed over]	Sketch-plan 2	Tomb added to digital map, after sketch-plan
N0123	70, p. 90	No	Group 5, W. of Group 5, immediately next to 142		Tomb N142 not located yet
N0124	70, p. 89	No	Group 4 [crossed over], Next W to 144	Sketch-plan 22	Tomb N144 not located yet; location of N125 depends on 124
N0125	70, p. 88	No	2nd grave W of 124	Sketch-plan 22	Tomb N124 not located yet
N0162	72, p. 108	Yes	N edge	Sketch-plans 7, 8	This is the north edge of AREA III
N0163	72, p. 107	Yes	E of 162; N edge; Small one next E out in it	Sketch-plan 8	
N0164	72, p. 106	Yes	N edge	Sketch-plan 8	This is the north edge of AREA III
N0166	72, p. 104	Yes	W of 165	Sketch-plan 6	
N0167	72, p. 103	Yes	SW of 166	Sketch-plan 6	
N0169	72, p. 101	Yes	N edge	Sketch-plan 8	This is the north edge of AREA III
N0170	72, p. 100	Yes	E of 162	Sketch-plan 6	
N0172	72, p. 98	No	North of 167	Sketch-plan 6	Tomb number added to digital map, after topographical comment
N0173	72, p. 97	No	Next E of 169 in N edge	Sketch-plan 6	
N0183	72, p. 82	No	W of 177		Tomb N177 not located yet
N0184	72, p. 78	No	W of 183		Tomb N183 not located yet
N0185	72, p. 77	No	W of 171		Tomb N171 not located yet
N0190	72, p. 69	Yes	Next West of big tomb 191	Sketch-plan 8	
N0195	72, p. 60	Yes	W of 193		
N0601	72, p. 24	No	E of 600		Tomb N600 not located yet
AREA IV					
N1300		No			The indication at the top of the page may imply that N1300-1308 are located in proximity (N1301 and N1303 figure on the published plan just to the east of the Area of Sketch-plan 10). However three different head workmen are identified and the tombs may be more scattered.
N1301		No			
N1302		No			
N1303		No			
N1304		No			
N1305		No			
N1306		No			
N1307		No			
N1308		No			
N1788		No	To north on 1787 and continuous with it, but not 80 deep by 20 in.		
CEMETERY					
T06	71, p. 26	Yes	West of T5		On the published map, tomb T6 is located a distance to the SW of tomb T5; the records do not agree; it may be a mistake for "West of T4", or even "West of T5"
T07	71, p. 25	Yes	SW of T6		
T08	71, p. 24	Yes	W of T7	Sketch-plan 18	
T09	71, p. 13	No	S of T5	Sketch-plan 18	Tomb number added to digital map from topographical comment and sketch-plan
T11	71, p. 14	Yes	30 [inches] [distance between T11 and T12]	Sketch-plan 19	
T12	71, p. 13	Yes	NE of tomb 10	Sketch-plan 19	
T15	71, p. 7	Yes	NE of tomb 10	Sketch-plan 19	
T17	72, 118	Yes	South of T16	Sketch-plan 19	
T21	72, 110	Yes	SE corner		
T22	72, 109	Yes	SW corner		
T24	72, 96	Yes	West side		
T25	72, 95	Yes	West edge		
T26	72, 91	No	S lot		Likely south part of cemetery T; tomb number not associated to a definite tomb square on the digital map.
T27	72, 88	No	S lot		Likely south part of cemetery T; tomb number not associated to a definite tomb square on the digital map.
T28	72, 87	Yes	Extreme West		
T29	72, 81	No	S lot		Likely south part of cemetery T; tomb number not associated to a definite tomb square on the digital map.
T30		No	S lot		Likely south part of cemetery T; tomb number not associated to a definite tomb square on the digital map.
T33	72, 67, 80	No	Near Tumuli		Likely near Tomb T51, though reference to tumuli (about 100m away) is not clear
T34	72, 51, 66	No	Near Tumuli		Likely near Tomb T52, though reference to tumuli (about 100m away) is not clear
T35	72, 56	Yes	Extreme NW		
T41	72, 38	No	W of main T mound		Tomb further to the west? Location not clear, tomb not added to digital map
T42	72, 37	Yes	E end of main		
T43	72, 37	Yes	S end of main		
T51	71, p. 54	Yes	E of Tumuli	Sketch-plan 18	Reference to tumuli (about 100 m away) is not clear
T52	71, p. 53	Yes	W of T154	Sketch-plan 18	
T55	71, p. 50	Yes	E of T154	Sketch-plan 19	
T57	71, p. 49	NO	Group E of Tumuli		Likely near Tomb T51, though reference to tumuli (about 100m away) is not clear
Cemeteries B					
B008	71, p. 83	Yes	Lower NW tomb		Tomb B8 is drawn on the east edge of Cemetery B in the published map, which seems to disagree with the topographical comment.
B016	71, p. 88	No	[East of B23, from B23 notebook entry]		Tomb B23 not located yet
B017		No			
B022	71, p. 80	No	Next west of B16-B17		Tomb B16-B17 not located yet
B026	71, p. 77	Yes	East Edge		
B039	71, p. 65	No	Next to B31		Tomb added to digital map, after topographical comment
B047	71, p. 57	No	Between 31 and 39		Tomb added to digital map, after topographical comment
B053	71, p. 53	No	About B38		Tomb dotted in on digital map, since topographical comment is not precise enough for clear localisation
B065	70, p. 105	Yes	"Cemetery B in the south"		
B091	70, p. 86	Yes	Next NE to B93 (See Naqada Plan 16)	Sketch-plan 20	
B092	70, p. 83	Yes	Lies next South of B91; (See Naqada Plan 16)	Sketch-plan 21	
B093	70, p. 82	Yes	Lies next NE of B91; (See Naqada Plan 16)	Sketch-plan 22	

Tab. 1: List of topographical comments as found in excavation notebooks. For this table in large-format, click [here](#)

Area I was drawn in full in the published map, with all the tombs indicated and numbered. There is no noticeable discrepancy between the map and the topographical comments. In contrast, six tombs in Area II are successfully relocated and added to the digital map thanks to the topographical comments.¹¹

Petrie appears to have sent a group of workmen to investigate further north while he was still involved in Area II: tomb N35, not located on the published plan, is said to be in the 'N[orth] side valley ridge'. Interestingly, for the first time, Petrie indicated on the tomb's top-plan the name of the lead workman as 'Godi' (*Nb* 69: p. 28). This name is repeated on the top-plans of tombs N45–N47, as well as N55 and N61; it is possible that Petrie felt the need to include this detail if Godi was working a distance to the north, away from his direct supervision. We know from the published plan that tomb N46 is in the extreme west end of Area III, and we suggest that at least tombs N45 and N47 (and probably tomb N35 too) are in its vicinity. When Petrie migrated the bulk of his team to Area III, he initially did not pursue the investigation of its western end, but concentrated his efforts on its extreme east part, where tomb N61, also worked by 'Godi', appears in the published map. It is therefore impossible to determine whether tomb N55 was excavated in the east or west parts, but its attribution to Area III seems however certain.

The topographical comments allow us to add a few more tombs and tomb numbers to the digital map in Area III.¹² Frustratingly, there are several instances where the comments cross-refer to tombs that cannot yet be located,¹³ especially in Cemetery T: out of the 27 tombs with topographical comments, nine do not feature on the published map, and only the comment for tomb T9 ('S[outh] of T5') allows us to relocate that tomb on the digital map. However, we can determine that tombs T26–T27 and T29–T30 were likely in the southern part of Cemetery T.

There are fewer topographical comments for Cemetery B, and they only allow the addition of three tombs to the digital map,¹⁴ while tomb B23 is said to be 'next W[est] of B16 [and B]17', neither of which is yet located.

3.2 Sketch-plans

When the excavators reached tomb N33, they began drawing small 'sketch-plans' in their notebooks in addition to the topographical comments.¹⁵ In total, twenty sketch-plans have been found in *Nb* 69–72 (see Table 2);¹⁶ they each encompass a small portion of the cemetery, sometimes with overlapping areas. The tomb squares are not drawn to scale and do not reflect the true shape of the grave pits, but they are nevertheless mostly placed in their correct relative location.¹⁷

Unfortunately, this documentation is not exhaustive: not all the tombs found in an area were necessarily included in the relevant sketch-plan, and not all the drawn tomb squares are identified with a tomb number. Additionally, the preserved sketch-plans are not evenly distributed across the cemeteries. They centre on the northern part of Area II, the central section of Area III, and the western part of Area IV (Figure 7a). There are also two sketch-plans for each of the cemeteries T (Figure 7b) and B (Figure 7c). Despite these

¹¹Tombs N26–N27, N29–N31, N37; only one tomb square remains to be identified in this area (tomb NN1), but since in many instances the topographical comments lack precise detail or measurement, it is possible that tomb NN1 was meant to represent one of the tombs I have added in this vicinity on the digital map, perhaps tomb N26, N31, or N32.

¹²Tombs N91, N93, N97, N109, N110, N116, N122, N172.

¹³Tombs N92, N98, N99, N107, N123–N125, N183–N185, N601.

¹⁴Tombs B39 and B47, as well as tomb B53 which is only approximately located.

¹⁵Sketch-plans are abbreviated SP. In Figures 8–23, the full page of the notebook is shown, followed by a close-up of the sketch-plan with the tomb numbers typed in according to the following colour code: red shows that information on the sketch-plan is repeated on the published map; white shows tomb numbers that figure on the published map but not on the sketch-plan; green shows information from the sketch-plan that is lacking on the published map; purple shows tombs drawn on the notebook and published map for which the number is only known from the topographical comments (see Section 3.1); grey shows unidentified tombs.

¹⁶There are also several sketch-plans for Quibell's excavation at Ballas, see e.g. *Nb* 143, 146; they are not included in this study.

¹⁷See however, e.g., *SP* 8 for discrepancies.

Sketch-plan	Notebook	Area	Tomb range
1	Nb 69: p. 20	Area II	N33-N54
2	Nb 70: p. 97	Area III	N100-N146 (N161)
3	Nb 71: p. 39		N100-N114
4	Nb 71: p. 18		N100-N168
5	Nb 72: p. 102-103		N100-N194
6	Nb 72: p. 94		N165-N174 (N195)
7	Nb 72: p. 99 Nb 72: p. 100-101 Nb 72: p. 104		N162-N260 (N266)
8	Nb 72: p. 74-75	N193-N294	
9	Nb 72: p. 50	N200-N202	
10	Nb 72: p. 82-83	N206-N377	
11	Nb 72: p. 54-55	N500-N559	
12	Nb 70: p. 29	N507-N573	
13	Nb 70: p. 40	AREA IV	
14	Nb 72: p. 30	N715-N735	
15	Nb 72: p. 32	N701-N757	
20	Nb 70: p. 87	Unplaced	N124-N144

Sketch-plan	Notebook	Area	Tomb range
16	Nb 71: p. 53	North	T2-T59
17	Nb 71: p. 25		T4-T17
18	Nb 70: p. 85	North	B89-B134
19	Nb 70: p. 65		B106-B125

Great Cemetery

Tab. 2: List of the sketch-plans found in excavation notebooks.

shortcomings, comparison between the topographical notes, the sketch-plans, and the published map allows for the correction of a number of mistakes, for the numbering of several tombs left un-numbered on the published map, and for the addition of tombs that were not drawn at all.

The eastern part of Area IV is the most poorly represented among the sketch-plans, in contrast with the western part, which is recorded in several top-plans in *Nb* 136–141 by Petrie's colleagues. It seems likely that Petrie personally handled the mapping of the cemetery, and if he ever drew sketch-plans of the eastern part of Area IV, these would not have featured in his colleagues' notebooks; it is more probable that they would have been drawn in documents that have not survived or are yet to be found.

3.2.1 *Sketch-plan 1: Great Cemetery, Area II*

Sketch-plan 1 (*Nb* 69: p. 20; Figure 8a) consists of ten tombs, one of which is left unnumbered. It is not particularly informative since the published plan is more complete and shows that this unnumbered tomb is most likely N42. Additionally, tombs N40 and N41 are not included in this sketch-plan, despite their proximity to this group of tombs.

3.2.2 *Sketch-plans 2, 3, 4, and 5: Great Cemetery, Area III*

Sketch-plans 2–5 focus on the same part of Area III of the Great Cemetery; they are drawn in three different notebooks but show a lot of overlap.

Sketch-plan 2 (*Nb* 70: p. 97; Figure 9a–b) is drawn on an individual page and consists of thirty-five tombs (in the range N100–N146), sixteen of which are numbered. The mention 'Shoal Group 4' at the top of the page shows that Petrie had given a name to this area, yet he later crossed over the number; the top-plans of several tombs bear similar information.¹⁸

Sketch-plans 3 and *4* (*Nb* 71: p. 39, p. 18, resp.; Figure 10a–b) are a continuation of one another, linked together with tomb N100 appearing in both. *SP 3* covers only a small area of seven tombs (in the range N100–N113), of which six are numbered as an exact duplicate of *SP 2*. *Sketch-plan 4* is, for the most part, a repetition of the right side of *SP 2*, although there are differences in the eastern extremity. It shows sixteen or seventeen tombs in the range N100–N168,¹⁹ of which only nine are numbered. Finally, *SP 5* (*Nb* 72: p. 102–103; Figure 11a–b) is an almost exact copy of *SP 3* and *SP 4*, with 26 tombs in the range N100–N194, of which 16 have their number indicated.

The main discrepancies between these sketch-plans and the published map lie in the west and east extremities of this area. In the west, the left part of *SP 2* is the most informative. Seven tombs are indicated to the west of tombs N118–121, so that at least one tomb is missing on the published map; since there are two tombs drawn to the east of N108, one can be identified as N116 thanks to the topographical comment (see Table 1), while the other is added as NN1001.²⁰ In the same area, we can re-locate N122 (not indicated on the published map)²¹ and identify two squares to the north of N108 as N109 and N110 from their topographical comments (see Table 1).

¹⁸Top-plans of tombs N101–N102, N117–N122, N124–N125; for N101 (*Nb* 70: p. 104), Price wrote both 'Shoal Group' and 'Group 4 North of tumuli'. There is no earlier mention of Groups 1, 2, or 3 in the notebooks, but one can assume that Group 1 concerns tombs N1–N11 (our Area I); Group 2 may have been used for tombs N12–N16, which are not exactly located but to the west of the tumuli; finally, Group 3 may have been used for tombs N17–N50 (our Area II). It is not clear why on each top-plan except for tomb N101, the mention 'Shoal Group 4' was later crossed over.

¹⁹To the north of tombs N101 and N117, Petrie drew an oval with the comment 'doubtful grave'; an unnumbered square on the published map (NN71) may represent this possible grave or may be another grave altogether.

²⁰We put here N116 to the east of NN1001; the reverse is equally possible.

²¹Tomb N122 may possibly have been represented on the published map (without a number) as square NN44, which seems however to be located too far away from tombs N109–N110.

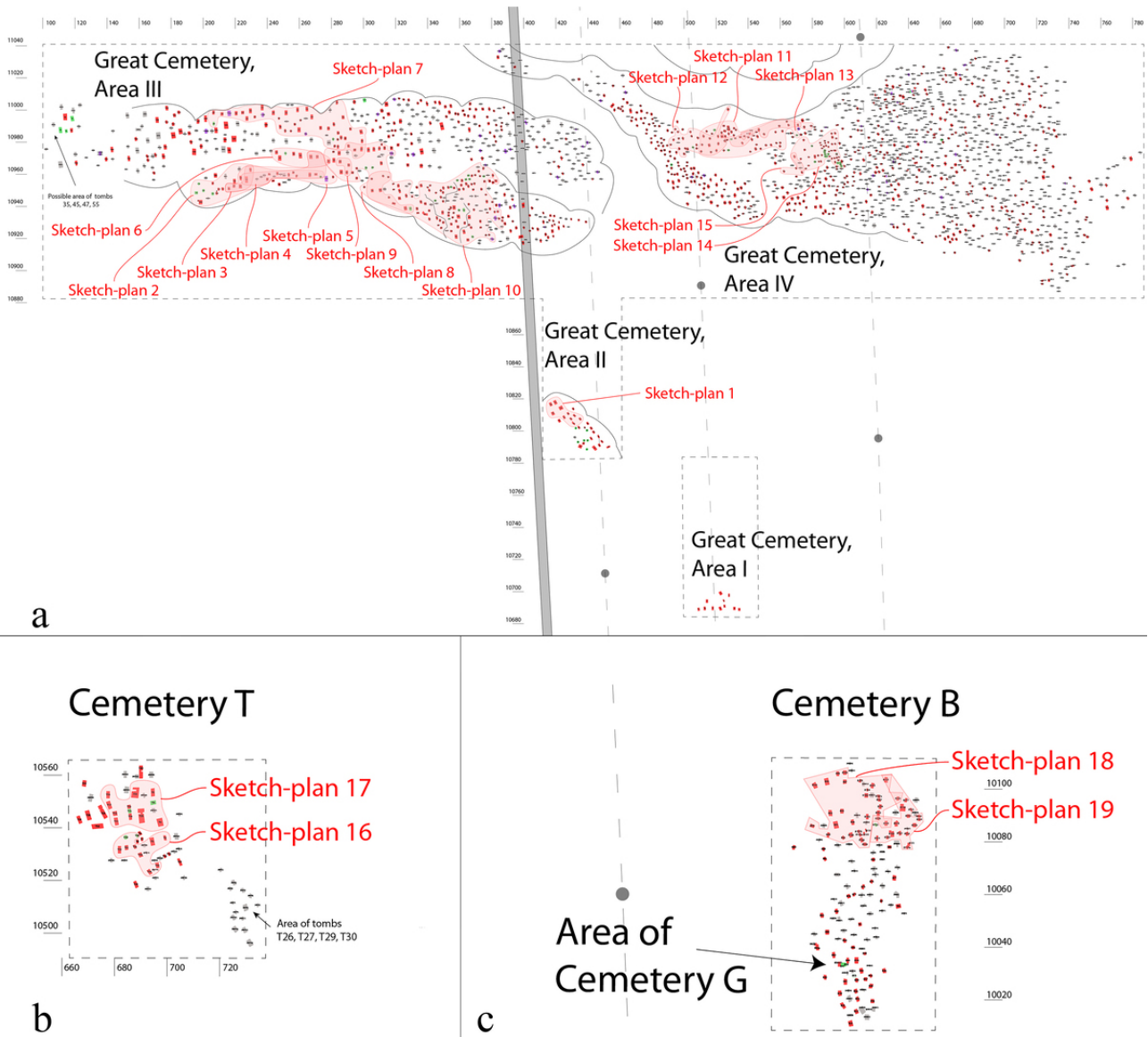


Fig. 7: a) Naqada, Great Cemetery, location of the areas covered by *Sketch-plans* 1–15; b) Naqada, Cemetery T, location of areas covered by *Sketch-plans* 16–17; c) Naqada, Cemetery B, location of areas covered by *Sketch-plans* 18–19. © Xavier Droux. This map can be viewed in full size here [↗](#).

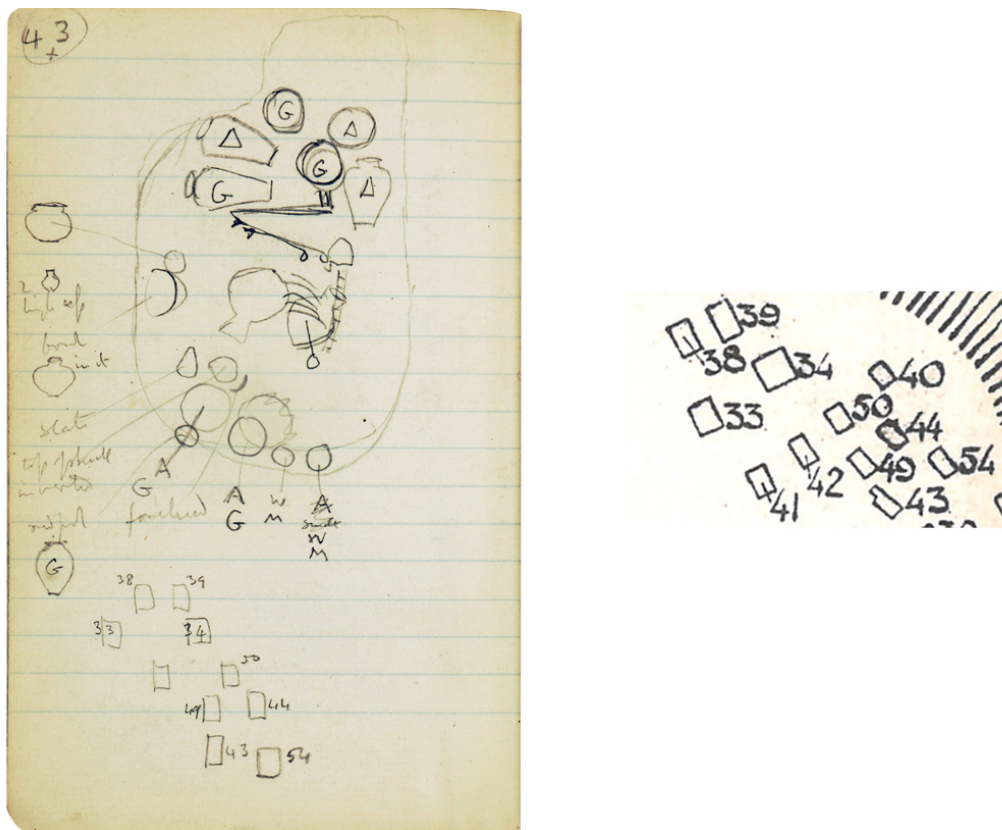
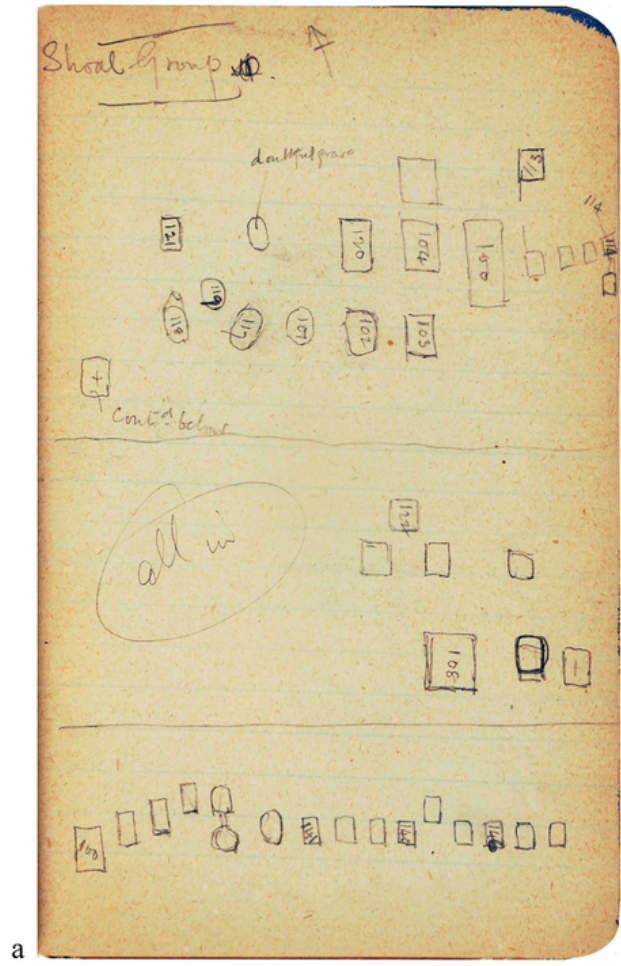
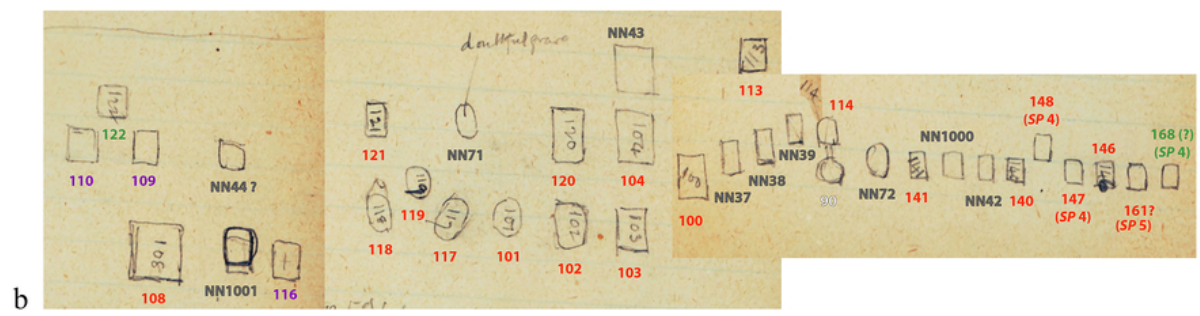


Fig. 8: Facsimile of Nb 69 (p. 20), showing the top-plan of tomb N43 and *Sketch-plan 1* (left, inv. PMA/WFP1/1/99/69), compared to the same area as published (right; image taken from [PETRIE et al.](#), 1896: pl. LXXXVI, detail).



a



b

Fig. 9: a) Facsimile of *Sketch-plan 2* showing the area with tombs N100–N146; b) Composite view of *Sketch-plan 2*. Inv. PMA/WFP1/1/99/70.

