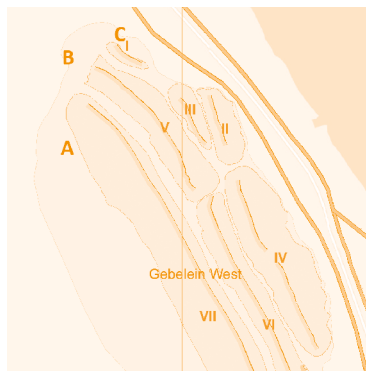


Gebelein Archaeological Project in 2019: Northern necropolis and the temple complex



Abstract: Continued archaeological surveys at two sites in the Gebelein area, the Northern Necropolis and the temple complex, have contributed new data for a better understanding of the ancient remains. Geophysical anomalies detected in 2015 in the western part of the Northern necropolis should now be interpreted most probably as tombs with mud-brick walls. Mounds of earth in the central part of the necropolis yielded numerous artifacts dating from between the Naqada I and the early Old Kingdom periods; they are likely to have been dumped from a nearby settlement site, probably the ancient town of Sumenu. Work in the temple complex was aimed at protecting the structure made of inscribed mud-bricks dating from the Twenty-first Dynasty.

Keywords: Gebelein, Early Dynastic Period, Old Kingdom, pottery, flint

The Gebelein site in Upper Egypt has been investigated from an archaeological point of view for several seasons now and the work in October 2019 was a continuation of the research, focusing on two areas: the Northern necropolis and the northern part of the temple complex of the ancient city of Per-Hathor. The following discussion concentrates on surface finds of pottery and flint artifacts from these areas.

Wojciech Ejsmond¹
Olivier Pierre Rochecouste²
Taichi Kuronuma³
Piotr Witkowski⁴

¹ Institute of Mediterranean and Oriental Cultures, Polish Academy of Sciences

² Macquarie University

³ Research Institute for Humanity and Nature

⁴ Independent researcher

Team

Dates of fieldwork: 5–24 October 2019

Director: Wojciech Ejsmond, archaeologist (Institute of Mediterranean and Oriental Cultures, Polish Academy of Sciences)

SCA representatives: Sabbah Ahmed Mohamed El-Abbady, Mohammed Ahmed Abdel Naeem Wabourat (Inspectorate of Esna)

Archaeologists: Taichi Kuronuma (Research Institute for Humanity and Nature, Kyoto); Olivier P. Rochecouste (Macquarie University, Sydney); Piotr Witkowski, photographer (independent researcher)

Egyptologist: Simon Underwood (University of Auckland, New Zealand)

Acknowledgments

This publication is the result of research carried out under Polish National Agency for Academic Exchange (NAWA) scholarships awarded individually to Wojciech Ejsmond and Piotr Witkowski. The work in Egypt was supported by the Polish Centre of Mediterranean Archaeology University of Warsaw. Olivier P. Rochecouste was financed by the Michelle McLean Egyptology Scholarship from Macquarie University, and Taichi Kuronuma by the Japanese Society for the Promotion of Science KAKENHI Grant JP19K23105. Research in the field was also financed by the University of Warsaw Foundation, and with generous donations from numerous patrons through the www.pomagam.pl website, as well as Sue and John Robinson.

The authors are very grateful to Dr. Jean-Pierre Pätznick for his expertise on the Early Dynastic and Old Kingdom seals, and to Dr. Martin Odler for examining images of the slag. They also wish to thank Piotr Jaworski from the University of Warsaw for identifying the Ptolemaic coins.

NORTHERN NECROPOLIS

An archeological survey in the Northern Necropolis [A and B in Fig. 1] covered the area that was prospected with geophysi-

cal methods in 2015 (Ejsmond et al. 2017: Fig. 4). The current survey indicated that the anomaly in the northeastern corner

