CT Scan of Nesmin from Akhmim: New Data on the Belgrade Mummy*

Abstract: An anthropoid wooden coffin with human mummy was purchased in Luxor in February 1888 by the Serbian mecène and world traveler Pavle Riđički (1805‒1893). Due to historical, political and cultural circumstances the first studies of the mummy did not start until May 1993. The ancient ‘patient’ – Nesmin, stolist-priest of Akhmin, son of Djedhor (son of Wennefer, son of Djedhor) born to Chay-Hathor-Imw/Tjay-Hathor-imw – who became known as the Belgrade mummy – underwent a CT scan at the University of Belgrade, Faculty of Dental Medicine, Diagnostic Radiology Center. The present paper provides the first complete analysis of the CT scan. At the time of death (350‒325 B.C.) Belgrade Nesmin was between 35 and 40 years old. A proper bioanthropological study is presented. The mummification features are discussed. The distribution of funerary amulets on the mummy has been established. The mummy’s cultural biography is specified. A museum superstition phenomenon is noted.

Keywords: Belgrade Nesmin, Akhmim, paleoradiology, Book of the Dead, amulet placement, museum superstition, 350‒325 B.C.

Introduction

The Belgrade mummy (hereinafter also Belgrade Nesmin) stands out in sharp contrast to a small, randomly assembled collection of Ancient Egyptian antiquities scattered in several museums in Serbia, in which pieces such as amulets, shabtis, scarabs, statuettes, bead strings, vessels and the like, predominate.

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(Andelković 1991, 2002a, 2015; Andelković and Teeter 2006). Nevertheless, the mummified human remains shared the same fate as the other Egyptian artefacts, namely – the coffin with the mummy spent quite a lot of time neglected and unresearched in the museum storage facilities.

Nobleman Pavle Riđički of Skribešće (born August 15th, 1805 in Mokrin, died November 4th, 1893 in Gorizia),1 who was 82 at the time, purchased the mummy in Luxor in February 18882 and donated it to the National Museum in Belgrade in July of the same year (Andelković 1995, 1997, 2002b). In the turbulent period that followed,3 both the name of this generous donor and the year the donation was made were forgotten. Moreover, a few of the very same mummy items were jammed in a small cardboard box and treated as totally separate museumalia (Andelković 1994b, 94; 2003, 144; 2018, 296–299).

After careful sorting and cleaning of the contents of the box, it became evident that they included (Andelković 1993, 1994a, 1994b): a fragmented mandible, a fragment of a clavicle, a fragment of an atlas (cervical vertebra C-1), knee bones (patellae), pieces of linen mummy-wrappings, fragments of hardened black resinous matter similar to pitch, fragments of painted and gilded cartonnage, a larger blue glazed faience djed-pillar amulet, a prehistoric Balkan potsherd and some recent pieces of broken window glass.

The multicolored cartonnage pieces included the following: remnants of a broad floral collar with falcon-headed terminals, separate rectangular panels depicting Isis and Nephthys on a red ground in attitude of lamentation, as well as two of the four so-called Sons of Horus – Imsety and Duamutef – each holding a folded bandage which probably represents the linen used in the mummification ritual.

The activities of the distinguished Serbian philanthropist, mécène and world traveler Pavle Riđički sank into oblivion, only coming back into broader pub-

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1 Pavle Riđički was reburied March 10th, 1894 at the cemetery in Mokrin (the North Banat District of Serbia).

2 In 1888, the antiquity market of Luxor was particularly well-supplied with numerous pieces from the Akhmim necropolis; from 1884 to 1888, the Akhmim necropolis was thoroughly ransacked by unauthorized diggers; the mummy bought by Riđički in Luxor in February 1888 was among the mass of undocumented material that was removed from Akhmim (Andelković and Teeter 2005, 319; Andelković and Harker 2011, 718).

3 Turbulence taking the form of the ‘May Coup’ change of ruling houses 1903; the Balkan Wars 1912–1913; World War I 1914–1918, etc. The Kingdom of Serbia ‘dissolved’ in the newly-formed Kingdom of Serbs, Croats and Slovenes in 1918 (and was renamed to Kingdom of Yugoslavia in 1929). Alexander I of Yugoslavia, the Unifier, was assassinated in Marseille in 1934 and a coup d’état overthrew the government under Prince Regent Paul, in March 1941. During World War II, German-led Axis forces invaded and occupied Yugoslavia, April 1941–October 1944, and in the wake of that, the communists rose to power 1945. All of this affected Serbia in many ways, including museum policy, ideology and staff (cf. Andelković 2013).
lic awareness after it was (re)discovered that he was the donor of the mummy (Anđelković 1995). It was not an easy task to ascertain his important role. Not only was the incipient amount of valid data zero, in addition, there was some misleading official information to be corrected. It took several years of ‘detective archaeology’ (Anđelković 2003, 144) in sources such as the National Museum’s archive, the Archive of Yugoslavia, Đurđe Bošković’s bequest, and the National and University of Belgrade libraries. Furthermore, success in tracing the coat of arms of the Ridički family in Florida, USA was particularly important, for it explained two barely visible seal impressions in wax on the mummy’s coffin. Only by these efforts were we able to reconstruct most of the mummy’s recent past. Interviews with a number of elderly participants, so to speak – including, for instance, the former National Museum directors Miodrag Kolarić (in May 1993) and Jevta Jevtović (in May 1996) – were also helpful.

The Mummy’s Cultural Biography

To gain a somewhat broader perspective on the mummy’s cultural biography⁴ let us mention some noteworthy moments in its ‘museum trajectory’:

– July 29th to August 7th 1888: the mummy was on display in a single object temporary exhibition in Captain Miša’s Endowment;⁵
– 1892: the National Museum moved to Captain Miša’s former private house nearby; the mummy was on display, lying in its coffin trough, in a horizontal glass showcase;
– 1914/15: the National Museum and its ‘Mummy’s Room’, was struck by Austro-Hungarian Sava-class river monitor artillery shells; the glass of a showcase enclosing the mummy broke and fell into the coffin trough. The coffin trough with the mummy was removed from the broken showcase and closed by the coffin lid; this is an explanation for the fragments of broken glass shut inside the mummy’s coffin, as well as in the aforementioned cardboard box;⁶

⁴ As Alberti (2005, 560) has noted, the history of museums can be studied through the cultural biographies of the objects in their collections; with regard to an individual museum piece one can rightfully ask: “What are the key moments in the career of this thing? How has its status changed over the course of its life (...) How has the political and social climate impacted on its trajectory?”.
⁵ The National Museum at the time consisted of two rooms in the grandiose mansion built by a wealthy entrepreneur, merchant and shipowner Miša Anastasijević (1803–1885). In 1863 he presented the building ‘to his fatherland’ (as the inscription on the main facade states). The building has hosted the most important educational and cultural Serbian institutions (today it is the seat of Rectorate of the University of Belgrade).
⁶ See 1914/15 photos of the damaged ‘Mummy’s Room’ (as it was called) and the broken mummy showcase in: Anđelković 1994a, pl. 2/1–2.
1916–1935: owing to changes in the Museum’s location, the mummy was moved twice;

1936–1941: the mummy (within its closed coffin in vertical position) was on permanent display (ground floor) in the Prince Paul Museum in Belgrade (the New Royal Palace building);

April 1941: during Luftwaffe bombing of Belgrade during WW II, a bomb exploded close to the Prince Paul Museum and due to the blast the Museum windows broke. Many display cases and exhibits, including the coffin containing the mummy, were knocked to the ground;

1952: the National Museum in Belgrade was installed in new premises (before WWII, the building had belonged to the State Mortgage Bank of the Kingdom of Yugoslavia); the mummy – still enclosed in its coffin in vertical position – was on permanent display situated in a deep recessed wall space on the ground floor; the display also included the 30th Dynasty empty coffin of Nefer-renepet (Andelković and Elias 2013, 2015);

1962: the appointment of the new Museum director Lazar Trifunović resulted in removal of the mummy (and the rest of the small Egyptological collection) from permanent display. During the next two decades the mummy languished in the Museum basement storage facility;