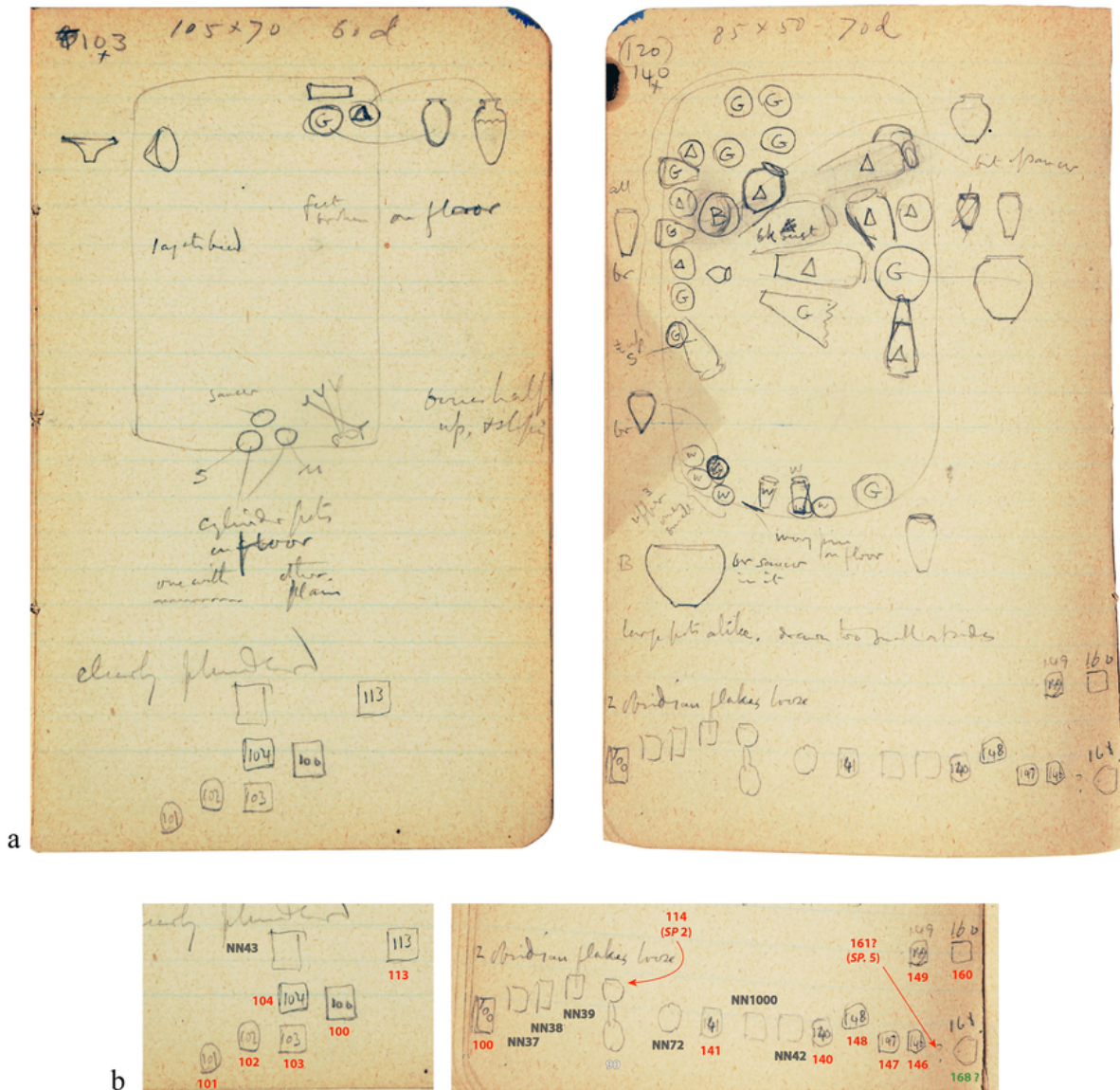
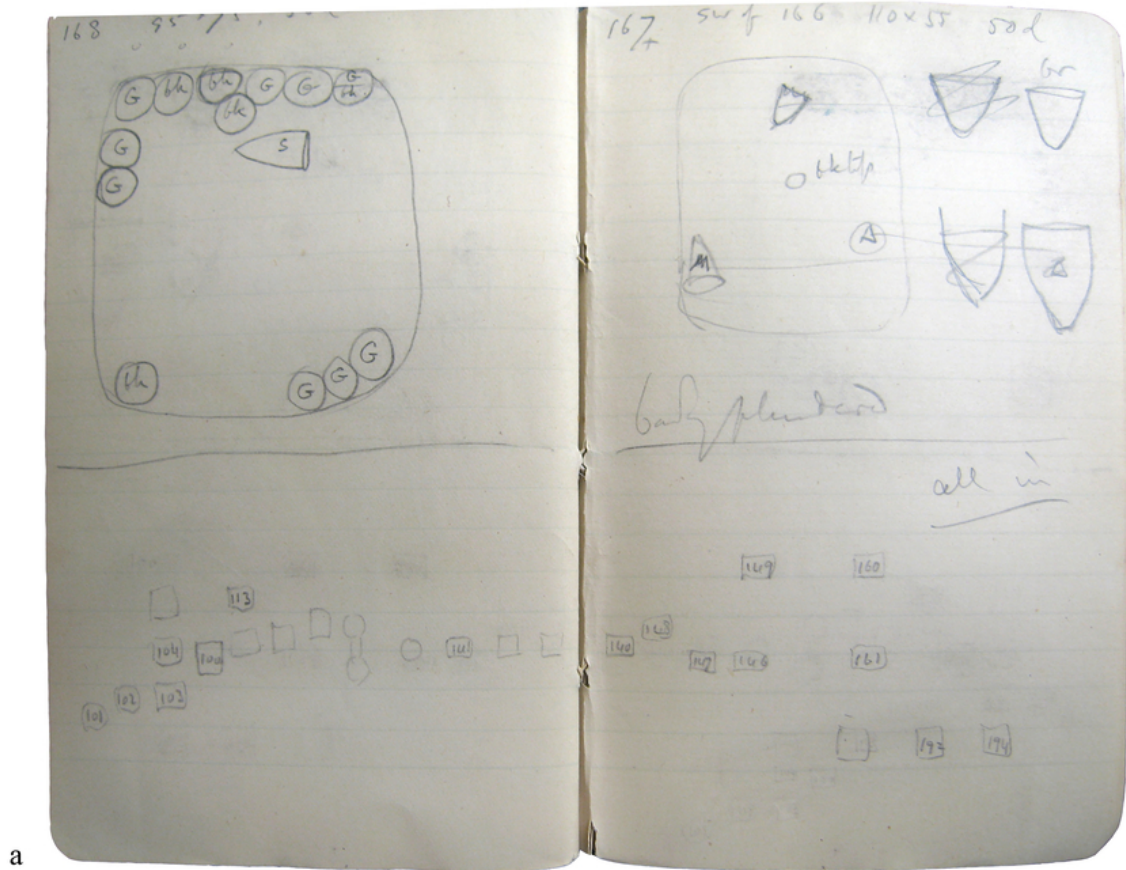
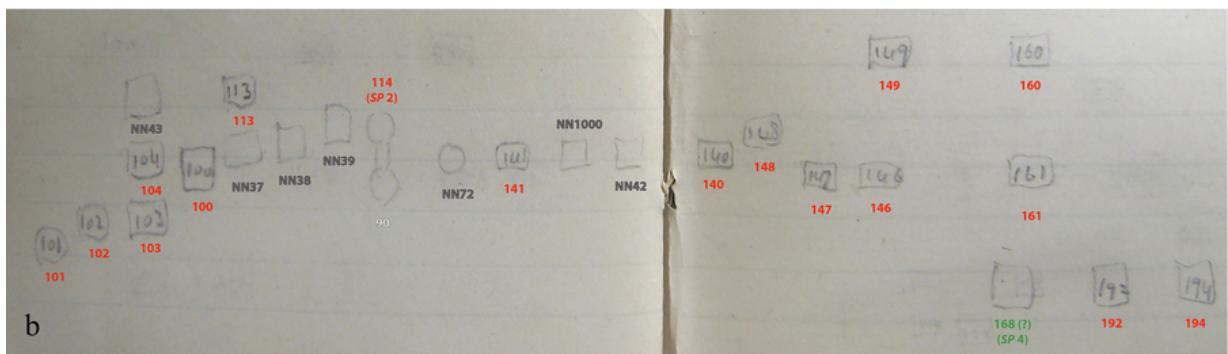


Fig. 10: a) Facsimile of *Sketch-plan 3* showing the area of tombs N100–N113 and *Sketch-plan 4* showing the area of tombs N100–N168; b) Edited version of *Sketch-plan 3* (left) and *4* (right). Inv. PMA/WFP1/1/99/71.



a



b

Fig. 11: a) Facsimile of *Sketch-plan 5* showing the area of tombs N100–N194;
 b) Edited version of *Sketch-plan 5*. Inv. PMA/WFP1/1/99/72.

The information for the area between N101 and N146 is coherent between all four sketch-plans, but the tombs are not all numbered in each; tomb N90, to the south of N114 is only known from the published map. Frustratingly, several other tombs remain unnumbered on all documents (NN37–NN39, NN42–NN43, NN72, NN1000). The main difference with the published map is the presence of two unnumbered tombs between N140 and N141, so that NN1000 is added to the digital map to complete the row.

The extreme east end of this area is more problematic. There are two unnumbered squares to the right of tomb N146 on *SP* 2; at the same location, *SP* 4 shows a question mark and a tomb seemingly numbered N168; on *SP* 5, a single tomb, N161, is indicated. Further, the two latter sketch-plans show tomb N149 to the north of N146, with N160 to its east. Finally, *SP* 5 shows tombs N192(b) (for tomb N192, see below) and N194 to the south-east of N161, with an unnumbered square to their west. It seems likely that a tomb is missing on the published map, in the vicinity of tomb N161. Since N168 is not indicated there and all other tombs in the 160's series are noted on the published map, we suggest adding it approximately to the south-east of tomb N161.²²

Traces of an erased sketch-plan are visible beneath the right part of *SP* 5. It seems that Petrie first started drawing *SP* 3 here before realising he needed more space to add tombs in the east. Unfortunately, the tomb to the north of tomb N104 (NN43) was not numbered on this erased sketch-plan either.

3.2.3 *Sketch-plan 6: Great Cemetery, Area III*

Sketch-plan 6 (*Nb* 72: p. 94) is small, with only eight tombs in the range N149–N195 (Figure 12a–b). The area covered is located just to the north of the previous three sketch-plans, with a likely overlap with *SP* 4 and *SP* 8: the three unnumbered tombs to the right of N165 can be identified as tombs N149, N160, and N195 from the published map; N149 and N160 feature on *SP* 4, while the square for tomb N195 was drawn but not numbered on *SP* 10. The last remaining unnumbered tomb on *SP* 6 is most likely N172, a small tomb with only two vessels and 'gazelle' bones (*Nb* 72: p. 98), which is to the north of N167 according to topographical comments (see Table 1).

3.2.4 *Sketch-plan 7: Great Cemetery, Area III*

Sketch-plan 7 (Figure 13a–b) is divided in three parts spread on four pages of *Nb* 72 (pp. 99, 100–1, 104) and shows tombs in the range N162–N251. Petrie seems to have started with the left side of the central part, with N162, and to have continued eastward across the double-page spread. Tombs to the west of N162 were first scribbled against the left edge of the page, before being redrawn properly on the reverse page, with N162 repeated on both. Similarly, when he ran out of space on the right edge of the double-page, he continued the plan on a separate page, with tombs N213, N240, N241, N247, and N251 written on both. Most of the drawn tombs are numbered and a few discrepancies with the published map are visible.

We can first identify two tombs visible on the published map: tomb N196 to the south of tombs N189 and N179, and tomb N237 to the west of tomb N228.²³

Tomb N164 is indicated twice on the sketch-plan, in close proximity, to the east and to the southeast of tomb N163; it features only once on the published map, to the southeast of N163. On the top-plan of that tomb, Petrie wrote: 'small one next E[ast] cut in it' (*Nb* 72: p. 107); this is unlikely to be N164 since it is of

²²The reading of '168' on *SP* 4 is uncertain: the last digit does look similar to a '1', but close examination shows that it was not written in a single stroke, as are all other '1' digits; the only plausible alternative is that it is a poorly-written '8', likely because it is in the gutter of the notebook. The question mark on *SP* 4 seems to reflect uncertainty and confusion, perhaps first created by Petrie's handwriting issue.

²³The locations of tombs in this area differ between notebook and published map; at first, one would think that N237 is represented by the square to the north of the large tomb NN82, but it seems impossible since there shouldn't be any tomb between NN82 and tomb N228.

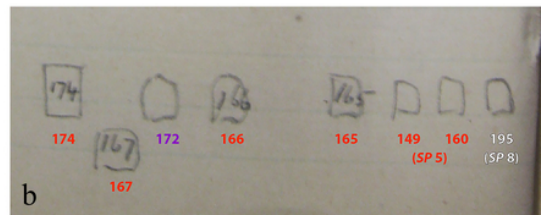
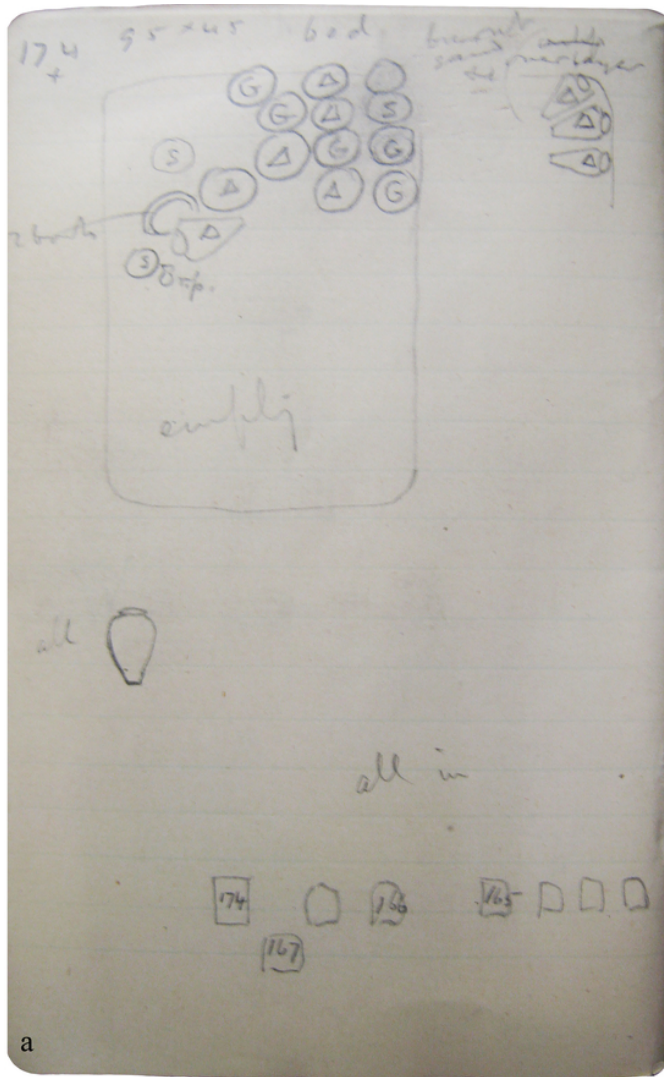
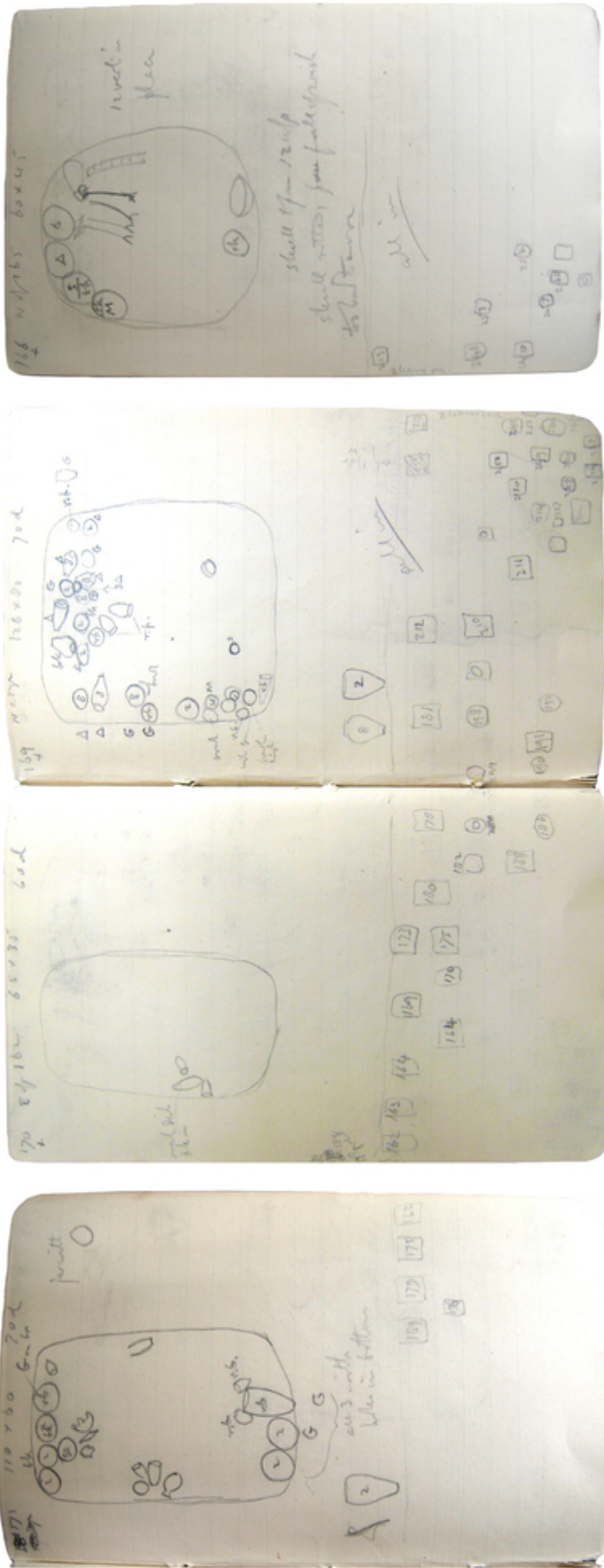
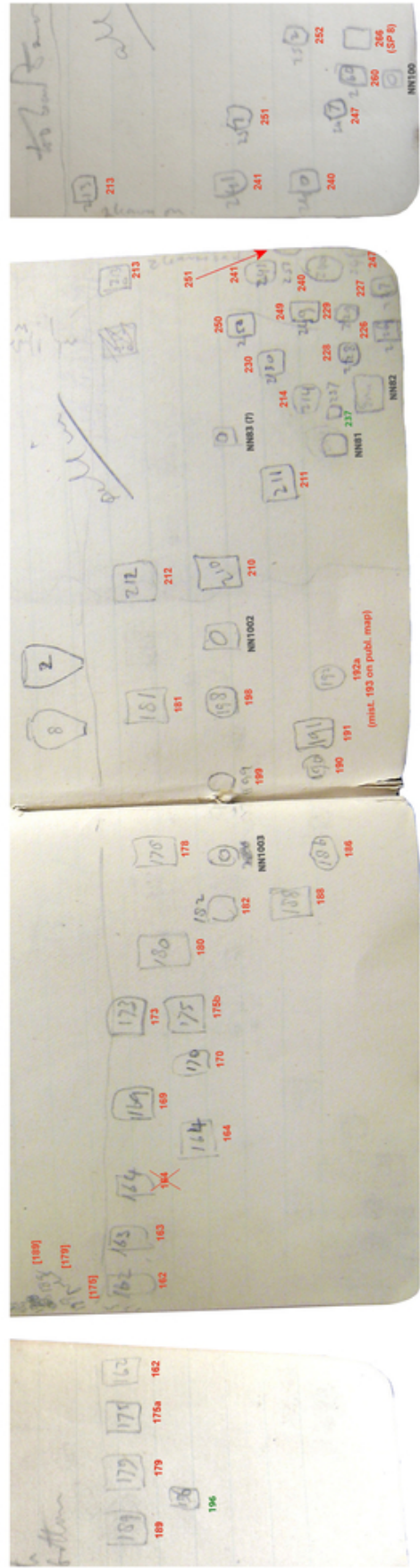


Fig. 12: a) Facsimile of *Sketch-plan 6* showing the area of tombs N149–N195; b) Edited version of *Sketch-plan 6*. Inv. PMA/WFP1/1/99/72.



a



b

Fig. 13: a) Facsimile of Sketch-plan 7 showing the area of tombs N162-N251; b) Edited version of Sketch-plan 7. Inv. PMA/WFP1/1/99/72.

sizeable dimensions, so that another tomb must have existed there (it is unknown whether this small tomb received its own number). The simplest explanation for the doubling of N164 on the sketch-plan may be that Petrie erroneously wrote '164' in the square meant to represent the small tomb that cut into N163, before writing it in its correct location but without erasing the incorrect number.²⁴

More problematic is the issue of tomb '192', clearly labelled to the east of tomb N191. It was mistakenly numbered N193 on the published map. Although this error can be corrected,²⁵ doing so highlights another error, since another tomb N192 exists in *SP* 5 (see above). However, examination of the excavation notebooks shows that this number was accidentally attributed twice to two distinct tombs (*Nb* 72: pp. 65, 69). These tombs are indicated as N192a and N192b on the digital map, although it is impossible to determine to which top-plan they each relate.