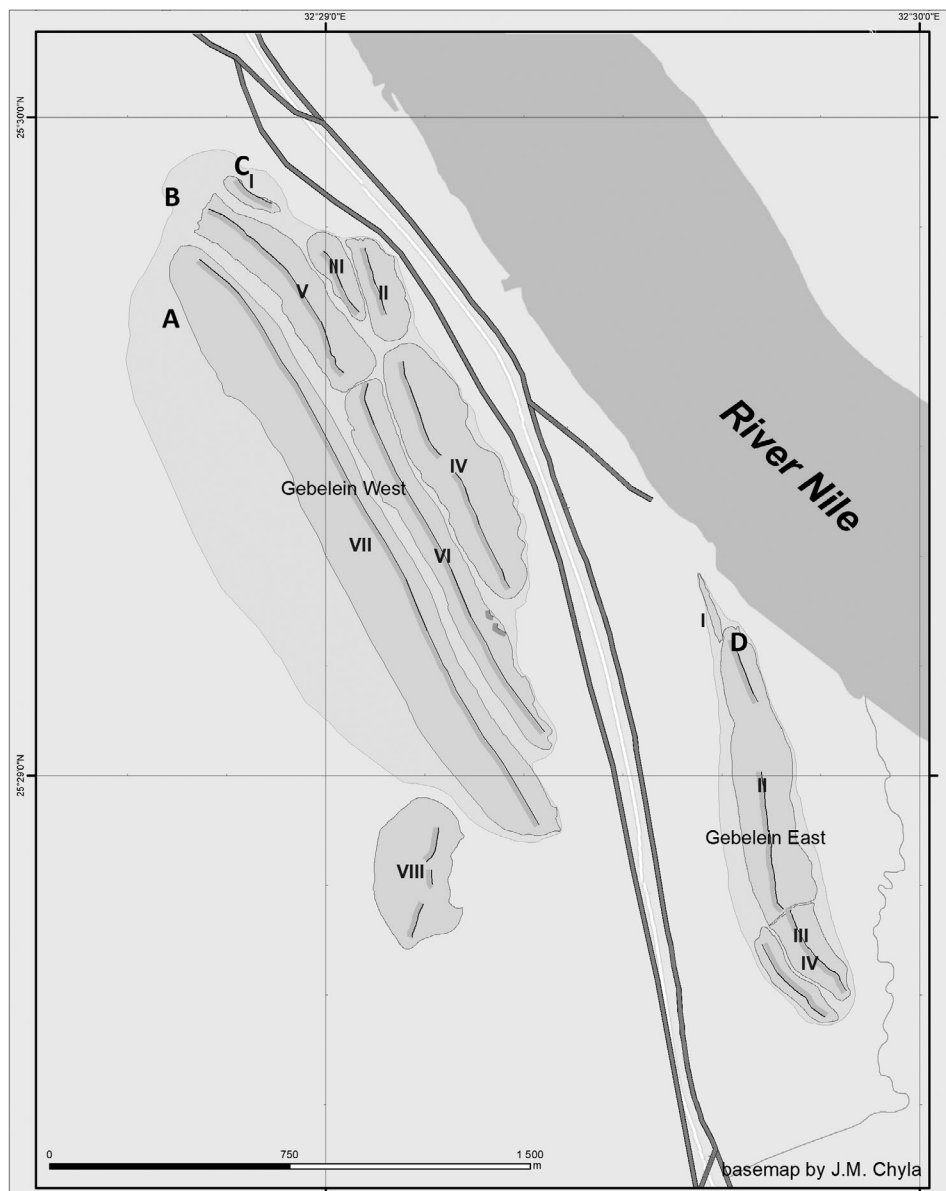


Fig. 1. Location of fieldwork in October 2019: rocks indicated with Roman numerals; for division into areas see Ejsmond et al. 2017: 241–243 (Base map J.M. Chyla, editing W. Ejsmond)

of the southern area of the geophysical prospection is most probably a tomb, because pottery, mud bricks, and a human bone were found on the corresponding ground surface. This place was explored in the past, possibly plundered, judging by the earth piled up around a depression on the spot of the anomaly. Loose mud bricks, measuring approximately $24 \times 7.5 \times 12$ cm, were found at the location. The plan of the tomb and its precise dating can be established following further investigations.

Extraction of blocks of Esna shale from the northern slope of the Western Mountain of Gebelein in the second part of the 20th century destroyed the central part of the Northern Necropolis (Ejmond et al. 2017: 247, Fig. 6), and in recent years the area was used for dumping trash. These piles of dark-brown alluvium [in area B; see Fig. 1] contained modern garbage (like plastic bags, glass bottles etc.), animal bones, charcoals, limestone chips, alongside ancient artifacts: Predynastic, Early Dynastic and early Old Kingdom pottery, lithic tools (e.g., Predynastic and Early Dynastic scrapers and knives), slag from metal production, and small pieces of corroded copper. These remains come most probably from modern construction activities in the nearby village of el-Gharirah. Four of the artifacts are of significance: a Predynastic female figurine, a clay object in the shape of a penis, and two pieces of clay with impressions of Early Dynastic and early Old Kingdom seals.

Numerous pottery fragments were also sourced from these rubbish mounds. Diagnostic pottery sherds, including rims, bases and decorated body sherds, were collected. Representative sherds

were documented in detail, especially the surface treatment of the vessels, looking for potential minor regional differences between pottery from the Naqada I and the early Naqada II periods. Several pottery sherds from the late Naqada II, III, and early Old Kingdom, which dominated the assemblage, were also examined. The following forms were observed: bowls, beakers, jars, as well as a miniature vessel [Figs 2, 3; Table 1]. Bread molds are represented abundantly (not illustrated here). Naqada I pottery includes bowls [Fig. 2:1–3] as well as jars of Petrie's Black-topped wares (Petrie 1921) [Fig. 2:4]. Several sherds from the Naqada I to early Naqada II periods represented Black-topped jars [Fig. 2:5] and Polished-red jar types [Fig. 2:6]. Examples of sherds characteristic of the Naqada II period include Decorated-ware [Fig. 2:10]. Sherds from the late Naqada II to early Naqada III periods included an example of Petrie's Rough-ware bowl [Fig. 2:7] and a jar [Fig. 2:8]. A miniature bowl [Fig. 2:9] may also be of the same date. The figured pottery, which is dated to the Naqada III period onwards, is mainly made of marl clay, that is, Petrie's Late-ware: bowl sherds [Fig. 3:1–5], jars [Fig. 3:6–9], as well as carinated bowls resembling Petrie's L78 series (Petrie 1921: Pl. LI) [Fig. 3:10–12]. A Meidum bowl of early Old Kingdom date was also collected [Fig. 3:13]. Bowls with everted rim [Fig. 3:1], slightly incurved rim [Fig. 3:2], slightly folded rim [Fig. 3:3], and bowls with strip, vertical-right diagonal burnishing on their inner walls [Fig. 3:4–5], as well as jars, either necked [Fig. 3:6–8] or cylindrical [Fig. 3:9], can be dated to the early Naqada III period. By contrast, carinated bowls from

the late Naqada III period may include an incipient stage of the succeeding Meidum bowl [Fig. 3:10–12]. Of these, Nos 10 and 11 have morphological characteristics dating to earlier times, such as a well-developed neck part and a deeper profile (Op de Beeck 2004).¹ In addition, a body sherd with decoration [Fig. 2:10] has edges that were apparently reused for scraping or smoothing; a number of sherds with such reused edges was collected.

