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A new funerary monument dating to the reign of Khaba: The Quesna mastaba in the context of the Early Dynastic-Old Kingdom mortuary landscape in Lower Egypt

Joanne Rowland – Geoffrey John Tassie

Introduction

The site of Quesna is located 50 km to the north of modern Cairo on a large sand mound or *gezira* in the central Nile Delta (Fig. 1). Until 2010 the evidence at Quesna did not pre-date the Late Period. In spring 2010, however, the first evidence of Old Kingdom pottery sherds came to light on the far northern edge of the site (Rowland 2011). First indications suggested a date ranging from the late Third Dynasty until the early Fourth Dynasty (the reign of Khufu at the latest; A el-Senussi *pers. comm.*; Rowland 2011, 82–84). During the 2014 excavation season however, rare evidence of the Third Dynasty ruler, Khaba, emerged on a fragmentary seal impression bearing the ruler's *serekh* located within one of the two main burial chambers (363) in the structure (figs. 2a and b and 3b). This would present a potentially early Third Dynasty date for the mastaba, which would be remarkable given the dearth of archaeological evidence for this period in the Delta. This article will focus on understanding the Quesna mastaba within the sphere of existing evidence for northern Egyptian mortuary evidence throughout the 3rd millennium BC?

This contribution focuses on a detailed description of the mastaba structure, its associated contexts and finds, and how it can be understood within the sphere of existing evidence for northern Egyptian architecture and practice in the 3rd millennium BC. The following questions frame this contribution, and will open a discussion on the broader socio-political context within which it was constructed: 1) Did Quesna fall within the Busirite or Athribite territory in the Old Kingdom; 2) How can the Quesna mastaba be seen within the sphere of existing evidence for northern Egyptian mortuary practices throughout the 3rd millennium BC; 3) What date is the mastaba; and 4) Who might have been buried in the mastaba?

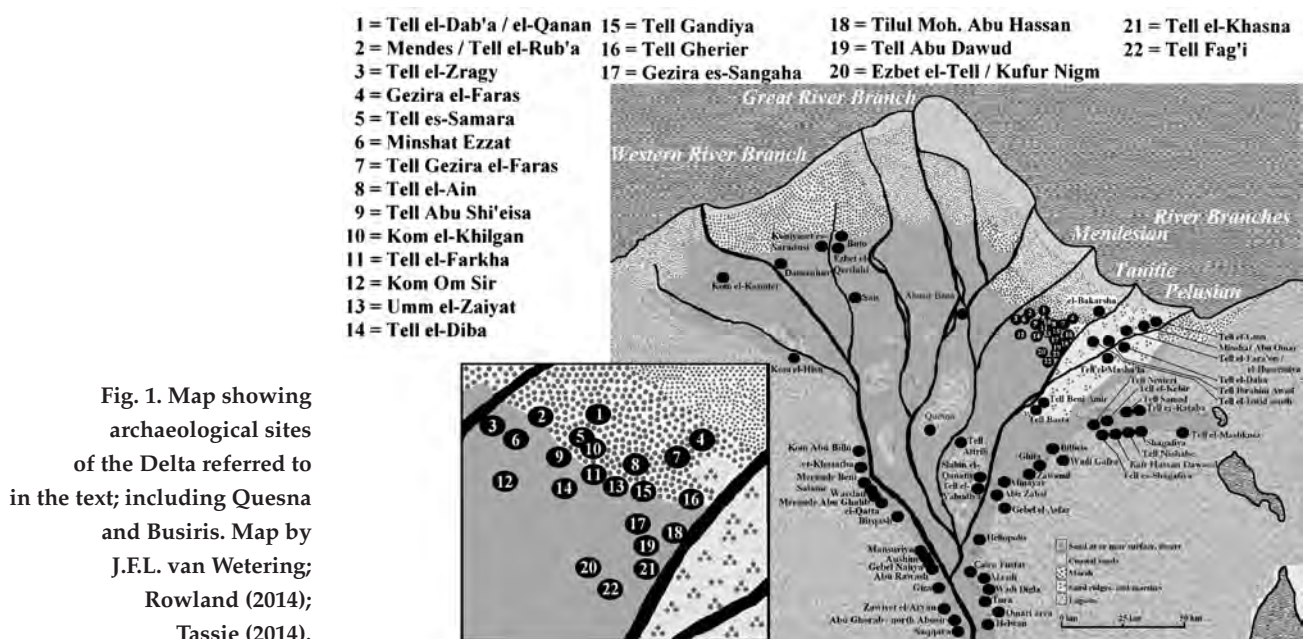


Fig. 1. Map showing archaeological sites of the Delta referred to in the text; including Quesna and Busiris. Map by J.F.L. van Wetering; Rowland (2014); Tassie (2014).

Division and administration of territory in the Delta during the Old Kingdom

The origins of the socio-political geography of the Delta and Lower Egypt as a whole stretch back through at least the fourth millennium and possibly earlier into the Neolithic. Although the earliest permanently occupied regions of Lower Egypt in the Neolithic were restricted (in so far as current knowledge goes) to Merimde Beni Salama, el-Omari, Sais, Tell es-Samara and the Fayum, up until the third quarter of the 4th millennium BC the most intensive evidence for occupation is seen within the eastern Delta. In the first quarter of the 3rd millennium BC a number of these sites appear to fall out of use. This may be for a combination of reasons, including silting of local river branches (Kroeper 1989, 420), and new exchange mechanisms directed through the capital at Memphis. This may have affecting the economic health of smaller communities that had earlier benefitted from, and perhaps been founded because of, their strategic locations within exchange networks to the Sinai and Near East, as well as the Nile Valley.

Archaeological and textual evidence remains sparse for a clear reconstruction of the original density and distribution of settlements in the central and western Delta, particularly in the period prior to the foundation of Memphis. For the 4th millennium there is evidence from Merimde Beni Salama for the Maadian Predynastic cemetery (Badawi 1978; 1980; Badawi *et al* 2016; Eiwanger 1999), likewise group(s) were settled at Sais at this time, and Buto (Wilson *et al* 2014; Hartung *et al* 2009) and there is evidence from el-Qata (Leclant 1952; 1953; 1954). Although the archaeological evidence may not reveal a great deal with regards 4th, and to an extent 3rd millennium settlement in the western Delta, evidence from seal impressions dating as early as the reign of Den, confirm that there was a distinction already in the First Dynasty with regards to administrative offices held in the districts of the east and the western Delta (Kaplony 1963, 435, 569, 584).

A number of agricultural estates are documented, but much more needs to be done to really start to understand how the central and western Delta was populated and administered during the third millennium, as well as before. New rulers are recorded as having founded new estates, but could this always have been the case, or were earlier sites returned to? The eastern Delta is comparatively well known through extensive survey dating back to the late 1970s (Bietak 1975, figs. 28–32; van den Brink 1988; 1989), and subsequent research, including archival research, field survey and excavations. The western Delta, by contrast, remains the poorly known cousin. This may be the case for a number of reasons, including the differential flow of the Nile through the branches of the Delta, resulting in variable deposits of Nile silt (e.g. Macklin *et al.* 2015) Other reasons include fewer surveys in the region, and possibly there having been uneven distribution of sites due to certain areas being more suitable for strategic reasons. It would seem likely that there were increasing interactions between the western Delta sites and Memphis from the time of its foundation, in particular for the transport of cattle, crops, wine, and other goods from the rich agricultural lands, vineyards and pasture as the capital's needs increased. Archaeological evidence confirms that desert edge sites such as Kom el-Hisn, and Kom Abu Billou, existed by the Old Kingdom, but it could have been earlier. New field investigations at Kom el-Hisn directed by Warden-Anderson, may clarify this in the near future, and shed new light on 'The Estate of the Cattle', a probable source of produce destined in part for Memphis and then Giza. The latter, which although recorded in textual sources from the First Dynasty, remains unattested archaeologically. Evidence for Predynastic settlement is only rarely known in the western Delta, as mentioned above, e.g. at Merimde Beni Salama and el-Qata, settlements that were located, possibly, on a route to Memphis. Written records support the persistence of inter-regional contacts between the western Delta and surrounding regions, suggesting the import of cattle from lands west of Egypt, an area colonised from the 'Libyans' by early Egyptian rulers (Moens and Wetterstrom 1988, 168, 172).