There is also an issue regarding tomb N175; it is indicated in different yet nearby locations on the sketch-plan, and the error was copied in the published map. At present, this problem cannot be solved (for duplication issues, see Section 4 and Table 3).

Interestingly, Petrie noted on the sketch-plan that tomb N213 contained 'only 1 pot [in] W[est]', seemingly represented by a small circle in the south-west corner of the tomb.²⁶ Several other tombs, all unnumbered and not included on the published map, also contain a large circle in their centre.²⁷ It is possible that these circles are meant to indicate that a tomb was found empty; whether a number was ever attributed to them is unknown.²⁸

3.2.5 *Sketch-plans 8 and 9: Great Cemetery, Area III*

Sketch-plan 8 (*Nb* 72: pp. 74–75; Figure 14a–b) shows tombs in the range N193–N294; it connects to *SP* 6 in the north-west (tomb N195, drawn but not numbered), to *SP* 7 in the north (tombs N260/N247, drawn but not numbered, and tomb N266), and to *SP* 10 in the south (tombs N206, N209, N215–N217, N219, N258, N279, N282). *Sketch-plan 9* (*Nb* 72: p. 50), which only shows three numbered tombs, is a repetition of a small portion of *SP* 8 and doesn't provide any additional information.

For the most part, the tombs are labelled, and the published map closely reflects what is drawn in the sketch-plans. However, the left part of *SP* 8 is more problematic. Petrie erased a number of squares and redrew over them. Tombs N200, N207, and N208 are clearly legible, but the number to the left of tomb N200 somehow seems to be a repeated '200', where one would expect to find tomb N193 by comparison with the published map.

The two tombs between N233 and N258 are clearly labelled '238' and '239'. The first was mistakenly numbered N230 on the published map,²⁹ and the latter was left unnumbered. Comparing the layout of the tombs in this area between the sketch-plan and the published map shows discrepancies. For example, N233–N238–N239–N258–N279–N282 form a seemingly straight row but are divided in two separate rows in the published map.

In the northeast area of *SP* 8, the tomb drawn to the southeast of tomb N293 is clearly labelled '294'. However, both numbers appear a second time on the published map, further to the south in the area covered by *SP* 10. The correct location of tomb N293 is that indicated on *SP* 8, to the east of tombs N275/N281.³⁰

²⁴Because of these uncertainties, no tomb is added on the digital map between N163 and N169.

²⁵Tomb N193 was duplicated on the published map, appearing once mistakenly to the east of N191, and once correctly between tombs N195 and N200.

²⁶This tomb was apparently not considered of sufficient interest to be drawn as a top-plan.

²⁷Tombs NN81, NN83, NN100, NN1002, NN1003.

²⁸See also NN271 (*SP* 8), and NN23, NN27, NN32, NN33, NN102, NN244, NN270 (*SP* 10). The same is not true of the zero written for tomb N500 in *SP* 11, see below. A number was written below NN1003 but later crossed over too thoroughly to be recognised.

²⁹The correct location of N230 is further to the north (see *SP* 7 above).

³⁰Unfortunately, the issue for tomb N294 cannot be resolved (see Section 4 below and Table 3).

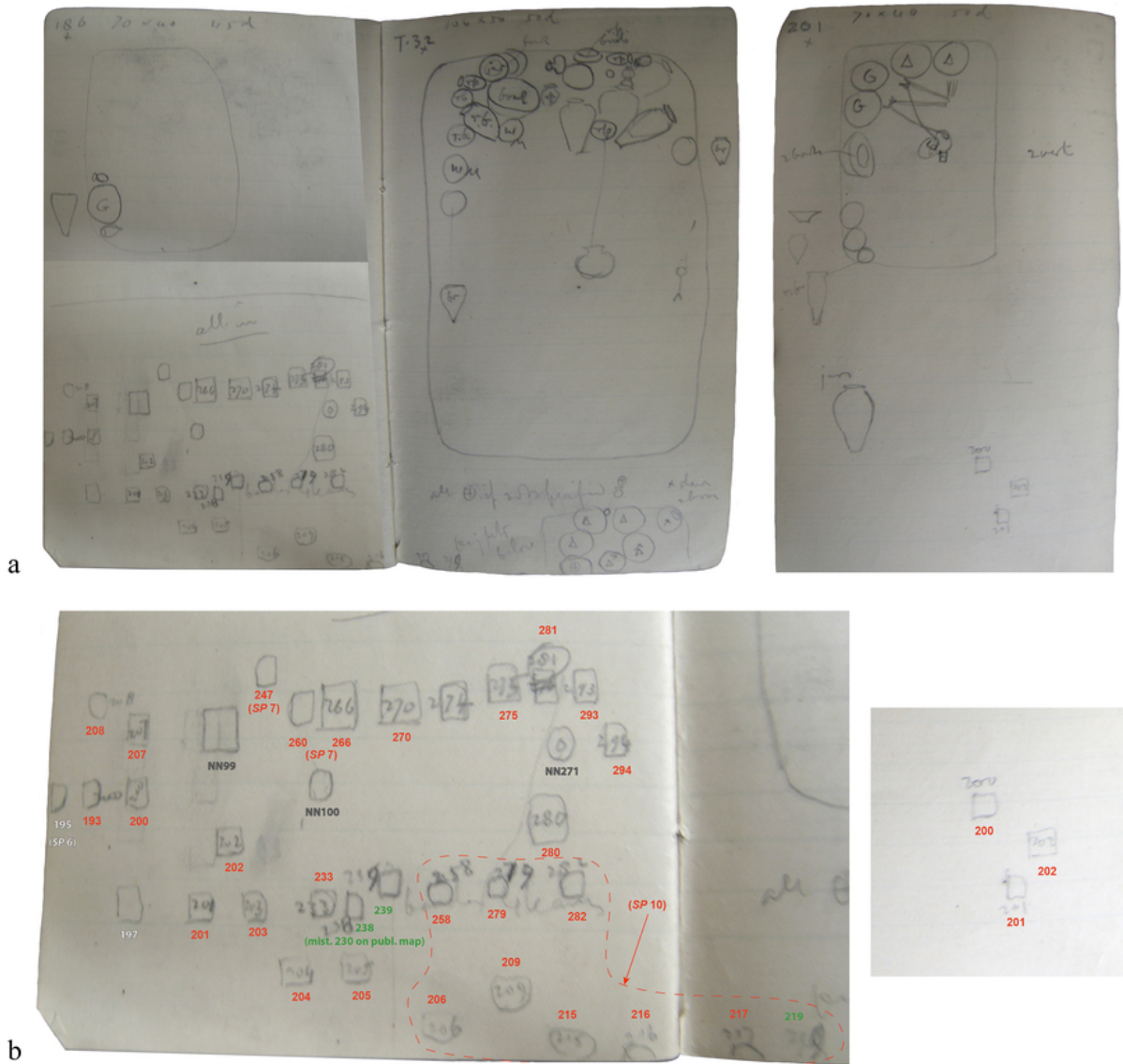


Fig. 14: a) Composite view of *Sketch-plan 8* showing the area of tombs N193–N294 and of *Sketch-plan 9* showing the area of tombs N200–N202; b) Edited version of *Sketch-plans 8* and *9*. Inv. PMA/WFP1/1/99/72.

Finally, a tomb that had remained unnumbered on the published map can be identified as N219, between N217 and N246; this location is confirmed by *SP* 10 (see below).

3.2.6 *Sketch-plan 10: Great Cemetery, Area III*

Sketch-plan 10 (*Nb* 72: pp. 82–3; Figure 15a–b) covers a large swath of the south-west part of Area III. It shows no less than 113 tombs in the range N206–N377, of which only ten are left unnumbered. This allows for several corrections and additions to the published map. An overlap with *SP* 8³¹ allows confirmation of the location of N219 (see above), and to identify the square drawn to the east of N279 as tomb N282.

Several duplication issues can be corrected. First, tomb N234 appears twice in close proximity to the east of tomb N223. The north-most occurrence can be corrected to N264 from the sketch-plan, where it is shown as a much smaller tomb than N234, a difference in size that is reflected in the published map. Tomb N293 also appears twice, once in the area covered by *SP* 8 (see above), and once to the east of tombs N290–N291. *Sketch-plan 10* allows to correct this second occurrence of '293' as tomb N292; the handwriting is not the clearest, which likely led to the error in the published map. Tomb N338 is also shown twice, once to the east of tomb N251, and once between N347 and N331. *Sketch-plan 10* shows the latter clearly labelled '328', so that a simple typo error led to the duplication. Finally, tomb N347 appears twice in close proximity, near tombs N344/N358; the one immediately to the east of tomb N330 can be corrected to N342.³² Two more duplication issues, for tombs N294 and N312, cannot be resolved.³³

To the northwest of tombs N349 and N350 are two rounded, unnumbered outlines. Only one tomb was included in that area in the published map (NN156); it is not certain that two tombs were indeed present there since these outlines sit on the edge of the area, and I decided against adding an additional tomb on the digital map.

A little to the south, two contiguous tombs are labelled '360–3'. Although tombs N361 and N362 are not yet located, it is unlikely that Petrie intended to indicate that the whole range of tombs N360, N361, N362, and N363 were grouped together; it seems that he would have drawn four squares, not just two. The two missing tombs could also be located near tombs N359 and N365, close to the north edge of Area III.

Despite the high number of tombs present on this sketch-plan, a few additional, unnumbered tombs figure on the published map (e.g. NN29, NN30, NN243).³⁴

3.2.7 *Sketch-plans 11, 12, and 13: Great Cemetery, Area IV*

These three sketch-plans cover a continuous portion of the western side of Area IV. Remarkably, all but two of the tombs are numbered (NN265, N1425?), so that several additions and corrections can be proposed to the published map. In all, fifty-five tombs in the range N500–N559 appear on *SP* 11 (*Nb* 72: pp. 54–5; Figure 16a–b). There is a lot of overlap with *SP* 12 (range N507–N573) and *SP* 13 (range N501–N509), which are a continuation of one another despite being drawn on separate pages (*Nb* 70: pp. 29, 40, resp.; Figure 17a–b).³⁵ *Sketch-plan 12* extends the area covered in *SP* 11 by seventeen tombs to the west, *SP* 13 by three tombs to the east.³⁶

³¹Tombs N206, N209, N215–N217, N219, N258, N279 are repeated on both sketch-plans.

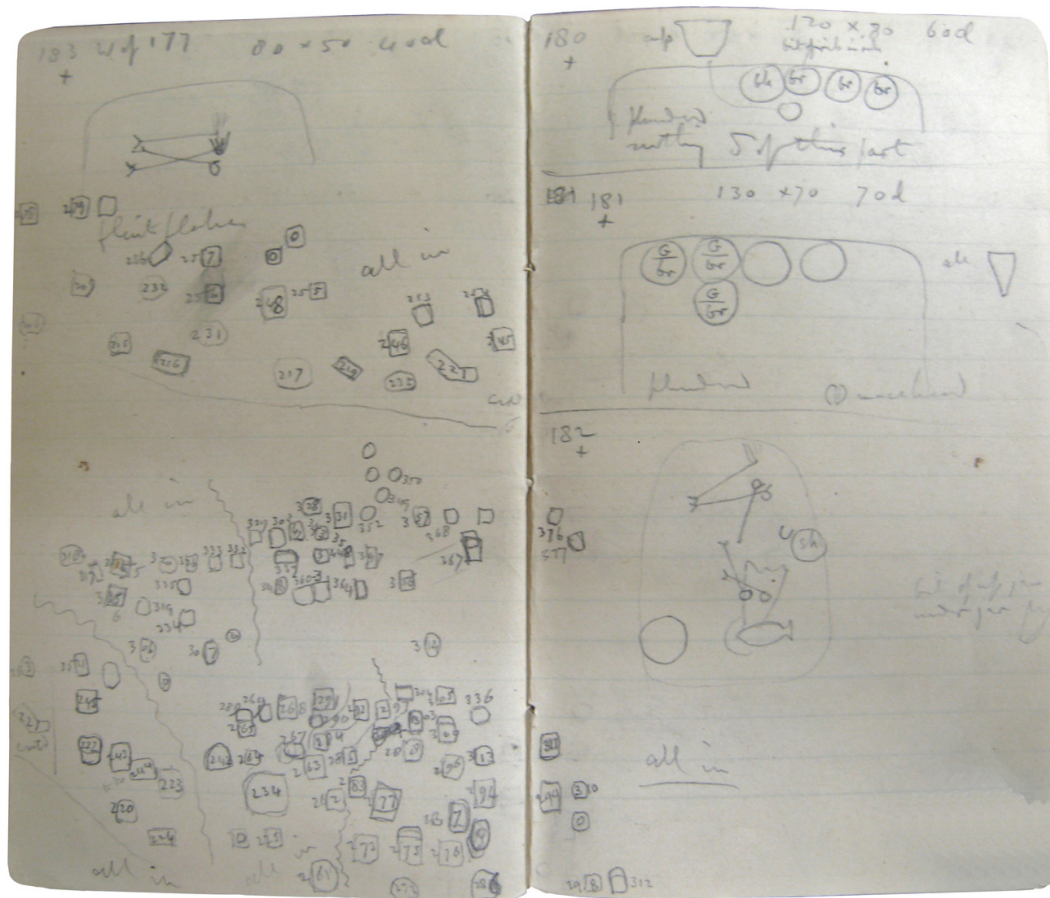
³²The '2' is written partly over the outline of the tomb, hence the probable later misreading as a '7'.

³³See Section 4 and Table 3.

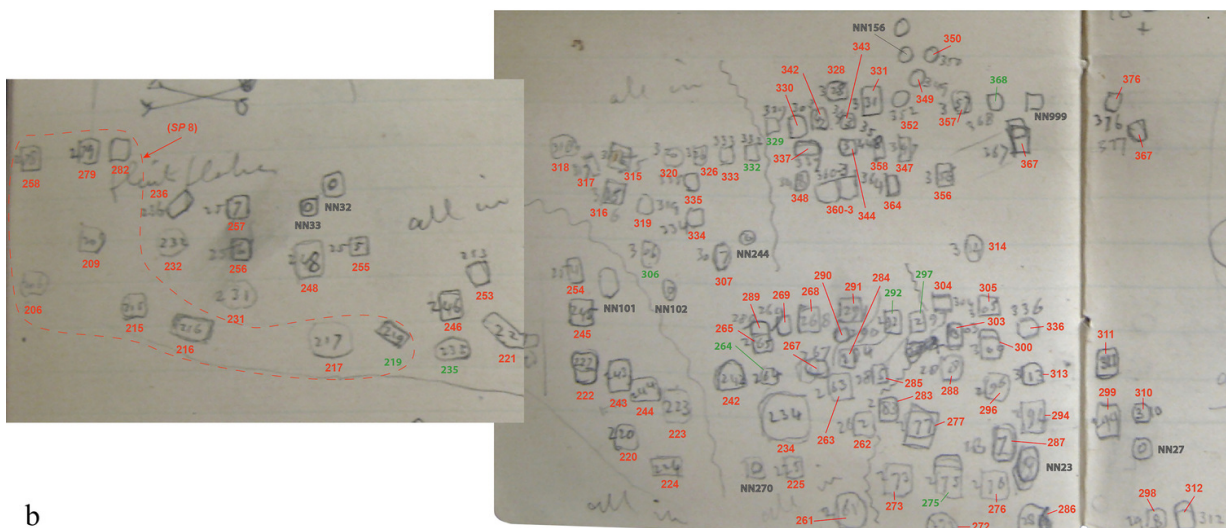
³⁴Seven unnumbered tombs (NN23, NN27, NN32, NN33, NN102, NN244, NN270) have a zero inscribed within their outline; see above and note 28.

³⁵Tombs N507 and N509 appear on both of them.

³⁶Note that the numbers in *SP* 11 are abbreviated: only the last numerals are inscribed and the whole plan is captioned 'all + 500'. Therefore, N500 is only identified with a zero written within the outline of the tomb (see also above and note 28).



a



b

Fig. 15: a) Facsimile of Sketch-plan 10 showing the area of tombs N206–N377;
 b) Edited version of Sketch-plan 10. Inv. PMA/WFP1/1/99/72.



Fig. 16: a) Facsimile of *Sketch-plan 11* showing the area of tombs N500–N559; b) Edited version of *Sketch-plan 11*. Inv. PMA/WFP1/1/99/72.

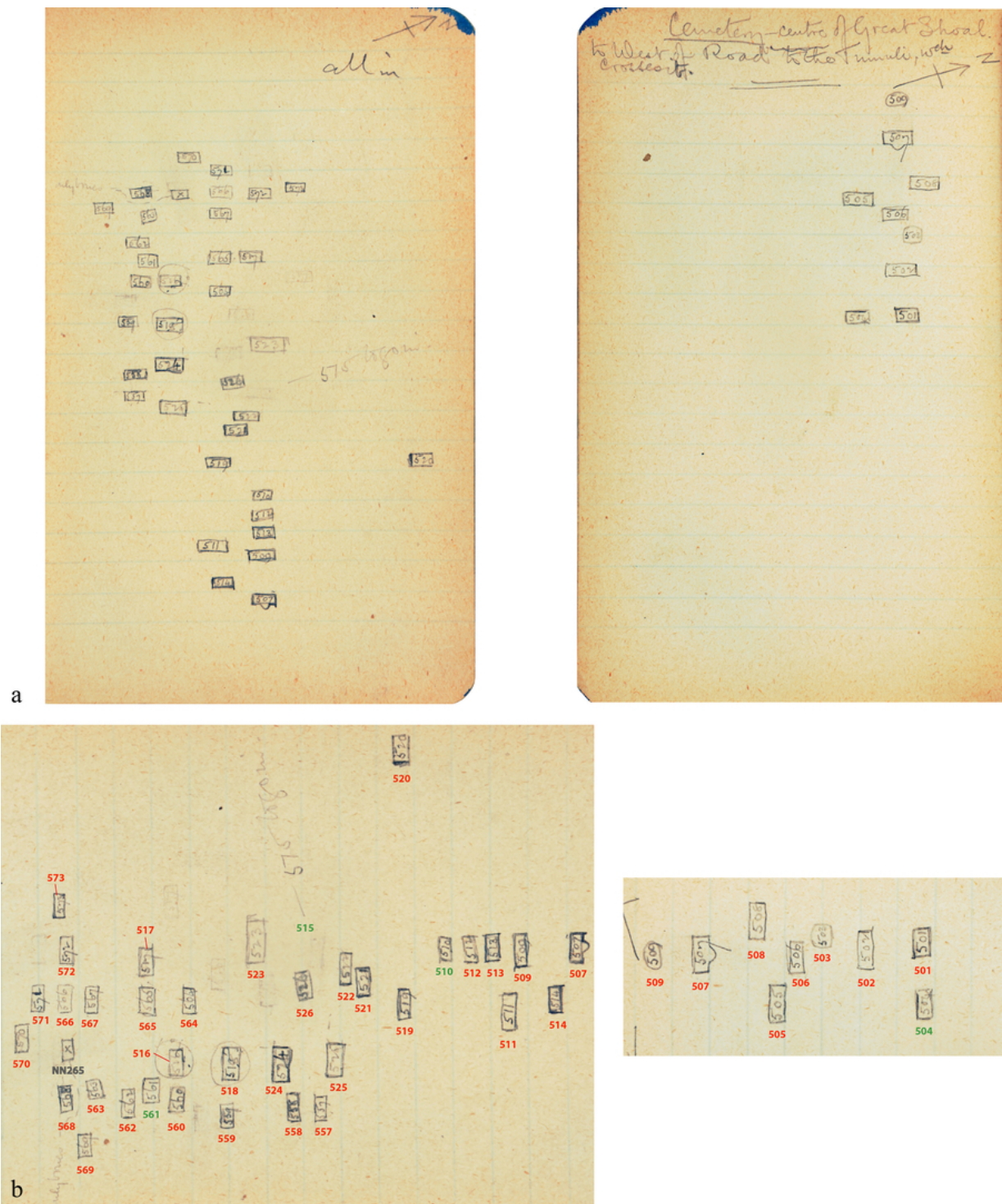


Fig. 17: a) Facsimile of *Sketch-plans* 12 and 13 showing the area of tombs N501–N509;
 b) Edited versions of *Sketch-plans* 12 and 13. Inv. PMA/WFP1/1/99/70.

Sketch-plan 13 bears an interesting geographical note: 'Cemetery—centre of Great Shoal, to West of Road to the Tumuli, w[hi]ch crosses it'. That 'road' cannot be located with more precision, but the comment shows, on the one hand, that the tumuli remained an important point of reference despite the increasing distance between these monuments and the excavation area and, on the other hand, that Petrie and his team had likely not yet realised the full extent of the cemetery toward the east, since this part of the cemetery is nowhere near the centre of the shoal.

Two duplication issues can be sorted out. First, tomb N501 appears between N500 and N502 and again further east between N560 and N562: the former location is correct, while *SP* 12 allows to correct the latter to N561. Second, N520 appears in isolation on the north ridge of the area and again between tombs N512 and N528. The former location is correct, while the latter is tomb N510.

Sketch-plan 12 allows us to approximately place tomb N515 on the map. This number was first written erroneously between '516' and '524' before being corrected into '518', which is the number that appears on the published map in that location. However, at the top of the plan, the note '515 to go in'³⁷ shows that tomb N515 was nevertheless found roughly in this area. Confusion in the recording of the places of these tombs is further indicated by a question mark next to '516'. Another tomb that is missing on the published plan is added to the digital map in a more precise location: *Sketch-plan* 11 clearly shows N546 to the east of N556.

Sketch-plan 12 further shows a tomb between N566 and N568 that also features on the published map; it is not numbered in either document. The sketch-plan indicates that it contained 'only bones', and a cross inscribed inside the outline may suggest that no number was attributed to this burial (NN265).