In terms of surface treatment, mainly vertical-to-left diagonal fine burnishing is observed on sherds representing Petrie's Black-topped wares [Fig. 2:1, 3, 4] from the Naqada I period. Such directional similarity of burnishing may indicate regional manufacturing characteristics or potters' preferences; quantitative observations are required to resolve the issue. Morphologically, pottery from the first half of the Naqada period, especially Naqada I, is more or less varied by the major sites (see Hartmann 2016; Hendrickx 1996; 2006), thus regional variety is to be expected not only with regard to vessel form but also manufacturing technique, including surface treatment. For sherds of Naqada III date, horizontal burnishing after right diagonal burnishing can be observed on a bowl made of marl clay which corresponds to Petrie's L-Ware [see Fig. 3:5]. A vertical or diagonal burnishing of bowl surfaces with hard tools started at the end of the Naqada II period, and became more common during Naqada III times, in Upper as well as Lower Egypt (e.g., Kopp 2006; Rzeuska 2017). It could indicate regional pottery characteristics,

to be determined by a quantitative examination of these burnishing marks, their application and direction. Exterior scraping, which is common on Meidum bowls (e.g., Doherty 2015: 102), was also observed on sherds morphologically similar to Petrie's L78a form from the Northern cemetery survey. Thus, the onset of this common technique could be traced back to the Naqada III period. Another general indicator of Meidum bowls, rilling marks between the rim and carination, were observed on some sherds [see Fig. 3:12–13]. Some of the sherds with rilling marks can be dated to the Naqada III B–C periods [see Fig. 3:10–11] because they are less straight than the above-described bowls with carination. It could be due to differences in rotation speed, but more detailed and quantitative examination is necessary to resolve the issue.

Numerous flint lithics were also collected from the rubbish in the central part of the Northern Necropolis, including scrapers, sickle blades, an adze etc. [Fig. 4]. The material represents a chronological time span from Naqada II to the early Old Kingdom.

Copper slag sourced from the rubbish mounds is tentatively dated to not later than the Middle Kingdom [Fig. 5]. Finds of slag are frequent, previously being found also at the northeastern corner of Rock I of the Western Mountain [C in Fig. 1]. The location of these finds is telling, especially since past descriptions of the site mention the remains of a settlement site situated north of the Northern Necropolis and partly overlapping with

1 A carinated bowl corresponding with Petrie's L78a was reported, for example, from Grave 219 at the West Cemetery of Adaima, dated to the Naqada IIIB period (Crubézy, Janin, and Midant-Reynes 2002: 321).

Table 1. Catalog of pottery sherds illustrated in **Figs 2–3**, dated mainly to the Naqada period, but including also the Old Kingdom. Dia. = reconstructed diameter; H.pres. = preserved height; W.pres. = preserved width; n/a = not applicable. Parentheses in the relative chronology indicate the earliest possible occurrence of a given pottery type

<p>1. Beaker (G19.SA/13) Dia. n/a; H.pres. 70 mm(?) Petrie typology: like the B25 series Naqada I [Fig. 2:1]</p>	<p>Dull reddish brown clay, grey core. Nile silt, limestone fragment, white grit, black grit. Red slip on exterior, black-topped. Vertical-left diagonal burnish on exterior, horizontal-slight right diagonal hand smooth on interior. Well fired.</p>
<p>2. Beaker (G19.SA/19) Dia. 260 mm; H.pres. 67 mm Petrie typology: like the B21 series Naqada I [Fig. 2:2]</p>	<p>Grey clay, grey core. Nile silt, limestone fragment, mica. Red slip on exterior, black-topped. Left diagonal and horizontal hand smooth on exterior, horizontal hand smooth on interior, two repairing-holes, inside very abraded. Well fired.</p>

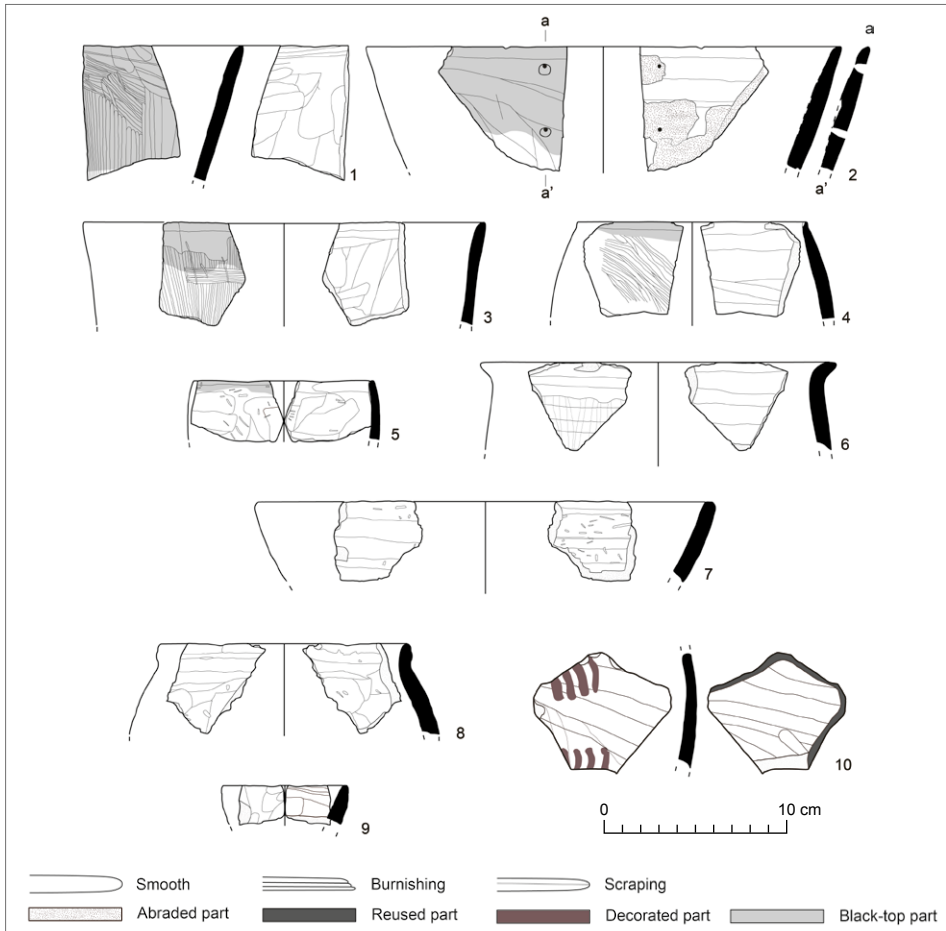


Fig. 2. Surface collection of pottery sherds from the Naqada I to II periods; exterior projected on the left, interior on the right; for descriptions see **Table 1** (University of Warsaw | drawing T. Kuronuma)

