## Egypt, Israel, and the Ancient <br> Mediterranean World

STUDIES IN HONOR OF DONALD B. REDFORD


GARY N. KNOPPERS AND
ANTOINE HIRSCH

# EGYPT, ISRAEL, AND THE ANCIENT MEDITERRANEAN WORLD 

Studies in Honor of Donald B. Redford

EDITED BY

GARY N. KNOPPERS AND ANTOINE HIRSCH

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# THE TOMBS OF THE PYRAMID BUILDERS-THE TOMB OF THE ARTISAN PETETY AND HIS CURSE ${ }^{1}$ 

Zahi Hawass

## Introduction

The tomb of the artisan Petety is located in the Upper Cemetery containing the tombs of the pyramid builders at Giza. This cemetery is located southeast of the Great Sphinx and south of the stone wall known as the heit-el ghorab or "wall of the crow." The excavations in this area began in 1990 when the Lower Cemetery, which consists of the burials of the workmen who moved the stones in the construction of the pyramids, was discovered. At this time, the Upper Cemetery with the tombs of the artisans was also excavated. The tombs of the Lower Cemetery were built of mud brick and incorporated various materials left over from the building of the pyramids, such as pieces of limestone, granite, and basalt. The tombs in the Lower Cemetery were also constructed in a variety of shapes including beehive, step pyramid, and in the form of the primeval mound. Another type of tomb is the mastaba with a limestone false door, which has no inscriptions (fig. 1). ${ }^{2}$ The Upper Cemetery contains tombs built of mud brick and limestone and were discovered with many statues and inscriptions. The tomb of Petety is one of these tombs (pl. 1). ${ }^{3}$ The Upper Cem-

[^0]etery with the artisans' tombs is unusual due to the different types of tombs. The statues even have different features from the statues of the nobles and officials of the Old Kingdom. ${ }^{4}$ The study and analysis of the excavated bones and skeletons from the Upper Cemetery also proved very interesting. We found that the backbones of the men and women showed stress due to carrying heavy objects. One skull had undergone brain surgery, yet he lived two more years after the surgery. A study of the skeletons showed that the ancient Egyptians even had emergency medical treatment for the workmen because we found evidence of broken bones that must have been set in wooden splints. An ancient Egyptian physician had also amputated the leg of a workman, who lived for 14 more years after the surgery. ${ }^{5}$

The tomb of Petety is built of mud brick and limestone and is in a relatively good state of preservation. ${ }^{6}$ The tomb appears to have been built in three phases. The first phase of construction included an unfinished rock-cut burial chamber and a relatively large funerary chapel consisting of six courts. In the second phase of construction, the tomb owner added a small mastaba faced with limestone onto the tomb at the northwest corner. Finally, in the third building phase, an additional court was constructed that included nine burial shafts. This court is located on the front or easternmost section of the tomb. The

[^1]overall architecture of the tomb is unique within this cemetery. In addition, it is the only tomb in this cemetery with a "threat formula" inscribed on either side of the entrance into the tomb. ${ }^{7}$

## General Description

Petety's tomb (G.S.E. 1923) is approximately 3.66 meters south of tomb G.S.E. $1922 .{ }^{8}$ The entire tomb measures 13.65 meters long and 9.90 meters wide. Although the main burial chamber is rock-cut, the remainder of the tomb is mostly built of mud brick with several walls constructed of limestone and mud plaster. In general, the walls of the funerary chapel decrease in height from west to east (fig. 2).

When Petety commissioned the construction of his tomb, he began first by building the funerary chapel and then by carving the rock-cut burial chamber in what is now the westernmost section of his tomb. However, due to the poor quality of the stone, he abandoned the construction of the burial chamber and left it unfinished. Instead, he decided to build an additional small mastaba that was annexed to the northwestern corner of his tomb. This mastaba measures 6.75 meters long and 5.40 meters wide. The façade of this small mastaba is constructed of large, finely-cut limestone blocks and gypsum mortar. The façade consists of seven courses of limestone that reach a height of 2.40 meters. A false door is carved on the east side of the mastaba. When they began to cut the burial shaft in this mastaba, they discovered, once again, that the rock was of poor quality and not suitable for a burial shaft. The construction of this burial shaft was halted, and left unfinished. The tomb owner seems to have been determined to build his burial chamber in this mastaba, since there is evidence that he unsuccessfully attempted to cut yet another burial shaft to the south of the first burial shaft. This second burial shaft was also left unfinished and Petety abandoned this mastaba without using any of the burial shafts.

Petety added a court that contained nine burial shafts onto the easternmost side of his tomb. Some of the superstructures of the burial shafts were constructed of mud brick, while others were built with

[^2]limestone chips. Four of the superstructures have clearly defined niches constructed on their east façades, while other niches were more difficult to detect. We excavated all nine burial shafts this season to study the method of burial and to identify those buried within the shafts.

## Architectural Phase I

The first phase of construction included the unfinished rock-cut burial chamber and the funerary chapel. Three thick walls surround the funerary chapel, which is divided into six courts. Five funerary stelae are preserved in situ within the various courts of this funerary chapel.