Sketch-plan 13 reveals the location of tomb N504 to the south of tomb N501. On the published map, N1844 occupies that place, so that N504 should probably be identified as the unnumbered square between tombs N1404 and N1406.

Finally, the east-most square in *SP* 11 was left unnumbered. It is possible that Petrie drew a tomb visible on the ground that was only excavated later on as N1425; alternatively, it could represent another tomb, such as NN327 or NN328.

3.2.8 *Sketch-plans* 14 and 15: Great Cemetery, Area IV

The area covered by these two sketch-plans is located just to the south-west of the previous one (Figure 18a–b). Remarkably, *Sketch-plan* 14 (*Nb* 72, p. 32) shows no less than fifty-five tombs in the range 701–757, with only two that were left without a number. When Petrie lacked space on the left, he continued on a different page, writing 'over' against the edge.³⁸ He added only three more tombs on *Sketch-plan* 15 (*Nb* 72, p. 30), which are all numbered.³⁹ Surprisingly, tomb N700 doesn't appear on the plan, and it is possible that this number, as well as N699, were never attributed to any tomb, since neither tomb is known from any document (see Supplementary Table 5).⁴⁰

Aside from that issue, *SP* 14 is one of the most informative and straightforward plans: thirteen tombs absent in the published map can be added, and three others can be identified. There is first a cluster of closely-spaced tombs comprising N704–N708 and N718: their arrangement on the sketch-plan closely matches how they are shown in top-plan view (*Nb* 72: p. 26); it is a rare occurrence were tombs are not shown individually

³⁷The handwritten '515' may at first read as '575', but the horizontal bar across the middle digit belongs the first '5', so that the second digit can only be '1'.

³⁸Tomb N715 and two unnumbered ones are repeated on both sketch-plans and confirm that *SP* 15 is an extension of *SP* 14.

³⁹Tomb numbers are abbreviated (see *SP* 11 above, and note 36) and only the last digits are written down, with the whole plan captioned 'all + 700'.

⁴⁰This is however not certain: tomb N698 doesn't appear on the map either, but material from that tomb is recorded in the pottery list and known in museums (see Supplementary Table 5).

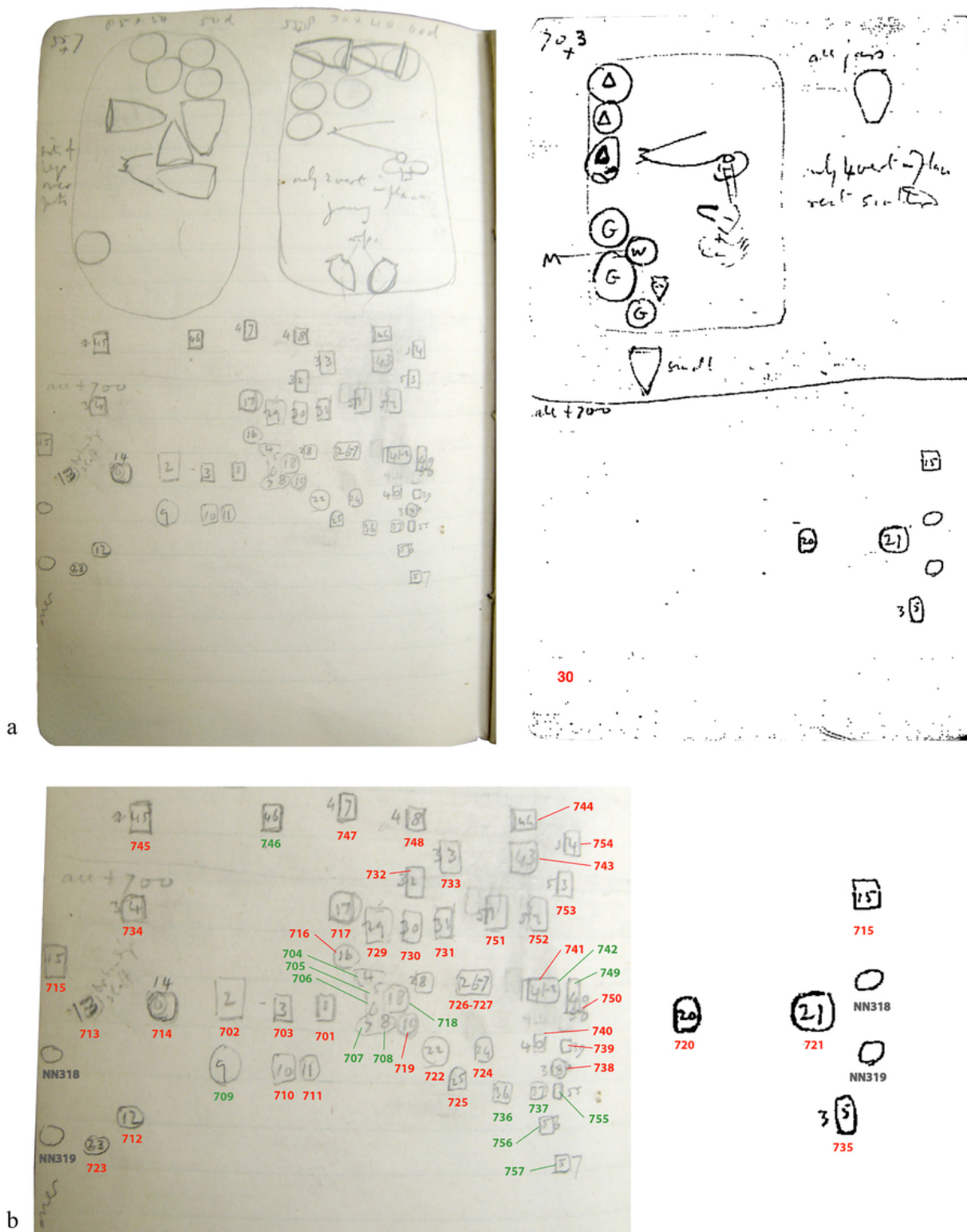


Fig. 18: a) Facsimile of *Sketch-plans* 14 and 15 showing the area of tombs N701-N757; b) Edited version of *Sketch-plans* 14 and 15. Inv. PMA/WFP1/1/99/72.

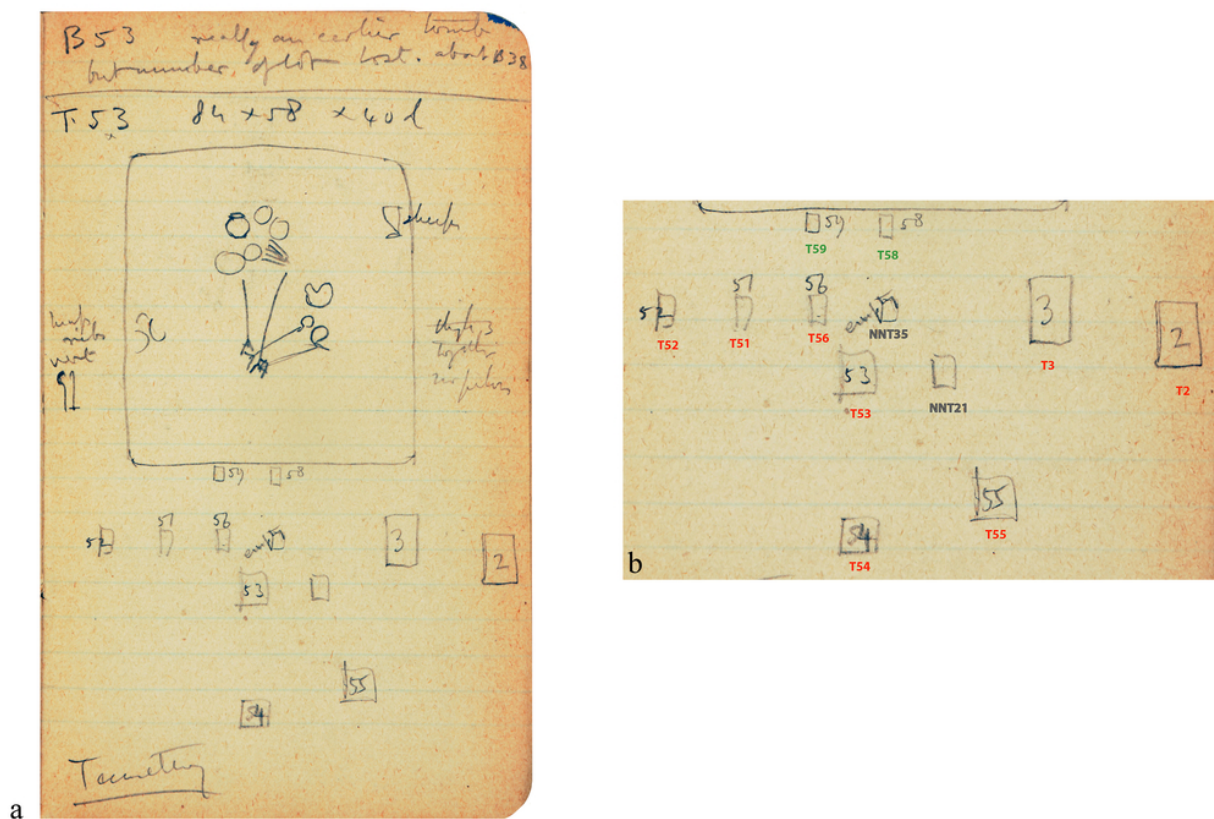


Fig. 19: a) Facsimile of *Sketch-plan 16* showing the area of Cemetery T, tombs T2–T59;
b) Edited version of *Sketch-plan 16*. Inv. PMA/WFP1/1/99/71.

but as a group in any of the notebooks.⁴¹ Two other pairs of tombs seem to have been dug very near to one another: N741–N742 and N749–N750; Petrie had only included one of each in the published map. Another series of tombs is shown in the south-east corner of *SP 14*, with tombs N736, N737, N755–N757.⁴² Further west, we discover the locations of N709 and N746, both in proximity to tombs with numbers in the same series.

The only written comment on *SP 14* is unfortunately hard to decipher: next to N713, Petrie added 'br[oken] bindy (?) staff (?)'; since this tomb was not recorded as a top-plan, it is difficult to confirm this reading.

3.2.9 *Sketch-plans 16 and 17: Cemetery T*

These two sketch-plans cover a substantial area of the northern part of Cemetery T, with *SP 16* (*Nb 71*: p. 53; Figure 19a–b) to the south of *SP 17* (*Nb 71*: p. 25; Figure 20a–b); there is no overlap between the two. The former shows twelve tombs in the range T2–T59, of which two are not numbered, and the latter thirteen tombs in the range T4–T17, of which only one is left not numbered.

Tomb T8 is the most problematic. It isn't mentioned on the sketch-plans but appears twice on the published map: once between T7 and T56 and once further north, between T15 and T23. On the top-plan of that tomb (*Nb 71*: p. 25), the topographical comment 'W[est] of T7' (see Table 1) indicates that the former location can be considered as the correct one, despite its absence on *SP 16*.⁴³

⁴¹The same area is repeated in *Notebook 135*, but with only tombs N704–N708 shown in connection to one another.

⁴²It cannot be excluded that tomb N757 was represented on the published map by square NN346.

⁴³There are no tombs on *SP 17* between T15 and (the unnumbered) T23, where T8 appears mistakenly on the published map: instead,

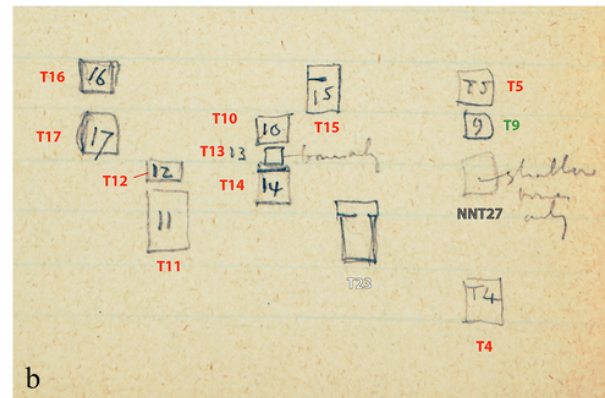
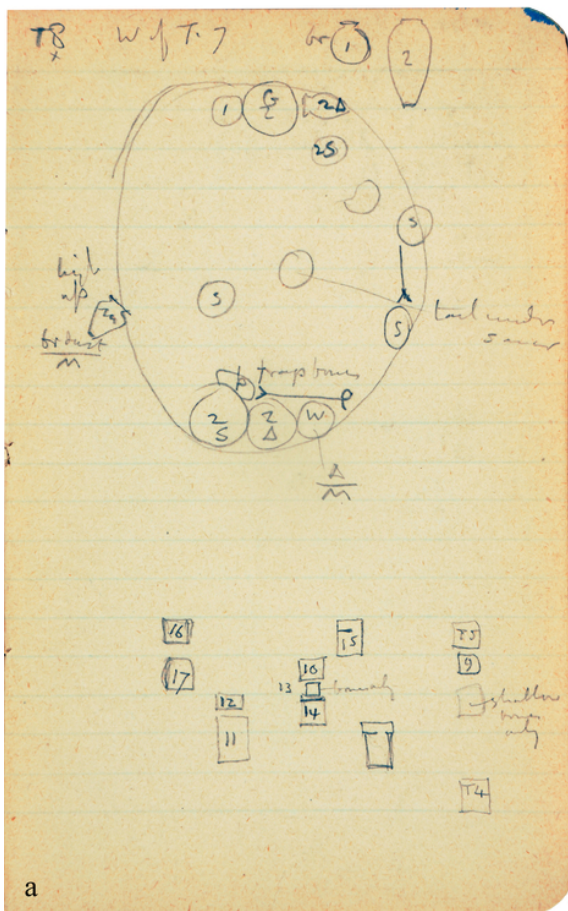


Fig. 20: a) Facsimile of *Sketch-plan 17* showing the area of Cemetery T, tombs T4–T17;
b) Edited version of *Sketch-plan 17*. Inv. PMA/WFP1/1/99/71.

Sketch-plan 16 further shows that tombs T58 and T59 were located to the north of T56 and of an unnumbered tomb, labelled as being 'empty' (NNT35, added to the digital map). We identify T58 as the unnumbered square to the west of T6 and add T59 roughly to the north of T56 and to the west of T58. A final issue must be considered: Petrie wrote on the top-plan of T6 (*Nb 71*: p. 26) that this tomb is located to the 'W[est] of T5'. It is most likely a mistake for T4, since T5 is located a distance away to the north.

The layout of the tombs on *SP 17* closely matches the published map but offers additional information. The east side shows a series of four tombs labelled, from north to south, T5, T9, 'Shallow, bones only' (NNT27), and T4. A tomb is clearly missing in this area of the published map between T5 and T4. Whether the unnumbered square should be identified with T9 or NNT27 cannot be determined with certainty, but given the available space, it seems more likely for T9 to be the missing square. To the west, the row T10-T13-T14 is confirmed by the sketch-plan; the only apparent mistake is that only two squares were drawn instead of three: the top-plan of T13 shows that these two tombs were probably very near one another, but without encroachment (*Nb 71*: p. 13). Regarding tomb T13 specifically, the top-plan only shows an empty rectangular grave, and one could think that it was found empty; however, the note 'bones only' added on *SP 17* shows that it was, in fact, not the case, but more likely a thoroughly plundered grave.

3.2.10 *Sketch-plans 18 and 19: Cemetery B*

These two sketch-plans cover a swath of the northern end of Cemetery B, with a small overlap of four tombs. *Sketch-plan 18* (*Nb 70*: p. 85; Figure 21a–b) is the most extensive with thirty tombs in the range B89–B134; *SP 19* (*Nb 70*: p. 65; Figure 22a–b) shows twenty tombs in the range B106–B125. They are all numbered and almost all incorporated correctly in the published map. The only addition is tomb B125, clearly labelled on *SP 19*, to the east of B108–B109.⁴⁴

A number of tombs in Cemetery B have an irregular outline in the published map. The top-plans in the excavation notebooks show that although they were assigned a single number, they are in reality double (B62, B107, B111, B118, B122, B127) and triple (B119) tombs, with later burials cutting through parts of older ones.⁴⁵ The only explicit mention of this phenomenon in the sketch-plans is the indication 'double' written along the edge of tomb B127, which appears as a long square split in two parts (*SP 18*). There were likely at least two additional occurrences, with tombs NNB3 and NNB44 having irregular outlines in the published map. This shows that when Petrie produced the final map of the cemetery, he did not solely copy information from the sketch-plans but also thoroughly re-examined the top-plans.

Finally, Petrie commented next to *SP 18* that several tombs were yet to be located.⁴⁶ These tombs all appear in *SP 18* and *SP 19*, so that it seems that incomplete sketch-plans were later added to; this seems to have happened while excavation was still ongoing and shows that the archaeologists were trying to keep track of tombs locations as much as possible. It may suggest, but without certainty, that a map of the cemetery was prepared at that time and in the process of doing so they noticed some missing information.

3.2.11 *Sketch-plan 20: Great Cemetery – unplaced*

Although the small group of tombs drawn on *Sketch-plan 20* (*Nb 70*: p. 87; Figure 23a–b) cannot be located with absolute certainty, the indication 'Shoal Group 4' strongly suggests that it is in the vicinity of *Sketch-plans 2–5* (see Section 3.2.2 above) in the Great Cemetery. Looking at the arrangement of these tombs, one possible

the short comment 'bones only', related to tomb T13, occupies that exact space, so that some confusion may have arisen in the later stages of the preparation of the final map, with these words somehow mistaken for a tomb outline. This tomb square is not included on the digital map.

⁴⁴Since sketch-plans were not drawn to scale, it is possible that tomb B125 was in fact located further away to the east (our NNB50).

⁴⁵See Section 4. In order to distinguish between these tombs, letters a and b are added to their original number on the digital map.

⁴⁶Tombs B102, B132, B133, B124, B106, B120, B124 [sic], B125.

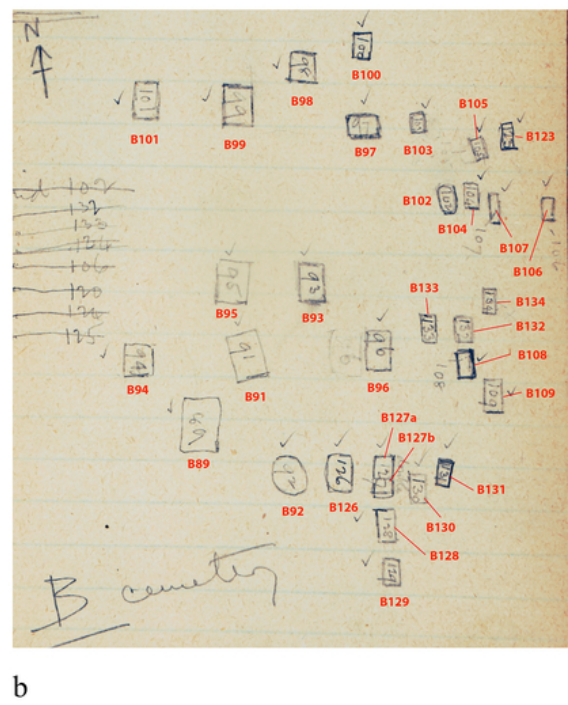
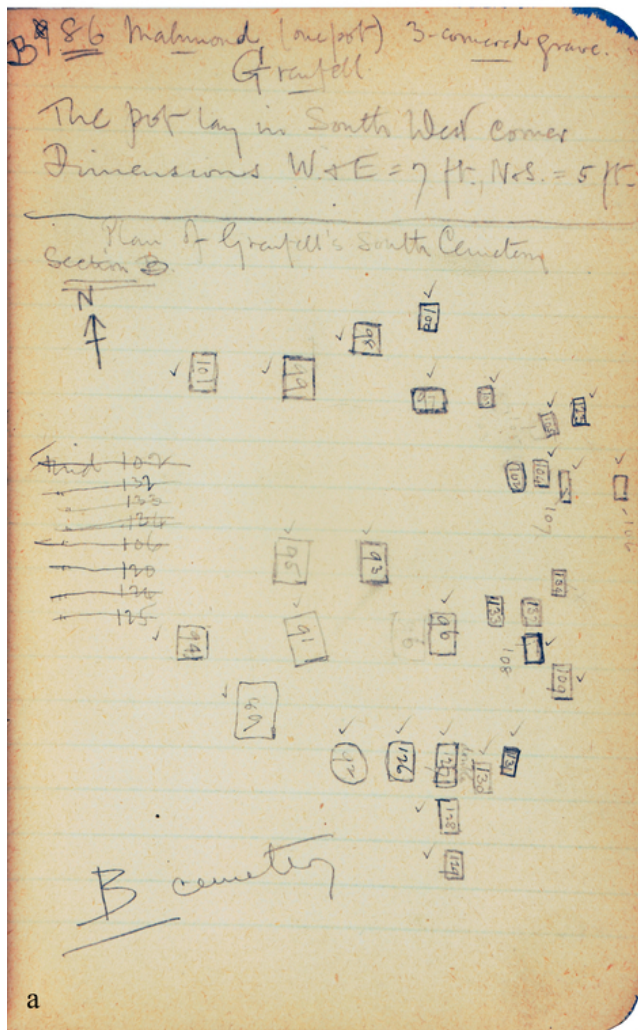


Fig. 21: a) Facsimile of *Sketch-plan 18* showing the area of Cemetery B, tombs B89–B134; b) Edited version of *Sketch-plan 18*. Inv. PMA/WFP1/1/99/70.