1986: the mummy was suddenly transferred to Titograd (now Podgorica, the capital of Montenegro), to the “Art Gallery of Non-Alligned Countries – Josip Broz Tito”; however, it was never even unpacked there, but immediately moved to the Gallery’s storage facility where it spent the next five years (Andelković 2018, 289);

November 1991: at the initiative of the Department of Archaeology, Faculty of Philosophy, University of Belgrade, the mummy returned to the storage facility of the National Museum in Belgrade (Andelković 2018, 289–290);

October 1992: the mummy was transferred to the Archaeological Collection of the Faculty of Philosophy;

May 1993: the first research on the mummy was initiated by B. Andelković;

1995: to produce a recognizable public identity, the till then anonymous mummy was nicknamed the Belgrade Mummy (Andelković 1995); X-ray examination was performed in June;

April 1996: the golden ib and Maat amulets was discovered. In addition, the thick scroll of a funerary papyrus written in hieroglyphic script, was identified behind the left upper arm, between the body and the outer bandages (Andelković 1997; 2018, 292, fig. 63);

August 2003: the mummy was identified as stolist-priest (smA) of Akhmim7 Ne-smin;8 the text on the coffin lid was ascertained to be Book of the Dead spell

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A stolist (after a Greek term ‘stolistes’) seems to be smA (var. smA.tj) a wardrobe-priest of lesser rank responsible for caring for the god’s statue, i.e., an adorner of divine images in charge of the clothing and cleaning of the cult statue; for the hieroglyphic sign Aa25 see Gardiner (1964, 543).

His name is written twice on the coffin lid: upper right text and the foot section text (Andelković and Teeter 2005).
191, i.e., “Spell for bringing the soul to the body” (Anđelković and Teeter 2005), known to be extremely rare;

- 2009: the genealogy of the family of Nesmin son of Djedhor (son of Wennefer, son of Djedhor\(^9\)) born to Chay-Hathor-Imw (Tchahathorimu/Tjay-Hathor-imu) of Akhmim was improved (Herman de Meulenaere, personal communication, January 16\(^{th}\), 2009). It was also established that the owner of the Belgrade coffin and a limestone stela now in Cairo (CG 22053) are the same person (Anđelković and Harker 2011, 718–720; cf. Kamal 1905, 49–50; Awadalla 1998). A further member of the same family was noted in an older publication (Lieblein 1891, #2451).\(^{10}\)

- 2011: a forensic facial reconstruction of Nesmin was completed (Anđelković and Harker 2011);

- August 29\(^{th}\), 2012: Nesmin was unnecessarily moved from the Archaeological Collection premises to the National Museum (located a few hundred meters away);\(^{11}\) after two weeks the mummy was returned to the Archaeological Collection (in September 13\(^{th}\), 2012) with hardly an explanation;

- September 14\(^{th}\), 2012: Nesmin was placed in a climate-controlled display case\(^{12}\) purchased by the city of Belgrade Secretariat for the Economy (Olivera Savović was the Head of the Secretariat at the time);

- March 22\(^{nd}\), 2019: Nesmin was transferred from the Archaeological Collection to the National Museum to be on permanent display.\(^{13}\)

It should be noted that – during its 26 years at the Archaeological Collection of the Faculty of Philosophy – the previously anonymous mummy regained its full identity. Along with the research and discoveries already mentioned, various other studies included: examination of the linen wrappings (Anđelković 1994a, 155, 158), painted cartonnage pigment analysis (Ristić-Šolajić 1994), entomological and bacteriological analyses (Anđelković, Andus and Stanković 1997), DNA

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\(^{9}\) Nesmin’s great-grandfather Djedhor (= Zeĥo) was misidentified as the coffin owner himself (Porter and Moss 1964, 821; for the correction see: Anđelković and Teeter 2005, 309, n. 1). We should note that both the names Nesmin and Djedhor were common and very popular at this period in Akhmim.

\(^{10}\) A coffin in the Old Boulaq collection bears the name Wennefer, son of Djedhor and Djed-Hathor-imou. Assuming Djed is a mistake – for Tjay/Tcha, in Tchahathorimu – Lieblein’s (1891) #2451 is a brother of Belgrade Nesmin.

\(^{11}\) It should be stressed that the Museum was closed for the public at the time; after a hiatus of about two decades the remodeled building of the National Museum in Belgrade only reopened in June 2018. The Museum has never had any curator who specialized in the archaeology and art of ancient Egypt.

\(^{12}\) Using the German company “Siemens” components, the display case was made by “Racionalizacija energije” a company from Belgrade. The display case price was about € 35 000.

\(^{13}\) However, we should bear in mind that a strange ‘push aside’ policy concerning ancient Egyptian artifacts – absurdly ‘ignored’ museum pieces – is still present in Serbian museums (Anđelković and Elias 2019, 956–957; cf. Anđelković 2013).
analysis (Čuljković, Andelković, Stojković and Romac 2000) and identification of the Tamarix aphylla wood of the coffin (Andelković and Asensi Amorós 2005).

Preservation Status

The exposed skin of the damaged mummy of Belgrade Nesmin has a dark color and is hard and shiny. The mummy has a strong aromatic scent – the so-called ‘mummy bouquet’– imparted to it from the embalming agents. The mummy is in poor condition. The head, the neck and the lower legs are separated from the body. There is a gaping hole through the mummy’s left shoulder (termed a ‘thoracic disturbance zone’, described below). The upper half of the left humerus, including the humeral head, is missing. The bandages that originally covered the papyrus scroll have been removed by deliberate cutting into left rear of the mummy bundle. Neither the mummy nor its coffin (National Museum inventory number 13/V, VI/13 or 55?) ever underwent any stabilizing, conservation or restoration treatment. The same is true for Nesmin’s cartonnage pieces.

Review of the CT Scans

Original discussion of Belgrade Nesmin’s biological profile and mummification had been established, either by direct study (skull, teeth) or by the X-ray examination (Andelković 1994a, 1997): the mummy underwent a CT scan at the University of Belgrade, Faculty of Dental Medicine, Diagnostic Radiology Center, on July 31st, 2003. Zoran Rakočević (1955–2017) professor of radiology and the Center’s director at the time, graciously made a Siemens Somatom Plus 4 scanner available for the procedure. The dataset is not large, but it is ade-

14 Inventory number 13/V is written on the coffin; however, in the Museum’s Joined Collection of the Classical Department Inventory Book VI, the coffin with mummy have the entry no. 13 (VI/13); moreover, the box with the mummy-related items bears the Museum Record Card inventory no. 55 (it is odd that the Record Card no. 55 goes after the Record Card no. 4 and before the Record Card no. 6; the total number of Egyptian artefacts related record cards is 11). A number of Egyptian antiquities that entered the Museum subsequently disappeared: two scarabs, arm of a mummy and a piece of Egyptian papyrus (donated in 1895), a bronze figurine of Horus-the-Child (H. 10.5 cm), and a three-piece coffin set that belonged to Ari, son of Unnefer, originally owned by Dr. John Lee, and later part of the Amherst collection (Andelković 1994a, 1994b, 2002b, pl. 2/1–2; 2018, 299; Andelković and Elias 2013, 567–568).

15 The mummy is divided into only 217 slices in this 2003 CT scan. Assuming the mummy’s wrapped height to be around 167.0 cm, we get 0.769 cm of data per slice, and the slice thickness appears to be about 7.5–7.75 mm. The amount of data is perhaps less
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quate enough to permit a basic description of this important mummy. The CT scanning results are presented here for the first time.

**Thoracic Disturbance Zone**

There is a large disturbance zone related to the penetration of the mummy’s wrappings on the upper left side. This extended fully across the thoracic cavity anterior to the level of pooled resin which fills the thorax and abdomen (Figure 1). The pooled resin was evidently impenetrable, and helped to preserve the posterior section of the mummy’s thoracic cavity. Nevertheless, many bones of the upper thoracic cage are disarticulated or missing (including the clavicle, thoracic vertebrae T-1, T-2 and half of T-3, vertebrosternal ribs corresponding than 10% of what would usually be used for analysis today (a slice thickness 0.65 mm being common) (cf. Chan, Elias, Hysell and Hallowell 2008). As a result, the coronal and sagittal planes show stepping. However, the axial plane is smooth and readable.