## Main Entrance

The main entrance to the tomb lies on the north and is located 2.80 meters west of the east wall of the tomb (pl. 2). This entrance is about 1.00 meter wide. The east side measures 88 centimeters high and 58 centimeters thick, while the west side of the entrance measures 1.24 meters high and 65 centimeters thick. Two large rectangular slabs of limestone form the threshold of this entrance.

## Court 1

The main entrance leads to a small, open court measuring 2.62 meters long and 2.20 meters wide. The east wall of this court measures 48 centimeters high and 94 centimeters wide. A small panel decorates the exterior of this east wall, measuring 48 centimeters wide and 56 centimeters deep.

## Court 2

Immediately to the west of the main entrance, a second entrance leads to the second court. This entrance measures 98 centimeters high and 1.15 meters wide (pl. 3). The north wall of this entrance is 46 centimeters thick, while the south wall is 47 centimeters thick. The south wall of the entrance measures 96 centimeters high and 2.15 meters long. Both the northern and southern walls of this entrance are covered with white plaster with a pinkish color. In the middle of the floor of the entrance, we found a circular piece of limestone with a hole carved in it. This may be a door socket on which a wooden door
was secured. If that is the case, then this door socket is somewhat rare and quite a remarkable find as it was used in a private context.

As one continues through the entrance to the west of the door socket, two long rectangular limestone blocks outline a pathway on the north and south sides. The northern block measures 19 centimeters high and 80 centimeters long. The function of these two blocks is unclear. Perhaps, they served as bases for stelae or functioned as a drainage system. Immediately to the north of this second entrance is a squareshaped "well" that was possibly used to store charcoal. This is based upon charcoal remains found inside the well. The walls of this well are built of mud brick. The south wall of this well is also the north wall of the second entrance. This north wall measures 1.52 meters high and 74 centimeters thick. The east wall of the well measures 92 centimeters high and 74 centimeters thick, while the west wall measures 1.22 meters high and 1.13 meters thick. The east wall consists of at least four courses of limestone blocks. The well itself measures 1.16 meters long and 94 centimeters wide. At a depth of 2.00 meters, the interior walls of the well are covered with white plaster.

To the west of the well, the north wall in the second court of the tomb has a deep recess. Within this recess, there is a large, rectangular limestone block secured in the ground. A large quantity of charcoal was found surrounding this block. Perhaps, the charcoal was used in burning incense or in the presentation of offerings to the deceased. The limestone block is placed 65 centimeters above the ground in the second court and is situated 98 centimeters east of the western wall. It measures 24 centimeters high, 15 centimeters wide and 9 centimeters thick. The limestone block is covered with white plaster. To the west of this limestone block stands an unusual structure built out of mud brick and mud plaster. A niche is constructed on top of this structure. Within this niche, an anthropoid statuette made of unbaked clay was recovered (pl. 4). Only the upper half of this statuette is preserved. The statuette measures 7.5 centimeters high and 5.0 centimeters wide. Its head alone is 2.5 centimeters high. The head of this statuette resembles that of a monkey, and its right hand is crossed over his chest (pl. 5). It seems that this statuette served a magical or apotropaic function to ward off any unwanted visitors who might enter and disturb the tomb. If this is, indeed, an apotropaic statuette, then it is the first of its kind to be discovered in the cemetery. In addition, the structure that housed this statuette is of an unusual and unique type.

As previously mentioned, this second entrance leads to a second
open court that measures 2.63 meters long (north to south) and 2.15 meters wide (east to west). The floor of this court is paved with limestone blocks. The heights of the interior walls vary in this court. For example, the north wall is 1.50 meters high; the east wall is 1.22 meters high; the south wall is 85 centimeters high; and the west wall is 2.00 meters high. Three of these walls are made of mud brick and covered with white plaster. Only the west wall of this court is constructed of limestone blocks. A short, mud-brick wall with a single niche in its center marks the southern edge of this court. A portion of the interior east wall of this court extends 77 centimeters towards the west. This protrusion in the southeastern section of the second court forms the third entrance of the tomb.

## Court 3

The third entrance of the tomb measures 45 centimeters wide. A semi-oval limestone object that measures up to 74 centimeters long, 70 centimeters wide, and 29 centimeters deep is located in the floor of this entrance. This object may be a door socket, but it could also be some type of basin because it has quite large dimensions. This entrance leads to the third open court that measures 1.85 meters (north to south) and 2.12 meters (east to west). The east wall of this court stands 1.00 meter high and has a thickness of 65 centimeters. This east wall is made of mud brick and its interior face is covered with white plaster.

The south wall of this court is also built of mud brick, but its lower section is constructed of limestone chips and mud mortar. The size of the mud bricks in this wall is noteworthy. For example, one brick measures approximately 40 centimeters long. The height of this south wall varies; it reaches a maximum height of 1.75 meters and a minimum height of 1.00 meters. The south wall of this court is 1.00 meter thick. One remarkable feature of this south wall in the third court is a funerary stela (stela 1), which is carved in raised relief. Only the lower section of this stela remains; the upper portion is missing. Stela 1 measures 1.72 meters high, 1.03 meters wide, and 16 centimeters thick. Traces of relief depict Petety holding a staff. In front of the tomb owner, his wife is represented standing and on the same scale. The children of Petety are depicted on a smaller scale in between the tomb owner and his wife (fig. 3). In the westernmost section of court three, two limestone blocks were uncovered. Each block measures 22 centimeters high, 1.02 meters wide, and 1.55 meters long. To the
west of these blocks is the fourth entrance that leads to the fourth and largest court.

