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Études et essais

Lectures

Naqada IIIA-B, A Crucial Phase in the Relative Chronology of the Naqada Culture

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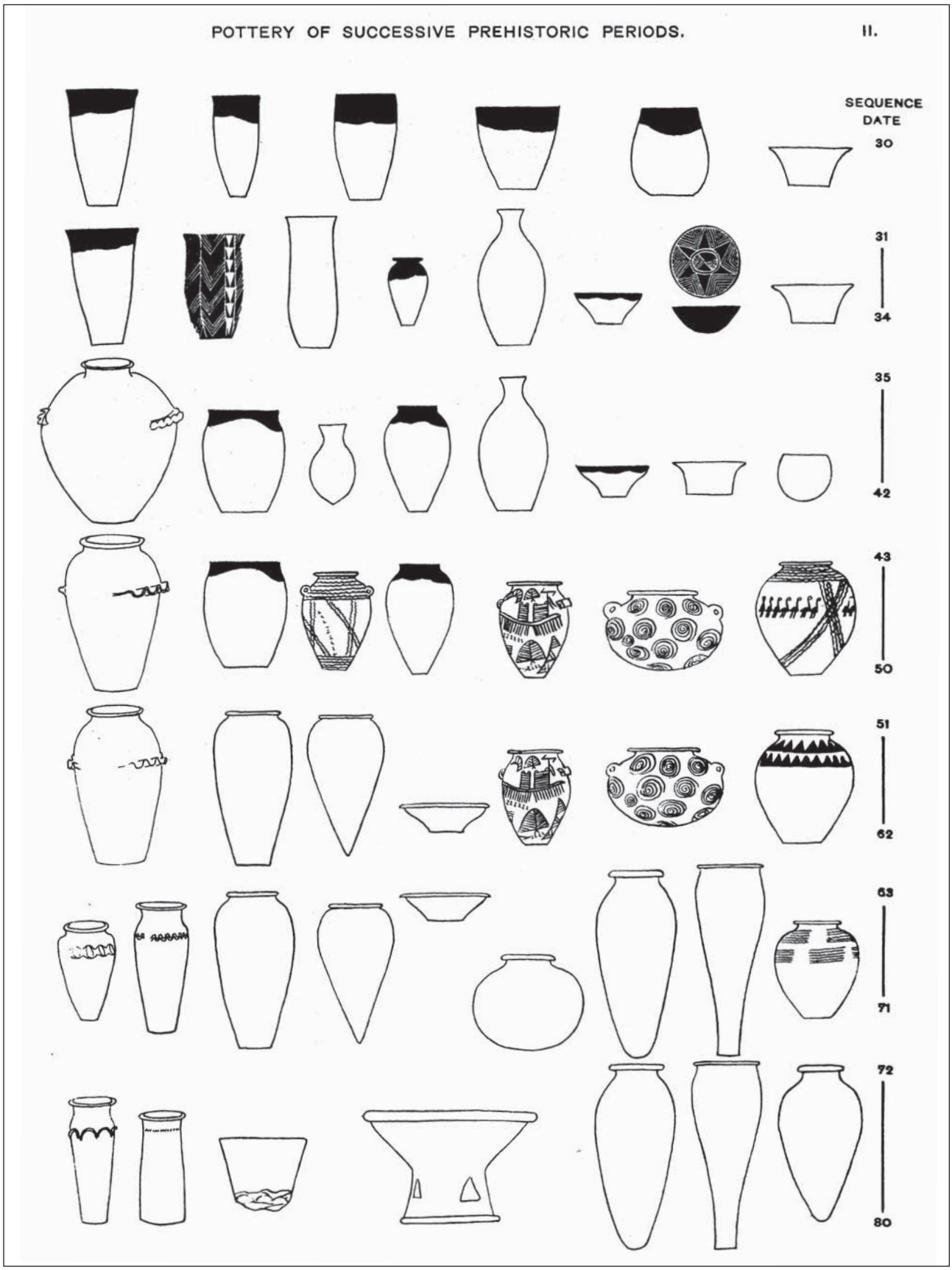
The early Naqada III Period is of great importance for the relative chronology of Predynastic and Early Egypt because it includes the final phase of state formation in Egypt, just before the commencement of the First Dynasty. In Kaiser's fundamental revision of Petrie's Sequence Dating, the Stufen IIIA and IIIB are not very well defined due to the paucity of available data at the time. The revision of Kaiser's work allowed a better description of the archaeological characteristics of the Naqada IIIA-B periods. In addition, the chronological position of two important tombs is discussed, tomb 32 at Abu Zeidan and tomb U-j at Abydos.

Le début de la phase Nagada III est d'une importance capitale pour la chronologie relative des périodes pré- et protodynastique parce qu'il inclut la fin du processus de formation de l'État en Égypte, juste avant le début de la 1re dynastie. Dans la révision fondamentale menée par Kaiser du Sequence Dating *de Petrie, les Stufen IIIA et IIIB sont mal définis du fait de la pauvreté des données disponibles à l'époque. La révision du travail de Kaiser permet une meilleure description des caractéristiques chronologiques de la phase Nagada IIIA-B. La position chronologique de la tombe 32 d'Abou Zeidan et de la tombe U-j d'Abydos est également discutée ici.*

1. I'm particularly grateful to Christine Lorre, curator of the department of comparative archaeology of the Musée d'Archéologie nationale at Saint-Germain-en-Laye for the permission to publish fig. 10 and to Jane Smythe for editing this paper.

Fig. 1 • Sequence Dating of Predynastic pottery (Petrie 1901: pl. II).



When W.M.F. Petrie discovered and excavated several Predynastic cemeteries in Upper Egypt during the end of the 19th and the beginning of the 20th century, he had no chronological framework at his disposal. He therefore developed a relative chronology, known as Sequence Dating (Petrie 1901) (**fig. 1**). This allowed him to distinguish three phases, namely Amratian, Gerzean and Semainean after important sites: however, he emphasised only the first two of these phases. Ever since, the third phase has been subject of discussion. The reason for distinguishing Semainean from Gerzean was already questioned some time ago by Alexander Scharff (1927: 17-18) and Helen Kantor (1944). Both did not find the material differences important enough to accept Semainean as a separate culture, preferring to consider it as "Late Gerzean".

A particular problem for Petrie's work on the final phase of the Predynastic Period is that he distinguished for the typology of the pottery a Predynastic corpus (Petrie 1921) and a Protodynastic corpus (Petrie 1953).[2] Of course this increases the tendency to create chronologically distinct ensembles, despite the fact that extensive overlaps exist between the Predynastic and the Protodynastic corpus. This is especially obvious for the cylindrical jars, representing the last stage of the evolution of the Wavy-handled jars. For most of the cylindrical jars in the Protodynastic corpus, parallels can be found in the Predynastic corpus (**tab. 1**).

Table 1
Concordances between the three main typologies used for the late Wavy-handled and Cylindrical jars. Periods between square brackets represent > 50% of known examples.