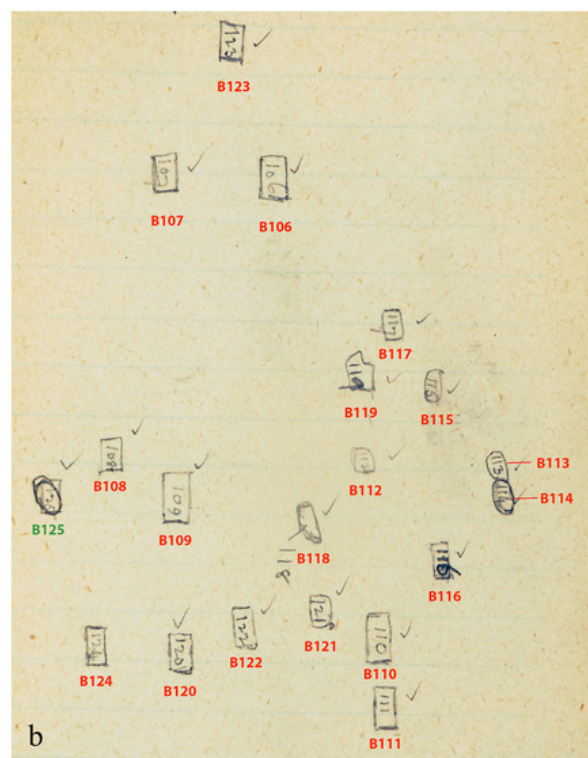
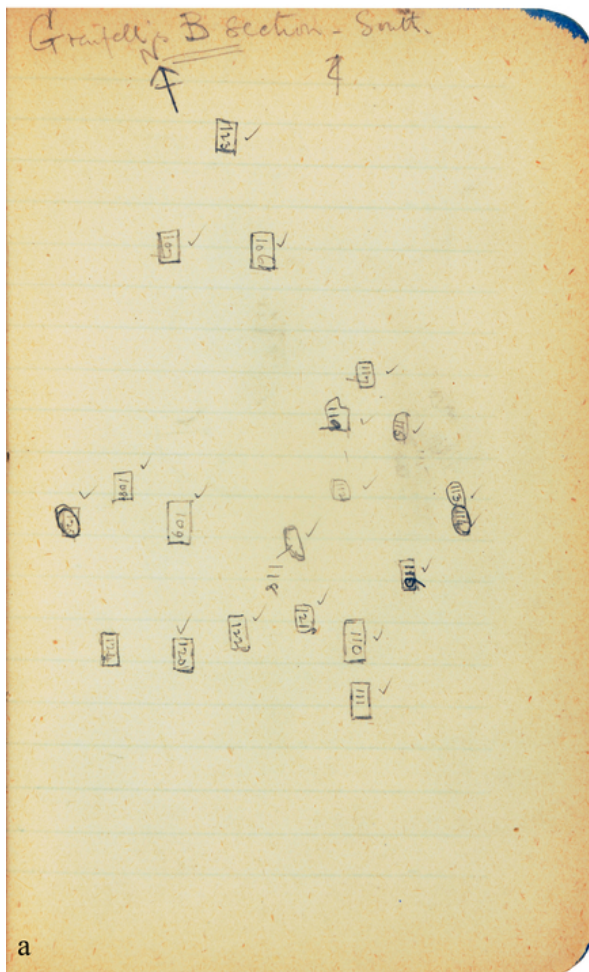


Fig. 22: a) Facsimile of *Sketch-plan 19* showing the area of Cemetery B, tombs B106–B125; b) Edited version of *Sketch-plan 19*. Inv. PMA/WFP1/1/99/70.

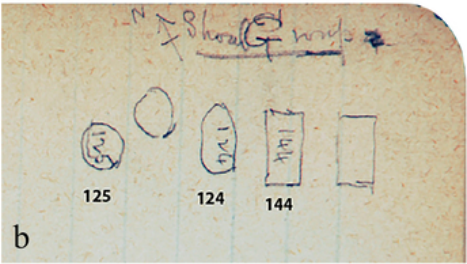
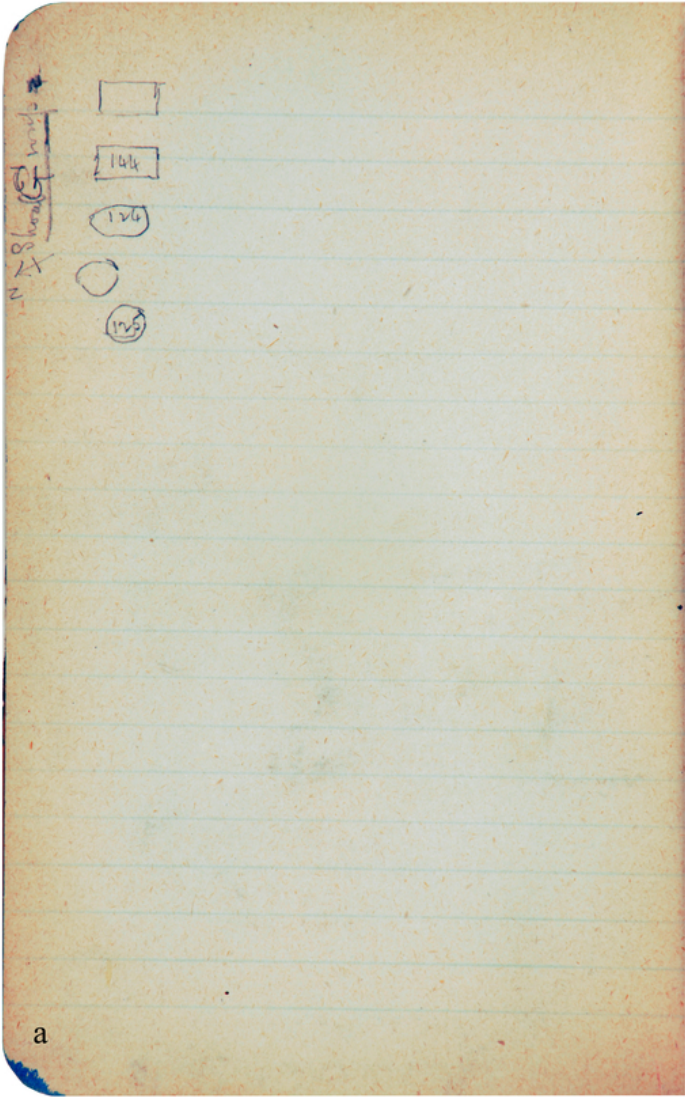


Fig. 23: a) Facsimile of *Sketch-plan 20* showing the area of tombs N124–N144;
b) Edited version of *Sketch-plan 20*. Inv. PMA/WFP1/1/99/70.

match on the published map is to the east of tomb N100 (Area III): tombs N140 and N141 may correspond to the two tombs left without a number on *SP* 20; if so, tomb '125' would correspond to NN72, tomb '124' to NN1000 and tomb '144' to NN72.⁴⁷

4 Duplicated tomb numbers: issues and proposed corrections

Close examination of the published map reveals at least 35 instances where tomb numbers were written on two separate tomb squares, and one instance when this occurred three times (see Table 3). Examination of the map, sketch-plans, top-plans, and notes shows that different types of errors and intended duplications happened.

4.1 Issues noted on sketch-plans

The thorough review of the notebooks' topographical comments, sketch-plans, and top-plans allows for the correction of several of these duplication issues. We first discuss tombs that appear in the sketch-plans; when no correction is implemented in the digital map, these doubled tombs are identified by the addition of the Greek letters [α], [β], and [γ].

- Tomb N175 appears twice in close proximity on *SP* 7, and this error was replicated on the published map. This issue cannot be resolved with certainty: it cannot be excluded that the number was accidentally attributed to two individual tombs during excavation; alternatively, since the locations of tombs N171, N176, and N177 remain unknown, it is possible that one of these numbers was miswritten.
- Tombs N192 and N193: the former appears once on the published map and the latter twice. We already corrected one of the instances of N193 into N192 (a)(see *SP* 7, Section 3.2.4 above). Since there are two separate top-plans labelled '192', it seems most likely that this number was accidentally used twice during excavation. The first of these top-plans (*Nb* 72: p. 65) shows a sizeable, rectangular tomb that contained a large quantity of ceramic material and at least one slate palette. Few human remains were found *in situ*. The assemblage attributed to tomb '192' by Baumgartel (1970: pl. VIII) originates from this tomb. In contrast, the second tomb '192' (*Nb* 72: p. 69) is shown as a small, oval grave that appears to have only contained disturbed human remains. Due to the absence of any topographical comments in the notebooks, it is impossible to determine which of the two N192 on the map corresponds to the rectangular or the oval tomb.
- N294 appears twice on the published map and twice in *SP* 8 and *SP* 10. All tombs in the N290's series are located on the digital map, so that it is likely that two individual tombs were accidentally labelled '294' during excavation.
- Of the two tomb squares numbered N312, the identity of N312 [α] is confirmed by *SP* 10; N312 [β] lies within an area not included in any sketch-plan. All the tombs in the N310's series are located on the digital map, making it challenging to suggest a possible alternative number. It is possible that '312' was also accidentally attributed to two separate tombs during excavation, with no corresponding top-plan bearing that number to aid in resolving the matter.

4.2 Issues noted in areas of the published map not covered by sketch-plans

On over nineteen occasions, tombs that appear twice and thrice in the published map are in areas not included in any sketch-plan. While some numbers might have been unintentionally repeated during excavation, other

⁴⁷This is a tempting solution, but given that it cannot be confirmed, these tombs are not added to the digital map.

	On Published map						Corrections (and suggested corrections) on digital map
	[α]			[β]			
	X	Y		X	Y		
N175	216,2	10998,2		237,2	10997,0		
N193	281,6	10968,7		264,0	10957,2	N193 [β] is corrected into N192[b] (see <i>Sketch-plan 7</i> and discussion <i>infra</i>)	
N230	281,6	10991,2		301,6	10964,0	N230 [β] is corrected into N238 (See <i>Sketch-plan 8</i>)	
N234	354,8	10928,9		353,5	10932,2	N234 [β] is corrected into N264 (See <i>Sketch-plan 8, 10</i>)	
N277	367,2	10926,8		300,7	11006,1	N277 [β] is corrected into N1277 (See <i>Sketch-plan 10</i> and discussion <i>infra</i>)	
N293	313,2	10976,3		359,7	10937,6	N293 [β] is corrected into N292 (See <i>Sketch-plans 8, 10</i>)	
N294	382,3	10932,7		317,5	10973,0		
N312	380,3	10919,7		331,1	10972,3		
N338	305,8	10987,3		365,5	10959,2	N338 [β] is corrected into N328 (See <i>Sketch-plan 10</i>)	
N347	369,3	10954,2		364,0	10956,8	N347 [β] is corrected into N342 (See <i>Sketch-plan 10</i>)	
N353	319,3	11006,7		309,0	10997,3	N353 corrected twice into N353/5 (see <i>infra</i>)	
N440	372,7	10984,0		413,0	10927,1		
N456	401,3	10992,3		384,8	10940,6		
N470	394,1	10940,2		384,9	11036,7		
N501	571,1	10990,7		505,6	10976,8	N501[β] is corrected into N561 (See <i>Sketch-plan 12</i>)	
N520	527,5	11000,4		529,5	10981,8	N520[β] is corrected into N510 (See <i>Sketch-plans 11, 12</i>)	
N669	504,9	10958,4		463,6	11011,0		
N676	448,1	11005,8		512,5	10959,2		
N690	535,7	10951,5		492,2	10965,9	N690 [β] is corrected into N590 because it is located between N591 and N592	
N836	629,8	10928,3		626,4	10955,2	(N836 [β] is most likely to be corrected into N1836)	
N1279	421,2	10958,2		135,7	10973,0	(N1279 [β] is most likely to be corrected into N1229)	
N1283	391,8	10975,5		630,7	10967,8	(N1283 [β] is most likely to be corrected into N1383)	
N1289	432,6	10988,1		388,6	10974,4		
N1291	436,9	10977,3		446,0	10961,5	[β]	
				737,8	10954,4	[V]	
N1292	439,8	10979,8		376,2	10965,8		
N1299	373,0	10974,7		201,8	10986,8	(N1299 [β] is possibly to be corrected into N1259)	
N1334	588,6	10989,3		618,0	10959,2		
N1420	626,8	10948,4		640,3	11022,1		
N1446	610,7	10989,9		633,3	11004,8		
N1473	629,8	10992,8		650,3	10980,1		
N1563	642,3	11011,7		626,3	10958,9		
N1782	672,1	11021,9		669,841	11037,243		
N1783	675,2	11028,0		964,866	10984,704		
N1845	614,6	10950,5		629,556	11010,271		
N1871	669,587	10972,336		669,587	10972,336		

Tab. 3: List of doubled and tripled tomb numbers on the published map, with corrections and suggested corrections. Where issues are not solved, see discussion, *infra*.

reasons could also account for these errors. For instance, Petrie's handwriting can be very difficult to decipher and some of his numerals may be prone to misreading—especially '3' and '5', '7' and '9', '0' and '6'—potentially resulting in typographical errors during the preparation of the published map. We suggest here tentative identifications for each instance.⁴⁸

- N277: this number appears twice on the published map; the southernmost occurrence is the correct one as confirmed by *SP* 10. The northernmost one is adjacent to tomb N1276, and the number is corrected into N1277 on the digital map.
- N353 [α] and [β]: one of these tombs is most likely N355, which is not otherwise located.
- N440 [α] and [β]: one of these tombs may be N446, which is not otherwise located.
- N456 [α] and [β]: the N450's series is not complete, and one of these tombs may be N452, N455, or N457–N459.
- N470 [α] and [β]: the N470's series is not complete, and one of these tombs may be N472–N475, N477, or N479.
- N669 [α] and [β]: one of these tombs may be N664, which is not otherwise located.
- N676 [α] and [β]: one of these tombs may be N670 or N675, which are not otherwise located.
- N836 [α] and [β]: N836 [α] is near tombs N838 and N839 and is likely numbered correctly on the published map. In contrast, N836 [β] is far from any tomb in the 800's series but in the immediate vicinity of tombs N1834 and N1835; it should most certainly be corrected into N1836, which is not otherwise located.
- N1279 [α] and [β]: N1279 [β] is located far from any tomb in the 1270's or 1280's series, but near tombs in the 1220's series and N1231; it is likely an error for N1229, which is not otherwise located.
- N1283 [α] and [β]: N1283 [β] is the only tomb in the 1280's and 1290's series in its area. In contrast, it is located near tombs in the 1380's and 1390's series, and it may be an error for N1383, which is not otherwise located.
- N1289 [α] and [β]: one of these tombs may be N1288, which is not otherwise located.
- N1290's series: several mistakes were made in this series of tomb numbers. It cannot be excluded that some of these numbers were accidentally duplicated during excavation and attributed to more than one burial, but they may equally be typos on the published map. N1291 appears three times on the plan, while N1292 and N1299 appear twice each. Tombs N1294–N1297 are not otherwise located and some of the duplicated numbers may relate to these tombs instead. N1291 [α], [β], and [γ]: N1291 [α] is located next to a tomb N1292, but since there are issues with this number too, it is impossible to determine which tomb may have been numbered correctly on the map. N1291 [γ] is located far from any other known 1290's tombs, and may be a very different number altogether, possibly N1690. N1299 [β] is located far from any tomb in the 1290's or 1300's series, but near tombs in the 1250's, and it may be an error for N1259, which is not otherwise located.
- N1334 [α] and [β]: N1334 [α] is located immediately to the west of N1335 and is likely to be correctly numbered on the published map. N1334 [β], positioned near N1345, may be a typographical error for N1344, which is not otherwise located. However, the first '3' may be an error for an '8', in which case the tomb may belong to the 1830's series, some of which are found just to the east: N1832–N1833, and N1837 are not otherwise located (see above for N1836).

⁴⁸Not all these suggestions are reflected in the digital map since the lack of original documentation prevents certainty.

- N1420 [α] and [β]: one of these tombs may be N1421, N1422 or N1424 which are not otherwise located. Alternatively, since tomb N1420 [α] is situated near tombs N1432–N1434, it may be an error for N1430.
- N1446 [α] and [β]: N1446 [α] is located near tombs N1444 and N1447, which seems to suggest that it is the correct location of N1446. N1446 [β] may be another tomb in the N1440's series: N1443, N1445, N1448–N1449 are not yet located.
- N1473 [α] and [β]: one of these tombs may be another tomb in the 1470's series that is not otherwise located, such as N1471–N1472, N1474, N1476–N1479.
- N1562 and N1563: we know that these two tombs were contiguous (*Nb* 138: p. 6). At first sight, they seem to appear twice on the published plan, next to one another. In the first instance (N1562 and N1563 [α]), the reading of the numbers is clear, and their relative proximity to tombs N1560 and N1564–N1566 suggests that it is the correct location. However, if this is the case, the two numbers have been inverted, since the top-plan clearly shows N1562 to the west of N1563; we correct this inversion in the digital map. These two tomb numbers seemingly appear again further south: the reading N1563 [β] is clear, and to its west is a number that reads N1562 at first sight. If this were the case, their relative location to one another would agree with the top-plan. However, close examination shows that the number is not '1562', but '1582', a tomb that is not otherwise located. It is not possible to determine which tomb number N1563 [β] may be mistaken for; N1583 is an unlikely candidate, since that number appears next to N1584 further to the east.
- N1782 and N1783: both tombs are duplicated on the published map. It is not possible to suggest which ones may be correctly labelled; there is a possibility, albeit uncertain, that tombs N1780–N1781 and N1784 were mis-numbered on the published map.
- N1845 [α] and [β]: N1845 [α] is located near N1846, which may suggest that it is the correct place for this tomb; in contrast, N1845 [β] is far from any tomb in the N1840's series but considering the wide spread of this series of tombs, it may not be a definitive factor for identification. One of these tombs may be N1841, N1843, or N1848–N1849, which are not otherwise located.

4.3 Distinct structures grouped with a single number

On the few occasions when a tomb number was clearly assigned to two or three individual structures, these instances are identified in Supplementary Tables 5–7 (see Supplementary Information) and on the digital map using Latin letters (a), (b), and (c). In all cases, these tombs are located next to one another, and, on occasion, one may be subsidiary to the other, with one tomb sometimes cutting into another. Only seven attestations are documented in Cemetery N, indicating that it was an extremely rare and unusual occurrence or practice. In contrast, at least nine cases have been recorded for cemetery B; considering the much smaller size of that cemetery, this phenomenon appears to be proportionally more frequent in that area.

- N108 (*Nb* 70: p. 100–1; *Nb* 71: p. 34)
 - (a) is a rectangular grave with the remains of four individuals and a fairly rich funerary assemblage;
 - (b) is described as a small, square 'annexe' that contained the 'bones of a child' together with four ceramic vessels.
- N118 (*Nb* 70: p. 95)
 - (a) is a small, oval grave that contained the remains of a single individual and one jar;

- (b) is a small burial that only contained the ‘bones of young gazelle, at higher level + close to surface’.⁴⁹
- N507 (*Nb* 70: p. 33)
 - (a) is a large, rectangular grave shown empty but for a ‘rough saucer’;
 - (b) is an oval grave with the remains of a single individual and three jars, at a ‘lower level’ than N507 (a).
- N519 (*Nb* 70: p. 19)
 - (a) is a large, rectangular grave with the remains of a single individual and several jars; the south end of the tomb is shown empty;
 - (b) is a small, rectangular tomb with the remains of a single individual tightly buried with several jars, at a ‘lower level’ than N519 (a).
- N533 (*Nb* 72: p. 47): two adjoining tombs aligned on an east-west axis in the top-plan but shown as a large tomb square oriented north-south on the published map. Few bones were preserved, and it is difficult to understand how the two tombs relate to one another from the information recorded in the notebook.
- N1464 (*Nb* 136: p. 23): two adjoining tombs aligned on an east-west axis. They seem to have each contained a single human burial accompanied by several vessels. Petrie identified the body in the western structure with the letter ‘α’, the one in the eastern tomb with ‘β’.
- N1535 (*Nb* 138: p. 3): three closely spaced individual tombs, each containing a single individual buried with two to four pots. (a) is the northernmost tomb, (b) the southwestern one, and (c) the southeastern one. Tomb (c) is at a ‘lower level’, and the irregular shape of (b) seems to suggest that it was inserted after the other two tombs had already been dug.
- B62 (*Nb* 71: p. 44)
 - (a) is a large rectangular tomb with remains of a single individual and at least four pots;
 - (b) is a small ‘annexe’ on the northwest corner, connected to (a) but separated from it by three large stones; it contained the remains of a child as well as the displaced skull from the individual buried in (a).
- B107 (*Nb* 70: p. 68): two burials placed very near one another; in the notebook, the northern tomb is identified as ‘B107a’, and the southern tomb as ‘B107’. On the digital map, we keep B107 (a) for the northern tomb and label the other one as B107 (b). Each tomb contained a single individual, and the only pot drawn in the top-plan comes from B107 (b).
- B111 (*Nb* 70: p. 63): an oval grave (a) that contained two individuals cut through the south part of an older, rectangular grave (b), in which only the legs of a buried individual remained. The floor of B111 (a) was dug to a lower level than that of B111 (b). Both tombs were drawn on the published map.⁵⁰
- B118 (*Nb* 70: p. 57): an oval grave (b) containing a single individual seems to have cut through the northeast corner of an earlier, rectangular tomb (a). The latter is drawn empty but for two black-topped pots, while tomb B118 (b) seems to have contained only human remains.

⁴⁹Petrie added the note ‘The Gazelle bones are numbered 118b, the human bones 118a’.

⁵⁰In the top-plan, Petrie attributed ‘111a’ and ‘111b’ not to each tomb, but to a skull and to a lower jaw from the oval tomb.

- B119 (*Nb* 70: p. 56): three tombs that were successively cut into. The earliest (a) seems to be the southern, rectangular grave that still contained several vessels along its south edge and the (disturbed?) remains of two individuals. A small, oval grave B119 (c) cut through its northwest corner; the well-preserved, articulated remains of a single individual were found together with a slate palette and at least two pots. A third, oval/irregular grave B119 (b) was later inserted into parts of both earlier graves, cutting the south part of B119 (c) and further disturbing the northwest part of B119 (a). It appears to have only contained human remains.⁵¹
- B122 (*Nb* 70: p. 53): the northwest corner of a rectangular grave (a) containing the displaced remains of a single individual and three pots was cut through by an oval grave (b) in which the well-preserved remains of a single individual were found together with a black-topped pot.
- B127 (*Nb* 70: p. 48): two tombs placed very near one another. B127 (a) contained at least five jars and only 'one or two little bones'. To the north, B127 (b) contained the disturbed bones of a child and four pots. There is no evidence of one grave having damaged the other one.

Finally, there are two entries for tomb N1732 recorded by Quibell on two consecutive pages of *Nb* 139 (p. 25–6); it is unclear whether he mistakenly reused the number he had just attributed to a grave when he turned the page of the notebook, or if he drew two successive levels of the same tomb. In both cases, only the south extremity of the tomb is drawn, which seems to support the latter hypothesis. If this is correct, the ivory tusks and two pots of N1732 (b) would have been found after the removal of the pots and palette drawn in the top-plan N1732 (a). However, each top-plan bears different measurements (a: 70 x 60 x 70 in.; b: 65 x 50 x 65 in.), which rather suggests that two individual graves were assigned the same number. This issue cannot be resolved; only one tomb with number '1732' is visible on the published map.

4.4 Tomb plans drawn twice

A few tomb plans were drawn twice—once by Petrie and once by Price; they must not be mistaken for duplicated entries as they are most clearly repetitions of one another. Most of them are found in *Nb* 72 and *Nb* 135.⁵² Tomb N108 (b) was drawn in detail in *Nb* 70 (p. 100), while only two of its pots are depicted in *Nb* 71 (p. 34); the latter seems to be an unfinished top-plan. The reasons behind this duplication of plans are unclear; did Petrie train Price by assigning him the task of drawing plans he was also himself drawing, to allow for comparison and checking his accuracy?