## Court 4

A door socket marks the fourth entrance. This door socket measures 29 centimeters long, 22 centimeters wide and 10 centimeters deep. It is a dual door socket that was probably used to secure two wooden doors that opened into the interior of the tomb. Fragments of wood were recovered from this area. Two rectangular limestone stelae were placed in this fourth entrance on either side of the door socket. These stelae are decorated in raised relief. The southern stela (stela 2) measures 1.86 meters high, 65 centimeters wide and 15 centimeters deep. Stela 2 is divided into two main registers. On the upper register, Petety is depicted bald. He wears a short kilt and holds a long staff in his right hand. The uppermost portion of his face is badly damaged (pl. 6).

On the lower register, Petety is dressed in a short kilt and stands holding the $h r p$ sign in his left hand. In his right hand, he holds a tall staff. He wears a broad collar and a wig, which is typical of the Fourth Dynasty (fig. 4, pl. 7). Two of Petety's sons are shown on a smaller scale in front of him. Both sons are depicted standing and wear short kilts with their hands across their chests. Above the depiction of the two sons, the artist has inscribed the name and title of the tomb owner in raised relief: $r \underline{h}$-nsw smsw nds shd $n$ nfrw ptti msw.f Msy-m-hr Nfr-hr-־nh. "King's acquaintance, the eldest inspector of the small ones, of good reputation, Petety, his children Mesy-em-her and Nefer-her-ankh." The relief is in a good state of preservation. Traces of red paint are still present on the P of the tomb owner and there are remains of black paint on his wig.

The northern stela (stela 3) measures 52 centimeters high, 63 centimeters wide, and 14 centimeters deep. Its upper portion is no longer preserved and only the bottom register has survived. It is possible that this stela was unfinished. The bottom register depicts three men wearing short kilts and carrying offerings. The first offering bearer carries a ram, the second carries a small gazelle, and the third holds two butchered geese in each hand. ndt-hr or "gifts" is inscribed in front of the three men in raised relief. The hieroglyphs $n, w$, and a seated figure are placed between the second and third offering bearers (fig. 5, pl. 8).

The fourth court includes two rectangular wings to the north and south of the main pathway through the tomb. The northern wing measures 2.82 meters long and 1.65 meters wide. The interior east wall measures 2.00 meters high; its interior north wall measures 2.45 meters high; and the interior west wall of the north wing measures 2.64 meters high. The southern limit of this northern wing is marked by the presence of a possible superstructure belonging to the burial shaft. This mud-brick superstructure has a niche carved on its east façade.

In the southwestern section of the northern wing directly to the north of this possible burial superstructure, a round piece of limestone with a square carved in it was unearthed. This piece of limestone has a diameter of 67 centimeters. The sides of the square measure 36 centimeters long. The square is carved 23 centimeters deep into the round limestone block. The exact function of this feature is unclear, but perhaps it was a base used to hold a wooden column that could have supported a wooden roof. This room may have been used for purification purposes.

The southern wing of the fourth court measures 2.10 meters long and 1.20 meters wide. The south wall is 80 centimeters thick. Its height varies from a maximum of 2.66 meters to a minimum of 2.22 meters. The east wall is 2.20 meters high and has a thickness of 83 centimeters. All the interior walls and floor of this court are plastered. A rectangular, limestone purification basin is placed directly in front of the south wall of this wing. This uninscribed basin measures 72 centimeters long, 43 centimeters wide, and 16.5 centimeters deep.

## Court 5

A fifth entrance leads to the innermost or westernmost court of the tomb. This entrance is located immediately in front of the unfinished rock-cut burial chamber. It measures 1.15 meters high and also has a limestone door socket. Two decorated limestone stelae flank either side of this entrance. The southern stela belongs to Petety, while the northern stela belongs to his wife. The lower register of each stela contains the "threat" inscription that is a warning to anyone who plans on disturbing or damaging the tomb. The southern limestone stela (stela 4) is dedicated to Petety. It is rectangular-shaped and measures 1.95 meters high, 75 centimeters wide, and 25 centimeters deep. The upper register of the stela is executed in raised relief. It portrays the
tomb owner facing east and wearing an official garment. He holds a long staff in his right hand and the $h r p$ sign in his left hand. One of his sons is shown standing on a smaller scale in front. His son has one hand across his chest and the other hangs down at his side. The son's name is inscribed above him as Mn-ny-‘nh or Min-ney-ankh. A second son stands between Petety's legs. He holds the legs of his father with both hands. His name is also inscribed above him as s3.f smsw $S n$-wr, which means "his eldest son, Sen-wer" (fig. 6).