Predynastic (Petrie 1921)		Protodynastic (Petrie 1953)		Archaic (Emery 1938-58)	
Type	Period	Type	Period	Type	Period
W33	IIIA2[1]	44f	IIIB	E22	IIIB-C1
W35	IIIB[2]	«		«	
W33-35		74b2	–	«	
«		74b5	–	«	
«		74b9	IIIB-IIIC1	«	
«		75s	[IIIB]-IIIC1	«	
W51a	[IIIA1]-IIIA2	43r	IIIA1	-	
«		43s	IIIA1	-	
W58	[IIIA2]-IIIB	46d	[IIIA2]-IIIC1	-	
«		46f	[IIIA2]-IIIC1	-	
«		46h	[IIIA2]-IIIC2	-	
«		46k	[IIIA2]-IIIB	-	
W62	[IIIA2]-IIIB	46b	[IIIA2]-IIIC1	F07-08	
«		46m	[IIIA2]-IIIC1	«	
«		46p	[IIIA2]-IIIC1	«	
W63	IIIB	47b	IIIA2-[IIIB]	-	
W71a	IIIB	46j	IIIA2-IIIB	F09	IIIB
«		47p	IIIB	«	
«		48d	IIIB	«	
W80	IIIB	47r	IIIB	F10	IIIB-C1
«		47t	IIIB	«	
«		48s	[IIIB]-IIIC2	«	
«		49g	[IIIB]-IIIC1	«	
W85	IIIB	49d	IIIB	-	
«		49l	[IIIB]-IIIC1	-	
W90	IIIC1	50d	[IIIC1]-IIIC2	F11	IIIC1
«		«		(F01)	IIIC1-C2
«		50e	IIIC1	F12	IIIC1
«		50f	[IIIC1]-IIIC2	F11-12	
«		50g	IIIC1	«	
-		50s	IIIC2	(F01)	IIIC1-C2
-		50t	IIIC2	«	

1. Based on one example only.
2. Based on one example only.

2. The Protodynastic corpus (Petrie 1953) was published posthumously, but is in reality hardly anything more than the pottery corpus Petrie made long before the publication of the cemeteries of Tarkhan (Petrie 1913; 1914), augmented with pottery from the royal tombs at Abydos. Therefore, the Protodynastic typology was already widely used before the 1953 publication (e.g., Brunton 1927; 1937).

The problem became even more complex when Emery developed yet another "Archaic" typology for publishing his finds in the elite mastabas at Saqqara (Emery 1938-1958). This typology was also used by Klasens for his excavations at Abu Rawash (Klasens 1957-1961) (**tab. 1**).

Although Petrie's seriation and relative chronology remains a remarkable intellectual achievement, it was already obvious by the middle of the 20th century that further elaboration of the Sequence Dating through the integration of newly excavated cemeteries made the system increasingly complex and problematic. Sequence Dating is based on the idea of great accuracy, while in reality it will become imprecise when new data are incorporated, because the SD range of individual vessels will often have to be added on. However, the general principles of the development of the Naqada Culture, as established by Petrie, were never fundamentally contradicted, neither are they today.

The fundamental revision by Werner Kaiser (1957) of the relative chronology of the Naqada chronology follows Petrie's distinction between three main phases, but with further subdivisions (Stufen). Kaiser's work starts from the horizontal distribution of pottery classes within cemetery 1400-1500 at Armant (Mond & Myers 1937).[3] Strangely, Petrie never used the possibilities offered by the spatial distribution of pottery types, although on several occasions he mentions chronologically different zones within cemeteries. Kaiser distinguishes three spatial zones at Armant, dominated respectively by Petrie's Black-Topped, Rough and Late pottery classes, corresponding to the three main stages of development of the Naqada Culture. The selection of three pottery classes out of the nine distinguished by Petrie indicates that Kaiser, from the very beginning, accepts Petrie's three phase division. When compared to Sequence Dating, Kaiser's system has the advantage of including not only information from the typological apparatus, but also from the spatial distribution of the objects. Furthermore, it does not give the idea of extreme accuracy, but by defining periods, it largely escapes, although not completely, the problem of becoming increasingly meaningless when new data should be added. A full discussion of Kaiser's work falls beyond the scope of the present article,[4] for which only the early Naqada III Period will be dealt with.

Kaiser bases the transition from Stufe II to Stufe III on the quantitative importance of Petrie's Late Class, which takes over from the Rough Class as numerically the most important group. In principle, this implies that the Nile silt fabric with organic temper (Nile C, cf. Nordström & Bourriau 1993: 173-174), of which the Rough pottery is made, gives way to the marl clay fabric (Marl A1, cf. Nordström & Bourriau 1993: 176) of the Late pottery. However, Kaiser's view of the spatial distribution of the Rough and Late pottery at Armant (Kaiser 1957: Tf. 15 B-C) does not take into account the fact that an important number of the Late types are in reality made in the Nile C fabric (especially the types belonging to the L 7, L 30-35 and L 50-51 series), although he is well aware of the problem (Kaiser 1957: 76, note 9). The difference between Stufe II and Stufe III is therefore far less marked as indicated by Kaiser, especially because they share the same Wavy-handled types (W41 / W43b, W47g). For cemetery 1400-1500 at Armant, there is no zone dominated by marl clay pottery, although this phenomenon certainly occurs at other cemeteries.[5] The number of tombs attributed by Kaiser to Stufe III was anyhow very small, limiting the possibilities for distinguishing sub-phases within

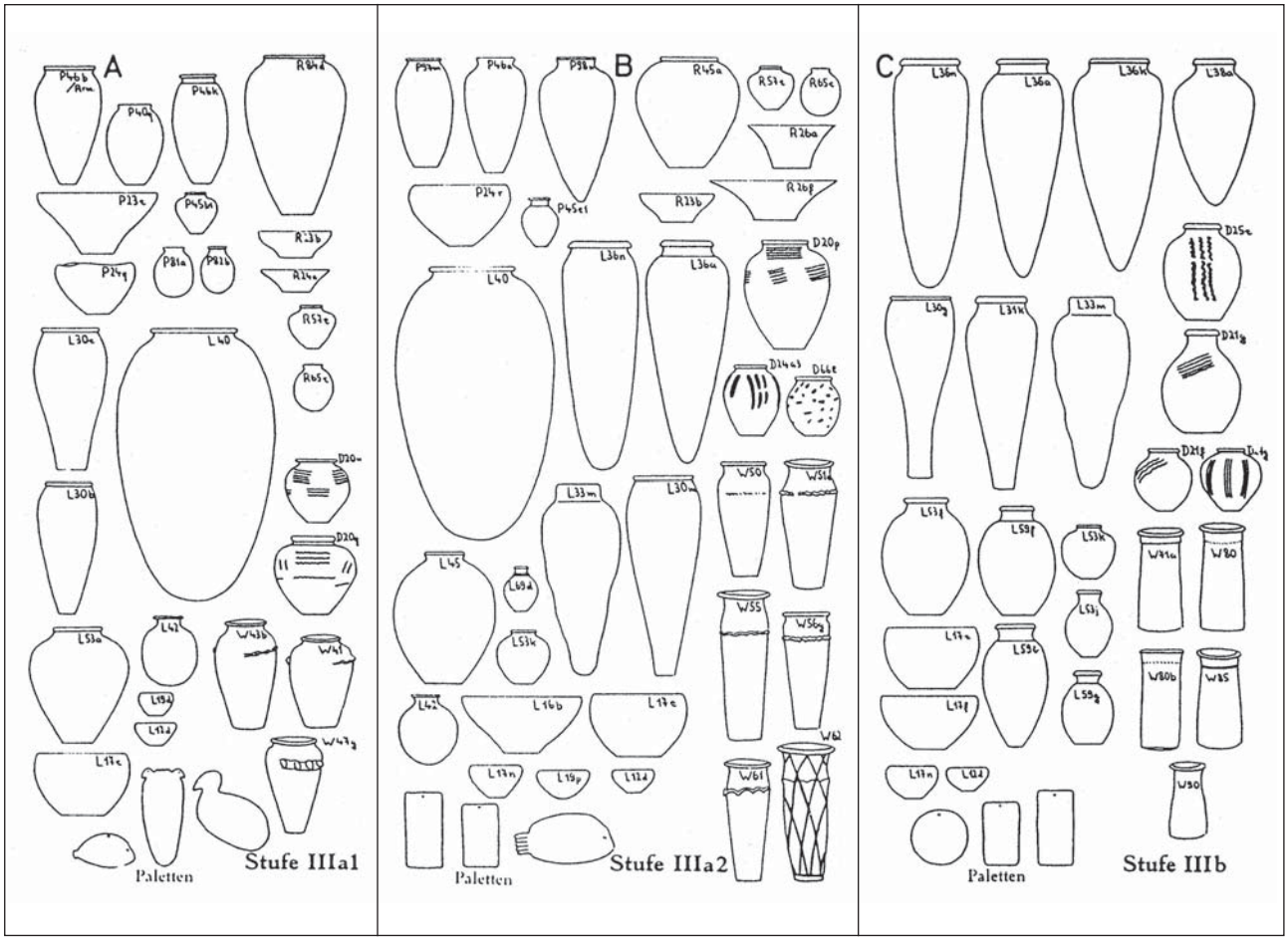
3. The original, unpublished, Ph.D. study by Kaiser also deals with other cemeteries. Kaiser only published a strongly abridged version of his work (Kaiser 1957).

