## ESTUDIOS / STUDIES

# From tomb to church. Archaeological and architectural analysis of the Old Kingdom funerary complex (QH34h) and its transformation into a Byzantine Christian church in the Necropolis of Qubbet el Hawa (Aswan, Egypt) 

# De tumba a iglesia. Análisis arqueológico y arquitectónico del complejo funerario del Reino Antiguo (QH34h) y su transformación en iglesia cristiana bizantina en la necrópolis de Qubbet el Hawa (Asuán, Egipto) 

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#### Abstract

The archaeological site of Qubbet el Hawa contains one of the largest necropolis in southern Egypt. At this burial site the governors and high officials of the southernmost province of Egypt were buried from the Late Old Kingdom to the Late $12^{\text {th }}$ Dynasty. This study aims to analyze one of the largest funerary complexes (QH34h), belonging to the local governor Khunes, and other annexed tombs of his relatives. This large funerary complex, with a great funerary chapel, includes an ascending stairway and a monumental courtyard. It was built during the last part of the reign of Pepy II (2216-2153 BC). It underwent a set of architectural transformations throughout its history, including several collapses and, centuries later, it was chosen by a Coptic community to establish a Christian church and other monastic places. The main aim of the present paper is to analyze how the sacred space changed over time and the architectonic spaces were used with different purposes.


Key words: hypogeum; First Intermediate Period; Coptic Church; Byzantine Period.

## RESUMEN

El yacimiento arqueológico de Qubbet el-Hawa alberga una de las mayores necrópolis del sur de Egipto. En ella se enterraron los altos dignatarios y los nobles que gobernaron la provincia más meridional de Egipto desde el Reino Antiguo (al menos la VI dinastía) hasta el Reino Medio (Dinastía XII). Se han llegado a documentar más de 70 hipogeos, alguno de los cuales aún siguen sin ser investigados en profundidad. El trabajo que aquí presentamos trata de comprender uno de los complejos funerarios más grandes y antiguos de la necrópolis, compuesto por la tumba conocida como QH34h, que perteneció al gobernador Khunes y las tumbas anexas de sus familiares. Fue construido hacia el final del reinado de Pepy II (2216-2153 a. C.), sufrió una serie de transformaciones arquitectónicas a lo largo de su historia, derrumbes importantes y finalmente fue elegido por una comunidad monástica para establecer en él una iglesia cristiana en el siglo VI. El objetivo principal de este artículo es analizar cómo un espacio sagrado cambió a lo largo del tiempo y los diferentes espacios arquitectónicos fueron usados en diferentes propósitos.

Palabras clave: Qubbet el-Hawa; Primer Periodo Intermedio; coptos; Época Bizantina.

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## 1. INTRODUCTION

### 1.1. The necropolis of Qubbet el Hawa. Archaeological context

The necropolis of Qubbet el Hawa is located on a hill on the west bank of the River Nile, opposite the modern city of Aswan and about 2 kilometers north of the town of Elephantine (Fig. 1). At this site there is archaeological evidence of use since the mid- $6^{\text {th }}$ Dynasty (ca. 2250 BC ) and lasts until the medieval period ( $9^{\text {th }}$ century AD), with some hiata, such as the

Third Intermediate Period (1076-655 BC) and the Greco-Roman period ( $4^{\text {th }}$ century $\mathrm{BC}-4^{\text {th }}$ century AD ). The necropolis was organized over several terraces throughout different periods. The hill was the highest hill of the First Cataract ( 183 meters above sea level) and its mastaba shape (seen from the East) could resemble the common funerary superstructure of the Old Kingdom (Jiménez Serrano 2022). The hill is currently crowned by a structure with a dome from the Mamluk period ( $14^{\text {th }}-15^{\text {th }}$ centuries), which has been associated by contemporary Egyptians with the funerary monument of a Muslim sheikh, named Ali Abu el


Figure 1. Situation map of Qubbet el Hawa.

Hawa, from whom the name of the site derived (Qubbet el Hawa, "The Dome of the Wind").

On the eastern and northeastern slopes there are more than a hundred hypogea which were built by high provincial officials and members of the local elite of Elephantine. On these slopes, distributed in a stratified way, there are several terraces containing monumental tombs dated to the Late Old Kingdom and the Late Middle Kingdom as well as other smaller hypogea which show the social structure of the highest social groups buried in the necropolis (Jiménez Serrano 2012: 35).

Although different archaeological research has been conducted at the site from the $19^{\text {th }}$ century (Jiménez Serrano and Sánchez León 2019: 11-15), some of the funerary complexes and tombs have never been fully excavated. One of these is QH 34 h and its surrounding area, which includes QH34f, QH34g and the Byzantine monastery.

Elmar Edel (2008: 564-567) excavated some burial chambers located under the funerary chapel of QH34h and Jiménez Serrano $(2013,2015)$ has published some additional information about the owners of QH34h and


Figure 2. View of the graffiti in the interior of the QH34h tomb.