The bottom register of stela 4 is executed in sunk relief and contains the so-called "threat formula." This section of the stela is divided into one horizontal row of hieroglyphs at the top with six vertical rows below. The northern limestone stela (stela 5) is dedicated to Petety's wife. It is rectangular-shaped and measures 2.24 meters high, 55 centimeters wide, and 14 centimeters deep. This stela is also divided into two registers. The upper register depicts Petety's wife facing east in raised relief. She wears a tight-fitting dress, a choker and broad collar, and a wig. Her left hand is placed across her chest, and her right arm hangs down at her side. A female figure holds a mirror in her left hand and what appears to be a basket in her right hand. Perhaps, this small figure is one of her daughters or servants. The titles of Petety's wife are inscribed above her head in raised relief. However, the inscription is incomplete: mrt Nt hmt ntrr Hwt-Hr nbt nht Nsy-Hr, "Beloved of Neith, the priestess of Hathor, the mistress of the sycamore tree, Nesy-Her" (fig. 7, pl. 9). The "threat formula" is inscribed in sunk relief on the bottom register of her stela with a single horizontal row and six vertical rows of hieroglyphs. The "threat formula" of Petety's wife is distinguished from her husband's by adding as possible aggressors to those who trespass the tomb, "the snake and the scorpion," instead of the lion.

## The "Threat Formula"

The inscription of the Tomb Owner
> $r m \underline{t} n b$ ḥm-ntrr Hewt-Hr hnw h(w). $f$ ? ${ }^{9}$
> ${ }^{〔} k t(y)$.sn $m n w \operatorname{irt}(y)$.sn ht im dut
> jn ntr nd.f wi m- - .sn
> ink im3hw n nb. f
> $n n$ sp iry.i hat dwt r rmt $n b$

[^3]ir.f ht $r(. j)$ hr.s
in msh db m3y wnm.f $\operatorname{sn}^{10}(\mathrm{pl} .10)$

## Translation

As for any person, any prophet of Hathor, any musician who strikes(?). Who shall enter this (tomb) and shall do any evil thing inside, it is the god who will protect me from them because I am one rewarded of his master and I have never made an evil thing against any man. If he does something against me regarding it, it is the crocodile, the hippopotamus, the lion who shall eat them (=him). ${ }^{11}$

```
The Inscription of Petety's Wife
    rmt nb '12 irt(y).sn ht nb(t)dwt r nw
    `kt(y).sn im ngw }\mp@subsup{}{}{13}\mathrm{ (?) r.sn m mw
    hf3w r.sn her t3
    db r.sn m nw drwot }\mp@subsup{}{}{14}r.sn ḥr t3 (pl. 11
```


## Translation

As for any person, male or female, who shall do any evil thing against this (tomb) and who shall enter therein this: A crocodile shall be against him in the water; a snake shall be against him upon land; a hippopotamus shall be against him in the water, and a scorpion shall be against him upon land.

The fifth court lies beyond the fifth entrance. It is a small court that measures 2.72 meters high and 1.58 meters wide. A semi-oval

[^4]door socket lies in the southeastern corner of the fifth court. This door socket measures 62 centimeters long, 46 centimeters wide, and 10 centimeters deep. The hole in the middle of the door socket (where the door was secured) measures 13 centimeters in diameter. The north wall of this court is 2.66 meters high; the east wall measures 2.40 meters high; and the south wall measures 2.72 meters high. The west wall in this court has an opening into a rock-cut burial chamber that will be discussed below. At the four corners of this court, there are square niches carved 2.20 meters from the ground. Three circular courses of mud brick were discovered inside this court. It is possible that these courses once formed a pyramidal structure that topped this part of the tomb.

## Rock-Cut Burial Chamber

The entrance to the rock-cut burial chamber is located in the west wall of the fifth court. The entrance is placed 1.10 meters above the ground. This rock-cut entrance measures 1.04 meters high, 87 centimeters wide, and 1.06 meters thick. The unfinished rock-cut chamber measures 2.05 meters long and 1.96 meters wide. The ceiling of this rock-cut chamber reaches a height of 2.07 meters. There is a thick layer of charcoal on the ceiling. It is possible that this room was intended to be the main burial chamber of the serdab of the tomb, but its construction was left unfinished due to the poor quality of the natural rock.

## Architectural Phase II

When Petety left the rock-cut burial chamber unfinished, he commissioned the building of a small mastaba faced with limestone on the western corner of the tomb's north wall. This mastaba has a single uninscribed false door and two burial shafts. However, both of these burial shafts were also left unfinished and not used for burial. The east façade of this mastaba consists of seven courses of limestone blocks. The mastaba measures 2.40 meters high, 4.25 meters wide, and 5.40 meters long. The false door is placed 3.13 meters south of the north wall of the mastaba. It measures 1.85 meters high and 57 centimeters wide. Fragments of pottery were found beneath the false door.

The northern burial shaft of this mastaba lies 30 centimeters south of its north wall. The opening of the shaft measures 1.60 meters long
and 1.50 meters wide. The first 1.20 meters of the shaft are lined with mud brick, and the shaft continues further to a depth of 5.30 meters. This burial shaft was abandoned without cutting a burial chamber. The southern burial shaft lies 1.10 meters south of the northern burial shaft. The opening of the shaft measures 95 centimeters long and 93 centimeters wide. The first 60 centimeters of the shaft are constructed of mud brick and the shaft continues to a depth of 4.70 meters. Unlike the northern shaft, this shaft includes a burial chamber that measures 90 centimeters high, 1.00 meter wide, and 1.20 meters long. Nevertheless, this burial chamber was also left unfinished and not used due to the poor quality of the natural rock.