3. Beaker (G19.SA/21) Dia. 198 mm; H.pres. 57 mm Petrie typology: like the B25 series Naqada I [Fig. 2:3]	Grey clay, grey core. Nile silt, limestone fragment, white grit, brown grit, mica. Red slip on exterior, black-topped. Left diagonal-vertical and horizontal hand smooth on exterior, horizontal hand smooth on interior. Well fired.
4. Neckless jar (G19.SA/22) Dia. 122 mm; H.pres. 53 mm Petrie typology: like the B57 series Naqada I [Fig. 2:4]	Dull orange clay, dull reddish brown core. Nile silt, limestone fragment, brown grit, mica. Red slip on exterior, partial red wash on interior, black-topped. Left diagonal-vertical and horizontal hand smooth on exterior, left-diagonal and horizontal hand smooth on interior. Well fired.
5. Neckless jar (G19.SA/24) Dia. 98 mm; H.pres. 34 mm Petrie typology: like the B58 series Naqada I–IIB [Fig. 2:5]	Greyish brown clay, grey core. Nile silt, limestone fragment, white grit, straw and chaff temper. Red slip on exterior, black-topped. Horizontal hand smooth on exterior, horizontal hand smooth on interior. Well fired.
6. Jar (G19.SA/23) Dia. 194 mm; H.pres. 48 mm Petrie typology: like the P69 series Naqada I–IIB [Fig. 2:6]	Dull orange clay, yellowish grey core. Nile silt, limestone fragment, grey fine grit, mica. Red slip on exterior and interior. Horizontal after vertical hand smooth on exterior, horizontal hand smooth on interior. Well fired.
7. Open bowl (G19.SA/7) H.pres. 251 mm; W.pres. 46 mm Petrie typology: like the R32 series Naqada IIC–IIIA [Fig. 2:7]	Brown clay, dull reddish brown core. Nile silt, limestone fragment, white grit, straw temper. Horizontal hand smooth on exterior and interior. Medium fired.
8. Small necked jar (G19.SA/6) Dia. 140 mm; H.pres. 49 mm Petrie typology: like the R69 series Naqada IIC–IIIA [Fig. 2:8]	Dull reddish orange clay, grey core. Nile silt, limestone fragment, white grit, grey grit, straw temper. Horizontal hand smooth on exterior and interior. Medium fired.
9. Miniature bowl (G19.SA/25) Dia. 69 mm; H.pres. 22 mm Petrie typology: like the R3 series(?), for example; Naqada IIC–IID(?) [Fig. 2:9]	Dull brown-orange clay, dull orange core. Nile silt, limestone fragment, white grit, mica. Horizontal-left diagonal hand smooth on exterior and interior. Well fired.
10. Necked jar, body with decoration (G19.SA/40) Dia. 74.5 mm; H.pres. 62.5 mm Petrie typology: D27 (or 20) series Naqada IIC–IID(?) [Fig. 2:10]	Bright reddish brown clay, grey core. Marl clay, limestone fragment, grey sand. Greyish red decoration (2 sets of 4 vertical wavy lines) on exterior. Horizontal-left diagonal hand smooth on exterior and interior. Well fired.
11. Open bowl, everted rim (G19.SA/15) Dia. 312 mm; H.pres. 32 mm Petrie typology: like L7a or L7c series Naqada (IID)–IIIA–B(?) [Fig. 3:1]	Dull yellow orange clay, greyish brown core. Marl clay, limestone fragment, blue pebble, grog. Red slip on exterior and interior, horizontal hand smooth on exterior and interior. Well fired.
12. Open bowl, folded rim (G19.SA/5) Dia. 228 mm; H.pres. 37 mm Petrie typology: like the L7 series Naqada (IID)–IIIA–B [Fig. 3:2]	Dull orange clay, orange core. Marl clay, calcite fragment, black grit, grog, brown-red slip on exterior and interior, horizontal hand smooth on exterior and interior. Well fired.
13. Bowl, incurved rim (G19.SA/9) Dia. 222 mm; H.pres. 43 mm Petrie typology: like the L16 series Naqada (IID)–IIIA–B(?) [Fig. 3:3]	Dull yellow orange clay, reddish-brown core. Marl clay, limestone fragment, blue grit, brown grit. Red slip on exterior and interior. Horizontal hand smooth on exterior and interior. Well fired.