4. For this, see Hendrickx 1996: 38-43.

5. At Elkab (Hendrickx 1994) and Hierakonpolis (Adams 1987) important groups of graves are dominated by marl clay pottery where as in the Memphis region entire cemeteries are; such as those of Tarkhan (Petrie 1913; 1914), Tura (Junker 1912) and Abu Rawash (Klasens 1957-1961).

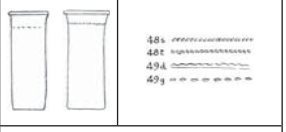
Stufe III. It therefore comes as no surprise that the definition of Stufen IIIa1 and IIIa2 causes particular problems.[6] Most of the types presented by Kaiser (1957: Tf. 23) as characteristic for Stufe III (**fig. 2**) are not attested at Armant (Hendrickx 1996: 43). The last Stufe, IIIb, is not even represented at all at Armant. The plates illustrating the characteristic pottery types for each of the Stufen (Kaiser 1957: Tf. 21-24) are to be considered as an idealised outline and were never intended as absolute guidelines.
After his original study was published, Kaiser elaborated the relative chronology beyond Stufe IIIb. Starting from architectural information, inscriptions and archaeological material, Kaiser distinguishes three Horizonte, A-C (Kaiser 1964: 92-96; Kaiser & Dreyer 1982: 260-269), of which Horizont A can be regarded as equal to Stufe IIIb. The distinction between Horizont B and Horizont C is particularly difficult to make when only the pottery is looked at since there are no types of objects that are characteristic for each Horizont separately. The difference is only made through the frequency of the same types. The Horizonte never gained wide acceptance in the literature and afterwards Kaiser extended the Stufen chronology up to the end of the Second Dynasty (Kaiser 1990: Abb. 1). Stufe IIIb was divided into two sub-phases, IIIb1 and IIIb2, and three Stufen, IIIc1, IIIc2 and IIIc3, were added. However, Kaiser (1990) gives no archaeological description for the additional Stufen; neither does he discuss the way in which they have been distinguished. The cylindrical vessels, particularly numerous

Fig. 2
Characteristic object types of *Stufen* IIIa1-IIIB (Kaiser 1957: Tf. 23).



6. It is to be noted that on the spatial distribution map (Kaiser 1957: Tf. 20 C), the symbols for respectively Stufe IIIa1 and IIIa2 have erroneously been interchanged.

Fig. 3 • Relative chronological periods as distinguished by Kaiser (1957; 1990) and Hendrickx (1996; 1999; 2006).

Kaiser 1957; 1990		Hendrickx 1989; 1996; 1999; 2006		
–	–	Naqada IIID	no cylindrical jars	
50 t	Stufe IIIc3	Naqada IIIC2	50 b-c, h-t	
50 d	Stufe IIIc2	Naqada IIIC1	50 d-g	
48 s, t / 49 d,l 50 d	Stufe IIIc1	–	–	
48 s, t / 49 d,l	Stufe IIIb2	–	–	
47	Stufe IIIb1	Naqada IIIB	47 r-t / 48 s 49 d,g	
W 50 / W 51 a W 55 / W 56 g W 61 / W 62	Stufe IIIa2	Naqada IIIA2	W 55 / W 58 W 60 / W 61 W 62	
–	–	Naqada IIIA1	W 49 / W 50 W 51 / W 56 a,g	
W 41 / W 43 b W 47 g	Stufe IIIa1	–	–	
W 41 / W 43 b W 47 g	Stufe IId2	Naqada IID2	W 41 / W 42 W 43 b / W 47 a,g W 47 m	
W 24 / W 25	Stufe IId1	Naqada IID1	W 24 / W 25 W 27	
W 3 / W 19	Stufe IIc	Naqada IIC	W 3 / W 19	

in the tombs of the periods involved, are used as chief characteristic types (**fig. 3**). The following correlation with the early kings of Egypt can be made: Stufe IIIb2 = Irj-Hor and earlier; Stufe IIIc1 = Ka – Narmer; Stufe IIIc2 = Hor Aha – Djer; Stufe IIIc3 = Djed/Den until the end of the 1st Dynasty.[7]

My own work, during the second half of the 1980s, on the relative chronology of the Naqada Culture did not aim at replacing Kaiser's work but only at updating and in some cases improving it. It is based on the same principles, namely the distinction of related groups of graves based not only on their contents but also on their spatial distribution within the cemetery. As a result, a conflict of interests will arise between the search for closer chronological proximity of all examples of one pottery type on the one hand and the definition of spatially well-defined groups of graves on the other. Neither of these two elements can be accepted as prevailing over the other. The method applied is of course ultimately founded on the seriation principle, but depends in real terms, and to a certain extent, on the personal interpretation of the researcher.

Because Kaiser's Naqada IIIA-IIIB chronology is based on a limited amount of evidence, I gave particular attention to that period. Elaboration of Kaiser's work was possible because I had information at my disposal on the Naqada III cemetery at Elkab (Hendrickx 1994) and the so-called Fort Cemetery at Hierakonpolis (Adams 1987), which Kaiser had not. Four groups of graves can be distinguished for the Naqada III cemetery at Elkab (Hendrickx 1994: 205-216, pl. LXIX-LXX), both by their contents and their spatial distribution (**fig. 4**). The homogeneity of the distribution of the Wavy-handled types within these graves was quite remarkable, and within material characteristic for Kaiser's Stufe IIIa2, two groups could be distinguished. The 1905 excavations by John Garstang in the Fort Cemetery at Hierakonpolis were published decades later by Barbara Adams (1987) based solely on the field notes of Garstang. Despite