Athribis, Busiris and Quesna in the Old Kingdom

To return to the discussion of Tell Atrib (An. Eg. Hutherib, Gk. Athribis) in the tenth Lower Egyptian nome. Although no archaeological evidence has been found here to date, the textual evidence suggests foundations certainly as early as the Fifth Dynasty during the reign of Sahure (Vernus 1978, 6). Furthermore, within the mastaba of Pthahotep II there is a reference to a funerary domain named *Rwd Snfrw*; suggesting the possibility of a foundation in the area already in the Fourth Dynasty (Jacquet-Gordon 1962, 402; Vernus 1978, 7). During Late Period and Ptolemaic period, Tell Atrib was still a centre for the cult of *Khenty-Khety* and finds of recent seal impressions in the falcon necropolis at Quesna have further strengthened the evidence for the link between the two sites during the Ptolemaic period (Goma and Hegazy 2001, 4, 57; Rowland *et al* 2013, 83). The cult can be traced to much earlier dates, however, including in a reference on a seal impression from the funerary temple of Userkaf, and a reference on the Palermo Stone during the reign of Sahure (Vernus 1978: 5). The reconstructions of provincial boundaries during various times within the Old Kingdom were made, admittedly, before Quesna had been discovered, however, it seems that boundaries could have varied within the Old Kingdom and Quesna could have changed its provincial connections over this period (Helck 1974, fig. 4 and 5; Bietak 1975).

Although Quesna has proven connections with Athribis in later periods of its use, the question of its relationship with the Busirite nome cannot yet be dismissed. The capital of the ninth Lower Egyptian nome was Abusir Bana (An. Eg. Djedu, Gk. Busiris). The site of Djedu may have a very long history, although the lack of archaeological research at this large tell site hampers our knowledge of any Predynastic origins; Late Period to Roman remains cover the surface of the site (see Tassie 2015, fig. 2). It is uncertain whether *Andjety* (a river and vegetation god) was the patron god of Djedu, but the region was originally known as *Andjety's nome* (Wilkinson 2003, 97–98). In the Pyramid Texts, the king's power is associated with this god (Allen 2005, PT.182; PT.220; PT.614) and King Sneferu is shown wearing the double plumed crown of *Andjety* on a relief now in the Cairo Museum (Saleh and Sourouzian 1987, No. 24). *Andjety* – many of whose attributes were later assimilated by Osiris (Griffiths 1980, 136–138) – may have had a temple at Djedu during the Third Dynasty. The earliest evidence for *Andjety's nome* is an inscription from a Saqqara mastaba dating to the late Third Dynasty of the official Pehernefer, who describes himself amongst other titles as *h3ti-s* [provincial governor] of *Andjety's nome* (Jones 2000, 497; No. 1859; Maspero 1890, 246–272). The Palermo Stone, in the section of Sahure's annals, mentions donations being made to several gods, including to Mesen and Sem, whose temples it states were in *Andjety's nome* (Sethe 1932, I-244). Could the individual(s) buried at Quesna have been a priest in one of these temples and where were they located?

The Quesna mastaba: the evidence

To date, only the single mastaba tomb dating to the Old Kingdom has been found at Quesna. Given that the *gezira* on top of which the site is located has been damaged on nearly all sides, it is quite possible that there were others originally, which may have extended further to the north, where the *gezira* has been cut from the northern face of the mastaba. The mastaba itself was discovered largely due to surface survey, although the magnetic survey that was completed in 2009 does faintly reveal the structure (as indicated in Rowland 2011, fig. 1). No similar signals appear to the east or west of the mastaba, although future test trenching will help to eliminate this possibility.

The mastaba (Grave 1139 within the Quesna grave register) measures 14.10 m north-south, by 6.0 m east-west, with a corridor chapel 3.0 m wide by 13.25 m long running along its eastern side (see figs. 2a and b, 3a and b). Given the damage apparent

to this structure, the original dimensions can be reconstructed as 14.95 m × 6.14 m or 28.4 by 11.6 cubits. On excavation, the remaining height is 2.30 m in total, with 0.40 m comprising the superstructure. It is a tripartite double niched tomb, with its southern section having a tumulus constructed of rubble, and the northern part containing the burial shaft, offering room and the cult room, with the double burial chamber found in the central section.

Three sizes of mud-bricks were used in the construction of the main mastaba: 1) 0.50 × 0.30 × 0.15 m; 2) 0.55 × 0.20 × 0.20 m; 3) 0.24 × 0.12 × 0.08 m, with minor variations. The only contemporary bricks of comparable size known are from Tomb No. 1 at Lake Abusir, with bricks of 0.55 × 0.26 × 0.16 m within the superstructure (Bárta 2001: 23; Verner 1995: 86). There are some bricks of different sizes that are found within particular features in the Quesna mastaba, including the floor of the cult room, which is made of bricks of 0.50 × 0.28 × 0.20 m, and the north-south dividing wall of the burial chamber with bricks of 0.38 × 0.10 × 0.10 m. A single curved brick was also discovered, possibly originating from the northern end of the corridor chapel. The composition of these bricks is of alluvial Nile silt (79%), mixed with sand (20%), and a very small amount of vegetable matter (1%). Mortar was only used on the horizontal beds. The size 1 bricks were used for the walls of the northern (as seen in Rowland 2011, fig. 9) and southern substructure, with the size 2 bricks for the eastern and western walls of the substructure, and the size 3 bricks for the superstructure and main body of the mastaba. The corridor chapel was comprised entirely of size 3 bricks.

The southern and northern walls of the substructure appear to have been the first walls built, followed by the eastern and western walls. The base of the burial chamber comprised of packed mud, possibly originally overlain with a wooden floor. This construction method gave a solid lining to the substructure generally comprising of a CE₁ brick bond (see Spencer 1979 for Egyptian bonding corpus). The mastaba part of the superstructure is 12.0 m north-south by 6.14 m east-west and built using an A₆ brick bond. There is no evidence that any of the main walls of the superstructure had a palace niche façade design; perhaps surprising given that palace niche façade, common in the First Dynasty and largely disappearing in the Second Dynasty, makes a return in the Third Dynasty (Emery 1961; Reisner 1936). There is evidence for this design in the offering chapel, however, as discussed below. The angle of these walls or slope of the batter (preserved in the walls of northern part of the mastaba) is between 78–80 degrees. Above the burial chamber there is evidence in the form of sockets for wooden roofing beams, although the thickness of the eastern and western walls may suggest that there was originally a corbelled roof. To lessen the weight above the burial chamber, it is possible the core of the mastaba had, originally, a sand or/and mud-rubble fill.

The northern section of the mastaba is the most solid part of the construction, primarily consisting of solid brickwork (103), with an offering room (346) of 1.6 × 1.7 m located in its most north-eastern part. This room seems to have contained mainly beer jars, which are numerous and of various types. South of this offering room is the burial shaft (349), measuring 1.10 m (north-south) by 1.0 (east-west) and 1.90 m deep; possibly originally as deep as 4.0 given the original height of the superstructure. In the western part of this sector is what appears to have been a cult room (285) and (274) measuring 2.5 m north-south by 2.25 m east-west, where statue(s) of the tomb-owner(s) may have stood. There are remains of the white plaster (381) that coated the room. This part of the tomb was re-used for a secondary burial (B.161 in [386]), which was orientated north-south, and appears to have been interred during the Old Kingdom, judging from the associated pottery. This burial was enclosed by bricks at the same height as the floor level (285). Bones of an ovicaprine discovered may be the remains of a food offering for the deceased. Another secondary burial orientated east-west, B.162 in [372], overlies B.161 and appears to be from a much later period, possibly Ptolemaic or Roman.

The burial chamber measures 4.0 m north-south by 3.70 m east-west, bounded on the north and east by (103) and on the west by (273). The southern part of the burial chamber had an east-west running casemate wall that consisted of the 0.25 m thick wall (276), the rubble fill (304), and the 0.80 m thick wall (329). The northern face of (329) was coated with mud-plaster. The first burial to be placed in the chamber was B.160, located in the western part of the casemate wall. The western niche (350), [366] observed in (276) was made to receive the feet of this burial, which was probably placed in the loosely flexed position on its right side with the head north facing east. On comparison with other sites such as Abusir, Helwan and Saqqara (Bárta *et al.* 2010, 14–16, 267–263; Quibell 1923, 24–5, 32, pl. XXIX; Saad 1951, 28, 33, 37–9, pl. XIVb) the burial may have been placed in a wooden or reed coffin, or just covered with palm fronds, although if this were the case then nothing remains. Shortly afterwards the burial chamber was remodelled, with the north-south wall (330) added to divide the chamber in two, and the east-west wall (374) built to provide an eastern side for the new interment B.159. Patches of mud plaster were observed on (374) and it is likely that the entire burial chamber was coated thus. These two new walls were both built from bricks of a slightly lighter more yellow colour. This burial appears to have had the same orientation as B.160, with a smaller niche [367] filled by (363) cut into (276). Above B.160 is a socket [368] cut into (276), which was probably for a wooden beam supporting the roof. Another surviving socket [362] was probably for an east-west beam over the burial chamber, the wall (273) cuts away where further beams may have been located and the opposite wall (103) finishes about the height where the sockets would have entered the wall. There is a series of three large robbers' cuts in the burial chamber, the first of these is in the north of the burial chamber [136], [272] and [301] filled with (137), the second in the south-east of the chamber [306], which has eight different fills and came down on the eastern burial and [333] filled by (327) that cuts the western burial. Just to the north of the large cut [333] was a large rectangular slab of limestone (SF.150). One end of this limestone block was broken, so it is impossible to know whether it may have served as a portcullis; such as was in use already in the First Dynasty (examples from Helwan - Saad 1947, 162; and for Tomb No. 1 H3 of the First Dynasty, 163–4, pl. LXVIII; Tomb No. 40 H3 also of the First Dynasty, pl. LXIX), with examples from the Third Dynasty including AS 54 at Abusir (Bárta 2011, 46–7). This northwestern corner was badly damaged, with many fallen bricks covering the limestone block, however, the arrangement of the remaining bricks suggests that there may have originally been stairs leading up to a doorway into the cult room. The original placement of SF.150 may have been either at the base of the burial shaft, or possibly the base of the 'stairs'.