Figure 1. Diagram (Coronal Mummy Map) of the Body Cavities of Belgrade Nesmin

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*Figure 1. Diagram (Coronal Mummy Map) of the Body Cavities of Belgrade Nesmin*
to the lost vertebrae, the manubrium and sternum). One of the ribs fell into the chest and lies on top of a visceral packet aligned with the spine (vP1, discussed in greater detail below). The upper left humerus was broken off and removed from its expected position. The right humerus survived unbroken and in situ, but the soft tissue around the proximal end was cut into and removed when the thorax was penetrated.

Head

The head is separated from the body above the 1st cervical vertebra (the ‘atlas’) which was found separately. Bandaging on the posterior of the cranium (from the rear parietal bone backward) has been removed. The right temporal aspect of the head is also denuded of bandages, but layers remain intact across the front of the face. Ear cartilage is no longer present, and presumably was removed with the rear of the head (when it was unwrapped). A hole penetrated the right parietal bone behind the zygomatic arch, it may represent fracturing that occurred during the embalming process as part of excerebration.16

Both eyes remain in the skull orbits. The anterior parts of both eyes are covered by an opaque substance (of high attenuation) and these have circular configurations within each orbit. The opacity suggests that the material has considerable density; the configurations are deliberate, and are interpretable as inlays or pourings – possibly of wax – into the sunken eye tissue.17 (The form differs from the lenticular eye covers used frequently in mummies of the Third Intermediate Period.) From what is known of mummification at the time in question (4th century B.C.) this type of treatment is not common, i.e., such treatment of the eyes is unusual. Since the bandages covering the eyes are completely intact, we can be certain that this special fill was applied anciently (Figure 2).

Excerebration was performed transnasally through a wide perforation made in the right side of the cribriform plate (lamina cribrosa) of the ethmoid bone. As drastic as this opening is, care was taken in the procedure, since the nasal septum (vomer) is intact. The brain was fully removed, including the meninges. Once emptied of brain tissue, the cranium was partly filled with viscous resin.

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16 The right temporal bone is pierced by an approximately oval hole (L. 2 cm). As part of the original assessment of Belgrade Nesmin, the sense was that this temporal perforation was probably made post mortem for brain removal and filling the cranium with molten resin; opposite the hole an intracranial fluid level is to be seen on the left side (the head lay on the left cheek during the cooling of the resin). However, we should stress that the pre-mortem head injuries caused by a forcible blow using a weapon are well known (e.g. Saleem and Hawass 2021).

17 There is some radiographic ‘artifact’ (signal skewing) associated with the material, indicating a remote possibility of some metallic quality, but such is not at all obvious.
The resin fills the occiput and is concentrated in the lower section, particularly on the left side, showing that the head was tilted in toward the left when the resin was poured into the cranium. The resin here is remarkable in that it contains dense tabular fragments having angular configurations. One of these is quite large. These pieces are dense enough to be interpreted as bone fragments, possibly originating from the perforation of the temporal bone of the skull on the right side. The resin was either still in a viscous state when the pieces fell into it, and sank, or were lying on the left inner table of skull when resin was introduced, possibly through the temporal perforation (Figure 3).

Both sides of the nasal orifice (nares) are partly occluded by resinous material interpretable as fill that flowed back into that area from the reservoir of resin that pooled in the brain case following excerebration. Resin is concentrated toward the front of the skull to either side of the nasal opening, having been trapped in the right and left maxillary sinuses.

Figure 2. Axial CT image of the skull of Belgrade Nesmin, showing eye inlays and route of excerebration
Dentition

The interdental relationship between upper and lower jaw is anatomically normal. Tooth loss is concentrated in the right rear portion of the maxilla (= Fédération Dentaire Internationale [FDI] Right Upper Quadrant 1), leaving twelve of the original sixteen teeth in the maxilla. The missing teeth are confirmed as # 15, 16, 17, and 18). Tooth # 18, the right 3rd molar, is still represented by a root inside its root socket. In addition, the left 3rd molar is also missing, the only tooth missing in the Left Upper Quadrant 2 (# 28). The remaining teeth are generally in good condition. None of the missing teeth are otherwise present within the mummy bundle and are assumed to have been lost ante mortem.

The maxillary third left molar and second and third right molars were lost post mortem. The first right molar # 16 was extracted during the individual’s lifetime. Of the surviving teeth, all incisors, both canines and both right premolars were fractured post mortem.
There are no teeth missing from the mandible (lower right and lower left quadrants are fully intact) except the first left molar that was lost during life.\textsuperscript{19} Tooth wear, the dental abrasion which damaged the enamel and dentine of the occlusal surfaces of the teeth is present, and is noted particularly on the right molars. This corresponds to a widely represented ancient Egyptian pattern of dietary dental attrition. In addition, there is a small exostosis on the lingual side of the lower left second molar (FDI tooth # 37). This fissure possibly indicates caries, as has been found in other ancient Egyptian persons (Harbort, Gürvit, Beck and Pommerening 2008, 4, fig. 6). Near or full eruption of the 3\textsuperscript{rd} molars in the maxilla and mandible indicates a likely minimum age of 18–25 years. However, the amount of enamel wear on the 3\textsuperscript{rd} molars is severe, and implies that the individual was significantly older (see below subsection on Age Estimation).

Arm and Hand Positions

The mummy’s arms are bent at the elbow and the forearms are crossed right over left, an exceedingly common arrangement at Akhmim during the Late and Ptolemaic Periods (cf. Ikram and Dodson 1998, 129; Elias, Lupton and Klales 2014, 51, fig. 1, no. 5, coded as 5RL). The left hand is positioned on the right humerus, and the fingers of the left hand are flexed into the so-called ‘open-C’ configuration (the fingers seem to grasp loosely, so not a clenched fist). It is a position which is found quite often in mummies of the time period. The right hand lay on the upper left humerus (this part of the humerus being removed during disturbance of the thorax), and its fingers are parallel to one another and relaxed (unflexed). This positioning of arms is consistent with a large number of Ptolemaic mummies and is common at Akhmim (Elias, Lupton and Klales 2014, 59, tab. 4). Of special note is the fact that the fingernails were gilded (the toe nails were gilded as well).

Wrapping

The body is voluminously wrapped (Figure 4). At the level of the elbows and above, a stratum of perhaps five or six bandage thicknesses can be seen to surround the body, forming a tight inner cemented layer (ICL) which is then surrounded by some considerably thicker investment layers (ILs) estimated to be 25–30 thicknesses, formed as six alternately dry and pasted strata. The outermost layer (IL-6) can be thought of as an outer encapsulation layer (OEL) which, according to the practices of the 30\textsuperscript{th} Dynasty and Ptolemaic Period, was

\textsuperscript{19} All mandibular incisors, both canines, both first premolars and the second right premolar were fractured post mortem.

brushed over with a thick deposit of resin (forming a ritual unguent layer). The bandaging of the first of these outer investment layers (IL-1) appears to have started from the inner cemented layer just to the right of the body mid-line, with the winding direction being from right to left (clockwise).

Interestingly, as the bandaging proceeded, a simple single-strand necklace (strung with cylindrical and spherical faience beads) was placed on the body. In the axial plane, it visualizes as two dense points lying side-by-side directly above the innermost bandage layer on the body mid-line (Figure 4, center). It appears to have been carefully wrapped over by a succeeding layer, prior to the addition of a more general spiral winding horizon of greater thickness (the necklace and two other string-assemblies containing amulets are discussed further below).

Significantly, a papyrus scroll (demonstrated to contain Book of the Dead spells) is positioned in the air-filled void that exists between the inner cemented layer (ICL) and the first investment layer (IL-1), parallel to and behind the left humerus. It is a significant discovery (fuller discussion of this sizeable and still unextracted papyrus is given below).