QH34g. However, considering the presence of a large amount of graffiti from the $18^{\text {th }}$ century and $20^{\text {th }}$ century (Fig. 2), located in the upper walls of the chapel, we can estimate that this space was covered by strata that certainly were removed during the $19^{\text {th }}$ century or the $20^{\text {th }}$ century because they were visible in several photographs published by Moiso (2008: 257) and Edel (2008: 576, abb. 1). The absence of reports about that "cleaning" prevent us from knowing details about the occupation stages of this monument. In spite of this, it is possible to confirm that this old funerary complex was transformed during the Byzantine period into a Christian church and several religious chapels.

### 1.2. The funerary complex of Khunes, the QH34h tomb and other adjacent tombs

The funerary complex surrounding the QH 34 h tomb is the most monumental funerary complex in Qubbet el Hawa. It belonged to the governor Khunes, who provably lived in the last years of the rein of Pepy II (Jiménez Serrano 2013). But this funerary monument must be considered just as a part of a larger complex formed by at least three additional tombs: QH34f and QH34g (Edel 2008: 513, 525 y 537) and an unpublished hypogeum which was included as part of the Byzantine Church. The latter tomb, identified as QH34h(a) by Barba (2021: 287), has been used by the local Department of Islamic Archaeology of the Ministry of Tourism and Antiquities to store archaeological materials from the excavation works carried out between 1998 and 2010 in the Coptic Church. It is probable that this tomb was discovered during these works, although there is no report related to this fact. In 2010 Jimenez Serrano confirmed the presence of one false door in the west wall, although this element was partially covered by stucco (Jiménez Serrano et al. 2010-2011). In the lower part of the north door jamb, the removed stucco allowed us to read the name of the owner of the tomb, Khunes. This person must be considered different with respect to the constructor of the QH34h (Jiménez Serrano 2013: 23).

The complex QH34f-QH34h(a) is the largest funerary monument ever constructed in Qubbet el Hawa. The general structure is characterized by its prominent location in the necropolis, on the northeast slope and included in the main terrace (Fig. 1) where the majority of the governors were buried from the Late Old Kingdom to the Late $12^{\text {th }}$ Dynasty. This terrace is characterized by
the presence of a more resistant sandstone strata and for its content of quartz and iron oxides in the matrix, in the infra and overlying lithographs. In the detailed stratigraphic section, the alternation of horizontal strata of sandstone (compacted and cemented sands) from 1.20 to 1.50 meters of thickness is observed, with layers of lutites (clays and over-consolidated silts) of 0.05 to 0.15 meters of thickness and levels of iron oxides (mainly hematite) from 0.01 to 0.10 meters of thickness. In this area of the main terrace there are two families of predominant natural fractures that can generate instability in the hypogea: the first one (family $-\mathrm{a}-$ ) $=\mathrm{N} 008^{\circ} \mathrm{E}$ $85^{\circ} \mathrm{SE}$ with average spacing of 1.15 meters, which can lead to opening breakage of the rocky massif, and the second one (family $-\mathrm{b}-$ ) $=\mathrm{N} 152^{\circ} \mathrm{E}, 83^{\circ} \mathrm{NE}$ with average spacing of 0.70 meters, which can give rise to planar breakage and which in fact was the cause of the collapse of part of the façade and the coverage of the hypogeum because of the coincidence with the orientation of the façade of QH34h.

The exterior part of the QH 34 h funerary complex has several well-defined spaces (Figs. 3 and 4). First, the great accessing stairway to the complex (Fig. 5) of about 130 meters long (Edel 2008: 537-538), which starts from
a height of about 90 meters above sea level (the height of the Nile river at this point). In this space it seems very likely that there was a small dock, which would allow access to the burial complex from the river. The monumental accessing stairway can also be highlighted based on other aspects. It is the most monumental of the necropolis and its orientation is not perpendicular to the topography. The main reason could be the aim to reduce the slope of this element and to avoid constructive complications. In addition, it could have been designed to reduce the distance between the tomb and the dock, following the shortest route for the funerary processions (commonly developed in funerary rituals). Secondly, the large courtyard (Figs. 3 and 5), accessible from the stairway, has a rectangular shape with about $38.5 \mathrm{me}-$ ters of façade and a width of about 9 meters (Edel 2008: 538), although this value is indeterminate because the platform is currently covered by sand, debris and other Byzantine constructions. Following this large courtyard, two different hypogea were excavated in the hill (Figs. 3 and 4). As previously described, a great part of the funerary complex was transformed during the $6^{\text {th }}$ century AD to contain a Christian Church. The collapse of some of the earlier funerary parts of the hypogeum as well as the


Figure 3. Archaeological plan of the funerary complex. Current status. 1. Staircase; 2. courtyard; 3. funeral chapel; 4. Serdab; 5. burial chamber; 6. Niche. Author: J. A. Martínez Hermoso.


Figure 4. Front view of the façade of the funerary complex. Current status. Author: J. A. Martínez Hermoso.


Figure 5. View of the stairway with the funerary complex in the background.
later Christian reforms prevent us from having a clear picture of the original monument.

