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Early Roman Osiris Shrouds From Dra Abu El-Naga

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ABSTRACT

Most of the shrouds hitherto studied and published come from private collections or museums, and lack archaeological contexts, so that it has very rarely been possible to relate them to their owners. This paper presents an interdisciplinary study of two shrouds found at Dra Abu el-Naga, their archaeological context, typology and technical details, and an anthropological and paleopathological analysis of the mummies with whom they were associated. The two painted shrouds offer evidence of surviving funerary beliefs and practices in early Roman Thebes and, from a gender perspective, offered, for the first time, the possibility to study enveloping textiles which iconography and texts were designed for males but used on female mummies.

Keywords: Roman shrouds, Osiris, reused tomb.

RÉSUMÉ

La plupart des linceuls étudiés et publiés à ce jour proviennent de collections privées ou de musées et leur contexte archéologique de découverte nous est inconnu. Dans ces conditions, il a été rarement possible jusqu'à présent d'établir un lien entre les linceuls et leurs propriétaires. Cet article s'intéresse, d'un point de vue interdisciplinaire, au contexte archéologique dans

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lequel deux linceuls, exceptionnels, ont été découverts à Dra Abou el-Naga, et à leur typologie. Il procède à leur étude technique et à une analyse anthropologique et paléo-pathologique des momies auxquelles ils sont associés. Ces deux linceuls, qui sont peints, nous offrent de nouvelles perspectives sur les croyances funéraires et les coutumes relevant de la tradition pharaonique dans la région thébaine au début de l'époque romaine. D'autre part, dans une perspective liée au genre, il a été possible de constater et étudier pour la première fois l'utilisation d'un matériel textile destiné initialement à une momie masculine (comme en témoignent les informations iconographiques et épigraphiques qu'il révèle) pour une momie de femme.

Mots-clés : linceuls romains, Osiris, tombeau réutilisé.



INTRODUCTION

A Spanish archaeological mission has been working at Dra Abu el-Naga, in and around the early 18th Dynasty tombs-chapels of Djehuty and Hery (TT 11 and TT 12), since 2002.¹ To the southwest of the courtyard of the tomb of Djehuty is the area now called Sector 10 (fig. 1). This area was occupied by a village that was demolished in January 2007, and its inhabitants were relocated to New Gurna. After removing the debris, the excavation area was extended in 2011 and several funerary structures have been unearthed since that date, dating to the 11th to the 19th Dynasties. These tombs were robbed and reused, mostly during the Third Intermediate Period and the Ptolemaic Period,² while the tombs of Djehuty and Hery were reused during the Ptolemaic Period as burial places for animal mummies.³

A rock-cut tomb-chapel with an open courtyard was recorded during the 2016 and 2017 excavation seasons, and was labeled tomb-chapel 1030. There is insufficient data to identify its original owner, but the morphology of the tomb and the measurements of its mud-bricks⁴ suggest that it dates to the 18th or the early 19th Dynasty.

In the transverse hall of the tomb-chapel there was evidence that it had been reused at different times, yielding fragments of pottery, shabtis, and human remains. Several mummies were found in the northeastern end of the transverse hall, arranged in two groups—one of

¹ This article is part of research project HAR2017-88671-R within the Spanish National Program for Scientific Research, Technology and Innovation. We want to express our thanks to Dr. José M. Galán.

² The reuse of funerary structures has been documented at other areas of the Theban necropolis (WILKINSON 2016; STRUDWICK 2011; OCKINGA 2007; KÁKOSY, SCHREIBER 2003). Of the tombs located in Sector 10, only two retained intact archaeological context. One reused shaft held a *rishi*-coffin (GALÁN, JIMÉNEZ-HIGUERAS 2015), and another shaft had been robbed but still preserved two self bows and 20 arrows in good condition (GARCÍA, GALÁN 2016).

³ GALÁN 2007, p. 782.

⁴ Tomb-chapel 1030 had an entrance pylon and a mud-brick wall on the northeastern side of its courtyard. The mud-bricks of these structures measured 34 × 15 × 8 cm.

two bodies and the other of three. In the second group, two of the mummies had shrouds that were decorated with a frontal image of Osiris, and one had a linen wrapping bearing some Greek inscriptions.

THE TRANSVERSE HALL OF TOMB-CHAPEL 1030

Tomb-chapel 1030 is carved into a geological level of limestone and marlstone. For safety reasons, only the courtyard and transverse hall were excavated because the poor quality of the rock had led to the collapse of the ceiling in some areas of the transverse hall and the corridor. The courtyard measures 9.5×6.7 m and is oriented northwest-southeast. The transverse hall runs parallel to the façade and measures 6.80×1.67 m and is 2.30 m in height (fig. 2). An annex chamber is carved into the northwest wall, to the right side of the transverse hall, with an entrance measuring 1.40 m in width and 2.40 m in height, which had been sealed with mud-bricks⁵ (fig. 3, right). The walls of the transverse hall were coated with mortar during a later phase of reuse, but it is still possible to see some of the original polychrome decoration. On the northeastern of the transverse hall, the floor was lowered and cut into the bedrock to provide access to another tomb, labeled 1018, on a lower level of the hill, which dates to the 11th or early 12th Dynasty.

ARCHAEOLOGICAL CONTEXT

A robbers' hole was cut from one of the houses when the area was occupied by the village, which descended through the ceiling of the transverse hall (fig. 1: A) causing a collapse that meant that the chamber was filled with a dark stratum (1100). Vegetal remains, dung, plastics, pieces of clothing, and papers (including a newspaper dated to August 2006) were found in this layer. Below was a stratum (1101) of limestone chips, in which were found shabtis of clay and faience dated to the Third Intermediate Period, fragments of sandstone reliefs, and pottery shreds dating to various periods: contemporary, Roman, Late Period, Third Intermediate Period, and New Kingdom. Some fragments of Phoenician, Byzantine, and Greek amphorae and red vases were also found there (fig. 2).

Some shabtis were associated with the following stratum (1103), two of them made of faience and dated to the Third Intermediate Period. This stratum also yielded wooden fragments, linen, and pottery shreds dating to the Ptolemaic Period, Late Period, and New Kingdom. Fragments of Byzantine and Cypriote amphorae were also found there (fig. 2), as were some human bones showing traces of a fire. A column capital bearing a Coptic inscription was also found in this level, which may be related to Deir el-Bachit, the Coptic monastery located atop the hill of Dra Abu el-Naga north.⁶

⁵ This chamber will be excavated in forthcoming archaeological seasons.

⁶ EICHNER, FAUERBACH 2005.

The next stratum (II04) only held a few pottery shreds dating to Late Period and New Kingdom. Below was a stratum that included fallen mud-bricks (II06), some of them stamped with the seal of Tutuia,⁷ though the pottery of this level dated to the Third Intermediate Period (fig. 2).

As we mentioned, on the northeastern of the transverse hall, the floor was lowered and cut into the bedrock. In this level, under the original rock floor level of the transverse hall, was a stratum (II07) of limestone chips, stone blocks, and mud-bricks with the seal impression of Tutuia. A few sherds dating to the Ptolemaic Period, Late Period, and New Kingdom were found here, along with some fragments of Phoenician amphorae (fig. 2). It is in this stratum that the two groups of human mummies were found, piled up and plundered. The two mummies in the first group were found one above the other. The mummy on top was missing its head and its legs were broken at the knees (fig. 3). The second group, of three, was found lying under the first, next to one another (figs 4 and 5), with their heads to the west and their feet to the east. Two of these mummies were wrapped in decorated shrouds (SMDAN 5464 and SMDAN 5465) that had been damaged by robbers (fig. 4: A, B, and C).

Beneath the mummies (II08) was a set of clay shabtis that had been produced in moulds and which measured 5 to 8 cm in length, and pottery shreds dating to the New Kingdom and Late Period, together with some fragments of Roman and Byzantine amphorae (fig. 2).

Analysis of the stratigraphic sequence in the transverse hall reveals several different episodes of plunder. The mummies were not in their original positions, but had been moved by robbers. Despite this, the bodies had kept their shapes and, for two of them, the damaged shrouds still covered the mummified remains.

CONSERVATION PROCESS AND MATERIAL ASPECTS

The shrouds were found crumpled, dirty, and with some loose fragments (fig. 4). Each was carefully cleaned of sand and mud with small brushes and then flattened, first being moistened with water vapor, then placed between pieces of blotting paper and pressed by means of a weight. They were then fixed to a wooden board with nylon needles.

The two shrouds were made from a single piece of cloth, without selvedges or fringes, so that the fringes now visible were created when the fabric was torn in two. They are made of a hemp, rather than linen, which was the most common material used for the manufacture of fabrics in ancient Egypt.⁸ The surface is darkened in some areas, probably because of mummification materials or decomposition (fig. 13).

⁷ Shabtis bearing the name of Tutuia, *imy-r ihw n(y) Imn* “overseer of the cattle of Amun,” were found in the courtyard and the surrounding area. These shabtis were made of clay, and painted in white with a text column written in black. Mud-bricks carrying the seal impression of Tutuia were found in the courtyard and transverse hall of this tomb, and in the tomb-chapel of Hery (TT 12), GALÁN 2008. In XIIth International Congress of Egyptologists held in Cairo on November 2019, a paper with the title “A Ramesside High Official of the Domain of Amun Buried in Dra Abu el-Naga” was presented by José M. Serrano Delgado.

⁸ VOGELSANG-EASTWOOD 1992; VOGELSANG-EASTWOOD 2000.

Both the warp and the weft are s-twist hemp (fig. 6). The twisting is inconsistent, and it is possible to see yarns that are not twisted. The thickness of the individual yarns varies between 0.35 and 0.79 mm (fig. 6). The hemp is woven in 1:1 plain or tabby weave (fig. 7). A yarn count was taken in different areas of the two shrouds in order to calculate their relative densities, which yielded an average of sixteen warps and six wefts per centimeter (fig. 7). The quality of a textile depends on the number and thickness of its yarns, and these shrouds, with thick yarns of low and irregular density, can be considered to be of low quality. Hemp is a coarse material, and it is difficult to make a fine fabric from it.

The cloths are covered with an irregular white pigment base of variable thickness, onto which colours were applied (fig. 8). On the reverse of the fabric it is possible to see the white pigment between the yarns (fig. 9), though in some areas the fabric had no base.

The colours used were orange, red, pink, green, and black (fig. 8, right). The areas painted in green present as a dark base, perhaps to confer a sense of depth but perhaps due to oxidation of the green pigment, which was obtained from copper. Orange pigments in ancient Egypt can be associated with the use of a red over a layer of yellow, with a mixture of red and yellow⁹ or, as in this case, with a mineral such as red lead. This pigment was often used in the Ptolemaic and Roman Periods,¹⁰ frequently for the decoration of shrouds¹¹ and cartonnages.¹² The red pigment used on these shrouds has been identified as an iron oxide. In this case, pink pigments derive from a plant known as madder (*Rubia tinctorum L.*) that increased in popularity after the Ptolemaic Period and were included in the palette along with vermillion. Other pinks were created by mixing red ochres with white pigments.¹³ The black, like the pink, was an organic pigment, in this case a carbon-based one.