4.5 Spread of information across several notebooks

Other repetitions in the excavation documents are not duplication errors. On occasions, a note about a tomb was written in a notebook different from that used for the top-plan. For example, Petrie commented on N52 in *Nb* 69 (p. 35) and drew the top-plan in *Nb* 71 (p. 102); Quibell wrote comments (measurements, head workmen, and notes) about N1660–1661 in *Nb* 137 (p. 41) but drew the top-plan of N1661 in *Nb* 139 (p.3) and wrote a short additional note about N1660 on a different page (*Nb* 139: 13). As for tomb N1854, it seems that the entry in *Nb* 138 (p. 40) was abandoned due to lack of sufficient space and restarted in *Nb* 140 (p. 2). No similar issues were found in relation to Cemetery B, and only one for Cemetery T: Price drew in detail the top-plan of T57 in *Nb* 70 (p. 111) and Petrie added a note (including measurements) in *Nb* 71 (p. 49).

⁵¹In the top-plan, Petrie attributed the letters 'a', 'b', and 'c' to individual skeletons rather than to the graves.

⁵²Tombs N228–N229, N232–N234, N236, N239, N400–N402, N600, N704–N712, N714, N718–N719. Tombs N557–N558 are repeated in *Nb* 72 and *Nb* 70.

5 The elusive cemetery G: new localisation

'Cemetery NG is treated by Petrie as part and parcel of the so-called 'Great New Race Cemetery' and thus graves 1 to 11 are identical to graves G1 to G11' (VAN WETERING & TASSIE, 2020: 83).

Localising Petrie's so-called 'Cemetery G' has always been problematic; VAN WETERING and TASSIE (2020: 83)'s proposed identification, i.e., that tombs N1–N11 (Area I) and tombs G1–G11 are one and the same, is unfortunately erroneous. Very little is known about this elusive cemetery, but looking in detail at all the available evidence proves fruitful and allows to relocate it, at least approximately.

Petrie's only mention relating to Cemetery G in the published report is the description of tomb G2:

'[...] a very narrow pit, the bones lay all loose in the bottom, the skull at the S[outh], the spine to the E[ast], and the hands under a bowl at the N[orth]; above the bones were six jars and bowls all perfect; and above them five jars neatly ranged in close order, head and tail alternate quite undisturbed, covering the whole area of the little pit, so that any later disturbance of the lower part is impossible' (PETRIE et al., 1896: 32).

In addition to this note, Petrie does not mention the existence of this cemetery or identify its location, size, or arrangement in his report. Nor does this cemetery appear on the published map or as sketch-plans in the notebooks. Petrie also left us in the dark as to the meaning of the abbreviation 'G', while he twice explained the choice of the letters B and T for the smaller cemeteries: 'The letters B or T preceding a number, refer to the smaller cemeteries—B, by Kom Belal [sic]; T, by the Tumuli—shewn on the plan of the cemeteries at the end of the volume' (PETRIE et al., 1896: 23, 34).

Fortunately, the preserved excavation notebooks offer additional clues relating to this cemetery. Top-plans of tombs G1, G2, G5, and G6 (*Nb* 72: pp. 90, 89, 79, 76, respectively) are reproduced here and compared with those of tombs N1, N2, N5, and N6 (Figure 24, Figure 25, Figure 26, Figure 27): it is immediately evident that in each case, two different tombs were drawn, indicating that the two groups of tombs cannot be considered as one and the same. Particularly, tombs G1 and G2 are extremely narrow, a type of burial highly unusual at the site.

Tombs N1–N11 represent the initial tombs excavated at the beginning of the season. A journal entry penned by Petrie on December 26, 1894, contains several paragraphs dedicated to the early stages of the excavation. In the first paragraph (Figure 28, starting on Line 7), Petrie provides a comprehensive description of tomb "No. 3"⁵³:

'I have tapped an unsuspected cemetery by the tumuli. The burials are so remarkable, & so diff[erent] from usual Eg[gyptia]n that I will describe the finest. An open pit in the ground, 5 ft 6 by wide, 10 ft 3 long & 7 ft 6 deep lies N[orth]-S[outh]. On the floor of it stood a couch of wh[ich] a few decayed traces remained, a great number of jars stood on either side at the f[oot] of the couch [of wh[ich] a few decayed traces remained; a great n[umbe]r of jars, on either side & at the f[oot] of the couch⁵⁴ & a little stand on the left of it [drawing]. Couch frame of round poles 2 in[che]s thick with carved bulls' f[lee]t not lion's as usual. Hind legs at the S[outh]; & yet the skull was S[outh] here & in other tombs. On the E[ast] the large jars contained ashes, & gravel with dried remains

⁵³Griffith Institute (ed.), 2020. Petrie MSS 2.3: handwritten copies created by Kate Bradbury, excerpts of Petrie's journals from December 1893 to January 1897. <http://archive.griffith.ox.ac.uk/index.php/petrie-2-3> [last accessed 17 August 2020], 64–65.

⁵⁴It seems that Kate Bradbury mistakenly copied the same line in Petrie's letter twice.

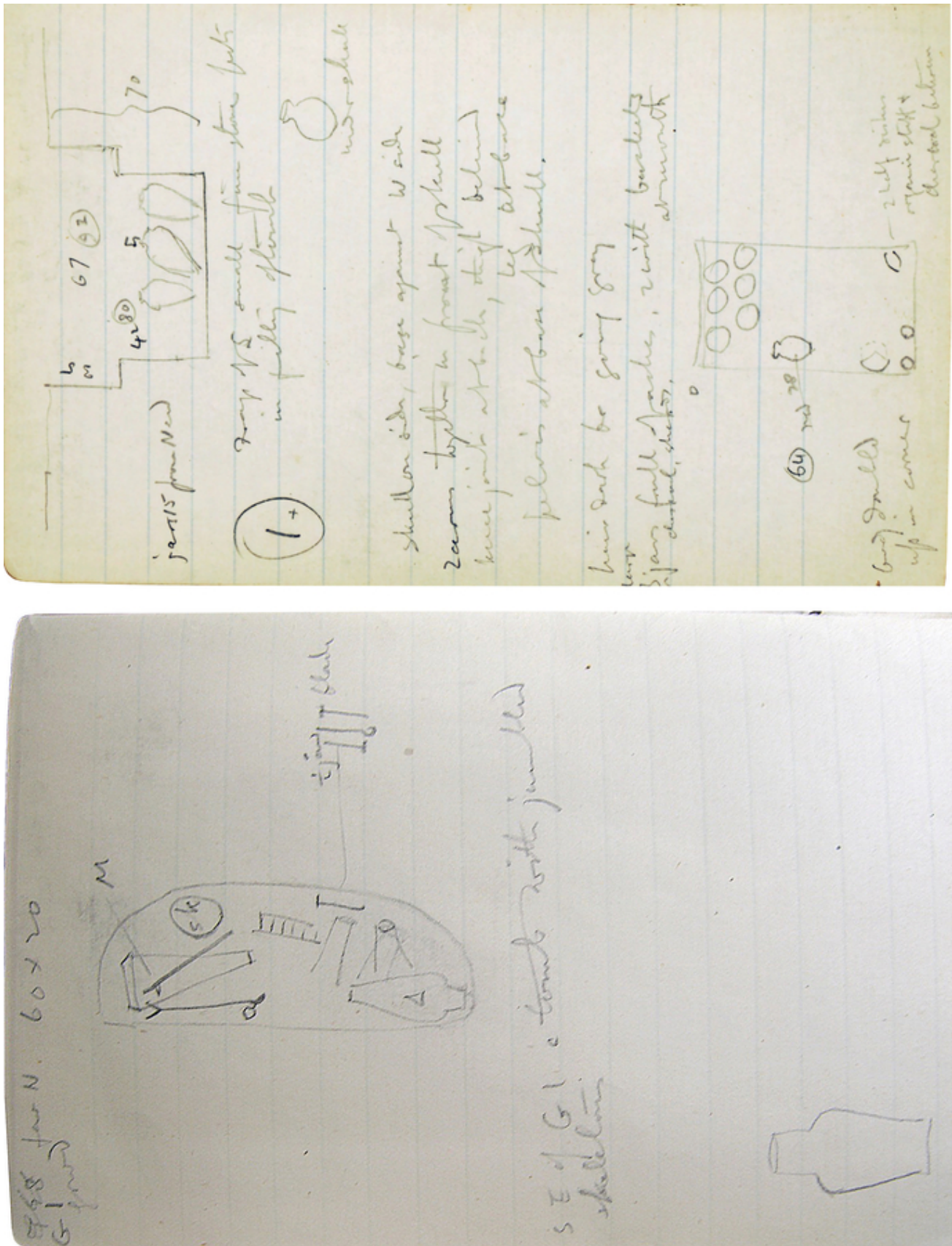


Fig. 24: Top-plans of tombs G1 (inv. PMA/WFP1/1/99/72) and N1 (inv. PMA/WFP1/1/99/69).

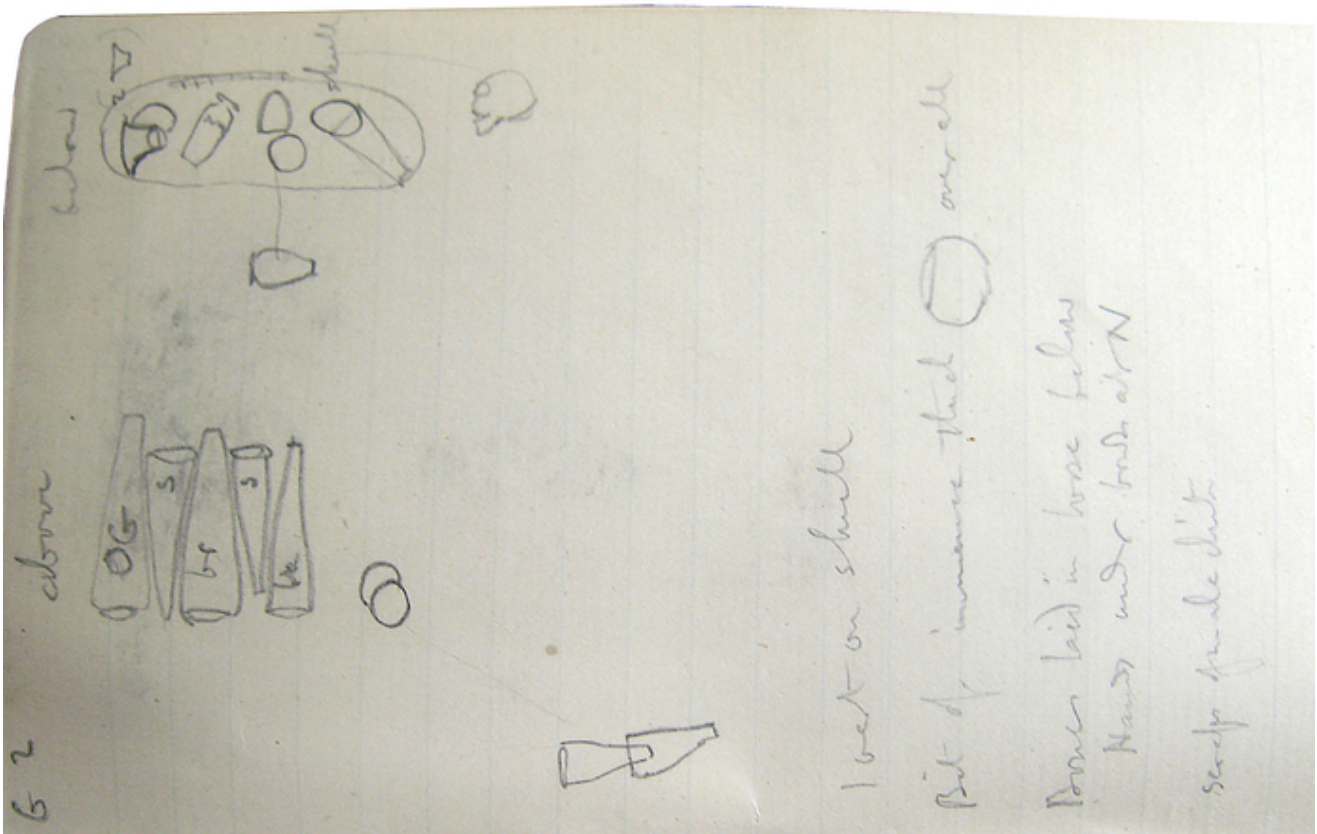
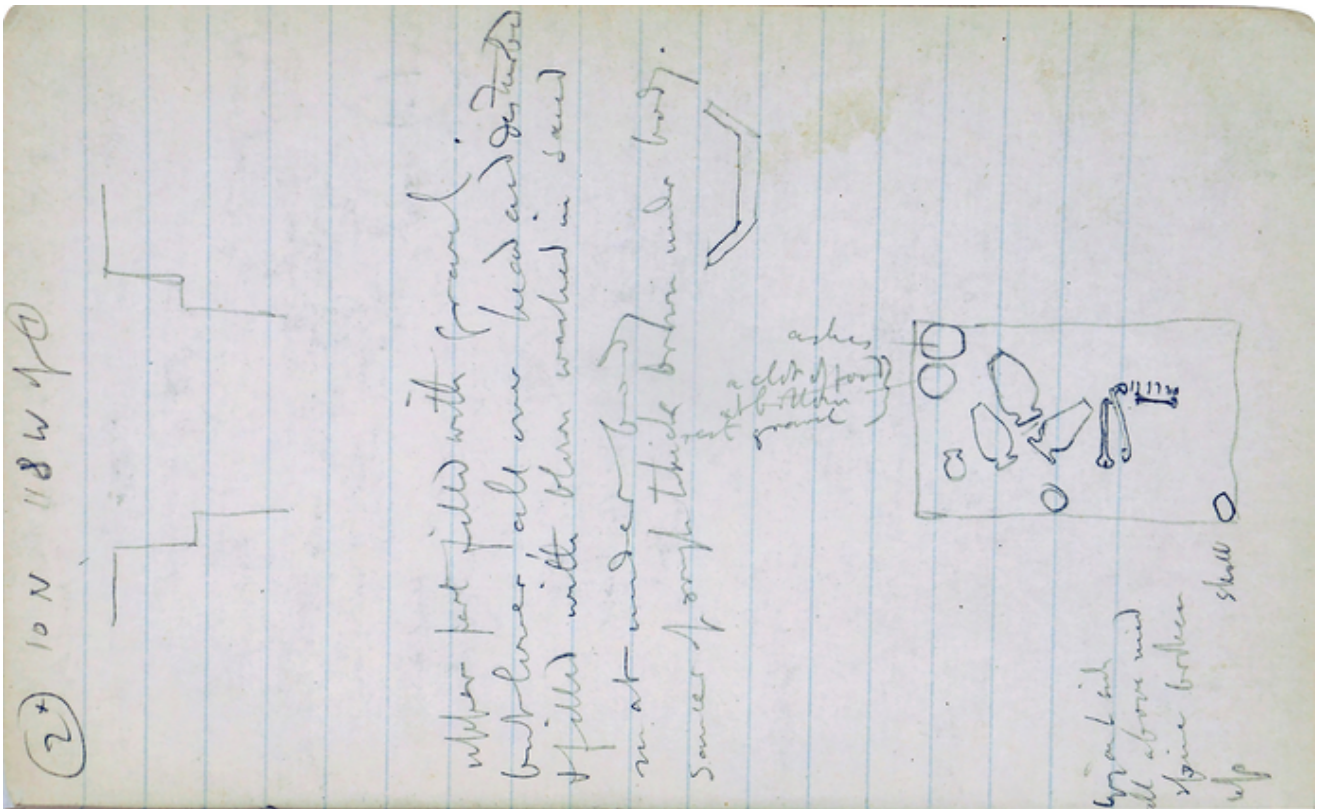


Fig. 25: Top-plans of tombs G2 (inv. PMA/WFP1/1/99/72) and N2 (inv. PMA/WFP1/1/99/69).

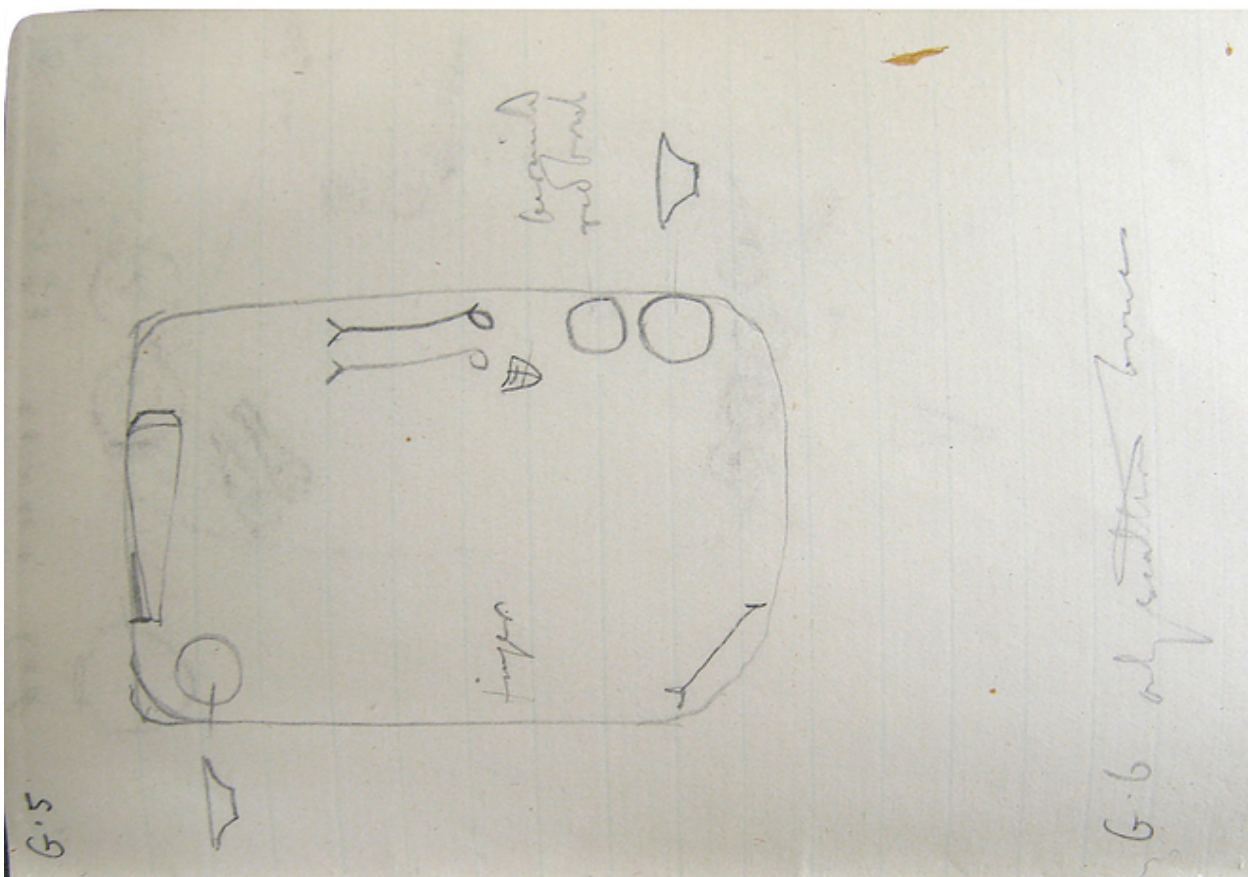
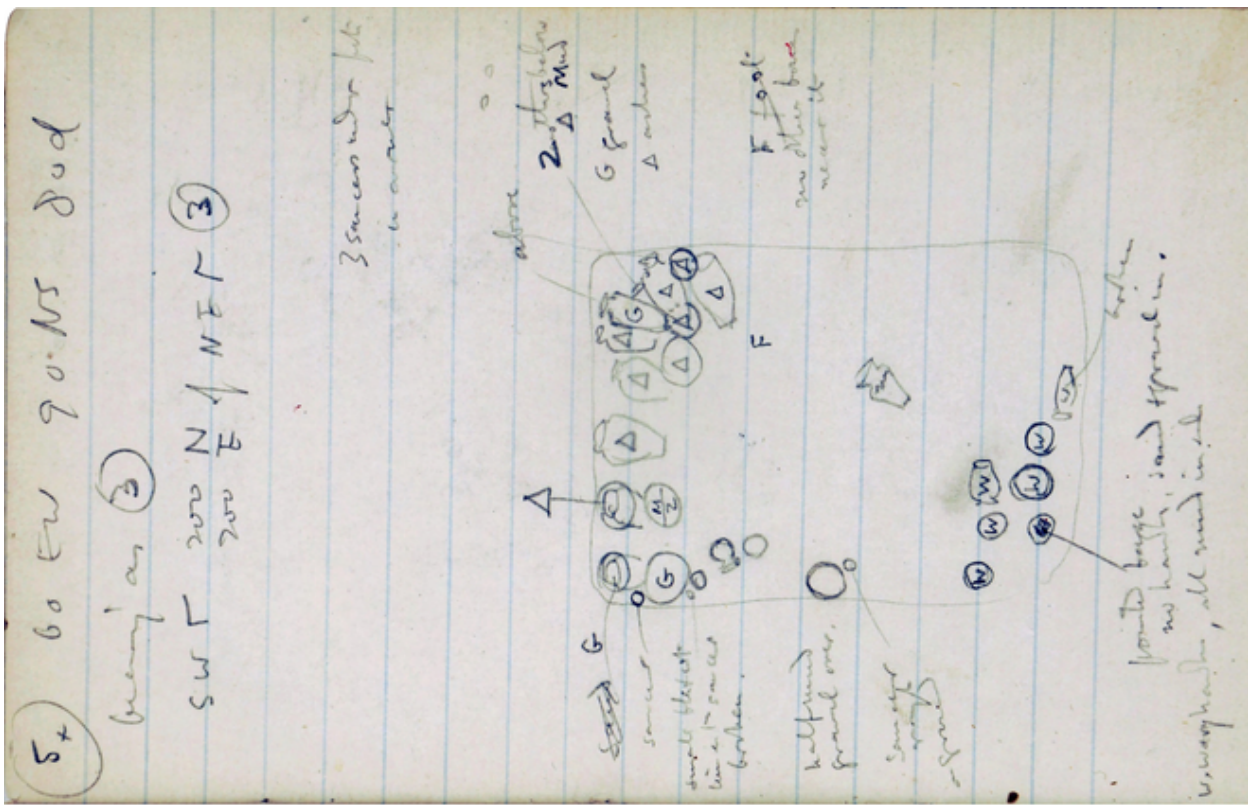


Fig. 26: Top-plans of tombs G5 (inv. PMA/WFP1/1/99/72) and N5 (inv. PMA/WFP1/1/99/69).