The southern section of the mastaba consists of the large southern wall of the substructure (154). This wall has been severely damaged and is at a much lower height than the corresponding northern wall (118). A thin wall (332), which seems to be the continuation of the southern wall of the offering chapel separates this large wall from the tumulus-like rubble fill (331). This rubble fill measuring 2.50 m north-south by 4.20 m east-west, which is bounded to the north by the southern wall of the burial chamber (276) constitutes the main body of the southern section of the mastaba. Similar rubble filled constructions have been found in tombs at both Helwan (late First Dynasty, including 1374) and Saqqara (Second Dynasty) (Emery 1961). Such constructions have been interpreted as representing the primordial mound (Emery 1961).

The exterior (probably roofed) corridor chapel would have had a superstructure measuring 11.75 m north-south by 3.0 m east-west constructed using a CE₁ brick bond. The eastern wall (107) and (57) of this corridor chapel is 1.50 m thick, and its western wall (339), that abuts the main mastaba, is only two bricks wide 0.24 m. The entrance to the chapel was in the northern part of its east wall with an offering niche (322) to its south that had a simple palace niche façade design. Presumably this niche would have held a stele, but, if this were the case, only a few pieces of uninscribed limestone remained in the vicinity. Inside the corridor chapel, the interior of the eastern wall



Fig. 3. a. looking north across the burial chamber.
b. the two burial niches, looking south.



was decorated with phragmites (reeds) or palm leaf (*pers. comm.* M. El-Dorry) coated with a white plaster (380), attaining a thickness up to 0.10 m. On the lower parts of the interior western wall there is also evidence of white plaster, but as the upper part of the wall is missing it is impossible to tell if they were decorated. As Reisner (1936, 262) points out, the roofing of these exterior corridor chapels was to protect the decorated internal walls. The floor of the chapel was constructed of mud-bricks (288) with a width of 1.10 m. On comparison with other Third Dynasty tombs, such as those at Beit Khallaf (Garstang 1904), the main offering recess of the chapel would have been expected to be in the southern part of the west wall (339). Unfortunately, a large robber's pit [306] is located in this area preventing any identification of this architectural element. The southern end of the corridor chapel is terminated by a small room (390) measuring 0.92 m north-south by 1.18 m east-west, which was divided from the chapel by means of a screening wall. Like many other areas of the mastaba,

this had been damaged by later tomb robbers who left their marks [292] on the walls, destroying much of the eastern wall of the chapel in this area. The floor of this closed room is very rough in appearance, but whether this was due to damage from the contents of the room, or due to robbery, cannot be ascertained.

Along with the numerous beer jars (figs. 6a–h), which potentially could range in date from the late Third Dynasty to the reign of Khufu, Mejdum bowls and fine ware vessels also occurred. Other objects found included a few lithics, stone vessels and hundreds of faience beads, one carnelian and two gold beads. Several elongated triangular ivory inlays, probably from decorated boxes, were found scattered throughout the tomb. Small pieces of copper were also recovered, but none were recognisable as particular objects. Fragments of yellow quartzite were found in the area of the storeroom; these could possibly have been pieces of a quern.

Mortuary evidence in Northern Egypt during the 3rd millennium BC

Despite there being considerable evidence across the eastern Delta during the Predynastic and Early Dynastic periods, there is a sharp decline into the Second Dynasty. Settlement remains are minimal in comparison with evidence for cemeteries, as is often the case, but the population seems to start to move away from sites including Minshat Abu Omar and Kafr Hassan Dawood by the start of the Second Dynasty (Kroeper and Wildung 1994; 2000; Rowland 2014, 271). Tell el-Farkha in the eastern Delta seems to have dwindled in its extent and prosperity by this time, and excavations thus far suggest that the site was abandoned in the 4th Dynasty, possibly according to the excavators, because of the movement of trade routes to Mendes (Ch odnicki 2012, 105–113). Tell el-Rub'a (Mendes) is one of the exceptions, with evidence from the Predynastic into the Old Kingdom and First Intermediate Period and later, and at Tell Ibrahim Awad there is a series of temples dating from the Protodynastic to the Middle Kingdom, in addition to settlement and cemetery remains dating to the First, Second, and Fourth–Sixth Dynasties (van Haarlem 2000; 2009). A similar situation is found at Tell el-Basta (Bubastis) that dates from the Predynastic into the Old Kingdom, Middle Kingdom and later (Bakr 1992; Lange 2013; Bakr and Lange 2017). In the central and western parts of the Delta, there is very limited evidence for cemeteries during the Old Kingdom, and tombs from the Third Dynasty are extremely rare outside the Memphite necropolis. Kom Abu Billou is dated from the Fifth Dynasty onwards (Dhennin 2014) and Kom el-Hisn, has an Old Kingdom settlement and cemetery dating from the Fifth to Sixth Dynasties and into the Middle Kingdom (Wenke *et al* 1988; Cagle 2003).

The Old Kingdom tombs found at other Delta sites mentioned above are predominantly pit graves, with the exception of Fifth–Sixth Dynasty mastaba tombs at Mendes, and Fourth–Sixth Dynasty mastabas at Bubastis, with evidence from the Predynastic onwards (Bakr 1992; Wenke and Brewer 1996). Although these tombs include the mastaba type, they have very little resemblance to the Quesna example in architectural terms, and include those with stone-lined burial chambers, and decoration. The Fifth and Sixth Dynasty mastabas at Bubastis, however, are dealt with in a recent publication (Bakr and Lange 2017). A good example of this is the mastaba tomb of Akhapuba at Mendes that generally conforms with Reisner's Type Xe mastaba tomb, which dates to the Fifth Dynasty (Hansen 1967, 13). Although Tell el-Rub'a (Mendes) has a deep stratigraphy stretching from at least as early as the Maadi-Buto Period to the Ptolemaic Period and beyond, including Third Dynasty remains (Phase IV), no mastaba tombs have so far been discovered that are contemporary with the Quesna mastaba (Adams 2009, 159–174). A Second Dynasty mud-brick tomb has been discovered at Wardan in the western Delta, which is relatively small (1.0 × 1.0 × 1.2 m), with contents including diorite, anorthosite and Egyptian alabaster bowls not dissimilar to the type associated with Khaba (Larsen 1956). Contemporary Third Dynasty mastaba tombs have been reported from el-Qata in the western Delta (Leclant 1950; 1952; 1953; 1954) and

Mansuriyah West (possibly the cemetery of Ausim/Leotopolis) (Jones 1995), although no plans of these have been published.

At Zawiyet el-Aryan, the Layer Pyramid is thought to date to after the reign of Sekhemkhet, and probably to that of Khaba (Dunham 1978; Dodson 2000), and mastaba Z500 due to its association with the stone bowls inscribed with Khaba's *serekh* is thought to be associated with Khaba's reign (Lehner 1997). From Fisher's drawings, as seen in Lehner's (1997) publication, mastaba Z500 appears to be a twin mastaba, with the mud-brick superstructure divided into at least two sections, each with its own rock-cut burial shaft. These shafts ended in a corridor that led to the burial chambers. In the sketch plan of the substructure the two burial chambers appear to be linked via a corridor (Lehner 1996, 517–518). Therefore, the structural design is quite different from the Quesna mastaba, the substructure of which seems rather more similar to the double niche construction of the First Dynasty Tomb 649 H5 at Helwan (Saad 1951, pl. LVIII a and b). Another First Dynasty tomb at Helwan, 1374, has a tripartite superstructure similar to the Quesna mastaba, although in this example it is the northern sector that has a rubble fill, the central section being the much deeper burial chamber accessed via stairs from the west, and the southern sector the offering room (Emery 1961: 148).