14. Bowl, burnishing on interior wall (G19.SA/36) Dia. 204 mm; H.pres. 57.5 mm Petrie typology: like the L17 series Naqada (IIC)–IIIA(?) [Fig. 3:4]	Orange clay, dull orange core. Marl clay, limestone fragment, grey grit, brown sand. Partial left diagonal scraping after horizontal hand smooth on exterior, vertical-right diagonal burnish after horizontal hand-smooth on interior. Well fired.
15. Bowl, burnishing on exterior and interior wall (G19.SA/42) Dia. 207 mm; H.pres. 34 mm Petrie typology: like the L16 series Naqada (IIC)–IIIA(?) [Fig. 3:5]	Orange clay, greenish grey core. Marl clay, grey-blue grit, grey grog. Red slip on exterior. Horizontal burnish below rim after horizontal hand smooth on exterior, right diagonal burnish after horizontal hand-smooth on interior. Well fired.
16. Necked jar (G19.SA/4) Dia. 98 mm; H.pres. 47 mm Petrie typology: like the L53 series Naqada IIIA–B [Fig. 3:6]	Dull orange clay, dull orange core. Marl clay, limestone fragment. Red-brown slip on exterior. Vertical hand smooth after horizontal hand smooth on exterior, horizontal hand smooth after slight vertical hand smooth on interior. Well fired.
17. Necked jar (G19.SA/14) Dia. 92 mm; H.pres. 57 mm Petrie typology: like the L36(?) series Naqada (IID)–IIIA–B(?) [Fig. 3:7]	Dull yellow orange clay, orange core. Marl clay, limestone fragment, grey pebble, grit. Red slip on exterior, partial red slip on interior. Horizontal hand smooth with partial subsequent left diagonal scraping on exterior, horizontal and partial left diagonal hand smooth on interior. Well fired.
18. Necked jar (G19.SA/10) Dia. 122 mm; H.pres. 32 mm Petrie typology: like the L53 series Naqada IIIA–B(?) [Fig. 3:8]	Dull orange-reddish brown clay, grey core. Marl clay, limestone fragment. Red slip on exterior and interior. Horizontal scraping on exterior, horizontal hand smooth on interior. Well fired.
19. Cylindrical jar (G19.SA/33) Dia. 95 mm; H.pres. 55.5 mm Petrie typology: like the L57 series Naqada (IID)–IIIB [Fig. 3:9]	Orange clay, orange core. Marl clay, limestone fragment, grog, mica. Red slip on exterior and interior. Vertical scraping and partial horizontal smooth below rim on exterior, horizontal hand smooth on interior. Well fired.
20. Carinated bowl (G19.SA/1) Dia. 184 mm; H.pres. 65 mm Petrie typology: like the L78a series Naqada IIIB–IIIC(?) [Fig. 3:10]	Orange clay, dull brown core. Marl clay, limestone fragment, black grit. Red slip on exterior and interior. Horizontal smooth by low-speed rotation on exterior and interior. Well fired.
21. Carinated bowl (G19.SA/16) Dia. n/a; H.pres. 72 mm Petrie typology: like the L78a series Naqada IIIB–IIIC(?) [Fig. 3:11]	Orange clay, dull yellow orange core. Marl clay, limestone fragment, black grit. Red slip on exterior and interior. Horizontal-left diagonal scraping after horizontal smooth by low-speed rotation on exterior, horizontal smooth by low-speed rotation with partial left diagonal scraping on interior. Well fired.
22. Carinated bowl (G19.SA/41) Dia. 195 mm; H.pres. 38 mm Petrie typology: like the L78a series but later(?) “Naqada IIID(?) / Old Kingdom(?)” [Fig. 3:12]	Dull orange clay, orange core. Marl clay, limestone fragment, grey grit, blue grit. Red slip on exterior and interior. Horizontal-left diagonal scraping after horizontal smooth by low-speed rotation on exterior. Horizontal smooth by low-speed rotation on interior. Well fired.
23. Meidum bowl(?) (G19.SA/2) Dia. 198 mm; H.pres. 36 mm Old Kingdom [Fig. 3:13]	Orange clay, orange core. Marl clay, limestone fragment, black grit. Red slip on exterior and interior. Horizontal smooth by low-speed rotation on exterior, partial right diagonal scraping after horizontal smooth by low-speed rotation on interior. Well fired.