A strong separation of the inner cemented layer and the first outer investment layer is not discernible below the latitude of the elbows, but the application of the bandages was evidently done in separate strata there as well. As previously observed, the most exterior bandage layer forms an outer encapsulation layer (OEL) which was thickly coated by brushing on resin to form a ritual unguent layer or horizon. Comparisons made to intact mummies indicate that a

Figure 4. Axial CT image at mid-thorax of Belgrade Nesmin, showing features...
single-ply textile shroud was frequently laid over the ritual unguent layer, and this would have supported trappings like the collar plaque. There are also indications, however, that in the case of Belgrade Nesmin, the collar plaque, and a bead net shroud was laid directly atop the ritual unguent layer (see below).

Treatment of the Body Cavities

After its entombment, the mummy bundle was penetrated on the upper left posterior side, and there are indications that the interior of the body membrane had been explored via this opening (Thoracic Disturbance Zone). There was damage to the upper left humerus, which presumably had been broken off and extracted post mortem and likely during some historical exploration.

The upper thorax was widely invaded after the upper left side had been penetrated, and this has eradicated any trace of cardiac tissue which may have been evident following evisceration. There is however, ample evidence of visceral packets, those oblong or cylindrical structures of resin-saturated linen which were developed to enclose and protect the internal organs that were removed to permit the body to the cleaned and desiccated.

An important group of two visceral packets (vP1 and vP2) are visible just below this disturbance zone, lying on and aligned with the spinal column. The diameter of the large packet vP1 (L. 167.0 x W. 58.0 x H. 33.0 mm), is partly explained by its subdivision into two definite side-by-side sections (inner diameters are right side = 20.0 mm; left side = 22.0 mm) and this is an unusual feature. It fills the entire space between the spine and the anterior chest wall. Narrow packet vP2 (L. 118.0 x W. 15.5 x H. 46.0 mm) lies parallel to vP1, pressed tightly against it (see Figure 1). Packets vP1 and vP2 extend into the abdominal cavity.

A third, moderately sized packet vP3 (L. 139.0 x W. 44.0 x H. 30.1 mm), lies within the resin pooled in the mid– to upper thorax to the right of the spinal column. It is completely covered by the viscous resin and appears to have been infiltrated by it. The resin in which it lies, protected it from destruction when the thorax was invaded and disturbed.

The packets correspond symbolically to the group of organ-protecting deities known as the Four Sons of Horus: Imsety (liver), Hapy (lungs), Duamutef (stomach), and Qebehsenuef (intestines). Since a fourth packet is expected, but not easily identified, nor found during examination of the accessible thorax, it may just be that vP1 intentionally constituted a kind of ‘double-packet’ which

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20 The heart was usually left in place in mummies of this period, but not always. Because of the thoracic disturbance, we are unable to determine whether the heart of the Belgrade Nesmin had been left in situ by the embalmers.
would, along with vP2 and vP3 constitute a full complement of four packets. What is known, is that a single large packet (as large as vP1) often dominates the three others in near-Ptolemaic and Ptolemaic mummies (Elias 2011, 10). Moreover, alignment of packets with the spine (praevertebral placement) is not uncommon in Ptolemaic mummies from Akhmim (e.g. Leiden, RMO AdS 1; Raven and Taconis 2005, 164, fig. 21.3c–3d). The form of all of the packets is cylindrical, the commonest modality seen in the 4th century B.C. and into the Ptolemaic Period. We are not able to determine specific content at this time since our observations are based solely on computed tomography.

**Evisceration and Interior Fills**

The internal organs were removed through an incision in the left flank of the abdomen at the level of the iliac crest. Evisceration was complete. Some disruption of the abdominal membrane occurred, possibly as a result of post-embalming tissue shrinkage.

![Figure 5. Axial CT image of the pelvic zone, showing amuletic patch and fill materials](image_url)
To the left of the spinal column, the embalmers placed a resin-saturated cloth (96.5 x 105.0 mm) comprising the flank wadding (FW) to fill the space created by the flank incision (FI) and close it off. Of special note, because of rarity, is the presence of a deposit of extremely dense (high attenuation) material – possibly wax – carefully painted on the lower right abdominal membrane. It follows the curved contour of the body (overall width = 175.0 mm x length 101.0 mm), and forms a structure (varying in thickness from 4.0 to 7.0 mm) on the inner cemented layer of bandaging around the body membrane. For convenience it is called an ‘amuletic patch’ (Figure 5).

Viscous resin is deposited in the lower part of the body cavities, visible as mid-attenuation optically gray material in the bottom section of the body, extending from the upper thorax on both sides of the spine, downward, pooling significantly in the pelvic cavity. Its depth within the pelvis (43.0 mm) and oozing outflow from it into the posterior bandage layers, suggests ample provision of material consistent with the best embalming of the period. This resin flowed toward the lower extremities and accumulated posteriorly in the air-filled gap between the legs.

This viscous resin is covered by a substantial deposit of particulate matter (48.0 mm thick in the right abdomen; 41.0 mm thick in the pelvis). Although the abdominal wall (body membrane) shows numerous discontinuous gaps, and has collapsed, it is unlikely that the particulate matter is a later contaminant. It displays a consistent texture (optically dark gray) showing tiny air spaces between solid elements. It is conceivably, but not confirmed to be wood cellulose/botanical fiber, possibly aromatic wood dust, i.e. sawdust or mixed rosin of the literature (Lucas 1931, 13‒21). It can perhaps be sampled in the future to gain insight into its composition. Some granular material (sand or mud) may be intermixed with it.

**Lower Extremities**

The legs were separately wrapped, tightly and voluminously in nine separate strata, alternating in ‘dry’ and ‘pasted’ layers. The level of attention shown to legs is extremely careful, and is consistent with elite embalming standards. In addition, below knee level, a long spiral feature of twisted textile describable as shin-cord, was inserted inside the anterior-most layer of the separate bandaging of each leg. These cords extend in alignment with the tibiae from the ankle to just below the knee (Figure 6).

21 Matter of similar appearance occurs in the upper right abdomen of the Roman Period mummy Leiden, RMO AMM 24 (Raven and Taconis 2005, 198, figs. 3b–3c). The analysis of that mummy possibly suggests that it is composed of loose bandages and resin, but its characterization is not entirely clear.
Features of this kind were originally noted by Niwiński (1998, 182, pls. 1.1, 1.3, 186) while unwrapping the damaged Ptolemaic mummy of Aset-iri-het-es (Krakow MAK Inv. AS2438) found at Gamhud by Tadeusz Smoleński and Ahmed Bey Kamal in March 1907. He recognized the distinct possibility that they were non-technical, but rather symbolic in nature, and he offered the interpretation that these cords represented the stems of lotus-plants, imparting the magic of rebirth through the legs of the mummified individual. Since Niwiński’s (1998) work on the subject, they have been identified in CT scans of Ptolemaic Period mummies with surprising frequency (Elias and Mekis 2019, 152).\textsuperscript{22}

In general, the legs were wrapped with extreme care. As noted, the toe nails of this individual were gilded (traceable as opaque outlines on several toes) a new finding for a mummy of this period.

Between the thighs, the penis was separately wrapped with a thick cylindrical encirclement of bandages imbibed with resin.\textsuperscript{23} The resulting sheath contains the testicles as well as the circumcised shaft, and has several centimeters of

\textsuperscript{22} Noted in Akhmimic mummies of Ptolemaic date, but also in the contemporary mummy of the Theban woman Tarepit, whose well-preserved mummy resides in the Egyptian Museum Cairo (Elias and Mekis 2019).

\textsuperscript{23} The treatment of the penis is comparable to Leiden, RMO AMM 19 (Raven and Taconis 2005, 118, fig. 4a, cat. 9). This mummy (Petisis) is dated to the mid– to late 25\textsuperscript{th} Dynasty.
additional length beyond the tip of the actual glans. Radio-opaque material of high attenuation – possibly wax – is painted onto the sheath toward the lower end. The sheath is set in line with the anterior portion of the leg encasement with its own pocket. It was positioned between the legs before the main inner investment layer was wound around them. This investment layer was glued down with resin paste before an outer investment layer was wound around it. Genital swaddling has been noted in other male mummies of the general period. This sheath is particularly thick and well-pasted (Figure 7).