In this study a historical and evolutionary reconstruction is suggested of the hypogeum belonging
to Khunes, one of the most important governors of the Southernmost region of Upper Egypt between the Late Old Kingdom and the earliest decades of the First Intermediate Period (Jiménez Serrano 2013,

2015: 83). Unfortunately, with the current epigraphic and archaeological data (Edel 2008: 543-568) it is impossible to determine the exact date when he enjoyed the governorship of Elephantine, although it can be estimated at the end of the reign of Pepy II (2216$2153^{+25}$; for the chronology, see Hornung, Krauss and Warburton 2006: 491) and/or during the first decades of the $7^{\text {th }} / 8^{\text {th }}$ Dynasties ( $2150-2118^{+25}$ ) (Jiménez Serrano 2015: 80).

In the same funerary complex, some members of Khunes' closest circle were also buried, such as his wife Ankheseni, who was buried in the QH34f hypogeum (Edel 2008: 525-536; Jiménez Serrano 2015). The evolutionary analysis of this tomb has shown different spaces and construction stages.

## 2. ARCHITECTURAL RECONSTRUCTION OF THE FUNERARY COMPLEX

The plan and section of the current status of the Khunes complex is shown in figures 3 and 4 . Several remains of continuous structure superposition, remodeling and openings to connect different spaces can be identified in
these figures. The fact is that this zone of the necropolis underwent continuous restructuring.

A deep analysis of the structures allows us to discriminate three stages or important periods in the constructive evolution of the complex, which can be described as:

- Stage 1: construction and configuration of the funerary complex.
- Stage 2: Collapse of the façade and remodeling of the dock zone in the accessing stairway, external walls of the main entrance, remodeling and reoccupation.
- Stage 3: Construction of the Christian Church and interior remodeling of the hypogea.


### 2.1. Stage 1. Old Kingdom

The funerary complex is perfectly configured through the main tomb ( QH 34 h ), which is noted to be coincident to the central axis and was accessed directly from the accessing stairway ending in the large courtyard (Fig. 5). The accessing stairway has variable widths from 3 to 3.6 meters and is composed of 156 steps sculpted into the


Figure 6. Archaeological plan of the funerary complex in stage 1. Old Kingdom. 1. Staircase; 2. courtyard; 3. funeral chapel; 4. Serdab; 5. burial chamber. Author: J. A. Martínez Hermoso.


Figure 7. Front view of the façade of the funerary complex in stage 1 (Old Kingdom). Author: J. A. Martínez Hermoso.
rock or built using large sandstone blocks up to 2.2 meters long and of several thicknesses in order to be adapted to the slope. These blocks were possibly extracted from the hill itself. In fact, in the first section with soft slope the stones have widths from 0.7 to 0.8 meters and a thickness of 0.15 to 0.2 meters. In the intermediate section the width is about 0.9 to 1 meter with a thickness of 0.2 to 0.3 meters. Finally, in the last section (with the steepest slopes) the last 15 stones have a great height and were placed in the middle of other additional intermediate steps of about 1.3 meters of width.

The accessing stairway did not get to the same spot that it reaches today, as it initially connected with the easternmost end of the courtyard. In this sense, after the collapse of the façade the uppermost section of the stairway was remodeled and the main access to the hypogeum removed.

During the construction of the hypogea (QH34fQH34h) a platform was excavated at the exterior courtyard, where the ceremonial stairway ended. The courtyard had a length of about 38.5 meters and a width of about 9 meters, which is the largest in the Necropolis of Qubbet el Hawa (Edel 2008: 538).

The QH34h door, mostly collapsed, can be reconstructed following the pattern of the Late Old Kingdom tombs in the necropolis. During this period doors of the hypogea were located just in the middle of the façade. Although only the southern jamb and half of the frame (length 5.5 meters; width of the pillar 1.3 meters and height of the lintel 0.8 meters) of the door, which is 1.52 meters wide, is preserved, using this data it is possible to reconstruct the original dimensions of the QH 34 h
door: 1.3 meters wide and 4.7 meters high. There is no evidence that the door incorporated a pair of obelisks at both of its sides as in other great Late Old Kingdom tombs in the necropolis (QH25-QH26, QH35d, QH90, QH92 and QH103) (Martínez Hermoso 2017: 127-136).

The funerary chapel (Fig. 6) was the space where the funerary rituals and ceremonies were carried out and it was excavated parallel to the façade, adapting to the topography of the hill. The access to the interior is developed directly from the exterior door in whose jambs there are some reliefs (Edel 2008: 581). This hall has a ground plan with an approximately rectangular shape (an area of about 90 square meters, west wall of about 10.9 meters and south wall of about 8.2 meters). The ceiling is supported by eight pillars sculpted directly into the rock, which divided the chapel into three naves parallel to the façade (Figs. 8 and 9). In addition, the pillars are distributed more or less symmetrically with respect to the central axis of the hypogeum, four at each side of the hall. As in other local Late Old Kingdom tombs, the height of the pillars coincided with the height of the door, although in the case of the QH34h (and QH25QH26; Edel 2008: 20, fig. 9), some small lintels (a few centimeters high) were sculpted between the pillars, parallel to the façade.