The burial shaft in the Quesna mastaba appears shorter than it would have been given the damage caused to the superstructure, and as noted above, it is also suggested that the burial chambers could have been entered via stairs, as seen in examples of the Early Dynastic period at Helwan and Saqqara (Emery 1961). The position of the storage magazines varies depending on the tombs, and one Third Dynasty example from Abusir South, the Tomb of Ity, has its storage along the eastern side of the tomb (Bárta 2001); the Quesna example's storage rooms are in the northern part of the structure. The location of what is considered to have been the *serdab* at Quesna, is within the corridor chapel in the southeast corner of the structure, where it is found in MM22 at Meydum, of the Fourth Dynasty (Bárta 1998 after Petrie 1892), and although not in a corridor chapel, it is also found in the southeast corner already in the First Dynasty, one example being in Tomb V, Abu Ghurab, dating to the First Dynasty (Bárta 1998 after Radwan 1991). Other examples of corridor chapels of the Third Dynasty include Tomb FS3043 at Saqqara (Reisner 1936), although this is a more elaborate example including a cruciform chapel, and Tomb No. 1, Lake Abusir (Bárta 2001). If there was a cult chapel in the mastaba at Quesna, then this may have been in the northwestern corner, quite the contrary to the example that is described as originally a cruciform chapel at Abusir in Tomb AS 54 dating to the reign of Huni (Bárta 2011, 41).

Discussion: the chronology of the Quesna mastaba and other references to Khaba

The finding of a fragmentary *serekh* of *Hr.w H^c-b3* (King Khaba, figs. 4a and b) adds considerably to the dearth of evidence relating to this short reign (see Kahl *et al* 1995, 153–161 for confirmed attestations of this name). Other seals and impressions for Khaba come from varied locations within Egypt. Looking south of the Memphite necropolis, seal impressions have been found in a mud-brick mastaba at Naga ed-Dêr (Reisner 1911, 59; Reisner 1932; Smith 1971, 156) and from the Early Dynastic town at Hierakonpolis, either from a house or the Early Dynastic layers under the Temple of Horus (Bussmann 2011; Quibell and Green 1902, 3, 55, pl. 70.1).

A cylinder seal impression held in the Petrie Museum of Egyptian Archaeology, UC11755, is of unknown provenance, and has been observed by scholars as one of the earliest examples of a *r.w Nbw* (Golden Horus) name – *Irt Djed.f* (Kaplony 1963, 173, 1191, fig. 805; Petrie 1917, pl. VIII.2; Kahl *et al* 1995 160, 154; see Wilkinson 1999: 207–8 regarding the evolution of this title). Another seal impression of Khaba was found during the excavations of the DAI at Elephantine (Kaiser *et al* 1987, 109, fig. 13b, pl. 15b). It was found in complex 14300 I in a debris pit in the southwestern corner of

room III of the East Town; notably in the same room, but at a different level, jar stoppers with the name of Djoser, and Third Dynasty ceramics were uncovered (Kaiser *et al* 1987, 109, fig. 13b, pl. 15b). It is recorded that the Khaba *serekh* was found near to or within magazines, and the excavators suggest that this was an administrative part of the town (Kaiser *et al* 1987, 96).

Other attestations of the ruler are hardly numerous, although there may again be similarities with the finds from the Quesna mastaba. A series of stone bowls with the *serekh* of Horus Khaba inscribed on their interior come from sites in northern Egypt. Although the Quesna mastaba has not yielded an inscribed example of one of these bowls, despite the careful sieving, there are a number of fragments of stone bowls of a very similar type and material to those found elsewhere (examples include those in figs. 5a–c). The bowls inscribed with the *serekh* of Khaba include an example from Abusir located by Borchardt in the mortuary temple of Sahure (Borchardt 1910, 114; Kahl *et al* 1995, 154, 158), one in the collection of the Manchester Museum that may originate from Dahshur (10959; Arkell 1958, 120), and a diorite-gneiss bowl with a *serekh* of Khaba (UC15800) in the Petrie Museum of Egyptian Archaeology that is unprovenanced (Arkell 1956: 116; Kahl *et al.* 1995: 158). However, the largest number of stone bowls (eight) inscribed with the *serekh* of Khaba come from mastaba Z500 at Zawiyet el-Aryan (Arkell 1956, 116; Dunham 1978, 29–34). The series of stone bowls of *Horus* Khaba may represent a return to a past tradition that seemed to end with Khasekhemwy; although thousands of inscribed stone vessels were found in the galleries of the Step Pyramid complex, none were inscribed with the name of *Horus* Netjerykhet.

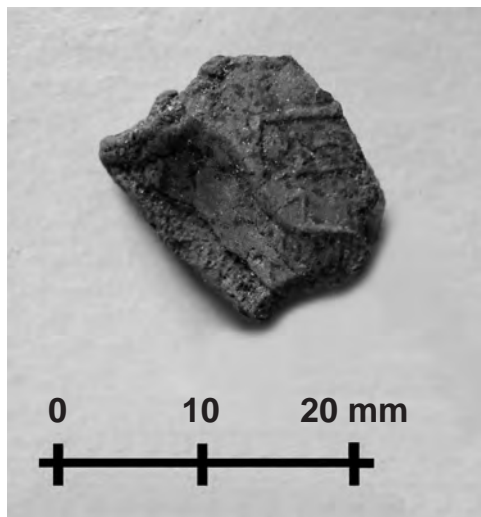
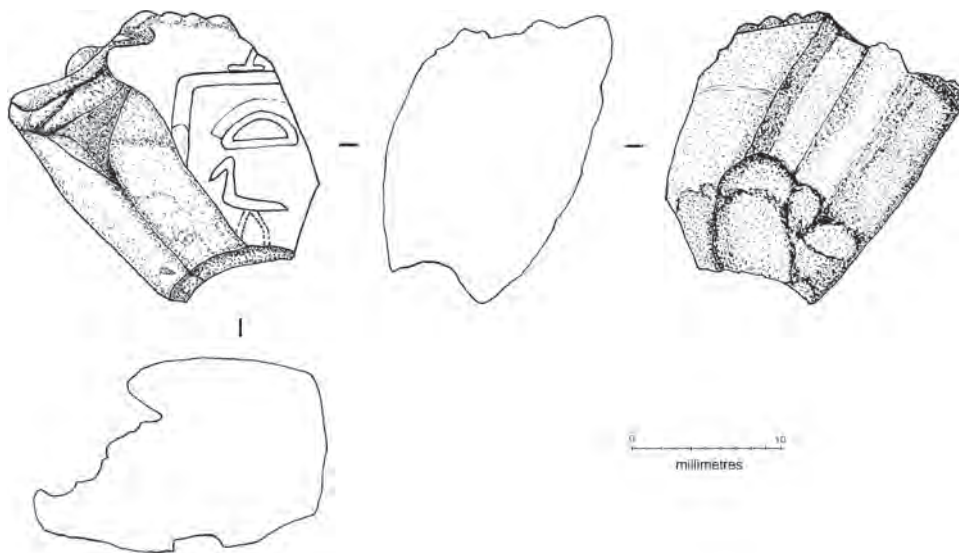


Fig. 4. a. Drawing and b. photograph of the fragmentary mud seal impression bearing the name of Khaba (QUS14.T5 SF206).

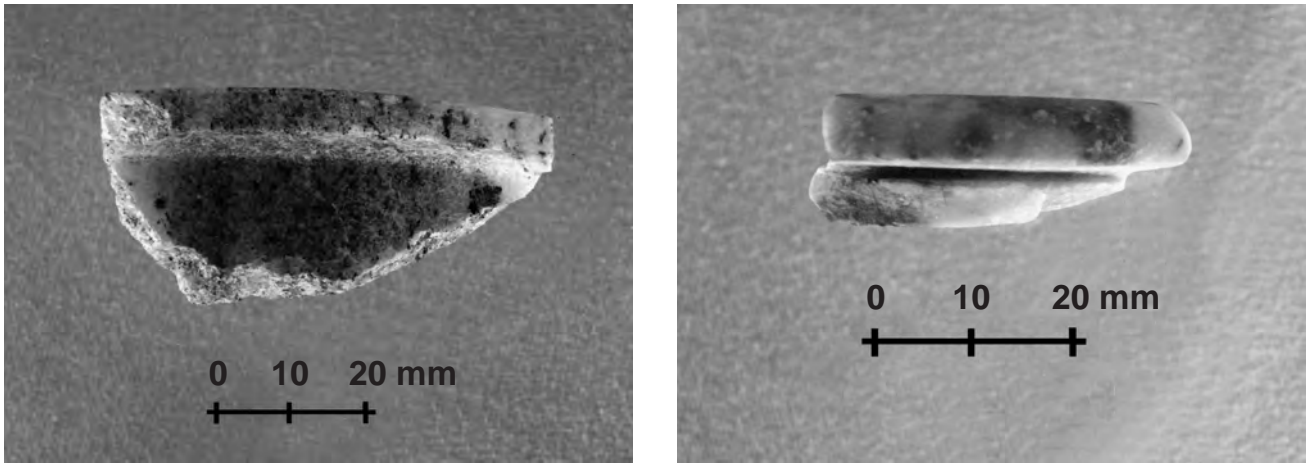
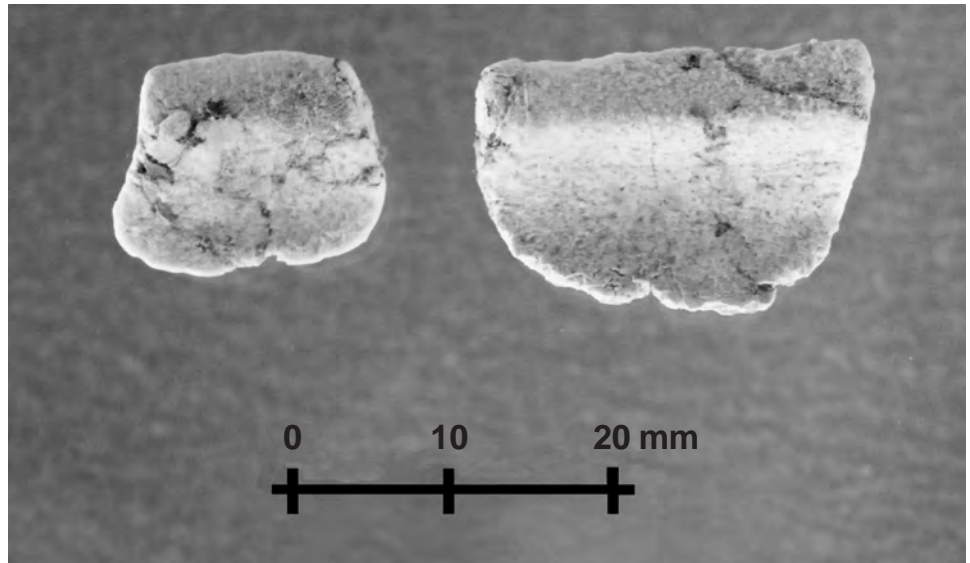