## Architectural Phase III

The tomb owner added an open court to the eastern edge of the tomb. This court included nine burial shafts. Upon excavation of some of the superstructures that directly adjoin the tomb's easternmost wall, we realized that the court with burials was added on later to the eastern limit of the tomb. Excavations revealed a layer of plaster, implying that after the tomb owner finished the construction of the east wall of his tomb, he covered it with a layer of plaster. The burial court was later added onto it.

## Court 6

The burial court (court 6) measures 5.64 meters long and 3.06 meters wide. This court does not have a uniform shape. A secondary entrance to the burial court is located in the south wall of the tomb. This entrance measures 58 centimeters high, 1.85 meters wide, and 36 centimeters thick. The burial court includes a small recessed section in its southwest corner. Perhaps, this recess is a separate room. The recessed area is covered with white plaster and measures 1.71 meters long and 1.68 meters wide. In the west wall of this recessed area, there is a niche that measures 1.96 meters high, 58 centimeters wide, and 1.27 meters long. The function of this area of the burial court is still unclear. The main features of this court are the nine burial shafts mentioned above. Each burial shaft is covered with a rectangular superstructure.

## Burial Shaft 1

Burial shaft 1 is located directly to the south of the second entrance to the tomb. Its rectangular superstructure is constructed of mud brick and limestone chips. It is covered with a layer of tafla and did not have a niche. The superstructure measures 35 centimeters high, 60 centimeters wide, and 80 centimeters long. This burial was excavated to a depth of 1.12 meters when we reached the natural rock. However, we did not find a burial. The fill consisted of mud bricks and several large chips of limestone. A red-slip ware rim was also found in the fill.

## Burial Shaft 2

Burial shaft 2 is located 40 centimeters to the west of burial shaft 1. It adjoins the wall of the tomb second entrance on the north, and it also adjoins the super-structure of burial shaft 3 on the south. The superstructure of burial shaft 2 is constructed of mud brick and tafla. It measures 48 centimeters high, 54 centimeters wide, and 90 centimeters long. This superstructure includes two niches on its east façade. These niches symbolize the false doors that allow the exit and entrance of the deceased's soul. The northern niche measures 23 centimeters high, 15 centimeters wide, and 10 centimeters deep. The southern niche is placed 14 centimeters from the northern niche and it measures 14 centimeters high, 18 centimeters wide, and 15 centimeters deep. Upon excavation of this shaft, the first 20 centimeters were lined with two courses of mud brick. We excavated to a level of 1.12 meters below the ground and did not find a burial. The fill of this shaft also contained very large pieces of limestone rather than fine sand. Numerous pieces of charcoal, three pottery sherds and one small fragment of human bone were also recovered from the fill.

## Burial Shaft 3

Burial shaft 3 is situated immediately to the south of burial shaft 2 . The mud-brick superstructure measures 60 centimeters high, 1.22 meters wide, and 1.30 meters long. There are two niches on its east façade. The northern niche is located 30 centimeters from the southern niche. The southern niche measures 55 centimeters high, 10 centimeters wide, and 14 centimeters deep. There are traces of white plaster on the southern niche. As we excavated the superstructure of this burial, we immediately noticed traces of plaster on the burial shaft's
west wall that used to cover the exterior of the former easternmost wall of the tomb. This plaster consists of gypsum with particles of pottery, giving it a pinkish tint. The fill that we extracted from this shaft included: twelve beer jar rims, two beer jar bases, eight beer jar sherds, two red-slip ware rims from bowls, twenty red-slip ware sherds from bowls, a few pieces of charcoal, two tiny grains of copper, a small chip of wood (possibly from the coffin), and two fragments of human bones (part of the lower jaw with two molars and a section of the lower jaw with an incisor).

After digging for 75 centimeters, we reached the cranium of the skeleton and continued to excavate the entire body to a depth of 96 centimeters. The skeleton measures 65 centimeters long and 36 centimeters wide. Due to the square shape of the skeleton's eye sockets, it is possible that this is a male. From his complete set of teeth, we can deduce that he was an adult. This skeleton was placed in the traditional fetal position with his head to the north and facing east.

## Burial Shaft 4

Adjoining the east wall of the tomb, Burial shaft 4 is located 1.09 meters east of burial shaft 3 . Constructed of mud brick, limestone chips, and pottery sherds, burial shaft 4 measures 79 centimeters long, 78 centimeters wide, and 40 centimeters deep. Like the fill of burial shafts 1 and 2, the fill of this shaft included large pieces of limestone. The cranium of the deceased began to appear after excavating to a depth of 61 centimeters, and we continued to dig to a depth of 75 centimeters. The skeleton measures 80 centimeters long and 50 centimeters wide. It is the skeleton of an adult buried in fetal position, but the deceased is buried in an unusual direction. The head is to the east instead of the north and faces south rather than east. Upon discovery, the skull was already broken in two places and the face was crushed. It is possible that this damage occurred at the time of burial, since we had to remove rather large pieces of limestone from the fill. These limestone pieces covered the body. The fill of this burial included: eight sherds from beer jars, four red-slip ware sherds, one beer jar rim, two sherds from bread moulds, one fragment of a lid, one red-slip ware rim, and one fragment of a human bone.