DESCRIPTIONS OF THE DECORATED SHROUDS

The decorated shroud now called SMDAN 5464 (fig. 10) was painted to show a frontal image of Osiris inside a shrine (fig. 12). The representation of the god is quite traditional:¹⁴ he wears a white shroud covered in painted faience netting, the spaces between which contain red dots, a reed-patterned cloak that falls behind him (depicted beneath his elbows, which is reminiscent of earlier models), a *wesekh*-collar (barely preserved), an *atef*-crown with a coiled snake on his head, a *heqa*-scepter and a *nekhekh*-flail in his hands, and bare feet. The figure has a central epigraphic field that runs from beneath his arms to his ankles, which contains a vertical text and a depiction of the four sons of Horus. His body and *wesekh*-collar are outlined in yellow, and the remainder is outlined in black. The skin of the god is green, and is shown against a pink background.

⁹ LEE, QUIRKE 2000, p. 113.

¹⁰ PAGÈS-CAMAGNA, GUICHARD 2010, p. 30.

¹¹ SVOBODA, WALTON 2010, p. 152.

¹² ROWE, SIDDALL, STACEY 2010, pp. 110–111, table 2.

¹³ SCOTT et al. 2003, p. 49.

¹⁴ ORTIZ-GARCÍA 2015, pp. 140–148, 172–176, 185–187, 190–191.

The celestial shrine provides a mythical context, and follows a tradition of cosmic shelters.¹⁵ This structure is represented, as it commonly is in Theban shrouds, by a frame with a reticulated pattern of red lines that sometimes have dots or stars in their interior spaces, though this example does not. The structure is different from most Theban examples in that its internal framework is represented by a rectangle of green and black lines, with a red line on a white background between them. These lines are interrupted above and below by the figure of Osiris, above by the sun disc atop the Osirian *atef*-crown, and below by the god's feet. This feature seems to be deliberate. The lower part is similar to two Theban shrouds now in the British Museum, EA 43369 (1st century AD) and EA 6705A (AD 105–109), upon which Osiris appears as the sun rising above the horizon, similar to the hieroglyph ☉ (Gardiner N27).¹⁶

The solar disc above Osiris that overlays the framework may evoke the sun's journey, represented as a red line in a watery space (fig. 14). This religious concept and its iconographic composition may have parallels in the two British Museum shrouds noted above, in which Osiris is shown rising from an image of the horizon, depicted inside an ouroboros, a serpent biting its tail. The visual significance of the solar disc is shown in multiple ways, including through the sun and crescent moon in the upper corners of SMDAN 5464.¹⁷ The curved upper section of the shrine, immediately below the sun and the moon, might be a visual representation of the rising and setting sun, as well as being structural elements, and it may not be coincidental that these curved lines meet the solar disc and share its orange colour.¹⁸

Two winged snakes were painted on SMDAN 5464, one on either side of Osiris's head (fig. 14). This motif appears to be a schematic precedent for the images of winged snakes with legs that would become common on later shrouds.¹⁹ It is difficult to say whether the winged snakes represent manifestations of the goddess Wadjet, since no texts accompany them.

Two black jackals are illustrated, one on either side of Osiris' feet²⁰ (fig. 13). They were depicted on a surface, sitting on their haunches with their tails lifted up behind them, and holding a folded textile in their front paws. A schematic flail frequently appears behind jackals on Theban shrouds, but this has been lost for the only surviving jackal on SMDAN 5464. A significant motif, which is well attested on 1st century AD Theban shrouds,²¹ is the key to the doors of the Underworld that hangs around the necks of such jackals, but there are none on this shroud.

The sons of Horus appear with relative frequency in Theban shrouds from the Roman Period, where they are often associated with textile offerings to the dead, but there are no parallels for their location in an epigraphic field, or for being displayed one above the other. Their depiction on SMDAN 5464 seems to be reminiscent of amulets, rather than as figurative motifs that harmonize with the rest of the decoration (figs 13 and 15). They are probably

¹⁵ SCHÄFER 1928; HASSAN 1943, pp. 69–99; GRDSELOFF 1951; WEYERSBERG 1962; SETTGAST 1963, pp. 3–15; ALTENMÜLLER 1971–1972; BROVARSKI 1977; HOFFMEIER 1981; KURTH 1984; ORTIZ-GARCÍA 2018.

¹⁶ ORTIZ-GARCÍA 2015, pp. 227–228.

¹⁷ The sun and the moon depicted on SMDAN 5464 were substituted by barques in later Theban shrouds (ORTIZ-GARCÍA 2015, pp. 241–243).

¹⁸ Red and yellow were traditionally associated with the sun (KEES 1943, pp. 31–434, 446–452).

¹⁹ ORTIZ-GARCÍA 2015, pp. 251–252.

²⁰ ORTIZ-GARCÍA 2015, pp. 246–248.

²¹ ORTIZ-GARCÍA 2015, pp. 18, 247, pl. 1.6, 1.9, 2.8–2.9a.

painted representations of a type of object that was often buried with mummies, as can be deduced from other shrouds both from Roman Thebes and from other regions.²² The closest parallel comes from a shroud in the British Museum, EA 65775, which dates to between the second half of the 1st century BC and the first half of the 1st century AD.²³ The jackals on this shroud do not have the key to the Underworld around their necks either, and it is the only other shroud in the Theban region known to make extensive use of orange and pink.

Two textiles bearing short Greek inscriptions were found attached to the owner of shroud SMDAN 5464 (fig. 16). These texts will be analysed more closely in future studies, but given the gender questions raised in this paper we consider it worth mentioning that the one textile carries what seems to be a female name: Κενψενχοῦμις (“daughter of Psenchnoumīs”).²⁴ There is a slight space between Κεν and ψενχοῦμις, which might indicate kinship rather than a proper name, but read together the resulting name would be equivalent to the Egyptian *T3-šr.t-n-p3-šr-n-Hnm* (“the daughter of the son of Khnum”).²⁵ It is notable that this text indicates a deceased female.

The composition of, and techniques used on, shroud SMDAN 5465 (fig. 11) are similar to those of SMDAN 5464. It was also prepared with a layer of white and bears a frontal image of Osiris inside a shrine (fig. 12). The painting is of fine quality, but the preliminary sketching, if the technique was used, appears to have been poor because the composition sometimes lacks symmetry, as can be seen on Osiris’ feet. The representation of the god is quite standard. He wears a pink shroud (without a net), a reed-patterned cloak falls behind him (and is also depicted beneath his elbows), he wears a *wesekh*-collar and an *atef*-crown with a coiled snake on his head, he holds a *heqa*-scepter and a *nekhekh*-flail in his hands, and his feet are bare. The Osiris figure also has a central epigraphic field that runs from beneath his arms to his ankles, with a vertical text and a depiction of the four sons of Horus, which this time are in the upper part of the field. The god was outlined in the same way as the other shroud: yellow for the body and the *wesekh*-collar, and black for the rest. The skin of this rendering of Osiris is also green.

The outer part of the shrine on SMDAN 5465 is also represented by a reticulated pattern of red lines, this time with yellow dots in the spaces, while the supporting frame is again of black and green bands and a red line on a white background in between. These bands are also interrupted above and below by the figure of Osiris. A sun and a crescent moon appear in the upper corners of the shroud, above the same type of curved orange lines as on SMDAN 5464. There are no winged snakes, but two black jackals were depicted on either side of the Osiris’ feet, with flails behind them.

²² ORTIZ-GARCÍA 2015, pp. 252–255.

²³ ORTIZ-GARCÍA 2015, p. 253.

²⁴ Not previously attested in Egyptian sources. We thank Calvo Martínez (University of Granada), Fuentes González (University of Granada) and Tiziano Dorandi (CNRS, France) for this observation.

²⁵ For some examples of the composition of this name, with its Greek equivalents though without the genitive *n*, see LÜDDECKENS et al. 1980–2000, pp. 1097–1103.

PHYSICAL ANTHROPOLOGY AND PALEOPATHOLOGICAL ANALYSIS OF THE MUMMIES

A series of radiological images were taken with portable digital equipment in order to carry out an anthropological and paleopathological study without damaging the mummies associated with the shrouds. The radiographic series were later assembled into a complete image of each mummy (figs 17 and 18).

The mummy labeled SMDAN 5457 was associated with shroud SMDAN 5464. It is complete and wrapped in linen bandages. The body is 1.45 m in height, 0.37 m in width at the shoulders, 0.26 m in width at the pelvis, and 0.15 m in width at the ankles. The bandages were covered with a resinous substance. Its arms and legs were first wrapped separately, and then narrow bandages between 3 and 4 cm wide and large pieces of linen and broad bandages were used to finish the wrapping.

The radiographic analysis shows that the mummy was originally deposited in a supine position, with its arms and hands strapped to its body. Its legs were extended and its knees, ankles, and feet were together. There seems to be a fill of sand in the left hemithorax and abdomen, on both sides of the lumbar spine. The pelvic cavity contained two small, cylindrical packages that were placed vertically (fig. 19, A: 1, 2). An opaque object was observed between the left elbow and the left side of its body, which may be a stone or a piece of natron (fig. 19, A: 3).

The mummified body has been determined to be that of a female due to the shape of its jaw (fig. 19, B), its pointed chin, which lacks the prominent mental protuberances of males, the form of its gonial angle,²⁶ and the morphology of its hipbones, which display a very open subpubic angle (fig. 19, C) and a wide greater sciatic notch (fig. 19, D).²⁷ The mummy is therefore that of a woman whose bone growth had finished, but whose age cannot be established with precision. Its teeth show moderate wear,²⁸ and the spinal column shows no sign of osteoarthritis, and for these reasons its age can be estimated to between 25 and 35 years old.

The body had suffered from the attentions of robbers, who had broken the thorax, crushed the head, and fractured the skull (fig. 17). In the lower extremities there is a post-mortem fracture of the left tibia and the right knee is dislocated, causing the feet to be turned away from the longitudinal axis of the body (fig. 20, A).

Eight teeth were observed in the X-ray image: one in the neck, two in the thorax, one on the pelvis, one between the two femurs, one at the left proximal tibial epiphysis, one by the left diaphysis tibia, and one at the left ankle (fig. 17). These teeth are probably maxillary second premolars, and do not belong to the mummified individual. First, each individual only has two maxillary second premolars, and in the radiographic image it is possible to observe that the premolars of the mummified individual are *in situ*. Second, the tooth-wear observed for the *in-situ* teeth is higher than that of the scattered teeth. These teeth were therefore placed in their positions during the mummification process. A similar process has been observed in other

²⁶ SCHIWY-BOCHAT 2001.

²⁷ GENOVÉS 1964; FEREMBACH, SCHWIDETZKY, STOUKAL 1980; BRUZEK 2002.

²⁸ BROTHWELL 1989; WHITE 2000.

mummies, as has the placement of extra teeth in the mouth of elderly people.²⁹ The ritual related with this placement is currently unknown.