Pathological Profile

On the right fibula toward the proximal end, inferior to the head, there is a sizable boney thickening (sclerosis) indicating natural healing of the bone after what may have been an osteomyelitic infection. It is also possible that this thickening constitutes a healing process associated with an actual fracture. If the latter is the case, such healing events are significant, since fractured bone could easily become a site of infection for which treatments were not always effective in antiquity. This particular injury does not appear to have been life threatening, however.

24 Most recently, noted in the mummy of Padibastet, examined by CT scan at Emory University Hospital in February 25, 2020 (Elias, Loynes and Schanandore 2021).
The thoracic spine exhibits the preliminary stages of ossification along the disk spaces between vertebrae, implying some spinal inflammation (spondylitis). The lumbar spine exhibits a very mild scoliotic curve with left convexity. The mineralization of the vertebral bodies appears to be fairly well developed, with minor osteopenia indicated. In several locations, the viscous resin has penetrated the vertebral bodies, particularly in the thoracic cavity. There is at least one possible subchondral lesion or cyst in the left femoral head. Although these factors do indicate some departure from ideal well-being for Belgrade Nesmin, none of them were seriously debilitating, let alone life endangering.

Age at Death

In general, Belgrade Nesmin’s skeletal condition is consistent with an adult individual. His epiphyseal plates are closed. He displays adult-pattern tooth loss of a kind not unusual in the ancient Egyptian population, with indications of caries and attrition of the occlusal surfaces of the teeth. As the third molars have erupted in the maxilla and mandible, an age range minimally 21 years and maximally 35 years is indicated. In the sagittal suture (crown of the skull where the right and left parietal bones join) fusion is well begun but not complete (estimated to phase 3 of: Chiba et al. 2013, 1007, fig. 2) indicating age above the time of fusion onset (ca. 26 years) but well below completion of endocranial ossification at 50–60 years. Consequently, an age range of 35–45 years is suggested for Belgrade Nesmin, with an impression that the earlier part of this spread is more likely (35–40 years).

Osteoarthritis is not widespread, apart from the indications of early stage spondylitis in the thoracic spine. Belgrade Nesmin’s age in his mid/late 30’s is an impression supported by the relatively robust mineralization of the femoral heads, and minimal indication of spinal osteoarthritis (spondylitis), with wide joint spaces between the femoral head and acetabular surface of the pelvis.

Estimate of Stature

Formulae for estimating the living stature of ancient Egyptians have been developed by Raxter et al. (2008). Tibias have been shown to produce the most accurate estimates (Klaes 2014, 92). The formulae calculated for Belgrade Nesmin are as follows. Left Tibia 35.87 cm x 2.552 + 70.18 = 161.72 cm (63.67 inches), Right Tibia 36.1 cm x 2.552 + 70.18 = 162.30 cm (63.89 inches). These estimated measurements place Nesmin in the lower half of the published range of ancient Egyptian male statures (Zakrzewski 2003).
The Amulet and Necklace Placement

Egyptian religious beliefs often induced the embalmers to place amulets between bandage layers (i.e. within a mummy’s wrappings) to protect or otherwise assist deceased persons magically. Amulets symbolized magical principles efficacious to the deceased during his journey into the underworld and afterlife.

Even though fifteen of Nesmin’s mummy-related amulets have been found so far (Andelković 1994a, pl. 4/3–4; 1997,pls. 8–9; 2018, 295, fig. 66), none of them was found in situ in the strict sense: a larger light blue glazed faience djed-pillar H. 6.2 cm was found in the cardboard box (see above); a smaller light blue glazed faience djed-pillar H. 2.6 cm and a lapis lazuli wedjat-eye L. 2.1 cm were found in the coffin trough; five smaller light-blue glazed faience djed-pillars (height from 2.4 cm to 2.7 cm) and a light blue glazed faience plaque with Nephthys and Isis holding the hands of Horus-the-Child (a variety of Osirian triad), H. 2.84 cm were found dislocated in the thoracic cavity. An additional light blue glazed faience plaque amulet of such an Osirian triad, H. 2.9 cm was found dislocated in the lower left part of the abdominal cavity; three smaller light blue glazed faience djed-pillars, golden ib and Maat were found embedded in a multilayered ‘lump’ of balm-and-resin-soaked linen wrappings (max. H. 12.4 cm, max. W. 14.0 cm), obviously fallen into the thoracic cavity from the chest of the mummy. It should be noted that there was a trace of gold (golden foil?) at the back side of the ‘lump’.

Despite the particular amulet locations within Nesmin’s thoracic and abdominal cavities, one should bear in mind that the mummy was displayed in both horizontal and vertical positions; furthermore, it was casually transported and handled many times, so displacement of many of these recovered amulets is suspected. The only exceptions are the amulets fixed to the big ‘lump’ of linen (three djed-pillars, the golden ib and the golden figure of the seated Maat), since this had simply fallen off the chest but had not changed its position within the thoracic cavity much further. These fixed amulets also preserve a rare example of original stringing. This has survived with the knotted thread still visible (Andelković 1997, pl. 9/1–2; cf. Andrews 1994, 8).

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25 The proper mummification process was an expensive one, beyond the means of many.
26 The mummy was taken out of the coffin trough in June 2nd, 1993 by Branislav Andelković and Sava Tutundžić (Andelković 2018, 290). At the bottom of the trough there was a thick loose layer of accumulated debris, namely a mixture of broken bits and pieces of linen wrappings, papyrus, hardened resinous matter, painted cartonnage, beads, three thoracic vertebrae, etc. (Andelković 1994b, 94, n. 11, 1997).
27 This amulet was found June 6th, 2002 as the second of the two.
28 Maat amulet in the round, hollow, suspension loop at the back, made of thin sheet gold, H. 2.6 mm, weight 0.67 g (Andelković 1997, 98, pl. 9/1–2).
The lapis lazuli wedjat-eye (found in the coffin trough) was originally placed at the center of Nesmin’s forehead (an outline in the shape of a wedjat-eye amulet on mummy’s forehead confirms this). The wedjat-eye was originally pointed toward viewer’s left (the 9 o’clock position), i.e. the mummy’s right. The amulet is pierced perpendicularly (at an angle of 90° to the horizontal imitation of the six-ribbed suspension loop on top) but it was not strung. There are indications (Elias and Mekis 2019, 148 n. 100) that ‘forehead placement’ of the wedjat-eye amulet was prescribed in the late 4th century B.C. and Ptolemaic times with a degree of frequency. Indeed, in a similar way, the wedjat-eye is commonly included as a painted amulet on the forehead area of funerary masks of the late Ptolemaic Period (Andelkovic and Elias 2019, 959).

In the Metropolitan Museum of Art there is another mummified Nesmin from Akhmim (New York, MMA 86.1.51, from the Ptolemaic Period) with a wedjat-eye amulet on the forehead still in situ (Stünkel 2015a, 2015b). The mummy of Tarepit, a Ptolemaic Period woman from Thebes (Elias and Mekis 2019, 148) shows the wedjat-eye amulet positioned just above the bridge of the nose (located just left of center, on the glabella).30

There were three successive string-assemblies on the mummy’s chest. The first of these (i.e., ‘the upper string’) was located on the top part of the chest. It consisted of a ‘main thread’ holding the golden ib (heart) amulet. A golden Maat amulet belongs to the same assembly, but it was not strung on the same thread as the ib. Instead, it was connected to the main thread using a different fiber (still visible in the amulet’s loop, which lay 2.5 cm below the main thread).

The second string-assembly (i.e., ‘the middle string’) held smaller djed-pillar amulets (at least nine of them but perhaps a few more) and was placed approximately 7.0 cm below the upper string. The distance between the djed-pillars was approximately 1.5 cm. This string was probably designed to be a series of djed-pillars, with an Osirian triad amulet at each end. A string of the same composition is verified on the Nesmin from the Metropolitan (Stünkel 2015a, 1853–1854). It is hard to say for sure if the larger djed-pillar (the piece from the aforementioned cardboard box) was also part of the middle string or if it was rather placed independently upon the mummy’s neck, without stringing.