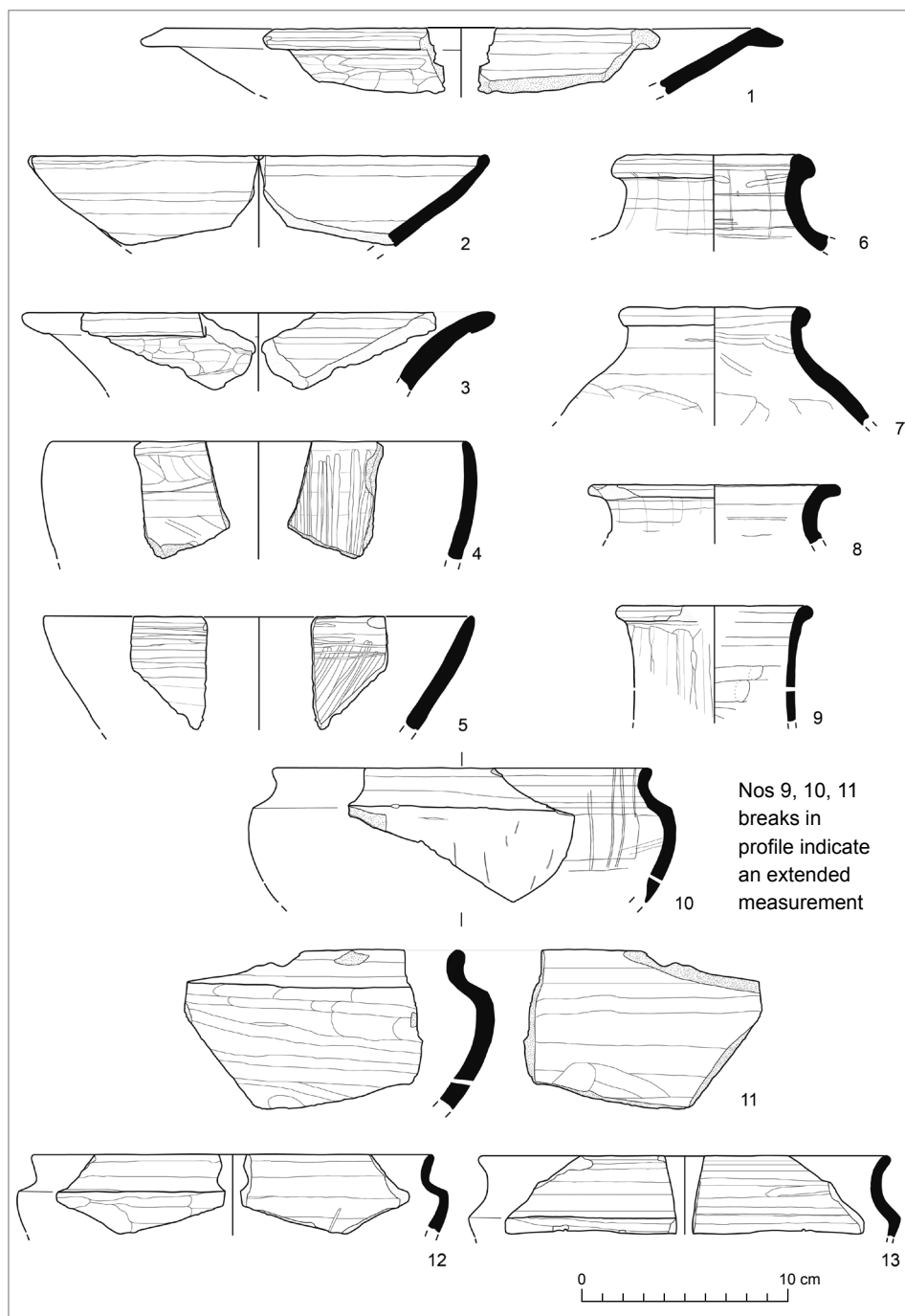


Fig. 3. Surface collection of pottery sherds from the Naqada III period to the early Old Kingdom; exterior projected on the left, interior on the right; key in *Fig. 2*; for descriptions see *Table 1* (University of Warsaw | drawing T. Kuronuma)

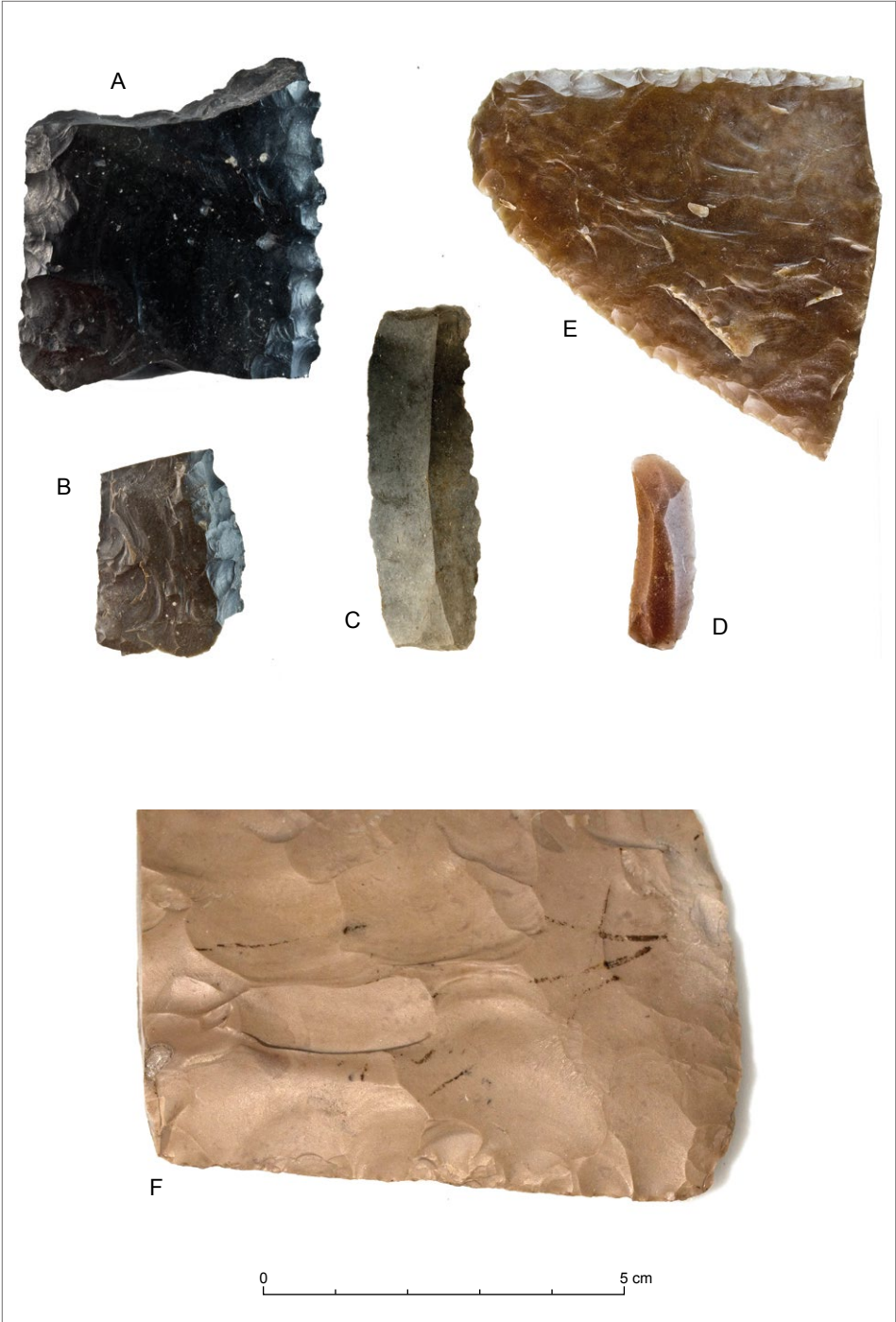


Fig. 4. Selection of lithic implements: A, B – bifacial knives, C, D – scrapers, E – bifacial knife fragment, F – adze (University of Warsaw | photo P. Witkowski)

the cemetery. Previous investigators reported a settlement “of which a stratum of ash remains” (Schiaparelli 1921: 127–128; Donadoni Roveri 1990: 23). Further details were presented in an unpublished report: “the accumulation being the outcome of frequent fires, layers of mixed ash formed over the centuries and deposits of straw and charcoal of varying

thickness, reaching a considerable height in some places. This compact deposit of plant debris, charcoal and ash covers the slopes of the hills [probably Rocks I and V] next to the cultivated land over a considerable area” (Schiaparelli 1920; translation W. Ejsmond). Virginio Rosa mentioned an accumulation of soil rich in ash, from 1 m to 3 m thick, around