The following conclusions can be derived from the paleopathological analysis of SMDAN 5457. Myositis ossificans and significant periostitis were observed in the right humerus (fig. 20, B), located at the insertion of the deltoid muscle. Periostitis can be due to trauma or an infectious disease, or due to circulation problems and poor venous return.³⁰ Infectious periostitis is an inflammation of the periosteum and manifests in the form of layers or a veil that covers the bone. Symptoms of poor venous return are mainly located in the lower extremities (tibia and fibula) and are generally found in elderly and obese people. A traumatic cause would show an affected area with the rest of the bone in better condition.³¹ The injury to this individual is similar to a myositis ossificans with post-traumatic subperiosteal ossification. It is therefore likely that a strong blow to the diaphysis of the cortical part of the bone caused an injury and an intramuscular hemorrhagic suffusion. The contusion caused disruption to the muscle fibers, capillaries, fibrous connective tissue, and periosteum. The hemorrhagic damage was followed by an acute inflammation and tissue irritation of a type that can induce tissue like cartilage or bone to form.³²

The second mummy, SMDAN 5458, was associated with shroud SMDAN 5465. It was complete and wrapped with linen bandages. The body is 1.17 m in height, 0.25 m in width at the shoulders, 0.28 m in width at the pelvis, and 0.07 m in width at the ankle. It was wrapped with bandages that were between 5 and 8 cm wide, and with linen bandages of various kinds. The legs were wrapped separately and later bound together with another layer of bandages.

The radiographic image shows that the body was in a supine position. Its head was turned to the right with its chin resting on its chest. Its arms were stretched along the body and its elbows slightly flexed (fig. 18), though its left elbow shows post-mortem dislocation. Its knees and ankles are bound together and its feet are turned to the right. The sacrum was disjoined from the other hipbones and the image clearly shows the pubic arch and the pubis of the right coxal bone (fig. 21). The spinal column was disjoined at the lumbar vertebrae, there was an angle at the level of the T₅/T₆ vertebrae, and the ribs in the thorax were disjoined. The condition of the spinal column is consistent with damage that often presents during the mummification process.

The age of this mummy may be estimated to between nine and twelve years old by its dental development, its unfused epiphysis, and the digital impressions on the inner table of its skull. Determination of sex in subadults is less reliable than in individuals who have completed bone growth, but it is estimated that this individual shows typical female features, such as an opened subpubic angle and greater sciatic notch³³ (fig. 21), a pointed chin³⁴ without prominent mental protuberances, and the shape of its gonal angle.

An object resembling a necklace with beads made from organic material, perhaps bone or shell, was observed in the X-ray. The beads were spread from the ramus of the jaw to the sternum (fig. 22, A).

²⁹ HASHESH, HERRERÍN 2019.

³⁰ ORTNER 2003.

³¹ BAXARÍAS, HERRERÍN 2008.

³² CAÑELLAS 1997.

³³ GENOVÉS 1964; FEREMBACH, SCHWIDETZKY, STOUKAL 1980; BRUZEK 2002.

³⁴ UBELAKER 1999; CAMPILLO, SUBIRÀ 2004.

The paleopathological analysis shows the presence of Harris lines,³⁵ one in the right tibia and two in the left (fig. 22, B), which stand out through an increase in opacity and are essentially trabeculae.³⁶ Harris lines are associated with stress episodes related to a lack of vitamins A, C, and D, to scarlet fever, and to infantile paralysis.³⁷ The relationship between these lines and general health and nutrition is a good indicator of stress factors.³⁸ Using the Hummert and Van Gerven system³⁹ to calculate the age at which these lines formed, it was determined that the Harris lines were produced when the individual was between eight and ten years old.

DISCUSSION

One of the major issues when dealing with this type of decorated shroud is that of contextualization, both spatial and chronological.⁴⁰ It is rare for the original locations of funerary textiles from Roman Egypt to be known, so the linen shrouds studied here offer an opportunity to better understand the use of decorated funerary assemblages in early Roman Thebes, though their dating still can be contested.

The frontal image of Osiris within a shrine was an important decorative theme on wrappings from Roman Thebes,⁴¹ with dates ranging from the 1st to the 2nd century AD.⁴² Bare feet, present on both of the examples studied here, indicate an early Roman date, because sandals were depicted in every idealized portrait on Theban shrouds of both genders from some point in the 1st century AD.⁴³ An early date is also suggested by the schematic representation of faience netting on SMDAN 5464, and the iconographic elements they share with late Ptolemaic (and other) shrouds that appeared during the 1st century AD indicate that both date to that century, with SMDAN 5465 being a little older.

Iconographic themes were repeated across Roman Egypt, but regional compositions and motifs can be observed and ascribed to a given time and place with varying degrees of accuracy.⁴⁴ The iconography of the two shrouds studied here fits a Theban model, but offers no direct indication regarding their chronology. Only an approximate date may be deduced from their decorative motifs, style, and colour palette: pigments such as red lead and dyer's madder gained popularity during the Ptolemaic and Roman periods.

The mummies were not found in their original positions and their shrouds were damaged by robbers, but it is still almost certain that the shrouds can be associated with the bodies that

³⁵ HARRIS 1931; DUNAND, LICHTENBERG 2006; IKRAM, KAISER, WALKER (eds.) 2015; COSMACINI 2017.

³⁶ GARN, SCHWAGER 1967; GARN et al. 1968; GINDHART 1969; SÁNCHEZ, GÓMEZ, ARROYO 1992.

³⁷ PARK 1964.

³⁸ ORTNER 2003.

³⁹ HUMMERT, VAN GERVEN 1985.

⁴⁰ GABOLDE et al. 1994; BRESCHIANI 1996; GOYON 1996; RIGGS 2003; NAUERTH 2004; RIGGS 2008; NAUERTH 2018; ORTIZ-GARCÍA 2020.

⁴¹ PARLASCA 1966, pp. 164–167; RIGGS 2005, pp. 194–198, 208–211; ORTIZ-GARCÍA 2015, pp. 46–78, 125–216, 224–258, 377–405.

⁴² ORTIZ-GARCÍA 2015, pp. 228–229.

⁴³ ORTIZ-GARCÍA 2015, pp. 153–157.

⁴⁴ ORTIZ-GARCÍA 2015, pp. 337–355.

they wrapped. This raises some questions, because the anthropological study determined that the bodies belong to two females.

While the iconography on the shrouds follows a pattern which was generally used for deceased males, the owners of the decorated wrappings were a young woman and, probably, a girl for whom one might have expected an idealized goddess instead of an Osiris figure.⁴⁵ The hieroglyphic texts written on the shrouds, which both contain classic funerary formulae referring to the flight of the *ba*-bird into the sky,⁴⁶ also imply male ownership via the use of masculine suffix pronouns.

- SMDAN 5464



[*hy Wsîr(?)* . . .] *mȝ’ hrw ‘nb bȝ=k nbh d.t*

“[Hail Osiris(?) . . .], justified, may your (m.) *ba* live, forever and ever.”

- SMDAN 5465



[*hy Wsîr(?)* . . .] *-pȝ-wr mȝ’ hrw ‘nb bȝ=k ‘nb bȝ=k nbh d.t*

“[Hail Osiris(?) . . .] power, justified, may you (m.) live, may your (m.) *ba* live, forever and ever.”

⁴⁵ RIGGS 2005, pp. 191–194; ORTIZ-GARCÍA 2015, pp. 130–131, 149–153, 158–159, 162–167.

⁴⁶ For other examples used on Theban shrouds, see KURTH 2010, pp. 108–112; ORTIZ-GARCÍA 2015, pp. 206–208.

On the basis of other Theban examples and the presence of the masculine suffix pronoun, one would expect to find the salutation “Hail Osiris” preceding a man’s name, which is why it has been reconstructed here. An opening of “Hail Hathor” can almost certainly be discarded, despite the fact that the wrapped individuals were female. These two shrouds do not appear to follow the Roman Period tradition of gendered assemblages, in which women and girls were primarily identified with Hathor.⁴⁷

It is uncertain why shrouds painted with iconography and texts that generally accompany deceased males would have been used to wrap a young woman and a girl. It may have been due to the availability of such shrouds following their untimely deaths, but this is speculative. In any case, these two shrouds offer new insights into religious beliefs and practices during a period of societal change in early Roman Thebes

BIBLIOGRAPHY

ALTMÜLLER 1971–1972
Altenmüller, H., “Die Bedeutung der ‘Gotteshalle des Anubis’ im Begräbnisritual”, *JEOL* 22, 1971–1972, pp. 307–317.

BAXARÍAS, HERRERÍN 2008
Baxarías, J., Herrerín, J., *The Handbook Atlas of Paleopathology*, Zaragoza, 2008.

BRESCIANI 1996
Bresciani, E., *Il volto di Osiri: tele funerarie dipinte nell’Egitto romano*, Lucca, 1996.

BROTHWELL 1989
Brothwell, D.R., “The Relationship of Tooth Wear to Aging”, in M.Y. Iscan (ed.), *Age Markers in the Human Skeleton*, Springfield, IL, 1989, pp. 303–316.

BROVARSKI 1977
Brovarski, E., “The Doors of Heaven”, *Orientalia* 46, 1977, pp. 107–115.

BRUZEK 2002
Bruzek, J., “A Method for Visual Determination of Sex, Using the Human Hip Bone”, *AJPA* 117, 2002, pp. 157–168.

CAMPILLO, SUBIRÀ 2004
Campillo, D., Subirà, M.E., *Antropología física para arqueólogos*, Ariel Prehistoria, Barcelona, 2004.

CAÑELLAS 1997
Cañellas, A., *Traumatología de la extremidad superior y lesiones de aposición ósea cortical*, Institut Menorquí d'estudis, 1997.

COSMACINI 2017
Cosmacini, P., “Un antiguo indicador de estrés: las líneas de Harris”, *Revista Argentina de Radiología* 81/4, 2017, pp. 309–312.

DAWSON, ROZEIK, WRIGHT (eds.) 2010
Dawson, J., Rozeik, C., Wright, M.M. (eds.), *Decorated Surfaces on Ancient Egyptian Objects: Technology, Deterioration and Conservation – Proceedings of a Conference Held in Cambridge, UK on 7–8 September 2007*, London, 2010.

DUNAND, LICHTENBERG 2006
Dunand, F., Lichtenberg, R., *Mummies and Death in Egypt*, Ithaca, 2006.

EICHNER, FAUERBACH 2005
Eichner, I., Fauerbach, U., “The Late Antique/ Coptic Monastery Deir el-Bachit in Dra Abu el-Naga (Upper Egypt)”, *MDAIK* 61, 2005, pp. 139–152.

⁴⁷ Riggs 2005.

FEREMBACH, SCHWIDETZKY, STOUKAL 1980
Ferembach, D., Schwidetzky, I., Stoukal, M., "Recommendations for Age and Sex Diagnosis of Skeletons", *Journal of Human Evolution* 9, 1980, pp. 517–549.

GABOLDE et al. 1994
Gabolde, L., Amer, H.I., Ballet, P., Chauveau, M., "Le 'Tombeau Suspendu' de la 'Vallée de l'Aigle'", *BIFAO* 94, 1994, pp. 173–259.

GALÁN 2007
Galán, J.M., "The Tombs of Djehuty and Hery (TT 11–12) at Dra Abu el-Naga", in J.-C. Goyon, C. Cardin (eds.), *Proceedings of the Ninth International Congress of Egyptologists: Grenoble, 6–12 September 2004*, OLA 150, Leuven, 2007, pp. 777–787.

GALÁN 2008
Galán, J.M., "Seal Impressions from the Area of TT 11–12 in Dra Abu el-Naga", *Memnonia* 19, 2008, pp. 163–178.

