GIZA PLATEAU MAPPING PROJECT

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From August 21, 2021, to April 4, 2022, Ancient Egypt Research Associates (AERA) carried out fieldwork, directed by Mark Lehner, at the Heit el-Ghurab (HeG) site and the Menkaure Valley Temple (MVT).

HEIT EL-GHURAB

At the HeG site, AERA worked on the derelict Abu Hol Sports Club with its soccer field. The Ministry of Tourism and Antiquities had reclaimed this land from the Ministry of Youth and Sports as of summer 2021.

September 2021 Sondages

From August 21 to September 9, 2021, we removed vegetation that had invaded the site and then finished documenting the modern features of the sports club.

Between September 25 and September 30, 2021, we excavated three sondages (fig. 1). We excavated Sondage 145 in the middle of the soccer field, where a 2003 electromagnetic conductivity survey seemed to show the southwest corner of the Royal Administrative Building (RAB) about a meter below the surface. But we found only clean sand down to groundwater at 14.38 m above sea level (asl) (fig. 2). We had to stop our excavations at this point, 3.29 m below the surface, because of the groundwater and safety precautions.

Finding no architectural remains here, we excavated Sondage 146, 22.50 m to the north, to pick up the RAB west wall. We again encountered clean sand and then groundwater, but at a depth of 3.54 m we found what appeared to be the extension of the wall. We confirmed that the RAB wall did indeed extend south under the soccer field when we opened Sondage 147 at the north perimeter of the sports club (fig. 3).

Clearing, Mapping, and Targeted Excavation

In the first week of January 2022, we demolished and removed all modern structures and foundations from the sports club. In February and March 2022, we cleared down to the Old Kingdom settlement ruins in the northwest and southwest corners of the soccer field, saving the RAB for a longer season of more intensive excavation.

In the northwest we removed clean sand 2.70 m deep, exposing the surface of the settlement ruins, which sloped markedly down to the south. At 14.74 m asl, groundwater prevented us from following the slope any farther. The ruins consisted of three magazines that extended south from four enclosures (E1–5) that we knew from prior seasons. We excavated two spaces in the newly revealed complex, both of them filled with fragmented mudbrick and pottery (fig. 4). In Space 10,853, we uncovered a clay sealing bearing the name of Khafre (fig. 5).

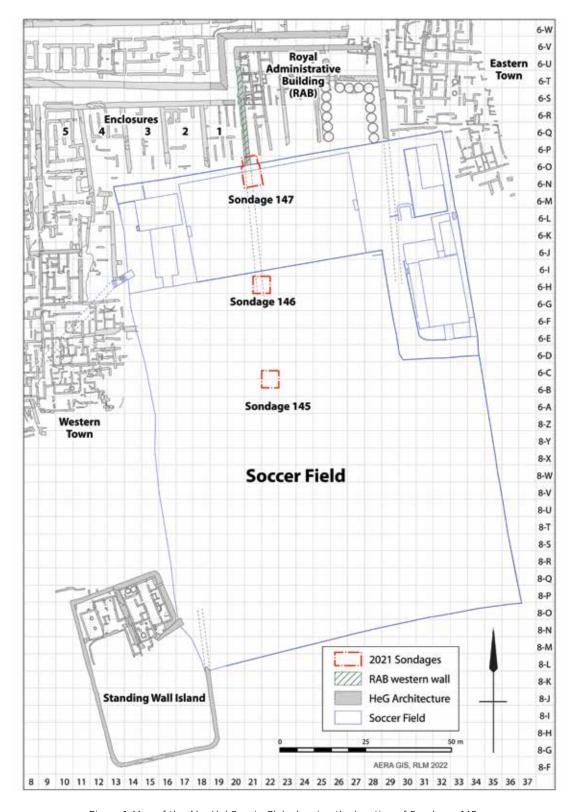


Figure 1. Map of the Abu Hol Sports Club showing the location of Sondages 145, 146, and 147, excavated between September 25 and September 30, 2021.

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Figure 2. Post-excavation view of Sondage 145 showing the thick, dark-brown surface of the soccer field overlying clean sand down to groundwater.



Figure 3. The west RAB wall continuing below the Abu Hol Sports Club; view to the south.