Fig. 5. Rim sherds from stone vessels found in the Quesna mastaba. a) SV015 from (338), b) SV016 from (105), and c) SV018 from (303).



No stone vessels have been found inscribed with the names of Sanakht or Sekhemkhet, however the tradition seems to continue during the reign of Huni for a stone vessel with his name has been found in mastaba AS54 at Abusir South (Bárta 2011, fig. 6; Jirásková 2012). The tradition then continues in the reign of Sneferu and beyond. As so little inscriptional evidence exists for either Sanakht or Sekhemkhet, it cannot be ruled out that stone vessels will be discovered with their names in the future.

The main chronological indicator – with the exception of the Khaba *serekh* – for the Quesna mastaba is the ceramic assemblage recovered from the tomb. Due to the severe plundering of the tomb, this is a fragmentary assemblage, with sherds belonging to one vessel found scattered throughout different contexts, in some instances. The analysis of the ceramics is in progress, however, some preliminary comments can be made here.

Amongst other sherds, the possible cult room in the northwestern corner of the mastaba, yielded the beer jar P.206 from the fill of the secondary burial (371); shown in Fig.6a P.206. From the original tomb floor area (327) and the disturbed area directly above (324), although not within the actual burial niches, the following beer jars were found: P.211, P.212, P.213, P.214 (figs. 6b–e). In close proximity in (284)/(324), P.215 and P.216 (figs. 6f–g) were located directly to the south of the exit from the tomb shaft; the figure shows the rim balanced on top of the vessel to give an impression, but there is no join. P. 217 (Fig. 6h) was located in (126), a deposit of aeolian sand in the central and southern part of the corridor chapel. It is not impossible that it was moved during an episode of robbery, from an original position within the magazine/offering room in the northeastern corner of the mastaba, given its close proximity to the corridor chapel.

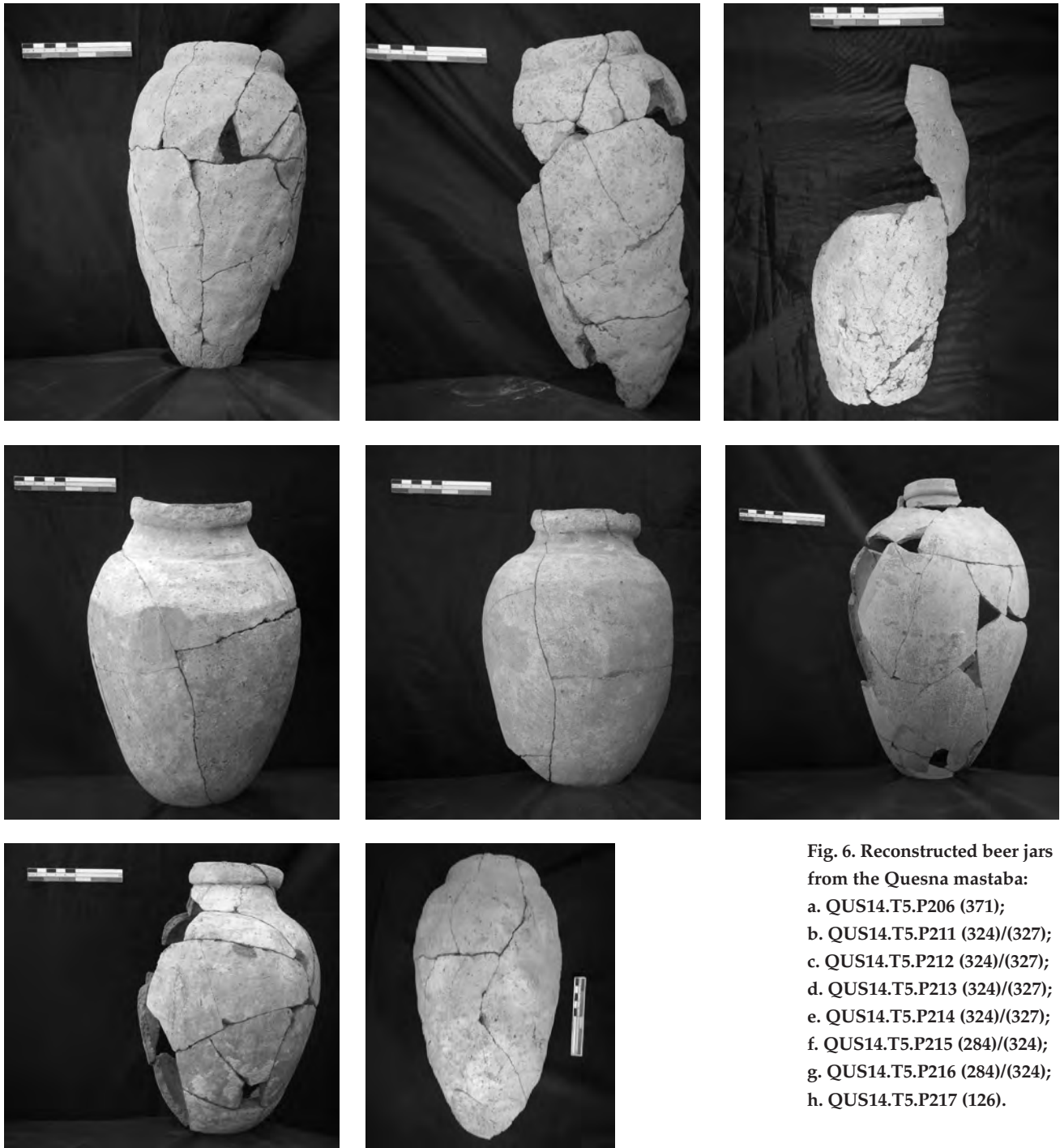


Fig. 6. Reconstructed beer jars from the Quesna mastaba:
 a. QUS14.T5.P206 (371);
 b. QUS14.T5.P211 (324)/(327);
 c. QUS14.T5.P212 (324)/(327);
 d. QUS14.T5.P213 (324)/(327);
 e. QUS14.T5.P214 (324)/(327);
 f. QUS14.T5.P215 (284)/(324);
 g. QUS14.T5.P216 (284)/(324);
 h. QUS14.T5.P217 (126).

From the offering room or magazine (346) in the northeastern corner of the mastaba – where the majority of pottery was recovered from or within its vicinity – there are comparisons to be drawn with beer jars found in the burial chamber and chapel of the tomb of Hetepi of the early Third Dynasty at Abusir (type J-1h in fig. 2.5.1 Bárta *et al*), and also with beer jars from the northern pyramid of Sneferu (Faltings 1989, fig. 3, No. 91). Similarities also exist with beer jars from the Elkab mastaba tomb BEIII (Op De Beeck 2009, fig. 4.2, No. 39/24). Op De Beeck (2009, 73) points out that although former work has ‘labelled’ the Old Kingdom mastabas to the north of the wall at Elkab as belonging to the Fourth Dynasty, their recent analysis suggests that they in fact date to the Third Dynasty. Op De Beeck (2009, 73) adds the important observation that the ceramics ‘show affinities’ with examples from the Second up to the Fourth Dynasty. This is particularly interesting given that the first thoughts regarding the ceramic assemblage within the Quesna mastaba

were of late Third Dynasty from the reign of Huni up to the Fourth Dynasty. No fragments of bread moulds have yet been confirmed from the analysis, and a few sherds of Meydum bowls that await analysis.