GALÁN, JIMÉNEZ-HIGUERAS 2015
Galán, J.M., Jiménez-Higueras, Á., "Three Burials of the Seventeenth Dynasty in Dra Abu el-Naga", in G. Miniaci, W. Grajetzki (eds.), *The World of Middle Kingdom Egypt (2000–1550 BC): Contributions on Archaeology, Art, Religion, and Written Sources*, vol. 1, MKS 1, London, 2015, pp. 101–119.

GARCÍA, GALÁN 2016
García, D., Galán, J.M., "An Archery Set from Dra Abu el-Naga", *EgArch* 49, 2016, pp. 24–28.

GARN, SCHWAGER 1967
Garn, S., Schwager, P., "Age Dynamics of Persistent Transverse Lines in the Tibia", *AJPA* 27, 1967, pp. 375–377.

GARN et al. 1968
Garn, S., Silverman, F., Hertzog, K., Rothmann, G., "Lines and Bands of Increased Density, Their Implications to Growth and Development", *Medical Radiographs and Photographs* 44, 1968, pp. 58–89.

GENOVÉS 1964
Genovés, S., *Diferencias sexuales en el hueso coxal*, Universidad Nacional Autónoma de México, Publicaciones del Instituto de Historia Primera Serie 49, México, 1964.

GINDHART 1969
Gindhart, P., "The Frequency of Appearance of Transverse Lines in the Tibia in Relation to Childhood Illnesses", *AJPA* 31, 1969, pp. 17–22.

GOYON 1996
Goyon, J.-C., "Un linceul égyptien historié de la fin de l'époque ptolémaïque au musée des Beaux-Arts de Lyon", *BMML*, 1996, pp. 14–24.

GRDSELOFF 1951
Grdseloff, B., "Nouvelles données concernant la tente de purification", *ASAE* 51, 1951, pp. 129–140.

HARRIS 1931
Harris, H.A., "Lines of Arrested Growth in Long Bones in Childhood: Correlation of Histological and Radiographic Appearances in Clinical and Experimental Conditions", *BJR* 4, 1931, pp. 561–588.

HASHESH, HERRERÍN 2019
Hashesh, Z., Herrerín, J., "Dental Prosthesis: Postmortem Treatment of Oral Reconstruction during the Mummification Process", *JARCE*, 55, 2019, pp. 55–67.

HASSAN 1943
Hassan, S., *Excavations at Giza*, vol. IV: 1932–1933, Cairo, 1943.

HOFFMEIER 1981
Hoffmeier, J.K., "The Possible Origins of the Tent of Purification in the Egyptian Funerary Cult", *SAK* 9, 1981, pp. 167–177.

HUMMERT, VAN GERVEN 1985
Hummert, J.R., Van Gerven, D.P., "Observations on the Formation and Persistence of Radiopaque Transverse Lines", *AJPA* 66, 1985, pp. 297–306.

IKRAM, KAISER, WALKER (eds.) 2015
Ikram, S., Kaiser, J., Walker, R. (eds.), *Egyptian Bioarchaeology: Humans, Animals, and the Environment*, Leiden, 2015.

KÁKOSY, SCHREIBER 2003
Kákosy, L., Schreiber, G., "Use and Re-use: An Overview of the Post-Ramesside Burials in TT 32", in N. Kloth, K. Martin, E. Pardey (eds.), *Es werde niedergelegt als Schriftstück: Festschrift für Hartwig Altenmüller zum 65. Geburtstag*, BSAK 9, Hamburg, 2003, pp. 203–209.

KEEKS 1943
Kees, H., *Farbensymbolik in ägyptischen religiösen Texten*, NAWG II, Göttingen, 1943.

KURTH 1984
Kurth, D., *LÄ* V, 1984, pp. 220–222, s.v. "Reinigungszelt".

KURTH 2010
Kurth, D., *Materialien zum Totenglauben im römerzeitlichen Ägypten*, Hüttel, 2010.

LEE, QUIRKE 2000
Lee, L., Quirke, S., "Painting Materials", in P.T. Nicholson, I. Shaw (eds.), *Ancient Egyptian Materials and Technology*, Cambridge, 2000, pp. 104–120.

LÜDDECKENS et al. 1980–2000
Lüdeckens, E., Brunsch, W., Thissen, H.-J., Vittmann, G., Zauzich, K.T., *Demotisches Namenbuch*, Wiesbaden, 1980–2000.

NAUERTH 2004
Nauerth, C., "Soternalia: Beobachtungen an einigen Objekten aus dem Umkreis des Pollius Soter-Komplexes in Theben (TT 32)", in H. Harrauer, R. Pintaudi (eds.), *Gedenkschrift Ulrike Horak (P. Horak)*, Florence, 2004, pp. 423–428.

NAUERTH 2018
Nauerth, C., "Theban Tomb 34: Paint-decorated Shroud Fragments from the Time of Hadrian", *BACE* 26, 2018, pp. 47–52.

OCKINGA 2007
Ockinga, B., "Use, Reuse, and Abuse of 'Sacred Space': Observations from Dra Abu al-Naga", in P.F. Dorman, B.M. Bryan (eds.), *Sacred Space and Sacred Function in Ancient Thebes*, SAOC 61, Chicago, 2007, pp. 139–162.

ORTIZ-GARCÍA 2015
Ortiz-García, J., *Tejidos para la divina muerte: los sudarios pintados con retrato y escenas religiosas del Egipto romano*, PhD Thesis, University of Valencia, 2015.

ORTIZ-GARCÍA 2018
Ortiz-García, J., "Yaciendo bajo el cielo que se extingue: la tienda cósmica de la tumba de Tutanjamón", in M. García Sánchez, M. Gleba (eds.), *Vetus textrinum: Textiles in the Ancient World – Studies in Honour of Carmen Alfaró*, Instrumenta 59, Barcelona, 2018, pp. 65–78.

ORTIZ-GARCÍA 2020
Ortiz-García, J., *Tejidos para la divina muerte. Los sudarios pintados del Egipto romano*, Barcelona, 2020.

ORTNER 2003
Ortner, D.J., *Identification of Pathological Conditions in Human Skeletal Remains*, 1981, 2nd ed., Amsterdam, Boston, Paris, 2003.

PAGÈS-CAMAGNA, GUICHARD 2010
Pagès-Camagna, S., Guichard, H., "Egyptian Colours and Pigments in French Collections: 30 Years of Physicochemical Analyses on 300 Objects", in Dawson, Rozeik, Wright (eds.) 2010, pp. 25–31.

PARK 1964
Park, E., "The Imprinting of Nutritional Disturbances on the Growing Bone", *Pediatrics* 33, 1964, pp. 815–862.

PARLASCA 1966
Parlasca, K., *Mumienporträts und verwandte Denkmäler*, Wiesbaden, 1966.

RIGGS 2003
Riggs, C., "The Egyptian Funerary Tradition at Thebes in the Roman Period", in N. Strudwick, J.H. Taylor (eds.), *The Theban Necropolis: Past, Present and Future*, London, 2003, pp. 189–201.

RIGGS 2005
Riggs, C., *The Beautiful Burial in Roman Egypt: Art, Identity, and Funerary Religion*, Oxford, 2005.

RIGGS 2008

Riggs, C., "Gilding the Lily: Sceptres and Shrouds in Greco-Roman Egypt", in S.E. Thompson, P. Der Manuelian (eds.), *Egypt and Beyond: Essays Presented to Leonard H. Lesko upon his Retirement from the Wilbour Chair of Egyptology at Brown University, June 2005*, Providence, 2008, pp. 285–303.

ROWE, SIDDALL, STACEY 2010

Rowe, S., Siddall, R., Stacey, R., "Roman Egyptian Gilded Cartonnage: Technical Study and Conservation of a Mummy Mask from Hawara", in DAWSON, ROZEIK, WRIGHT (eds.) 2010, pp. 106–121.

SÁNCHEZ, GÓMEZ, ARROYO 1992

Sánchez, J.A., Gómez, F., Arroyo, E., "Estudio de las Líneas de Harris en los restos óseos medievales de la iglesia de San Francisco, Medina de Rioseco (Valladolid)", *Munibe Suplemento* 8, 1992, pp. 213–216.

SCHÄFER 1928

Schäfer, H., *Ägyptische und Heutige Kunst, und Weltgebäude der alten Ägypter*, Berlin, 1928.

SCHIWY-BOCHAT 2001

Schiwy-Bochat, K.H., "Morphognostische Geschlechtsbestimmung am menschlichen Schädel", in M. Oehmichen, G. Geserick (eds.), *Osteologische Identifikation und Altersschätzung*, Research in Legal Medicine 26, Lübeck, 2001, pp. 87–102.

SCOTT et al. 2003

Scott, D., Dennis, M., Khandekar, N., Keeney, J., Carson, D., Swartz, L., "An Egyptian Cartonnage of the Graeco-Roman Period", *Studies in Conservation* 48/1, 2003, pp. 41–56.

SETTGAST 1963

Settgast, J., *Untersuchungen zu altägyptischen Bestattungsdarstellungen*, ADAIK 3, Glückstadt, 1963.

STRUDWICK 2011

Strudwick, N., "Use and Re-use of Tombs in the Theban Necropolis: Patterns and Explanations", in J.C. Moreno García (ed.), *Élites et pouvoir en Égypte ancienne*, CRIPEL 28, 2011, pp. 239–261.

SVOBODA, WALTON 2010

Svoboda, M., Walton, M., "Material Investigations of the J. Paul Getty Museum's Red-shroud Mummy", in DAWSON, ROZEIK, WRIGHT (eds.) 2010, pp. 148–155.

UBELAKER 1999

Ubelaker, D.H., *Human Skeletal Remains: Excavation, Analysis, Interpretation*, 3rd ed., Smithsonian Institute Manuals on Archaeology 2, Washington, 1999.

VOGELSANG-EASTWOOD 1992

Vogelsang-Eastwood, G., *Patterns for Ancient Egyptian Clothing*, Leiden, 1992.

VOGELSANG-EASTWOOD 2000

Vogelsang-Eastwood, G., "Textiles", in P.T. Nicholson, I. Shaw (eds.), *Ancient Egyptian Materials and Technology*, Cambridge, 2000, pp. 268–298.

WEYERSBERG 1962

Weyersberg, M., "Das Motiv der 'Himmelsstütze' in der altägyptischen Kosmologie", *ZeitEthn* 86, 1962, pp. 113–140.

WHITE 2000

White, T.D., *Human Osteology*, 2nd ed., San Diego, CA, London, 2000.

WILKINSON 2016

Wilkinson, R.H., "Usurpation and Reuse of Royal Tombs", in R.H. Wilkinson, K.R. Weeks (eds.), *The Oxford Handbook of the Valley of the Kings*, Oxford, 2016, pp. 347–359.

Photo: Djehuty Project / J. Latova



FIG. 1. View of Sector 10. A: tomb-chapel 1030; B: Djehuty (TT 11); C: Hery (TT 12); D: Middle Kingdom tomb-chapel 1018; E: Middle Kingdom funerary garden.