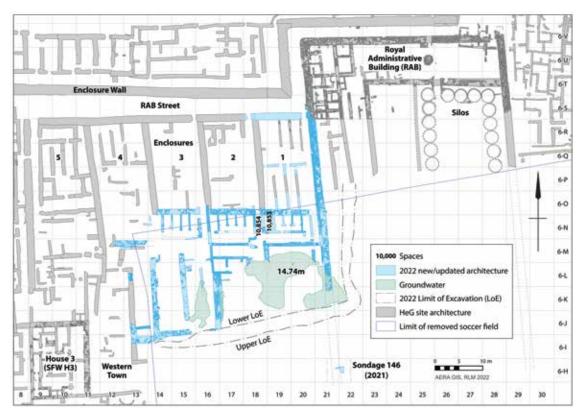


Figure 4. Map of the Fourth Dynasty settlement walls in the northwest corner of the Abu Hol Sports Club, with walls newly exposed or updated and mapped during the 2022 spring season highlighted in blue.

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In the southwest corner of the soccer field, we cleared a 4.17 m deep blanket of sand to expose an area along the east side of Standing Wall Island (SWI), named for the Old Kingdom fieldstone walls we found standing more than a meter high in 2004 (fig. 6). SWI is encircled by a large wall of broken stone that loops around to the south and east, with a return north. We dubbed the compound the OK ("Old Kingdom") Corral after noting parallels with corrals in Egyptian sites, ancient





Figure 5. Sealing with the name of Khafre found in Space 10,853. Left, front. Right, back.

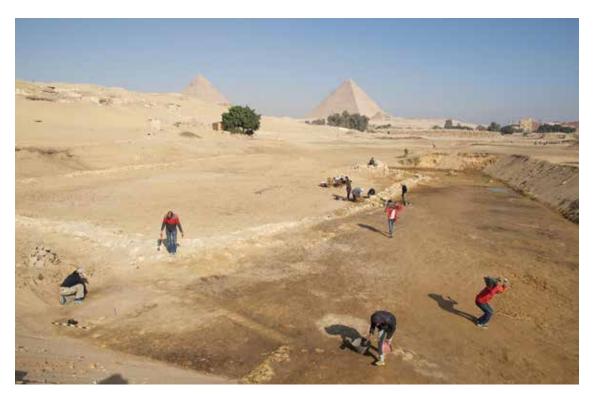


Figure 6. Area alongside SWI in the southwest corner of the former soccer field; view to the north.

depictions, and ethnographies. The north end of SWI consists of Enclosures ES1 and ES2. Earlier excavations revealed a house in ES2, up against the southwest corner of the soccer field. We hypothesized that a corridor ran between the east wall of ES2 and the SWI wall and that cattle may have been led through this corridor into the corral.

When we excavated this season, however, we found that the SWI wall turned west in a rounded corner and attached to the southeast corner of ES2 (fig. 7). We discovered a chamber inside the curve and a gate through the north end of the wall.

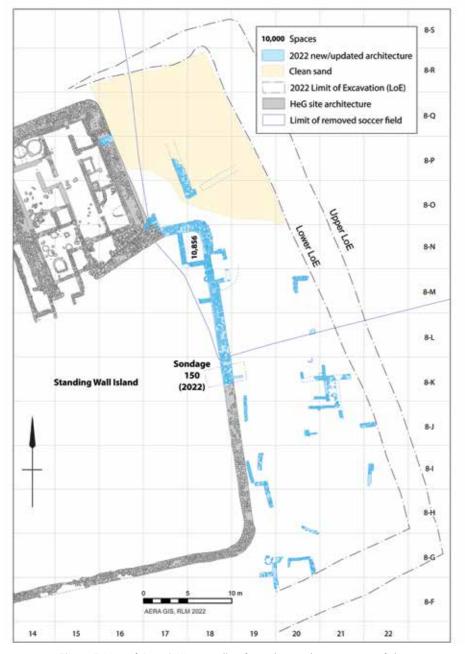


Figure 7. Map of Area SWI, extending from the southwest corner of the former soccer field, with newly mapped architecture highlighted in blue.

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East of the OK Corral wall, we uncovered an ancient settlement deposit rising gradually to the south, with walls showing in the surface, including a possible bakery.