## Burial Shaft 5

Burial shaft 5 is located 1.03 meters west of the east wall of the tomb. Its south side adjoins burial shaft 6 . This shaft is built of mud brick, limestone chips, and tafla mortar. The superstructure measures 52 centimeters high, 80 centimeters wide, and 1.20 meters long. It has two niches on its east face. The northern niche measures 25 centimeters in height, 15 centimeters wide, and 14 centimeters deep. The southern niche is located 45 centimeters from the northern niche. The southern niche measures 22 centimeters high, 20 centimeters wide, and 10 centimeters deep.

After digging for a mere 30 centimeters, we reached the cranium of the skeleton. We continued to excavate the skeleton to a depth of 46 centimeters. This burial is noteworthy for a number of reasons. First, a large section of the wooden coffin remains. The coffin measures 18 centimeters high, 30 centimeters wide, and 58 centimeters long. The walls of the coffin are 2 centimeters thick. Second, the skeleton, which measures 53 centimeters long and 27.5 centimeters wide, was buried in an unusual manner. The head was placed to the north, but the deceased faced west and not east. Finally, the size of the skeleton raises a few questions. The head is large with a full set of teeth, but the body is relatively small in comparison to the head. The excessively small size of the bones of the body is especially apparent in the pelvis, scapula, and arms. Perhaps, this is a dwarf or the burial of someone with a disability. There is also an unusual patch in the cranium that may point to some type of surgery involving trephination caused by a brain tumor. We are awaiting the results of the study by an osteologist who will help clarify the nature of this skeleton. The fill of burial shaft 5 included twenty-one pottery sherds, six rims, one base, one piece of charcoal, one grain of copper, and two fragments of human bone.

## Burial Shaft 6

The superstructure of burial shaft 6 is the largest among all the burials in this tomb. Located 1.00 meter to the west of the secondary entrance, burial shaft 5 adjoins burial shaft 6 on the north and the south wall of the tomb adjoins it on the south. The superstructure is built of mud brick and covered with layer of tafla. It measures 83 centimeters high, 94 centimeters wide, and 2.07 meters long. We excavated the burial shaft 6 to 1.80 meters below ground level, yet this shaft was empty.

The fill included one long cylindrical green faience bead, two rims, two pottery sherds, and numerous pieces of charcoal. A large, circular piece of limestone was recovered from the northernmost corner of the burial. It was found at ground level measuring 58 centimeters in diameter. It may originally have been a column base that the tomb owner decided to reuse in the fill of this burial.

## Burial Shaft 7

Burial shaft 7 is located 27 centimeters to the south of burial shaft 3 and 55 centimeters west of burial shaft 5 . It is constructed of mud brick and covered with a layer of tafla, which is faced with a layer of white plaster. The superstructure measures 60 centimeters high, 54 centimeters wide, and 1.42 meters long. Its east façade has two niches. The northern niche measures 45 centimeters high, 14 centimeters wide, and 14 centimeters deep. The southern niche is so crudely carved that it is difficult to ascertain its measurements. After only 40 centimeters of digging, the top of the cranium appeared. We excavated this burial to a total depth of 54 centimeters. The skeleton was that of a child; it measures 45 centimeters long and 25 centimeters wide. The body was in the fetal position with the head to the north. The skeleton was found face down, but it probably was originally facing east and displaced over time. The skull was shattered and many of the bones were in fragments. This damage was probably the result of the large limestone blocks that were thrown in on top of it as fill. The objects found in the fill included nine bread mould sherds, two beer jar rims, thirty-six beer jar sherds, three small pieces of charcoal, and two fragments of human bones.

## Burial Shaft 8

Burial shaft 8 , located 41 centimeters south of burial shaft 7 , is constructed of mud brick and tafla. A layer of plaster covers its east side. The superstructure measures 50 centimeters high, 1.00 meter wide, and 1.25 meters long. At a depth of 46 centimeters, the well-preserved cranium of an adult skeleton was uncovered. The skeleton measures 80 centimeters long and 43 centimeters wide. The body was found in fetal position with the head to the north and facing east in the conventional manner. The upper 20 centimeters of the burial shaft were lined with two courses of mud brick, and the shaft continued to a depth of 79 centimeters. The fill included: three beer jar sherds, one
beer jar rim, one piece of charcoal, and one piece of wood.

## Burial Shaft 9

Burial shaft 9 is located 66 centimeters to the west of burial shaft 8 . It is constructed of mud brick and tafla. The superstructure measures 50 centimeters high, 90 centimeters wide, and 83 centimeters long. It has two niches on its east side. The northern niche measures 40 centimeters high, 15 centimeters wide, and 10 centimeters deep. It has traces of white plaster. The southern niche is located 15 centimeters from the northern one. The southern niche measures 14 centimeters high, 12 centimeters wide, and 10 centimeters deep. A small court made of mud brick is located in front of the superstructure.