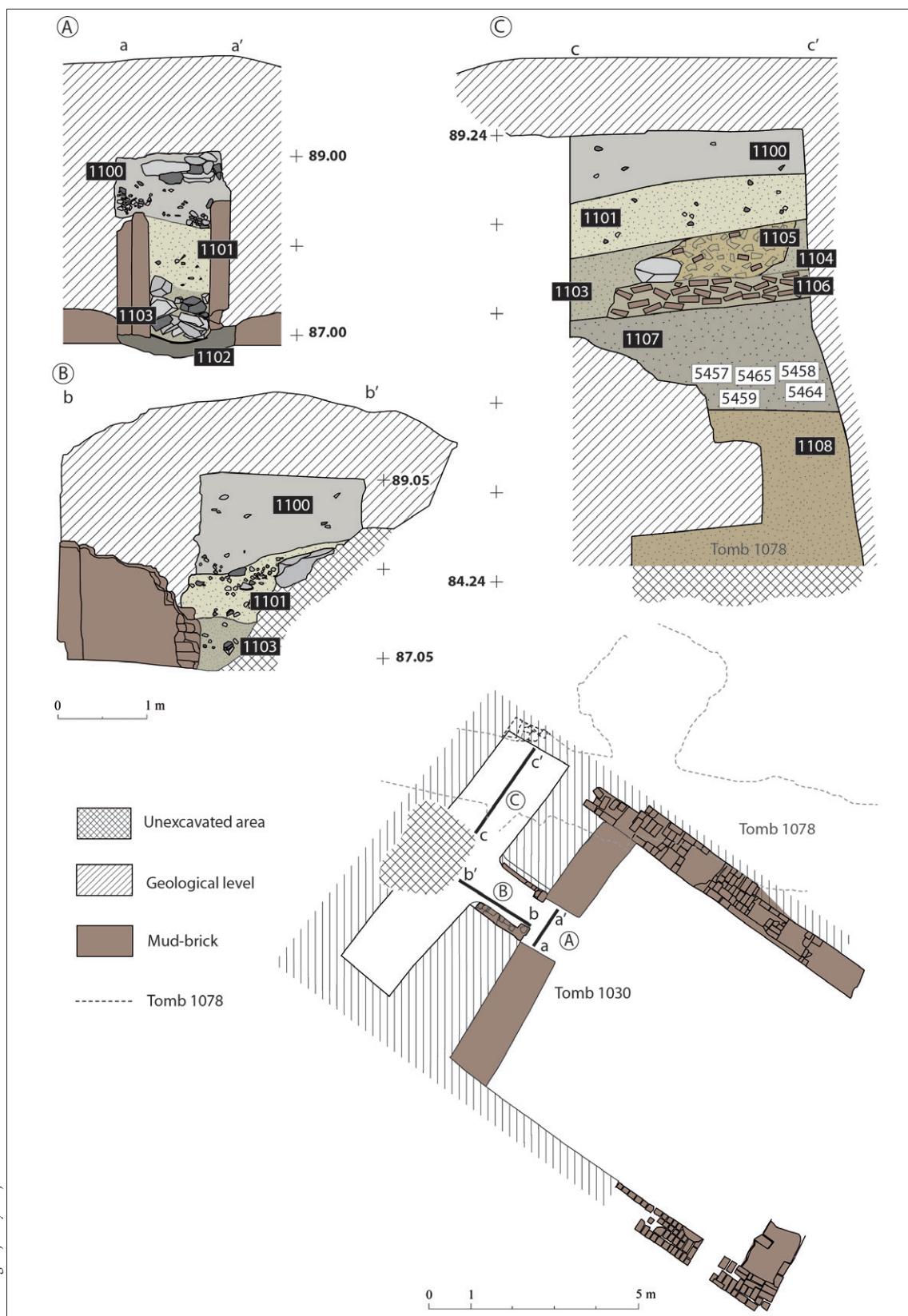


FIG. 2. Plan and section of the tomb-chapel 1030. A: northwest section; B: southwest section; C: northeast section.

Photo: Djehuty Project / J. Latoya



FIG. 3. View of the first group of mummies.

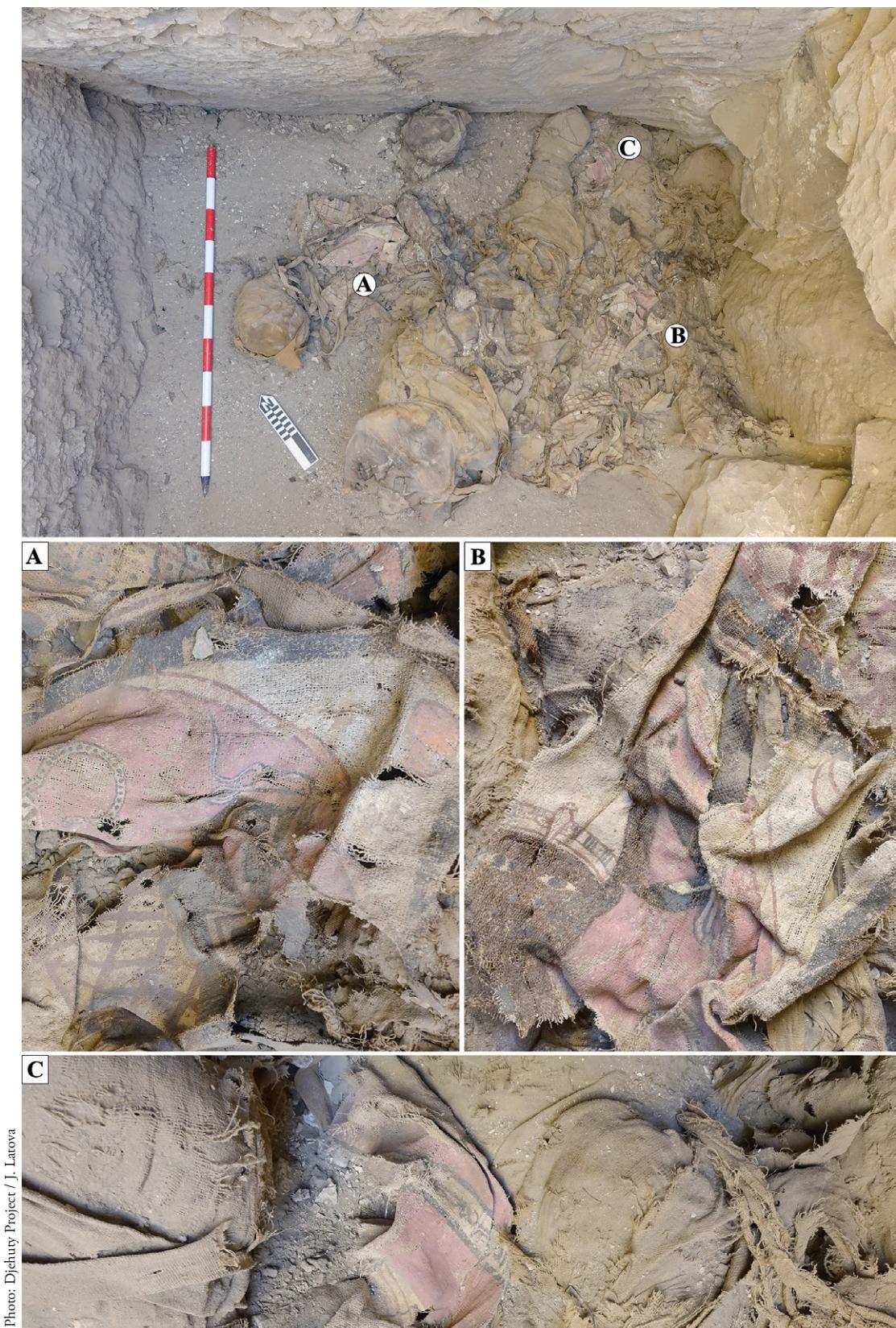


FIG. 4. View of the second group of mummies wrapped in decorated shrouds.

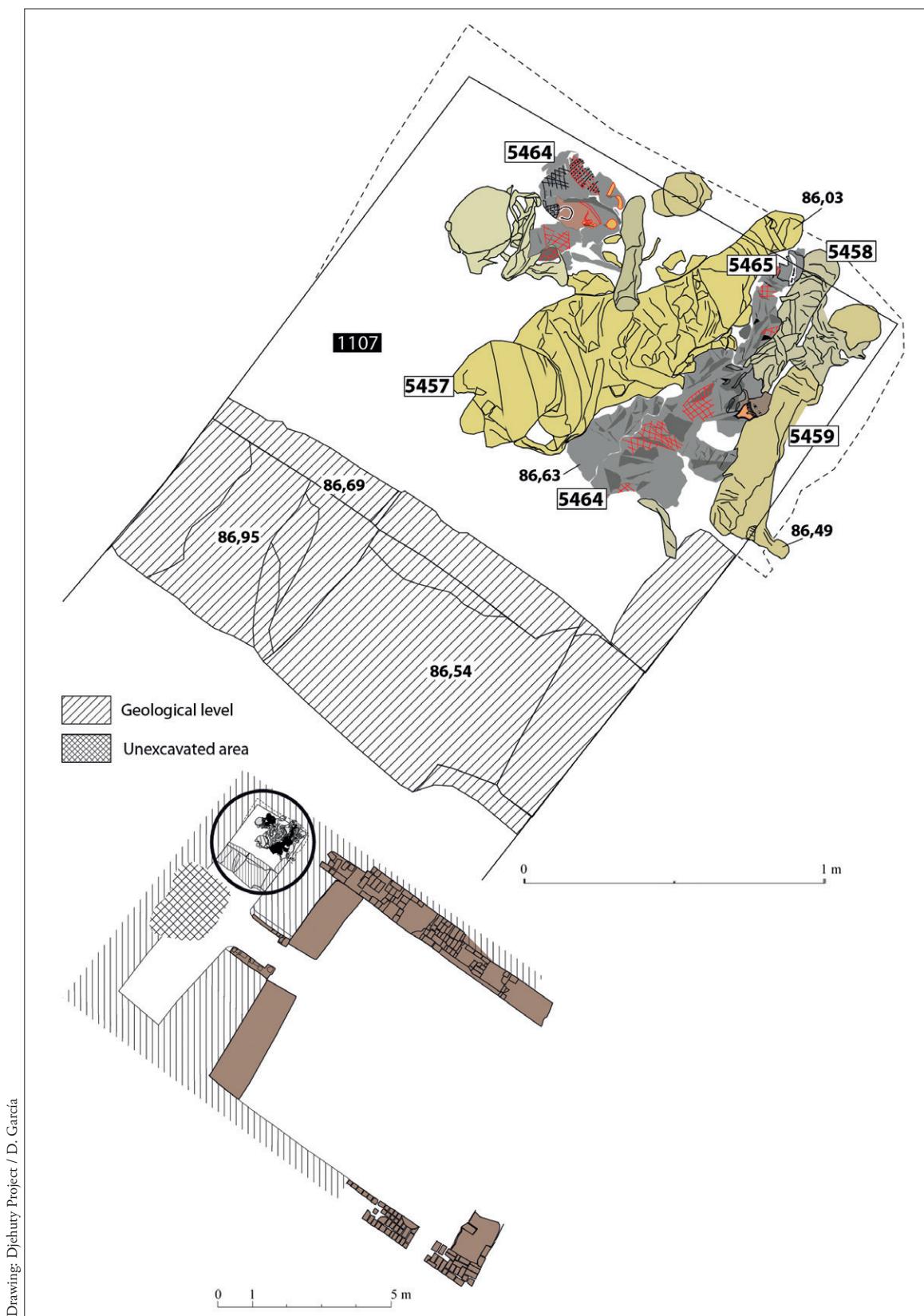


FIG. 5. Plan of the transverse hall with the location of the mummies and shrouds.