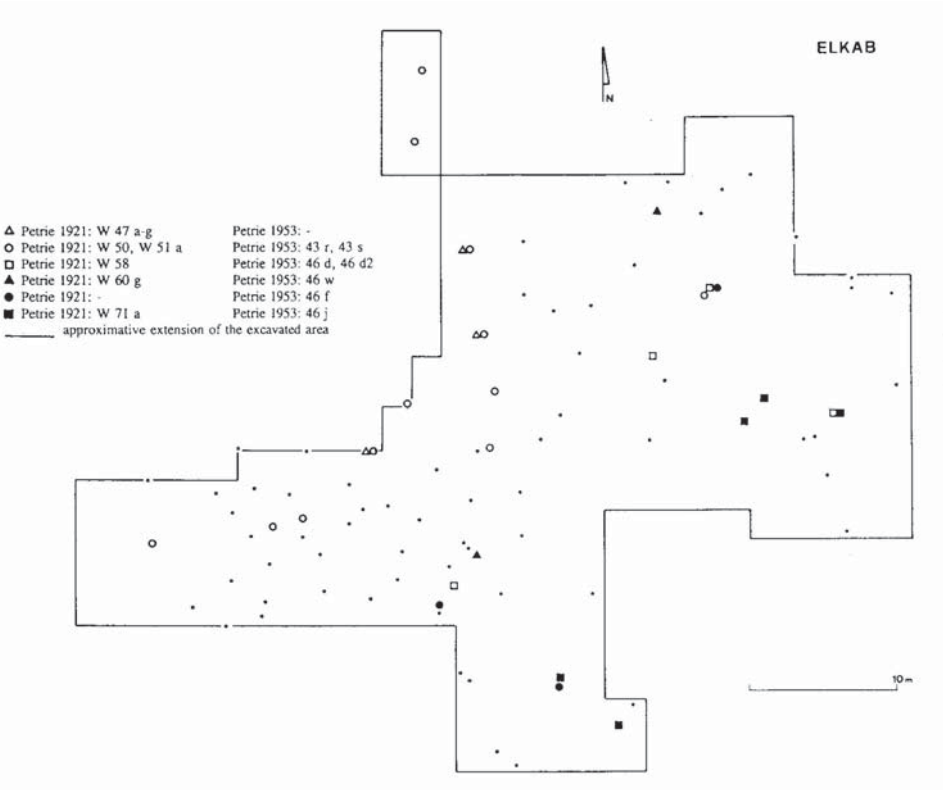


Fig. 4
Spatial distribution of Wavy-handled and cylindrical jars at Elkab (Hendrickx 1996: fig. 1).

7. This **is partially based on personal information kindly supplied by Werner Kaiser.**

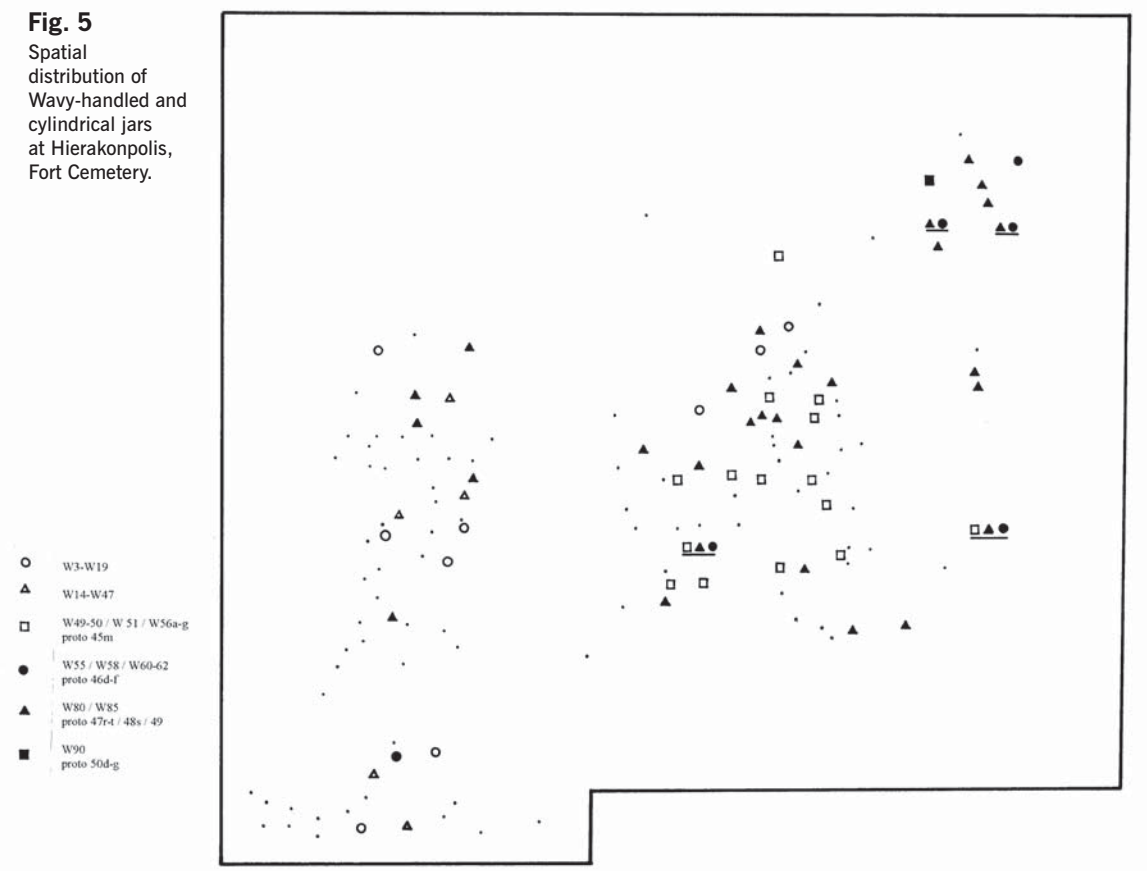


Fig. 5
Spatial distribution of Wavy-handled and cylindrical jars at Hierakonpolis, Fort Cemetery.

great efforts, she was only able to locate a limited number of the grave goods themselves in museums. The identification of the objects therefore depended on Garstang's field notes, augmented to some extent by excavation photos. Although the typological attributions certainly cause problems (Hendrickx 1990: 644-645), a general east-west spread of the tombs over time can nevertheless be observed (Adams 1987: 177). However, it will not have been a rectilinear development but rather a spreading from core areas (**fig. 5**). Of importance for the present discussion is the northern area of the cemetery, with a concentration of tombs containing jars of Petrie's type W51a. Tombs with the more recent types such as W55, W61 and W62 become more numerous within the surrounding area. As at Elkab, it seems possible to distinguish two groups of tombs, the characteristics of which fall both within Kaiser's Stufe IIIa2. Furthermore, the groups distinguished at Elkab and Hierakonpolis show important resemblances. This is confirmed by the presence of the same two groups at Adaïma, where they were distinguished through seriation and horizontal distribution (Buchez 2007). The majority of the Naqada IIIA1-IIIA2 tombs from Adaïma are not yet published; however, the published cimetière de l'Ouest does show a horizontal distribution, with Naqada IIIA1 tombs representing the most recent period (Crubézy et al. 2002: 415-417); confirming again Naqada IIIA1 as a separate entity. In the cimetière de l'Est, a distinct difference in distribution can be observed, with Naqada IIIA1 tombs preferentially in the southern and Naqada IIIA2 tombs in the central part of the cemetery (Buchez 2007: 76-82).

Because of the observations made at Elkab, Hierakonpolis (afterwards confirmed at Adaïma), as well as the above mentioned problems with the Stufen

IId2-IIIa1, the earliest group distinguished within Kaiser's Stufe IIIa2 was readjusted to Naqada IIIA1, while most of the original Stufe IIIa1 types, together with a large number of the Stufe IId2 types, are considered characteristic for Naqada IID2. The remaining part of Stufe IIIa2 was renamed Naqada IIIA2 (Hendrickx 1996; 2006).

Meanwhile, work on the cemeteries of Adaïma and a new seriation of the Armant material showed that distinguishing two sub-phases within Naqada IID was an artificial construction (Buchez 2007: 212; this volume). The Wavy-handled types accepted as typical for Naqada IID1 are strongly related to type W19, which is one of the essential characteristics of Naqada IIC. For Kaiser's study of Armant, the number of tombs attributed to Stufe IId1 is limited and most pottery types already occur by Stufe IIc. All in all, this now suggests that the material characteristic for Kaiser's Stufen IIc and IId1 falls into the Naqada IIC Period, and that Stufen IId2 and IIIa1 principally corresponds to Naqada IID.