Discussion: Who was buried in the mastaba

As to the question of who was buried in the mastaba, the osteological analysis has confirmed that there are remains of two adults (one female and one male), not intact, that were most probably originally interred in the two burial chambers in the central part of the mastaba. The individual buried in the western part of the double burial chamber, B160, seems to be an adult female. Associated with this burial was a deciduous tooth of an individual under one year old at death, found in (350). The eastern burial, B.159 was of an adult male, and it was this individual that was associated with the Khaba *serekh* that was found in (363). The secondary burial B.161 in the north-west of the mastaba (see above) maybe that of a relative of the tomb-owner, and was that of a young adult. A later, probably Roman burial (B. 162) was also found partially overlying this burial, and was that of an adult.¹

Bárta (2011, 50) notes that during the Third Dynasty the highest officials are buried in close proximity to the ruler. The closest evidence for the date of the Quesna mastaba is the Khaba *serekh*, and although Khaba's tomb has not been identified with any certainty as yet, it seems very likely that it would have been – if not at Zawiyet el-Aryan, somewhere in the Memphite necropolises. The association of Khaba with the Layer Pyramid, however, is still a subject of debate and Dodson (2000, 87) stresses that some scholars still give weight to the possibility that the Layer Pyramid, or even mastaba Z500, may have been the ruler's final resting place (Lehner 1996). The location of the mastaba in the central Delta, distant from the capital may indicate that the tomb-owner, was not a high official in the central administration. The size and architectural complexity combined with the decorative elements of the Quesna mastaba, as well as the quality of the remaining grave goods indicate that the occupants were of some wealth and of a high status. Therefore, it can be postulated that the owner of the Quesna mastaba was a local potentate, someone that served in the regional administration of Egypt.

Abusir Bana lies 43 km north-east of Quesna, and although the tomb-owner may have held office there, it is possible that the position also involved activities at the much nearer site of Tell Atrib, which is 7 km to the south-east of Quesna. Although travelling between Abusir Bana and Quesna would have taken only about one day by boat, it is infeasible that it was the local cemetery of Djedu, but it does not exclude it from being the main burial ground of 'Andjety's nome. Travelling from Tell Atrib to Quesna would have taken less than half a day, and it appears from the Late Period to the Roman era that it was the main cemetery for Athribis. However, a much closer settlement to Quesna must have existed, if only to protect the tombs of the local potentates; as to whether this is still preserved it is doubtful, although this is far from certain.

Concluding Remarks

The finding of the Third Dynasty mastaba at Quesna adds to our knowledge of tomb architecture and provincial administration during this period of time. The provisional dating of the pottery as well as the architecture of the mastaba seems to suggest that King Khaba lived towards the end of the Third Dynasty, seeming to agree with the placement of Kahl *et al.* (1995) of this king just prior to King Huni.

However, there are still many questions to answer, as discussed, including whether there were more mastabas/other Old Kingdom tombs at Quesna, which

¹ The skeletal material from the mastaba was analysed by Lawrence S. Owens assisted by Sara el-Said Mohamed el-Said.

nome Quesna belonged to during the Third Dynasty, whether there is an Old Kingdom temple or settlement yet to be located in the vicinity, and whether full study of the pottery assemblage will reveal tighter dating for the Quesna mastaba? Future research in and around Quesna may be able to provide some of the answers to these questions.

Bibliography

Adams, M. J.

2009 "The Naqada III – First Intermediate Period Stratification at Mendes 1999–2005", in: Redford, D.B. (ed.) *Delta Reports (Research in Lower Egypt) Volume I*, 121–206. Oxford and Oakville.

Allen, J. P.

2005 *The Ancient Egyptian Pyramid Texts*, Atlanta.

Arias Kytnarová, K.

2010 "The Pottery from AS 20", in: Bárta, M., Coppens, F., Vymazalová, H. *et al.*, eds., *Abusir XIX: Tomb of Hetepi (AS 20), Tombs AS 33–35, and AS 50–53*. Prague, 25–47.

Arkell, A. J.

1956 "Stone bowls of Kha'ba (Third Dynasty)", *JEA* 42: 116.

1958 "Stone bowls of Kha'ba (Third Dynasty)", *JEA* 44: 120.

Badawi, F. A.

1978 "Die Grabung der ägyptischen Altertümerverswaltung in Merimde-Benissalâme im Oktober/November 1976", *MDAIK* 34: 43–51.

1980 "Beigabengräber aus Merimde", *MDAIK* 36: 70–76.

Badawi, F. A., Kuckertz, J., Rösing, F.W., Bergander, S. and Klug, S.

2016 *Merimde-Benissalâme IV: Die Bestattungen*. Wiesbaden.

Bakr, M. I.

1992 *Tell Basta I. Tombs and Burial Customs at Bubastis*, Cairo.

Bakr, M., Lange, E.

2017 "Die Friedhöfe des Alten Reiches in Bubastis", in: Feder, F., Sperveslage, G., eds., *Ägypten begreifen. Gedenkschrift für Erika Endesfelder*, Internet-Beiträge zur Ägyptologie und Sudanarchäologie 19, Berlin–London 2016, 31–48.

Barsanti, A.

1901 "Ouverture de la pyramide de Zaouiete l-Aryan", *ASAE* 2: 92–94.

Baud, M.

2002 *Djéser et la III^e dynastie*, Paris.

Baud, M., Dobrev, V.

1995 "De nouvelles annales de l'Ancien Empire égyptien: une 'Pierre de Palerme' pour la VI^e dynastie", *BIFAO* 95: 23–92.

1997 "Le verso des annales de la VI^e dynastie: Pierre de Saqqara-Sud", *BIFAO* 97: 35–42.

Bárta, M.

1998 "Serdab and Statue Placement in the Private Tombs down to the Fourth Dynasty", *MDAIK* 54: 65–75.

2001 *Abusir V: The Cemeteries of Abusir South I*, Prague.

- 2011 "An Abusir mastaba from the reign of Huni", in: Callender, V.G., Bareš, L., Bárta, M., Janák, J., eds., *Times, Signs and Pyramids: Studies in Honour of Miroslav Verner on the Occasion of His Seventieth Birthday*, 41–50, Prague.
- 2013 "Radiocarbon dates for the Old Kingdom and their correspondences", in: Shortland, A. J. and Bronk Ramsey, C., eds., *Radiocarbon and Chronologies of Ancient Egypt*. Oxford: Oxbow Books, 218–223.
- Bárta, M., Coppens, F., Vymazalová, H. *et al.*
2010 *Abusir XIX: Tomb of Hetepi (AS 20), Tombs AS 33–35, and AS 50–53*, Prague.
- Barta, W.
1981 "Die chronologie der 1. bis 5. Dynastie nach den Angaben des rekonstruierten Annalensteins", *ZÄS* 108: 11–23.
- Belova, G. A., Sherkova, T. A.
2002 *Ancient Egyptian Temple at Tell Ibrahim Awad: Excavations and Discoveries in the Nile Delta*, Moscow.
- Bietak, M.
1975 *Tell el-Dabʿa II. Der Fundort im Rahmen einer archäologisch-geographischen Untersuchung über das ägyptische Ostdelta*. Untersuchungen der Zweigstelle Kairo des Österreichischen Archäologischen Instituts, Bd. II. Denkschriften der Gesamtkademie der Österreichischen Akademie der Wissenschaften Bd. IV. Vienna.
- Borchardt, L.
1910 *Das Grabdenkmal des Königs Sahu-re I: Die Bau*. Leipzig.
- van den Brink, E. C. M.
1988 "The Amsterdam University Survey Expedition to the Northeastern Nile Delta (1984–1986)", in: van den Brink, E. C. M., ed., *The Archaeology of the Nile Delta, Egypt: Problems and Priorities. Proceedings of the Seminar held in Cairo, 19–22 October 1986, on the occasion of the fifteenth anniversary of the Netherlands Institute of Archaeology and Arabic Studies in Cairo*, Amsterdam, 65–114.
1989 "A Transitional Late Predynastic-Early Dynasty Settlement Site in the Northeastern Nile Delta, Egypt", *MDAIK* 45: 55–108.
- Bussmann, R.
2011 "Seals and seal impressions from Hierakonpolis", *Egyptian Archaeology* 38: 17–19.
2014 "Scaling the state: Egypt in the third millennium BC", *Archaeology International* 17: 79–93.
- Cagle, A.
2003 *The Spatial Structure of Kom el-Hisn: An Old Kingdom Town in the Western Delta, Egypt*. BAR International Series 1099, Oxford.
- Chłodnicki, M.
2012 "Protodynastic, Early Dynastic and Old Kingdom settlement on the Central Kom", in: Chłodnicki, M., Ciałowicz, K. M. and Mączynska, A., eds., 2012. *Tell el-Farkha I. Excavations. 1998–2011*, Poznań, 105–114.
- Ćwiek, A.
1998 "Date and function of the so-called minor step pyramids", *Göttinger Miszellen* 162: 39–52.
- Dębowska-Ludwin, J.
2012 "The Cemetery", in: Chłodnicki, M., Ciałowicz, K. M. and Mączynska, A., eds., 2012. *Tell el-Farkha I. Excavations. 1998–2011*, Poznań, 53–76.
- Dhennin, S.