MENKAURE VALLEY TEMPLE

A principal aim in 2021 (September 11 to December 16), carried over from the prior two seasons, was to complete our work on the west side of the MVT to find the temple foundations and the subsequent building and occupation history (figs. 8 and 9). As part of this process, we partially cleared

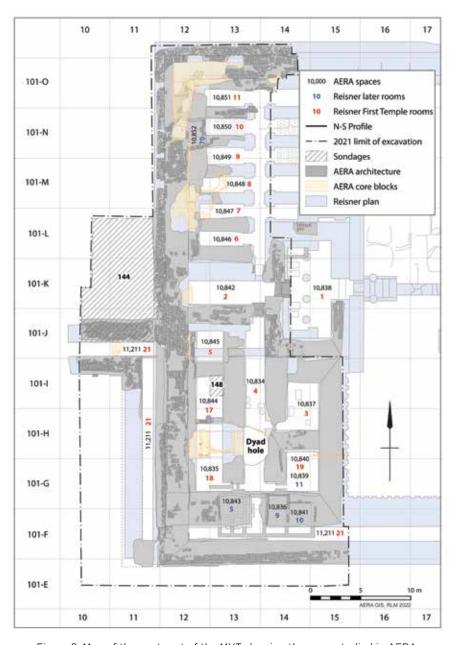


Figure 8. Map of the west part of the MVT showing the areas studied in AERA seasons 2019–21, including Sondages 144 and 148 and the Dyad Hole.



Figure 9. Area cleared and studied on the west side of the MVT in November 2021; view to the north.

the northwest magazines, Rooms 6–11, thereby completing our exposure of the east-facing elevation of the MVT west wall. Using photogrammetry, Dan Jones documented this elevation profile from more than 3,500 photos.

In Rooms 7 and 11, thanks to Reisner's 1910 exploratory holes, we came upon the limestone bedrock foundation of Menkaure's stone temple, which had eluded us for two seasons. The bedrock steps down from north to south, from 17.00 to 16.25 m asl, indicating that Menkaure's builders based the temple on the steps, terraces, or slope of a quarry.

Sondage 144

We continued our excavation in Sondage 144, started in 2020, where the causeway north wall meets the back west wall of the temple, an area that had never been excavated. At some point, builders raised the floor level 1.10 m for a new paved surface. Above it we found very little cultural material, but we documented gravel deposits culminating in much larger limestone pieces deposited by the flash flood that broke through the west temple wall. Reisner saw evidence of this flood from inside the Offering Hall. When people rebuilt the temple (Reisner's "Second Temple"), probably in the mid to late Sixth Dynasty, they first cleaned out the flood deposits and dumped them outside against the west wall, which they rebuilt. Later, a "water wall" of broken stones and clay was added as a barrier against further desert flash floods (fig. 10).

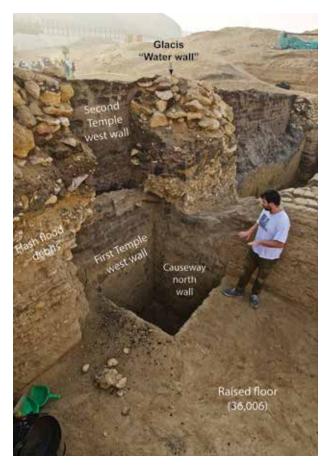


Figure 10. Ben Bazely explaining the deep probe in the corner of Sondage 144 where the north causeway wall meets the back of the MVT west wall: view to the southeast.

Dyad Hole

In the hole where Reisner found the famous dyad statue of Menkaure and a queen, we tried three more times to pump the groundwater to reach the bottom and search for statue fragments (fig. 11).

Reisner built walls of broken stone and mud around the Dyad Hole to retain the debris from his backfilling as he excavated to the east, because he believed more statue fragments lay below the level at which he found the dyad in January 1910. He never returned to the hole, but he was right about the statue fragments. Our workers pulled up small fragments of exotic stone from under the water at the bottom of the hole to a level 3.71 m below the top of the core block against which the dyad stood, including fragments of graywacke, red granite, travertine (Egyptian alabaster), and larger fragments of limestone. Some of the graywacke and travertine pieces bore worked surfaces. One showed pleating, as on a royal skirt or headdress. The workers also pulled up pottery fragments, most of which were of Old Kingdom date. But two fragments appear to be from vessels dating to the Late Roman period.

At the end of the 2021 fall season, we built wooden shoring around the Dyad

Hole to allow any future work to be undertaken safely. In March 2022, we tried again, unsuccessfully, to reach a lower level by pumping the groundwater.

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Figure 11. Petrol generator being used to pump the water from the Dyad Hole; view to the east.

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The AERA field team included Dr. Mark Lehner, project director; Dr. Mohsen Kamel, executive director of AERA Egypt and archaeologist; Dr. Richard Redding, chief research officer; Dr. Claire Malleson, archaeological science and AERA lab director; Dan Jones, senior archaeologist; Ben Bazely, archaeologist; Manami Yahata, archivist and archaeologist; Mathilde Prevost, archaeologist; Mohamed Helmi, surveyor; Rebekah Miracle, GIS director; and Sayed Salah Abd el-Hakim, overseer of the workers.