The pillars present a very soft oblique design. Their section is reduced with the increment of height, and their sides are consequently inclined from the base to the top. However, the geometry and dimensions are variable, from sections more or less rectangular ( $0.7 \times 0.8$ meters at the basis) to square, and some cases of polygonal sections. In all cases these pillars were sculpted in order


Figure 8. Image of the hall of pillars of QH 34 h .
to generate a monumental space, thanks to their stylized shape and great height.

The eight pillars are aligned in two rows, although the builders were not very precise in the construction of these elements, as the separation between them is variable in all cases. In fact, in the longitudinal section of the hall (following the direction of the central axis) the width of the central nave (maximum distance between pillars of 3.34 meters) is larger than the lateral naves (distance from the wall to the pillar of about 2.36 meters). In this sense, in the transversal section of the hall (parallel to the façade) the distance between the pillars is reduced from the middle (maximum distance between pillars of 2.68 meters) to the north and south sides of the hall (maximum distance between pillars and wall of 1.32 meters).

The ceiling of the chapel leans from the entrance to the interior, following the direction of the strata of the rock. In this way, the height of the hall is reduced from 4.5 meters in the zone closer to the façade to 4.3 meters in the part located next to the western wall (the deepest zone of the hall into the hill). However, the initial height


Figure 9. Image of the hall of pillars of QH34h.
of the chapel could have been lower (about 0.30 meters). This assumption is based on the remains of the originally carved surface in the West wall, which would have been carved into the floor with the construction works of the hypogeum. This remodeling would have given a major monumentality to the funerary chapel. In fact, the contrast between the sculpting technique at the base of the pillars (raw) with respect to the rest (polished) is clearly seen today. In addition, in the southern corner of the hall the height is 4.85 meters but at the end the excavation works were unfinished, showing a step (Fig. 9). In addition, the chapel was probably excavated further down in the southeast corner to connect the QH34h funerary chapel to the QH34g tomb, whose floor level is 0.30 meters below. All these details together with some unfinished reliefs in QH34h show that the governor might have died before the hypogeum was finished completely. As will be discussed (see below), QH34h had already undergone a collapse of part of the hypogeum. At the end wall of the hall (west) there are several structures sculpted into the rock where several remarkable niches and removed zones can be observed as well as the entrance to another adjacent hall
(serdab), a window to the serdab (Fig. 9) and the opening to the shaft which led to the burial chamber. On the elevation of the wall (Fig. 9), Edel indicated that the central niche was originally constructed in order to install a false door (Edel 2008: 551), although no evidence of this has been seen (Jiménez Serrano 2013: 17). The elements currently found in this wall are possibly the remains of several constructive modifications carried out during different periods. It seems likely that the central niche was planned to contain a false door, because this element does not have enough space to display a sculpture as with other contemporary tombs, such as the QH102 tomb (Khui-en-Khnum) (Edel 2008: plan 29.1); after that, in the Byzantine period this space was masked by plastering the walls, (e. g. in the case of QH34f).

On the West wall, an antechamber opens which gives access to the serdab, a unique example of this room in the Necropolis of Qubbet el Hawa. The most interesting characteristic of this space is that it is composed of two rooms, the first being larger than the second. In the latter chamber, a small window is perfectly aligned to the axis of the tomb and its main door (Fig. 6). In this way, the statue of the defunct (not found) might have interacted with the exterior. Both the height of the windows and the door of the tomb are aligned in order to obtain the light directly. In addition, the directions of the axis of the tomb (azimuth of $53^{\circ}$ ) and the façade line ( $144^{\circ}$ ) have been analyzed in order to check any coincidence with solar cycles, but these directions are not coincident with solstice or equinox directions in that period. Furthermore, we have also checked the direction of the rising and setting of several stars commonly used to orient temples or tombs in ancient Egypt (Sirius, Canopus, etc.), but, again without any coincidence. Therefore, we suggest that the orientation of the tomb was related to geological and topographical aspects depending on the hill and the river Nile. However, we have confirmed that the tomb and the accessing stairway are lightly aligned to the Northeast, allowing direct vision to the river and the horizon from the serdab's window. During the Old Kingdom the orientation of the main tombs of the necropolis and their accessing stairways were aligned to the intermediate cardinal axes. For example, the axis of tomb QH26 and its accessing stairway is oriented perpendicularly to the Nile River to the Southwest (azimuth of about $143^{\circ}$ ), showing a similar orientation to that described by the façade of QH34h.

The main burial chamber, with its west wall located 25 meters from the façade, runs at the end of a narrow
corridor with an entrance located in the northeast corner below the door of the ka's chamber (funerary chamber in Fig. 6). This corridor runs horizontally and has a length of about 11 meters and connects to a great rectangular hall, with dimensions of about $7.3 \times 5$ meters and a height of 4.3 meters (Edel 2008: 541). According to Edel (2008: plan 11.1), the dimensions of the burial chamber are similar to those of the chapel, which is also seen in other Late Old Kingdom funerary complexes such as QH35d (Edel 2008: plan 17 and 18).