Fig. 5. Selection of copper slag from the trash in the Northern necropolis (University of Warsaw | photo P. Witkowski)

the northeastern corner of Rock I, in front of the villages of el-Gharirah and Abu Humus. He recognized an upper layer consisting of sand and fragments of limestone,² a middle layer consisting of more or less black ash, and a layer at the bottom, which was a thin layer of ash and soil spread over the bedrock. Flint artifacts and burials (sometimes in pots) were reported in this deposit (Rosa 1911: 25–26, 49). Schiaparelli (1914) mentioned in a letter that the settlement related to this accumulation dates from the Predynastic Period to the Third Dynasty (Ugliano 2016: 186). This corresponds with the dating of the artifacts from the rubbish mound. Based on this information, the settlement site in question is speculatively identified with the Pre- and Early Dynastic town of Sumenu (for its location, other sources and references,

see Ejsmond 2018: 398–399). Schiaparelli also observed that the structures forming the site were made of perishable materials. He also mentioned that its location moved from the low desert in the direction of the alluvial plain. Schiaparelli dated the settlement located in the low desert to Predynastic times, while the one closer to the Nile to the Early Dynastic period (Schiaparelli 1921: 127–128; Ugliano 2016: 187).

A set of five papyri, dated to the Fourth or Fifth Dynasty and sourced from the northern part of Rock I, mentions metalworkers in the region (Posener-Kriéger 2004: 15 and 20). It may be speculated that the large quantities of ash resulted from metal production in the area, which would mean that the settlement north of Gebelein continued to exist in the Old Kingdom period.

PROTECTION WORK IN THE AREA OF THE TEMPLE IN PER-HATHOR

Upon the request of the Inspectorate of Antiquities in Esna, protection work was undertaken in the area of a temple located in the northern part of the Eastern Mountain of Gebelein [D in *Fig. 1*]. A concentration of mud bricks with impressions of seals featuring the names of the Theban High Priest of Amun from the Twenty-first Dynasty, Menkheperre, and his wife, Isetemheb, is found there (Ejsmond, Wiczorek, and Wiczorek 2018: 238). The concentration was covered with large sheets of cotton textile and settled in place with a layer

of gravel [*Fig. 6 top*]. The gravel came from a nearby rock-shelf. The modern character of this accumulation was attested by plastic objects, cigarette boxes, modern chisels etc. found in it. During the work, two small fragments of decorated sandstone blocks were found south of the mud brick concentration.

Drilling holes discovered in the area from where the gravel was sourced [*Fig. 6 bottom*] are proof of modern stone extraction activities, indicating that the rock-shelf could have looked differently when people left the inscriptions on the

2 The cutting of tombs locally and their plunder in later times could have resulted in this stone waste.



Fig. 6. Northern part of the Eastern Mountain with a concentration of mud bricks with impressions of seals: top, protecting the mud bricks with textile and a layer of gravel; bottom, the shelf after cleaning (University of Warsaw | photo O.P. Rochecouste)

rock wall here (Wieczorek forthcoming). A bronze coin of Ptolemy IV was recovered from under the gravel.³ Eight blue

faience beads, remains of a reed basket, a copper earring(?), and pottery were also found in the accumulation of the gravel.

CONCLUDING REMARKS

The mounds of ‘trash’ in the Northern Necropolis, which the Project team focused on this season (only a small part was explored in 2019), can yield new data about a local settlement that has not and probably never will be investigated because of the modern village of el-Gharirah standing on the site today. Assuming that the settlement site in the northern part of Gebelein is identified with Sumenu, its location after the early Old Kingdom is puzzling to say the least. Figurines of a woman and of a penis, fertility images in general, can be found in houses, burials, and temples (Pinch 1993: 211–225). Seal impressions could indicate some administrative activities in the area.

Numerous and diverse pottery sherds and lithic implements were examined from the perspective of a search for regional manufacturing traditions. The pottery can be dated from the Naqada I period onwards, suggesting a possible diachronic continuation of activities throughout the Predynastic and Early Dynastic periods. However, it should be emphasized that the context in this case is not safe and secure, and the finds cannot be incorporated into their original source. Thus, the conclu-

sions from this preliminary study are rather broad, regarding the Gebelein area in general and serving possibly as a starting point for further discussion of the regional characteristics of the local material culture. To build a sound model of materialist regionality, surveys or excavations of primary archeological contexts and artifact collections are required. Further collection of pottery from the site is also needed to add weight to the preliminary conclusions concerning regional pottery characteristics. A closer observation of the fabrics, including petrographic analyses, should also be performed.

The large quantities of ash and copper slag in the settlement area are an indication of metal production on a large scale. Thus, it would be worthwhile to study the production and administrative significance of Gebelein based on Old Kingdom administrative papyri (Posener-Kriéger 2004), the large tombs discovered in the Northern Necropolis (Ejsmond, Skalec, and Chyla 2020), and current finds.

Further testing of the mapped geophysical anomalies in the western part of the Northern Necropolis is also essential.

3 Bronze *triobol*, Alexandria mint; series 5C, probably before 220/19 BC; obv. horned head of Zeus-Ammon r., rev. ΠΙΤΟΛΕΜΑΙΟΥ on l., ΒΑΣΙΛΕΩΣ on r., eagle with closed wings standing on thunderbolt l., cornucopiae bound with royal diadem in l. field, ΑΙ between eagle's legs. References: CPE I.2, B494 (CPE I.2 = Lorber 2018: 124). The authors would like to thank Piotr Jaworski (University of Warsaw) for his expertise.