Finally, there was the third string-assembly (i.e., ‘the lower string’). It takes the form of a simple loop necklace without pendant, strung with alternating small spherical (diameter 0.45 cm) and slightly biconical elongated (L. 1.45 cm) light-blue faience beads. The beads of this necklace are to be seen on the neck,

29 Nesmin/Esmin son of Djed-hor and Tadiese. The genealogical relationship of New York, MMA 86.1.51, to Belgrade Nesmin is unknown. The possibility does exist that he is a later relative of Belgrade Nesmin, but the precise linkage remains unknown.

30 In Tarepit’s case, the wedjat-eye amulet points downward (the 6 o’clock position); the double-plumed solar disk amulet is placed directly next to it, i.e. above the mummy’s right eye.
on the big ‘lump’ of linen, appearing on the X-ray films, and in the CT scan of the chest. A number of beads were found in the coffin trough and inside the thoracic cavity. The bottom end of the necklace is located approximately 8.0 cm below the spot where the arms – crossed right over left – meet upon the breast.

Judging from the aforementioned big ‘lump’ of linen, the amulets and necklace are situated on top of numerous textile layers and covered by more layers of balm-and-resin-soaked linen wrappings.

As far as the beads are concerned, it should be noted that the mummy’s outer resin-coated bandages bear the impression of a bead-net shroud made of spherical and elongated beads (Anđelković 1997, pl. 11/1). This is obviously composed of the same kind of beads as the ones making up the ‘lower string’. There are mummies known with a beaded network attached to a linen shroud or wrappings (e.g. Dawson and Gray 1968, 27, pl. 13/50; Germer 1997, 72, fig. 73).31 However, Belgrade Nesmin’s net-like shroud of beads was placed directly on the mummy’s outer resinous coating;32 beads are strung in a pattern of lozenges; there is one spherical bead at the intersection of four elongated beads. It seems that the beaded net did not extend far; its impression extends approximately from the abdomen to the knees on the front (anterior) of the mummy.

Such networks link back to the Third Intermediate Period, and are especially present on mummies of the 25th through 27th Dynasty but still occur with lower frequencies on Ptolemaic mummies. Often in these later examples, the elements are of short length, sometimes confined to small rectangular patches, placed particularly at waist level or on the lower half of the body (Elias and Mekis 2019, 156).33

The surface of the mummy’s outer resinous coating also bears several low relief fingerprint impressions, likely belonging to the embalmers.

Book of the Dead

A densely rolled papyrus scroll, located between the body and the outer bandages near the left upper arm, was discovered in April 1996 (Anđelković 1997, pl. 10/1; 2018, 292). The upper part of the scroll, a quite considerable document, was damaged. Its remaining height varies from ca. 13.5 to 16.9 cm. Although

31 A blue bead-net shroud was believed to assure rebirth. Stylized representations of bead-nets were used in Egypt till the late Roman Period (Zesch et al. 2020).

32 The textile ‘impressions’ below the beaded netting actually originate from the textile pattern of the linen wrappings beneath the thin resinous coating.

33 In the case of the mummy of Tarepit (Cairo TR 21.11.16.13/SR 4/ 11354) the beaded net body cover begins just below the elbows of her crossed arms, and extends to the lower third of her tibias (Elias and Mekis 2019, 156–157, fig. 5e-1). Interestingly, it is strung with a beaded mosaic pattern of djed-symbols, at the same level that string-assemblies of djed-amulets occur on near-Ptolemaic Period mummies.
the upper (slanting) end of the scroll is partly missing, most of the intact papyrus scroll remains in situ (embedded within the linen wrappings). Its elliptical cross-sectional dimensions are approximately 8 x 4.5 cm. The papyrus thickness is: 0.10500 mm, 0.14500 mm and 0.14700 mm34 (three samples were taken).

A few fragments detached from the scroll – that were found in the coffin trough – bear traces of hieroglyphic text. Hieroglyphs on one of the fragments (Andelković 1997, pl. 10/2 upper left) are identified as spelling the word ‘birthplace’ (msḥ.t). The context makes it probable that it belongs to Book of the Dead, spell 39, which mentions the ‘birthplace of Re’ (Malcolm Mosher, Jr., personal communication, June 9th, 2021).

While there are not many other examples to cite regarding the rules for placement of the papyrus, the position behind the left arm35 may be something to track in future scans, since a recent scan (February 25, 2020) of an Akhmimic mummy in Atlanta, Georgia (US) (Michael C. Carlos Museum, MCCM 2018–010–424) revealed a textile roll feature in this very location (Elias, Loynes and Schanandore 2021, 67 fig. 47, 88–89 figs. 67–68).

Relatively few papyri can be reliably associated with a particular mummy; the Book of the Dead should bear the name of the deceased and it is particularly important for verifying the identity of the mummy (cf. Andelković and Teeter 2005, 310). Careful removal would allow the important papyrus to be studied (for virtual unfolding see: Mahnke et al. 2020). As can be roughly calculated, using the data related to the cross-section, the papyrus of Belgrade Nesmin, if unrolled, would be approximately 9.0 meters long.36

Coffin and Cartonnage Design Features

The original cartonnage trappings associated with the mummy have suffered greatly through time. They consist of a beautifully painted floral collar with falcon-head terminals (weskhet en bik), and elements such as the lamenting Isis, the lamenting Nephthys (both on a red ground), and the canopic deities Imsety and Duamutef. In the small museum storage box, some fragments of a blue color wig that belonged to the mummy mask were found. Additional cartonnage fragments found scattered in the coffin trough evidently belonged to a depiction

34 Or 105.00 μ, 145.00 μ and 147.00 μ.
35 The very same position is known for the Books of Breathing (Goyon 1972, 229) and related texts.
36 It is worth mentioning that one Ptolemaic Book of the Dead papyrus from Akhmim inscribed in hieroglyphic script for the stolist-priest Nesmin, son of Padikhons-ii (the latter being a 2nd prophet of Min) was found to measure 12.8 meters (ca. 42 feet) (Clère 1987, 6).
of sun disk-crowned Nut with extended wings\textsuperscript{37} (Andelković 1997, pl. 11/2). The cartonnage thickness is 1\textendash2 mm.

Although fragmentary, the cartonnage collar associated with Belgrade Nesmin (Andelković 1993, 156, fig. 1; 1994a, pl. 3/2) is a match for the collar designs painted on the coffin (Andelković and Teeter 2005, 312, fig. 2). The typology of the collars is discussed in considerable detail, since the chronological position of the mummy can be determined with relative certainty using the collar style as a guide.

Substantial progress has been made in developing a general typology of Akhmimic coffin design over the past 20 years (Schweitzer 1998; Brech 2008). Collar patterns have, in particular, offered much promise in establishing the chronology of Akhmimic coffins in the past decade, proving especially useful in distinguishing pre-Ptolemaic (late 4\textsuperscript{th} century B.C.) from ‘formative’ early Ptolemaic characteristics (Andelković and Elias 2013, 572, fig. 2; Elias and Mekis 2019).\textsuperscript{38}

Despite major losses to its surface finish, and fading of the colors, the coffin of Belgrade Nesmin retains enough of its design to add valuable details to the chronology of the period. The semicircular collar with falcon terminals is mostly intact on the coffin. Its six major bands counting from the outermost semicircular perimeter, are as follows: (1) Large tear-drop bangles, color faded, barely preserved; (2) Papyrus umbels in a multi-leaf fan formation separated by buds of solid color (dark blue); (3) Large tear-drop bangles, having double line perimeters;\textsuperscript{39} (4) Tied and Folded Leaf (discussed in: Elias and Lupton 2019, 181, fig. 107);\textsuperscript{40} (5) Papyrus blossoms with three petals, separated by buds of solid color (possibly dark blue; the ground color of the band is not discernible); (6) Eight-petalled rosettes on a red ground.

The inter-lappet zone of the coffin repeats the pattern of the main collar: (1) Bangles; (2) Uncertain; (3) Bangles; (4) Eight-petalled rosettes; (5) Lotus blossom and buds (damaged but possibly so in view of the traces); (6) Diamond pattern, similar to the pattern found in the cartonnage collar (see below); (7) Bangles; (8) Tied and Folded leaf; (9) Vertical Bars.