2014 “Mefkat, Térénouthis, Kôm Abou Billou, nouvelles recherches archéologiques à l’ouest du Delta”, *BSFE* 189, 8–25

Dodson, A.

1998 “On the threshold of glory: The Third Dynasty”, *KMT* 9(2): 26–40.

2000 “The Layer Pyramid of Zawiyet el-Aryan: Its layout and context”, *JARCE* 37: 81–90.

Dunham, D.

1978 *Zawiyet el-Aryan: The Cemeteries Adjacent to The Layer Pyramid*, Boston.

Eiwanger, J.

1999 “Merimde Beni-salame”, in: Bard, K. ed., *Encyclopedia of the Archaeology of Ancient Egypt*, London, 501–505.

El-Senussi, A., Jones, M.

1997 “A site of the Maadi culture near the Giza pyramids”, *MDAIK* 53: 241–253.

Emery, W. B.

1949 *Great Tombs of the First Dynasty*, I. Cairo.

1961 *Archaic Egypt: Culture and Civilisation in Egypt Five Thousand Years Ago*, London.

1967 “Preliminary report on the excavations in North Saqqara 1966–1967”, *JEA* 53: 141–145.

1971 “Preliminary report on the excavations in North Saqqara 1969–1970”, *JEA* 57: 3–13.

Faltings, D.

1989 “Die Keramik aus den Grabungen an der nördlichen Pyramide des Snofru in Dahschur”, *MDAIK* 45, 133–154.

Firth, C. M.

1931 “Excavations of the Department of Antiquities at Saqqara, 1930–31”, *ASAE* 31: 45–48.

Garstang, J.

1903 *Mahâsna and Bêt Khallâf*, London.

1904 *Tombs of the Third Egyptian Dynasty at Reqâqnah and Bêt Khallâf*, Westminster.

Gomaà, G. and Hegazy, El-S.

2001 *Die neuentdeckte Nekropole von Athribis*, Wiesbaden.

Goneim, Z.

1957 *Excavations at Saqqara: Horus Sekhem-khet: The unfinished step pyramid at Saqqara*, Cairo.

Griffiths, J. G.

1980 *The Origins of Osiris and his cult*, Leiden.

Hartung, U., Ballet, P., Effland, A., French, P., Hartmann, R., Herbich, T., Hoffmann, H., Hower-Tilmann, E., Kitagawa, C., Kopp, P., Kreibig, W., Lecuyot, G., Lösch, S., Marouard, G., Nerlich, A., Pithon, M., Zink, A.

2009 “Tell el-Fara’in – Buto. 10. Vorbericht”, *MDAIK* 65: 83–190.

Helck, W.

1956 *Untersuchungen zu Manetho und den ägyptischen Königslisten*, Untersuchungen zur Geschichte und Altertumskunde Ägyptens 18, Berlin.

1974 *Die altägyptischen Gaue*, Wiesbaden.

- Hansen, D. P.
1967 "Mendes 1965 and 1966. I. The Excavations at Tell el Ruba", *JARCE* 6: 5–16.
- Hassan, F. A., Tassie, G. J.
2004 "The 'lost' pyramid of the Faiyum", *Friends of the Petrie Museum Magazine* 29: 6.
- Hendrickx, S., Eyckerman, M.
2009 "The 1995 excavation of an early Old Kingdom storage site at Elkab", in: Claes, W., de Meulenaere, H., and Hendrickx, S., eds., *Elkab and Beyond: Studies in Honour of Luc Limme*. Leuven – Paris – Walpole, OLA 191, 1–30.
- Jacquet-Gordon, H.
1962 *Les noms des domaines funéraires sous l'ancien empire égyptien*, Cairo.
- Jirásková, L.
2012 Stone vessels of AS54 at Abusir South. Preliminary report, in: Bárta, M., Coppens, F., and Krejčí, J., eds., *Abusir and Saqqara in the year 2010*, Volume II. Prague, 1–18.
- Jones, D.
2000 *An Index of Ancient Egyptian Titles, Epithets and Phrases of the Old Kingdom*, 2 Vols. Oxford.
- Kahl, J., Kloth, N., Zimmermann, U.
1995 *Die Inschriften der 3. Dynastie: Eine Bestandsaufnahme*, Wiesbaden.
- Kaiser, W., Dreyer, G., Jaritz, H., Krekeler, A., Schläger, T., Ziermann, M.
1987 "Stadt und Tempel von Elephantine. 13./14. Grabungsbericht", *MDAIK* 43: 75–114.
- Kaplony, P.
1963 *Die Inschriften der ägyptischen Frühzeit. Vol. 1–3*, Wiesbaden.
1977 *Die Rollsiegel des Alten Reichs, 1. Allgemeiner Teil mit Studien zum Königtum des Alten Reichs*, Brussels.
1981 *Die Rollsiegel des Alten Reichs, 2. Katalog der Rollsiegel: A. Text – B. Tafeln*, Brussels.
- Köhler, E. C.
2005 *Helwan I. Excavations in the Early Dynastic Cemetery. Season 1997/98*. Heidelberg: Studien zur Archäologie und Geschichte Altägyptens (SAGA 24).
2014 *Helwan III. Excavations in Operation 4, Tombs 1–50*, Studien zur Archäologie und Geschichte Altägyptens (SAGA 26), Rahden/Westf.
- Kroeper, K.
1989 "Palestinian Ceramic Imports in Pre- and Protohistoric Egypt", in: de Miroschedji, P., ed., *L'Urbanisation de la Palestine à l'âge du Bronze ancien*, Oxford, 407–422.
- Kroeper, K., Wildung, D.
1994 *Minshat Abu Omar I*. Wiesbaden.
2000 *Minshat Abu Omar II*. Wiesbaden.
- Lacau, P., Lauer, J.-P.
1959 *Fouilles à Saqqarah. La Pyramide à Degrés. Tome IV. Inscriptions Gravées sur les Vases*, 1^{er} Fascicule: Planches, Cairo.
1961 *Fouilles à Saqqarah. La Pyramide à Degrés. Tome IV. Inscriptions Gravées sur les Vases*, 2 Fascicule: Texte, Cairo.
- Lange, E.
2013 "The Old Kingdom temples and cemeteries of Bubastis", *Egyptian Archaeology* 42, 8–10.

Larsen, H.

1956 "A Second-Dynasty Grave at Wardan, Northern Egypt", *Orientalia Suecana* 5 : 3–11.

Lauer, J.-P.

1936–1939 *Fouilles à Saqqarah: La pyramide à degrés*. 3 volumes (1936–1939), Cairo.

Leclant, J.

1950 "Compte rendu des fouilles et travaux menés en Égypte durant la campagne 1948–1950. Lisière occidentale du Delta", *Orientalia* 19: 494–5.

1952 "Fouilles et travaux en Égypte, 1950–1951. Lisière occidentale du Delta (El Qatta)", *Orientalia* 21: 247.

1953 "Fouilles et travaux en Égypte, 1951–1952. El Qatta", *Orientalia* 22: 98–99.

1954 "Fouilles et travaux en Égypte, 1952–1951. El Qatta", *Orientalia* 23: 74.

Lehner, M.

1996 "Z500 and The Layer Pyramid of Zawiyet el-Aryan", in: Der Manuelian P., ed., *Studies in Honor of William Kelly Simpson*, Boston, 506–522.

Lehner, M.

1997 *The Complete Pyramids*, London.

Limme, L.

1999–2000 "Report on the archaeological work at ElKab:1999 season", *ASAE* 75: 107–111.

2008 "L'Elkab de l'Ancien Empire", *BSFE* 149: 14–31.

Macklin, M.G., Toonen, W.H.J., Woodward, J.C., Williams, M.A.J., Flaux, C., Marriner, N., Nicoll, K., Verstraeten, G., Spencer, N., Welsby, D.

2015 "A new model of river dynamics, hydroclimatic change and human settlement in the Nile Valley derived from meta-analysis of the Holocene fluvial archive", *Quaternary Science Review* 130: 109–123.

Maspero, G.

1890 *Études Égyptiennes II: Un Manuel de Hiérarchie Égyptienne et le culte une et les Bestiaux dans les Tableaux des tombeaux de l'ancien empire*, Paris: Imprimerie Nationale.