The results obtained for Elkab and Hierakonpolis were elaborated further through analysis of the Naqada III cemeteries at Turah, Tarkhan and Abu Rawash (**tab. 2**). The spatial distribution at the Tarkhan Valley cemetery allows us to recognise two main groups of tombs due to the very numerous occurrences of cylindrical jars (**fig. 6**). The cemetery seems to have developed along a "path". The first group, identified by cylindrical jars with painted net pattern, makes two long rows immediately to the north and south of the "path;" while the second group, characterised by cylindrical jars with the imitation of a rope incised below the rim, tends to be located immediately behind these rows (Hendrickx 1996: 59).

Table 2
Chronological concordance between the spatial-chronological zones at Tarkhan, Turah and Abu Rawash (figs. 6-8).

	Tarkhan	Turah	Abu Rawash
Naqada IIIA2	46b, d, f, h = W58		
Naqada IIIB	47p, t, 48, 49 = W80	LXI-LXV = W80, 47p	F10 = 47r, t, 48s, 49g = W80
Naqada IIIC1	(50d-f)	LXVI = 50d	F3, F11 = 50d
Naqada IIIC2	(50b, n, t)	LXVII-IX = 50t	F1 = 50s-t

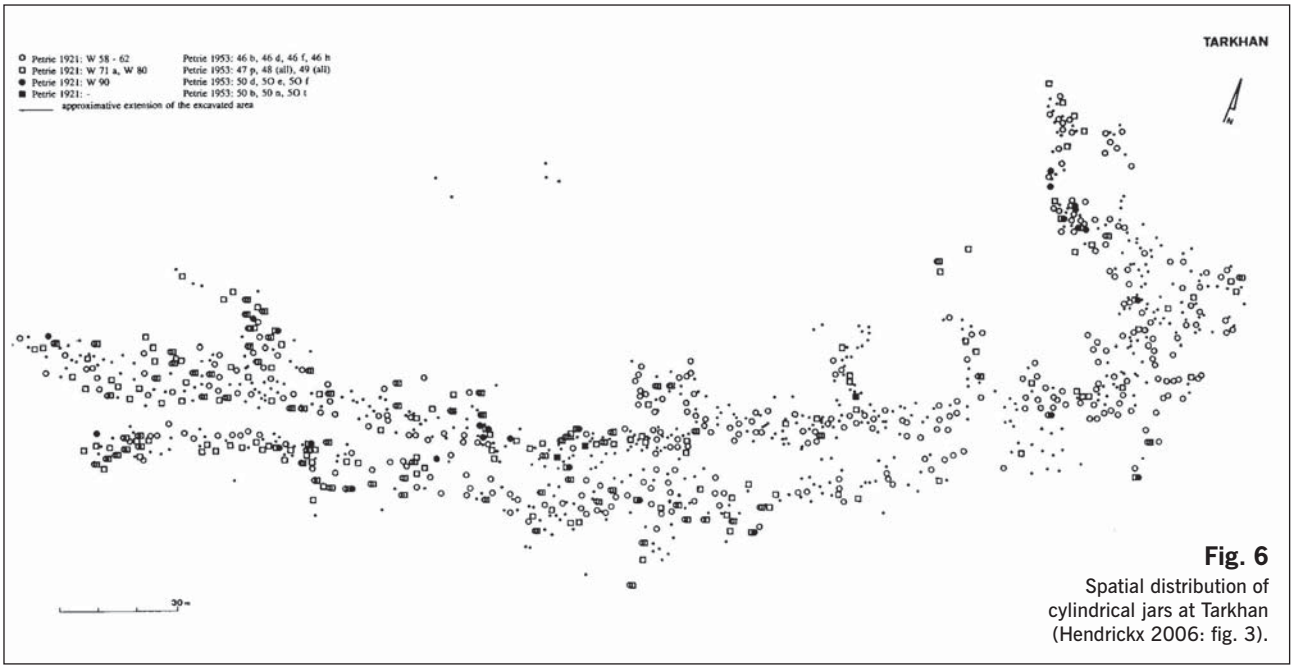


Fig. 6
Spatial distribution of cylindrical jars at Tarkhan (Hendrickx 2006: fig. 3).

Further clustering occurs and it probably indicated the development of "patches" of tombs rather than one rigidly organised system. Two smaller groups of plain cylindrical jars, also found at the Tarkhan Hill cemeteries, complete this picture. The absence of material characteristic for the earlier part of Kaiser's Stufe IIIa2 allows us again to confirm the validity of differentiating Naqada IIIA1 and IIIA2. At Turah, the horizontal development of the cemetery is especially clear and was already noted by the excavator, Hermann Junker (1912: 1) and also by Kaiser (1964: 108-109). Three zones can easily be distinguished due to differing types of cylindrical jars, characteristic for Naqada IIIB, IIIC1 and IIIC2 respectively (Hendrickx 1996: 59) (**fig. 7**). At Abu Rawash, far fewer cylindrical jars are present compared to Tarkhan and Turah. However, it is possible at cemetery 400 (Klasens 1959) to distinguish three groups of tombs, starting from a central area (**fig. 8**).

In the context of the present contribution, it seems worthwhile to consider briefly the relative chronological position of two important early Naqada III tombs, namely tomb 32 at Abu Zeidan (Morgan 1984: 57-58; Needler 1980; 1984: 268-271) and tomb U-j at Abydos (Dreyer 1998). For both tombs, different relative chronological positions have been proposed.

Tomb 32 at Abu Zeidan is of interest because it is where the "Abu Zeidan knife handle" (Brooklyn 09.889.118, Churcher 1984) was found.[8] It was the only such object with a known provenance until the relatively recent discovery of decorated