The fill from this shaft included at least eleven large mud bricks, each measuring approximately 12 centimeters high, 20 centimeters wide, and 34 centimeters long. Once the fill was removed, we noticed a small opening in the west wall of the shaft. This opening led to a small burial chamber with the skeleton of a child in fetal position, whose lower incisors had not yet sprouted. The top of the cranium appeared at a depth of 40 centimeters from ground level, and the burial shaft itself continued to a depth of 48 centimeters. The skeleton measures 38 centimeters long and 26 centimeters wide. The skeleton was badly damaged and poorly preserved. It was buried in an unusual position with the head to the east and facing south. Azza Sarry El Din has studied the four skeletons excavated from this tomb. A report on the bones of the four individuals from tomb number G.S.E. 1923 follows.

## Skeletons

The first skeleton (Tomb G.S.E. 1923, shaft 8)
Most of the bones are in good condition and the skull is intact.

- Sex: As shown from the bones of the skull and the pelvis, the skeleton is probably a male.
- Age: Symphysis pubis and auricular surface metamorphosis shows that the age at death was about 25 to 30 years.
- Pathology: He was suffering from slight arthritis in the backbone as we noticed moderate osteophytes on the anterior surface of the bodies of the third, fourth, and fifth lumber vertebrae. Also, there are some signs of arthritis in the bones of the feet (the right and left calcaneous), which means that he started working at a young
age. With regard to the teeth, we noticed severe attrition in all the teeth. Also, the upper anterior incisors were extracted. There is a preapical abscess under the lower left first molar, most probably caused by the severe attrition, which is a common feature of the workmen.

The second skeleton (Tomb G.S.E. 1923, shaft 4)
The bones of this individual are not in good condition. The skull is broken. The bones of the upper arms and parts of the pelvic bones are missing.

- Sex: This is a female skeleton as evident from the remaining bones of the skull, pelvis and also from the long bones.
- Age: The age at death, evident from the auricular metamorphosis, is about 40 to 45 years.
- Pathology: Cervical vertebrae (the vertebrae of the neck) show signs of macroporosis in the bodies of the vertebrae. This could be attributed to the age of the individual as it is a normal degenerative feature at this age. There is a healed, simple fracture in the lower one third of the shaft of the right ulna (the bone of the lower arm). All the teeth show severe attrition. There is a periapical abcess under the lower right canine and premortum extraction of the lower left second and third molars.


## The third skeleton (Tomb G.S.E. 1923, shaft 7)

- This is the skeleton of a child about 6 to 8 months old as evident from the crowns of the decideous teeth. Most of the bones are present, but the skull is broken. No signs of pathology could be observed.


## The fourth skeleton (Tomb G.S.E. 1923, shaft 9)

- This is also the skeleton of a child about 7 to 9 months old as the upper and lower decideous incisors just reach the occlusal level. All the bones are present but broken. No signs of pathology could be observed. ${ }^{15}$

[^5]
## Conclusion

The Old Kingdom tomb of Petely is very interesting because it has three architectural phases. The first phase is the unfinished rock-cut burial chamber and the large funerary chapel. The second phase includes the construction of the small mastaba faced with limestone, while the third phase consists of the addition of the court with nine burial shafts. The limestone stelae dedicated to Petety and his wife with the "threat formulae" along with the discovery of the statuette in the niche suggest that it was important to Petety to protect his tomb from theft and destruction.

The tomb of Petety is one of the most complex in the Upper Cemetery and it is surprising that all the burials were done in a seemingly rushed and haphazard manner. The fill that was thrown in on top of the bodies usually consisted of large pieces of limestone, which frequently damaged the skeletons at the time of burial. Prior to the addition of the fill, the skeletons had been buried with much care. However, the study of the bones does show that one of the skeletons belonged to Petety who died at the age of 25 to 30 years old. Petety's wife was older than him by about 10 years. A study of the pottery suggests that the tomb should be dated to Dynasty 4 or 5 of the Old Kingdom Period. The tomb of Petety adds significant information to our knowledge of the pyramid builders, especially their burial practices, religious beliefs, and economic status.


Figure 1

G.S.E Excavation

Plan of Tomb No. 1923
1-5 Entrances
A-E Scribed Limestone Stela
6-13 Graves
14-16 Burial Shatts
Figure 2


Figure 3


Figure 6


Plate 1

Figure 7


Plate 3


Plate 2


Plate 5

Plate 4


Plate 6


Plate 7


Plate 8


Plate 9


Plate 10


Plate 11


Figure 8. Burial shaft 3. Comments: beer jar rim - scale ? - diameter: 8 cm $20 \%$ remaining - handmade - Nile silt


Figure 9. Burial shaft 1. Comments: red-slip ware (red slip on exterior only) scale ? - diameter: $24 \mathrm{~cm}-5.3 \%$ remaining - handmade - Nile silt


Figure 10. Burial shaft 4. Comments: rim - scale ? - diameter: $7 \mathrm{~cm}-30 \%$ remaining - wheel-made jar - Marl clay


Figure 11. Burial shaft 2. Comments: beer jar rim - scale ? - diameter: 10 cm $-15 \%$ remaining - handmade - Nile silt