Dr. Wojciech Ejsmond

<https://orcid.org/0000-0003-2413-8728>
 Institute of Mediterranean and Oriental Cultures
 Polish Academy of Sciences
 wojtek.ejsmond@wp.pl

Dr. Olivier Pierre Rochecouste

<https://orcid.org/0000-0003-2415-7814>
 Macquarie University, Sydney
 olivier.rochecouste@gmail.com

Dr. Taichi Kuronuma

<https://orcid.org/0000-0001-9385-3114>
 Research Institute for Humanity and Nature (RIHN), Kyoto, Japan
 taichi.kuronuma@gmail.com

Piotr Witkowski

Independent researcher
 pwtik@wp.pl

How to cite this article: Ejsmond, W., Rochecouste, O.P., Kuronuma, T., and Witkowski, P. (2021). Gebelein Archaeological Project in 2019: Northern necropolis and the temple complex. *Polish Archaeology in the Mediterranean* 30/2, 13–28. <https://doi.org/10.31338/uw.2083-537X.pam30.2.14>

References

- Crubézy, É., Janin, T., and Midant-Reynes, B. (2002). *Adaïma II. La nécropole prédynastique (=Fouilles de l'Institut français d'archéologie orientale, 47)*. Cairo: Institut français d'archéologie orientale
- Doherty, S.K. (2015). *The origins and use of the potter's wheel in ancient Egypt (=Archaeopress Egyptology 7)*. Oxford: Archaeopress
- Donadoni Roveri, A.M. (1990). Gebelein. In G. Robins (ed.), *Beyond the pyramids: Egyptian regional art from the Museo Egizio, Turin* (pp. 23–29). Atlanta: Emory University Museum of Art and Archaeology
- Ejsmond, W. (2018). Gebelein in the Predynastic period: Capital or provincial centre? Review of evidence. In J. Kabaciński, M. Chłodnicki, M. Kobusiewicz, and M. Winiarska-Kabacińska (eds), *Desert and the Nile: Prehistory of the Nile Basin and the Sahara. Papers in honour of Fred Wendorf (=Studies in African Archaeology 15)* (pp. 387–405). Poznań: Poznań Archaeological Museum
- Ejsmond, W., Chyla, J.M., Witkowski, P., Takács, D., Wiczorek, D.F., Xu-Nan, L., Oeters, V., Kuronuma, T., and Grylak, A. (2017). Report on the archaeological survey at Gebelein in the 2014, 2015 and 2016 seasons. *Polish Archaeology in the Mediterranean*, 26/1, 239–268
- Ejsmond, W., Skalec, A., and Chyla, J.M. (2020). The Northern Necropolis of Gebelein in light of old and current fieldwork. *Journal of Egyptian Archaeology*, 106(1–2), 105–122

- Ejsmond, W., Wieczorek, D.F., and Wieczorek, A. (2018). Gebelein Archaeological Project 2018: Temple and fortress area on the Eastern Mountain. *Polish Archaeology in the Mediterranean*, 27/1, 235–244
- Hartmann, R. (2016). *Umm el-Qaab IV. Die Keramik der älteren und mittleren Naqadakultur aus dem prädynastischen Friedhof U in Abydos (Umm el-Qaab)* (=Archäologische Veröffentlichungen 98). Wiesbaden: Harrassowitz Verlag
- Hendrickx, S. (1996). The relative chronology of the Naqada Culture: Problems and possibilities. In J. Spencer (ed.), *Aspects of early Egypt* (pp. 36–69). London: British Museum Press
- Hendrickx, S. (2006). Predynastic–Early Dynastic chronology. In E. Hornung, R. Krauss, and D.A. Warburton (eds), *Ancient Egyptian chronology* (pp. 55–93). Leiden: Brill
- Kopp, P. (2006). *Elephantine XXXII. Die Siedlung der Naqadazeit* (=Archäologische Veröffentlichungen 118). Mainz am Rhein: Philipp von Zabern
- Lorber, C.C. (2018). *Coins of the Ptolemaic Empire I.2. Ptolemy I through Ptolemy IV. Bronze*. New York: The American Numismatic Society
- Op de Beeck, L. (2004). Possibilities and restrictions for the use of Maidum-bowls as chronological indicators. *Cahiers de la Céramique Égyptienne* 7, 239–280
- Petrie, W.M.F. (1921). *Corpus of prehistoric pottery and palettes*. London: British School of Archaeology in Egypt
- Pinch, G. (1993). *Votive offerings to Hathor*. Oxford: Griffith Institute, Ashmolean Museum
- Posener-Kriéger, P. (2004). *I papiri di Gebelein: Scavi G. Farina 1935* (=Studi del Museo Egizio di Torino: Gebelein 1). Turin: Ministero per i Beni e le Attività Culturali, Soprintendenza al Museo delle Antichità Egizie
- Rosa, V. (1911). *Giornale scavi a Gebelein: Campagno 1911*. Unpubl. field journal in the State Archives of Turin (Bundle 5, Issue 2, No. 28)
- Rzeuska, T.I. (2017). *Chronological overview of pottery from Asyut: A contribution to the history of Gebel Asyut al-gharbi*. Wiesbaden: Harrassowitz Verlag
- Schiaparelli, E. (1914). *Unpubl. letter in the State Archives of Turin* (Bundle 1, Issue 18)
- Schiaparelli, E. (1920). *Unpublished report from the activities of the Italian Mission in Egypt to the Minister of Education, 03/08/1920*; State Archive of Turin (Second Deposit, Deck 1, file 21)
- Schiaparelli, E. (1921). La missione italiana a Ghebelein. *Annales du Service des antiquités de l'Égypte*, 21, 126–128
- Ugliano, F. (2016). *La collezione predinastica del Museo Egizio di Torino: uno studio integrato di archivi e reperti* (Ph.D. diss.). University of Trento. Retrieved from: <http://eprints-phd.biblio.unitn.it/1835/> (accessed: 30.03.2021)
- Wieczorek, D.F. (forthcoming). Gebelein: Pharaonic rock inscriptions on the Eastern Mountain of Gebelein. Results of current epigraphic works. In C. Ragazzoli and K. Hassan (eds), *Graffiti, secondary epigraphy and rock inscriptions from ancient Egypt*. Cairo: Institut français d'archéologie orientale