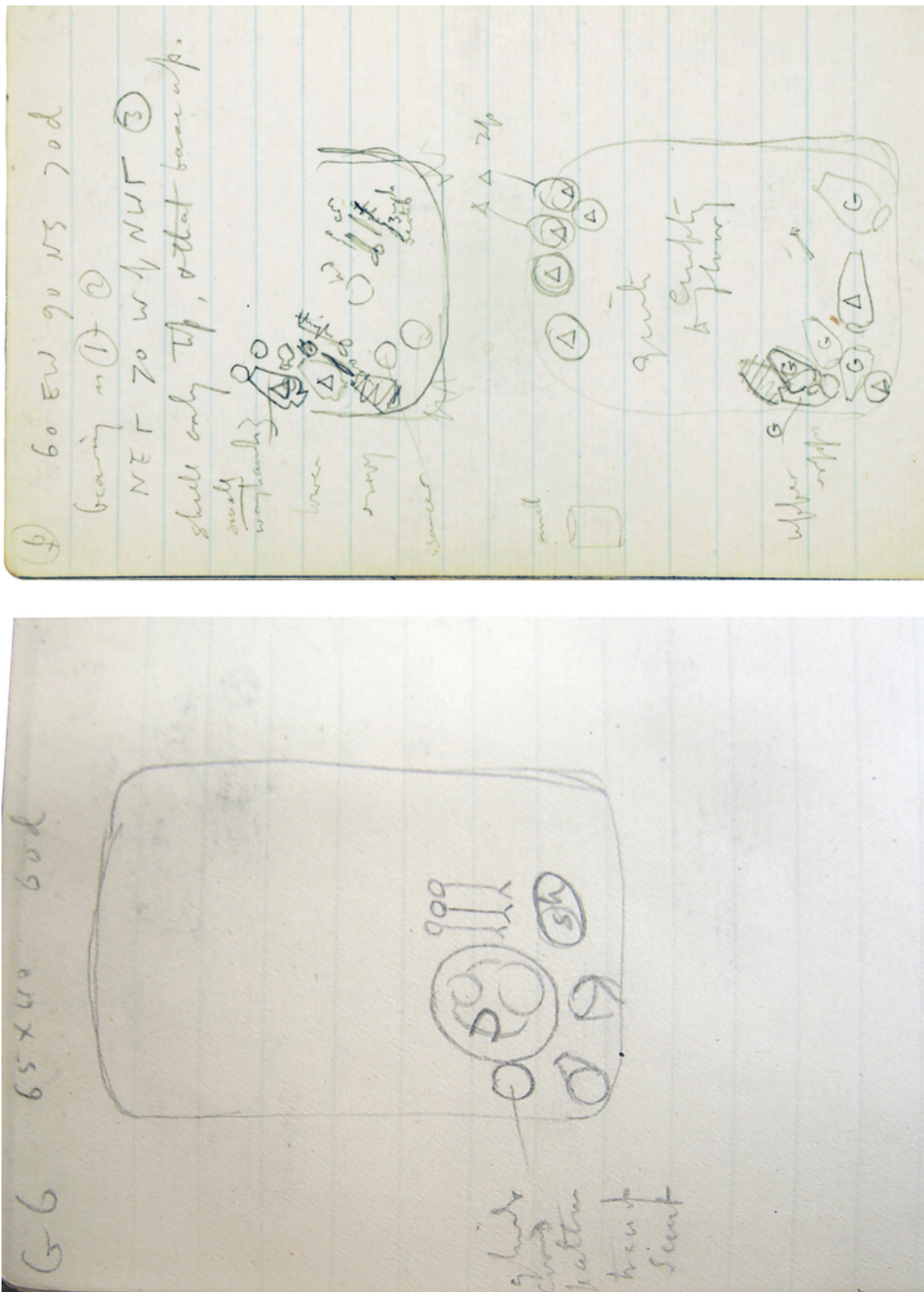


Fig. 27: Top-plans of tombs G6 (inv. PMA/WFP1/1/99/72) and N6 (inv. PMA/WFP1/1/99/69).

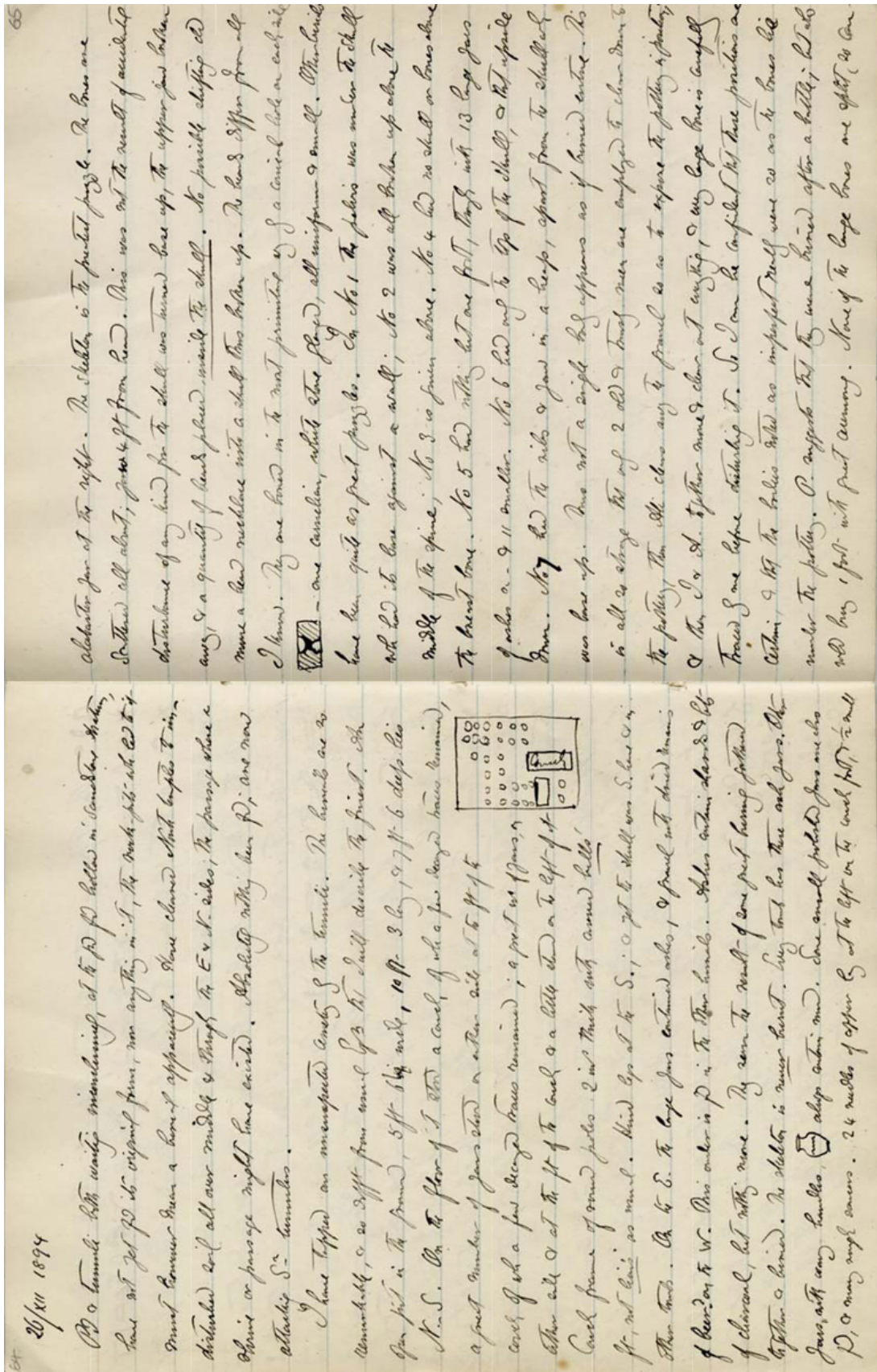


Fig. 28: Photograph of Petrie MSS 2.3.64-65: handwritten copy by Kate Bradbury of an excerpt from Petrie's journal written during excavation at Naqada, entry dated 26 XII 1894. © Griffith Institute, University of Oxford.

of beer? on the W[est]. This order is f[oun]d in the other burials. Ashes contain shards & bits of charcoal, but nothing more. They seem the result of some great burning gathered together & buried. The skeleton is *never* burnt. Every tomb has these ash jars. Other jars, with wavy handles, [drawing] always contain mud. Some small polished jars are also f[oun]d, & many rough saucers. 24 needles of copper by the left on the couch, & ½ small alabaster jar at the right. The skeleton is the greatest puzzle. The bones are scattered all about; jaw 4 ft from head. This was not the result of accidental disturbance of any kind for the skull was turned base up, the upper jaw broken away, & a quantity of beads placed *inside the skull*. No possible shifting c[ou]ld move a bead necklace into a skull thus broken up. The beads differ from all I know. They are formed in the most primitive way by a conical hole on each side [drawing]—one carnelian, white stone glazed, all uniform & small'.⁵⁵

In the same paragraph, Petrie gives brief information about other tombs, stressing that the one described at length above is the third in this list:

[...] In No 1 the pelvis was under the skull wh[ich] had its base against a wall. No 2 was all broken up above the middle of the spine. **No 3 is given above**; No 4 had no skull or bones above the breast bone. No 5 had nothing but one foot, though with 13 large jars of ashes in—& 11 smaller. No 6 had only the top of the skull, and that upside down. No 7 had the ribs and jaw in a heap, apart from the skull wh[ich] was base up'.

Evidently, the tomb 'No 3' described in the letter matches exactly with tomb N3 as published in the excavation report (PETRIE et al., 1896: 24). Interestingly, the highly simplified top-plan included in the letter complements the detailed excavation top-plan (Figure 29a–b), which mentions the existence of a 'bed frame' (i.e., the 'couch') and of a 'small table' (i.e., the 'little stand'), without indicating their position in the tomb, their relative size, or their orientation. The indications given for tombs no 1 to no 7 correspond exactly with the notebook entries of tombs N1–N7 (*Nb* 69 : pp. 51–8).⁵⁶ It is therefore certain that the entries in the letter, the notebooks, and the published report⁵⁷ all pertain to the tombs of Area I of the great Cemetery, and that these are not the same as tombs G1–G6.

The key to understanding cemetery G lies elsewhere within the notebooks. First, Petrie makes it clear he did not excavate Cemetery B (or at least not entirely) himself, but that this was done under the supervision of his colleague B.P. Grenfell. Indeed, he labelled *SP* 18 (see Figure 21a) as 'Plan of Grenfell's South Cemetery, Section B', with 'B Cemetery' added beneath, seemingly as an afterthought. Similarly, *SP* 19 is entitled 'Grenfell's B section—South' (see Figure 22).⁵⁸ As far as we are aware, no notebook written by Grenfell himself

⁵⁵This transcription largely follows the transcription by Cat Warsi, which differs in some detail with the version presented by STEVENSON (2020: 51); notably, at the beginning of the excerpt, the 'unsuspected cemetery' is described as being 'by' the tumuli, and not 'S' (i.e., south) of the tumuli; this is a crucial detail, since tombs N1–N11 (Area I) are to the north of the tumuli; Petrie clearly doesn't refer here to the first tombs of Cemetery T.

⁵⁶Toward the end of the same journal entry, Petrie mentions 'another cemetery a little later than previous'. There, the 'chambers are developing in the later burials, in form of recesses at the side of the pit to contain the body'. Tombs excavated during the early stages of the work that display a recess are known from the notebooks, and are all found in Area II (N20, N22, N25–N29, N31–N32, N36–N37, N49, N53). The mention of a saucer with galena, a palette, and an ivory spoon seem to refer to tomb N17.

⁵⁷The description of tomb 1 in the published report (PETRIE et al., 1896: 24) does not focus on the position of the bones and thus differs from and adds to the information given in the journal entry.

⁵⁸Several top-plans of B tombs contain references to Grenfell: B89 (*Nb* 70: p. 86): 'Grenfell's Group, South'; B86 (*Nb* 70: p. 85): 'Grenfell'; B91 (*Nb* 70: p. 84): 'Grenfell's Group, South'; B92 (*Nb* 70: p. 83): 'Grenfell, South'; B93 (*Nb* 70: p. 82) 'Grenfell, South'. Since these tombs are all in the northern part of Cemetery B, 'south' must be understood in relation to the position of the main excavation area in the Cemetery N.

has survived, while the preserved entries for cemetery B are found in *Nb* 70 and *Nb* 71, written by Price and Petrie, respectively. It appears that when Petrie dispatched Grenfell to the south to excavate some burials, likely by the second week of January 1895,⁵⁹ he designated the letter 'G' for labelling the tombs excavated in that new area as an abbreviation for Grenfell.⁶⁰

Finally, a laconic entry in *Nb* 71 (p. 57) stands out as the most informative: '48 49 (sic)⁶¹ is⁶² our tomb G16–G17'. These few words clearly indicate that cemeteries B and G overlap and that cemetery G was larger than previously assumed, encompassing at least 17 tombs.⁶³ While we can position cemetery G in the same general area as cemetery B, we can unfortunately not determine the extent of the overlap between the two. Did only a few G tombs also receive B designations by Petrie, or did the archaeologist at some stage renumber all or most of G tombs with B numbers? This uncertainty hinders the estimation of the number of tombs excavated, as well as our understanding of the true size and layout of Cemetery B. However, the pottery types listed for tombs B1 and B2⁶⁴ seem to differ from the pots drawn in the top-plans of tombs G1 and G2 (see Figure 24a-b), indicating that there might be no straightforward correlation between B and G numbers.

From the available documentation, we are unable to ascertain if more G tombs existed, nor can we determine if some of the unnumbered tombs drawn within the confines of Cemetery B on the published map are, in actuality, tombs from the G series. Nonetheless, it is most likely that these two series of tombs belong to a single cemetery.

6 The issue of the '(1)-duplicated' tombs

The excavation notebooks serve as invaluable resources for better understanding the archaeological work carried out at Naqada and Ballas. They also reveal that an unfortunate, yet significant error happened during excavation that casts doubt on the location and identification of up to almost one hundred tombs: an entire series of numbers was duplicated. While the error was spotted, the subsequent correction unfortunately added to the confusion. Several aspects need to be taken into consideration to try and make sense of the situation.

6.1 The range of tombs and the cemetery they belong to

In *Nb* 136 (p. 1–8), records show 45 tombs with numbers that appear to align with the 1400's series (Table 4, right).⁶⁵ Given that the Ballas cemetery contained fewer than a thousand tombs, it would seem logical to locate these tombs at Naqada. However, the initial '1' digits were added after the top-plans had been drawn, as evidenced by their distinct marking in ink and blue pencil, unlike the grey pencil used for all other annota-

⁵⁹We know of several dates for the excavation of cemetery B: January 21 (tomb B89, recorded in the afternoon); January 24 (tomb B101, recorded in the afternoon); January 25 (tombs B97, B107, recorded in the morning; tomb B111, recorded in the afternoon); January 26 (tomb B123, recorded in the afternoon); January 27 (tomb B132, recorded in the morning). These few dates indicate that at least 44 tombs were excavated in the course of a week; the first 88 tombs would only have necessitated two weeks of work, so that this cemetery was probably not investigated before the beginning of the second week of January.

⁶⁰The tombs excavated by Quibell at Ballas were designated with a 'Q', so that it is certainly possible that he used the same system for Grenfell's tombs.

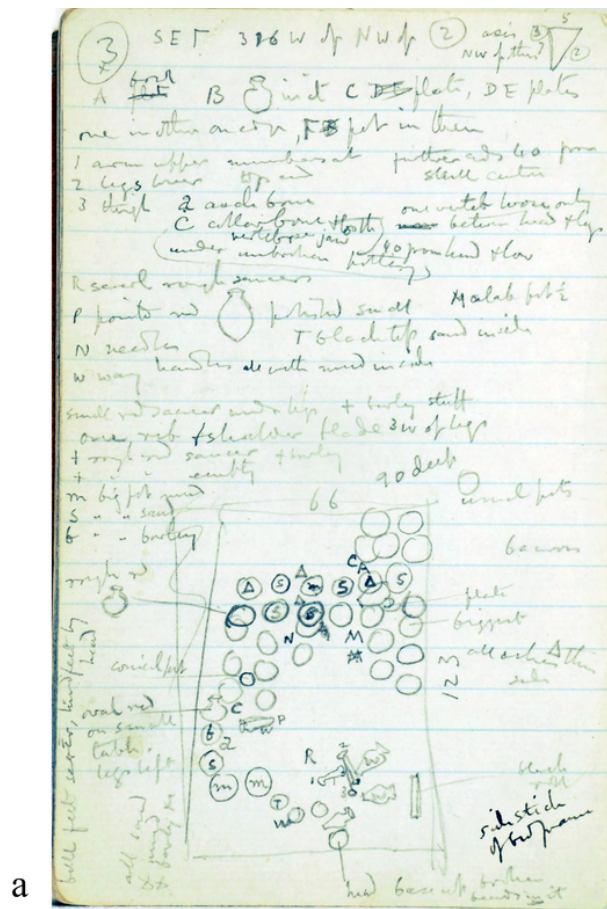
⁶¹It is possible to ascertain that '48' and '49' relate to tombs B48 and B49: first, above the note is an entry for tomb [B]47, which is described as being between [B]31 and [B]39: only tombs in cemetery B correspond to this organisation. Second, the previous page contains the top-plan of tomb B50 and the following page that of tomb B46 (note that Petrie used his notebooks from the last page to the first). Evidently, on this page of the notebook, Petrie simply did not write the letter 'B' in front of the tomb numbers.

⁶²Reading uncertain: 'is' or 'in'.

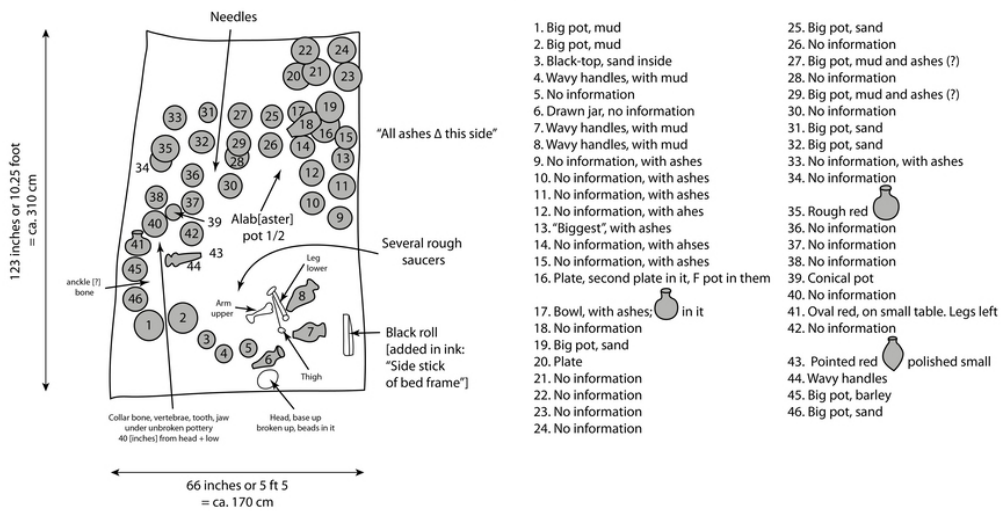
⁶³BAUMGARTEL (1970: 6) considered that there were only six tombs in Cemetery G, which is the highest G-number known from the preserved top-plans (*Nb* 71: p. 76, 79). VAN WETERING and TASSIE (2020: 83) consider that there were 11 G-tombs based on their assimilation of cemetery G and Area I of the Great Cemetery.

⁶⁴See STEVENSON (2020: 40, fig. 2.45, tomb B1: types B19b, B21b, and F11).

⁶⁵Three groups of numbers are concerned: '(1)436–(1)449', '(1)459–(1)462', and '(1)470–(1)496'.



Tomb N3 SE Γ 315 W of NW of ② axis NW of others ③ 5
 Dimensions: 123 66 90 [ca. 310 170 230 cm]



Additional comments:
 further ribs (?) 40 from skull centre
 one vertebrae loose only between head + legs
 one rib + shoulder blade 3W of legs
 small red saucer under legs + barley stuff
 + rough red saucer + barley
 + rough red empty
 unusual (?) pots [in relation to pots in NE corner?]
 bull feet seater (?) hind feet by head
 members at top end [in relation to either arm or leg bones?]
 all sand + mud + barley [in relation to pots in SW corner?]

Fig. 29: a) Facsimile of the top-plan of tomb N3 (inv. PMA/WFP1/1/99/69); b) Edited version of the top-plan of tomb N3.

tions.⁶⁶ Consequently, these tombs were initially assigned numbers in the 400's series during excavation, and could potentially belong to either Naqada Cemetery N or Ballas Cemetery L.

The author of these 45 top-plans is Duncan, who is known to have worked alongside Petrie at Naqada. The recently published copy of the journal penned by Petrie offers new information:⁶⁷

'Q[uibell]'s work is very flourishing, more being ffoun]d there [i.e. Ballas] than here [i.e., Naqada], but he is unable to attend to it as he has to do his planning. So Duncan goes over and notes the tombs, & has done 96 in 3 days—plans, marking, everything'.

It would be a remarkable coincidence for Duncan to have recorded 96 tombs at Ballas, and for the highest duplicated number to be '(1)496'!⁶⁸ The fact that the duplication occurred at Ballas and not at Naqada seems further supported by the addition of the capital letter Q or P after the tomb numbers in reference to Quibell and Price.⁶⁹ We can also clarify that this abbreviation 'Q' was used in excavation documents exclusively for Quibell's work at Ballas, and not at Naqada.⁷⁰

The tombs in the L400's series at Ballas that retained their original numbers were all recorded in *Nb* 145 first by Quibell and later by Price. A comparison between the top-plans, the tomb's dimensions, and the listed head-workmen (see Table 4) confirms that the archaeologists did not document the same series of tombs twice, but that two distinct sets of tombs were assigned the same numbers twice. Price took over the recording process after the top-plan of tomb L480 was drawn. We know from excavation record that tomb L448 (which belongs to the series duplicated by Duncan)⁷¹ had been dug on 20 February 1895 (*Nb* 145: p. 13), presumably just a day or two earlier. This aligns with Petrie's statement (in his journal entry quoted above and penned just five days later) that Quibell was too busy with other tasks to keep recording his excavation. It is likely that Price worked alongside Duncan during this period. The duplication error sheds light on the stressful and challenging conditions under which the excavators operated. Indeed, to a modern archaeologist, it is astonishing that so many burials were excavated and recorded in such a short period.

The excavation chronology⁷² and documentary evidence therefore strongly support the view that the mistake occurred at Ballas during the excavation of Cemetery L, rather than at Naqada. Given that the Ballas tombs did not extend into the 1000's, Petrie deemed it sufficient to add the numeral '1' in front of the duplicated tomb numbers to rectify the situation. To prevent any further confusion, we propose using the corrected numbers L(1)436–L(1)496 for Duncan's range.

⁶⁶These forty-five entries are crammed on eight pages; in five cases (tombs '440', '448', '449', '482', '483') the corrective '1' digit was not added (three are not top-plans *per se* but rather simple comments about the tomb); yet, there is little doubt that all these tombs belong to a coherent group.

⁶⁷Griffith Institute (ed.), Petrie MSS 2.3, 80: entry dated February 25, 1895.

⁶⁸To avoid confusion with Naqada tombs in the 1400's range, the first digit of the duplicated Ballas tombs is here written in brackets (1).