Drawing: Djehuty Project / D. García

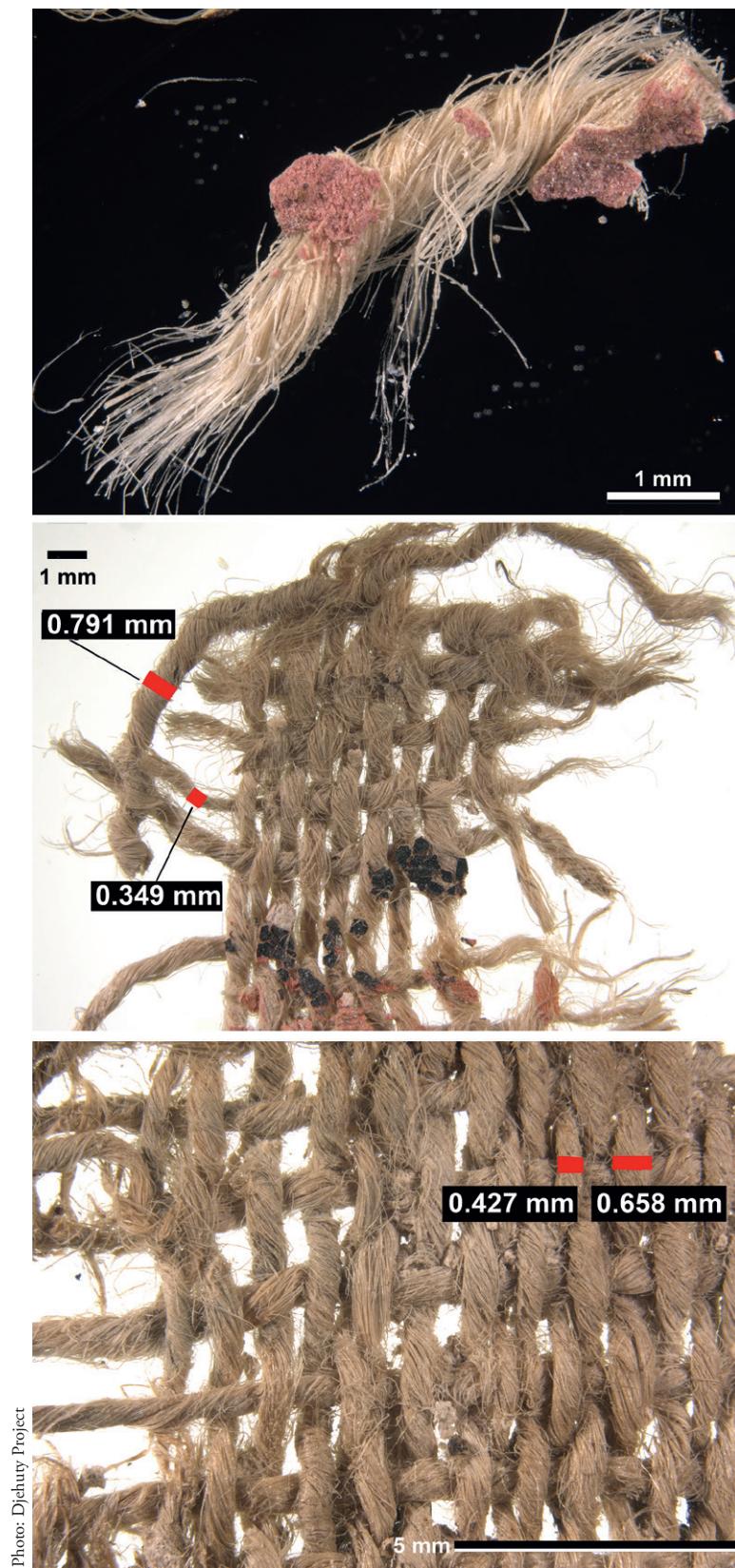


FIG. 6. Detail of the warp and the weft.

Photo: Djehuty Project / P. Rodríguez



FIG. 7. Detail of the yarns and their densities in the shroud.

Djehuty Project / P. Rodríguez



FIG. 8. White pigment base (left). Detail of the shrouds with the colours used in the decoration (right).

Photo: Djehuty Project

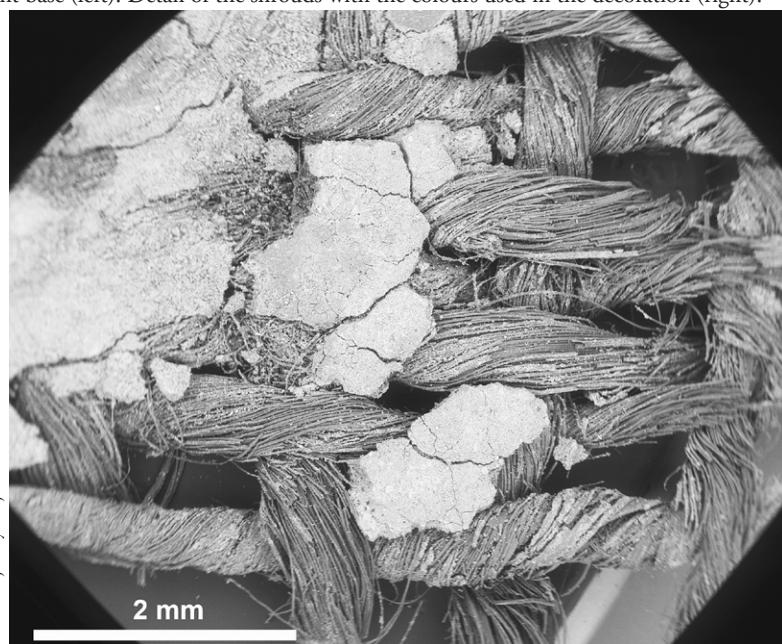


FIG. 9. Detail of the white pigment between the yarns.



FIG. 10. Decorated shroud SMDAN 5464.

Photo: Djehuty Project / J. Latova

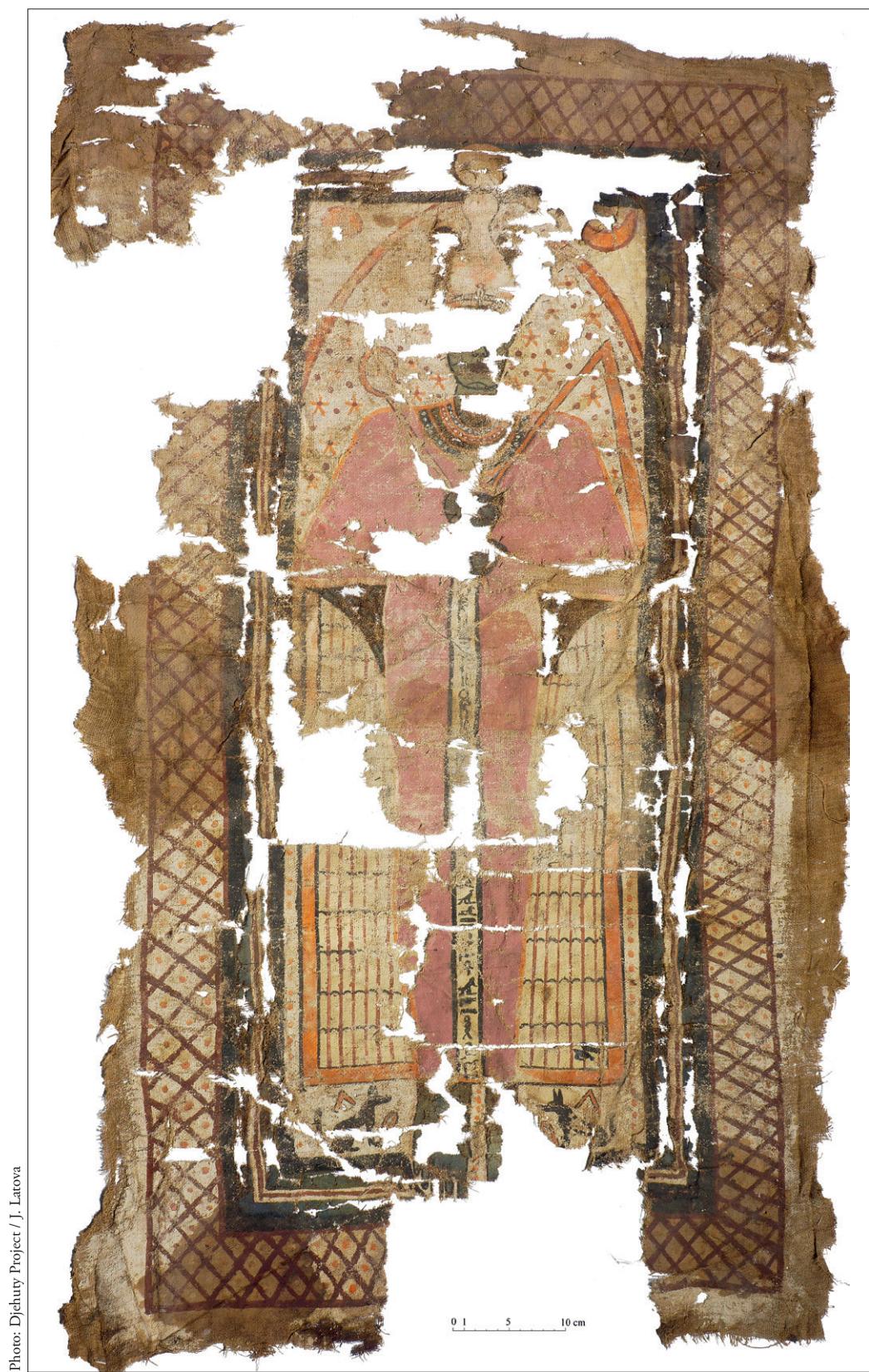
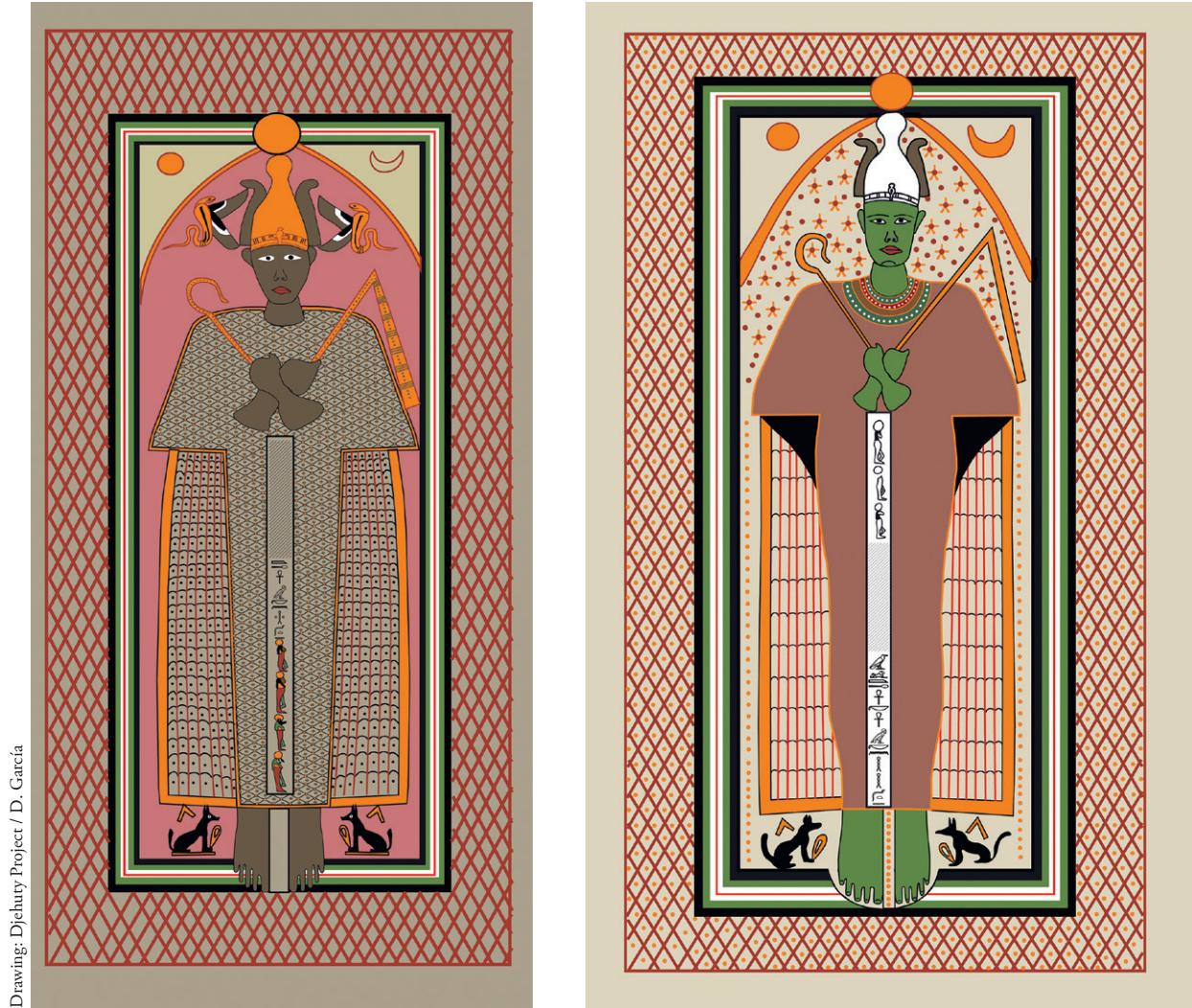