QH34h shows three additional burial places, whose accesses are through shafts excavated into the floor of the funerary chapel. The first one is located in the northeast corner of the chapel, with an underground L-shaped disposition. The second is located in the south wall and the third in the southwest corner (Edel 2008: 540). In addition, there are five niches located under the entrance door which were carved after the collapse of the façade and the descent of the courtyard in this zone. These five niches were excavated next to the façade. This location was usually used in the necropolis, such as in the case of the funerary complexes of the QH25-QH26 (Edel 2008: plan 3.1 y 3.2 ) and the funerary complex of QH90 (Edel 2008: plan 23.1).

The QH34h funerary chapel is profusely decorated with several scenes. We can differentiate three types of reliefs:
a. Completely carved reliefs, sculpted by craftsmen -at least- trained in the Memphite style and technique (Edel 2008: scenes 1, 2, 3, 5, 6, 11, 12, 15, 17 and 22). b. Unfinished scenes, which we might consider as part of the original decoration of the tomb together with the precedent type (Edel 2008: scenes 7 and 8).
c. Funerary cult scenes, carved in a more rudimental style, which must be dated to the First Intermediate Period (Edel 2008: scenes 4, 9, 10, 13, 14, 16 18, 19, 20, 21, 23, 24 and 25).

Immediately to the south of Khunes' funerary chapel two hypogea were constructed. Together with Khunes' tomb there was his wife's tomb (probably QH34g), and further south an unfinished funerary chapel ( QH 34 f ). Although these two hypogea were identified independently, Jiménez Serrano (2015) considered both spaces as part of Khunes' funerary complex. Analysis of the QH34g hypogeum shows that this is one of the few cases in this necropolis which is not structured following a central axis of symmetry (Martínez Hermoso 2017: 147-150), per-
haps because it was originally planned with a larger size, including a ceiling supported with four pillars. The access to this zone was developed though a small door sculpted in the façade, with a width of 0.97 meters and a height of 1.86 meters (Edel 2008: 525). This zone is situated 30 centimeters below the level of QH34h. The access also shows a sculpted frame as is shown by the majority of hypogea of the necropolis in this period (Fig. 7).

As mentioned before, the southernmost tomb of Khunes's funerary complex, QH34f, was not finished and does not even present burial spaces such as shafts or burial chambers. Its current access is not the original one. In reality it is a large window opened during the Byzantine period (see below).

From the plans of both spaces (QH34f and QH34g) it is confirmed that the orientation of both spaces is similar, showing little deviation with respect to the general orientation of the main tomb ( QH 34 h ). Both funerary chapels ( QH 34 f and QH 34 g ) show sculpted pillars with quadrangular and trapezoidal sections, although QH34f contains a pillar more or less centered in the hall and QH 34 g shows two pillars. Only QH 34 g was decorated, confirming that it was prepared for Ankheseni, Khunes' wife (Jiménez Serrano 2015: fig.7.2.).

In the Northernmost section of Khunes’ funerary complex an additional hypogeum was identified by Jiménez Serrano (2013: 23) and catalogued here as QH34h(a). This is a structure difficult to analyze because until this moment, we have not had permission to access the interior of this tomb and the only available graphic documentation was documented in 1998 when the Coptic Church was excavated (Anwar 2013: fig. 1). The façade was modified greatly over the years and nowadays it presents a stairway which is part of the Byzantine monastery. As is shown in the plan (Fig. 3), this tomb also contains a quadrangular pillar and several spaces, but the whole complex was much altered by the Byzantine monks because this zone was used as a sacristy of the Christian church (Barba 2021: 287). Inside this tomb three false doors have been located, which were overpainted with Christian crosses. One of them showed the name of Khunes (Jiménez Serrano 2013: 23), which might be related with one of the deceased buried in this funerary chapel, perhaps a close relative of the governor with whom he shared the name.

The QH34h(a) ground plan shows an irregular shape with several quadrangular spaces related probably to several additions and remodelings because the walls show characteristics of subsequent periods with Byz-
antine decoration on a plaster facing. Apart from the aforementioned three false doors, there is no evidence to prove the existence of vertical shafts or burial chambers, whose existence must be considered uncertain.

All the funerary complex, composed of QH 34 h , the other five adjacent niches excavated under the door's threshold and the QH34f, QH34g and QH34h(a) hypogea, was planned and constructed sharing the monumental exterior courtyard, which was led by a unified façade that follows the same sloped plane (Fig. 7).

These are the data currently available from the first stage of the funerary complex, but we can guess that in the unexcavated southern part some burial pits will appear. In this sense, the sediments covering this zone are related to post-depositional processes of the monastery located on the upper level with respect to this funerary complex. Thus, the funerary chapel located just on the immediate lower level (QH110) (Fig. 10), dated to the First Intermediate Period (Edel 2008), does not cover the whole area of the QH 34 h courtyard, which shows that the constructors of QH110 anticipated (or knew of) the existence of burial pits in the upper courtyard, like those seen in the QH25-QH26 courtyard.