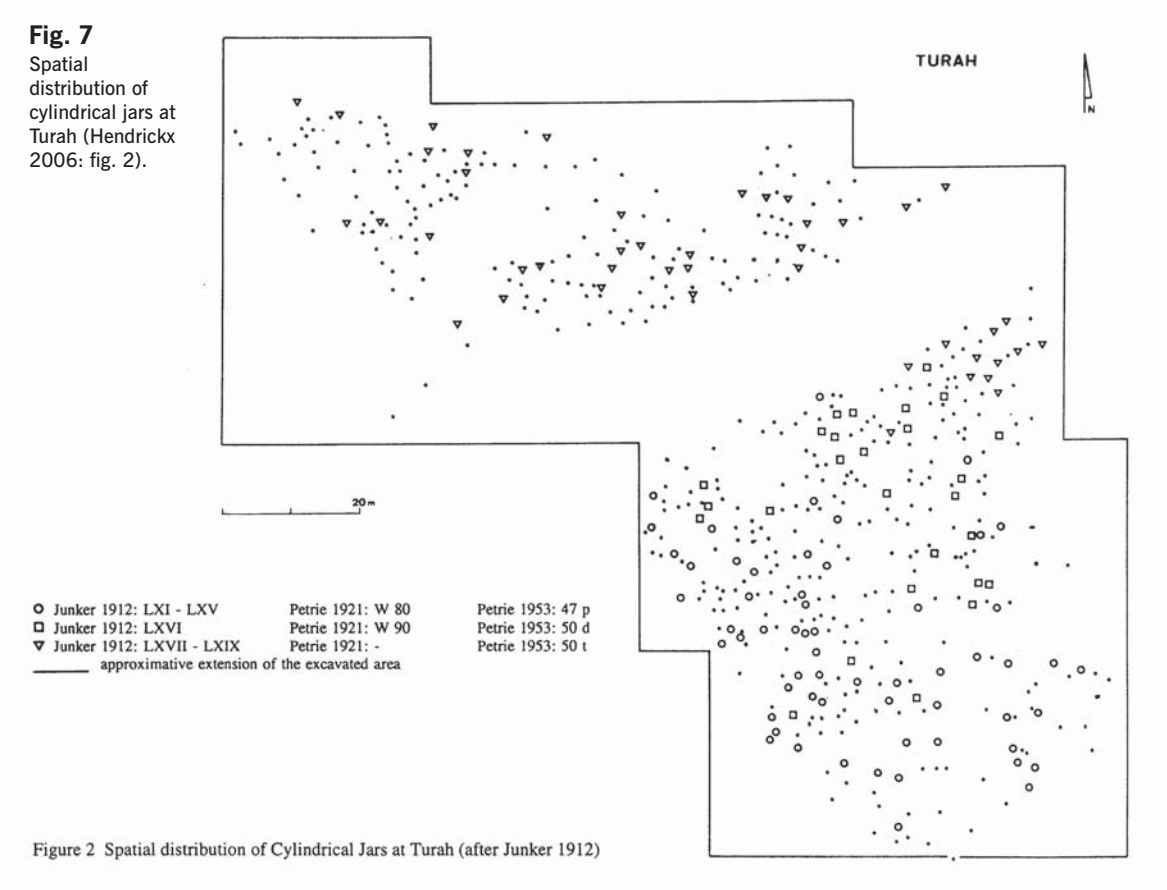


Fig. 7
Spatial distribution of cylindrical jars at Turah (Hendrickx 2006: fig. 2).

8. For a more detailed account on the Abu Zeidan - or rather Naq' el-HaggZeidan – cemetery, see Hendrickx & Eyckerman 2008.

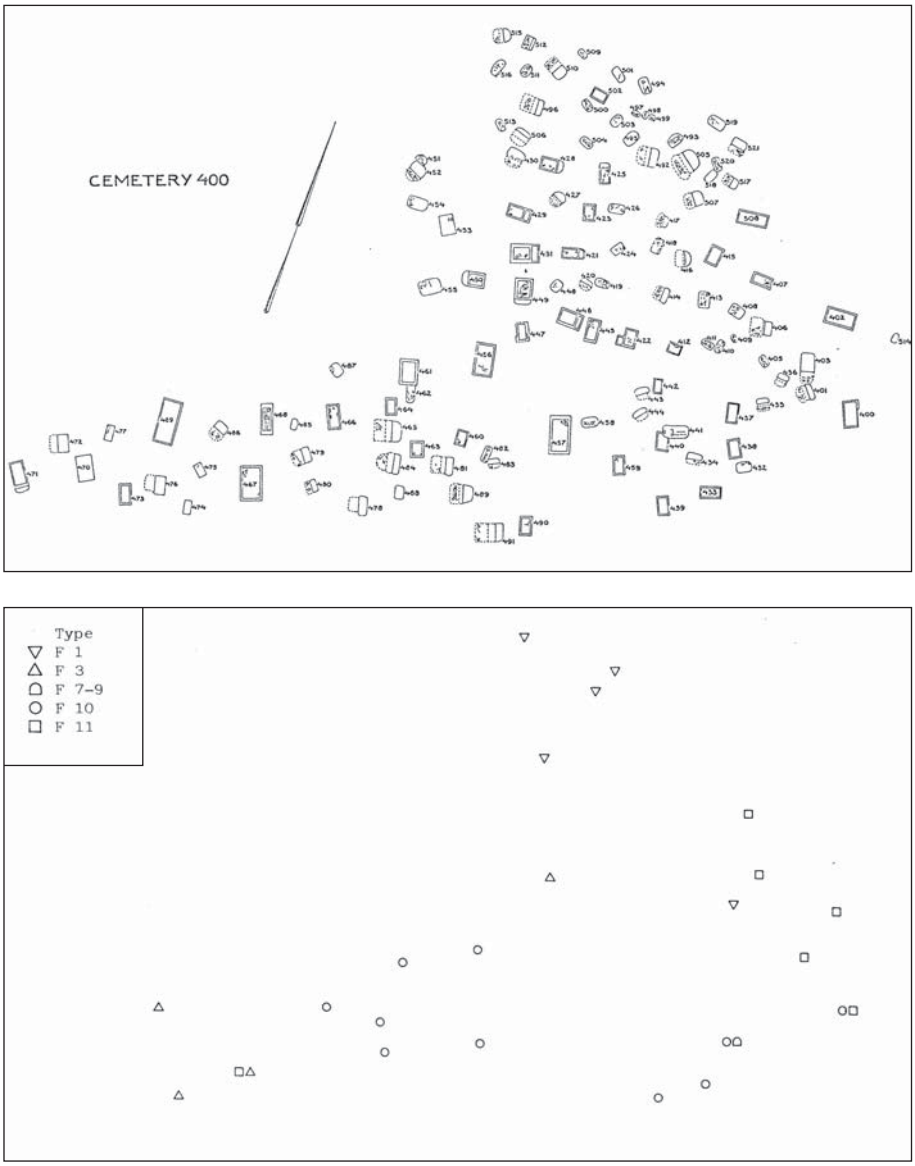


Fig. 8
Spatial distribution of cylindrical jars at Abu Rawash, cemetery 400.

knife handles, one complete but badly preserved and a few fragmentary pieces, at Abydos, cemetery U (Dreyer 1999; 2010). A drawing of tomb 32 exists (Morgan 1909: 273, fig. 132) (**fig. 9**), in which two Wavy-handled jars can be seen. These resemble Petrie's types W21 and W41, and were one of the arguments for Helen Kantor (1944: 128-129) to date the tomb in the SD 50's range; corresponding towards the end of the Naqada II Period. However, Winifred Needler (1980: 5; 1984: 125) demonstrated that the published drawing was an unreliable reconstruction by comparing it with de Morgan's description and moreover, with the sketch of the tomb in his field notes (**fig. 10**).[9] Needler (1980: 5-8; 1984 124-125) dated the tomb to the Naqada III Period based on the description of the funer-

9. The figure published by Henri de Morgan was made by his brother Jacques from Henri's field notes and presumably had didactic rather than documentary purposes. In the drawing, the knife handle is in situ and intact, while in reality it was found in fragments during sifting (Needler 1984: 125). Furthermore, the location of the vessels near the feet of the deceased has been inverted, which is most probably due to an error by the engraver. De Morgan's notebooks are preserved in the *Musée d'Archéologie nationale* at Saint-Germain-en-Laye.

Fig. 9
Abu Zeidan, tomb 32
(Morgan 1909: 273, fig. 132).

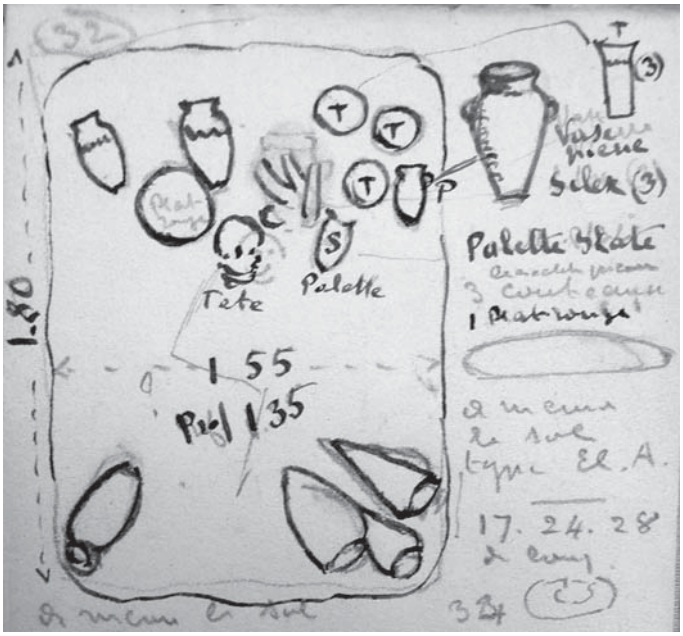


Fig. 10
Abu Zeidan, tomb 32 (Morgan fieldbook) (photo by the author, courtesy *Musée d'Archéologie nationale*, Saint-Germain-en-Laye).