\textsuperscript{37} The contour lines are black, Nut’s face, sun disk and wings are gilded whereas the background is painted red. The drawing was incised into the plastered background before it was painted. A similar depiction of Nut with extended arms and wings is present on Nesmin’s coffin (Andelković and Teeter 2005, 314, fig. 3).

\textsuperscript{38} Much work has been done in assessing collar patterns ‘formative’ to those used in the early Ptolemaic Period at Akhmim (ca. 305\textendash290 B.C.) (Elias and Mekis in press).

\textsuperscript{39} These bangles seem to alternate in color blue-white-red; they are linked together horizontally by triple line ‘ties’ (an important diagnostic since not seen later in the Ptolemaic Period).

\textsuperscript{40} The triangular leaves between the tied ones alternate in color, blue-white-red.
Several design features help us to establish the date of the coffin. First and foremost, inlays were once present in the eyes, eyebrows and beard chin-strap of the face of the coffin. This is a feature extremely common before the Ptolemaic Period, but recedes after the Ptolemaic Period begins. As far as the coffin collar is concerned, the falcon baseline is set very ‘high’ (designated HSC1 in our terminology signifying ‘high set collar type 1’, which is – as stated in Andelković and Elias 2013, 572 fig. 2, 573 – located significantly above the ends of the wig lappets, i.e. 25–50% of total lappet length). The artist’s repeated placement of bands containing tear-drop bangles within the collar is also significant as a feature associated with coffins earlier than the Ptolemaic Period. As the artistic standards of the Ptolemaic Period become fixed, such bangles are confined to the outermost semicircular perimeter of the collar design.

The cartonnage collar is chronologically significant. Starting at the outermost semicircular perimeter the patterns within the bands are as follows: (1) Bangles, tear-drop shaped alternating blue-green-blue-red [the green has faded to yellow]; (2) Tied and Folded Leaf pattern; single black pointed leaf projects from a 4-line horizontal tie (the separating triangles are differentially colored; they alternate yellow-blue-red-blue); (3) Lotus blossom and bud pattern (inverted – main blossom (sprawling petal triad) is blue with two intermediate pointed petals in yellow – alternating buds are green [turned yellow]; (4) Eight-petalled rosettes (white) on an off-white ground; (5) Lotuses with drooping calyx leaves (inverted – Main blossom (like an Aeolic capital in form) is blue with red center and white fan; (6) Diamond pattern (intersecting in-pointing triangles of black and white which border diamonds alternating yellow-blue-red-blue); (7) Possible loss; (8) Papyrus umbel (inverted – main blossom is solid color alternating blue-red-blue-green, all with red tips – alternating bud are yellow; (9) Buds, alternating blue-red-blue-green.

These stylistic features are of great interest and are pre-Ptolemaic. The closest typological match is the collar painted on the coffin Berlin ÄM 8501 (Brech 2008, 155–157, Dok. D 5). It shows differences in band position, but the patterns within the bands are similar. The first three bands are identical, save for the entwining of blossoms and buds in band 3. In addition, there is a positional switch of bands 4 and 5, but the content is much the alike.

41 As we explained in that discussion, this is a characteristic which should allow analysts “to distinguish coffins manufactured before the last quarter of the 4th century B.C.” (Andelković and Elias 2013, 573). An interesting example is Munich, Staatliche Sammlung Ägyptischer Kunst AS 1624 of Horresnet, son of Nesmin (Brech 2008, Dok. E d 4), which shows that collar band patterns changed prior to the lowering of the falcon baseline from the HSC1 position.

42 The ‘diamond pattern’ occurs on other Akhmimic coffins of the period.

43 This stylistically important coffin belonged to a woman named He, variants, Hat, Ta-hat. It is arguably a type fossil of the third quarter of the 4th century B.C. (350–325 B.C.).
The similarity to Berlin ÄM 8501 helps to distinguish the phase to which the coffin of Belgrade Nesmin belongs. Clearly Belgrade Nesmin’s coffin can be distinguished as being earlier than a major group of stylistically related coffins that can be assigned to the beginning of the Ptolemaic Period (cf. Martin 1995), such as: Bremen Übersee-Museum B 15975a-h (Brech 2008, 157–159, Dok. D 6, Harsiese); London, British Museum EA 29776 (Brech 2008, Dok. E d 3, Djedhor, son of Psamtik), and Ta-gem-en-hor, daughter of Pasenedjemibnasht and Nehemes-bastet.44

Discussion

Procedures used in the funerary processing of Belgrade Nesmin are of a type describable as ‘elite-quality’. They correspond to those used in the best-prepared mummies from Akhmim datable to the 4th century B.C., and those prepared during the reigns of the first few Ptolemaic kings (305–222 B.C.).45

These elite procedures/features include: (1) Careful separate wrapping of arms and legs; abundant wrapping of the body by winding of alternating dry and pasted strata around it, with voluminous multi-strata preparation of the legs. (2) Deposition of large quantities of viscous resin in the thoracic, abdominal and pelvic cavities. (3) Thickly brushed-on ritual unguent on the outside of the mummy bundle. (4) Inclusion of numerous amulets within the wrappings. (5) Inclusion of amuletic devices composed of malleable substances, possibly wax, such as we see in the poured eye inlays, and amuletic patches, and the so-called shin-cords.

The fact that the body was well-desiccated prior to being bandaged, is a further sign of the high quality and care of the procedures employed on Belgrade Nesmin. Despite the recognizable aspects of the mummy, they do differ in

44 Collection Philip, no. 7 (Anonymous 1905). The qrsw-coffin of Ta-gem-en-hor was discussed by Claude (2017a, 2017b). Ta-gem-en-hor’s anthropoid coffin exists in a private collection, acquired in late 2019, location currently unknown, but studied in 2018. Ta-gem-en-hor’s coffin is one of those with red pigment covering a surface which is mostly plain, with a small rectangular inscripitional zone, otherwise being adorned only by a gilded face, painted wig and nicely rendered collar design. A similar coffin is that of Djed-hor son of Nesmin from Bourges, Musée du Berry 1906.3.1 (unpublished), but also from Akhmim. Apart from the face and wig it is undecorated, and has only an inscripitional frame on the area of the lid corresponding to the shins.

45 The Ptolemaic Period generally speaking includes both the Macedonian Dynasty (332–305 B.C.) and Ptolemaic Dynasty (305–30 B.C.) (e.g. Shaw and Nicholson 1996, 231, 312). However, some authors prefer to more rigidly distinguish the cultural products of the Ptolemaic Dynasty from those of the preceding Macedonian era (e.g. Chan, Elias, Hysell and Hallowell 2008).
some respects from those normally found during analyses of Ptolemaic Period mummies:

(1) Excerebration was achieved through a deliberately perforated ethmoid bone according to standard transnasal practice. However, the possible use of a subsidiary perforation in the right temporal bone to gain access to the empty brain case is entirely new to the literature (see footnote 16). There is evidence suggesting that this perforation was a fill hole to allow resin to be poured in while the head lay on its left side. All resin is concentrated on the left side of the cranium and a bone fragment is immersed within it, indicating that the hole was made after the brain had been withdrawn from the cranium.46

(2) The use of particulate fill, possibly aromatic wood dust if confirmed, is not at all common in Ptolemaic embalming as far as is understood on the basis of the analysis of Akhmimic mummies. So, its appearance as a major upper layer of fill above a deposit of viscous resin is processually interesting. The use of granular material (e.g., soil) or sawdust is seen far more frequently in mummies of the Third Intermediate Period (21st–25th Dynasty) and has been noted well into the Late Period (26th–30th Dynasties).47

(3) The presence of multiple djed-amulets arrayed in a row (present in the extracted resin lump) reminds one of the string-assembly holding multiple djed-amulets found in the important Lübeck Apothecaries’ Mummy long understood as a Late Period specimen (Germer 1997, 102–103),48 and is comparable to the large arrangement found on the mummy of Djed-hor (Zedher) from Abydos (Petrie 1902, 37–38, pl. 78). Petrie dated the latter example to the 30th Dynasty.49

In conclusion, the most plausible date for the Belgrade Nesmin lies in the timeframe around the beginning of the Ptolemaic Period; most probably between 350 B.C. and 325 B.C. (approximately from the end of 30th Dynasty, to the end of Alexander the Great’s reign; cf. Andelković 1997, 104). This matches the impression gained from the stylistic aspects of the cartonnage collar and the coffin, as well as the total complex of funerary features seen in the mummy.