### 2.2. Stage 2. First Intermediate Period

At an undetermined date, perhaps when Khunes was still alive, the height level of the floor of the QH34h funerary chapel was changed by removing a layer of terrain. This meant that a great part of the northern façade and the ceiling of the QH 34 h collapsed, probably caused by the lack of stability of the chapel (composed of several stylized pillars up to three meters high). The fragmentation of the geological stratum and the deficit of skills of the constructors in resolving this issue caused the collapse of this zone, which fell down on the courtyard and the upper zone of the last steps of the accessing stairway that connected the river to the funerary complex. The imprudence of the Egyptian builders, when excavating into the rock a chamber more spacious than the rest of the contemporary hypogea, exceeded the structural capacity of this area. In this sense, Edel $(2008,541)$ suggested that the collapse was caused by a great earthquake which happened in ancient times, coinciding with the construction of the tomb. Although we cannot discard this explanation, because the historical memory echoed a couple of seismic events (Kebeasy 1990: 51-52), none of them are contemporary. In any case, the collapse could have caused the abandonment


Figure 10. Archaeological plan of the funerary complex in stage 2. First Intermediate Period. 1. Staircase; 2. courtyard; 3. funeral chapel; 4. Serdab; 5. burial chamber. Author: J. A. Martínez Hermoso.


Figure 11. Image of the main door including the niches located under the façade and the false door.
of this complex and the start of the construction of a new tomb in another area of Qubbet el Hawa. In this sense, the mission of the Ägyptisches Museum und Papyrussammlung, directed by Dr. Friederike Seyfried, located about one kilometer far to the north of Qubbet el Hawa, discovered a hypogeum dated to the last part of the Old Kingdom or the beginning of the First Intermediate Period, which was destined to an official also named Khunes (Seyfried, Seyfried and Kuhn 2017: 5051). However, this interpretation should be discarded because there are several pieces of evidence that prove that governor Khunes was buried in QH34h. Thus, there are many reliefs that demonstrate that his funerary cult was performed in QH34h immediately after Khunes' death (Edel 2008: 571-573). Therefore, despite the collapse, QH34h was used for its original purpose, being the burial site of the governor Khunes.

During this stage several structural modifications were carried out in the exterior zone of the complex. The main stairway was extended to where the main door was previously located, excavating a wide area following the line of the façade. Just below the location the original door of QH34h, the last steps of the stairway and the entrance to the five niches were remodeled. Below these
elements, in the middle, a new false door was sculpted (Fig. 11). In these niches, which were located below the collapsed façade, three graves were discovered, although there is not enough data because the map of these elements was not completed (Edel 2008: 565, fig. 9). These burials were located in a complex zone from a structural point of view, but followed the pattern of the burials of the members of the household seen in the courtyard of QH25-QH26.

### 2.3. Stage 3. Byzantine period

After the $6^{\text {th }}$ century AD the whole complex was converted into a great Christian church and the tombs were occupied by Coptic monks to be used for several religious tasks. In the $5^{\text {th }}$ century the hill was occupied by a Christian community, which initially used several hypogea and after that built a great monastery complex. The occupation of tombs can be related to the semi-anchorite lifestyle, which had an evolution to the communitarian lifestyle with the construction of the monastery, located on a higher level with respect to the necropolis, and a great church using the funerary complex of Khunes (Barba and Torallas 2020; Barba 2021).


Figure 12. Archaeological plan in stage 3 (Byzantine period). Author: J. A. Martínez Hermoso.


Figure 13. Front view of the façade in stage 3 (Byzantine period). Author: J. A. Martínez Hermoso.


Figure 14. Image of the façade of the QH 34 f and QH 34 g tombs remodeled in the Byzantine period.

The great external courtyard is divided into two as a consequence of the location of the stairway, which was used continuously to access the tomb from the Nile river. The Byzantine monks used this stairway, reinforcing the
last section with the inclusion of two accesses to the two parts of the old courtyard. The southern part of the courtyard was occupied by different structures which cannot be identified because they have not been excavated until this
moment. However, in the façade several parallel lines of putlog holes can be identified, destined to be used to install a wood structure of several floors (Fig. 13). In addition, on the courtyard level the beginnings of adobe wall with plaster are visible, showing that this zone was occupied completely. This construction was carried out using adobe load-bearing walls (0.70-0.90 meters of width) with one or several layers of plaster to be decorated, and distributed into two corridors that ran parallel to the façade. This supposes spans of about 3 meters and a height of about 2.4 to 2.9 meters (Figs. 12 and 13).

In the QH34f hypogeum a window was probably cut or widened taking advantage of a great crevice and the collapse of this zone of the façade (Fig. 14). Inside this tomb the walls were plastered and several icons were painted. Among these we can highlight three saints who are riding horses, who can be interpreted as the founders of the monastery (Barba 2021: 308-309). Therefore, the
tomb was converted into a small chapel, consecrating this space for Christian worship in consonance to the recent discoveries of QH34aa (Barba and Torallas 2020). The consecration of both chapels (QH34f and QH34aa) is possibly coincident in time.