Table 3 • Abu Zeidan, tomb 32, funerary goods.

	Brooklyn	Description de Morgan (Needler 1984: 124)	Period
1		Rather fine dish	
2	09.889.615 (?)	Elongated jar with low relief ornamental side handles (W35/ 74b2 ?)	IIIA2-IIIB
3		Elongated jar with low relief ornamental side handles (W35 / 74b2 ?)	IIIA2-IIIB
4	09.118.118	Ripple flake knife	
5	09.118.119	Ripple flake knife	
6	09.118.120	Ripple flake knife	
7	09.889.160	Palette	
8		Cylindrical painted vase (W62 ?)	[IIIA2] IIIB
9		Cylindrical painted vase (W62 ?)	[IIIA2] IIIB
10		Cylindrical painted vase (W62 ?)	[IIIA2] IIIB
11	09.889.31	Stone vessel	
12		Large rough reddish vase (cf. R84d, R85g)	
13		Large rough reddish vase (cf. R81h)	
14		Large rough reddish vase (L30m)	[IID2-IIIA1]-IIIA2
15		Large rough reddish vase (L30m)	[IID2-IIIA1]-IIIA2
–	09.889.293	Stone bracelet	
–	09.889.292	Ivory object	
–	09.889.319	Some shell bracelets	
–		An abundance of ivory and shell fragments	

ary goods given by de Morgan (Needler 1984: 124-125) (**tab. 3**). He mentions among other objects "three cylindrical painted vases,"[10] which can only refer to cylindrical jars decorated with the painted imitation of nets. This type of decoration is almost exclusively limited to Petrie's type W62. From these and the detailed description of the rest of the funerary equipment, Needler rightly accepts a Naqada III date. Strangely, she did not try to establish a more precise date within the Naqada III Period. Type W62 is one of the most characteristic elements for Stufe IIIa2 / Naqada IIIA2. Needler tentatively identified in the Brooklyn Museum one of the "elongated jars with low relief ornamental side handles". Only a few examples of this type of jar have been found in Naqada IIIA-B tombs; however, they can be considered as the origin of the Protodynastic type 74b2-9 (Petrie 1953: pl. XVIII). However, the best parallels for the Abu Zeidan vessels are from tomb 11 at Hierakonpolis' Elite Cemetery HK6 (Adams 2000: 120-121, cat. n° 241-242), dated to Naqada IIIA2 (Adams 2000: 179). The four large rough jars found in tomb 32 were compared by Henri de Morgan (1984: 57) with examples published by his brother Jacques (Morgan 1896: 154, fig. 416, 418, 420). Already the accuracy of de Morgan's comparison can be doubted and furthermore, two of the cited parallels (figs. 416 and 418) are difficult to integrate into the Petrie typology.[11] The third vessel (fig. 420), does not pose a problem at all in this respect and corresponds with L30m, a type no longer attested after Naqada IIIA2. Finally, the date of the ripple flake knives is to be considered. Midant-Reynes (1987: 212) attributes all ripple-flake knives to Stufe IId, which is supported by the published data, except for tomb 32 at Abu Zeidan. However, this is not necessarily the only exception. The largest number of tombs with ripple flake knives was found at Abusir el-Meleq and most of these cannot be dated precisely because of the lack of detail in the publication (Scharff 1926). Despite this uncertainty, the ripple flake knives from Abu Zeidan are presently the only examples found in a tomb clearly datable to after the Naqada IID Period.

Tomb U-j at Abydos (Dreyer 1998) is one of the most interesting discoveries ever made in Egypt. It not only demonstrates the existence of kings who had extensive contacts with the southern Levant nearly two centuries before the beginning of the 1st Dynasty, but it is especially important for the origin of writing. The position of tomb U-j within the relative chronology of the Naqada Period is therefore of fundamental importance. Following Kaiser's Stufen chronology, Dreyer (1998: 40) dated the tomb to Stufe IIIa2. The above discussed revision of Stufe IIIa2 allows us to distinguish two phases and there can be no doubt that tomb U-j is to be placed in the earliest.[12] The very large numbers of Wavy-handled jars are remarkably uniform in shape and can be compared with Petrie's types W50 and W51, as already noted by Dreyer (1989; 1998: 40), as with W56a & g, which are essential types for Naqada IIIA1. This is furthermore supported by the presence of Petrie's types L30m, L31s, L36n, L36s and L40, all characteristic for Naqada IIIA1.

Dating tomb 32 at Abu Zeidan and tomb U-j at Abydos with the same criteria leaves no doubt that the former is more recent than the latter. This possibly

10. None of which has been identified among the objects from de Morgan's excavations presently in the Brooklyn Museum and the *Musée d'Archéologie nationale* at Saint-Germain-en-Laye.

11. Some of the parallels in tab. 3 differ from those given by Needler 1984: 125. For Morgan 1896: fig. 420, L30m is preferred over L30g because the ratio between the rim diameter and the maximum diameter of the former corresponds better.

12. The early position within Stufe IIIa2 was already noted by Dreyer (1998: 40) who also mentions the proposed Naqada IIIA1 date but without further discussion.

implies that the animal rows attested on knife handles at Abydos during Naqada IID (Dreyer 1999; 2010) were still present at Abu Zeidan during Naqada IIIA2. For this, two explanations can be proposed. Accepting that the Abu Zeidan knife handle is contemporary with the tomb in which it was found implies that the iconography at Abydos had already developed towards that of the Early Dynastic Period, while an earlier tradition was still present at Abu Zeidan. Alternatively, the three Abu Zeidan knives might be considered as "heirlooms," included in a more recent tomb. This practice is known from the so-called "Royal Mastaba" at Naqada (Hendrickx 2002: 283), but has never been attested as being beyond doubt for Predynastic tombs. In my opinion, our present knowledge does not allow us to make a definitive choice between these two options.At present, the archaeological characteristics of the Naqada IIIA-B Periods can be accepted as well established, both for Upper and Lower Egypt. For Upper Egypt, the eagerly awaited publication of *cimetière de l'Est* at Adaïma will offer the possibility to complete and refine the picture. Finally, it is to be noted that despite more recent excavations, such as at Adaïma and Elkab, the elaboration of a relative chronology must also take into consideration Petrie's work of over a century ago. And whether we like it or not, this implies relying to a certain extent on his typological work because the majority of the actual vessels on which this is based, are no longer available.

Bibliography

Adams, B., 1987. *The Fort Cemetery at Hierakonpolis*. Studies in Egyptology. London – New York

Adams, B., 2000. *Excavations in the locality 6 cemetery at Hierakonpolis 1979-1985*. Egyptian Studies Association Publication 4. BAR Int. Ser. 903. Oxford.

Brunton, G., 1927. *Qau and Badari I*. BSAE & ERA 44.London.

Brunton, G. 1937. *Mostagedda and the Tasian culture*. London

Buchez, N., 2007. *Chronologie et transformations structurelles de l'habitat au cours du prédynastique. Apports des mobiliers céramiques funéraires et domestiques du site d'Adaïma (Haute-Égypte)*. Toulouse (unpubl. ph.d. diss.)

Churcher, C.S., 1984.Zoological study of the ivory knife handle from Abu Zaidan [in:] Needler, W., *Predynastic and Archaic Egypt in the Brooklyn Museum*. Brooklyn: 152-169.