46 Left side resin deposition is rare compared to occipital deposition. A second instance is Washington, DC NMNH catalog no. A126790, the Ptolemaic Mummy known as ‘Minister Cox’ (unpublished).

47 “Dense granular packing material” is found in the body cavities of British Museum EA 22814, a male mummy of 26th Dynasty date, discovered in 1869 in a coffin of the woman Shepenmehyt (Taylor and Antoine 2014, 46–47, figs. 32–33). “Medium-dense, granular and inhomogenous material (sand or mud)” steaked with resin is found in mummy Leiden, RMO AMM 1 (Raven and Taconis 2005, 140, cat. 15). It is datable to late 25th Dynasty/early 26th Dynasty. Similar granular material (called “sand or mud”) is found in mummy Leiden, RMO RO.III, dated to 26th Dynasty (Raven and Taconis 2005, 143, cat. 16).

48 Lübeck, Museum für Kunst- und Kulturgeschichte, Inv. 7204a/b/c.

49 The amulet arrangement of “Zedher” held 55 amulets in its “inner series”. It is depicted as a diagram in many books as a paradigm of amulet use, but these heavy arrangements are not especially common.
A Museum Superstition

During the examination of Nesmin’s coffin through debris (see footnote 26), along with the mummy-related items, some recent odd ‘objects’ were found (Andelkovic 1994b, 94, n. 11): three museum tickets (various); “Koloy’s” bubble gum candy-cigarette wrapper; 50 a “Bronhi” toffee wrapper; 51 an airplane picture sticker no. 78; 52 a butt of a “Morava” a brand of unfiltered cigarettes; 53 a small piece of paper (a torn corner of a school notebook); part of the inner liner aluminum foil of a cigarette pack; a broken matchstick (the lower half was given a point like a toothpick, probably with a pocket knife); four pumpkin seed shells; 54 a dry stalk and lower part of an ear of grain; a fragment of a 2 mm graphite lead refill of a mechanical pencil; a broken internal serrated split lock (spring) washer; an aluminum 1953 Yugoslavian coin (1 dinar); a 1972 USSR coin (1 kopek); a torn page of a notebook (ruled paper) handwritten by an adult person on both sides (graphite ‘lead’ pencil was utilized).

It is obvious that the coffin with its mummy was used as a ‘trash can’ by several (probably adolescent) museum visitors. 55 However, the two coins inserted could perhaps be explained in a different way: as a recontextualization of a well-known coin superstition. Tossing a coin into a fountain, pond or a ‘wishing well’ was supposed to ensure good health; it is also believed that if you make a wish while throwing a coin, your wish will be granted. There is also a coin-tree superstition (Houlbrook 2014). Handwritten wishes, notes and messages might ‘work’ in a similar, magical way.

The Temple of Dendur reflecting pool in the Metropolitan Museum of Art is a notable ‘coin catcher’ (cf. Barron 2007). There are also a few other “gestures of good will or vandalism” exhibited: various instances of coins being pushed into small crevices between stones over the years (the same crevices also receive gum, ticket stubs, candy wrappers, etc.); two handwritten notes scrawled by two different people, one addressed to the goddess Isis, were placed in a crevice between two stones in 2017; flower petals were found in 2002 inside

50 Produced by “Kolinska” company from Ljubljana, Slovenia.
51 Produced by “Kraš” company from Zagreb, Croatia. Both candies were present in practically all food stores of the Socialist Federal Republic of Yugoslavia.
52 Obviously meant to be glued in a sticker album.
54 Roasted pumpkin seeds (unshelled) used to be a cheap and frequent snack among a particular type of schoolkids, moviegoers and soccer match-goers. The mass of pumpkin seed shells on the floors of public buildings was a by-product of this odd habit.
55 The missing left edge of mummy’s coffin lid created a sort of gap where thin ‘objects’ could be inserted between 1952 and 1986. It seems that ‘deposition’ was present even while the mummy was stored in the Museum’s depot.
the first room of the Metropolitan’s mastaba tomb of Perneb, presumably as an offering gesture; it should be added that many people propose marriage in the Temple of Dendur wing (Marsha Hill, personal communication on behalf of the Metropolitan’s Egyptian Art Department, July 3rd, 2019).

In a similar fashion, the mummy\(^{56}\) display at the Burke Museum of Natural History and Culture, at the University of Washington, Seattle, would, in the early 1970s, collect messages stuck on and around the display case (Emily Teeter, personal communication, June 27th, 2019).

We tend to believe that there are other similar stories – termed here ‘museum superstitions’ – related to ancient Egyptian antiquities kept in various world museums.

**Literature**


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\(^{56}\) Over the years, Seattle’s only Egyptian mummy acquired the nickname of ‘Nellie’. The mummy was a mature adult from the Ptolemaic Period, whereas her coffin is of late 21st Dynasty date.


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Етноантрополошки проблеми, н. с. год. 16 св. 3 (2021)


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Branislav Anđelković
Odeljenje za arheologiju,
Filozofski fakultet, Univerzitet u Beogradu

Džonatan P. Ilajes
AMSC Research, LLC, Carlisle

CT skeniranje Nesmina iz Ahmima:
ovi podaci o Beogradskoj mumiji


Ključne reči: Beogradski Nesmin, Ahmim, paleoradiologija, Knjiga mrtvih, razmeštaj amuleta, muzejsko sujeverje, 350–325 g. p. n. e.

Tomodensitométrie de Nesmin d’Akhmim: nouvelles données sur la momie de Belgrade

Le coffre anthropomorphe en bois contenant la momie humaine a été acheté à Louxor en Haute Égypte en février 1888 par Pavle Ridički, noble de Skribešće (né à Mokrin en 1805, mort à Gorica en 1893), philanthrope serblack, mécène et voyageur mondial. En raison de diverses circonstances historiques, politiques et culturelles, les premières études de la momie n’ont été entreprises qu’en mai 1993 à la Faculté de philosophie de l’Université de Belgrade. Les restes humains momifiés – qui sont devenus célèbres sous le nom de Momie de Belgrade – ont été soumis, entre autres, à l’examen par la tomodensitométrie (Siemens Somatom Plus 4) au Centre de diagnostic radiologique de la Faculté de médecine dentaire de l’Université de Belgrade. Les résultats de tomodensitométrie du stoliste Nesmin d’Akhmim, fils de Djedhor (fils d’Ounennéfer, fils de Djedhor) et Chay-Hathor-Imw sont présentés dans ce travail pour la première fois. A part l’étude bioanthropologique, les éléments de processus de momification ont été désignés et la disposition originale des amulettes funéraires et de colliers sur la momie a été reconstruite. La biographie culturelle de la momie a été spécifiée chronologiquement. Au moment de la mort Nesmin de Belgrade était âgé entre 35 et 40 ans. L’ensemble qui, à part la momie, comprend le coffre de tamarix, le cartonnage peint, les amulettes d’or, de lapis-lazuli et de faïence et le rouleau de papyrus, peut être daté dans le cadre temporel du 350–325 av J.C. L’analyse stylistique détaillée des colliers polychromes peints sur le coffre et sur le car-

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tonnage a contribué au processus de la datation. Le rouleau de papyrus densément roulé se trouvant à l’intérieur des bandelettes de momie, est obliquement endommagé de la partie supérieure et la hauteur conservée varie entre 13,5 cm (partie vers la main) et 16,9 cm (partie vers le corps). Sa longueur a été estimée à 9 mètres. D’après les fragments du texte en hiéroglyphes où on peut lire et identifier le terme « lieu de naissance [de dieu Râ] » du chapitre 39, il est certain qu’il s’agit d’un grand Livre des morts. Le travail signale pour la première fois le phénomène de la superstition muséale.

*Mots-clés:* Nesmin de Belgrade, Akhmim, paléoradiologie, Livre des morts, disposition des amulettes, superstition muséale, 350–325 av. J.C.

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