In the north part of the courtyard a church was constructed (Figs. 15 and 16). Regarding this church, a great layer of sand cleared in 2010 by the Supreme Council of Antiquities (Anwar 2013) unearthed several structures. After that, in 2018 these archaeological structures of the church and adjacent tombs were studied in order to obtain a precise map and a 3D model of the zone (Mozas et al. 2019).

The church was organized taking advantage of parts of the ancient burial sites and the slope of the hill (e. g. hall of pillars of QH 34 h ). The head of the apse was aligned with respect to the ancient façade of the tomb (Fig. 15). In the hall of pillars, the whole space was plas-


Figure 15. Image of the Coptic church reusing part of the QH34h tomb.
tered in white, covering the previous decoration. In addition, several windows were opened in order to illuminate the interior and the hall was remodeled using small adobe walls to divide the ancient chapel (Fig. 17). Considering the great height of this hall, vaults composed of bricks were also constructed in the central nave. Currently some remains can be seen on the side walls. It is possible that the baptistery was located in this zone, next to the altar and the head of the church (as is usually situated in this type of churches). An inscription regarding bishop Severo and the consecration of this zone as a baptistery was located in one of these walls (Dekker 2013: 126).

Considering the available data, our main hypothesis is that the Church had two main constructive phases with several punctual remodelings. Its use would surely have begun about the middle of the $6^{\text {th }}$ century (AD), with different remodeling until the Muslim domination. This
hypothesis is based on different graffiti located in the highest zones of the church, which were inscribed after sand had covered the lower zones, hiding a large part of the structures (Torallas and Zomeño 2013).

The church occupied all the northern part of the courtyard of the funerary complex. The main space is configured as a quadrangular structure surrounding a central dome. The idea of crowning churches with a dome was related to the holiness of these buildings as worldly entities in analogy to heaven. In fact, considering the Byzantine mentality the visible universe was conceived as a cube culminated by a dome (v). Grossmann (1985) also observed that hidden in the sand a simple plan of something that he considered a quadrangular church with a central dome was configured.

However, the church has central plan, with a main axis parallel to the direction of the ancient accessing stairway. The dimensions of the church are about 18.35


Figure 16. Image of the Coptic church occupation of the northern part of the courtyard.


Figure 17. Window sculpted during the Byzantine period in the hall of pillars which affected the inside decoration of the tomb.
by 15.57 meters ( 60 by 50 Byzantine feet $^{6}$ ). In addition, the central dome had an octagonal basis which started from 5.89 meters ( 20 feet) from the floor, reaching a maximum height of 9.36 meters ( 30 feet). It was supported by two parallel walls oriented in the perpendicular direction and two pairs of great pillars of masonry located in the main direction of the church. An example of this type of dome is that of the church of the nearby monastery of Al-Kubbaniya (Junker 1922: 14-44; Grossmann 1982: 54-60, fig.18, 2002: 560-562).

This main axis is designed on a lower level including on the one hand a semi-circular apse which supported a quarter-sphere dome on the west part, and on the other hand three altars divided into apses included in a

[^1]space covered with a dome in a similar way to the first phase of construction of the monastery of St. Simeon (Capuani 2002: 249) or the church of the monastery of Al-Kubbaniya (Junker 1922: fig. 1). Both examples are contemporary to the church constructed in Qubbet el Hawa, were located in the surrounding area of Aswan and were constructed on the west bank of the Nile river. The height of the top of the secondary domes above the floor level was about 4.68 meters ( 15 feet) and is coincident to the height of the door of the QH 34 h tomb.

Around the central space an ambulatory composed of a perimeter corridor covered with barrel vaults was developed (one currently remains). This combination of domes and vaults, in addition to the construction of another small dome located on the central corridor of the north nave, was used to counteract the pressure of the great central dome. However, during the construc-
tion the pillars located in the south part were reinforced, increasing their section in order to improve the stability of the construction (Barba 2021: 289, fig. 3.82).

After that, probably in the middle of the $7^{\text {th }}$ century, the church was extended by adding several vaulted structures to the East, reducing the space of the terrace (Figs. 12 and 13). This construction was probably related to the Islamic occupation of Egypt. The monasteries in this period were changed to be protection centers of the laic population. The society adapted to these political and fiscal changes imposed by Arabs and the Christian population was grouped around churches and monasteries. From this moment, their lifestyle changed from eremitical to cenobite.

In contrast to the interior part of the church the exterior appearance was simpler, without decoration. As an example, the reconstruction proposed in the monastery of Al-Kubbaniya (Junker 1922: fig. 3) showed a semi-fortified building as a consequence of the construction of great structures of adobe supported on masonry foundations. The final result was a mix between the burial architecture of the necropolis and the use of traditional materials such as adobe.

The church had at least three doors, one was used to access from the stairway of the QH34h tomb, the second from the northern part of the courtyard and the third form the head of the church connecting to the monastery through a stairway. This last access was most probably restricted to the monk community.