Meyer de, M., Vereecken, S., Vanthuyne, B., Hendrickx, S., Op De Beeck, L., Willems, H.

2011 "The early Old Kingdom at Nuwayrât in the 16th Upper Egyptian Nome", in: Aston, D., Bader, B., Gallorini, C., Nicholson, P. and Buckingham, S., eds., *Under the Potter's Tree: Studies on Ancient Egypt Presented to Janine Bourriau on the Occasion of Her 70th Birthday*, Leuven – Paris – Walpole, OLA 204, 679–702.

Moens, M.-F., Wetterstrom, W.

1988 The Agricultural Economy of an Old Kingdom Town in Egypt's West Delta: Insights from the Plant Remains. *Journal of Near Eastern Studies* 47 (3): 159-173.

Moreno García, J. C.

2013 "The territorial administration of the kingdom in the 3rd Millennium", in: Moreno García, J. C., ed., *Ancient Egyptian Administration*, Leiden, 85–151.

Murray, M. A.

1905 *Saqqara Mastabas I and II*. London.

Op De Beeck, L.

2009 "Early Old Kingdom pottery from excavations to the north of the great enclosure wall at ElKab", in: Claes, W., De Meulenaere, H. and Hendrickx, S. (eds.) *Elkab and Beyond: Studies in Honour of Luc Limme*, Leuven, 49–73.

- Petrie, W. M. F.
 1892 *Medum*, London.
 1900 *Dendereh 1898*, London.
 1917 *Scarabs and Cylinders with Names, Illustrated by the Egyptian Collection in University College*, London.
 1922 *A History of Egypt: Volume 1. From the Earliest of Times to Dynasty XVI*, 10th rev. edition, London.
- Quibell, J. E.
 1898 *El Kab*, London.
 1913 *Excavations at Saqqara (1911–1912), The Tomb of Hesy-Re*, Cairo.
 1923 *Excavations at Saqqara (1912–1914), Archaic Mastabas*, Cairo.
- Quibell, J. E., Green, W.
 1902 *Hierakonpolis, II*. Egypt Research Account 5, London.
- Quibell, J. E., Petrie, W. M. F.
 1900 *Hierakonpolis I*, London.
- Quirke, S.
 2010 “Provincialising elites: Defining regions as social relations”, in: Moreno García, J. C., ed., *Élites et pouvoir en Égypte ancienne (CRIPEL 28)*: 60–64.
- Redford, D. B.
 2010 *City of the Ram-Man. The Story of Ancient Mendes*, Princeton.
- Reisner, G. A.
 1908 *The Early Dynastic Cemeteries of Naqa-ed-Dêr, Part I*, Leipzig.
 1932 *A Provincial Cemetery of the Pyramid Age, Naqa-ed-Dêr. Part III*. University of California Publications in Egyptian Archaeology, Vol. VI. Oxford.
 1936 *The Development of the Egyptian Tomb Down to the Accession of Cheops*, Cambridge MA.
- Reisner, G. A., Fisher, C.
 1911 “The work of the Harvard University Museum of Fine Arts Egyptian expedition. Pyramid of Zawiet-el-Aryan”, *BMFA* 9: 54–59.
- Rowland, J. M.
 2008 “The Ptolemaic-Roman cemetery at the Quesna archaeological area”, *JEA* 94: 69–93.
 2011a “An Old Kingdom mastaba and the results of continued investigations at Quesna in 2010”, *JEA* 97: 11–29.
 2011b “A new era at Quesna”, *Egyptian Archaeology* 38: 10–13.
 2012 “The first archaeological field-school at Quesna”, *Egyptian Archaeology* 40: 7–8.
 2014 “Interregional Exchange: The evidence from Kafr Hassan Dawood, East Delta”, in: Mączyńska, A. (ed.) *The Nile Delta as a Centre for Cultural Interactions between Upper Egypt and the Southern Levant in the 4th millennium B.C.*, *Studies of African Archaeology, vol 13*. Poznań: Poznań Archaeological Museum, 255–282.
- Rowland, J., Ikram, S., Tassie, G., Jansen-Winkel, K., Yeomans, L.
 2013 “The Sacred Falcon Necropolis of Djedhor (?) at Quesna – Recent investigations from 2006–2012”, *JEA* 99: 53–84.
- Rowland, J. M., Strutt, K. D.
 2011 “Geophysical survey and sub-surface investigations at Quesna and Kom el-Ahmar (Minuf), Governorate of Minufiyeh: an integrated strategy for mapping and understanding the sub-surface remains of mortuary, sacred and domestic contexts”, in: Belova, G., ed., *Achievements and Problems in Modern Egyptology: Proceedings*

of the International Conference held in Moscow on September 29–October 2, 2009. Moscow, 332–349.

Saad, Z. Y.

1947 *Royal Excavations at Saqqara and Helwan (1941–1945)*, SASAE 3, Cairo.

1951 *Royal Excavations at Helwan (1945–1947)*, SASAE 14, Cairo.

Saleh, M., Sourouzian, H.

1987 *Official Catalogue: The Egyptian Museum Cairo*, Mainz.

Seidlmayer, S.

1996 “Town and state in the early Old Kingdom: A view from Elephantine”, in: Spencer, A. J. (ed.) *Aspects of Early Egypt*, London, 122–126.

Sethe, K. H. (ed.)

1932 *Urkunden des Alten Reichs*, Leipzig.

Shaw, I., Nicholson, P. T.

2008 *The British Museum Dictionary of Ancient Egypt*, Second Edition, London.

Smith, W.S.

1971 “The Old Kingdom in Egypt and the beginning of the First Intermediate Period”, in: Edwards, I. E. S., Gadd, C. J. and Hammond, N. G. L. (eds.) *The Cambridge Ancient History, Volume 1, Part 2: Early History of the Middle East*. New York, 145–207.

Spencer, A. J.

1979 *Brick Architecture in Ancient Egypt*, Warminster.

Swelim, N.

1983 *Some Problems on the History of the Third Dynasty*, Alexandria.

1987 *The Brick Pyramid at Abu Rowash, Number “1” by Lepsius: a Preliminary Study*, Alexandria.

1992 “Rollsiegel, Pierre de Taille and an update on a king and monument list of the Third Dynasty”, in: *Intellectual Heritage of Egypt: Studies Presented to László Kákosy by Friends and Colleague on the Occasion of his 60th Birthday*, Budapest: *Studia Aegyptica* XIV, 541–554.

Tassie, G. J.

2014 *Prehistoric Egypt*, London.

2015 “I’m Osiris, no I’m Osiris, no I’m Osiris: hairstyles and the afterlife”, in: Kousoulis, P. and Lazaridis, L. (eds.) *Proceedings of the Tenth International Congress of Egyptologists, University of the Aegean, Rhodes 22–29 May 2008*. Leuven/Paris/Dudley, OLA 241, 1873–1895.

Verner, M.

1995 “An early Old Kingdom cemetery at Abusir”, *ZÄS* 122: 78–90.

Vernus, P.

1978 *Athribis*, Cairo.

Vörös, G.

1998 *Temple on the Pyramid of Thebes: Hungarian Excavations on Thoth Hill at the Temple of Pharaoh Montuhotep Sankhkara, 1995–1998*. Budapest.

Weill, R.

1908 *Des monuments et de l’histoire des IIe et IIIe Dynasties Egyptiennes*. BdE 25, Paris.

Wenke, R.J. *et al.*

1988 "Kôm el-Hisn: Excavation of an Old Kingdom Settlement in the Egyptian Delta", *JARCE* 25 (1988), 5–34.

Wenke, R. J., Brewer, D. J.

1996 "The Archaic-Old Kingdom Delta: the evidence from Mendes and Kom El-Hisn", in: M. Bietak (ed.) *Haus und Palast im alten gypten*. Vienna: Austrian Archaeological Institute, 265–285.

Wetterstrom, W., Moens, M.-F.

1988 "The Agricultural Economy of an Old Kingdom Town in Egypt's West Delta: insights from the plant remains", *JNES*, 47 (3), 159–173.

Wilkinson, R. H.

2003 *The Complete Gods and Goddesses of Ancient Egypt*, London.

Wilkinson, T. A. H.

1999 *Early Dynastic Egypt*, London.

2000 *Royal Annals of Ancient Egypt: The Palermo Stone and its Associated Fragments*, London.

2014 "Dynasties 2 and 3", in: Grajetzki, W. and Wendrich, W., eds., *UCLA Encyclopedia of Egyptology*, Los Angeles. <http://digital2.library.ucla.edu/viewItem.do?ark=21198/zz002hkhz8k>

Wilson, P.

2011 *Sais I: The Ramesside- Third Intermediate Period at Kom Rebwa*, London.

Wood, W.

1978 "A reconstruction of the reliefs of Hesy-Re", *JARCE* 15: 9–24.