⁶⁹Although 'P' could in theory be interpreted as the abbreviation for Petrie, there is no evidence that he excavated at Ballas. On the contrary, Price recorded a number of tombs at Ballas (see, e.g., the second part of *Nb* 145) and he may have supervised the excavation of the tombs recorded by Duncan while Quibell was too busy to follow the work.

⁷⁰Quibell did join the rest of the team at Naqada toward the end of the season; however, in documentary evidence, tomb numbers with a 'Q' that are sometimes considered to be Naqada tombs do instead belong to the erroneous range (1)436–(1)496 described here and now considered to be located at Ballas (contra BAUMGARTEL, 1970: 6; STEVENSON, 2020: 11). It remains to be determined whether the letter 'Q' was ever written on objects excavated by Quibell at Naqada.

⁷¹Tombs L447 and L448 were, additionally, accidentally attributed to two tombs each, recorded in immediate succession (*Nb* 145: p. 13–15).

⁷²In his journal entry dated 20 February 1895, Petrie appears to be describing tomb N836 (Griffith Institute (ed.), Petrie MSS 2.3, 77): *'Then I cleared a tomb & ffoun]d a large quantity of beads, including large cylinders of agate, wh[ich] I had not dated before. On the hip of the man was a splendidly formed copper dagger, handle disappeared, but in perfect [drawing] condition'.* The plan of tomb N836 (Petrie & Quibell, 1896: pl. LXXXIII) appears to correspond with the description in the journal and the drawn dagger is similar to the one said to come from tomb N836 (PETRIE et al., 1896: pl. LXV.3). Since Petrie left Naqada by March 5, 1895 (STEVENSON, 2020: 44), it is impossible that he had only just excavated less than 900 tombs by late February. Time likely elapsed between the events described and the writing of the journal.

BALLAS							
Tomb	Quibell, Nb 145			Tomb	Duncan, Nb 136		
	Nb reference	Head workman	Dimensions (inches)		(sic)	Nb reference	Head workman
L436	145: p. 8	Abul Hassan	40 x 32	(1)436 (Q)	136: p. 1	Mussy	50 x 40 x 60
L437	145: p. 9		40 x 30	(1)437 (Q)	136: p. 1	Ali Radwan	50 x 50 x 60
L438	145: p. 9		40 x 30 x 40	(1)438 (Q)	136: p. 1	AbulHamd	60 x 40 x 50
L439	145: p. 9			(1)439 (P)	136: p. 1	Mbarak Mustafa + Safé	80 x 70 x 70
L440	145: p. 10			440 (P)	136: p. 1	Mbarak Mustafa	50 x 50 x 60
L441	145: p. 11	Laden	91 x 50 x 36	(1)441 (Q)	136: p. 1	[named crossed over]	60 x 50 x 70
L442	145: p. 11	Smain	60 x 40 x 38	(1)442 (Q)	136: p. 1	Ali Radwan	70 x 50 x 60
L443	145: p. 11	Laden		(1)443 (Q)	136: p. 2	Amur	70 x 50 x 70
L444	145: p. 12			(1)444 Q	136: p. 2	Mbarak Ali	60 x 50 x 60
L445	145: p. 13			(1)445 Q?	136: p. 2	Abdel M[...]	60 x 40 x 60
L446	145: p. 13	Hussein	73 x 30 x 33	(1)446 Q	136: p. 2	Firan	90 x 50 x 60
L447	145: p. 13	NA	85 x 40 x 30	(1)447 Q	136: p. 2	Yusuf	90 x 50 x 70
L447 bis	145: p. 14	[lb?]	39 x 40 x 60			No tomb entry	
L448	145: p. 13		70 x 40 x 55	448 P	136: p. 2	Mbarak Mustafa	90 x 60 x 70
L448 bis	145: p. 15	Yusuf	52 x 40 x 43			No tomb entry	
L449	145: p. 16	Abul Hassan	75 x 51 x 60	449 P	136: p. 2	Chalifa	90 x 50 x 70
L450	145: p. 17	Ahmed Laden	75 x 50 x 50			No tomb entry	
L451	145: p. 19	Laden	60 x 40 x 43			No tomb entry	
L452	145: p. 19					No tomb entry	
L453	145: p. 20	Hussein [...]	70 x 45			No tomb entry	
L454	145: p. 21	Hussein	74 x 45 x (43-58)			No tomb entry	
L455	145: p. 22	Abul Hassan	30 x 40 x 35			No tomb entry	
L456	145: p. 21	Yusuf	60 x 33 x 35			No tomb entry	
L457	145: p. 23	Yusuf	60 x [...]			No tomb entry	
L458	145: p. 23	Yusuf	55 x 42 x 42			No tomb entry	
L459	145: p. 23	Abadah Smen group (?)	50 x 30 x 48	(1)459 Q	136: p. 8	Abul Hassan	100 x 60 x 70
L460	145: p. 23	Abadah	59 x 29 x 46	(1)460 Q	136: p. 8	Yusuf	80 x 50 x 70
L461	145: p. 24	[lb?]	92 x 150 x 50	(1)461 Q	136: p. 8	Mahmud Abdallah	90 x 70 x 60
L462	145: p. 24	Laden	100 x 50 x 50	(1)462 Q	136: p. 8	Abul Hassan + Abdullah	80 x 50 x 60
L463	145: p. 25					No tomb entry	
L464	145: p. 26	Abadeh				No tomb entry	
L465	145: p. 27	Smen				No tomb entry	
L466	145: p. 28, 32, 33	Mahmud Abdulla [...] group	Multi-chamber			No tomb entry	
L467	145: p. 29	Hussein	72 x 40 x 40			No tomb entry	
L468	145: p. 29		50 x 40 x 40			No tomb entry	
L469	145: p. 30	Abadeh	75 x 52 x 60			No tomb entry	
L470	145: p. 31	Yusuf	80 x 60 x 40	(1)470 (Q)	136: p. 3	Ahmed M	70 x (60 + 10) x (80 + 10)
L471	145: p. 34	Laden	90 x 55 x 51	(1)471 Q	136: p. 3	Mahmud Abdallah	80 x 50 x 60
L472	145: p. 34	Abul Hassan	70 x 50 x 49	(1)472 Q	136: p. 3	Abul Hassan	70 x 60 x 60
L473	145: p. 35	Abul Hassan		(1)473 (Q)	136: p. 4	Ali Yadhullah	60 x 60 x 50
L474	145: p. 35	[lb?]	20 x 40 x 40	(1)474 (Q)	136: p. 4	Ali Yadhullah	60 x 50 x 60
L475	145: p. 37	Abul Hassan	52 x 30 x 32	(1)475 (Q)	136: p. 4	Ahmed M	70 x 50 x 60
L476	145: p. 37	Abadah	60 x 50 x 55	(1)476 Q	136: p. 4	Mbarak Ali	60 x 50 x 70
L477	145: p. 37	Hussein	53 x 38	(1)477 Q	136: p. 4	Mbarak Ali	80 x 60 x 70
L478	145: p. 37	Husse[ein]		(1)478 (Q)	136: p. 4	Yusuf	60 x 40 x 70
L479	145: p. 37	Abul Hassan	50 x 40 x 50	(1)479 Q	136: p. 5	Yusuf	70 x 50 x 70
L480	145: p. 37	Ahmed Laden	60 x 40 x 30	(1)480 Q	136: p. 5	Yusuf	60 x 40 x 50
L481	145: p. 37	Laden	60 x 40 x 40	(1)481 Q	136: p. 5	Ali Radwan	70 x 60 x 70
L482	145: p. 38	Laden	50 x 30 x 50	482 P	136: p. 5	(Ahmid) Chalifa	60 x 50 x 70
L483	145: p. 38	Laden	60 x 40 x 50	483 (Q)	136: p. 5	Mahmud Abd	50 x 40 x 60
L484	145: p. 38	Laden	100 x 50 x 50	(1)484 Q	136: p. 6	Ali Radwan	50 x 50 x 60
L485	145: p. 38	Laden	70 x 50 x 60	(1)485 Q	136: p. 6	Yusuf	50 x 40 x 60
L486	145: p. 38	Laden	60 x 50 x 50	(1)486 Q	136: p. 6	Yusuf	70 x 60 x 50
L487	145: p. 38	Ibrahim Amur	70 x 50 x 40	(1)487 Q	136: p. 6	Yusuf	60 x 50 x 60
L488	145: p. 39	Abul Hassan	70 x 50 x 60	(1)488 Q	136: p. 6	Amur	60 x 40 x 60
L489	145: p. 39	Yusuf	90 x 60 x 60	(1)489 Q	136: p. 6	Amur	70 x 40 x 70
L490	145: p. 39	Mahmud Muh.	40 x 30 x 40	(1)490 Q	136: p. 6	Amur	70 x 60 x 70
L491	145: p. 39	Yusuf	80 x 60 x 60	(1)491 Q?	136: p. 6	Abadah Mussy	60 x 40 x 70
L492	145: p. 39	Mahmud Muh.	50 x 40 x 50	(1)492 Q?	136: p. 7	Abadah Mussy	60 x 40 x (60 + 10)
L493	145: p. 39	Mahmud Muh.	50 x 40 x 60	(1)493 Q	136: p. 7	Mbarak Ali	70 x 40 x 70
L494	145: p. 39	Mah. Muh.	70 x 40 x 50	(1)494 Q	136: p. 7	Mahmud Abdallah	70 x 50 x 60
L495	145: p. 39	Abad el Mussy	100 x 40 x 60	(1)495 Q	136: p. 7	Abul Hassan	90 x 60 x 70
L496	145: p. 40	Laden	60 x 50 x 60	(1)496 Q?	136: p. 7	Abul Hassan	100 x 80 x 60

Tab. 4: Comparison between tombs Ballas L400's and corrected (1)400's Q tombs, with notebooks references, head workmen, and dimensions.

6.2 The consequences of the duplication error

A notable example illustrating the complications arising from the duplication of the L400's numbers is an exceptional ivory spoon (Ashmolean Museum, Oxford, inv. no. AN 1895.903). It features a distinctive carved handle with animals and is clearly drawn in the top-plan of tomb '(1)460' (*Nb* 136, p. 8).⁷³ In the excavation report (PETRIE et al., 1896: pl. LXI.3), the spoon was labelled '1460', without the name of the cemetery indicated, leading the reader to assume it originated from tomb N1460 of the Great Cemetery. The situation becomes even more convoluted: upon arrival at the Ashmolean Museum, the spoon was recorded in the Antiquities Accession Register as coming from tomb '460', which later led BAUMGARTEL (1970: pl. XIX) to erroneously include the spoon among the material from tomb N460.

During excavation, the excavators usually inscribed the tomb numbers in pencil on artefact as they were retrieved from the ground. The spoon, reconstructed from several fragments that bear the numbers '456' and '460' in pencil (Liam McNamara, pers. com.),⁷⁴ shows that Petrie's correction of tomb numbers on the top-plans by adding a '1' digit was not applied on objects.

For such a distinctive object as this spoon, the error can be easily spotted and rectified: the spoon comes from Ballas, tomb L(1)460, and not from Naqada N460 or N1460. However, less clearly described objects and those coming from tombs not drawn in the notebooks may be more difficult to assign to their correct tomb. It would be prudent to carefully re-evaluate the provenance of all artefacts with a written pencil number in the 400's range: they may come from Ballas, either from the tombs excavated by Quibell and Price, or from the '1'-duplicated tombs worked by Duncan. They may equally come from Naqada N400's range, but since there is no notebook preserved for these tombs, it is perhaps only by elimination (i.e. after excluding that they were found at Ballas) that objects should be tentatively attributed to Naqada N400's series. Further, since Petrie himself became confused, attributing the spoon to '1460' without specifying that it was found at Ballas, all artefacts described post-excavation as coming from the N1400's range should also be reconsidered with care to identify possible provenance mistakes.⁷⁵

Finally, establishing that at least 96 tombs at Ballas were mistakenly assigned a pre-existing number shows that there are more tombs excavated there than previously thought: cemetery L contained at least 970 tombs, since the highest number known from *Nb* 147 is L874.

7 Conclusions

It has been over 125 years since Petrie and his colleagues concluded the extraordinarily expansive excavation season at Naqada, which revealed some of the first evidence to shed light on the origins of the Egyptian civilisation. Yet, much material produced in the course of this work remains to be studied, especially the original documents written in the field by the archaeologists that survive to this day. The research presented here only focuses on a specific set of data from these notebooks. Although the information is often frustratingly fragmentary and at times, challenging to decipher, it is evident that it is only one of many possible avenues of investigation that can be based on these precious documents. Given the sheer size and scope of the excavation carried out in the region of Naqada and Ballas, this is undeniably not a small endeavour, but one with considerable potential.

We hope that the new digital map, incorporating the proposed additions and corrections derived from the

⁷³It is described as an 'ivory spoon from S[outh] E[ast] corner'; a comment in ink was further added: 'this is [the] spoon with 4 animals on handle'.

⁷⁴Tombs L(1)456 and L(1)460 were most likely located near one another; they were both found in a disturbed state and fragments of the fragile spoon were probably spread during plundering. Pencil inscription '456' also demonstrates that there are more tombs with '1' digit correction than we can deduce from the top-plans (Table 4).

⁷⁵This range is only partially represented in *Nb* 136, where Quibell recorded tombs N1450–N1481.

in-depth analysis of the notebooks data, will facilitate research on the cemetery's horizontal and chronological development, as well as allow better understanding of the distribution of specific types of material across the site.

One outstanding question is the attempt to ascertain the size of the Naqada cemeteries. Although their approximate geographical dimensions are known from the published map, the true number of tombs that contained remains uncertain (See [STEVENSON](#), 2020: 19, 50). There are many ways to try and answer this question, one of which is to 'simply' count the number of tombs on the digital map.

The digital map of Cemetery N contains 1,082 tombs identified by an N-number,⁷⁶ alongside 1,002 NN-unidentified tombs.⁷⁷ Seven tombs should be added to this total: the topographical comments indicate their approximate zone and it is certain that they do not appear on the map.⁷⁸ Consequently, the highest tomb number theoretically reaches N2089 (see Supplementary Table 5). However, is such a high number confirmed by the documentary and published evidence? Almost, but not entirely. Indeed, there is scant evidence for tombs numbered beyond N1918, the highest one mentioned in the manuscript documents (*Nb* 141: p. 3; pottery list) and in the text of the report ([PETRIE](#) et al., 1896: 29). Yet, the highest number recorded in the plates of that report is N1939, corresponding to a tomb in which a flint fish-tail knife was found ([PETRIE](#) et al., 1896: pl. LXXIII, 66), while a greywacke palette in the Petrie Museum originates from tomb N1953 (UC 4748; [BAUMGARTEL](#), 1970: pl. LXII; Petrie Museum online catalogue).

How can we best account for the absence of preserved evidence concerning the last 136 tombs likely excavated? Although errors may have occurred, it is improbable that Petrie randomly added tombs to his map. It is not impossible that some tombs found utterly plundered were never assigned a number yet shown on the plan.⁷⁹ We must also consider the time constraints faced by the team during the final stages of the work. As the expedition was preparing to head back north, the vast quantity of recovered material had to be packed in crates, possibly leaving insufficient time to record the latest tombs that were investigated. The lack of entries after N1918 in the excavation documents may possibly also stem from the loss of the final notebook(s).

In Cemetery B, we find 88 tombs identified with a B-number, including seven located double structures and one triple structure.⁸⁰ Additionally, there are 60 NNB-unidentified tombs, indicating a minimum of 148 tombs in this cemetery (see Supplementary Table 6). However, due to uncertainties regarding the overlap between Cemetery B and Cemetery G, it is impossible to determine its precise size. The best we can say is that the highest known tomb number is B134 (*Nb* 70: p. 41; see also the pottery list).

As for Cemetery T, there are 35 tombs labelled with a T-number, along with 35 NNT-unidentified tombs. No double structures have been noted in that cemetery, suggesting a minimum of 70 tombs (see Supplementary Table 7). The highest known number is T59 (*Nb* 71: p. 48). The missing tombs are likely to have been recorded in a notebook that has not survived, assuming they were recorded at all.

In sum, we observe that the number of tombs drawn on the map exceeds the count known from the documentation and publication of the work for each cemetery.⁸¹ This suggests that some numbered tombs may have been found plundered beyond hope or deemed to contain too little of interest to warrant detailed documentation. Additionally, it suggests that not all the documents produced during the excavation have

⁷⁶ Among these tombs are 24 occurrences of erroneous, [α] and [β] doubled numbers (see Section 4.1, Section 4.2) and 6 located double structures (Tombs N108 (a)-(b), N118(a)-(b), N192 (a)-(b), N507 (a)-(b), N519 (a)-(b), N533 (a)-(b); see Section 4.3).

⁷⁷ Among these tombs are at least one double structure (tomb N1464 (a)-(b)) and one triple structure (tomb N1513 (a)-(c)); see Section 3.2

⁷⁸ Tombs N12–N16 and N51–N52. On the contrary, tombs N35, N45, N47, and N55, which were likely located on the west edge of Area III may be represented by NN-unidentified squares.

⁷⁹ See, e.g., tomb NN71, indicated as a 'Doubtful grave' on *SP* 2.

⁸⁰ Tombs B62 (a)-(b), B107 (a)-(b), B111 (a)-(b), B118 (a)-(b), B119 (a)-(c), B122 (a)-(b), B127 (a)-(b).

⁸¹ We see systematically more tombs than scholars have previously estimated, including the more recent review by [STEVENSON](#) (2020: 50), which was, however, based on the documentary evidence.

survived to this day. Finally, it shows that 'indexical absences' are unlikely;⁸² had Petrie pre-allocated series of numbers to his colleagues, and had these numbers remained unused due to fewer tombs being excavated than anticipated, then fewer tombs would logically be represented on the map.

In total, it seems that no fewer than 2,307 tombs were excavated at Naqada, a staggering figure in itself. However, digging was only part of the work, and it is almost impossible to conceive the sheer amount of time that the recording, drawing, photographing, crating, and shipping of over 3,740 artefacts, collected in as many as 1,228 tombs, also required. Those familiar with the conditions of work on an excavation—which were no doubt much harsher in the late nineteenth century than they can be today—can only marvel at the achievements and success of the season. While mistakes happened, including accidental number duplications and omissions, and the published map may not meet modern precise standards, these observations should not be misconstrued as rash or harsh criticism of Petrie and his colleagues' efforts. On the contrary, the thorough review of all available archival material produced during excavation demonstrates its rich, untapped potential for furthering this pioneering work. This statement extends beyond one excavation season, one site, or one dig director: there is little doubt that a similar methodological examination of archival material from other excavations would greatly enhance our knowledge and understanding of sites investigated in the early days of modern archaeology.

8 Acknowledgements

I thank Dorian Vanhulle for his valuable feedback on an earlier draft of this article, as well as the two anonymous reviewers for their positive and constructive feedback. I also extend my thanks to the editors of *Interdisciplinary Egyptology* for their consideration and support throughout the publication process.

References

- BAUMGARTEL, E. J. (1970). *Petrie's Naqada excavation: a supplement*. London: Bernard Quaritch.
- DEE, M., WENGROW, D., SHORTLAND, A., STEVENSON, A., BROCK, F., GIRDLAND FLINK, L., & BRONK RAMSEY, C. (2013). An absolute chronology for early Egypt using radiocarbon dating and Bayesian statistical modelling. *Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences*, 469(2159), 20130395. [↗](#)
- DEE, M. W., WENGROW, D., SHORTLAND, A., STEVENSON, A., BROCK, F., & RAMSEY, C. B. (2014). Radiocarbon dating and the Naqada relative chronology. *Journal of Archaeological Science*, 46, 319–323.
- DE MORGAN, J. (1897). *Recherches sur les origines de l'Égypte II: ethnographie préhistorique et tombeau royal de Négadah*. Paris: Leroux.
- HENDRICKX, S. (1996). The relative chronology of the Naqada Culture: Problems and possibilities. *Aspects of Early Egypt*, 36–69.
- HENDRICKX, S. (2006). Predynastic–Early Dynastic chronology. In E. HORNUNG, R. KRAUSS & D. A. WARBURTON (Eds.), *Ancient Egyptian chronology* (Handbook of Oriental Studies, 83; 55–93). Leiden: Brill.
- PAYNE, J. C. (1987). Appendix to Naqada excavations supplement. *The Journal of Egyptian Archaeology*, 73(1), 181–189.
- PETRIE, W. M. F., QUIBELL, J. E., & SPURRELL, F. C. J. (1896). *Naqada and Ballas: 1895*. London: B. Quaritch.

⁸²Contra STEVENSON (2020: 50).

- STEVENSON, A. (2020). The archival record of WMF Petrie's 1894-5 excavations in the Predynastic cemeteries of Naqada. In A. STEVENSON & J. VAN WETERING (Eds.), *The many histories of Naqada: archaeology and heritage in an Upper Egyptian region* (GHP Egyptology, 32; 11–55). London: Golden House Publications.
- STEVENSON, A., & VAN WETERING, J. (2020). *The many histories of Naqada: archaeology and heritage in an Upper Egyptian region* (GHP Egyptology, 32). London: Golden House Publications.
- TASSIE, G. J. (2020). Chapter 9: the past, present and future of the Naqada region. In A. STEVENSON & J. VAN WETERING (Eds.), *The many histories of Naqada: archaeology and heritage in an Upper Egyptian region* (GHP Egyptology, 32; 157–171). London: Golden House Publications.
- TASSIE, G. J., & VAN WETERING, J. (2020). Chapter 1: archaeological history of the Naqada sites. In A. STEVENSON & J. VAN WETERING (Eds.), *The many histories of Naqada: archaeology and heritage in an Upper Egyptian region* (GHP Egyptology, 32; 1–10). London: Golden House Publications.
- VAN WETERING, J. (2012). Relocating de Morgan's royal tomb at Naqada and identifying its occupant. In J. KABACIŃSKI, M. CHŁODNICKI & M. KOBUSIEWICZ (Eds.), *Prehistory of Northeastern Africa: new ideas and discoveries* (Studies in African archaeology, 11; 91–124). Poznań: Muzeum Archeologiczne w Poznaniu.
- VAN WETERING, J. (2017). The cemeteries of Nubt, Naqada Region, Upper Egypt. In B. MIDANT-REYNES & Y. TRISTANT (Eds.), *Egypt at its origins 5: Proceedings of the fifth international conference "Origin of the state, Predynastic and Early Dynastic Egypt," Cairo, 13th–18th April 2014* (Orientalia Lovaniensia Analecta, 260; 521–549). Leuven: Peeters.
- VAN WETERING, J., & TASSIE, G. J. (2020). Chapter 4: Nubt during the fourth Millennium BC. In A. STEVENSON & J. VAN WETERING (Eds.), *The many histories of Naqada: archaeology and heritage in an Upper Egyptian region* (GHP Egyptology, 32; 69–94). London: Golden House Publications.