Figure 12. Burial shaft 7. Comments: beer jar rim - scale ? - diameter: $9 \mathrm{~cm}-$ $15 \%$ remaining - handmade - Nile silt


[^0]:    ${ }^{1}$ I met Donald Redford at the beginning of my career in Cairo on many occasions, when he was the director of the Akhenaten Temple project. In 1982, while I was a student at the University of Pennsylvania, I went to Toronto to give a lecture on my excavation at Kom Abou Bellou in the Delta. I found Donald Redford to be a very impressive scholar and one of the most active in excavating and publishing. His recent work at the site of Mendes in the Delta in addition to his excavations at Karnak, which he directed for many years, demonstrate his abilities in excavation techniques and conservation. He sometimes visits me at my office at the Giza pyramids. It is to Donald Redford that I dedicate this article.
    ${ }^{2}$ There are a number of assistants and colleagues who participated in the excavation, such as Mansour Boraik, Mamdouh Taha, Amani Abdou El Hamied, and Nagwa Hussini. Also, I would like to thank Heide Saleh for her work with us as a volunteer in the summer of 2000 and 2001, Veronique Verniel, and the late photographer Husaballa El-Tieb.
    ${ }^{3}$ See Z. Hawass, "The Workmen's Community at Giza," Haus und Palast im alten

[^1]:    Ägypten: International Symposium, Cairo, April 8-11, 1992, ed. Manfred Bietak (Denkschriften der Gesamtakademie 14; Vienna: Verlag der Österreichischen Akademie der Wissenschaften, 1996) 53-67. Z. Hawass and M. Lehner, "Pyramid Builders," Archaeology, January-February, 1997, 31-43.
    ${ }^{4}$ Z. Hawass, "A Group of Unique Statues Discovered at Giza, I: Statues of the Overseers of the Pyramid Builders," Kunst des Alten Reiches: Symposium im Deutschen Archäologischen Institut Kairo am 29. und 30. Oktober 1991 (Sonderschrift, Deutsches Archäologisches Institute, Abteilung Kairo 7; Mainz am Rhein: P. von Zabern, 1995) 91-95; idem, "A Group of Unique Statues Discovered at Giza, II: An Unfinished Reserve Head and a Statuette of an Overseer," in Kunst des Alten Reiches, 97-101; idem, "A Group of Unique Statues Discovered at Giza, III: The Statues of Jnty-šdw, Tomb GSE 1915," Les critères de datation stylistiques à l'ancien empire, ed. Nicolas Grimal (BdE 120; Cairo: Institut français d'archéologie orientale, 1998), 187-208.
    ${ }^{5}$ Azza Sarry El Din, Moshera Erfan, and Zahi Hawass, "A Study of tubular canaldimension in ancient Egyptian from the Old Kingdom," Egypt Journal of Anatomy 22/1, 1999; Azza Sarry El Din, Comparative Study of Skeletal Material from Giza Old Kingdom with Sudanese Nubia (Cairo University, Institute of Africa Research and Studies, 1995).
    ${ }^{6}$ Due to the fragile nature of this type of mud brick, a team of conservators reconstructed most of the tomb's mud-brick walls and mud-brick burial super-structures by applying an additional layer of mud plaster to the original structures.

[^2]:    ${ }^{7}$ It lies within the excavation grid coordinates of L33-p36.
    ${ }^{8}$ George Andrew Reisner, The Development of the Egyptian Tomb down to the Accession of Cheops (Cambridge, Mass.: Harvard University Press, 1936) 363ff.

[^3]:    ${ }^{9}$ Perhaps the name of a musical instrument.

[^4]:    ${ }^{10}$ Another possible translation, "and I have never made any evil against any man, even if he did something against me regarding it," A. Roccati, La littérature historique sous l'Ancien Empire Égyptien (Littératures anciennes du Proche-Orient, 11; Paris: Les Editions du Cerf, 1982). See also Katarina Nordh, "Aspects of Ancient Egyptian Curses and Blessings: Conceptual Background and Transmission," Acta Universitatis Upsaliensis, Boreas (Uppsala Studies in Ancient Mediterranean and Near Eastern Civilizations 26, 1996).
    ${ }^{11}$ See Scott Morchauser, Threat-Formulae in Ancient Egypt: A Study of the History, Structure and Use of Threats and Curses in Ancient Egypt (Baltimore: Halgo, 1991).
    ${ }^{12} \mathrm{rmt} n b$ is better than snb ; see Henry G. Fischer, "Redundant Determinatives in the Old Kingdom," in Ancient Egypt in the Metropolitan Museum Fournal 1-11 (1968-1976) (New York: The Metropolitan Museum of Art, 1977) 88-89, n. 42.
    ${ }^{13} n g w=$ crocodile, new word instead of $m s h$; the crocodile is only a determinative here.
    ${ }^{14} \underline{d} r w / d 3 r t$; $W B V, 526-527$; for writing as $\underline{d} r t$, see $W B V, 598$; Morchauser, Threat-Formulae.

[^5]:    ${ }^{15}$ Azza Sarry El Din is an assistant professor at the National Research Center and is in charge of the lab that conducts the bone analysis at Giza.