Photo: Djehuty Project / I. Latova

FIG. II. Decorated shroud SMDAN 5465.



Drawing: Djehuty Project / D. García

FIG. 12. Drawing of the decorated shrouds SMDAN 5464 (left) and SMDAN 5465 (right).

|

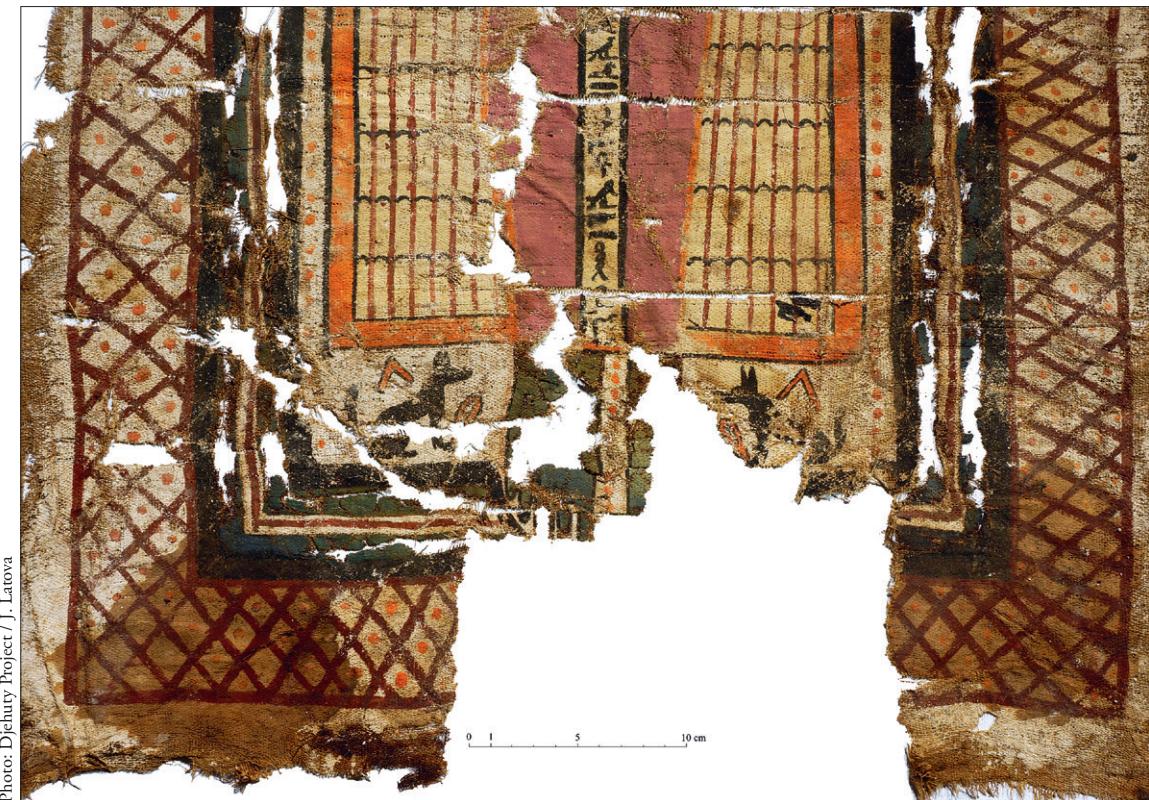


FIG. 13. View of the jackals, one on either side of Osiris' feet in the shroud SMDAN 5465.

Photo: Djehuty Project / J. Latova



FIG. 14. View of the Osiris' head and the winged snakes in the shroud SMDAN 5464.



FIG. 15. Detail of the decoration in the shroud SMDAN 5464.



FIG. 16. Text with Greek inscriptions in the mummy SMDAN 5457.

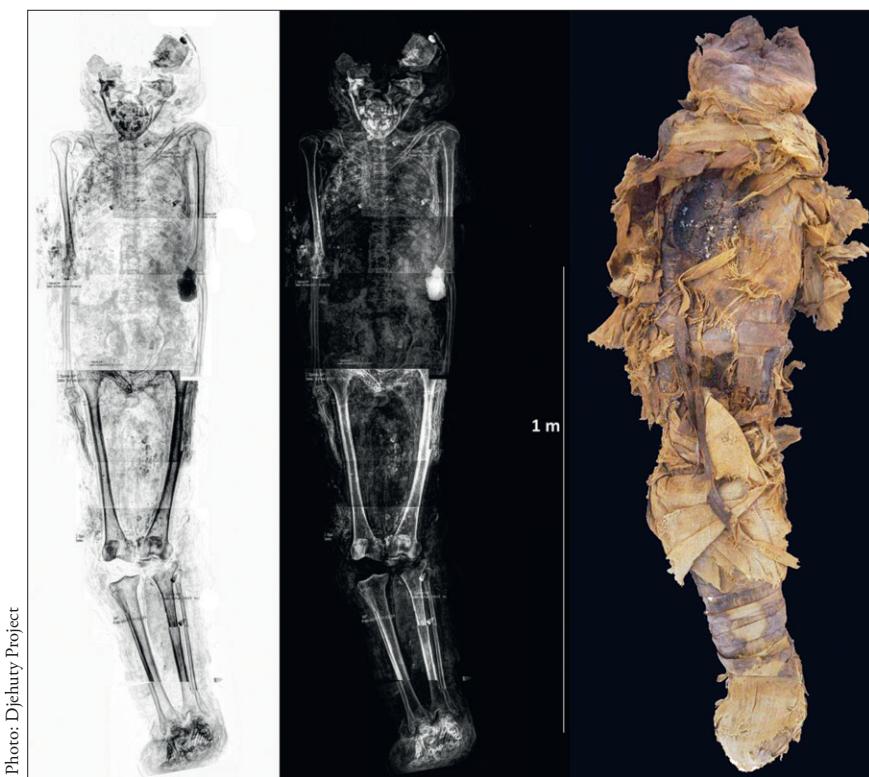


FIG. 17. X-Ray of the mummie SMDAN 5457.

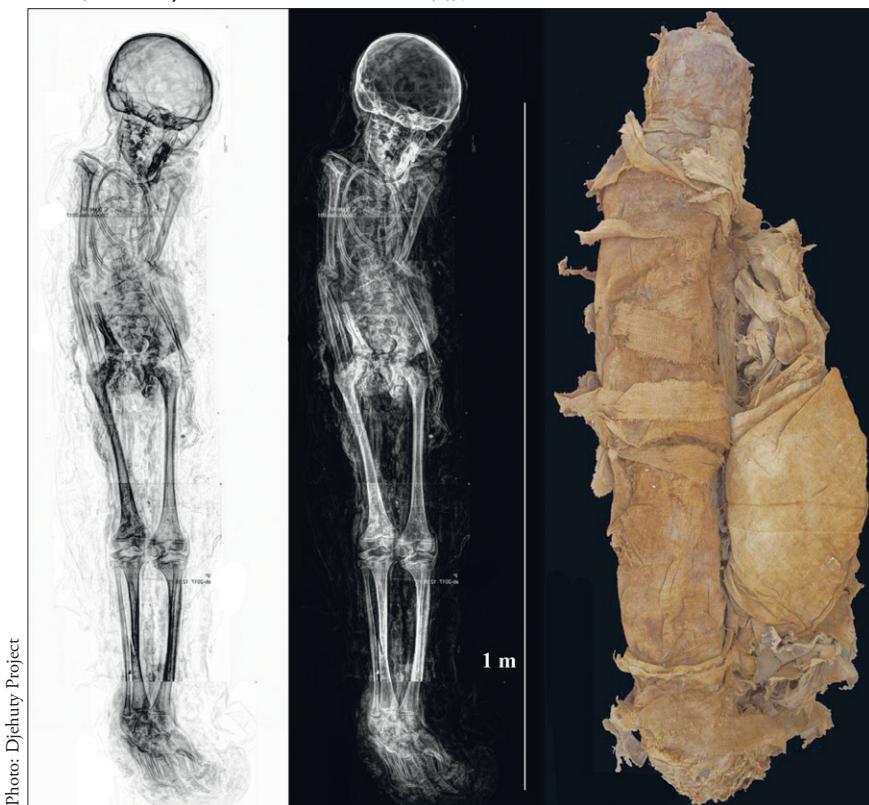


FIG. 18. X-Ray of the mummy SMDAN 5458.