The whole complex was abandoned around the middle of the $8^{\text {th }}$ century. There are no remaining archaeological materials from this Islamic period, but both the church and the QH34h tomb were continuously visited, as the graffiti and paintings inscribed on the walls during the following centuries show (Fig. 2).

The last remodelings performed on the Khunes funerary complex were coincident to the starting of the field works of the project of the University of Jaén. Despite the fact that the tomb could be visited by tourists it showed an alarming status of collapse, with an important risk to people. Considering this situation, in 2012 an emergency intervention was undertaken. It was based on the consolidation of the lower part of the pillars, the walls and the ceiling (Jiménez Serrano et al. 2010-2011).

## 3. CONCLUSIONS

In this study we have described the first analysis of the uses of QH34h funerary complex. As is can be appreci-
ated in the cartography, the complex has a cross-like plan shape. The main tomb of the complex, belonging to the governor Khunes, occupies the central axis of the whole complex. The great stairway which connects the Nile river to the burial chamber shows a perfect symmetrical axis running from the serdab, which is also located in this axis, to connect both the exterior and the interior worlds, the underworld and the living world (Figs. 10 and 11).

Construction on the complex began in the Late Old Kingdom, following a known model in this necropolis, which possibly included a dock, a stairway, a courtyard and a funerary chapel (Fig. 6). This architectural structure had already been seen in earlier funerary complexes in Qubbet el Hawa. In the case of QH34h, the constructors improved the previous constructions because they completed the most monumental stairway of the necropolis, the broadest courtyard, and a chapel with the highest ceiling of the zone, containing eight pillars which exceeded their own construction limits.

From a topographic point of view the complex was located in a privileged zone, just in the turning of the hill to the northeast, where no tombs had been constructed until that moment. The selection of the zone also considered the presence on a higher level of a plateau zone, which showed great visibility.

The cross-shape plan of a monumental funerary complex found in QH34h follows the type seen in Qubbet el Hawa from at least the times of Mekhu and Sabni (QH25-QH26). Coinciding with the remodelings carried out in the second stage, several tombs followed the schema of QH 34 h regarding the chapel, such as QH 110 and QH34a (both are located on a lower level in the necropolis) which contain eight pillars in the chapel but without an access stairway. These hypogea are dated to the First Intermediate Period (Jiménez Serrano 2022).

Without any doubt, Khunes and the construction of his funerary complex marked an important milestone in the configuration of the necropolis of Qubbet el Hawa. The model of this tomb was an important precedent of a unique structure in Upper Egypt, overall because of its monumentality. This type of complex is characterized by the use of high sculpted pillars distributed in lines parallel to the façade, the low depth of the chapel and the distribution of several secondary chapels with accesses from a common courtyard. This model is observed in subsequent tombs such as that of the governor Ankhtifi in Moalla (Vandier 1950), so QH34h can be considered as a precedent of the saff type tombs (Arnold 1976) located in Luxor during the first half of the $11^{\text {th }}$ Dynasty.

Originally, the design and construction of QH34h is the result of an evolution in the increasing monumentality of the governors' funerary chapel seen throughout the reign of Pepy II (Jiménez Serrano 2018). This monumentalization is not only due to the development of an increase of the sophistication of the provincial courts seen during the $6^{\text {th }}$ Dynasty, but also to show the governors' capacity in the management of power. At least from the second half of the reign of Pepy II there was a political crisis which reinforced the political power and influence of the governors (Barta 2019). Additionally, we suppose that the QH 34 h contained all the members of Khunes' court and household as commonly happened in other tombs of the necropolis.

The great stairway allowed access to the rectangular courtyard oriented towards the Nile river. Adjacent to this courtyard a great chapel was situated, including a serdab oriented in the same direction as the axis of the door. This serdab showed the physical presence of Khunes's ka. His grand burial chamber was located underground and oriented with respect to the central axis of the complex.

The monumentality of the chapel and the natural fissures of the rock where the tomb was constructed were determinant in the collapse of part of the QH34h complex before the end of its construction. It seems very likely that the collapse of the façade and great part of the ceiling happened around the time of Khunes's death.

The conversion of the funerary complex into a Byzantine church was not exclusive of Qubbet el Hawa. We have to note that during the Byzantine period it was common to select special places to build reusing previous structures, as can be shown in the Theban necropolis. Most of the monk complexes which are identified in Egypt started with the previous occupation of eremites who organized their life of asceticism inside tombs or caves with a marked spiritual significance (O'Connell 2007). In the region of the First Cataract we have confirmed that the three monasteries dated to this period were located on the west bank of the Nile river and were constructed on top of previous structures, such as temples or tombs from the Pharaonic period (Barba 2021: 127-174).

As we have seen, this complex has not been fully investigated from the archaeological point of view. Thus, the courtyard may contain some pits and burial chambers both in the southern part of the courtyard, under the Byzantine strata, and in the northern part, under the Byzantine church. Furthermore, this zone should be
deeply investigated in order to confirm the identity and administrative and social roles played by those buried in QH34h(a).

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[^1]:    ${ }^{6}$ A Byzantine foot supposes approximately 0.31 meter.