Crubézy, E.; Janin, T. & Midant-Reynes, B., 2002. *Adaïma. 2. La nécropole prédynastique*. FIFAO 47. Le Caire.

Dreyer, G., 1998. *Umm el-Qaab I. Das prädynastische Königsgrab U-j und seine frühen Schriftzeugnisse*. AV 86. Mainz.

Dreyer, G., 1999. Motive und Datierung der dekorierten prädynastischen Messergriffe [in:] Ziegler, C. & Palayret, N. (eds.), *L'art de l'Ancien Empire égyptien*. Paris: 195-226.

Dreyer, G., 2010. Einneues Fragment einesdekoriertenMessergriffesaus Abydos [in:] el-Aguizy, O. & Ali, M.S. (eds.), *Echoes of eternity. Studies presented to Gaballa Aly Gaballa*. Wiesbaden: 15-22.

Emery, W.B., 1938. *The Tomb of Hemaka*. Excavations at Saqqara. Cairo.

Emery, W.B., 1939. *Hor-Aha*. Excavations at Saqqara 1937-1938. Cairo.

Emery, W.B., 1949. *Great Tombs of the First Dynasty I*. Excavations at Saqqara. Cairo.

Emery, W.B., 1954. *Great Tombs of the First Dynasty II*. Excavations at Saqqara. London.

Emery, W.B., 1958. *Great Tombs of the First Dynasty III*. Excavations at Saqqara. London.

Hendrickx, S., 1989. *De grafvelden der Naqada-cultuur in Zuid-Egypte, met bijzondere aandacht voor het Naqada III grafveld te Elkab. Interne chronologie en sociale differentiatie*. Leuven. (unpubl. ph.d. diss.) http://mad-fac.academia.edu/StanHendrickx

Hendrickx, S., 1990. Review of: B. Adams, The Fort Cemetery at Hierakonpolis, London – New York, 1987. *Bibliotheca Orientalis*, 47: col. 643-646.

Hendrickx, S., 1994. *Elkab V. The Naqada III cemetery*. Bruxelles.

Hendrickx, S., 1996. The relative chronology of the Naqada culture: Problems and possibilities [in:] Spencer, A.J. (ed.), *Aspects of Early Egypt*.London: 36-69.

Hendrickx, S., 1999. La chronologie de la préhistoire tardive et des débuts de l'histoire de l'Égypte. *Archéo-Nil*, 9: 13-81

Hendrickx, S., 2002. Bovines in Egyptian Predynastic and Early Dynastic iconography [in:] Hassan, F.A. (ed.), *Droughts, food and culture. Ecological change and food security in Africa's Later Prehistory.*New York: 275-318.

Hendrickx, S., 2006. Predynastic - Early Dynastic chronology [in:] Hornung, E.; Krauss, R. &Warburton, D.A.,(eds.), *Ancient Egyptian Chronology.*Handbook of Oriental Studies. Section One. The Near and Middle East, vol. 83. Leiden - Boston: 55-93, 487-488.

Hendrickx, S. & Eyckerman, M., 2008. The Predynastic – Early Dynastic cemetery of Naq' el-HaggZeidan [in:] Engel, E.-M.; Müller, V. & Hartung, U. (eds.), *Zeichen aus dem Sand. Streiflichter aus Ägyptens Geschichte zu Ehren von Günter Dreyer*. Menes 5. Wiesbaden: 219-253.

Junker, H., 1912. *Bericht über die Grabungen der Kaiserlichen Akademie der Wissenschaften in Wien, auf dem Friedhof in Turah. Winter 1909-1910*. DAWW 56. Wien

Kaiser, W., 1957. Zur inneren Chronologie der Naqadakultur. *Archaeologia Geographica*, 6: 69-77.

Kaiser, W., 1964. Einige Bemerkungen zur ägyptischen Frühzeit. III. Die Reichseinigung. *ZÄS*, 91: 86-125.

Kaiser, W., 1990. Zur Entstehung des gesamtägyptischen Staates. *MDAIK*, 46: 287-299.

Kaiser, W. & Dreyer, G., 1982. Umm el-Qaab. Nachuntersuchungen im frühzeitlichen Königsfriedhof. 2. Vorbericht. *MDAIK*, 38: 211-270.

Kantor, H.J., 1944. The final phase of Predynastic culture, Gerzean of Semainean ? *JNES*, 3: 110-136.

Klasens, A. 1957. The Excavations of the Leiden Museum of Antiquities at Abu-Roash. Report of the First Season: 1957. Part I. *OMRO*, 38: 58-68.

Klasens, A. 1958a. The Excavations of the Leiden Museum of Antiquities at Abu-Roash: Report of the First Season 1957. Part II. *OMRO*, 39: 20-31.

Klasens, A. 1958b. The Excavations of the Leiden Museum of Antiquities at Abu-Roash: Report of the Second Season 1958. Part I. *OMRO*, 39: 32-55.

Klasens, A. 1959. The Excavations of the Leiden Museum of Antiquities at Abu-Roash: Report of the Second Season 1958. Part II. Cemetery 400. *OMRO*, 40: 41-61.

Klasens, A. 1960. The Excavations of the Leiden Museum of Antiquites at Abu-Roash: Report of the Third Season 1959. Part I. *OMRO*, 41: 69-94.

Klasens, A. 1961. The Excavations of the Leiden Museum of Antiquities at Abu-Roach: Report of the Third Season 1959. Part II. Cemetery M. *OMRO*, 42: 108-128.

Midant-Reynes, B., 1987. Contribution à l'étude de la société prédynastique: le cas du couteau "ripple-flake". *SAK*, 14: 185-224.

Mond, R.L. & Myers, O.H. 1937. *Cemeteries of Armant I*. EES 42. London.

Morgan, J. de, 1896. *Recherches sur les origines de l'Égypte. I. L'âge de la pierre et des métaux*. Paris.

Morgan, H. de, 1909. L'Égypte primitive. *Revue de l'École d'Anthropologie de Paris*, 19: 263-281.

Morgan, H. de, 1984. Archaeological researches in the NileValley between Esna and Gebel es-Silsila (1908) [in:] Needler, W., *Predynastic and Archaic Egypt in the Brooklyn Museum*. Brooklyn: 50-66.

Needler, W., 1980. Two important Predynastic graves from Henri de Morgan's excavations. *BAIEPE*, 1: 1-15.

Needler, W., 1984. *Predynastic and Archaic Egypt in The Brooklyn Museum*. Wilbour Monographs 9. Brooklyn.

Nordström, H.A. & Bourriau, J.D., 1993. An introduction to ancient Egyptian pottery. Fascicle 2. Ceramic technology: Clays and fabrics [in:] Arnold, D. & Bourriau, J.D. (eds.), *An introduction to ancient Egyptian pottery*. Mainz am Rhein: 143-190.

Petrie, W.M.F., 1901. *Diospolis Parva. The cemeteries of Abadiyeh and Hu. 1898-1899*. EEF 20. London

Petrie, W.M.F. 1913. *Tarkhan I and Memphis V*. BSAE & ERA 23. London.

Petrie, W.M.F. 1914. *Tarkhan II*. BSAE & ERA 26. London.

Petrie, W.M.F., 1921. *Corpus of Prehistoric pottery and palettes*. BSAE&ERA 32. London.

Petrie, W.M.F., 1953. *Corpus of Proto-Dynastic pottery*. BSAE 66 (B). London.

Scharff, A., 1926. *Das Vorgeschichtliche Gräberfeld von Abusir el-Meleq*. Wissenschaftliche Veröffentlichung der Deutschen Orient Gesellschaft 49. Leipzig.

Scharff, A., 1927. *Grundzüge der ägyptischen Vorgeschichte*. Morgenland 12. Leipzig.