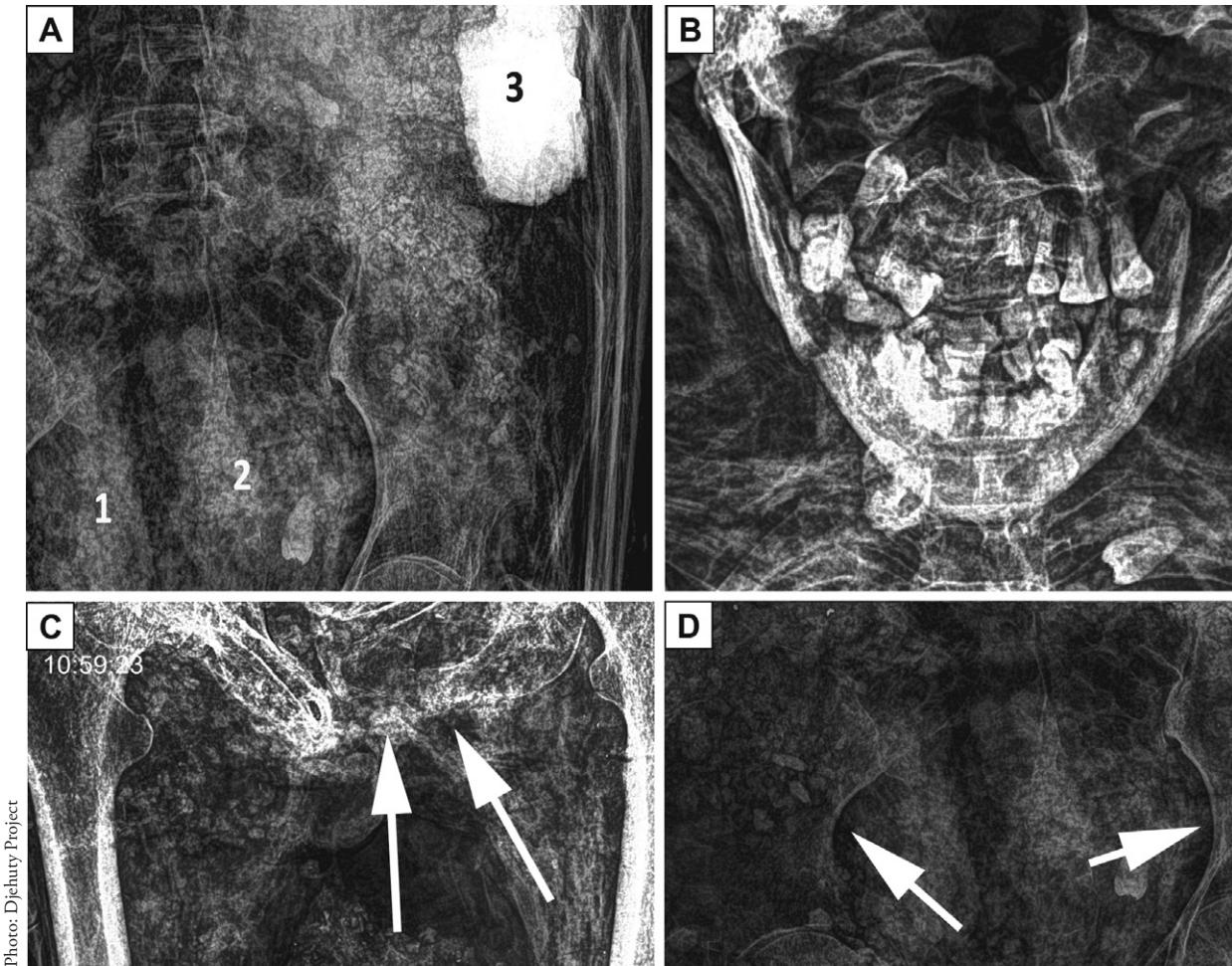


FIG. 19. Detail of the X-ray of the mummy SMDAN 5457.

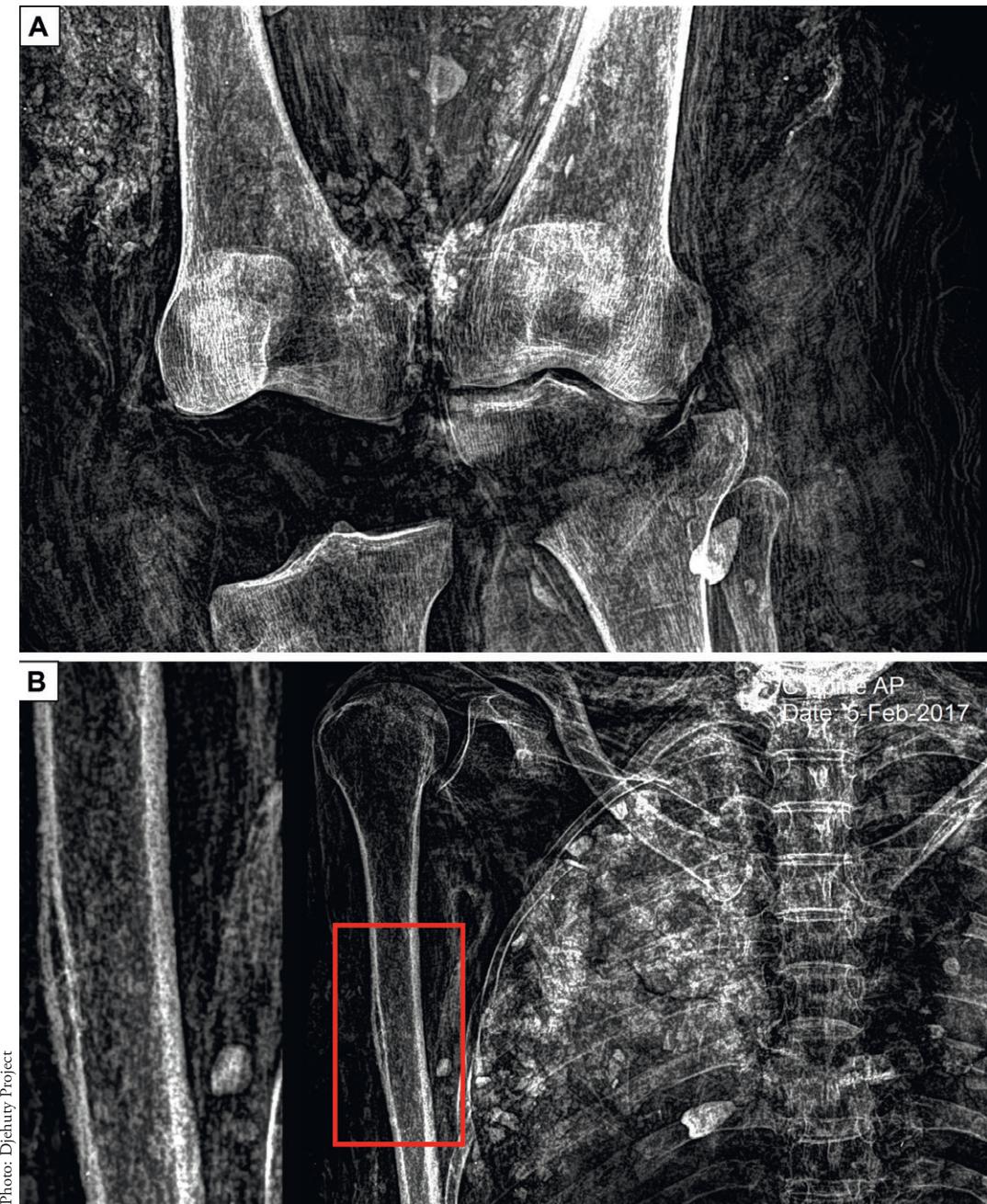


FIG. 20. Detail of the X-ray of the mummy SMDAN 5457.



Photo: Djehuty Project

FIG. 21. Detail of the X-ray of the mummy SMDAN 5458.

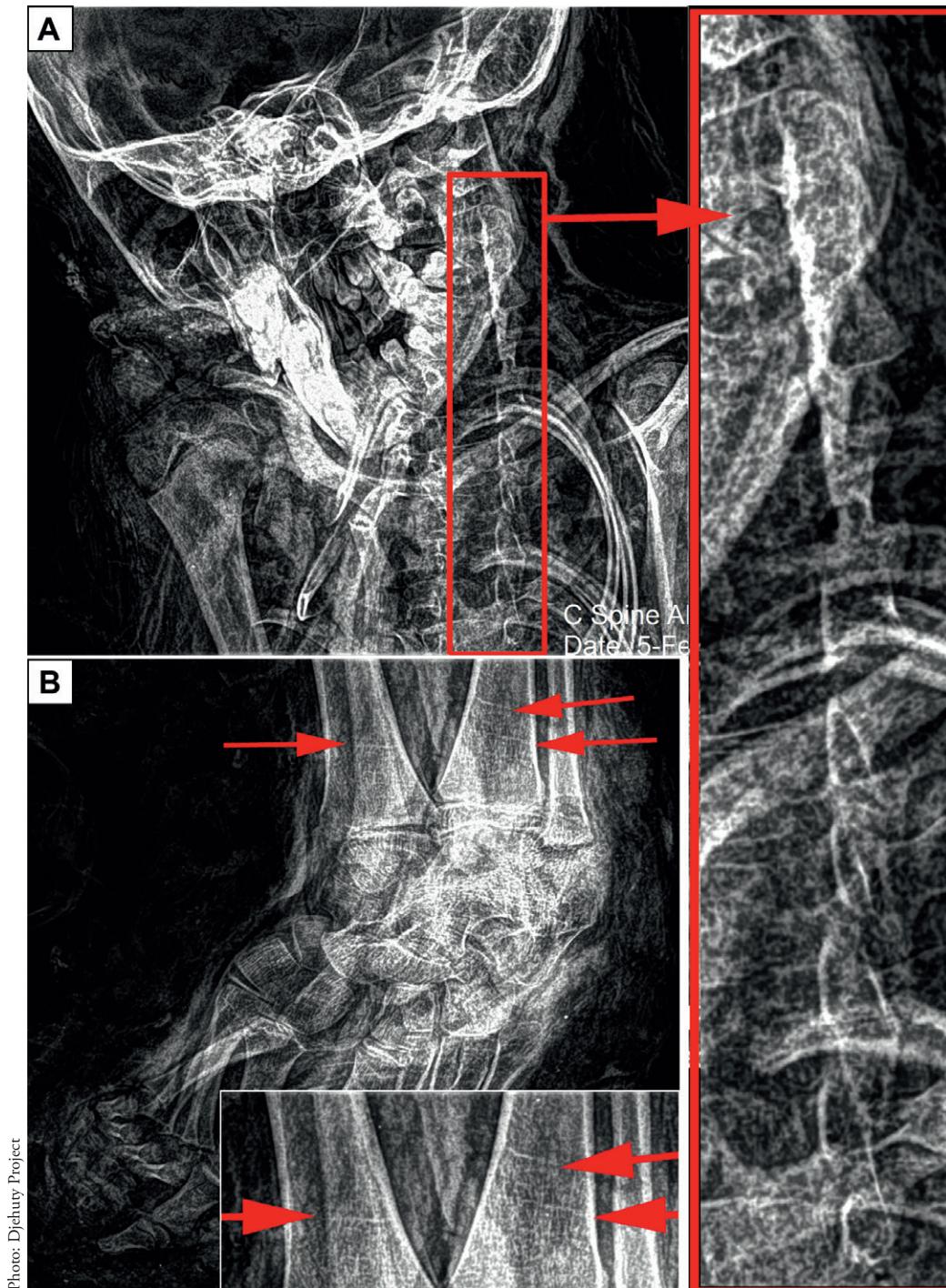


FIG. 22. Detail of the X-ray of the mummy SMDAN 5458.